BIBLIOGRAPHY OF THE GEOLOGY OF INDONESIA - Volume 1

(incl. North Borneo, Timor Leste, PNG East New Guinea)

Edition 8.0 (2026)

J.T. VAN GORSEL

BIBLIOGRAPHY OF THE GEOLOGY OF INDONESIA

"The geology of indonesia in 20,000+ pieces

"The first place to start in the hunt for oil is the library" (A.I. Levorsen, 1946)

Volume 1 - INDONESIA

(including North Borneo, Timor Leste and PNG part New Guinea main island)

February, 2026

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ABOUT THIS BIBLIOGRAPHY - Edition 8.0 (February, 2026)

The Indonesian region is one of the most geodynamically complex regions in the World. It has attracted thousands of geoscientists, explorers and prospectors from all over the world for two centuries, who left a vast legacy of geological, geophysical and oceanographic literature. Awareness of the vast body of geological literature should improve the quality of future work, and hopefully reduce redundant research, while acknowledging credit where credit is due.

Why this Bibliography

The present Edition 8 of the Bibliography of the Geology of Indonesia/ SE Asia is the first to be 'published' in two volumes, Volume 1 Geology of Indonesia (including the 'Special Topics'' (~2640 papes) , and Volume 2- Circum-Indonesia (~1060 pages). Although technically not part of Indonesia, the chapters on North Borneo, Timor Leste and the PNG eastern half of New Guinea are included in Volume 1, as their geology is intimately related to adjacent parts of Indonesia.

It is the culmination of a lifetime of Indonesia geology book collecting and more than two decades of cataloguing as many as possible geosciences publications on Indonesian geology, paleontology, etc., The author spent half of his career since 1975 as a geologist-micropaleontologist in and around Indonesia geology, after having already been exposed to much of the famous geoscience work in Indonesia during the Dutch colonial era, through the geology professors and the library of the Geological Institute of the University of Amsterdam. Also, being able to read Dutch, English, German and French works made it easy to understand and realize the value of the often remarkable early geoscience work in the Indonesian Archipelago since the mid-1800s.

My initial mission for this Bibliography was to generate interest in the large amount of high-quality published geological work from Indonesia, as it had become clear that most of the post- World War II Indonesian- and English-speaking geologists were largely unaware of it. The project then evolved into attempt to create the complete listing of all relevant geoscience work, not only of Indonesia itself, but also of its surrounding areas with genetically related geology (mainland SE Asia, SW Pacific, NW Australia). So we now have a product that may be called "The geology of Indonesia and surrounding SE Asia in >29,000+ snippets".

This Bibliography of Indonesia geology is believed to be more comprehensive than what is available from international geological reference data bases like Georef, which tend to (1) not capture most of the older and non-English language literature that often contains still valuable information, (2) not include most papers in local Indonesian journals, (3) be overloaded with often uninformative and redundant conference abstracts, and (4) it requires subscription fees that are prohibitive to most academic and independent geoscientists in Indonesia.

Modern online search engines lke Google have been extremely useful for this project, but in my experience their algoritms are promoting titles from the most recent international journals in the English language. They do not seem to do a great job of finding older papers and papers in Indonesian journals, unless specifically searched for by title.

What is in and what is not?

This bibliography is focused on geology, including Regional geology, Tectonics, Structure, Stratigraphy, Biostratigraphy, Paleontology (incl. Quaternary mammals and hominids), Micropaleontology, Paleobiogeography, Sedimentology, Petrography, Volcanology and Geochemistry, regardless of date, country or language of publication. Also included are selected papers on economic mineral, coal and hydrocarbon occurrences. and from more specialized and technical fields, like earthquakes, geological engineering, geological modeling and economic analyses, but these topics tend to be included if they are of more than local significance only.

Not generally included here are papers on geotechnical surveys, geohazards (incl. individual volcanic eruptions), geothermal, hydrological, environmental, geopark, and local-area geophysical surveys because they typically are of local interest only. With some exceptions, also not included in this listing are:
(1) conference abstracts and many of the 'student literature reviews' that do not contain new data or new insights;
(2) papers focused on tools, methods, workflows, modeling, economic evaluations, project management, etc. without significant geological data;
(3) papers in which locations of fields and wells were renamed and disguised beyond recognition;
(4) 'vendor brochures': papers promoting commercial data, studies, organizations, farmouts, etc., unless they contain new and unbiased geological information or ideas.

Some bibliographic history

This is a 'traditional' bibliography, alphabetically listing public-domain publications by region or by subject. It resumes a tradition of annotated bibliography work that started with 13 editions by R. Verbeek between 1912 and 1925, listing 4000 titles of publications on the geology of 'Netherlands Indies' and surrounding regions. This work was continued by Wing Easton (1926-1937), De Neve (1950, 1951), Steenhuis (1951), Klompe (1954-1957) and Tjia (1977).

*This Bibliography started off as a 700-page pdf addendum to the paper of Van Gorsel (2009) in the Proceeding of the 33rd Annual Convention of the Indonesian Petroleum Association, Jakarta (on IPA33 CD-ROM edition). Edition **3** in 2011 (1099p.) was the first online edition (www.vangorselslist.com). This was followed by updated editions **4** (2011), **5** (2013), **6** (2016), **7.0** (2018) and **7.1** (June 2020; 2826p., 23,720 titles).*

The entite current Edition 8.0 of 2026 (volumes 1 +2) contains 3700 pages with ~28,850 titles (>5100 new entries since Edition 7.1 of 2020; a 22% increase). There are also ~12,200 links to online open-to-the-public papers, and there is much new annotation and many updates of original annotation N.B.: This Edition 8.0 contains more than five times the number of titles than the first Edition published by IPA in 2009 !

Volume 1 (Indonesia) of Edition 8 contains:
- ~2640 pages with ~20,700 titles
-- >9000 links to online open-to-the-public papers.

Organization of References primarily by area

Titles of papers are classified primarily by area, rather than by subject. For instance, a paper entitled 'Coal from SW Java' will be under 'Java', not under 'Coal, Petroleum Source Rocks'. Only more general papers on specific themes and covering multiple areas of SE Asia (e.g. hydrocarbon occurrences, volcanism, source rocks, etc.) will be under that special subject. General geological and regional tectonic papers will be under 'Regional'.

Annotation, Online Links, Geographic Names

Most papers are annotated with a summary of key points. Absence of annotation does not necessarily mean that these papers are less significant (usually because the paper or abstract were not available).

The ~12,200 links to online digital versions of papers in volumes 1 + 2 of this bibliography are only to 'open-access' publications. No online links are included for papers behind steep 'paywalls' of certain commercial publishers, scientific societies and trade associations. These can easily be found by online search, and the reader can then decide if they are worth the often prohibitive single-copy price.

Links in this report to online repositories were valid at the time of entry, but, unfortunately, online sites tend to be updated rather frequently or disappear altogether, so many of the links below may no longer work. However, with the author and title information provided here, they can often be found elsewhere with any online search engine. Many digital versions of copyrighted papers may be available to individual researchers from authors' uploads on sites like www.academia.com, www.researchgate.com, www.semanticscholar.org, and others.

Geographic Names

Many of the geographic names used in this listing are names used at the time of publication or are names of popular usage or convenience, and may or may be not be today's official or preferred names (or spelling).

Also, I frequently use the name "Indonesia" in annotations of papers from the 1930s and earlier, although this name was not commonly used at that time. Instead, the country was usually referred to as the "East Indies" or "Netherlands East Indies" or "Malay Archipelago". So, not technically correct, but convenient.

Spelling and Accent Marks

French, German and other languages commonly contain names and words with accent marks, like é, è, ù, ê, ë, etc. In this bibliography all of these were all removed here, partly because they are not on an English keyboard, but mainly because computers are not clever enough to decide that a word like mélange is the same as melange, which is quite inconvenient when searching for papers with melange.

Palaeontology Palaeozoic (British English) versus Paleontology, Paleozoic (American English) ? Paleo wins !

Availability of Publications

The author is aware of the fact that many of the papers listed here are rare and may be difficult to find. Yet, many of these still contain information that is still relevant today and should not be ignored.

Unfortunately, many are at risk to be effectively lost (or are already are) to geoscientists in Indonesia today. It would be useful for one of the Indonesian government institutes or universities to take the lead on assembling and preserving a complete collection of historic Indonesian geoscience literature. And initiate a program of quality digitization (better than the often disappointing digitization by Google.com and others, who do not routinely bother to unfold folded maps, cross-sections, etc., which are often the most important parts of geological reports).

On the positive side, a significant change in access to Indonesian geoscience literature came after the Indonesian government mandated in 2019 that all Indonesian state-funded science journals had to be in Open Access, which vastly improved access to previously hard to find Indonesian academic journals.

Copyright

Ownership rights of this Bibliography remain with the author. Downloads from www.vangorselslist.com are free, but are intended for personal use only, and should not be re-distributed or re-published. Reposting by strangers in various document repositories has led to numerous outdated versions of this report online today. Not good !

Acknowledgements

The author wishes to acknowledge and thank numerous individuals who have shared copies of papers and titles, during the early phase of this Bibliography project, when online availability was very limited (see earlier editions). Today,more and more sources of literature are online, and which can be seen in the links provided.

Debbie Gilbert is thanked for continuous support and building/ maintaining the www.vangorselslist.com website.

Common Abbreviations

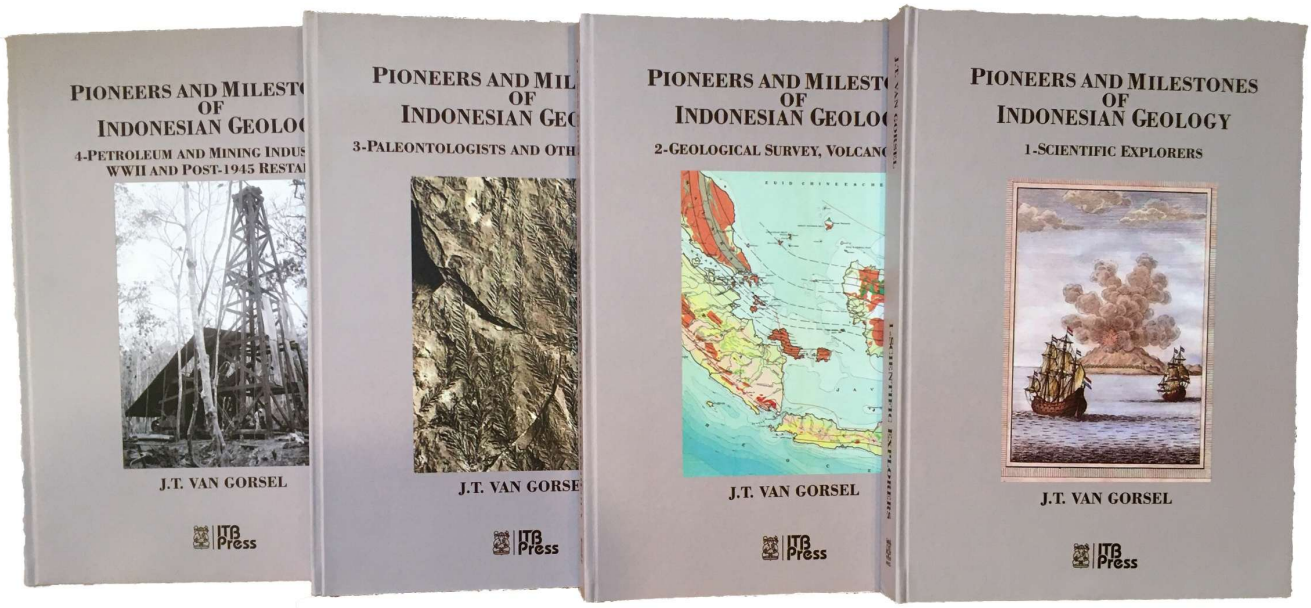
- Directions: *N, S, E, W = North, South, East, West*
- Journals: *J. = Journal, Bull. = Bulletin, Mag. = Magazine, Proc. = Proceedings, Soc. = Society*
- Geological units: *Fm = Formation, Mb= Member, Gp = Group*
- Rock Types: *Sst = Sandstone, Lst = Limestone*
- Time: *My = Million years, Ma = Millions of years ago, ka = thousands of years ago*
- Physical parameters: *T = Temperature, P = Pressure*
- Distances: *m = meter, km = kilometer, ' = feet*
- Rotations: *CW = clockwise, CCW = counterclockwise*

An item of related interest

Pioneers and Milestones of Indonesian Geology (~1820-1960s), by J.T. van Gorsel (2022)

This set of 4 generously-illustrated books with >1500 pages is a 'natural' companion to the older literature listed in this Bibliography of the Geology of Indonesia. It was published and printed in 2022 by ITB Press, Bandung, under the direction of Dr. Mirzam Abdurrachman of the Department of Geological Engineering, Institut Teknologi Bandung. For excerpts of the book, see: https://vangorselslist.com/pioneers.html .

These books provide much historical context of the early geoscience discoveries in Indonesia and SE Asia, mainly through biographies of about 240 prominent geoscientists of 14 nationalities, who made pioneering contributions to the geology of the region prior to the post-1970 'modern era'.



Volume 1 - Introduction, Scientific explorers

I. INTRODUCTION
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III. THE EARLY NATURALIST EXPLORERS (1600s- 1800s)
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Volume 2- Geological Survey, Volcanology

VI. DIENST VAN HET MIJNWEZEN (BUREAU OF MINES- 1), 1850-1922
VII. DIENST VAN DEN MIJNBOUW (BUREAU OF MINES- 2), 1923-1950s
VIII. VOLCANOLOGY

Volume 3- Paleontologists and other Specialists

IX. MACROPALEONTOLOGY
X.. MICROPALEONTOLOGY
XI. MAMMALS/HOMINIDS, PALEOBOTANY
XII. PETROGRAPHY, GEOCHEMISTRY, AGROGEOLOGY
XIII. GEOPHYSICS, GEOMORPHOLOGY, ARCHEOLOGY

Vokume 4. Petroleum and Mining Industries, World War II and Post-1945 Restart

XIV. PETROLEUM INDUSTRY
XV. MINING INDUSTRY AND MINING GEOLOGISTS
XVI. WORLD WAR II AND INDONESIAN INDEPENDENCE, 1940-1960s
XVII. MEANWHILE IN NEW GUINEA, late 1800s-1970s0
XVIII. SOME PIONEERS OF THE MODERN ERA, late 1960s-1970s
XIX. INFLUENCERS AT THE FRINGE OF 'INDIES' GEOSCIENCE
XX. CONCLUSIONS, REFERENCES, INDEX

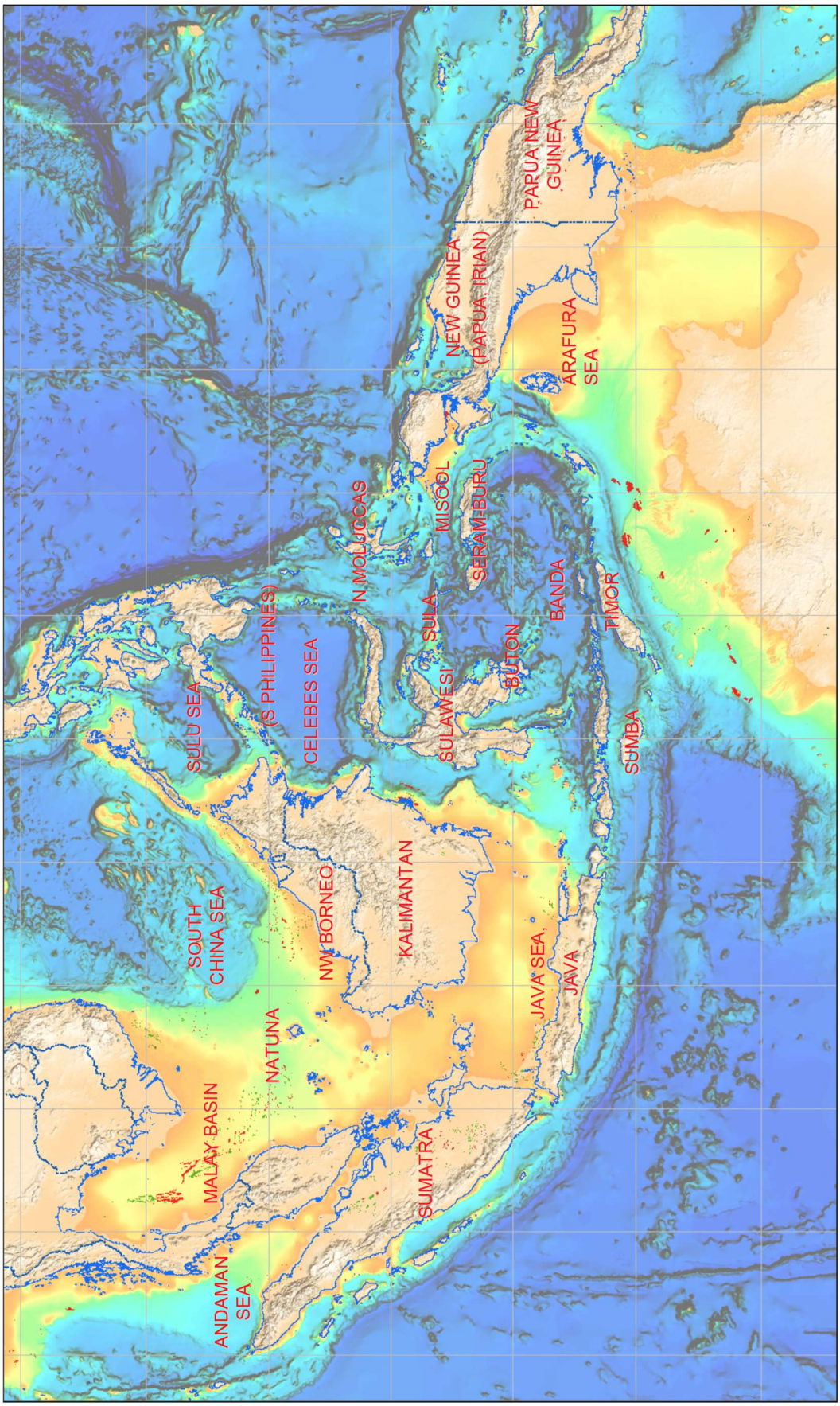

Fig. 1. Topography- Bathymetry of the Indonesian region, with main provinces.

PUBLICATION TRENDS THROUGH TIME

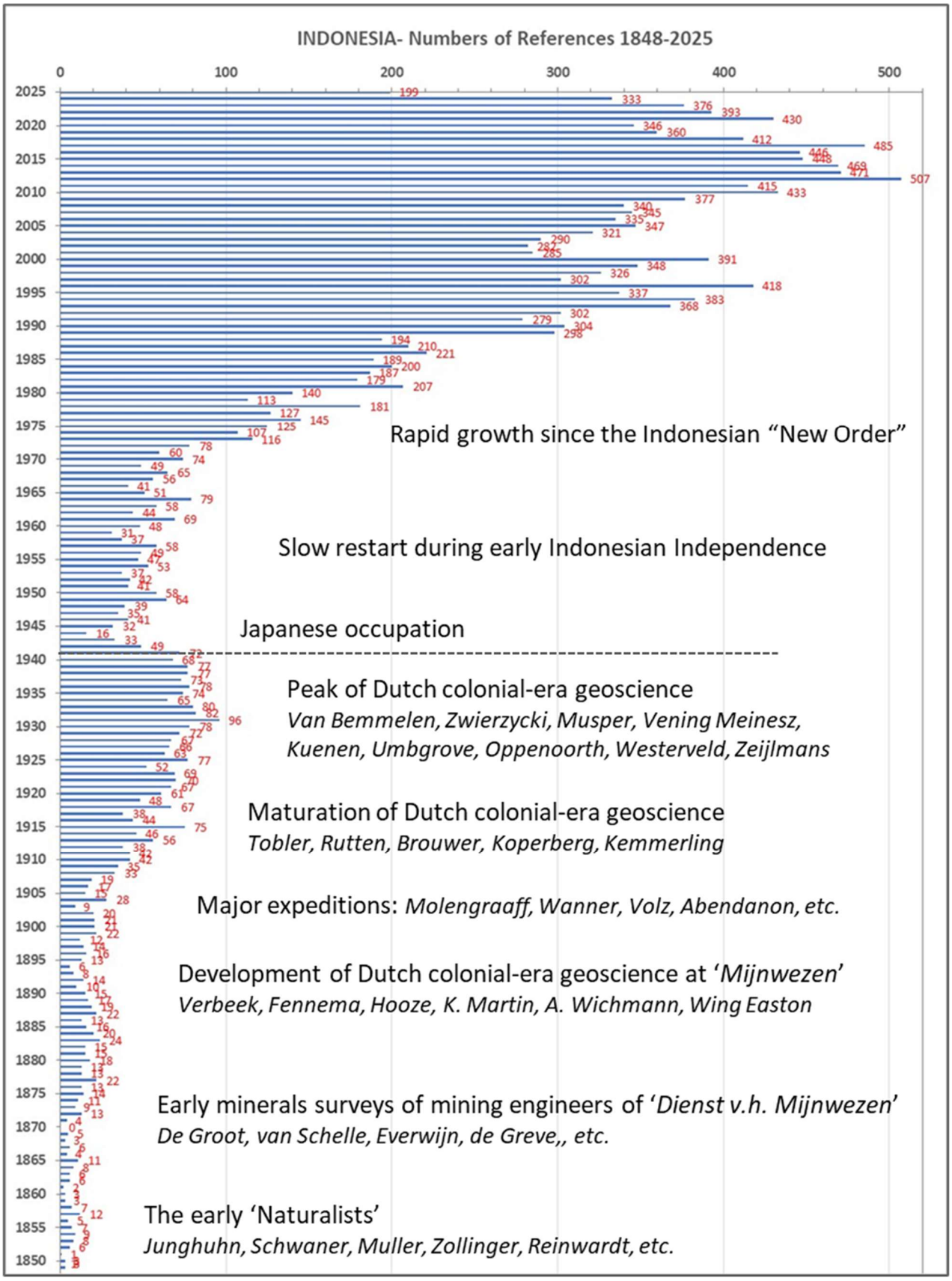

Fig. 2. Numbers of References-per-year from 1840-2026 in Bibliography of Indonesia – Volume 1, Ed. 8.0.

Numbers of geoscience papers through time

Figure 2 shows the number of 20,560 Indonesia references through time, in numbers per year, as listed in Edition 8- volume 1.

It shows the overall increase in the number of geoscience publications on Indonesia: from less than 10/year in the mid-1800s, to around 400/ year during the last 20 years. A major setback in geoscience research arrived in 1942 with the Japanese occupation, which continued during the early years of Indonesian Independence until the late 1960s. A less pronounced temporarily decrease came after the Asian financial crisis of 1997, but returned to new record levels by ~2010.

Four major periods may be distinguished (Figure 2) (for much more detail on this history see also 'Pioneers of Indonesian geology (van Gorsel (2022):

(1) 1850-1905: Geoscience publications from this early period are relatively few and are mainly summaries of mineral, coal and oil exploration work, or initial reconnaissance surveys. They are generally short, poorly illustrated papers in Dutch and in German, focusing mainly on western Indonesia (Java, Sumatra). Exceptions to this rule were the impressive first regional descriptions and maps by Verbeek on West Sumatra (1875), Bangka- Belitung (1897), SE Kalimantan and Java-Madura (1896).

(2) ~1905-1940: This was a period of a significant expansion of geological mapping and other studies, with many new hydrocarbon and metals discoveries (although most of the industry work remains unpublished). Systematic mapping programs of Sumatra and Java were started by the government Geological Survey in the 1920s. There was an increase in industry, government and academic reconnaissance surveys into Eastern Indonesia and New Guinea. Many large volumes on surface geology, paleontology, petrography, etc., were published of all parts of Indonesia. Principal languages were still Dutch and German, but English became increasingly common in the 1930's.

(3) 1940-1970: Survey and publishing activity had already started to slow down during the Great Depression of the 1930's, but came to an almost complete standstill between 1941 and 1950 (World War II, Revolutionary years), followed by very low levels of research and publishing until the late 1960's. The oldest geology paper in the bibliography in Indonesian language is from 1962.

(4) 1970- ~2010: Political changes in the mid-1960's were followed by expansions of foreign investment, exploration and research, which led to a period of exponential growth in resource-related and academic publishing after 1970.

(5) 2010- 2026. The 'modern era', with consistently very high output of around ~400-450 papers per year, partly a consequence of a veritable 'explosion' of publications in Indonesian geoscience journals. The real number of papers is actually higher, but many of the publications now include many 'student papers' that are more 'proofs of ability' than adding anything new to what is already known, and many of these are therefore not included here.

Figures 3, 4 and 5 are graphs from Edition 7.0 (2018) and illustrate several historic trends in the publications on the geology of Indonesia, i.e. total numbers of publications, areas of interest, dominant languages, areas of interest and nationality of lead author, which all changed significantly trough time, reflecting changes in political situations, economic drivers and scientific developments over the last 150+ years. These graphs only include papers that deal specifically with the geology of areas in Indonesia, and do not include 'special topics' or 'Circum-Indonesia' papers.

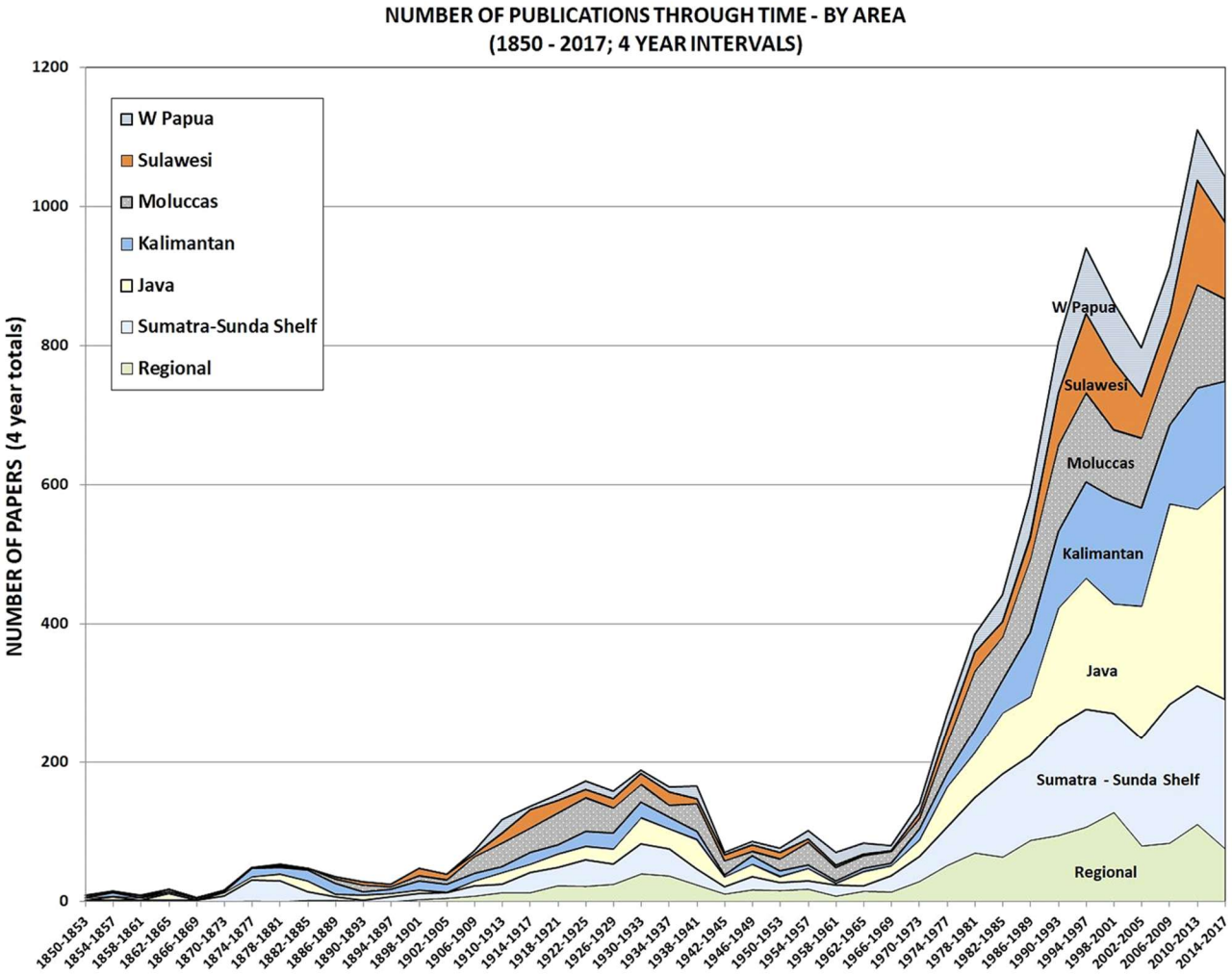

Fig. 3- Number of publications on the geology of Indonesia from 1850-2017, categorized by geographic areas. This graph represents a subset of ~10,630 geological papers in the Edition 7 Bibliography that are tied to specific areas of Indonesia (updated only until 2017).

Languages of geoscience publications

Before 1945 the main languages of publication were Dutch and German, with an increasing share of English-language papers after ~1915. Since 1945 by far the dominant language has been English, with increasing numbers of papers in Indonesian since the late 1970's (Figure 4).

Nationalities

Figure 5 shows the number of Indonesia geology publications through time, in 4-year increments, and categorized by nationality of first author. This graph shows that until the late 1950's virtually all publications on Indonesian geology were by foreign nationals. After this, the number of publications with Indonesian nationals as first author gradually increased until ~60% of total today.

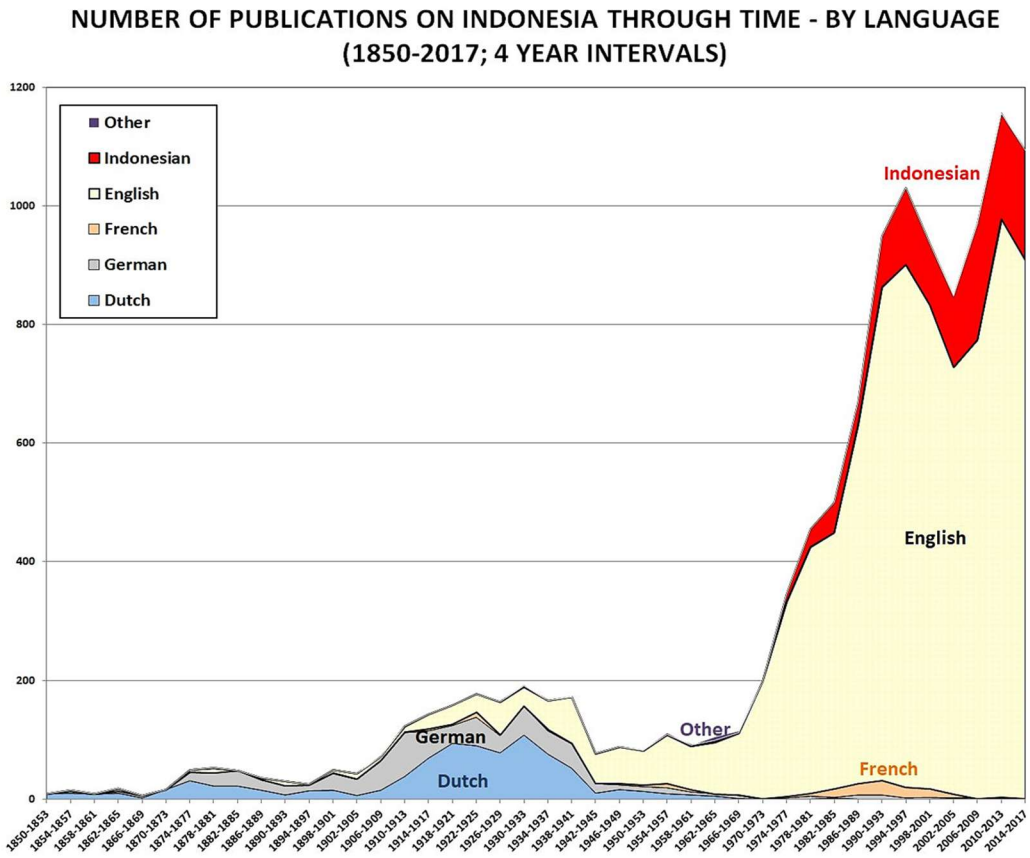

Fig. 4- Number of Indonesia geology publications through time, by language. Prior to 1945 the main languages of publication were Dutch and German, after which English became dominant. Indonesian has been the second most common language of publication since the 1970's.

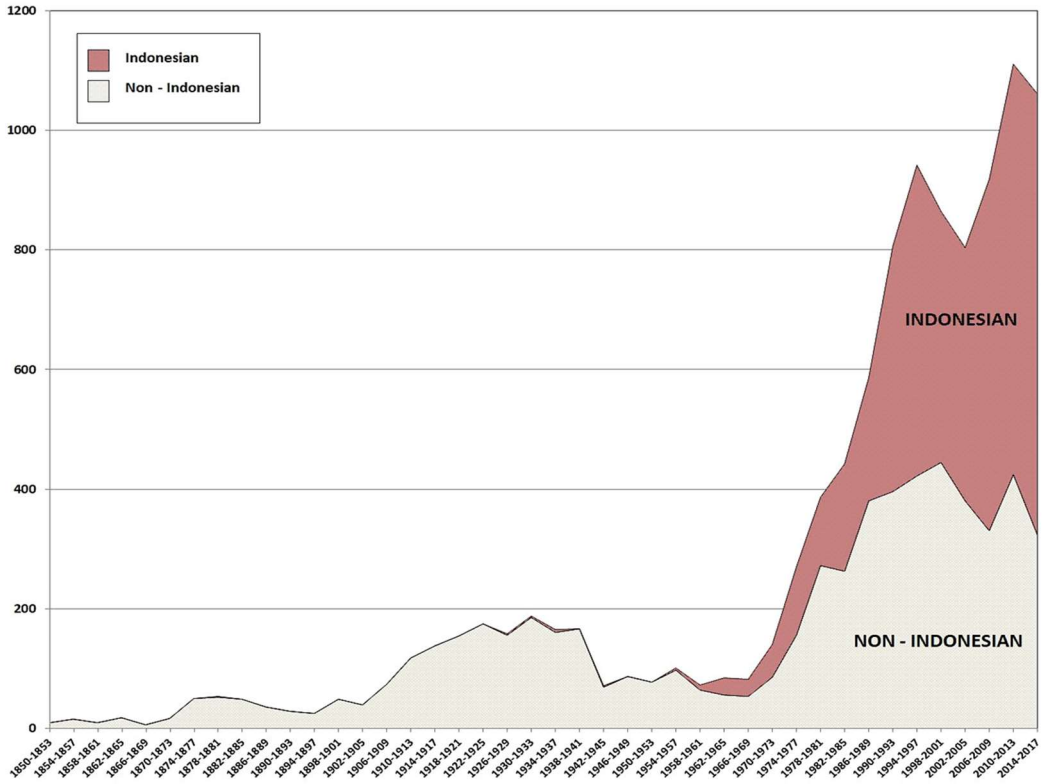

Fig. 5- Number of Indonesia geology publications through time, by nationality of first author.

I. INDONESIA REGIONAL

I.1. Indonesia Regional Geology

Aadland, A.J. & R.S.K. Phoa (eds.) (1981)- Geothermal gradient map of Indonesia, 2nd edition. Indonesian Petroleum Association (IPA), Special Publ., p. 1-43.
(Compilation of temperature data from petroleum wells in Indonesia. With two map sheets 1: 2,500,000. See also updated version by Thamrin & Mey, 1987)

Abdurrachman, M., S. Widiyantoro & M.Z.A. Alim (2018)- New model of Wadati-Benioff Zone in Java-Sumatra subduction system and its tectonic implication. In: Petrogenesis and Exploration of the Earth's Interior, Proc. 1st Springer Conference Arabian J. of Geosciences (CAJG 2018), Tunisia 2018, p. 21-24.
(New Wadati-Benioff Zone model from earthquake hypocenters)

Abdurrachman, M., S. Widiyantoro, B. Priadi, M.Z.A. Alim & A.H. Dewangga (2015)- Proposed new Wadati-Benioff zone model in Java-Sumatra subduction zone and its tectonic implication. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI, Balikpapan, JCB2015-376, p. 1-4.
(online at: https://www.iagi.or.id/web/digital/3/2015_IAGI_Balikpapan_Proposed-New-Wadati.pdf)
(Previous models of Wadati Benioff Zone (derived from earthquake hypocenters) in Java- Sumatra deemed too simple. In Java hypocenter depths recorded downt to 500 km and more, while earthquakes in Sumatra all <300 km deep. In C and E Java an aseismic area between 300-500 km is interpreted as tear zone in subducting plate)

Abendanon, E.C. (1914)- Geologische schetskaart van Nederlandsch Oost-Indie, schaal 1:2,500,000. Koninklijk Nederlands Aardrijkskundig Genootschap, Smulders, 's-Gravenhage, Toelichting, p. 1-6 + 6 map sheets.
(online at: https://nl.wikipedia.org/wiki/Wikipedia:GLAM/Expedities/Mediadonaties#/media/File:UB_Utrecht_-_CARTO_II_L_2_-_1914.jpg)
('Geological overview map of the Netherlands East Indies'. First geological overview map of Indonesia, 120x225 cm, commissioned by Netherlands Royal Geographical Society- KNAG. Compiled from published and unpublished maps by many authors. Java and Sumatra rel. complete coverage, but much of Kalimantan, Sulawesi and New Guinea still mostly uncharted territories)

Abendanon, E.C. (1914)- Grossfalten im Niederlandisch-Ostindischem Archipel. In: Die Grossfalten der Erdrinde, Chapter 2, Brill, Leiden, p. 38-57.
(online at: https://catalog.hathitrust.org/Record/006573206)
('Mega-folds in the East Indies Archipelago'. Chapter in Abendanon's 183-page book on his global tectonic theory of 'mega-folds': recently uplifted mountain chains, caused by shrinking of the globe, accompanied by extensional central rifts, gravity sliding, etc. Examples of 'mega-folds' in Indonesia in Sulawesi, Timor and Sumatra. In C Sulawesi, the Mountain chain W of Lake Poso looks like almost flat peneplain now uplifted to 2000m, cut by ~N-S faults/ rift valleys like Poso Depression. Timor also recently uplifted foldbelt with central graben. Etc. Very few illustrations)

Abendanon, E.C. (1915)- De geologie van den Indischen Archipel. In: De natuurlijke gesteldheid van den Indischen Archipel, Nederlandsch Onderwijzers-Genootschap, W. Versluys, Amsterdam, p. 26-42.
(online at: https://uvaerfgoed.nl//beeldbank/xview?identifier=hdl:11245/3.38184)
('The geology of the Indies Archipelago'. Brief overview; probably summary in lecture series or Dutch Teachers Society on the 'natural state of the Indies Archipelago'. No figures)

Abendanon, E.C. (1915)- De geotektonische positie van de Nederlandsch-Indischen Archipel. In: Handelingen XV Nederlandsch Natuur- Geneeskundig Congres, Kleynenberg, Haarlem, p. 510-523.
('The geotectonic position of the Netherlands Indies Archipelago'. Old tectonic hypotheses of Abendanon including idea that distribution of old schists across Indonesia suggests that in geologically early periods the entire Indonesian Archipelago was occupied by mainland with high mountain chains. In C Sulawesi old fold trends E-W, Neogene folding more N-S trending. Whimsical shapes of Sulawesi and Halmahera can be explained by their location at junction of three geotectonic components)

Abendanon, E.C. (1919)- Aequinoctia, an old Palaeozoic continent. Journal of Geology 27, 7, p. 562-578.
(Early tectonic interpretation of tectonics of Indonesia. Presence of crystalline schists across E Indonesia suggests area from Borneo to New Guinea may all have been parts of one ancient continent, here named Aequinoctia, It extended from Sulawesi to Tasmania)

Adinegoro, A.R. Udin (1973)- Stratigraphic studies by the Indonesian Petroleum Institute (LEMIGAS). United Nations ECAFE, CCOP, Technical Bulletin 7, p. 55-74. *(online at: https://repository.unescap.org/server/api/core/bitstreams/02824758-88df-4f2d-a237-e8aa33c9b57e/content)*
(Review of Cenozoic stratigraphic successions in NE Java, Jambi-Sumatra, NE Sumatra and E Kalimantan. One of first attempts to tie Indonesian basin stratigraphies to global low latitude planktonic foram zonations)

Advokaat, E.L. & D.J.J. van Hinsbergen (2024)- Finding Argoland: reconstructing a lost continent in SE Asia. Gondwana Research 128, p. 161-263.
(online at: https://www.sciencedirect.com/science/article/pii/S1342937X23002769)
(Argoland is conceptual continent that must have broken off NW Australian margin in Late Jurassic and migrated N, to end up somewhere in SE Asia. Previously identified fragments too small to represent all of Argoland, and were once separated by oceanic basins older than Late Jurassic. Gondwana-derived units that collectively may represent Argoland, now found between relics of Late Triassic-M Jurassic oceanic basins, all pre-dating break-up of Argoland. Reconstruction suggests 'Argoland block' that broke off NW Australia in Late Jurassic was collage of continental fragments and pre-Late Jurassic intervening oceanic basins)

Alam, S., M.S.D. Hadian, A.H. Hamdani & N. Sulaiman (2025)- Enhancing in search of Milankovitch cycles from stratigraphic record using convex optimization algorithm. Nature Scientific Reports 15, 1099, p. 1-15.
(online at: https://www.nature.com/articles/s41598-024-82720-0)
(New algorithm to evaluate 405-kyr, 100-kyr (long and short eccentricity), 41-kyr (obliquity), and 21-kyr (precession) Milankovitch cyclicity in (1) M Miocene Nyalindung Fm molluscan beds of Java (41 ky obliquity dominant); (2) M Miocene deltaic deposits of Mahakam Delta in E Kalimantan (obliquity dominant); (3) Pleistocene sediments with hominins on Flores and (4) Pleistocene lacustrine beds of Towuti Lake in Sulawesi (105 ky eccentricity dominant))

Ali, J.R. & R. Hall (1995)- Evolution of the boundary between the Philippine Sea plate and Australia: paleomagnetic evidence from eastern Indonesia. Tectonophysics 251, p. 251-275.
(online at: https://www.academia.edu/80887947/Evolution_of_the_boundary_between_the_Philippine_Sea_Plate_and_Australia_palaeomagnetic_evidence_from_eastern_Indonesia)
(New paleomag data from Sorong Fault Zone and Obi and Taliabu (Sula) islands. Coniacian- Santonian paleolatitude at 19°± 6°, similar to results from Misool, suggesting Sula/Taliabu and Misool were parts of single microcontinent, but >10° farther N than expected if attached to N Australian margin, implying region separated from Australia before Late Cretaceous. Obi contains rocks of Philippine Sea and Australian origin. Volcanic arc at S edge Philippine Sea Plate collided with New Guinea at ~25 Ma, changing Philippine Sea-Australian plate boundary from subduction to strike-slip)

Ali, J.R., S.J. Roberts & R. Hall (1994)- The closure of the Indo-Pacific ocean gateway: a new plate tectonic perspective. In: F. Hehuwat et al. (eds.) Proc. Int. Workshop Neogene evolution of Pacific Ocean gateways, IGCP-355, Bandar Lampung 1993, p. 10-20.
(online at: http://searg.rhul.ac.uk/pubs/ali_etal_1993_Indo-Pacific_Gateway.pdf)
(Reconstructions of W Pacific 45-10 Ma. Area N of Sorong Fault Zone ~40° CW rotation and 15° N-ward motion since ~25 Ma. Prior to 22 Ma collision between Australia (New Guinea) - Philippine Sea open Equatorial seaway between Indian and Pacific oceans. Connection mostly closed by initiation of Halmahera Arc at 11 Ma)

Alzwar, M. (1986)- Geothermal energy potential related to active volcanism in Indonesia. Geothermics 15, p. 601-607.
(90 geothermal areas identified in Indonesia, mostly located within active volcanic belts)

Amiruddin & S. Andimangga (2007)- Permo-Triassic magmatic arc and back arc basins of Gondwana land with reference of Eastern Indonesia, Papua New Guinea and Eastern Australia. Proc. Joint Convention 32nd HAGI, 36th IAGI and 29th IATMI, Bali 2007, JCB2007-019, p. 101-102 *(Abstract only) (online at: https://www.iagi.or.id/web/digital/28/2007_IAGI-Bali_Permo-Triassic-Magmatic-Arc-and-Back-Arc.pdf)*
(Permian-Triassic granitoid plutons and volcanics exposed in E Indonesia, in belt from Banggai Sula in W through Birds Head (Netoni, Anggi, Maransabadi), Birds Neck, Central Range of W Papua (Eilanden, Idenburg) to PNG (Strickland and Kubor Granodiorites) in E, then belt continues S to E Australia through Cape York, NE Queensland to New England Fault Belt. Syn-collision and volcanic arc I and S-type granites)

Amiruddin (2009)- A review on Permian to Triassic active or convergent margin in southeasternmost Gondwanaland: possibility of exploration target for tin and hydrocarbon deposits in the Eastern Indonesia. Jurnal Geologi Indonesia 4, 1, p. 31-41.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/68/68
(Permian-Triassic magmatic-volcanic belts signify active Paleo-Pacific margin along New Guinea (Banggai, Netori, Anggi, Kwatisor, Kubor, etc. granites), continuing to E Australia margin of SE Gondwanaland. Granitic plutons S- type and may be tin-bearing. Back-arc basins of S Papua and Galilee-Bowen-Gunnedah-Sydney basins filled by fluvial, fluvio-deltaic to marine Permian-Triassic sediments, locally with coal, unconformably overlain by marine Jurassic-Cretaceous)

Anderson, R.N. (1980)- Update of heat flow in the East and Southeast Asian seas. In: D.E. Hayes (ed.) The tectonic and geologic evolution of Southeast Asian seas and islands, 1, American Geophysical Union (AGU), Geophysical Monograph Series 23, p. 319-326.

Angelich, M.T., R.L. Brovey, M.E. Ruder & C.C. Wielchowsky (1986)- Use of Seasat-derived free-air gravity to interpret the structure of Southeast Asia. Proc. 15th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 1-18.
(In areas of low sea-bottom relief SEASAT-derived gravity data can be treated qualitatively as low-pass-filtered Bouguer gravity field. Examples from SE Asia)

Astjario, P. (1995)- A study of the uplifted coral reef terraces in the eastern part of Indonesia. In: J. Ringis (ed.) Proc. 31st Session Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Kuala Lumpur 1994, 2, p. 116-121.
(online at: https://repository.unescap.org/server/api/core/bitstreams/4198bc42-86c9-49fe-843e-60aebea03e54/content)
(Brief review of Quaternary uplifted coral reef terraces on Sumba, W Timor, E Sulawesi and Buton)

Atkinson, C., T. Wain, H. Sugiatno & S. Hayes (2017)- Hidden basins and undrilled anticlines: the legacy of early oil exploration in Indonesia. SEAPEX Exploration Conference 2017, 9, Singapore, p. 1-36.

Audley-Charles, M.G. (1965)- Permian palaeogeography of the northern Australia-Timor region. Palaeogeogr. Palaeoclim. Palaeoecology 1, p. 297-305.
('Autochthonous' Permian rocks of Timor believed to be detritus from Kimberley region of N Australia. This conflicts with suggestions of large crustal dislocations immediately N of Australia recently advocated on basis of regional paleomagnetic studies)

Audley-Charles, M.G. (1966)- Mesozoic palaeogeography of Australasia. Palaeogeogr. Palaeoclim. Palaeoecology 2, p. 1-25.
(Broad Triassic- Cretaceous paleogeographic sketch maps of Indonesia- N Australian region, following recent studies on Timor. Rather different from more recent work (incl. Audley-Charles 1988, etc.; e.g. conclusions: 'the spatial relationships between N Australia, Timor and the other parts of the archipelago have not greatly altered since the Middle Triassic' and 'the contention of some authors that continental drift has occurred between the N coast of Australia and SE Asia, is strongly contradicted by stratigraphic evidence, and by paleogeographic history of the region as developed in this article')

Audley-Charles, M.G. (1976)- Mesozoic evolution of the margins of Tethys in Indonesia and The Philippines. Proc. 5th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 25-52.

Audley-Charles, M.G. (1978)- The Indonesian and Philippine archipelagoes. In: M. Moullade & A.E.M. Nairn (eds.) The Phanerozoic geology of the world, II, The Mesozoic, Elsevier, p. 165-207.

Audley-Charles, M.G. (1981)- Geological history of the region of Wallace's Line. In: T.C. Whitmore (ed.) Wallace's Line and plate tectonics. Clarendon Press, Oxford, p. 5-25.

Audley-Charles, M.G., D.J. Carter & A.J. Barber (1974)- Stratigraphic basis for tectonic interpretations of the Outer Banda Arc, Eastern Indonesia. Proc. 3rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 25-44.
(Outer Banda Arc islands (Timor, Tanimbar, etc.) are imbricated N margin of Australian shelf and slope on which overthrust Asian elements and major olistostrome have been superimposed, all emplaced from N)

Audley-Charles, M.G., D.J. Carter & J.S. Milsom (1972)- Tectonic development of Eastern Indonesia in relation to Gondwanaland dispersal. Nature Physical Science 239, 90, p. 35-39.
(Reconstruction of Banda Arc region. Timor formed part of Australian continental margin since at least E Permian. Unusual Early Cretaceous reconstruction with Borneo- W Sulawesi- Sumatra- Java- Indochina and India all still part of Gondwanaland and attached to W Australia))

Bachri, S. (2013)- Peran system tunjaman, sesar mendatar transform dan pemekaran terhadap sebaran cekungan sedimen di Indonesia. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 14, 1, p. 19-27.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/75)
('The role of subduction systems, transform faults and rifting in the distribution of sedimentary basins in Indonesia'. Basins in W dominated by Tertiary basins and mainly controlled by subduction systems. In E Indonesia Pre-Tertiary and Tertiary basins with semi-concentric pattern and random pattern, controlled transform faults and transport of continental plates originating from Australia)

Badings, H.H. (1936)- Het Palaeogeen in den Indischen Archipel. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 11, 3, p. 233-292.
('The Paleogene in the Indies Archipelago'. Overview of Paleogene sediments in Indonesia and Philippines. With outcrop distribution/ basic paleogeographic maps for Tertiary a, b, c and d (Eocene- Oligocene). Useful compilation, but harshly criticized in series of papers by Van Bemmelen, Koolhoven, Ubaghs, etc. in 1936)

Baillie, P., J. Decker, D. Orange, P. Teas & N. Wagimin (2009)- IndoDeep: new insights into the geology of Indonesia. Proc. 2009 SE Asia Petroleum Exploration Society (SEAPEX) Conference, Singapore, p. 1-50. *(Abstract + Presentation)*
(Three 'conventional' paradigms in areas of TGS IndoDeep project: (1) Sumatra fore-arc unprospective, (2) not sufficient sediment thickness in Bone Bay to have generated hydrocarbons; (3) Cenderawasih Bay underlain by oceanic crust and unprospective (Pretty pictures of seismic lines and seafloor bathymetry but no explanations of any changing insights; JTvG))

Baker, S., R. Hall & E. Forde (1994)- Geology and jungle fieldwork in Eastern Indonesia. Geology Today 10, 1, p. 18-23.
(Brief account on fieldwork on coastal outcrops of Halmahera region by University of London)

Balazs, D. (1968)- Karst regions in Indonesia. Karszt-Es Barlangkutatas 5, Budapest, Globus nyomda, p. 3-57.
(online at: https://real-j.mtak.hu/19814/1/karszt_es_barlangkutatas_1963-1967_05.pdf)
(Review of limestone karst development in Indonesia (mainly in Tertiary limestones). Tropical karst areas generally controlled by heavy torrential tropical rains and characterized by predominantly positive landforms (conical and pinnacle karst hills), while depressions (sinkholes, etc.) more common expression of dissolution in areas of slow rains in temperate belt)

Balazs, D. (1971)- Intensity of the tropical karst development based on cases of Indonesia. Karszt-Es Barlangkutatas 6, Budapest, Globus nyomda, p. 33-67.
(online at: http://epa.oszk.hu/02900/02967/00006/pdf/EPA02967_karszt_es_barlangkutatas_1968-1971_06_033-068.pdf)
(Discussion of karst weathering in Gunung Saribu (W Sumatra; Permo-Carboniferous), Gunung Sewu (S Mountains) and other localities on Java and SW Sulawesi (Maros))

Barber, A.J. (1985)- The relationship between the tectonic evolution of Southeast Asia and hydrocarbon occurrences. In: D.G. Howell (ed.) Tectonostratigraphic terranes of the Circum-Pacific region, Circum-Pacific Council Energy and Mineral Resources, 1, Houston, p. 523-528.
(SE Asia consists of cratonic Sundaland core of continental fragments that had stabilized by end-Mesozoic. Additional terranes added through Late Mesozoic- Tertiary in Sumatra, Borneo, E Indonesia and Philippines. Early Tertiary widespread extension, followed by Late Tertiary compression, resulting in favorable locations for hydrocarbon generation and accumulation)

Barber, A.J. (1993)- Dispersion, subduction and collision in Eastern Indonesia. Proc. 22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 23. *(Keynote Abstract)*
(online at: https://www.iagi.or.id/web/digital/61/4.pdf)

Barber, A.J. (2013)- The origin of melanges: cautionary tales from Indonesia. J. Asian Earth Sciences 76, p. 428-438.
(online at: http://searg.rhul.ac.uk/pubs/barber_2013%20Indonesian%20melanges.pdf)
(Description of two examples of melanges, from Banda arc (Timor Bobonaro melange) and Sunda arc (Nias, Oyo melange, with common ophiolitic blocks). Evidence from Australian continental shelf S of Sumba shows large quantities of diapiric melange generated in accretionary complex. Comparable diapirs in Timor accreted at earlier stage. Evidence from Timor and Nias shows diapiric melange can be generated well after initial accretion process was completed)

Barber, A.J. & S. Wiryosujono (eds.) (1981)- The geology and tectonics of Eastern Indonesia. Proc. CCOP-IOC Working Group Meeting, Bandung 1979, Geological Research Development Centre (GRDC), Bandung, Special Publ. 2, p. 1-415.
(Conference volume with many benchmark papers on tectonics of Eastern Indonesia)

Barley, M.E., P. Rak & D. Wyman (2002)- Tectonic controls on magmatic-hydrothermal gold mineralization in the magmatic arcs of SE Asia. In: D.J. Blundell, F. Neubauer & A. von Quadt (eds.) The timing and location of major ore deposits in an evolving orogen, Geological Society, London, Special Publ. 204, p. 39-47.
(Most gold deposits in SE Asian arcs formed during tectonic reorganization intervals rather than steady-state subduction: (1) 25 Ma collision of Australian craton with Philippine Sea plate arc; (2) M Miocene/ 17 Ma mineralization following maximum extrusion of Indochina and cessation of S China Sea spreading; (3) majority and largest deposits formed since 5 Ma during plate reorganization with change in relative motion between Indian-Australian and Pacific plates between 5- 3.5 Ma following Philippine arc- Eurasia collision in Taiwan)

Baumann, P. (1982)- Depositional cycles on magmatic and back arcs: an example from Western Indonesia. Revue Institut Francais Petrole (IFP) 37, 1, p. 3-17.
(Five main depositional cycles in Eocene- Recent of Java, Sumatra: (1) M Eocene- E Oligocene (P11-P17), followed by uplift, block faulting, volcanism; (2) Latest Oligocene- E Miocene (P22/N3- N7?, ending with volcanism- uplift?; (3) late E Miocene- M Miocene (N8- N10-11; poorly known); (4) M- Late Miocene (N11/12-N14/17), followed by uplift, faulting; (5) Pliocene-Recent, starting with major transgression at Miocene- Pliocene boundary, N18. Major Late Pliocene- Recent volcanic phase)

Bayon, G., M. Patriat, Y. Godderis, A. Trinquier, P. De Deckker, D.K Kulhanek, A. Holbourn et al. (2023)- Accelerated mafic weathering in Southeast Asia linked to late Neogene cooling. Science Advances 9, 13, eadf3141, p. 1-9.
(online at: https://www.science.org/doi/pdf/10.1126/sciadv.adf3141)

(Neogene arc-continent collision in SE Asia may have driven global cooling through chemical weathering of freshly exposed ophiolites, resulting in atmospheric CO_2 removal. An 8-million-year record of seawater chemistry and sediment provenance in IODP Site U1482 core in E Indian Ocean, near outflow of Indonesian Throughflow, show erosion and weathering of ophiolitic rocks markedly increased after 4 Ma, E Pliocene, coincident with widespread island emergence in Sulawesi, Timor, Seram, Halmahera, New Guinea, etc.)

Beck, R.H. & P. Lehner (1974)- Oceans, new frontier in exploration. American Assoc. Petroleum Geol. (AAPG) Bull. 58, 3, p. 376-395.
(Vintage regional seismic profiles and interpretation NW Australia- Sunda Arc. Seismic examples of imbricated sediments North of Java and Timor Trough trenches)

Becker, M., E. Reinhart, S. Bin Nordin, D. Angermann, G. Michel & C. Reigber (2000)- Improving the velocity field in South and South-East Asia: the third round of GEODYSSEA. Earth Planets and Space 52, p. 721-726.
(online at: https://earth-planets-space.springeropen.com/counter/pdf/10.1186/BF03352271.pdf)
(Review of GEODYnamics of S and SE Asia (GEODYSSEA) project, a network of 42 GPS stations across SE Asia, observed between 1994-1998)

Beckley, L., L.A. Lawver & T.Y. Lee (1993)- Cenozoic basin formation in Southeast Asia. University of Texas, Austin, PLATES Project, Progress Report 62, p. 1-16. *(Unpublished)*

Beers, H.W. (ed.) (1970)- Indonesia, Resources and their technological development. University Press of Kentucky, p. 1-282.

Beltz, E.W. (1944)- Principal sedimentary basins in the East Indies. American Assoc. Petroleum Geol. (AAPG) Bull. 28, 10, p. 1440-1454.
(Vintage Indonesian basins map and basin summaries by Stanvac (Standard Oil NJ) geologist)

Benioff, H. (1954)- Orogenesis and deep crustal structure; additional evidence from seismology. Geological Society of America (GSA) Bull. 65, p. 385-400.
(Sunda Arc example of large 'marginal fault', deduced from dipping earthquake zones below volcanic arc, landward dipping at ~35° at intermediate depths of 70-300km, steepening with depth to 61° between 300-700km. Philippine Islands example of similar 'oceanic fault' (now called 'Wadati-Benioff zones'))

Benson, W.N. (1923)- Palaeozoic and Mesozoic seas in Australasia. Transactions Proc. Royal Society of New Zealand 54, p. 1-62.
(online at: https://paperspast.natlib.govt.nz/periodicals/TPRSNZ1923-54.2.10.1.1)
(Old, but still interesting discussion of Paleozoic- Mesozoic paleogeography of Australia- E Indonesia)

Benson, W.N. (1924)- The structural features of the margin of Australasia. Transactions Proc. Royal Society of New Zealand 55, p. 99-137.
(online at: https://paperspast.natlib.govt.nz/periodicals/TPRSNZ1924-55.2.10.1.5)
(Old, but still interesting discussion of tectonics- structure of East Indonesia, NW Australia, New Guinea, New Caledonia, etc.)

Berlage, H.P. (1937)- A provisional catalogue of deep-focus earthquakes in the Netherlands East Indies, 1918-1936. Gerlands Beitrage Geophysik 50, p. 7-17.
(First text to observe that deep earthquakes in Indonesia are concentrated along a plane dipping towards the Asian mainland (now known as Benioff zone (1949, 1954) or Wadati-Benioff zone; should have been named 'Wadati-Berlage zone'?;JTvG))

Berlage, H.P. (1939)- One hundred deep-focus earthquakes in the Netherlands Indies. Proc. 6th Pacific Science Congress, San Francisco, California, 1939, p. 135-138.

Bijlaard, P.P. (1935)- Beschouwingen over de knikzekerheid en de plastische vervormingen van de aardkorst in verband met de geologie van den Oost-Indischen archipel. De Ingenieur in Nederlandsch-Indie (I) 2, 11, p. I.135-I.156.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1935-11.pdf)
('Discussion of buckling potential and plastic deformation of the Earth's crust as related to the East Indies Archipelago'. On the physics of plastic deformation of Earth's crust in the Indonesian region. Expansion of Vening Meinesz' theory of crustal downbuckling)

Bijlaard, P.P. (1936)- De verklaring voor het optreden van zwaartekracht anomalieen, diepzeetroggen, geosynclinalen, gebergtevorming en vulkanisme bij plaatselijke plastische vervorming van de aardkorst. De Ingenieur in Nederlandsch-Indie (I) 3, 7, p. I.93- I.97.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1936-07.pdf)
('The explanation for gravity anomalies, deep sea troughs, geosynclines, mountain building and volcanism near local plastic deformation of the earth's crust'. Reply to Van Bemmelen (1936) critical remarks on Bijlaard (1935) theory)

Bijlaard, P.P. (1936)- Nadere toelichting van mijn theorie der plaatselijke plastische vervormingen op de tektoniek. De Ingenieur in Nederlandsch-Indie (I) 3, 11, p. 160-170.
(Second part of discussion between Van Bemmelen and Bijlaard on tectonic theory for Indonesian region)

Blom, J. (1934)- Geologische Probleme im Malayischen Archipel. Inaugural-Dissertation Friedrich Schiller University, Jena, p. 1-71.
('Geological problems in the Malayan Archipelago'. Overview of pre-1934 tectonic theories on the Indonesian Archipelago, without new synthesis or opinion)

Blundell, D.J. (2002)- The timing and location of major ore deposits in an evolving orogen; the geodynamic context. In: D.J. Blundell, F. Neubauer & A. von Quadt (eds.) The timing and location of major ore deposits in an evolving orogen, Geological Society, London, Special Publ. 204, p. 39-47.
(Review of tectonic settings of mineral deposits, with example of SE Asia- W Pacific arc system. In Indonesia all known mineral deposits lie within magmatic arcs and formed during or shortly after magmatic activity, but only 6 out of 15 Cenozoic magmatic arcs are known to contain significant mineralization)

Bock, Y., L. Prawirodirdjo, J.F. Genrich, C.W. Stevens, R. McCaffrey, C. Subarya, S.S.O. Puntodewo & E. Calais (2003)- Crustal motion in Indonesia from Global Positioning System measurements. J. of Geophysical Research 108, B8, 2367, p. 1-22.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2001JB000324)
(GPS surveys suggest tectonics dominated by interaction of 4 blocks: Sunda Shelf (moves 6 mm/yr SE rel. to Eurasia), S Banda Arc (CW rotation rel. to Sunda and Australia), Birds Head (rapidly moves WSW, subducting beneath Seram Trough) and E Sulawesi (CW rotation, transfering E-W Pacific motion into N-S shortening across N Sulawesi trench. Crustal blocks all experience significant internal deformation)

Boehm, G. (1901)- Aus den Molukken. Zeitschrift Deutschen Geologischen Gesellschaft 53, Briefliche Mitteilungen, p. 4-10.
(online at: https://www.biodiversitylibrary.org/item/150066#page/686/mode/1up)
('From the Moluccas'. First brief report by Boehm from his geological travels in E Indonesia in 1900-1901, and first report on Mesozoic fossils in 200 years since 'stone fingers' (belemnites) described by Rumphius in 1705. Mainly on visit to S coast of Sula Islands, with M Jurassic dark grey clayey limestones rich in ammonites (Sphaeroceras), belemnites and Inoceramus; also lower Cretaceous with Hoplites. No figures)

Boehm, G. (1902)- Weiteres aus den Molukken. Zeitschrift Deutschen Geologischen Gesellschaft 54, Briefliche Mitteilungen, p. 74-78.
(online at: https://www.biodiversitylibrary.org/item/150077#page/796/mode/1up)

('More from the Moluccas'. Continuation of paper above, on visits to Ambon, Buru, Misool. On Ambon Mesozoic sandstone-limestone, etc. Jurassic of Sula and Misool islands with fauna of European character and rel. undeformed. No figures)

Boehm, G. (1904)- Geologische Ergebnisse einer Reise in den Molukken. Proc. Comptes Rendus 9th International Geological Congress, Vienna 1903, p. 657-662.
('Geological results of a trip in the Moluccas'. Brief, early report on widespread Triassic and Jurassic marine sediments on islands of E Indonesia, noticing similarities of rocks and faunas with those from European Alps)

Boehm, G. (ed.) (1904-1959)- Beitrage zur Geologie von Niederlandisch-Indien. Palaeontographica, Supplement Vol. IV, 5 vols.
(online at: http://sammlungen.ub.uni-frankfurt.de/botanik/periodical/structure/4499189)
('Contributions to the geology of the Netherlands Indies'. Series of mainly paleontological papers from E Indonesia. Listed individually below)

Boehm, G. (1906)- Geologische Mitteilungen aus dem Indo-Australischen Archipel I. Neues aus dem Indo-Australischen Archipel, Neues Jahrbuch Mineralogie Geologie Palaontologie, Beilage Band 22, p. 385-412.
('News from the Indo-Australian Archipelago, etc.' Early overview of Mesozoic macrofossil localites in E Indonesia: Sula islands (Jurassic belemnites, Macrocephites, etc.), W Cenderawasih Bay (Wendesi M Jurassic ammonite Phylloceras), New Guinea N Coast (Walckenaer Bay ammonites and Inoceramus), Buru (Jurassic Perisphinctes, Late Triassic Tissotia), Ceram, etc. Remarkable similarities of Moluccas Mesozoic faunas and Spiti Fauna of Himalayas)

Bostrom, R.C. (1984)- Westward Pacific drift and the tectonics of eastern Asia. Tectonophysics 102, p. 359-376.
(Brief overview of tectonic history, involving W-ward displacement of Sundaland, and shared Paleozoic-Mesozoic petroleum systems between N Australia, New Guinea, Timor and other parts of eastern Indonesia)

Bothe, A.C.D. (1932)- Over de phasen van gebergtevorming in het Neogeen van den Indischen Archipel. De Mijningenieur 13, p. 71-77 and 88-92.
('On the phases of mountain formation in the Indies Archipelago'. Two or three phases of orogenesis observed in Tertiary of many places across Indies Archipelago)

Bradshaw, M. (2001)- Australia and Eastern Indonesia at the cross-roads of Gondwana and Tethys- the implications for petroleum resources. SEAPEX Exploration Conference 2001, Singapore, p. 1-8.

Branson, C.C. (1941)- Age of abyssal deposits of East Indian Archipelago. American Assoc. Petroleum Geol. (AAPG) Bull. 41, 2, p. 320-322.
(Brief review of very deep marine deposits in the 'East Indies' (Indonesia), including the Danau Fm of Borneo (Molengraaff, 1910, 'probably Jurassic', but could be E Cretaceous: JTvG) and Permian, Triassic and Lower Cretaceous abyssal deposits of Timor)

Brest van Kempen, C.P. (1945)- Earthquakes in the Netherlands Indies In: P. Honig & F. Verdoorn (eds.) Science and scientists in the Netherlands Indies. Board for the Netherlands Indies, Surinam and Curacao, New York, p. 35-35.
(online at: https://archive.org/details/in.ernet.dli.2015.183759)
(Brief summary paper with Seismic map of the Netherlands Indies (a seismic risk map; not really geological))

Brouwer, H.A. (1915)- Over de tektoniek der Oostelijke Molukken. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam 24, p. 987-994.
('On the tectonics of the Eastern Moluccas'. Early, brief overview of tectonics of the E Moluccas. See also Brouwer (1917) for English version or Brouwer (1918) for German version)

Brouwer, H.A. (1916)- Reisbericht omtrent geologische verkenningstochten op verschillende eilanden der Molukken, III. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 33, p. 83-89.

(online at: https://www.delpher.nl/nl/tijdschriften/view?identifier=MMUBA13:001662001:00103)
('Travel notes of geological reconnaissance trips to various islands of the Moluccas'. Brief report on Brouwer's extensive reconnaissance trips to E Indonesian islands in 1915 (Sangi islands, Halmahera, Ternate, Bacan, Obi, Waigeo, Salawati, etc.)

Brouwer, H.A. (1916)- Geologische verkenningen in de Oostelijke Molukken. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 3 (Molengraaff volume), p. 31-56.
(online at: https://ia903208.us.archive.org/7/items/verhandelingenva3191geol/verhandelingenva3191geol.pdf)
('Geological reconnaissance in the East Moluccas'. Brief overview of reconnaissance trips in E Indonesia islands in 1915 (Ceram, Ambon, NE Buru, Sula islands, Obi, Batjan, Halmahera, Tanimbar, Kai Besar, etc.). Microfaunas of 1915 expedition still being studied by L. Rutten. Timor expedition of Molengraaff/ De Maresz Oyens/Brouwer around 1912 interpreted Timor as a series of large thrust faults, directed from NNE towards the Australian continent)

Brouwer, H.A. (1917)- On the tectonics of the eastern Moluccas. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam 19, 1, p. 242-248.
(online at: https://dwc.knaw.nl/DL/publications/PU00012350.pdf)
(Early review of E Indonesia tectonics. Among recent significant discoveries is presence of large overthrusts on Timor and adjacent islands, probably continuing along entire outer belt of Banda islands to Babar, Yamdena, Seram and Buru. The Sula Islands, Obi and Misool do not show overthrust structures. No figures)

Brouwer, H.A. (1918)- Phasen der bergvorming in de Molukken. Inaugural speech, accepting the position of Professor at the Technische Hogeschool Delft (Delft Technical University), Waltman, p. 1-32.
(online at: https://uvaerfgoed.nl/viewer/fullscreen/11245_3_37806/1/)
('Phases of mountain building in the Moluccas'. Early overview of tectonics of the Molusccas, eastern Indonesia. Oldest dedimentation in orogenic belts aroun Banda Sea is of Permian age (But only on and around Timor). Late Triassic more widespread; on Timor developed in several vastly different facies, some reminescent of comparable facies in the Southern Alps. Widespread Late Jurassic- Cretaceous deep sea facies. 'Geosynclinal' sediments of Timor-Ceram Arc intensely folded in Late Tertiary. Etc. No maps, figures)

Brouwer, H.A. (1918)- Uber Gebirgsbildung und Vulkanismus in den Molukken. Geologische Rundschau 8, 5-8, p. 197-209.
(online at: https://www.zobodat.at/pdf/Geologische-Rundschau_8_0197-0209.pdf)
('On mountain building and volcanism in the Moluccas'. Brief discussion of geology of East Indonesia. Many of the metamorphic rocks in Eastern Indonesia are not Archaic or E Paleozoic age, but are metamorphosed Permian-Mesozoic sediments and basic extrusive rocks. Timor- Ceram arc characterized by thrust tectonics, directed towards Australian continent. First author to note the apparent relationship between extinction of volcanoes in Alor-Wetar sector of the Banda Arc adjacent to mountain-forming processes on Timor. Etc.)

Brouwer, H.A. (1918)- Kort overzicht onzer kennis omtrent geologische formaties en bergvormende bewegingen in den O.I. Archipel beoosten Java en Celebes. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 2, p. 293-332.
('Brief overview of our knowledge of the geological formations and mountain building movements in the east Indies archipelago East of Java and Sulawesi'. Early overview of distribution of Paleozoic- Mesozoic- Tertiary rocks across E Indonesia)

Brouwer, H.A. (1919)- On the age of the igneous rocks in the Moluccas. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 21, p. 803-815.
(online at: https://dwc.knaw.nl/DL/publications/PU00012138.pdf)
(On a variety of different age volcanic-plutonic rocks in E Indonesia)

Brouwer, H.A. (1919)- Geologisch overzicht van het oostelijk gedeelte van den Oost-lndischen Archipel. Jaarboek Mijnwezen Nederlandsch Oost-Indie 46 (1917), Verhandelingen II, p. 145-452.
(Rel. comprehensive overview of 1917 state of knowledge of East Indonesia geology)

Brouwer, H.A. (1920)- Nieuwere opvattingen omtrent de geologie van den O.I. Archipel. In: Algemeen Ingenieurs Congres, Batavia, May 1920, Sectie 5, Mijnbouw en Geologie, Mededeeling 12, p. 3-16.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:045934000:00003)
('Newer views on the geology of the East Indies Archipelago'. Brief review of recent developments of tectonics of Indonesia, with emphasis on widespread evidence for thrust tectonics. No figures)

Brouwer, H.A. (1920)- On the crustal movements in the region of the curving rows of islands in the eastern part of the East-Indian Archipelago. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 22, 7-8, p. 772-782.
(online at: https://dwc.knaw.nl/DL/publications/PU00012027.pdf)
(Curving rows of islands of Moluccas similar to many chains of Alpine structure. Rows of islands of Moluccas may be grouped into (1) zone characterized by outward-directed overthrusts (Timor-Ceram row); (2) marginal zone without overthrust tectonics (Sula-islands, Misool, W New Guinea S of Mac Cluer Bay (= Bintuni) and probably also Kei-islands; (3) inner zone with young active volcanoes)

Brouwer, H.A. (1920)- Die horizontale Bewegung der Inselreihen in den Molukken. Nachrichten Kon. Gesellschaft Wissenschaften Gottingen, Mathematisch-Physikalische Klasse, p. 172-173.
(online at: https://www.digizeitschriften.de/dms/img/?PID=GDZPPN002505738)
('The horizontal movement of the island rows in the Moluccas'. Brief response to H. Stille critique of Brouwer (1917) paper on mountain building and volcanism in the Moluccas. Stille questioned presence of important horizontal movements on Timor, etc., but Brouwer insists they are important)

Brouwer, H.A. (1921)- Some relations of earthquakes to geologic structure in the East Indian archipelago. Bull. Seismological Society of America 11, 3-4, p. 166-182.
(online at: https://books.google.com/books?id=SkXPAAAAMAAJ&pg=PA166&lpg=PA166&dq=Brou Etc.)
(Earthquake zones of globe may be traces along mountain rnges of Tertiary age. In East Indian Archipelago earthquakes do not occur where mountains were growing in Tertiary time, but where they are still growing now. No clear relationships between earthquakes and volcanism. Most epicenters lie under water. Rows of islands in E Indian Archipelago not only move in vertical direction, also largely in horizontal direction)

Brouwer, H.A. (1921)- The horizontal movement of geanticlines and the fractures near their surface. Journal of Geology 29, 6, p. 560-577.
(online at: https://www.journals.uchicago.edu/doi/pdf/10.1086/622810)
(Early attempt to explain deep basins and uplifted islands of E Indonesia (uplifted coral reefs to 1300m in Timor, Dai 620m, Roti 470m, etc.))

Brouwer, H.A. (1922)- The major tectonic features of the Dutch East Indies. J. Washington Academy Sciences 12, 7, p. 172-185.
(Brief discussion; summary of 1922 lecture)

Brouwer, H.A. (1925)- The geology of the Netherlands East Indies. Lectures delivered as exchange-professor at the University of Michigan in 1921-1922. MacMillan Co., New York, p. 1-160.
(First 'text-book' on the geology of Indonesia, based on series of lectures at University of Michigan, U.S.A.)

Brouwer, H.A. (1926)- Structure of the East Indies. Proc. 2nd Pan-Pacific Science Congress, Australia 1923, 1, p. 784-786.
(Brief review, with one regional map)

Brouwer, H.A. (1926)- Volcanic action and mountain building in the Dutch East Indies. Proc. 2nd Pan-Pacific Science Congress, Australia 1923, 1, p. 856-859.
(Brief summaries. No maps or figures)

Brouwer, H.A. (1926)- The Carboniferous and Permian of the Netherlands East Indies. Proc. 2nd Pan-Pacific Science Congress, Melbourne, Australia 1923, 2, p. 1024-1027.

Brouwer, H.A. (1927)- Vulkanisme en aardbevingen in de Oost-Aziatische eilandenreeksen. Natuurkundige Voordrachten, Nieuwe Reeks 5, Maatschappij Diligentia, Van Stockum, The Hague, p. 88-98. *(online at: https://natuurwetenschappen-diligentia.nl//wp-content/uploads/2020/02/Diligentia_jaarboek_5.pdf#page=91)*
('Volcanism and earthquakes in the East Asian islan arcs'. Lecture notes)

Brouwer, H.A. (1928)- Mesozoic formations in the Netherlands East Indies. Proc. 3rd Pan Pacific Science Congress, Tokyo 1926, National Research Council of Japan, 2, 27, p. 1704. *(Abstract only)*.
(online at: https://books.google.com/books?id=Y4wKAAAAIAAJ&pg)
(Very brief review of occurrences of Triassic, Jurassic and Cretaceous sediments in Indonesian Archipelago. Triassic widespread, especially Late Triassic, and in widely different facies. In East, Jurassic mainly on Timor, Roti, Ceram and Buru. M and U Jurassic shales with concretions of Sula Islands constrast strongly with Jurassic of Misool, Timor and Ceram. In W, abyssal facies of Danau Fm on Borneo very different from metamorphic-neritic Jurassic facies on Sumatra. U Cretaceous sediments extensively developed

Brouwer, H.A. (1929)- Geology of the Netherlands East Indies. In: L.M.R. Rutten (ed.) Science in the Netherlands Indies, Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, p. 101-125.
(online at: https://resolver.kb.nl/resolve?urn=MMKB18A:026088000:pdf)
(Brief overview of the geology of the Indonesian region. No figures)

Brouwer, H.A. (1931)- De stratigraphie van Nederlandsch Oost-Indie, 18. Paleozoic. In: B.G. Escher et al. (eds.) De palaeontologie en stratigraphie van Nederlandsch Oost-Indie, Leidsche Geologische Mededelingen 5 (K. Martin memorial volume), Chapter III, p. 552-566.
(online at: https://repository.naturalis.nl/pub/505691/LGM1931005001020.pdf))
(Overview of occurrences of Paleozoic in Indonesia. Pre-Carboniferous rocks known only from New Guinea. Carboniferous- Permian rocks in N Sumatra, C and S Sumatra, Timor, Savu, Roti, Luang, Babar, New Guinea)

Brouwer, H.A. (1941)- De bouw van den zuidoostelijken Indischen archipel. Programma 22e Koloniale Vakantiecursus voor Geografen, p. 1-6.
('The structure of the southeastern Indies Archipelago'. Brief review. No figures/ maps)

Brouwer, H.A. (1949)- Evolution orogenique ou consolidation prochaine aux Indes orientales. In: Livre jubilaire Charles Jacob, Annales Hebert et Haug, Universite de Paris, 7, p. 31-42.
('Orogenic evolution or next consolidation in the East Indies'. Early review of orogenic history of Indonesia, with special reference to Sulawesi (junction of two arcs) and Timor (with large nappe tectonics))

Brown, J.L. & J.E. McCallum (1997)- An atlas of sealing faults in SE Asia. In: J.V.C. Howes & R.A. Noble (eds.) Proc. Int. Conf. Petroleum systems SE Asia & Australia, Jakarta 1997, Indonesian Petroleum Association (IPA), p. 837-841.

Brunn, J.H. & P.B. Burollet (1979)- Island arcs and folded ranges. In: W.J.M. van der Linden (ed.) Fixism, mobilism or relativism: Van Bemmelen's search for harmony, Geologie en Mijnbouw 58, 2, p. 117-126.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0RGQxdG1sTnNoalE/view)
(Includes chapter on Seram arc and Banda Sea. Sumba (erroneously) viewed as promontory of NW Australian margin. With Hamilton (1979) one of first to suggest Banda sea formed by longitudinal extension))

Bucking, H. (1904)- Zur Geologie des nordostlichen Indischen Archipels. Sammlungen Geologischen Reichs-Museums Leiden, serie 1, 7, p. 231-253.
(online at: www.repository.naturalis.nl/document/552406)
('On the geology of the NE Indies archipelago'. Brief descriptions of islands Bacan, Mandioli, Kasiruta, Obi Besar, Manipa and Sulabesi. No figures)

Budiman, I., J. Nasution, I. Sobari & W.H. Simamora (2000)- Gravity anomaly map of western part of Indonesia, scale 1:2,000,000. Geological Research Development Centre (GRDC), Bandung.

Burollet, P.F. & C. Salle (1986)- Problemes tectoniques en Indonesie. In: P. Le Fort et al. (eds.) Evolution des domaines orogeniques d'Asie meridionale (de la Turquie a l'Indonesie) (Pierre Bordet Memorial Volume), Mem. Sciences de la Terre 47, Nancy 1986, p. 113-127.
('Tectonic problems in Indonesia'. Brief review of tectonics of Indonesia, with more detail on Sumba and Tanimbar- Kai islands. Sumba terrane, with Cretaceous flysch paleocurrents directed mainly from N to S and Meratus-like unconformity around Cretaceous-Paleocene boundary, was part of Sundaland margin)

Cao, L., X. He, L. Zhao, C.C. Lu, T. Hao, M. Zhao & X. Qiu (2021)- Mantle flow patterns beneath the junction of multiple subduction systems between the Pacific and Tethys domains, SE Asia: constraints From SKS-wave splitting measurements. Geochem. Geophysics Geosystems 22, e2021GC009700, p. 1-17.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2021GC009700)
(SKS-wave splitting data from seven seismic stations located around Celebes Sea suggest various types of mantle flow in area: (a) corner flow in mantle wedge above W-ward-subducting Molucca Sea (Sangihe) slab, (b) two-layer anisotropy related to E-ward subducting Molucca Sea (Halmahera) slab, (c) deflected flow due to proximity to Sangihe slab's edges, (d) trench-normal mantle flow beneath SE Borneo due to subduction of Indian-Australian plate, and (e) NW Borneo-Palawan trough-parallel mantle flow beneath NE Borneo)

Cardwell, R.K. (1980)- Geometry of the lithosphere subducted beneath the Eastern Indonesian and Philippine islands as determined from the spatial distribution of earthquakes and focal mechanism solutions. Ph.D. Thesis Cornell University, Ithaca, p. 1-143.
(Mainly two published papers by Cardwell and Isacks (1978) and Cardwell et al. (1980), below)

Cardwell, R.K. & B.L. Isacks (1978)- Geometry of the subducted lithosphere beneath the Banda Sea in Eastern Indonesia from seismicity and fault plane solutions. J. of Geophysical Research 83, B6, p. 2825-2838.
(Earthquake data fault plane solutions suggest two lithospheric plates descending into upper mantle beneath Banda Sea: (1) along Banda arc, laterally continuous slab that subducted at plate boundary defined by Java trench-Timor Trough-Aru Trough system; (2) descends to SW to ~100 km depth in Seram Trough region and may be joined to Banda subduction system by W extension of New Guinea Tarera- Aiduna fault zone. Banda arc slab contorted at E end of arc where trench and line of active volcanoes curve NE. Contortion appears to be lateral bend in subducted slab that is continuous from surface to depths of 600 km)

Cardwell, R.K. & B.L. Isacks (1981)- A review of the configuration of the lithosphere subducted beneath the eastern Indonesian and Philippine Islands. In: A.J. Barber & S. Wiryosujono (eds.) The geology and tectonics of Eastern Indonesia, Proc. CCOP-IOC SEATAR Working Group Meeting, Bandung 1979, Geological Research Development Centre (GRDC), Bandung, Special Publ. 2, p. 29-47.
(Identification of subducting slabs from earthquake data. Seismic zone from Timor Trough to >600km depth below S Banda Basin, but does not appear to be linked to Seram Trough)

Cardwell, R.K., B.L. Isacks & D.E. Karig (1980)- The spatial distribution of earthquakes, focal mechanism solutions and subduced lithosphere in the Philippine and North-eastern Indonesian islands. In: D.E. Hayes (ed.) The tectonic and geologic evolution of Southeast Asian seas and islands, American Geophysical Union (AGU), Geophysical Monograph 23, p. 1-35.
(Earthquake focal mechanisms show configuration of lithosphere subducted beneath Philippine and NE Indonesian islands and geometry and nature of plate boundaries in region. Philippine region aggregate of island arcs between Philippine Sea Plate and SE Asian Plate, with main deformation along Philippine Fault and opposing subduction zones (Manila Trench, Negros Trench, Cotabato Trench). S-dipping zone of earthquake hypocenters indicates lithosphere of Celebes Basin subducted along W part of N Sulawesi Trench to depth of >200 km beneath N arm of Sulawesi. Convergence between Philippine Islands and W boundary of Philippine Sea Plate along E Luzon Trough and Philippine Trench. S Philippine Trench is young feature)

Carey, S.W. (1975)- Tectonic evolution of Southeast Asia. Proc. 4th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 17-48.
(Tectonic model for SE Asia using the 'Expanding earth' theory (Carey believed in continental drift, but not in subduction))

Carey, S.W. (1975)- The subduction myth. Proc. SE Asia Petroleum Exploration Society (SEAPEX) 2, Singapore, p. 41-69.
(Entertaining discussion by leader of expanding earth movement. Plate tectonic and Expansion 'tectonic schools' agree on seafloor spreading, but not subduction)

Carey, S.W. (1986)- Geotectonic setting of Australasia. In: R.C. Glenie (ed.) Second South-Eastern Australia oil exploration symposium, Melbourne 1985, Petroleum Exploration Society Australia (PESA), p. 3-25.
(Controversial/ unconventional tectonic model. 'most prospectors accept plate tectonics, although subduction is patently false, and Earth is expanding at accelerating rate')

Carlile, J.C. & A.H.G. Mitchell (1994)- Magmatic arcs and associated gold and copper mineralization in Indonesia. In: T.M. van Leeuwen et al. (eds.) Indonesian mineral deposits- discoveries of the past 25 years. J. Geochemical Exploration 50, p. 91-142.
(Gold mineralization in andesitic arcs, active for 3-20 My intervals from Cretaceous- Pliocene. Fifteen major arcs; known ore bodies in six mid-Tertiary- Pliocene arcs. Indonesia arcs total ~7,000 kms in length. Individual arcs or segments of arcs characterized by specific mineralization types reflecting arc basement related to earlier collisions and reversals in tectonic polarity and erosion level)

Caughey, C.A., D.C. Carter, J. Clure, M.J. Gresko, P. Lowry, R.K. Park & A. Wonders (eds.) (1996)- Proc. Int. Symposium on Sequence Stratigraphy in SE Asia, Jakarta 1995, Indonesian Petroleum Association (IPA), p. 1-487.

Cawood, P., G. Zhao, G. Zhao, J. Yao, W. Wang, Y. Xu & Y. Wang (2018)- Reconstructing South China in Phanerozoic and Precambrian supercontinents. Earth-Science Reviews 186, p. 173-194.
(History of S China Craton (= Yangtze + Cathaysia blocks). Isolated outcrops of Archean rocks in Yangtze Block preserve record of Meso- to Neo-Archean magmatism, sedimentation and metamorphism associated with global craton formation and stabilization (Kenor supercontinent). Paleoproterozoic tectonostratigraphic records suggest Yangtze Block linked to NW Laurentia, whereas Cathaysia was joined to N India. During formation of Rodinia at end of Mesoproterozoic through Pangea in M Paleozoic, Cathaysia remained joined to N India. During final assembly of Gondwana in E Paleozoic suturing of India- S China with W Australia-Mawson blocks resulted in accretion of Sanya Block of Hainan Island with rest of Cathaysia. Accretion of Laurussia to Gondwana in M-Paleozoic to form Pangea corresponds with initiation of lithospheric extension along N margin of Gondwana and separation of continental blocks, including S China, which then drifted N across Paleo-Tethys to collide with Asian segment of Pangea in Permo-Triassic)

CCOP-IOC (1981)- Studies in East Asian tectonics and resources (2nd SEATAR Workshop, Bandung, Indonesia, 1978). ESCAP, CCOP, Technical Paper 7a, 2nd ed., p. 1-250.
(Report on ongoing geological research along nine SEATAR mega-regional transects)

CCOP (1991)- Total sedimentary isopach maps, offshore East Asia. Committee for Co-Ordination of Joint Prospecting for Mineral Resources in Asian Offshore Areas, CCOP, Technical Bulletin 23, sheets 1-6, p. 1-116.
(Sediment isopach maps and summaries of SE and E Asia basins)

CCOP (2021)- Magnetic anomaly map of East and Southeast Asia, Revised version (3rd Ed.). CCOP/ Geological Survey of Japan, 1: 4 million scale.
(online at: http://www.ccop.or.th/publication-details/97)

Chamot-Rooke, N. & X. Le Pichon (1999)- GPS determined eastward Sundaland motion with respect to Eurasia confirmed by earthquakes slip vectors at Sunda and Philippine trenches. Earth Planetary Science Letters 173, p. 439-455.
(GPS over SE Asia revealed Indochina, Sunda shelf and part of Indonesia behave as rigid 'Sundaland' platelet, which rotates clockwise relative to Eurasia. Sundaland E-ward velocity of ~10 mm/yr on S boundary increasing to 16-18 mm/yr on N boundary)

Chamot-Rooke, N., X. Le Pichon, C. Rangin, P. Huchon, M. Pubellier, C. Vigny & A. Walpersdorf (1998)- Sundaland motion in a global reference frame detected from GEODYSSEA GPS measurements: implications for relative motions at the boundaries with the Australo-Indian plates and the South China block. In: P. Wilson & G.W. Michel (eds.) The Geodynamics of S and SE Asia (GEODYSSEA) Project, GeoForschungsZentrum, Potsdam, Scientific Technical Report STR 98/14, p. 39-74.
(GPS measurents over SE Asia in 1994-1998 show stations in Vietnam, Malaysia, Thailand, Borneo, E Sumatra have no resolvable relatice motions ('rigid Sundaland'). However, Sundalan block is rotating clockwise with respect to Eurasia, moving to ENE from 14mm/yr in E Java, to 25mm/yr in N Sumatra. Etc.)

Chapman, D.R. (1964)- On the unity and origin of the Australasian tektites. Geochimica Cosmochimica Acta 28, p. 841-888.
(Review of widespread Pleistocene tektites, distributed several 1000 km across SE Asia and Australia. Tektites remarkably similar in composition. Probably caused by major meteorite impact, probably on moon. Size and shape of tektites interpreted to reflect higher T portion of crater ejecta descended over SE Australia and lower T portions were strewn progressively over SW Australia-Indonesia and further North. 'Glass pebbles' locally known as billitonites, philippinites, australites, javanites, philippinites, etc.))

Charlton, T.R. (1986)- A plate tectonic model of the eastern Indonesia collision zone. Nature 319, p. 394-396.
(E Indonesia interpreted in terms of rel. simple three plate indentation model)

Charlton, T.R. (1991)- Postcollision extension in arc-continent collision zones, eastern Indonesia. Geology (GSA) 19, p. 28-31.
(Postcollisional extension common in E Indonesia orogenic belts, starting <5 My after compressional deformation (Timor area, Gulf of Bone in Sulawesi, Wandamen -Wondiwoi Terrane of W Papua). Extension results from decoupling of subducting oceanic lithosphere from unsubductable continental lithosphere. Superimposition of extension virtually unavoidable consequence of arc-continent collision)

Charlton, T.R. (2000)- Tertiary evolution of the Eastern Indonesia collision complex. J. Asian Earth Sciences 18, 5, p. 603-631. *(online at: http://directory.umm.ac.id/Data%20Elmu/jurnal/J-a/Journal%20of%20Asian%20Earth%20Science/Vol18.Issue5.2000/352.pdf)*
(Interpretations of last 35 My of tectonic evolution of E Indonesia, with plate reconstructions at 5 My intervals. Oldest reconstruction predates collisional deformation between N-moving Australian continent and E-W oriented, S- facing subduction zone extending from S margin of Eurasian continent E-wards. Beginning at ~30 Ma the Australian continental margin commenced collision with subduction zone along restored N margin, from Sulawesi in W to PNG in E. At ~24 Ma present-day pattern of oblique convergence between N margin of Australia and Philippine Sea Plate began. From ~18 Ma, S-directed subduction commenced at Maramuni Arc in N New Guinea. Sorong Fault Zone strike-slip system active from ~12 -6 Ma)

Charlton, T.R. (2001)- Permo-Triassic evolution of Gondwanan eastern Indonesia, and the final Mesozoic separation of SE Asia from Australia. J. Asian Earth Sciences 19, 5, p. 595-617.
(online at: https://www.academia.edu/27703744/Permo_Triassic_evolution_of_Gondwanan_eastern_Indonesia_and_the_final_Mesozoic_separation_of_SE_Asia_from_Australia)
(E Indonesia continental fragments with Australian/Gondwanan affinities remarkably uniform Permo-Triassic tectonostratigraphy, ranging from granitoid belt in N, through continental platform, to intracontinental rift system in S. In rift system complementary upper and lower plate rifted margins recognised in N and S Banda Arcs. N granitoid belt initiated in mid-Carboniferous, intracontinental rift system began in latest Carboniferous-earliest Permian. Extension in N rift margin ceased in M Carnian, with decline in igneous activity in granitoid

belt to North. Sibumasu Terrane originated on Gondwanaland margin, rifted away in E Permian. Gondwanan E Indonesia acted as continental connection between Sibumasu/Indochina and Australia in Permian- Triassic, permitting limited floral- faunal interchange between Gondwanaland and SE Asia until final separation in Late Triassic. M Carnian structural event in E Indonesia may be related to this separation)

Charlton, T.R. (2004)- The petroleum potential of inversion anticlines in the Banda Arc. American Assoc. Petroleum Geol. (AAPG) Bull. 88, 5, p. 565-585.
(Timor, Tanimbar and Seram perceived structural complexity may be overstated. Proposes inversions of Permian-Jurassic grabens as fundamental structural style on E Indonesia)

Charlton, T.R. (2012)- Permian-Jurassic palaeogeography of the SE Banda Arc region. Berita Sedimentologi 24, p. 5-17.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/download/180/150)
(Paleogeographic maps of S and E Banda forearc (Savu to Kai islands, incl. Timor-Tanimbar) and adjacent parts of NW Australian continental margin for E Permian, M-L Permian, E-M Triassic, Late Triassic, and E, M and Late Jurassic. Three main rift phases (E Permian, Late Triassic and M-Late Jurassic) separated by quieter tectonic intervals with low facies diversity)

Charlton, T.R. (2013)- Sundaland Timor Paleogene rifting and regional palaeotectonics. Proc. 37th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA13-G-005, p. 1-11.
(Alternative plate reconstruction of Paleogene of Indonesia- NW Australia, suggesting E Sundaland and Gondwanaland/ NW Australia remained attached until final separation by rifting in Paleogene. Main driver for model is similarity of Paleogene rifting in both Sundaland and on Timor island, which is here interpreted as part of Australian continental margin)

Charlton, T.R. (2016)- Neogene plate tectonic evolution of the Banda Arc. Proc. 40th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA16-21-G, p. 1-16. *(online at: https://www.researchgate.net/publication/303588866_Neogene_plate_tectonic_evolution_of_the_Banda_Arc)*
(New East Indonesia plate reconstructions at 1 My intervals from 30 Ma- Present. Main differences between previous reconstructions are >30° CCW rotation of Bird's Head since ~6 Ma, and origin of backarc spreading in N and S Banda Basins by process of 'fixed slot' subduction geometry, not trench rollback. Four phases: (1) 30-18 Ma: collision, then indentation of 'Greater Sula Spur' promontory into E continuation of Sunda Arc subduction system; (2) 18-12 Ma: Terranes N of Sorong Fault Zone move WSW relative to Australia, with motion of Pacific plate. (3) 12-6 Ma: Development of proto-Banda Arc by fixed-slot backarc spreading in N Banda Basin; (4) 6-0 Ma: Collision around Banda Arc and rotation of Bird's Head)

Charlton, T.R. (2023)- Cretaceous-Paleogene rifting on the NW margin of the Australian continent, SE Banda Arc region. Berita Sedimentologi 49, 2, p. 1-27.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/437/415)
(Banda Terrane successions of Timor and correlative units in Sumba widely considered allochthonous to Australian continental margin successions, but new interpretation proposed here suggests Banda Terrane, originated on the outermost (northern) edge of the Australian continent (N.B.:the 'widely considered allochthonous interpretation' of Banda Terrane as derived from Sundaland margin is still a more viable model?; JTvG))

Charlton, T.R. (2023)- Jurassic-Paleogene spreading history of the northern Indian Ocean as a constraint on the evolution of the north Australia continental margin. Berita Sedimentologi 49, 2, p. 75-107.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/428)
(New reconstructions suggest Argolandand- Greater Sula Spur continental terranes formed continuous crustal connection between SE Asia and N Australia through late Mesozoic- E Paleogene, and that Indian Ocean developed entirely within disrupting Gondwanaland supercontinent, rather than linking E into Pacific Ocean)

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(Unorthodox, non-plate-tectonic model for SE Asia tectonics, etc.)

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(online at: https://www.academia.edu/download/40509377/Subsidence_and_uplift_by_slab-related_ma20151130-18118-rqvgto.pdf)
(Extensive Cretaceous-Paleocene regional unconformity from Indochina to Java (~5.6 million km^2) may be due to subduction- driven mantle processes. Cessation of subduction, descent of N- dipping slab into mantle, and consequent uplift and denudation of sediment-filled Late Jurassic- E Cretaceous dynamic topographic low help explain extent and timing of unconformity. Sediments started to accumulate above unconformity from M Eocene when subduction recommenced under Sundaland)

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(online at: http://searg.rhul.ac.uk/pubs/clements_hall_2011%20Sundaland%20emergence.pdf)
(Detrital zircons from Eo-Oligocene sandstones of SW West Java derived from local volcanic sources and Sundaland. Populations with ages of 50-80 Ma (from two discrete volcanic arcs in Java and Sulawesi), 74-145 Ma (E-M Cretaceous granites of Schwaner Mts of SW Borneo), 202-298 Ma (Permian-Triassic Tin Belt granites), 480-653 Ma and 723-1290 Ma (Proterozoic SE Asia basement once part of Gondwana). M Eocene sediment derived mainly from Tin Belt, Late Eocene and younger Borneo source more important. Microcontinental collision at Java margin (~80 Ma) halted Cretaceous subduction and resulted in elevation of large parts of continental SE Asia)

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Clure, J. (1998)- Complex Eastern Indonesia poses exploration challenges. Oil and Gas Journal 96, 38, p. 91-95.

Cobbing, E.J. & D.I.J. Mallick (1984)- South East Asia Granite Project: Preliminary Report - Indonesia. British Geological Survey (BGS) Overseas Division, Technical Report WC/OR/84/2, p. 1-45.
(online at: https://resources.bgs.ac.uk/PublicationPDFs/19800655.pdf)
(Review of granites of Riau Islands, Bangka-Belitung and W Sumatra, based on 1983 fieldwork, with comparisons to Malay Peninsula 'Main Range'(S-type) and 'Eastern Belt'; mainly I-type) granitoid types. W Sumatra granites mainly Cretaceous I-type subduction-related granites)

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(Study of formation waters from 400 SE Asia wells. Majority fresh or brackish meteoric to connate waters)

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(Tertiary basins of Sunda Shelf of SE Asia formed in ?Mid- Late Eocene and accumulated thick syn-rift lacustrine and low salinity organic-rich shales through Late Paleogene. Towards end Oligocene- E Miocene marine transgression throughout region. Syn-rift sediments most important hydrocarbon source rocks)

Collette, B.J. (1954)- On the gravity field of the Sunda region (West Indonesia). Geologie en Mijnbouw 16, 7, p. 271-300.
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(Part of University of Utrecht Ph.D. Thesis. Interpretation of five gravity profiles through Sumatra and Java, based on broadly spaced gravity data from Vening Meinesz and BPM (see also Van Bemmelen 1954))

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(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0QzA4cUJzVmlrNGM/view)
(Response to Van Bemmelen (1954) critique of Collette (1954) thesis work)

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(draft online at: https://corbettgeology.com/wp-content/uploads/2016/07/short-course-manual-1997.pdf)
(On Indonesia- New Guinea- Philippines gold deposits. Includes discussions of Masupa Ria, Kalimantan, Wetar, etc.)

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(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1995a27.pdf)
(>3000 exploratory wells drilled since 1870 in W Indonesia with 750 discoveries. By 1992 over 300 producing fields in 11 basins and 100 fields shut-in or abandoned. Published work is of regional nature. Lithostratigraphy mainly based on pre-1960's work, with terminology varying between companies. Biostratigraphy handicapped by lack of age diagnostic fossils in E Miocene and older sediments in most of Sumatra and Natuna. Java-Kalimantan older section more marine with age diagnostic fossils, but errors in age determination due to reworking. Propose correlative framework using sequence stratigraphy)

Courteney, S. (1996)- Western Indonesia-1: Sequence stratigraphy buoys W. Indonesia basins. Oil and Gas Journal 94, May 20, p. 86-90.

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(Hydrocarbons in Sumatra, Natuna, Sunda Basin, Lombok, Barito, NW Java, possibly also E Java basins all tied to M Eocene source rocks, mainly lacustrine, limited to Paleogene rifts)

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(Sunda Arc extends from Himalayas to Banda Arc. Variations along arc function of direction and speed of convergence across subduction zone and sediment thickness on underthrusting plate. Highly oblique convergence may lead to lateral terrane transport and opening - closing of marginal basins like Andaman Sea)

Daly, M.C., M.A. Cooper, I. Wilson, D.G. Smith & B.G.D. Hooper (1991)- Cenozoic plate tectonics and basin evolution in Indonesia. Marine and Petroleum Geology 8, 1, p. 2-21. *(online at: https://www.academia.edu/82695666/Papers_Cenozoic_plate_tectonics_and_basin_evolution_in_Indonesia)*
(BP plate reconstruction. evolution. India collision and indentation led to major clockwise rotation of SE Asia. Sumatran basins opened due to back arc extension in Eocene. Closure of marginal ocean basin resulted in major contractional event in Late Oligocene. Gulf of Thailand basins and Andaman Sea opened in response to rotation of Indochina and oblique convergence at Sunda trench. Inversion S end of these basins and uplift in Borneo coincided with collision of Reed Bank Terrane with Borneo. Opening of Makassar Straits, Kutei, Tarakan and Barito basins in Eocene. Inversion of these basins result of collision of Australia and Australia-derived

microplates in Late Miocene/Pliocene. Pliocene foldbelt and foreland basin formation in New Guinea result of oblique arc collision. Basin evolution of SE Asia not result of lateral extrusion in front of India indenter; main effect of collision is CW rotation of Indochina and extension along Sumatran active margin. Includes Oligocene arc polarity reversal in Sumatra, Timor is part of NW Australian margin, etc.)

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(Late 1980's BP plate reconstructions of Tertiary of SE Asia since 55 Ma. (see also Daly et al. 1991))

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(online at: https://www.iagi.or.id/web/digital/45/PIT-IAGI-1987-Paper-9.pdf)
(Same paper as Daly et al. (1987) above. With reconstructions since 70 Ma. N-ward motion of Australia started at ~50 Ma, at about same time as India-Eurasia collision and initiation of SE Asia Tertiary basins formation. Sumatra back-arc basins geometry of pull-apart basins between dextral strike-slip displacement. Banda-Celebs Sea (erroneously) viewed as trapped Mesozoic Indo-Australian oceanic crust?. Kutai- Tarakan- Barito-Makassar Straits basins viewed as Eocene back-arc extension along Pacific margin. Etc.)

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Darman, H. & Minarwan (eds.) (2017)- Seismic atlas of Indonesian basins, version 17.01. FOSI/ INDOGEO Special Publication.
(see also online version at: http://geoseismic-seasia.blogspot.com/p/home.html)
(24 chapters of Indonesian basins with short basin characterization and typical seismic lines)

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('Stratigraphic Nomenclature of Indonesia'. Update of 1996 Sandi Stratigrafi report)

Darman, H. & F.H. Sidi (eds.) (1999)- Tectonics and sedimentation of Indonesia. Proc. 1st Reg. Meeting Indonesian Sedimentologists Forum (FOSI), Bandung 1999, 99p.
(Symposium commemorating 50th anniversary Van Bemmelen (1949) book Geology of Indonesia)

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(online at: http://www.iagi.or.id/fosi/berita-sedimentologi-no-40.html)
(Examples of P3GL seismic lines over several East Indonesia basins around Waigeo, Misool, Seram, Aru, etc.))

Darman, H. & D. Yuliong B.A. (2020)- Sedimentary basins of Indonesia: outline and thickness variation understanding. Berita Sedimentologi 45, p, 39-51.
(online at: https://www.iagi.or.id/fosi/files/2020/05/FOSI_BeritaSedimentologi_BS45-May_2020.pdf)
(Discussion of new INDOGEO sediment thickness map)

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(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/1999GL010865)
(New data set of relocated earthquakes >400 km under Indonesia, developed by Schoffel and Das 1999. Slab thickens, shortens and weakens before penetrating below 670 km by shearing along conjugate fault planes on upper and lower portions of seismic zone)

De Bruyn, J.W. (1951)- Isogam maps of Caribbean Sea and surroundings and of Southeast Asia. Proc. 3rd World Petroleum Congress, The Hague 1951, Section 1, Brill, Leiden, p. 598-612.
(Two 1:10 million scale isogam maps based on published data and Royal Dutch Shell gravity surveys:(1) Caribbean Sea and surroundings; (2) SE Asia, including Indonesia, Philippines and New Guinea)

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(online at: https://www.researchgate.net/publication/317160752_New_Geochronology_Data_from_Eastern_Indonesia_-_An_Aid_to_Understanding_Sedimentary_Provenance_in_a_Frontier_Region)
(New zircon ages of igneous rocks in E Indonesia. Biotite-cordierite dacites (ambonites) from Ambon Pliocene (3-4 Ma), with inherited material from ~150-450 Ma. Banggai-Sula granites mainly M-L Triassic age (226-244 Ma), with inherited zircons of ~1000, ~1400-1500, 1800 and 2200 Ma. Birds Head granites similar Triassic ages (~235-248 Ma; roots of Triassic volcanic arc system). Bacan diorite ~330 Ma. Seram Triassic Kanikeh Fm sst same zircon age spectra as metasediments of Tanusa and Tehoru complexes. Sirga Fm quartz clastics in New Guinea Lst several units of different ages, derived from local uplifts in Eocene-Oligocene)

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(Review of continental rift systems, with examples from Tertiary basins of Sundaland. In intracratonic setting sedimentation typically non-marine during active graben formation; later regional subsidence may give rise to marine transgression in rifts near cratonic margins. Best potential source rocks in non-marine rifts lacustrine shales, with TOC up to 20%. Volume of oil generated may be very large for depocenter of limited areal extent. Long distance migration from oil kitchens (20 km) not common in continental rift settings. Basin size typically 20-60 km wide and 70-300 km in length)

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(E Indonesia plate tectonic model for last 10 Myr assuming six rigid rotating plates: Banda Sea, Buru-Seram, Sula, W Pacific, Irian Jaya, Australia)

De Smet, M.E.M. (1999)- On the origin of the outer Banda Arc. In: H. Darman & F.H. Sidi (eds.) Tectonics and sedimentation of Indonesia, FOSI-IAGI-ITB Regional Seminar to commemorate 50th anniversary of Van Bemmelen's Geology of Indonesia, Bandung 1999, p. 81-82. *(Abstract only)*
(Order of structure belts/ rocks around Banda Sea is not logical one in terms of plate tectonics. Outer Banda Arc not accretionary complex but compressed northern rim of Australian continental margin)

De Vos van Steenwijk, J.E. Baron (1946)- Plumb-line deflections and geoid in Eastern Indonesia as derived from gravity. Publ. Netherlands Geodetic Commission, Delft, p. 1-23.

(online at: https://www.ncgeo.nl/downloads/08DeVos.pdf)
(Calculations on gravity measurements by Vening Meinesz suggest irregularities in vertical gravity deflections and shape of geoid in E Indonesia. No discussion of geologic implications)

De Waele, B., P. Williams & G. Chan (2009)- Tectonic controls on the distribution of large copper and gold deposits in Southeast Asia to identify productive and non-productive structures. In: P.J. Williams et al. (eds.) Proc. 10th Biennual SGA Meeting, Smart science for exploration and mining, Townsville 2009, p. 933-935.
(Extended abstract) (On distribution of porphyry copper and epithermal gold deposits in SE Asia region and plate-tectonic controls)

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(online at: http://onlinelibrary.wiley.com/doi/10.1029/2012GC004417/pdf)
(Seismic shear wave splitting indicates direction of mantle flow. Deformational features across Indonesian region: (1) block rotation history of Borneo reflected in coast-parallel fast directions; (2) mantle flow patterns in Sulawesi and Banda region: toroidal flow around Celebes Sea slab, oblique corner flow in Banda wedge, and sub-slab mantle flow around arcuate Banda slab; (3) evidence for deep, sub-520 km anisotropy at Java subduction zone; (4) Sumatran backarc trench-perpendicular fast orientations (mantle flow beneath overriding Eurasian plate?))

Durbaum, H.J. & K. Hinz (1984)- SEATAR-related geophysical studies by BGR in the Southwest Pacific. In: S.T. Watson (ed.) Transactions Third Circum-Pacific Energy and Mineral Resources Conference, Honolulu 1982, American Assoc. Petroleum Geol. (AAPG), p. 129-133.
(Brief summary of results of German BGR 1977-1981 geophysical surveys in Sulu Sea, Makassar Straits, Arafura Sea, Wharton Basin and Coral Sea. No clear seismic evidence of seafloor spreading in Makassar Straits)

Earle, W. (1845)- On the physical structure and arrangement of the islands of the Indian Archipelago. J. Royal Geographic Soc. London 15, p. 358-365.
(online at: https://ia601700.us.archive.org/35/items/jstor-1797916/1797916.pdf)
(Early depiction of major structural elements elements of Indonesian archipelago: two continental blocks ('Great Asiatic Bank' in W and 'Great Australian Bank' in SE, surrounded by mountain and volcanic ranges)

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(online at: https://edepot.wur.nl/201177)
(‘Excepts from introductory lectures on “Soil Scence of the Netherlands Indies”, part 1- Ash soils’. About soils in fresh volcanic material around active volcanoes (mainly Merapi, Kelud and Semeru volcanoes on Java))

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(online at: https://edepot.wur.nl/205646)

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('The Sunda-Expedition of the Frankfurt Geographic Society, etc'. Report of 1910 geographic expedition led by Johannes Elbert to Bali, Lombok, Salayer, Tukang Besi, Muna, Buton, Rubia, Mengkoda, and parts of Java and

Sumatra. Main purpose of expedition was to explore geographic relationship between Asia and Australia. Rel. little geology)

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(online at: http://digital.staatsbibliothek-berlin.de/werkansicht?PPN=PPN683554255&PHYSID=PHYS_0009&DMDID=DMDLOG_0001)
(Volume 2 of 'The Sunda-Expedition of the Frankfurt Geographic Society in 1910, etc.'. Covers islands Kabaena, Sumbawa, Flores and Wetar and geographic summaries)

Elbert, J. (1913)- Geosynklinale und Rahmenfaltung, Zerrungsgebirge und Vulkanismus im australasiatischen Archipel. Zeitschrift Gesellschaft Erdkunde Berlin, 1913, p. 224-230.
(online at: www.digizeitschriften.de/download/PPN391365657_1913/PPN391365657_1913___LOG_0060.pdf)
(Brief, early discussion of tectonics of Indonesian archipelago. No figures)

England, P., R. Engdahl & W. Thatcher (2004)- Systematic variation in the depths of slabs beneath arc volcanoes. Geophysical J. International 156, 2, p. 377-408.
(Depth to top subducting slab below Java volcanoes ~100km. Worldwide ranges 65-130 km. Inverse correlation between depth and descent speed of subducting plate. No correlation with age of subducting ocean floor or thermal parameters of slab)

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(online at: www.pnas.org/content/94/18/9532.full.pdf)
(Preservation of ultrahigh-pressure (UHP) minerals formed at depths of 90-125 km require unusual conditions. Our subduction model involves (1) underflow of continental crust embedded in cold, largely oceanic crust-capped lithosphere, (2) loss of leading portions of high-density oceanic lithosphere by slab break-off as increasing volumes of microcontinental material enter subduction zone, (3) buoyancy-driven return to mid-crustal levels of thin (2-15 km thick), low-density slice, (4) uplift, backfolding, normal faulting and exposure of UHP terrane. Intracratonal position of most UHP complexes reflects consumption of intervening ocean basin and introduction of sialic promontory into subduction zone. UHP metamorphic terranes consist chiefly of transformed continental crust (otherwise could not return to shallow depths). UHP paragneisses contain crustal diamonds. Banda Arc used as example)

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(online at: https://dwc.knaw.nl/DL/publications/PU00016465.pdf)
(Pre-plate tectonics paper exploring the apparent relationships between belts of active volcanoes, dipping zone of earthquakes and zone of negative gravity anomalies as recently identified by Vening Meinesz (early recognition of what became known in 1960's as Benioff-Wadati subduction zones; JTvG))

Escher, B.G. (1933)- Over het indirecte verband tusschen het vulkanisme in Ned.-Indie en de strook van negatieve anomalie van Vening Meinesz. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2), 50, 5, p. 727-740.
('On the indirect relationship between volcanism and Vening Meinesz' belt of negative gravity anomalies in E Indies'. (Escher supported Vening Meinesz' idea of significant horizontal movements of crust in the Indonesian region, a view disputed by Van Bemmelen (1933 and many other papers))

Escher, B.G., I.M. van der Vlerk, J.H.F. Umbgrove & P.H. Kuenen (eds.) (1931)- De palaeontologie en stratigraphie van Nederlandsch Oost-Indie, Leidsche Geologische Mededelingen 5 ('Feestbundel Prof. Dr. K. Martin'), 1, p. 1-648.
(online at: https://resolver.kb.nl/resolve?urn=MMKB24:062596000:pdf)
('The paleontology and stratigraphy of Netherlands East Indies'. Commerative volume at 80st birthday of Prof. Dr. K. Martin. Voluminous book with 20 chapters summarizing 'state of knowledge' of paleontology and stratigraphy in Netherlands East Indies. With listings of species and fossil localities and stratigraphic tables. No illustrations of fossils)

Evans, C.D., C.P. Brett, J.W.C. James & R. Holmes (1995)- Shallow seismic reflection profiles from the waters of east and southeast Asia: an interpretation manual and atlas. British Geological Survey (BGS) Overseas Division, Technical Report WC/94/60, p. 1-94.
(Includes shallow sparker profiles in Indonesia, illustrating Neotectonics of Lampung Bay (faults cutting Pleistocene sediments), Neotectonics and diapyrism off N Madura (Neogene-Recent compressional anticline, a diapyric structure and possible gas chimneys) and Seabed erosion of Sunda Shelf W of Kalimantan (incl. 20m deep/ 600m wide buried lowstand channels)

Fabian, T., J.M. Whittaker & D. Muller (2010)- Mapping Tertiary mid-ocean ridge subduction and slab window formation beneath Sundaland using seismic tomography. ASEG 2010 Conf., Sydney, Australia, Extended Abstracts, p. 1-4.
(online at: https://www.tandfonline.com/doi/abs/10.1081/22020586.2010.12041871)
(Slab windows form between diverging plates when mid-ocean spreading ridge is subducted. Seismic tomography shows break in high-velocity, downgoing Indian-Australian slab under Sundaland, at depths 950-1350km and longitudes 85°- 110°, supporting presence of slab window. Located ~5° further N and 10°-15° further W than previously proposed, implying Wharton Ridge subducted farther W than previously suggested)

Fairhead, J.D., I. Somerton & G. Gifford (2004)- A new global satellite gravity dataset for screening and evaluating offshore basins in S.E. Asia. In: R.A. Noble et al. (eds.) Proc. Deepwater and frontier exploration in Asia & Australia Symposium, Jakarta, Indonesian Petroleum Association (IPA), DFE04-PO-006, p. 1-7.
(New GETECH processing method ERS-1 and GEOSAT satellite gravity recovers gravity anomalies with wavelengths down to 10 km)

Fainstein, R. (1998)- Deep water exploration off Southeast Asia. Proc. Offshore South East Asia Conference Exhibition (OSEA98), Singapore, SEAPEX, p. 272. *(Abstract only)*

Fitch, T.J. (1970)- Earthquake mechanisms and island arc tectonics in the Indonesian-Philippine region. Bull. Seismological Society of America 60, 2, p. 565-591.
(One of first papers applying plate tectonics concepts to Indonesia. New focal mechanisms from shallow-focus earthquakes in Indonesian-Philippine region suggest dominant thrust and normal faulting rather than strike-slip faulting. Along Sunda and Philippine arcs most activity between ocean trench and line of active volcanoes. Mechanism solutions from earthquakes in this zone all thrust type (underthrusting beneath island arc))

Fitch, T.J. (1972)- Plate convergence, transcurrent faults and internal deformation adjacent to southeast Asia and western Pacific. J. of Geophysical Research 77, p. 4432-4460.
(Earthquake data used to delineate convergence and transcurrent fault zones in Indonesia. Weber Deep erroneously interpreted as NE continuation of Java-Banda Trench in earlier Fitch papers . See also comment by Audley-Charles and Milsom 1974)

Fitch, T.J. & W. Hamilton (1974)- Reply to Audley-Charles and Milsom comments on Fitch 1972 paper. J. of Geophysical Research 79, 32, p. 4982-4985.
(Authors agree with Audley-Charles and Milsom that Timor is product of collision of Banda island-arc system with continental shelf of Australia and New Guinea. Advancing arc has ramped up onto shelf, bulldozing shelf strata and incorporating them into imbricated and melanged material riding at front of arc. Timor trough, like

Java trench with which it is continuous to W, is angle between gently dipping undersliding southern continental crustal plate and wedge of shuffled material above it to N)

Fitch, T.J. & P. Molnar (1970)- Focal mechanisms along inclined earthquake zones in the Indonesia- Philippine region. J. of Geophysical Research 75, p. 1431-1444.
(28 new focal mechanisms for intermediate and deep-focus earthquakes in Indonesia-Philippine region. At intermediate depths of Sunda and Philippine arcs descending slab of lithosphere is under extension. Deep-focus mechanisms beneath Sunda arc suggest descending slab is under compression at great depth. In Banda Sea and N Celebes regions seismicity indicates possible contortions in underthrust slabs)

Fletcher, G.L. & R.A. Soeparjadi (1976)- Indonesia's Tertiary basins- the land of plenty. Proc. SEAPEX 1976, Offshore South East Asia Conference, Singapore, Paper 8, p. 1-54.
(Good overview of geology and hydrocarbon plays in Indonesian Tertiary basins)

Ford, R.J. (1988)- An empirical model for the Australasian tektite field. Australian J. Earth Sciences 35, p. 483-490.
(Australasian strewn-field contains radial sequence of tektite shapes ranging from rel. large unmodified impactite (Muong Nong type in S Laos, E Thailand), through dumb-bells and discs (thailandites, indochinites; 400-1000 km from impact site), and spheres (phillipinites, billitonites, javanites; 1000-3000 km from impact) to ablated button shapes (australites). Shapes of tektites from mainland SE Asia derived from uncongealed spinning glassy fragments passing through atmosphere. Sequence extends from suspected impact area in NE Cambodia to SE, to SE Australia and Tasmania)

Fortuin, A.R. & M.E.M. de Smet (1991)- Rates and magnitudes of Late Cenozoic vertical movements in the Indonesian Banda Arc and the distinction of eustatic effects. In: D.I.M. MacDonald (ed.) Sedimentation, tectonics and eustasy: sea level changes at active margins, Int. Association of Sedimentologists (IAS), Special Publ. 12, p. 79-89.

Fraser, A.J., S.J. Matthews & R.W.Murphy (eds.) (1997)- Petroleum geology of SE Asia. Geological Society, London, Special Publ. 126, p. 1-427.
(Good collection of papers on SE Asia tectonics, basins and hydrocarbon plays)

Fugro-Robertson (2008)- Exploration opportunity screening: Eastern Indonesia-Papua New Guinea. Multi-client study, vol. I: Text; vol. II: Enclosures. *(Unpublished)*

Gage, M.S. & R.S. Wing (1980)- Southeast Asian basin-types versus oil opportunities. Proc. 9th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 124-147.
(Genetic classification of 63 SE Asia basins. Over 35 billion bbl oil found, another 35 remains to be found. Four of 11 recognized basin types contain 84% of all SE Asian oil: ocean margin, backarc, wrench and suture-related basins)

Gaina, C. & D. Muller (2007)- Cenozoic tectonic and depth/age evolution of the Indonesian gateway and associated back-arc basins. Earth-Science Reviews 83, p. 177-203. *(online at: https://www.researchgate.net/publication/222299118_Cenozoic_tectonic_and_depthage_evolution_of_the_Indonesian_gateway_and_associated_back-arc_basins)*
(Reconstruction of tectonics and depth history of Indonesian seaway and associated SE Asian back-arc basins. All marginal seas N of Australia formed in back-arc setting, with Caroline (37-24 Ma) and Celebes Seas (48-35 Ma) opening N of N- dipping subduction zone, and Solomon Sea (42-33 Ma) S of S- dipping subduction. Several major tectonic events N of Australia at ~45 Ma, related to relocation of subduction zone NW of Australia under Philippine Sea plate due to collision and accretion of old Pacific plate material to N-subducting Australian plate. Negative anomalous depth of several back-arc basins is ~650-800m (range 300-1100m), accompanied by negative regional heatflow anomalies, suggesting mantle-driven dynamic topography. Tomography shows marginal basins with negative dynamic topography underlain by massive buried slab material, suggesting negative dynamic topography and heatflow anomalies due to basin formation above slab burial grounds)

Gao, J., Y. Yu, W. Song, S.S. Gao & K.H. Liu (2020)- Crustal modifications beneath the central Sunda plate associated with the Indo-Australian subduction and the evolution of the South China Sea. Physics Earth Planetary Interiors 306, 1065, p. 1-9.
(online at: https://web.mst.edu/sgao/publications/pdfs/103.pdf)
(Significant heterogeneities in crustal thickness and structure beneath central Sunda plate of SE Asia from seismic velocity dist ributions. Crustal thickening at NE Borneo, probably due to underthrust of Nansha block since S-ward Proto-SCS subduction. Sibumasu terrane crust at least 3 km thinner than East Malay block, possibly induced by joint effects of Cenozoic rifting and thermal anomaly, Etc.)

Gao, Y., Y. Wang, C.K. Morley, Y. Wang, X. Qian & Y. Wang (2024)- Cenozoic thermal-tectonic evolution of Sundaland: constraints from low-temperature thermochronology. Earth-Science Reviews 254, 104812, p.
(Cenozoic exhumation history of Sundaland based on existing low-T thermochronologic data and new apatite and zircon fission track ages from S Vietnam and Borneo. Early Cenozoic regional transpression controlled widespread Paleogene exhumation due to early oblique collision. Local exhumation of lower crustal units, young granite plutons during Oligocene-Miocene driven by rifting, block lateral extrusion, structural inversion, and buoyant doming. Borneo experienced diachronous exhumation likely due to subduction of Proto-South China Sea, collision with Australian terrane(s) and dynamic support from mantle. Etc.)

Garwin, S.L. (1997)- The settings and styles of gold mineralisation in Southeast Asia. Bull. Geological Society Malaysia 40, p. 77-111.
(online at: https://gsm.org.my/wp-content/uploads/gsm_file_2/702001-100886-PDF.pdf
(Majority of gold in SE Asia in porphyry (64%), low-sulfidation epithermal (17%), carbonate-base metal-gold (7%) and skarn (4%) deposits. 90% of these deposits (>95% of gold) associated with 14 middle to late Cenozoic magmatic arcs)

Garwin, S., R. Hall & Y. Watanabe (2005)- Tectonic setting, geology and gold and copper mineralization in Cenozoic magmatic arcs of Southeast Asia and the West Pacific. Economic Geology 100, p. 891-930.
(online at: http://searg.rhul.ac.uk/pubs/garwin_et_al_2005%20Au-Cu%20Cenozoic%20magmatic%20arcs%20SE%20Asia-West%20Pacific_hires.pdf)
(Gold and copper deposits in SE Asia and W Pacific largely in M-L Cenozoic (25-1 Ma) magmatic arcs. Twenty major arcs and several less extensive Cenozoic arcs form complex border to Sundaland core and N margin of Australian continent. Three major plate reorganizations at ~45, 25 and 5 Ma, characterized by collisional events that changed plate boundaries and motions. Most deposits developed during episodes of plate reorganization. Hydrothermal systems active for durations of <100,000 years)

Garwin, S., R. Hall & Y. Watanabe (2005)- Descriptions of the geologic settings and mineral deposit styles for major Cenozoic magmatic arcs of Southeast Asia and the West Pacific. Appendix I of Garwin, S., R. Hall & Y. Watanabe (2005), Economic Geology 100, p. 1-32.
(Descriptions of major Cenozoic volcanic arcs and associated mineral deposits from Japan through Philippines to Indonesia/ New Guinea)

Genrich, J.F., Y. Bock, R. McCaffrey, E. Calais, C.W. Stevens & C. Subarya (1996)- Accretion of the southern Banda Arc to the Australian plate margin determined by global positioning system measurements. Tectonics 15, 2, p. 288-295.
(GPS measurements show Australian continent has accreted to Banda arc. Timor Trough now mostly inactive. Most of Australia- Eurasia convergence appears to occur as N-ward translation of Banda Arc, with shortening on Flores and Wetar thrusts)

Geological Agency/ Badan Geologi (2022)- Peta Cekungan sedimen Indonesia, 1:5000,000. Ministry of Energy and Mineral Resources, Geological Survey of Indonesia, Bandung.
(online at: https://geologi.esdm.go.id/geolindo/cekungan) (print version online at: https://www.esdm.go.id/assets/media/content/content-peta-cekungan-sedimen-indonesia-2022.pdf)

('Sedimentary basin map of Indonesia'. Latest (2202) edition of 2009, 2020, etc. map of Indonesian sedimentary basins, color-coded by age and labeled by basin type)

Geological Survey of Indonesia (2008)- Gravity anomaly map of Indonesia, 1: 1,000,000.

Geological Survey of Japan (2004)- Digital geologic map of East and Southeast Asia, 1: 2,000,000, 2nd ed. Digital Geoscience Map Series G-2, CD-ROM.

Ghose, R. & K. Oike (1988)- Characteristics of seismicity distribution along the Sunda Arc: some new observations. Bull. Disaster Prevention Research Institute, Kyoto University, 38, 2, p. 29-48.
(online at: https://repository.kulib.kyoto-u.ac.jp/items/754781b2-1bc6-4fcd-945b-736a6fd70457)
(Depth distribution of earthquakes revealed zone of rare seismicity at intermediate depth in eastern Sunda arc)

Ghose, R., S. Yoshioka & K. Oike (1990)- Three-dimensional numerical simulation of the subduction dynamics in the Sunda arc region, Southeast Asia. Tectonophysics 181, p. 223-255.

Gingele, F.X., P. De Deckker & C.D. Hillenbrand (2001)- Clay mineral distribution in surface sediments between Indonesia and NW Australia- source and transport by ocean currents. Marine Geology 179, p. 135-146.

Gough, A. (2022)- Sweating the small stuff! How large datasets can help develop regional palaeogeographies around SE Asia. Proc. SEAPEX-PESGB Asia Pacific E&P Conference, London 2022, p. 1-29. *(Abstract + Presentation))*
(Overview of large amount of SE Asia geological data collected during 40 years of fieldwork and other data compilation by members of the SE Asia Research Group at Royal Holloway, University of London (since then moved to Edinburgh))

Gough, A. & M. Webb (2024)- Cenozoic palaeogeographies of Sundaland: Unveiling the dynamics from mountain uplifts to peneplanation. Proc. GESGB-SEAPEX Asia Pacific Conference, Exploring Asia Pacific's Energy Future, London 2024, Abstract + 28p. powerpoint presentation)
(Summary of SE Asia Research Group (SEARG) provenance work in Sumatra, Natuna, etc.. SE Asia unusually high sediment yields during Cenozoic)

Granath, J.W., J. Christ, D. Fairhead & W. Dickson (2001)- Tertiary tectonic compilation in a GIS for Indonesia. Proc. 28th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 345-351.
(E Indonesia tectonic blocks in GIS format)

Green, R., J.S. Adkins, H.J. Harrington & M. Untung (1979)- Bouguer gravity anomaly map of Indonesia. University of New England, Armidale, Australia.

Green, R., J.S. Adkins, H.J. Harrington & M. Untung (1981)- Bouguer gravity map of Indonesia. Tectonophysics 71, p. 267-280.
(Summary of 1:5M map; map not included)

Grevemeyer, I. & V.M. Tiwari (2006)- Overriding plate controls spatial distribution of megathrust earthquakes in the Sunda-Andaman subduction zone. Earth Planetary Science Letters 251, p. 199-208.
(Thermal models and structural constraints derived from seismic and gravity data used to explain seismogenic behaviour in Sunda subduction zone. With respect to Java, oblique subduction of young oceanic crust shifts seismogenic coupling zone roughly 40 km trenchward offshore of N Sumatra and increases width of locked megathrust. Prominent positive gravity anomaly offshore Java caused by shallow mantle wedge underlying forearc basin. Serpentinized mantle wedge would limit width of coupling zone to 30-40 km, compared to N120 km off Sumatra. Sumatra remains therefore most vulnerable for future megathrust earthquakes, while shallow mantle wedge may limit violence of rupture off Java)

Gribi, E.A. (1973)- Tectonics and oil prospects of the Moluccas, Eastern Indonesia.In: B.K. Tan (ed.) Proc. Regional Conference on the Geology of SE Asia, Kuala Lumpur 1972, Bull. Geological Society Malaysia 6, p. 11-16.
(online at: www.gsm.org.my/products/702001-101357-PDF.pdf)
(Early brief review of tectonics and oil prospectivity of E Indonesia)

Gribi, E.A. (1974)- Petroleum geology of the Moluccas, Eastern Indonesia. Proc. SEAPEX 1973 Conf., Singapore, 1, p. 23-30.
(Older, brief overview of potential hydrocarbon plays in E Indonesia (mainly Ceram))

Griffiths, J.R. & C.F. Burrett (1973)- Were South-East Asia and Indonesia parts of Gondwanaland? Nature Physical Science 245, p. 92-93.
(Brief comments on recent Ridd et al. (1971) and Audley-Charles (1972) SE Asia plate reconstructions, in which India was placed adjacent to W Australia and against Antarctica)

Grunau, H.R. (1965)- Radiolarian cherts and associated rocks in space and time. Eclogae Geologicae Helvetiae 58, p. 157-206.
(online at: https://www.e-periodica.ch/digbib/view?pid=egh-001:1965:58#3)
(Review of radiolarian cherts worldwide, incl. descriptions of ?Jurassic Danau Fm and Cretaceous Lupar Fm of Borneo, and similar rocks from Sumatra, Triassic and Cretaceous of Seram, Cretaceous of Timor, Jurassic-Cretaceous of E Sulawesi and Triassic of Malay Peninsula. Radiolarian cherts typical deep water 'geosynclinal' deposits (mainly Tethys eugeosyncline), typically intensely folded and associated with turbidites and ophiolites. As already concluded by Molengraaff (1909) these are remnants of former ocean basins)

Guntoro, A. (1995)- Tectonic evolution and crustal structure of the Central Indonesian region from geology, gravity and other geophysical data. Ph.D. Thesis University College London (UCL), p. 1-335.
(online at: https://discovery.ucl.ac.uk/id/eprint/10101581/1/Tectonic_evolution_and_crustal.pdf)
(Central Indonesian Region (CIR) represents transition between mainly Eurasian elements of W Indonesia and Pacific-Australian elements of E Indonesia. Bounded by two subduction zones: in W by pre-Tertiary subduction zone at SE Sundaland margin, to E by Early Tertiary subduction zone (Selayar-Bonerate ridge). Variations in gravity demonstrate that continental crust in CIR was attenuated by subduction roll-back and then subjected to rifting by extensional forces. Extension in Makassar Strait, C Java Sea and E Java Sea in Eocene, forming marginal basins. Bone Bay opened due to collision between Banggai- Sula microcontinent and Sulawesi in M Miocene and was followed by CW rotation of Java, Sumbawa and Flores, which caused opening of Flores Sea (thesis supervised by J. Milsom))

Guntoro, A. (1999)- A new propose of geological division in the Indonesian archipelago from tectonic evolution point of view. In: H. Darman & F.H. Sidi (eds.) Tectonics and sedimentation of Indonesia, FOSI-IAGI-ITB Regional Seminar to commemorate 50th anniversary of Van Bemmelen's Geology of Indonesia, Bandung 1999, p. 20-21. *(Extended Abstract)*
(Indonesian archipelago often divided into E and W parts, with boundary in Makassar Straits and Lombok Strait. New subdivision introducing C Indonesia Province, transition between Eurasian W Indonesia and Pacific-Australasian related elements of E Indonesia. Boundary between W and C Indonesian regions is Pre-Tertiary subduction zone at SE Eurasian margin. Boundary between C and E Indonesia at Paleogene subduction complex accreted to this margin, marked by Selayar-Bonerate Ridge, separating Flores and Banda Seas. C Indonesian region Cretaceous- Eocene site of complex subduction, fore arcs and magmatic arcs and subsequent opening of Makassar Strait)

Guzman-Speziale, M. (2024)- Oblique plate convergence along arcuate trenches on a spherical Earth. An example from the Western Sunda Arc. Acta Geophysica 72, p. 7-27.
(online at: https://link.springer.com/article/10.1007/s11600-023-01163-9)
(Eight arc-like segments along W Sunda arc-trench system. Obliquity angles vary from 92° in N-most (Burmese) arc to 7° offshore Sunda strait between Sumatra and Java. Angle of obliquity offshore Sumatra 31°)

Hafkenscheid, E. (2004)- Subduction of the Tethys oceans reconstructed from plate kinematics and mantle tomography. Ph.D. Thesis University of Utrecht, Geologica Ultraiectina 241, p. 1-191.
(online at: http://dspace.library.uu.nl/handle/1874/591)
(On large-scale history of subduction win Tethyan region from Mediterranean to Indonesian archipelago by combining plate tectonic reconstructions with independent seismic tomography results. Plate tectonic reconstructions of Tethyan region generally agree on first-order motions. E Tethyan region characterised by active subduction of various oceanic basins. Subduction zones modelsfrom regional tectonic reconstructions, converted into seismic velocity anomalies, which are compared to tomographic images of mantle structure)

Hafkenscheid, E., S.J.H. Buiter, M.J.R. Wortel, W. Spakman & H. Bijwaard (2001)- Modelling the seismic velocity structure beneath Indonesia: a comparison with tomography. Tectonophysics 333, p. 35-46.
(Generally good agreement between modeled tomography velocity structure and Rangin (1999) and Lee & Lawver (1995) plate reconstructions)

Hafkenscheid, E., M.J.R. Wortel & W. Spakman (2006)- Subduction history of the Tethyan region derived from seismic tomography and tectonic reconstructions. J. of Geophysical Research 111, B08401, p. 1-26.
(Seismic tomography interpretation, mainly on Western Tethys)

Haile, N.S. (1973)- The recognition of former subduction zones in Southeast Asia. In: D.H. Tarling & S.K. Runcorn (eds.) Implications of continental drift to the earth sciences, vol. 2, Academic Press, London, p. 885-892.
(Early paper on plate tectonics application in SE Asia, focused around West Borneo- Malay Peninsula area)

Haile, N.S. (1976)- The regional implications of paleomagnetic research in Southeast Asia. Proc. SE Asia Petroleum Exploration Society (SEAPEX) Conference 3, Singapore, p. 39-44.
(Review of recent paleomagnetic work in SE Asia. Cretaceous rocks from W Kalimantan suggest this part of Borneo lay on equator, as Malay Peninsula with which it formed part of single plate, which subsequently rotated ~45°. Late Mesozoic radiolarian cherts from SW arm of Sulawesi also indicate low latitudes and CCW rotation of 35°. At W end of Seram late Cenozoic Kelang Fm rotated probably anticlockwise ~80°. Triassic rocks from S C Seram high magnetic inclination, indicating origin in higher latitudes (~26°) than today (see also Haile 1978, 1981))

Haile, N.S. (1978)- Progress report on paleomagnetic research in Southeast Asia. In: Wiryosujono & A. Sudradjat (eds.) Proc. 2nd Regional Conference Geology and Mineral Resources of SE Asia (GEOSEA), Jakarta 1975, Indonesian Association Geologists (IAGI), p. 33-36.
(online at: https://www.iagi.or.id/web/digital/32/PIT-IAGI-1975-Paper-4.pdf)
(New paleomagnetic research suggests Malay Peninsula moved S ~15° and rotated ~31° clockwise (CW) since Late Paleozoic. Malay Peninsula and West Kalimantan rotated together by ~40° CCW since Cretaceous, similar to SW Sulawesi)

Haile, N.S. (1981)- Paleomagnetism of Southeast and East Asia. In: M.W. McElhinny & D.A. Valencio (eds.) Paleoreconstruction of the continents, American Geophysical Union (AGU), Geodynamics Series 2, p. 129-135.
(Summary of paleomagnetic results from Borneo, Sumatra (40° CW rotation since Mesozoic, 34° of which accomplished since Oligocene), Sulawesi, Sumatra, Sumba, Timor, Seram (Seram at 12°S in Late Triassic, rotated CCW 98° since then). Late Mesozoic of W Kalimantan and SW Sulawesi little change from present latitude, but 49° and 33° CCW rotation)

Haile, N.S. (1981)- Paleomagnetic evidence and paleotectonic history and paleogeography of eastern Indonesia. In: A.J. Barber & S. Wiryosujono (eds.) The geology and tectonics of Eastern Indonesia, Proc. CCOP-IOC SEATAR Working Group Meeting, Bandung 1979, Geological Research Development Centre (GRDC), Bandung, Special Publ. 2, p. 81-87.
(Seram 74° anticlockwise rotation since Late Miocene. Timor Permian Cribas Fm higher paleolatitude (34°) than Maubisse Fm (27°), but within margin of error. SW Sulawesi E Cretaceous radiolarian chert formed at ~3° and,

together with Kalimantan and Malay Peninsula, may have rotated 30-40° anticlockwise since Jurassic. Similar cherts from E arm of Sulawesi formed at 42°S)

Haile, N.S. & J.C. Briden (1983)- Past and future paleomagnetic research and tectonic history of East and Southeast Asia. In: J.C. Briden (ed.) Proc. CCOP Workshop Paleomagnetic Research in E and SE Asia, Kuala Lumpur 1982, p. 25-46.

Hall, R. (1990)- Subduction-related ophiolite terrains: evidence from Southeast Asia. In: J. Malpas et al. (eds.) Ophiolites: oceanic crustal analogues, Geological Survey Cyprus, 1987, p. 449-460.

Hall, R. (1995)- Plate tectonic reconstructions of the Indonesian region. Proc. 24th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 71-84.
(online at: http://searg.rhul.ac.uk/pubs/hall_1995_IPA%20reconstructions.pdf)
(Early version of R. Hall SE Asia plate reconstructions series, Eocene (50 Ma) - Recent)

Hall, R. (1996)- Reconstructing Cenozoic SE Asia. In: R. Hall & D. Blundell (eds.) Tectonic evolution of Southeast Asia, Geological Society, London, Special Publ. 106, p. 153-184.
(online at: http://searg.rhul.ac.uk/pubs/hall_1996%20Reconstructing%20Cenozoic%20SE%20Asia.pdf)
(Major review of plate reconstructions of SE Asia at 5 Ma intervals for past 50 Ma)

Hall, R. (1997)- Cenozoic plate tectonic reconstructions of SE Asia. In: A.J. Fraser et al. (eds.) Petroleum geology of Southeast Asia, Geological Society, London, Special Publ. 126, p. 11-23.
(online at: http://searg.rhul.ac.uk/searg_uploads/2016/04/2.pdf)

Hall, R. (1997)- Cenozoic tectonics of SE Asia and Australasia. In: J.V.C. Howes & R.A. Noble (eds.) Petroleum systems of SE Asia and Australasia, Indonesian Petroleum Association (IPA), Jakarta, p. 47-62.

Hall, R. (1998)- The plate tectonics of Cenozoic SE Asia and the distribution of land and sea. In: R. Hall & J.D. Holloway (eds.) Biogeography and geological evolution of SE Asia, Backhuys Publishers, Leiden, p. 99-131.
(SE Asia plate reconstructions 50 Ma-Recent)

Hall, R. (1998)- Cenozoic tectonics of South East Asia: myths, models and methods; reconstructions, implications and speculations. Proc. Offshore South East Asia Conference Exhibition (OSEA98), Singapore, SEAPEX, p. 69-72.
(Brief review of issues in SE Asia tectonic models. Three important periods in regional development: ~45 Ma, 25 Ma and 5 Ma, when plate boundaries and motions changed, probably due to major collision events. Little indication that India was driving force of tectonics in SE Asia. Principal 'myths': myth of India indentor, myth of Australian micro-continent collision events and myth of convergence in New Guinea. No figures)

Hall, R. (2001)- Extension during Late Neogene collision in East Indonesia and New Guinea. J. Virtual Explorer 4, p. 1-13.
(Important plate motion changes in SE Asia- W Pacific region at ~45 Ma, 25 Ma and 5 Ma. Australia and SE Asia made contact at ~25 Ma, with collision-related deformation in Sulawesi and between Philippines-Halmahera- S Caroline Arc and New Guinea. Ophiolites obducted in SE Sulawesi in E Miocene)

Hall, R. (2001)- Cenozoic reconstructions of SE Asia and the SW Pacific: changing patterns of land and sea. In: I. Metcalfe et al. (eds.) Faunal and floral migrations and evolution in SE Asia-Australasia. Balkema, Lisse, p. 35-56.

Hall, R. (2002)- Cenozoic geological and plate tectonic evolution of SE Asia and the SW Pacific: computer-based reconstructions, model and animations. J. Asian Earth Sciences 20, 4, p. 353-431.
(online at: http://searg.rhul.ac.uk/searg_uploads/2016/01/Hall_2002_JAES1-1.pdf)
Most comprehensive of R. Hall papers on SE Asia- SW Pacific plate reconstructions from Early Eocene (55 Ma) - Recent. See also updated/ expanded version of Hall (2012))

Hall, R. (2008)- Continental growth at the Indonesian margins of SE Asia. In: J.E. Spencer & S.R. Titley (eds.) Ores and orogenesis: Circum-Pacific tectonics, geologic evolution and ore deposits, Arizona Geological Society Digest 22, p. 245-258.
(Indonesia continental core reassembled from blocks rifted from Gondwana, and surrounded by subduction zones for much of Mesozoic and Cenozoic. Weak and thin lithosphere beneath much of Sundaland, responsive to changing forces at the plate boundaries. Continental growth mainly by arrival of continental fragments at subduction margins, with subordinate contributions from ophiolite and sediment accretion or arc magmatism)

Hall, R. (2009)- Southeast Asia's changing palaeogeography. Blumea- biodiversity, evolution and biogeography of plants 54, 1-3, p. 148-161.
(online at: http://www.ingentaconnect.com/content/nhn/blumea/2009/00000054/f0030001/art00026#)
(SE Asia grew incrementally by addition of continental fragments, mainly rifted from Australia, and added to margins of Sundaland as result of subduction. Sundaland almost permanent land area from beginning of Mesozoic. Addition of continental fragments of SW Borneo and later East Java-W Sulawesi formed larger emergent land area by Late Cretaceous. Subduction resumed at Sundaland margin in Eocene, leading to widespread rifting within Sundaland and formation of Makassar Straits. Australia began to collide with SE Asia at ~25 Ma, effectively closing former deep ocean between two continents)

Hall, R. (2009)- Hydrocarbon basins in SE Asia: understanding why they are there. Petroleum Geoscience 15, 2, p. 131-146.
(online at: http://searg.rhul.ac.uk/pubs/hall_2009_SE%20Asia%20hydrocarbon%20basins.pdf)
Almost all hydrocarbon basins in SE Asia began to form in Early Cenozoic and filled with Cenozoic sediments. Most are rifted basins formed by regional extension on continental crust. Weakness of Sundaland lithosphere, unusually responsive to changing forces at plate edges, meant that basins record complex tectonic history)

Hall, R. (2009)- The Eurasian SE Asian margin as a modern example of an accretionary orogen. In: P.A. Cawood & A. Kroner (eds.) Earth accretionary systems in space and time, Geological Society, London, Special Publ. 318, p. 351-372.
(online at: http://searg.rhul.ac.uk/pubs/hall_2009_SE_Asia%20accretionary_orogen.pdf)
https://www.semanticscholar.org/paper/The-Eurasian-SE-Asian-margin-as-a-modern-example-of-Hall/31cc79d9ba49467fd9e40646061dcdf6d4a49ba0
(Eurasian margin in SE Asia surrounds Sundaland continental core. Continental growth since Cretaceous in episodic way, related primarily to arrival of continental fragments at subduction margins, after which subduction resumed in new locations. There have been subordinate contributions from ophiolite accretion, and arc magmatism. Relatively small amounts of material accreted during subduction from downgoing plate. In E Indonesia the wide plate boundary zone includes continental fragments and several arcs. (This paper is first of several versions showing Early Cretaceous age of addition of SW Borneo Block to Sundaland and Late Cretaceous addition of E Java- W Sulawesi accreted block outboard of Meratus- C Java trend))

Hall, R. (2009)- Indonesia, Geology. In: R.G. Gillespie & D.A. Clague (eds.) The Encyclopedia of islands, University of California Press, p. 454-460.
(online at: http://searg.rhul.ac.uk/pubs/hall_2009_Indonesia%20Islands.pdf)
(Brief review of geology of Indonesia)

Hall, R. (2011)- Australia-SE Asia collision: plate tectonics and crustal flow. In: R. Hall, M.A. Cottam & M.E.J. Wilson (eds.) The SE Asian gateway: history and tectonics of the Australia-Asia collision, Geological Society, London, Special Publ. 355, p. 75-109.
(online at: http://searg.rhul.ac.uk/pubs/hall_2011%20crustal%20flow%20SE%20Asia.pdf)
(Jurassic- Recent Indonesia tectonic reconstruction. Sundaland core of SE Asia is heterogeneous assemblage of Tethyan sutures and Gondwana fragments. Fragments that rifted from Australia in Jurassic collided with Sundaland in Cretaceous and terminated subduction. From 90-45 Ma Sundaland surrounded by inactive margins with localized strike-slip deformation, extension and subduction. At 45 Ma Australia began to move N and subduction resumed beneath Sundaland. At 23 Ma Sula Spur promontory collided with Sundaland margin. From

15 Ma subduction hinge rollback into Banda oceanic embayment, major extension, and later collision of Banda volcanic arc with S margin of embayment. Sundaland has weak thin lithosphere, highly responsive to plate boundary forces and hot weak deep crust flowed in response to tectonic and topographic forces and sedimentary loading. Gravity-driven movements of upper crust, unusually rapid vertical motions, exceptionally high rates of erosion and massive movements of sediment characterized region)

Hall, R. (2011)- SE Asian reconstructions, plate tectonics and crustal flow- any importance for hydrocarbon exploration? SEAPEX Exploration Conference, Singapore 2011, Presentation, 82p. *(Abstract and presentation)*
(Most of SE Asia not rigid plate or multiple rigid microplates bounded by lithospheric faults. Sundaland formed by collision of Sibumasu and E Malaya-Indochina in Triassic and other fragments rifted from Australia in late Jurassic- E Cretaceous were added in Cretaceous (now in Borneo, Java, Sulawesi))

Hall, R. (2012)- Late Jurassic-Cenozoic reconstructions of the Indonesian region and the Indian Ocean. Tectonophysics 570-571, p. 1-41.
(online at: www.sciencedirect.com/science/article/pii/S0040195112002533)
(Mesozoic- Cenozoic plate tectonic reconstructions. Luconia-Dangerous Ground continental block rifted from E Asia and was added to E Sundaland N of Borneo in Cretaceous. Banda (SW Borneo) and Argo (E Java- W Sulawesi) blocks separated from NW Australia and collided with SE Asia between 110- 90 Ma. At 90 Ma Woyla intra-oceanic arc collided with Sumatra margin. Subduction beneath Sundaland terminated at this time. Between 90-45 Ma Australia remained close to Antarctica and there was no significant subduction beneath Sumatra and Java, while Sundaland was surrounded by inactive margins with some strike-slip deformation and extension, except for subduction beneath Sumba- W Sulawesi between 63- 50 Ma. At 45 Ma Australia began to move N; subduction resumed beneath Indonesia and has continued to present. Cenozoic deformation influenced by deep structure of Australian fragments added to Sundaland core, shape of Australian margin formed during Jurassic rifting, and age of now-subducted ocean lithosphere)

Hall, R. (2012)- Sundaland and Wallacea: geology, plate tectonics and palaeogeography. In: D.J. Gower et al. (eds.) Biotic evolution and environmental change in Southeast Asia, The Systematics Association, Cambridge University Press, Chapter 3, p. 32-78.
(online at: http://searg.rhul.ac.uk/pubs/hall_2012%20Sundaland%20&%20Wallacea.pdf)
(Plate tectonic and paleogeographic reconstructions since 80 Ma)

Hall, R. (2012)- East Indies. In: McGraw-Hill Encyclopedia of Science and Technology, 11th Ed., 5, p. 850-853.

Hall, R. (2013)- The palaeogeography of Sundaland and Wallacea since the Late Jurassic. J. Limnology 72, 2, p. 1-17.
(online at: www.jlimnol.it/index.php/jlimnol/article/view/685)
(Asia-Pacific boundary active continental margin until M Cretaceous. Subduction ceased around Sundaland in Late Cretaceous. From ~80 Ma most of Sundaland emergent and connected to Asia. One or more India- volcanic collisions in Eocene may have preceded India-Asia collision. During Late Cretaceous- E Cenozoic no significant subduction beneath Sumatra, Java and Borneo, until ~45 Ma when Australia began to move N; also time widespread rifting within Sundaland. During Paleogene E and N Borneo largely submerged. By E Miocene proto-South China Sea had been eliminated by subduction leading to emergence of land in C Borneo, Sabah and Palawan. Microplate or terrane concept of slicing fragments from New Guinea followed by multiple collisions in Wallacea implausible. Neogene subduction drove extension and fragmentation of Wallacea)

Hall, R. (2014)- Indonesian tectonics: subduction, extension, provenance and more. Proc. 38th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA14-G-360, p. 1-13.
(online at: http://searg.rhul.ac.uk/pubs/hall_2014%20Indonesian%20tectonics.pdf)
(Mainly summary of recent Royal Holloway group research. In E Indonesia subduction zones at different stages of development, from mature examples like Banda system that began to roll back from ~16 Ma, to younger systems such as N Sulawesi. Close relationship between subduction and extension, causing both dramatic elevation of land regions with exhumation of deep crust, and spectacular subsidence of basins. Many metamorphic rocks in Indonesia proved to be younger than previously suggested (SW Borneo, N and C Sulawesi, Seram). Triassic

igneous and metamorphic rocks at W end of Schwaner region and N of Pontianak suggesting suture between Sundaland and SW Borneo further E than previously postulated)

Hall, R. (2014)- The origin of Sundaland. In: I. Basuki & A.Z. Dahlius (eds.) Sundaland Resources, Proc. Annual Conv. Indonesian Soc. Economic Geologists (MGEI), Palembang, p. 1-25.
(online at: http://searg.rhul.ac.uk/pubs/hall_2014%20Sundaland%20origin.pdf)
(Updated version of SE Asia plate tectonic reconstruction. Core of SE Asia was assembled from continental blocks that separated from Gondwana in Paleozoic and amalgamated with Asian blocks in Triassic. Some fragments rifted and separated from Asia and later re-amalgamated with western part of SE Asian continental core in Mesozoic. Fragments of Cathaysian/Asian continental crust form parts of N Borneo and offshore shelf N of Sarawak and E of Vietnam. Other continental blocks rifted from Australia in Jurassic (SW Borneo, E Java-W Sulawesi, Sabah-NW Sulawesi, S Sulawesi-Sumba) and Woyla intra-oceanic arc of Sumatra and were added to Sundaland in Cretaceous. Subduction ceased around Sundaland in early Late Cretaceous)

Hall, R. (2017)- Southeast Asia: new views of the geology of the Malay Archipelago. Annual Review Earth Planetary Sciences 45, p. 331-358.
(online at: https://www.annualreviews.org/content/journals/10.1146/annurev-earth-063016-020633)
(Recent review of SE Asia tectonics. W part of SE Asia (Sundaland) heterogeneous and weak region, not underlain by thick, cold Precambrian lithosphere like typical cratons. In E subduction zones in different stages of development. Metamorphism in many parts of E Indonesia much younger than previously assumed. Close relationship between subduction rollback and extension, causing dramatic elevation of land, exhumation of deep crust and spectacular subsidence of basins)

Hall, R. (2018)- The subduction initiation stage of the Wilson cycle. In: R.W. Wilson et al. (eds.) Fifty years of the Wilson cycle concept in plate tectonics, Geological Society, London, Special Publ. 470, p. 415-437.
(online at: https://www.lyellcollection.org/doi/full/10.1144/SP470.3)
(Discussion of initiation of subduction process, with examples from East Indonesia (Banda, Sulawesi-Philippines). Banda subduction developed by E-wards propagation of Java trench into an oceanic embayment by tearing along former ocean-continent boundary. Y*oung subduction zones near Sulawesi began at edges of ocean basins, not at former spreading centres or transforms, at point of major differences in elevation between ocean floor and adjacent hot, weak and thickened arc/continental crust. Age of the ocean crust appears unimportant. Close relationship with extension marked by dramatic elevation of land, exhumation of deep crust and spectacular subsidence of basins. Etc.)*

Hall, R. (2019)- New views of Eastern Indonesia. GeoExpro 16, 1, p. 58-62.
(online at: https://www.geoexpro.com/wp-content/uploads/2022/11/GEO_ExPro_Favourite_Geoscience_Magazine_Oil_Gas_2019_v16_i1.pdf)
(Brief review of history of geological understanding of Eastern Indonesia. Most fragmentation during Neogene now understood as result of rapid extension: first to subduction rollback into Banda Embayment, which continues today, and younger rollback-related extension related to subduction of Celebes Sea at N Sulawesi trench. Extreme extension exhumed middle and lower crust in core complexes. Rocks from base of the crust and sub-continental lithospheric mantle found in strike-slip fault zones)

Hall, R. (2019)- Plate tectonic reconstructions of SE Asia: Bacon, salami or baloney? Proc. 2019 South East Asia Petroleum Exploration Society (SEAPEX) Conference, Singapore, 2019, 1p. *(Abstract only)*

Hall, R., J. Ali, C. Anderson & G.J. Nichols (1992)- Dispersion and accretion recorded in Eastern Indonesia. Proc. First International Symposium Gondwana dispersion and Asian accretion, China 1991, IGCP Project 321, p. 133-138.

Hall, R., B. Clements & H.R. Smyth (2009)- Sundaland: basement character, structure and plate tectonic development. Proc. 33rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA09-G-134, p. 1-26.
(online at: https://www.researchgate.net/publication/268358722_Sundaland_Basement_character_structure_and_plate_tectonic_development)

(New plate reconstructions going back to 150 Ma, showing Borneo terranes separating from Australian NW shelf in Late Jurassic and colliding with Asia in Early Cretaceous)

Hall, R. & J.D. Holloway (eds.) (1998)- Biogeography and geological evolution of SE Asia. Backhuys Publishers, Leiden, p. 1-410.
(Collection of papers from 1996 conference on SE Asia tectonics and biogeography. Some papers available online at: http://searg.rhul.ac.uk/publications/papers/pdf_publications/..)

Hall, R. & C.K. Morley (2004)- Sundaland Basins. In: P. Clift, P. Wang et al. (eds.) Continent-ocean interactions within the East Asian marginal seas, American Geophysical Union (AGU), Geophysical Monograph 149, p. 55-85.
(online at: https://www.researchgate.net/publication/258699653_Sundaland_Basins)
(Continental core of Sundaland, comprising Sumatra, Java, Borneo, Thai-Malay Peninsula and Indochina, was assembled during Triassic Indosinian orogeny. Region includes extensive shallow seas, is not significantly elevated, but not stable for long time. Today surrounded by subduction and collision zones. Cenozoic deformation recorded in numerous deep sedimentary basins along highlands. Sediment fill mostly locally derived. Conventional basin modeling fails to predict heat flow, elevation, basin depths and subsidence history of Sundaland and overestimates stretching factors. Can be explained by interaction of hot upper mantle, weak lower crust, and lower crustal flow in response to changing forces at plate edges)

Hall, R. & I. Sevastjanova (2012)- Australian crust in Indonesia. Australian J. Earth Sciences 59, 6, p. 827-844.
(online at: ttps://www.researchgate.net/publication/254218249_Australian_crust_in_Indonesia)
(Core of SE Asia assembled from continental blocks that separated from Gondwana in Paleozoic and collided with Asian blocks in Triassic. Fragments of Gondwana/Cathaysia blocks rifted and separated from Asia and later re-amalgamated with SE Asian continental core. Mesozoic rifting of fragments from Australian margins followed by Cretaceous collisions. Cenozoic collision of Australia with SE Asian margin added more continental crust. Fragments of Cathaysian/Asian continental crust form parts of NW Borneo and offshore and Australian blocks underlie much of Borneo. W Sulawesi and Java rifted from Australia in Jurassic and arrived in present positions in Cretaceous. Sula Spur collided with SE Asian margin in E Miocene, then fragmented by subduction-driven extension)

Hall, R. & H.R. Smyth (2008)- Cenozoic arc processes in Indonesia: identification of the key influences on the stratigraphic record in active volcanic arcs. In: A.E. Draut et al. (eds.) Formation and applications of the sedimentary record in arc collision zones. Geological Society of America (GSA), Special Paper 436, p. 27-54.
(online at: http://searg.rhul.ac.uk/pubs/hall_smyth_2008%20Indonesia%20arc%20processes.pdf)
(Record of Cenozoic subduction volcanic activity at SE Asia margins. Stratigraphic record in Indonesian region reflects complex tectonic history, including collisions, changing plate boundaries, subduction polarity reversals, elimination of volcanic arcs and extension. Growth of region in episodic way by addition of ophiolites and continental slivers, and as result of arc magmatism)

Hall, R. & W. Spakman (2002)- Subducted slabs beneath the eastern Indonesia-Tonga region: insights from tomography. Earth Planetary Science Letters 201, 2, p. 321-336.
(Tomographic images of mantle structure N and NE of Australia show anomalously fast regions, interpreted in terms of current and former subduction systems)

Hall, R. & W. Spakman (2004)- Mantle structure and tectonic evolution of the region North and East of Australia. In: R.R. Hillis & R.D. Muller (eds.) Evolution and dynamics of the Australian Plate, Geological Society of America (GSA), Special Paper 372, p. 361-381.
(online at: http://searg.rhul.ac.uk/pubs/hall_spakman_2003%20Mantle%20structure-tectonic%20evolution%20N%20and%20E%20of%20Australia.pdf)
(Tomographic images of mantle show high seismic-velocity anomalies, interpreted as subducted slabs. Several generally flat deeper anomalies not related to present subduction. Mainly discussion of potential Tertiary subducted slabs around NE Australia-New Guinea)

Hall, R. & W. Spakman (2005)- Mantle tomography and Southeast Asian tectonics. Indonesian Petroleum Association (IPA) Newsletter, July 2005, p. 31-36.
(online at: www.ipa.or.id/download/news/IPA_Newsletter_07_2005_9.pdf)

Hall, R. & W. Spakman (2015)- Mantle structure and tectonic history of SE Asia. Tectonophysics 658, p. 14-45.
(online at: https://dspace.library.uu.nl/bitstream/1874/329910/1/1_s2.0_S0040195115003698_main.pdf)
(Review of tomography and tectonic interpretations of Greater Indonesian region)

Hall, R. & M.E.J. Wilson (2000)- Neogene sutures in Eastern Indonesia. J. Asian Earth Sciences 18, p. 781-808.
(online at: https://www.academia.edu/31155288/Neogene_sutures_in_eastern_Indonesia)
(Five suture zones: (1) Molucca (Pliocene- Recent Halmahera and Sangihe arcs collision), (2) Sorong, (3) Sulawesi (Late Oligocene- E Miocene West and East Sulawesi continent-continent collision), (4) Banda (Banda Volcanic arc and N Australia collision) and (5) Borneo sutures (E-M Miocene S China- N Borneo collision), each with relatively short history)

Hamilton, W. (1970)- Tectonic map of the Indonesian region, a progress report. U.S. Geological Survey, Denver, Open File Report 70-150 (1474), p. 1-29.
(online at: https://pubs.usgs.gov/of/1970/0150/report.pdf)
(Progress report on Hamilton's mega-project on the tectonics of Indonesia, at a time when the new theory of plate tectonics was first being applied to the Indonesian region. (Intro quote: "Many Dutch tectonists--Brouwer, Umbgrove, van Bemmelen, Smit Sibinga, Vening Meinesz, Westerveld, and others--recognized that this complex cluster of islands represents an early stage in the evolution of orogenic belts. Not until Indonesia is understood can we comprehend the Alps". Updated in Hamilton's (1978-1979 masterpieces; JTvG)

Hamilton, W. (1973)- Tectonics of the Indonesian Region. In: B.K. Tan (ed.) Proc. Regional Conference on the Geology of SE Asia, Kuala Lumpur 1972, Bull. Geological Society Malaysia 6, p. 3-10.
(online at: www.gsm.org.my/products/702001-101358-PDF.pdf)
(Early paper on plate tectonic interpretation of Indonesia, following assumptions that subduction zones are characterized by ophiolite, melange, wildflysch and blueschist, that intermediate and silicic calc-alkaline igneous rocks form above Benioff zones, and that truncations of orogenic belts indicate rifting. SE Asia and 'Sundaland' are aggregates of small continental fragments. Philippines, Sulawesi and Halmahera consist of Mesozoic? and Cenozoic island-arc subduction and magmatic complexes and lack old continental foundations)

Hamilton, W. (1974)- Map of the sedimentary basins of the Indonesian region. U.S. Geological Survey (USGS), Miscellaneous Investigations Series, Reston, Va., Map I-875-B, 1:5,000,000. *(Map)*
(online at: https://pubs.usgs.gov/publication/i875B)

Hamilton, W. (1974)- Earthquake map of the Indonesian region. U.S. Geological Survey (USGS), Miscellaneous Investigations Series, Map I-875-C, 1:5,000,000.
(online at: http://pubs.usgs.gov/imap/0875c/plate-1.pdf)
(Map showing earthquake epicenters and depth recorded from 1961-1971, with interpreted subduction zones)

Hamilton, W. (1976)- Subduction in the Indonesian region. Proc. 5th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 3-23.
(Early plate tectonic interpretation of Indonesia)

Hamilton, W. (1977)- Subduction in the Indonesian region. In: M.Talwani & W.C. Pitman (eds.) Island arcs, deep sea trenches and back-arc basins, American Geophysical Union (AGU), Maurice Ewing Series 1, p. 15-31.
(As above. Outer-arc ridge between Java-Sumatra and active Java Trench is top of wedge of melange and imbricated rocks whose steep-moderate dips are sharply disharmonic to gently dipping, subducting oceanic plate beneath. Wedge has grown by scraping off of oceanic sediments and basement against and beneath its toe, and by internal imbrication. Outer-arc basin behind ridge originated from Paleogene continental shelf-and-slope assemblage whose seaward side was raised by melange stuffed beneath it by Neogene subduction. Banda Arc

now colliding with Australian-New Guinea continent. Sumba is microcontinental fragment derived from Java Shelf. Philippines are product of aggregation of segments of various island arcs)

Hamilton, W.B. (1978)- Tectonic map of the Indonesian region. U.S. Geological Survey (USGS) Map I-875-D, 1:5,000,000.
(online at: http://pubs.usgs.gov/imap/0875d/plate-1.pdf)
(Reprinted with corrections in 1981. Mainly surface geology with structural elements, not 'terrane map')

Hamilton, W. (1979)- Tectonics of the Indonesian Region. U.S. Geological Survey (USGS) Professional Paper 1078, p. 1-345.
(online at: http://pubs.usgs.gov/pp/1078/report.pdf)
(Classic, first comprehensive overview and synthesis of Indonesia tectonics in context of plate tectonics, of both land and offshore areas. An aging, but unrivaled masterpiece on geology of Indonesia, still with abundant good information, observations and insights. First to interpret Banda Sea as Neogene extensional basin. Etc.)

Hamilton, W. (1988)- Plate tectonics and island arcs. Geological Society of America (GSA) Bull. 100, p. 1503-1527.
(online at: www.researchgate.net/profile/Warren-Hamilton/publication/249526083_Plate_tectonics_an Etc.)
(Extensice discussion of plate tectonics, with many examples from Indonesia. Modern Sunda volcanic arc system, involving subduction of Indian Ocean lithosphere beneath Sumatra and Java, was inaugurated only in middle Tertiary time. Variations in composition of lavas along Sunda-Banda Arc reflects continental crust in Sumatra segment, transitional crust in Java and mature oceanic island arc developing from Bali to Sumbawa. Much of the older geology records subduction in quite different tectonic systems. Sumatra may have rifted from what is now medial New Guinea in M Jurassic time. Java constructed entirely by post-Jurassic subduction-related processes of magmatism and tectonic accretion. Etc.)

Hamilton, W. (1989)- Convergent-plate tectonics viewed from the Indonesian region. In: A.M.C. Sengor (ed.) Tectonic evolution of the Tethyan region, Kluwer Academic Publishers, Dordrecht, p. 655-698.
(Thorough review of plate tectonic elements and processes in zones of convergence, with examples from Indonesian region. Overriding plates generally rel. undeformed. Subduction systems along continental margins typically inaugurated by reversal of subduction after island arc or continental mass collision. High-pressure metamorphism only where crustal material subducted beneath overriding plate. Sunda Arc system changes along strike from continental in Sumatra to transitional in Java to mature oceanic island arc in Bali and Lombok. Sumatra Block separated from New Guinea in mid-Jurassic. Etc.)

Hamilton, W. (1989)- Convergent plate tectonics viewed from the Indonesian region. Geologi Indonesia 12, 1 (IAGI; Prof. Dr. J.A. Katili 60 years Special Volume), p. 35-88.
(Same paper as Hamilton (1989), above)

Hamilton, W.B. (1995)- Subduction systems and magmatism. In: J.L. Smellie (ed.) Volcanism associated with extension at consuming plate margins, Geological Society, London, Special Publ. 81, p. 3-28.
(Subducting oceanic plates not fixed. Hinges roll back into oceanic plates and slabs sink more steeply than inclinations of Benioff zones. Common regime in overriding plates is extensional; leading edges crumpled only in collisions. Shear coupling between subducting slabs and overriding plates limited to shallow depths. Subduction cannot occur simultaneously beneath opposite sides of rigid plate. Inception ages, collisions, polarity reversals and stage of petrological evolution vary greatly along continuous arc systems. Back-arc basins form by spreading behind migrating arcs. Etc.)

Hammond, J.O.S., J. Wookey, S. Kaneshima, H. Inoue, T. Yamashina & P. Harjadi (2010)- Systematic variation in anisotropy beneath the mantle wedge in the Java-Sumatra subduction system from shear-wave splitting. Physics Earth Planetary Interiors 178, p. 189-201. *(manuscript online at: https://hal.science/hal-00610669/file/PEER_stage2_10.1016%252Fj.pepi.2009.10.003.pdf)*

(Splitting in S-waves from local earthquakes across Sumatra- Java subduction zone between 75- 300km depthp show trench parallel fast directions. Deeper local events shows larger time-lags and significant variation in fast direction. Significant differences between slab subducted beneath Sumatra and older slab beneath Java)

Hamzah, L., N.T. Puspito & F. Imamura (2000)- Tsunami catalog and zones in Indonesia. J. Natural Disaster Science (Kyoto, Japan) 22, 1, p. 25-43.
(online at: https://www.jstage.jst.go.jp/article/jnds/22/1/22_1_25/_pdf/-char/en)
(Documentation of 105 tsunami events in Indonesia between 1600-1999. 90% of events caused by shallow earthquakes at subduction and plate boundaries, ~95 by volcanic eruptions. Six earthquake/ tsunamigenic regions. Tsunami potentials in Banda and Moluccas region rel. high. Etc.)

Hantoro, W.S. (1992)- Etude des terrasses recifales quaternaries soulevees entre le detroit de la Sonde et l'Ie de Timor, Indonesie: mouvements verticaux de la croute terrestre et variations du niveau de la mer. Ph.D Thesis Universite Aix Marseille II, Vol. 1, p. 1-761 and Vol. 2, p. 1-225. *(Unpublished)*
('Study of Quaternary reef terraces between Sunda Strait and Timor island: vertical crustal movements and sea level variations')

Hantoro, W.S., R. Lafont, S. Bieda, L. Handayani, E. Sebowo & S. Hadiwisastra (1996)- Holocene to Recent vertical movement in Indonesia; study on emerged coral reef. Proc. IGCP Symposium Geology SE Asia and adjacent areas, Hanoi 1995, Journal of Geology, Hanoi, B, 7-8, p. 93-113.
(Many Indonesian islands have emerged Holocene coral reef platforms in sheltered beach setting, reflecting mid-Holocene sea level highstand, ~3m above present-day sea level. Vertical movements identified by coral reefs 'outside stepping' (uplift; Banda Arc from Alor to E) or 'inside stepping' (subsidence, e.g. S Sunda Strait))

Harahap, B.H., S. Bachri, Baharuddin, N. Suwarna, H. Panggabean & T.O. Simanjuntak (2003)- Stratigraphic lexicon of Indonesia. Geological Research Development Centre (GRDC), Bandung, Special Publ. 29, p. 1-729.
(should be online at: https://geology.esdm.go.id/lexicon/)
(Comprehensive overview of names, definitions, ages and type localities of 1856 formations used on Geological Survey maps in Indonesia. Many formation names used through Indonesia by other authors, oil industry, etc., not included)

Harder, S.H., R.J. McCabe & M.F.J. Flower (1992)- A single mechanism for Cenozoic extension in and around Indonesia. In: Symposium on Tectonic framework and energy resources of the western margin of the Pacific Basin, Kuala Lumpur 1992, Warta Geologi 18, 6, p. 263. *(Abstract only)*
(online at: https://gsmpubl.wordpress.com/2014/09/17/warta-geologi-1985-1994/)
(SE Asia has large Tertiary basins and major strike-slip faults on and around Indochina Peninsula. Basins in different orientations and intersected by strike-slip faults. Creation mechanism is collision of Indian plate with Eurasian continent and rotating stress regime created by collision. Rotating stress mechanism began in Eocene when Indian plate first contacted Eurasian continent forming Ranong fault in Thailand. As stress field increased and propagated N-ward from collision zone stress field in Indochina rotated. No figures)

Harder, S.H., S.J. Mauri & S. Marshall-Arrazola (1993)- Gravity modelling of extensional basins in Southeast Asia. In: G.H. Teh (ed.) Tectonic framework and energy resources of the western margin of the Pacific Basin, Kuala Lumpur 1992, Bull. Geological Society Malaysia 33, p. 153-162.
(online at: https://gsmpubl.files.wordpress.com/2014/09/ngsm1992006.pdf)
(Comparison of free-air gravity with sediment thickness of SE Asia sedimentary basins shows no correlation due to differences in crustal structure under basins in extensional vs. convergent regimes. Thickened crust in convergent regimes creates negative anomalies)

Hardjawidjaksana, K. & H. Prasetyo (1994)- Review of the development of the eastern Indonesia triple junction. Proc. 30th Session Comm. Co-ord Joint Prospecting Mineral Resources Asian Offshore Areas (CCOP), Bangkok 1993, 2, p. 109-136.
(online at: https://repository.unescap.org/items/177e9366-1a15-4fc9-986f-15520603d2c3)

(Review of structure and tectonic development of Eastern Indonesia. Complex area for which at least seven different tectonic frameworks have been proposed)

Harjono, H. (2017)- Seismotectonics of the Sunda Arc. LIPI Press, Jakarta, p. 1-128.

Harris, R. (2003)- Geodynamic patterns of ophiolites and marginal basins in the Indonesian and New Guinea regions. In: Y. Dilek & P.T. Robinson (eds.) Ophiolites in Earth history, Geological Society, London, Special Publ. 218, p. 481-505.
(online at: http://geology.byu.edu/home/sites/default/files/2003-geodynamic-patterns-opt.pdf)
(Ophiolites in E Indonesia- New Guinea region suggest strong correlation with marginal basin development and closure. Most ophiolite slabs represent fragments of oceanic lithosphere with subduction zone component as indicated by petrochemistry and occurrence of boninite)

Harris, R. & J. Major (2017)- Waves of destruction in the East Indies: the Wichmann catalogue of earthquakes and tsunami in the Indonesian region from 1538 to 1877. In: P. Cummins & I. Meilano (eds.) Geohazards in Indonesia: Earth science for disaster risk reduction, Geol. Soc, London, Special Publ. 441, p. 9-46.
(online at: http://geology.byu.edu/Home/sites/default/files/2016_harris_and_major_eq_catalog_small.pdf)
(Two volumes of Arthur Wichmann's 'Die Erdbeben des Indischen Archipels' (1918 and 1922) document 61 regional earthquakes and 36 tsunamis between 1538 and 1877 in Indonesian region)

Harrold, T.W.D., R.E. Swarbrick & N. Goulty (1999)- Pore pressure estimation from mudrock porosities in Tertiary basins, Southeast Asia. American Assoc. Petrol Geol. (AAPG) Bull. 83, 7, p. 1057-1067.

Harsono, D. (2022)- Kekayaan alam Indonesia: lempeng tektonik. Badan Geologi, CV Cakrawala Satria Mandiri, Kediri, p. 1-106.
('Indonesia's natural resources: Tectonic plates'. Popular booklet on tectonics of Indonesia))

Hartono, M.H.S. (1970)- Steps towards standardization of stratigraphic classification in Indonesia. In: Stratigraphic correlation between sedimentary basins of the ECAFE region (Second Volume), United Nations ECAFE Mineral Resources Development Ser. 36, p. 130-134.
(Many lithostratigraphic names used in Indonesia may be considered as informal because they do not meet requirements of stratigraphic rules or were never formally proposed. Recommends Geological Survey must take immediate steps towards standardization of stratigraphic nomenclature in Indonesia (!))

Hartono, M.H.S. (1979)- Geological mapping in Indonesia: the state of the art. Bull. Geological Research Development Centre (GRDC) 1, p. 1-6.

Hartono, H.M.S. (1990)- Late Cenozoic tectonic development of the Southeast Asian continental margin in the Banda Sea area. Tectonophysics 181, p. 267-276.
(Assumes Banda Sea underlain by old oceanic crust, compatible with low heat flow, and allochthonous units on Timor are of Australian origin. Data from N Banda microcontinents, dredged samples from Banda/ Lucipara ridges, etc., support interpretation of microcontinents translated left-laterally westward from Irian Jaya)

Hartono, H.M.S. (1990)- Origin and emplacement of allochthonous terranes in the Banda outer arc. Bull. Marine Geological Institute, Indonesia 5, 1, p. 23-33.
(Common tectonostratigraphic terranes in Banda Sea area, displaced from Australian continental crust. South Banda 'allochthonous' terranes like Maubisse, Lolotoi, etc.of Timor, rifted from NW Australian margin in Jurassic. Cretaceous Lasipu Fm 'flysch' of Sumba correlated with allochthonous terranes of Timor. Banda Sea oceanic crust originated in Eastern Indian Ocean. North Banda microcontinents originated from N Irian Jaya, displaced by transcurrent faulting along Sorong FZ (= Silver et al. 1985 model). Etc.)

Hartono, H.M.S. (co-ord.), C.S. Hutchison, S. Tjokrosapoetro & B. Dwiyanto (1991)- Studies in East Asian tectonics and resources (SEATAR). Crustal transect IV: Banda Sea. CCOP, Bangkok, p. 1-30.

(Overview of SEATAR Banda Sea crustal Transect. Banda Sea underlain by oceanic crust, believed to be of Cretaceous age. Oldest Banda Sea volcanics 12 Ma)

Hartono, H.M.S. & S. Tjokrosapoetro (1984)- Preliminary account and reconstruction of Indonesian terranes. Proc. 13th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 185-226.
(Indonesian Archipelago 13 terranes (accretionary terranes excluded). Proto-Kalimantan and Sumatra basement include island arcs and amalgamated in Late Triassic along Bentong-Raub suture to form Sunda Platform. In Paleogene SW Sulawesi rifted from E Kalimantan to collide with oceanic crust to E. In Tertiary W Sulawesi magmatic arc came into existence. Sulawesi Ophiolite from oceanic crust pushed W by Banggai-Sula terrane and blocked by Tertiary W Sulawesi arc. Sumba, Buton, Seram and Timor terranes result of rift-drift from NW Australia in Jurassic. Banggai-Sula, Bacan and Buru terranes formed by Sorong Fault slicing off NW Irian Jaya and moving W. NW Australia /Irian Jaya passive margin, moving N behind front of oceanic crust. It collided with N Irian Jaya island Arc in Oligocene, after which polarity of subduction changed to S)

Hartono, H.M.S. & S. Tjokrosapoetro (1985)- Preliminary account and reconstruction of Indonesian terranes. Proc. 20th Session Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Kuala Lumpur 1983, 2, Technical Reports, p. 257-261.
(online at: https://repository.unescap.org/items/904fe6cc-d317-490d-8289-296e15f5d015(
(Same paper as Hartono & Tjokrosapoetro (1984); above)

Hartono, H.M.S. & S. Tjokrosapoetro (1986)- Geological evolution of the Indonesia Archipelago. In: G.H. Teh & S. Paramananthan (eds.) Proc. 5th Regional Congress Geology, Mineral and Energy Resources SE Asia SE Asia (GEOSEA V), Kuala Lumpur 1984, 2, Bull. Geological Society Malaysia 20, p. 97-136.
(online at: http://www.gsm.org.my/products/702001-101431-PDF.pdf)
(Same paper as Hartono & Tjokrosapoetro (1984, 195) above)

Hatherton, T. & W.R. Dickinson (1969)- The relationship between andesitic volcanism and seismicity in Indonesia, the Lesser Antilles and other island arcs. J. of Geophysical Research 74, 22, p. 5301-5310.
(On relationship between K-content of andesitic volcanoes and depth of seismic (Benioff) zone below volcano. One of first 'new plate tectonics' concepts applied to Indonesia)

Hayes, D.E. (ed.) (1978)- A geophysical Atlas of the East and Southeast Asian seas. Geological Society of America (GSA), MC-25, p.

Hayes, D.E. (ed.) (1980)- The tectonic and geologic evolution of Southeast Asian seas and islands. American Geophysical Union (AGU), Geophysical Monograph 23, p. 1-326.
(Reports of SEATAR project work)

Hayes, D.E. (ed.) (1983)- The tectonic and geologic evolution of Southeast Asian seas and islands- Part 2. American Geophysical Union (AGU) Geophysical Monograph 27, p. 1-396.
(Reports of SEATAR project work -part 2)

Hayes, D.E. (1984)- Marginal seas of Southeast Asia- their geophysical characteristics and structure. In: Origin and history of marginal and inland seas. Proc. 27th International Geological Congress, Moscow 1984, VNU Science Press, 23, p. 123-154.
(Identification and dating of magnetic lineaments in oceanic crust below marginal basins if SE Asia relatively difficult and associated with uncertainties, because small basin sizes and limited age range of ocean floor makes it difficult to identify a unique sequential pattern. Also, basins formed in low geomagnetic latitudes, where magnetic lineations tend to have low amplitudes and more difficult to map)

Hedervari, P. & Z. Papp (1981)- Seismicity maps of the Indonesian region. Tectonophysics 76, p. 131-148.
(Rel. dated, general earthquakes distribution maps)

Hehuwat, F. (1976)- Isotopic age determinations in Indonesia: the state of the art. Proc.CCOP Seminar on Isotopic dating, Bangkok 1975, United Nations ESCAP CCOP, p. 135-157.

Hehuwat, F.H.A. (1986)- An overview of some Indonesian melange complexes- a contribution to the geology of melange. Memoir of the Geological Society of China (Taiwan) 7, p. 283-300.

Hehuwat, F.H.A. (1987)- Suatu tinjauan deformasi Kuarter di Indonesia. In: Geologi Kuarter dan lingkungan hidup, Geological Research Development Centre (GRDC), Bandung, Special Publ. 7, p. 42-50.
('A review of Quaternary deformation in Indonesia'. In: Quaternary Geology and environment)

Heine, C., L. Quevedo, H. McKay & R.D. Muller (2012)- Plate tectonic consequences of competing models for the origin and history of the Banda Sea subducted oceanic lithosphere. Eastern Australian Basins Symposium (EABS) IV, Brisbane 2012, Petroleum Exploration Society Australia (PESA), p. 25-34.
(online at: https://arxiv.org/ftp/arxiv/papers/1210/1210.4958.pdf)
(Banda Arc subduction system shows bowl-shaped geometry in seismic tomographic images, indicating Argo-Tanimbar-Seram oceanic lithosphere still attached to surrounding continental margins of N Australia and Birds Head microcontinent. Slab unfolding model suggests Birds Head block rotated 20-35° CW relative to present-day position. Birds Head block is autochthonous to W Irian Jaya, with W margin continental transform margin during rifting and opening of ATS ocean)

Heliani, L.S., Y. Fukuda & S. Takemoto (2004)- Simulation of the Indonesian land gravity data using a digital terrain model data. Earth Planets and Space 56, 1, TERRAPUB, Tokyo, p. 15-24.
(online at: https://www.terrapub.co.jp/journals/EPS/pdf/2004/5601/56010015.pdf)
(Indonesian gravity field neither accurately nor comprehensively determined, especially land data. This study proposes solution to data unavailability by means of simulation technique)

Heryandoko, N., A.D. Nugraha, Z. Zulfakriza, S. Rosalia, T. Yudistira, S. Rohadi, D. Daryono, P. Supendi, N. Nurpujiono, F. Yusuf.et al. (2024)- Crustal structure of Borneo, Makassar Strait and Sulawesi from ambient noise tomography. Geophysical J. International 237, 2, p. 949-964.
(online at: https://academic.oup.com/gji/article/237/2/949/7623031)
(Rayleigh waves tomography models from ambient noise from 108 seismic stations over 8 months. Models illuminate strong low shear wave velocity (Vs) anomaly at shallow depth (≤ 14 km) and strong high Vs anomaly at depths of 20-30 km beneath N Makassar Strait. Broad and deep sedimentary basement at ~14 ± 2 km depth beneath (Kutai Basin-) N Makassar Strait is floored by shallow Moho at ~22 ± 2 km depth (thinnest crust in study area). Moho depth beneath C Sulawesi ~45 km (thickest crust in study area), suggesting crustal thickening since late Oligocene. High near-surface Vs anomalies in SW Borneo close to Schwaner Mountains confirm existence of crustal root beneath this region (oddly, no location map of regional transects? JTvG))

Hetzel, W.H. & W.C.B. Koolhoven (1932)- Eenige aanteekeningen over de stratigrafie en de tektoniek van het Oost-lndische Tertiair. De Mijningenieur 13, p. 179-191.
('Some notes on the stratigraphy and tectonics of the East Indies Tertiary')

Hinschberger, F. (2000)- Geodynamique de l'Est Indonesien dans son cadre cinematique. Doct. Thesis Universite de Bretagne Occidentale, Brest, p. 1-325.
(online at: https://www.researchgate.net/publication/330620358_Geodynamique_de_l'Est_Indonesien_dans_son_cadre_cinematique)
('Geodynamics of Eastern Indonesia in its kinematic framework'. Basins and microcontinents of Banda Sea region. N Banda Sea backarc basin opened between 12.5 and 7 Ma, S Banda Sea between 6.5- 3.5 Ma. Banda Ridges that separate N and S Banda basins derived from single continental block. Weber Basin deepest basin in region (7400m); migrated to NE in Late Pliocene- Pleistocene. With plate reconstructions of last 15 Myrs)

Hinschberger, F., J.A. Malod, J.P. Rehault, M. Villeneuve, J.Y. Royer & S. Burhanuddin (2005)- Late Cenozoic geodynamic evolution of eastern Indonesia. Tectonophysics 404, 1-2, p. 91-118.
(online at: https://www.academia.edu/9537123/Late_Cenozoic_geodynamic_evolution_of_eastern_Indonesia)

(E Indonesia M Miocene- Recent plate reconstruction model, involving Late Miocene- Pliocene opening of Banda Sea)

Hirayama, J. (ed.) (1991)- Total sedimentary isopach maps offshore East Asia, with basin descriptions. CCOP, Technical Bulletin 23, p. 1-114.

Hochstein, M.P. & J. Moore (eds.) (2008)- Indonesia: geothermal prospects and developments. Geothermics. 37, 3, p. 217-365.
(Collection of six papers on geothermal prospects in Indonesia. Less than a third of >200 inferred high-temperature prospects investigated during past 35 years, 20 of which were tested by deep exploration drilling)

Hochstein, M.P. & & S. Sudarman (2015)- Indonesian volcanic geothermal systems. Proc. World Geothermal Congress 2015, Melbourne, p. 1-11.
(online at: https://www.researchgate.net/publication/297709385_Indonesian_Volcanic_Geothermal_Systems)
(Two groups of Indonesian volcanic geothermal systems:(1)larger group hosted by young strato-volcanoes, (2) smaller group includes steeply dipping 'volcanic feeder (plug-type) systems' hosted by convective systems standing in moderate terrain. Etc.)

Hoffman, N. (2002)- Australian geology in Indonesia: new frontiers and new discoveries. Proc. 28th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 289-300.
(Discussion of Australian Mesozoic geology in Timor sea area. Reservoirs predominantly Jurassic, with recent Laminaria and Sunrise/Troubadour gas discoveries close to Indonesian border. First significant Indonesian Mesozoic hydrocarbon discovery in Tangguh, Irian Jaya, with Jurassic source-reservoir similar to Plover Fm)

Hoffmann-Rothe, J. (1994)- Indonesien/Indonesia. In: H. Kulke (ed.) Regional petroleum geology of the world, I, Borntraeger, Berlin, p. 747-794.
(Literature review of oil-gas basins and fields of Indonesia; in German)

Holcombe, C.J. (1977)- Earthquake foci distribution in the Sunda Arc and the rotation of the back-arc area. Tectonophysics 43, 3-4, p. 169-180.
(Earthquake foci suggest Indian Ocean plate underthrust only 200 km under C Sumatra, but >600 km under Java Sea. May be due to oblique India-Eurasia convergence caused by rotation of Sunda backarc area relative to Eurasia. Backarc rotation also explains pattern of Cenozoic volcanicity in Sumatra, and nature of Andaman Basin, which may be rhombochasm forming behind locally divergent plate margin)

Holcombe, C.J. (1977)- How rigid are lithospheric plates? Folds and shear rotation in Southeast Asia. J. Geological Society, London, 134, 3, p. 325-342.
(Significant fault movement during Tertiary in continental SE Asia, part of Eurasia plate. Three separate but linked rotations (1) Indochina subplates wrench rotation, (2) Sunda shear rotation, and (3) rotation of Malay Peninsula and Sunda Platform by movements along Ranong and Semangko faults. Pre-Oligocene map reconstruction of SE Asia offers explanations for patterns of Quaternary faulting and Tertiary sedimentation)

Holloway, J.D. & R. Hall (1998)- SE Asian geology and biogeography: an introduction. In: R. Hall & J.D. Holloway (eds.) Biogeography and geological evolution of SE Asia, Backhuys Publishers, Leiden, p. 1-23.

Honda, H. & H. Nagura (2000)- A note on the Tertiary history of Indo-Australian plate-movements and the West Indonesian Tertiary stratigraphy. J. Japanese Association for Petroleum Technology 65, 3, p. 270-277.
(in Japanese, with English Abstract)
(online at: https://www.jstage.jst.go.jp/article/japt1933/65/3/65_3_270/_article/-char/en)
(Two geohistorical phases in Indo-Australian plate movements: (1) slow N-ward movement of Australian plate until latest Eocene with sudden acceleration around earliest Oligocene; (2) Late Oligocene acceleration and plateau of high movement rate until late Early Miocene, and early M Miocene acceleration. These plate movements well recorded in Indonesian Tertiary and Quaternary systems)

Huang, C.Y., P.B. Yuan, W.L. Ching, T.K. Wang & P.C. Chung (2000)- Geodynamic processes of Taiwan arc-continent collision and comparisons with analogs in Timor, Papua New Guinea, Urals and Corsica. Tectonophysics 325, p. 1-21.
(Comparison of arc-continent collisions in four areas: Timor (initial stage), Taiwan, Papua New Guinea and Corsica (most advanced stages))

Husson, L., N. Riel, S. Aribowo, C. Authemayou, G. de Gelder, B.J.P. Kaus, C. Mallard, D.H. Natawidjaja, K. Pedoja & A.C. Sarr (2022)- Slow geodynamics and fast morphotectonics in the Far East Tethys. Geochem. Geophysics Geosystems 23, 1, e2021GC010167, p. 1-17.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2021GC010167)
(Investigation of relationships between sluggish, long-wavelength mantle convection and often dramatic morphotectonic activity around Java-Banda subduction zone. Links between mantle convection and surface tectonics remain challenging to disentangle. In Far-East Tethys, arcuate Banda subduction zone circumscribes deepest oceanic basin on Earth, seismotectonic activity slices upper plate and vast expanses of Sundaland and N Australia (Sahul) continents are flooded (and subsiding). Many physiographic changes triggered by docking of Australian continent onto subduction zone, while mantle flow remains slow and long-wavelength at depth)

Hutabarat, S. (1993)- Khuluk dan ploa umum diagenesis mineral-mineral lempung dalam batuan waduk klastik di Cekungan-Cekungan Indonesia-Barat. Proc. 22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 1015-1027.
(online at: https://www.iagi.or.id/web/digital/53/22nd-Volume-2-(6-9-Des-1993)-413-425.pdf)
("General characteristics and patterns of diagenesis of clay minerals in clastic reservoir rocks in the West Indonesian Basins')

Hutasoit, L.M. & A.M. Ramdhan (2014)- Similarities of overpressuring in some of Western Indonesia's sedimentary basins. Proc. 38th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA14-G-356, p. 1-10.
(In W Indonesia basins top of overpressure is mostly located near top of sag phase deposits. Top of 'hard' overpressure in several areas at onset of smectite-illite transformation.Almost all carbonate build-ups located below sag deposits low overpressure to normal hydrostatic pressure regime)

Hutchings, S.J. & W.D. Mooney (2021)- The seismicity of Indonesia and tectonic implications. Geochem. Geophysics Geosystems 22, e2021GC009812, p. 1-42.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2021GC009812)
(Synthesis of Indonesian seismotectonics, documenting distributions of hypocenters (≥M 4.6) and focal mechanisms (≥M 5.0) over ~20 years, quantifying seismicity rates and comparing seismicity with tectonic and tomography models. Seismicity extends to max. depth of 678 km. Oblique convergence, lithospheric age, mantle temperatures, and plate velocity contribute to non-uniform distribution of intermediate and deep earthquakes)

Hutchison, C.S. (1973)- Tectonic evolution of Sundaland; a Phanerozoic synthesis. In: B.K. Tan (ed.) Proc. Regional Conference on the Geology of SE Asia, Kuala Lumpur 1972, Bull. Geological Society Malaysia 6, p. 61-86.
(online at: www.gsm.org.my/products/702001-101353-PDF.pdf)
(Early paper on tectonic evolution of Sundaland in terms of plate tectonic model. Interesting paleo-tectonic maps of Sundaland since Permian. Infers W Borneo has been part of 'continental' Sundaland since Permian, with opposing subduction systems under Sundaland for Permian- Cretaceous)

Hutchison, C.S. (1975)- Ophiolite in Southeast Asia. Geological Society of America (GSA) Bull. 86, p. 797-806.
(Twenty belts of ultramafic assemblages identified in SE Asia (not including E Indonesia), but fewer than half can be classified as ophiolite. Complete ophiolite sequences only in NE Borneo and Philippine Islands; others incomplete or dismembered)

Hutchison, C.S. (1978)- Southeast Asian tin granitoids of contrasted tectonic setting. J. Physics of the Earth, Tokyo, 26, Suppl., p. 221-232.

(online at: https://www.jstage.jst.go.jp/article/jpe1952/26/Supplement/26_Supplement_S221/_pdf)
(Three major tin granitoid belts in SE Asia: (1) West (Phuket to Tenasserim). Tin associated with Cretaceous adamellite, granite and pegmatite; (2) Main Range (Bangka to S Thailand). Tin associated with Late Carboniferous and Late Triassic granite; (3) East (Billiton to Pahang-Trengganu). Tin-tungsten associated with Permian- M Triassic adamellite-granite)

Hutchison, C.S. (1980)- Southeast Asia. In: A.E. Nairn & F.G. Stehli (eds.) The Indian Ocean, The ocean basins and margins 6, Plenum Press, New York, p. 451-512.
(Substantial overview of Precambrian- Recent rocks distribution from Burma to W Indonesia)

Hutchison, C.S. (1983)- Multiple Mesozoic Sn-W-Sb granitoids of Southeast Asia. In: J.A. Roddick (ed.) Circum-Pacific Plutonic terranes, Geological Society of America (GSA) Memoir 159, p. 35-60.
(SE Asia complex array of granitoid belts, mainly of Mesozoic age. Eastern belt (E Malay Peninsula, Bangka and Billiton(?) is Andean-type Permian- Late Triassic calc-alkaline volcano-plutonic arc (peak ages ~222 Ma and 250 Ma). Probably underlain by continental basement (isoclinally folded Carbo-Permian metasediments, Permian limestones, Namurian shales and sandstones). Abundant volcanic and plutonic activity through Permian and ending active history in Late Triassic with subaerial ignimbritic flows. Narrow central belt of Permian-Triassic granitoids and metamorphic complexes with local Cretaceous granites. Main Range E margin is serpentine-marked Bentong-Raub suture zone. Main Range batholith Sn-granite mainly Late Triassic (~230 and 200 Ma), but with E Permian (~280 Ma) granites; grades W-ward through Penang, Langkawi, and peninsular Thailand to higher level plutons. N Thailand granites mainly Triassic. Main Range and N Thai granites no volcanic associations, and tied to collision and closure of central marginal basin in Late Triassic. Triassic granites and some Cretaceous granites associated with tin, tungsten and antimony deposits, thought to be recycled from continental infrastructure of Sundaland)

Hutchison, C.S. (1984)- Is there a satisfactory classification for Southeast Asian Tertiary basins. Proc. 5th South East Asia Offshore Conf., SE Asia Petroleum Exploration Society (SEAPEX), Singapore 1984, p. 6.64- 6.76.
(SE Asia Tertiary basins classification complicated by presence of microcontinents, originating from Jurassic- E Miocene rifting from S China and N Australian continental margins)

Hutchison, C.S. (1986)- Tertiary basins of S.E. Asia- their disparate tectonic origins and eustatic stratigraphical similarities. In: G.H. Teh & S. Paramananthan (eds.) Proc. 5th Regional Congress Geology Mineral Energy Resources of SE Asia (GEOSEA V), Kuala Lumpur 1984, 1, Bull. Geological Society Malaysia 19, p. 109-122.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1986010.pdf)
(72 Tertiary basins in greater SE Asia developed by extensional tectonics, combined with wrench control. With exception of marginal seas, sedimentation kept pace with subsidence. Basin unconformities, transgressions, regressions good correspondence to global sea level changes, but may be artifact of overdependence on SE Asian basins for compilation of eustatic curves)

Hutchison, C.S. (1986)- Formation of marginal seas in Southeast Asia by rifting of the Chinese and Australian continental margins and implications for the Borneo region. In: G.H. Teh & S. Paramananthan (eds.) Proc. 5th Regional Congress Geology Mineral Energy Resources of SE Asia (GEOSEA V), Kuala Lumpur 1984, 2, Bull. Geological Society Malaysia 20, p. 201-220.
(With exception of Okinawa and Ayu Troughs, all SE Asia marginal seas formed by processes other than backarc rifting. Andaman Sea is leaky transform system. W Philippine Sea, Banda Sea, Celebes Sea and Sulu Sea basins all remnants of former oceans now trapped behind younger arc-trench systems. S China Sea formed by post-Early Cretaceous rifting of continental margin of SE China. (NB: all these basins are probably younger than assumed by Hutchison, so some conclusions here are not valid; JTvG)

Hutchison, C.S. (1987)- Displaced terranes of the southwest Pacific. In: Z. Ben Avraham (ed.) The evolution of the Pacific Ocean margins, Oxford Monographs Geology Geophysics 8, Oxford University Press, p. 161-175.

Hutchison, C.S. (1987)- Tectonic settings of tin-tungsten granites in Southeast Asia. In: C.S. Hutchison (ed.) Proc. IGCP Project 220 Conference, Technical Bull. 6, Ipoh, Malaysia, SEATRAD Centre, p. 1-24.

Hutchison, C.S. (1989)- The Palaeo-Tethyan realm and Indosinian orogenic system of Southeast Asia. In: A.M.C. Sengor (ed.) Tectonic evolution of the Tethyan Regions, Kluwer, Dordrecht, p. 585-644.
(Extensive review with Paleozoic- Mesozoic reconstructions of SE Asia. SE Asia is composite of Precambrian continental blocks, overlain in part by Paleozoic carbonate-dominated platforms. Major suture in Song Ma, N Vietnam, welded Indosinia and S China blocks in E Carboniferous to form E Asian Continent together with N China Block. E Asian Continent in equatorial latitudes in Permian and developed Cathaysian Gigantopteris flora. W Borneo Basement is detached part of E Asian continent. Paleo-Tethys suture/ Indosinian orogenic system extends S from Dien Bien Phu through Thailand into Peninsular Malaysia (Raub-Bentong). All terrains E of suture have Cathaysian affinities, those to W have Permian Gondwana affinities. Suture closed in Late Triassic. Most Jurassic-Cretaceous age formations are in continental molasse facies. S Sumatra contains Cathaysian flora at Djambi, but N Sumatra strong affinities with Gondwana part of Malay Peninsula. An Indosinian suture may separate the two, but not well defined)

Hutchison, C.S. (1989)- Geological evolution of South-East Asia. Oxford Monographs Geology Geophysics 13, p. 1-368.
(Comprehensive textbook of SE Asia geology. See also 2007 second edition)

Hutchison, C.S. (1992)- The Eocene unconformity on Southeast and East Sundaland. Bull. Geological Society Malaysia 32, p. 69-88.
(online at: https://gsm.org.my/wp-content/uploads/gsm_file_2/702001-101038-PDF.pdf)
(Early Paleogene Sundaland landmass extended as far SE as W Sulawesi. Cratonic nature of Malay Peninsula and China did not extend into or beyond Borneo region of Sundaland, where pre-Eocene outcrops are dominated by Cretaceous rocks. Deep water sediments, melange and ophiolite terrains characteristic of non-cratonic SE peninsula of Sundaland. India collided with Eurasia by 45 Ma (anomaly 1), spreading ceased at NW Wharton Basin, etc. Push of India resulted in clockwise rotation of Sundaland. Regional event causing major Eocene unconformity on and around Sundaland)

Hutchison, C.S. (1994)- Gondwana and Cathaysian blocks, Palaeotethys sutures and Cenozoic tectonics in South-East Asia. Geologische Rundschau 82, 2, p. 388-405.
(Triassic 'Indosinian Orogeny' suturing of Gondwanan and Cathaysian blocks closed Paleotethys Ocean. W Malaysia Sinoburmalaya block has Carboniferous-Permian mudstones with glacial dropstones and is traced into Sumatra. Cathaysian E Malaya block Late Permian Gigantopteris flora and fusulinid limestones with andesitic volcanism, similar to W Sumatra block (also E Permian volcanism, fusulinid limestones and early Cathaysian Jambi flora). S-SSE trending central Peninsular Malaysian Triassic orogenic belt swings SE from Singapore to Bangka, then E to Billiton. Paleo-Tethys suture (Bentong-Raub Line) unlikely to continue S along Paleogene Bengkalis Graben, which transects NW-SE orogenic fabric of Sumatra. Oroclinal bending of Indosinian Orogen, from NW-SE in Sumatra to Peninsular Malaysia, attributed to Paleocene collision of India and indentation into Eurasia. Bending accomplished by clockwise rotation and right-lateral shear parallel to orogenic grain. Mesozoic Paleotethyan sutures transformed into Paleocene and younger shear zones)

Hutchison, C.S. (1996)- South-East Asian oil, gas, coal and mineral deposits. Oxford Monographs Geology Geophysics 36, p. 1-265.
(Major review of SE Asia oil-gas, coal and mineral deposits)

Hutchison, C.S. (1998)- The quest for an understanding of Southeast Asian Cenozoic tectonics and the importance of pre Tertiary structures. Proc. Offshore South East Asia Conference (OSEA98), Singapore, SE Asia Petroleum Exploration Society (SEAPEX), p. 73-74. *(Extended Abstract)*
(N-wards movement of Indian-Australian plate caused (1) cratonic India to begin its collision with continental Eurasia in Eocene, causing CW bending of pre-Tertiary fabric of Sundaland, predominantly by right-lateral wrench faulting, and (2) cratonic Australia to begin collision with Indonesian island arcs in Miocene, causing CCW bending, accomplished by left-lateral faulting (e.g. Sorong Fault). Fracture systems displaced micro-continents SE-ward from Sundaland and W-ward from Australia- New Guinea. N-S Indosinian fabric of

Peninsular Malaysia bends East through Bangka and Billiton. Triassic correlation of NW Borneo possibly with E Vietnam. Most but not all Cenozoic structures follow pre-Tertiary fabric. Etc.)

Hutchison, C.S. (2007)- Geological evolution of South-East Asia, 2nd edition. Geological Society of Malaysia, Kuala Lumpur, p. 1-433.
(selections online at: https://gsm.org.my/wp-content/uploads/gsm_file_2/702001-101656-PDF.pdf)
(Second edition of 1989 textbook of SE Asia geology; with relatively minor revisions)

Hutchison, C.S. (2014)- Tectonic evolution of Southeast Asia. Bull. Geological Society Malaysia 60 (C.S. Hutchison Memorial Issue), p. 1-18.
(online at: https://gsmpubl.files.wordpress.com/2015/04/bgsm2014001.pdf)
(Brief review of SE Asia tectonic history, mainly of Sundaland area (Malay Peninsula- Thailand- Sumatra). Key events Late Triassic collision Sibumasu and E Malaya/Indochina after Permian E-ward subduction beneath E Malaya and development of E-M Triassic Semanggol-Mutus basin foredeep. M-Late Triassic tin granites of Peninsular Malaysia continue in curve through Bangka and Billiton. Late Cretaceous- Paleocene belts of migmatites and plutons. Oroclinal bending of N Sundaland from E-W fabric in Billiton- Borneo to N-S in N Peninsular Malaysia, resulted from indentation of India. Much of Borneo rotated ~50° CCW between 30-10 Ma and ~40° between 80-30 Ma, caused by collision between Australian plate and Indonesian arc at Timor)

Hutchison, C.S. (ed.) R. Sukamto, H.Z. Abidin, T.C., Amin, M.S. Andi et al. (1991)- Studies in East Asian tectonics and resources (SEATAR) Crustal transect VII: Jawa- Kalimantan- Sarawak- South China Sea. CCOP, Bangkok, CCOP/TP 26, p. 1-66.

Hutchison, C.S. (ed.), R. Sukamto, A.P. Madrid et al. (1995)- Studies in East Asian tectonics and resources (SEATAR), Crustal transect VIII, South China- Sulu- Sulawesi- Maluku- Philippine Seas. Geological Research Development Centre (GRDC), Bandung, Special Publ. 20, p. 1-45.
(Review of geology and geophysics along regional transect including Sulu Sea, Celebes Sea, Molucca Sea, Philippine Sea)

Irsyam, M., M. Asrurifak, Hendriyawan, B. Budiono, W. Triyoso & A. Firmanti (2010)- Development of spectral hazard maps for a proposed revision of the Indonesian seismic building code. Geomechanics and Geoengineering 5, 1, p. 35-47.
(Good review of present-day earthquake distribution and tectonic belts of Indonesian region)

Irsyam, M., P.R. Cummins, M. Asrurifak, L. Faizal, D.H. Natawidjaja, S. Widiyantoro, I. Meilano, W. Triyoso et al. (2020)- Development of the 2017 national seismic hazard maps of Indonesia. Earthquake Spectra 36, Suppl. 1, p. 112-136.

Irsyam, M., Hendriyawan, M. Asrurifak, M. Ridwan, F. Aldiamar, I.W. Sengara, S. Widiyantoro et al. (2013)- Past earthquakes in Indonesia and new seismic hazard maps for earthquake design of buildings and infrastructures. In: J. Chu et al. (eds.) Geotechnical predictions and practice in dealing with geohazards, Chapter 3, Springer, p. 33-46.

Jablonski, D. (2007)- Insights into S.E. Asian plate reconstructions as guided by the 2005-2006 regional seismic surveys, Central-Eastern Indonesia. Presentation SEAPEX Conference, Singapore 2007, Abstract, 2p.
(>10 km of Eocene- Recent sediment in Gorontalo Basin which is underlain by pre-rift section of sedimentary origin. Pre-break-up section evidence of older collision that may be related to collision of Mangkalihat-NW Sulawesi microplate with NE Sulawesi. Integration of this observation with onshore geology of SE Sulawesi indicates likely Late Cretaceous collision. Eocene- Miocene in Gorontalo Basin mainly extensional tectonics with late compression estimated approximately at 5.5 Ma)

Jacques, J.M. (2007)- Geotectonic map of SE Asia- basins and hydrocarbon occurrences. Presentation SEAPEX 2007 Conference, Singapore, p.
(GIS-based digital tectonic elements map and sediment thickness map of SE Asia. Map available from SEAPEX)

Jacobson, R.S., G.G. Shor, R.M. Kieckhefer & G.M. Purdy (1981)- Seismic refraction and reflection studies in the Timor-Tanimbar-Aru Trough system and Australian continental shelf. In: A.J. Barber & S. Wiryosujono (eds.) The geology and tectonics of Eastern Indonesia, Proc. CCOP-IOC SEATAR Working Group Meeting, Bandung 1979, Geological Research Development Centre (GRDC), Bandung, Special Publ. 2, p. 153-169.
(Timor-Aru Trough is not deeper than 3.6 km and is extension of Java Trench. Underlain by continental crust. Data strongly support trough is surface trace of subduction zone)

Jarrard, R.D. & S. Sasajima (1980)- Paleomagnetic synthesis for Southeast Asia: constraints on plate motions. In: D.E. Hayes (ed.) The tectonic and geologic evolution of Southeast Asian seas and islands-1, American Geophysical Union (AGU) Geophysical Monograph Series 23, p. 293-316.
(Compilation of paleomagnetic data Japan, Philippines, Indonesia. E Mesozoic Sumatra was 10-20°S of present latitude; in Late Mesozoic drifted N with 30° CW rotation, reaching present position by E Tertiary)

Kadar, D. (1984)- Indonesia: Mapping by the Geological Research and Development Centre and stratigraphic correlation. Proc Fourth Working Group Meeting, Bangkok 1982, Stratigraphic Correlation between Sedimentary Basins of the ESCAP Region IX, UN Mineral Resources Development Series 51, New York, p. 30-46. *(online at: https://repository.unescap.org/server/api/core/bitstreams/af59f444-55be-45b4-9cd4-5e9f3517ad1a/content)*
(Good documentation of status of geological mapping of Indonesia by Geological Survey in early 1980s. With useful set of Indonesian basins stratigraphic correlation charts)

Kadarusman, A. (2001)- Geodynamic aspects of Indonesian region: a petrological approach. Ph.D. Thesis, Tokyo Institute of Technology, p. 1-456. *(Unpublished)*
(Study of metamorphic rocks of Timor-Tanimbar (Banda Outer Arc) region)

Kadarusman, A. (2002)- Plume tectonics and Eastern Indonesia. Proc. 31st Annual Conv. Indonesian Association Geologists (IAGI), Surabaya, p.

Kadarusman, A. (2009)- Ultramafic rock occurrences in Eastern Indonesia and their geologic setting. Proc. 38th Annual Conv. Indonesian Association Geologists (IAGI), Semarang, PIT IAGI2009-188, p. 1-7.
(online at: https://www.iagi.or.id/web/digital/26/2009_IAGI_Semarang_Ultramafic-Rocks-Occurences.pdf)
(Ultramafic rocks exposed in E Indonesia in E Kalimantan, Sulawesi, Halmahera, Banda Arc and Papua. Mostly derived from peridotite layer of ophiolite complexes, but some believed to be from orogenic peridotite. Source of nickel laterite, nickel sulfide deposits, also cobalt, chromite, platinum group metals and lateritic iron ores. E Sulawesi Ophiolite (Cretaceous-Oligocene age) occupies large part of E Sulawesi, resulted from Late Oligocene accretion to Sundaland margin and Late Miocene collision with Banggai Sula microcontinent)

Kadarusman, A. (2012)- The geology and tectonic of the Banda Arc, Eastern Indonesia:update from the outer arc. In: N.I. Basuki (ed.) Banda and Eastern Sunda arcs, Proc. Annual Conv. Indonesian Soc. Economic Geologists (MGEI), Malang 2012, p. 193-200.

Kadarusman, A., H. Brueckner, H. Yurimoto, C.D. Parkinson & S. Maruyama (2001)- Geochemistry and Sm-Nd age dating of garnet peridotites from Central Sulawesi, and their implications to the Neogene collision complex in Eastern Indonesia. EOS Transactions 82, American Geophysical Union, Fall Meeting Abstract T52D-08, 1p. *(Abstract only)*
(Orogenic garnet-bearing peridotites on Sulawesi, in two regions within NW-SE trending strike-slip fault zones: (1)left-lateral Palu-Koro FZ, as < 10 m wide fault slice associated with high-grade metamorphic rocks in Miocene granite; (2) in right-lateral Ampana FZ as 10-30 m wide, fault-bounded outcrops juxtaposed against gabbro and peridotites of E Sulawesi ophiolite. Sm-Nd dating gave mineral ages of 27-20 Ma (27 Ma likely time of peak metamorphism; 20 Ma cooling age). Likely metamorphosed during Late Oligocene- E Miocene continent-continent collision in C Sulawesi; after delamination uplifted within Neogene metamorphic complex)

Kadarusman, A., Y. Kaneko, T. Ohta & S. Maruyama (2003)- The geology and tectonic of the Banda Arc, Eastern Indonesia. Proc. 32nd Annual Conv. Indonesian Association Geologists (IAGI) and 28th HAGI Annual Conv., Jakarta, p. 1-17.
(Non-magmatic S Banda arc from Timor to Tanimbar exposes one of youngest high P/T metamorphic belts in world. Deformation and metamorphic grade increase towards center of 1 km thick crystalline belt. High P/T metamorphic rocks extruded as thin sheet into space between overlying ophiolites and underlying continental shelf sediments ('wedge extrusion model'). Quaternary uplift, marked by elevation of recent reefs, ~1260 m in Timor, decreasing toward Tanimbar in E. Exhumation of high P/T metamorphic belt started in W Timor in Late Miocene time and migrated east. Quaternary rapid uplift to rebound of subducting Australian continental crust beneath Timor after break-off the oceanic slab fringing continental crust)

Katili, J.A. (1970)- Large transcurrent faults in Southeast Asia with special reference of Indonesia. Geologische Rundschau 59, p. 581-600.
(Large transcurrent faults present in Taiwan-Philippine region and in the area between Sulawesi and E New Guinea, with mainly sinistral movement. Sumatran fault-system 1650km long, dextral lateral displacement. On Java smaller transcurrent faults with strike more or less parallel to island. Palu-Kuro Fault ('Fossa Sarasina') in C Sulawesi also sinistral transcurrent fault. Dextral transcurrent fault of ~100 km length in Gorontalo area, N Sulawesi. In W Papua E-W trending Sorong Fault. Two groups of transcurrent faults in SE Asia: NW-SE and E-W. Indonesian Archipelago is being protruded SE-ward, with major block movements along Philippine and Sumatran fault-zones)

Katili, J.A. (1971)- A review of the geotectonic theories and tectonic maps of Indonesia. Earth-Science Reviews 7, p. 142-165. *(also in Bull. of National Institute Geology and Mining, Bandung (1970) 3, 2, p. 57-69)*
(Good review of tectonic syntheses proposed for Indonesia from 1920's to 1970. Long ago Indonesian Archipelago recognized as place of intersection of two of large mountain systems and zone between Asian and Australian continents. They also realized that Indonesian island arcs represent early stage formation of mountain belt with systematic relationship of active tectonic and magmatic features to deep submarine trenches. New concept of plate tectonics best basis to explain features of Indonesian island arcs)

Katili, J.A. (1971)- Neotectonics of Southeast Asia. Bull. Association Francaise Etude du Quaternaire 4, p. 851-856.

Katili, J.A. (1972)- Plate tectonics of Indonesia with special reference to the Sundaland area. Proc. First Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 57-61.
(One of the early papers re-interpreting Indonesia tectonics in a plate tectonic context)

Katili, J.A. (1973)- Plate tectonics and its significance for the search of mineral deposits in western Indonesia. United Nations ECAFE CCOP, Technical Bulletin 7, p. 23-37. *(online at: https://repository.unescap.org/server/api/core/bitstreams/02824758-88df-4f2d-a237-e8aa33c9b57e/content)*
(Early interpretation of Indonesia on basis of plate tectonic theory. W Indonesia magmatic arcs and subduction zones in Permian, Triassic-Jurassic, Cretaceous and Tertiary- Recent, tied to styles and ages of mineralization provinces. Late Jurassic Malayan Orogen contains tin, gold and bauxite. Cretaceous and Miocene arcs contain epithermal gold-silver ores, etc.)

Katili, J.A. (1973)- On fitting certain geological and geophysical features of the Indonesian island arc to the new global tectonics. In: P.J. Coleman (ed.) The Western Pacific: island arcs, marginal seas, geochemistry. University of Western Australia Press, p. 287-305.
(One of the early Katili papers re-interpreting Indonesia tectonics in a plate tectonic context)

Katili, J.A. (1973)- Geochronology of West Indonesia and its implication on plate tectonics. Tectonophysics 19, 3, p. 195-212.
(New radiometric ages of igneous rocks allow recognition of paleo-subduction zones of Permian, Triassic-Jurassic, Cretaceous, Miocene and Pliocene-Recent age. Radiometric ages of granites of Lassi Massif, Padang Highlands, C Sumatra (~112 Ma), Lampong Massif, S Sumatra (~88 Ma), offshore N Java (100 Ma), Sunda Shelf

Anambas (~86 Ma), Tembelan (~85 Ma) and Natuna (~75Ma). Permian granites near Jambi, S Sumatra ~276-298 Ma. With map of volcanic arcs of Paleozoic- Tertiary ages)

Katili, J.A. (1974)- Geological environment of the Indonesian mineral deposits; a plate tectonic approach. Geological Survey of Indonesia, Publikasi Teknik- Seri Geologi. Ekonomi 7, p. 225-236.
(Tertiary mineralization more significant in Sulawesi, Halmahera, Irian Jaya than Sumatra, Java, Lesser Sunda islands, possibly because Pacific Plate richer in metals than Indian Ocean)

Katili, J.A. (1975)- Geological environment of the Indonesian mineral deposits; a plate tectonic approach. CCOP, Technical Bulletin 9, p. 39-56 *(online at: https://repository.unescap.org/server/api/core/bitstreams/6ac5e32a-61ce-4ed3-9bcb-8474d5152af6/content)*
(Same as paper above)

Katili, J.A. (1975)- Volcanism and plate tectonics in the Indonesian island arcs. Tectonophysics 26, p. 165-188.
(Classic paper, showing reconstruction of outward migration of Indonesian volcanic arcs from Permian-Cretaceous- Oligo-Miocene to Recent)

Katili, J.A. (1980)- Geotectonics of Indonesia- a modern view. Directorate General of Mines, Jakarta, p. 1-271.
(Reprint collection book of J.A. Katili papers 1962-1978)

Katili, J.A. (1981)- Contradicting views on the plate tectonics of Indonesia and their bearing on heat flow research. Bull. Geological Research Development Centre (GRDC) 5, p. 21-29.

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Katili, J.A. (1989)- Review of past and present geotectonic concepts of Eastern Indonesia. In: J.E. van Hinte et al. (eds.) Proc. Snellius II Symposium, Jakarta 1987, Netherlands J. of Sea Research 24, 2-3, p. 103-129.
(History of geotectonic concepts on E Indonesia since early 1900's)

Katili, J.A. (1989)- Evolution of the Southeast Asian arc complex. Geologi Indonesia (J. Indonesian Ass. Geol., IAGI) 12, 1 (Katili Special Volume), p. 113-143.

Katili, J.A. (1991)- Tectonic evolution of Eastern Indonesia and its bearing on the occurrence of hydrocarbons. Marine and Petroleum Geology 8, 1, p. 70-83.
(New Guinea first collided with Sepik island arc at ~30 Ma. At ~20 Ma subduction pattern reorganization resulted in 8000 km long, E-W arc-trench system from Sumatra to Buru. Prior to arrival of Australian continent at SE Asian continental margin, a N-S oriented Sulawesi-Mindanao volcanic arc existed ~800 km E of Borneo. New Guinea and Sepik collided with Inner Melanesian island arc, opening Australian Plate to influence of WNW moving Pacific Plate. At ~10 Ma S-dipping subduction zone broke through N of Irian Jaya but no volcanism. Oil and gas in pull-apart basins of Irian Jaya in Tertiary deposits, but source rocks in collision zones likely Mesozoic. Exploration targets in E Indonesia: Arafura Shelf intracratonic basins, marginal (rift) basins skirting S and E of Banda arc, collision zones of Timor, Seram, E Sulawesi and W Papua thrustbelt)

Katili, J.A. & S. Asikin (1985)- Hydrocarbon prospects in complex paleo subduction zones. Proc. 14th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 83-103.
(No significant hydrocarbons in accretionary wedge of W Indonesia. Sumatra fore-arc basin lacks coarse quartz-rich reservoirs; hydrocarbon source rocks are immature. Arc-trench system of E Indonesia different. Two phases in Banda Arc: (1) Indian-Australian plate oceanic crust subducted under Banda oceanic plate, (2) subduction of Australian continental crust into Banda Arc subduction zone. Oceanic crust dipping in Sumatra-Java Trench covered by thin pelagic sediments, but parts of shelf -slope sequences of Arafura Platform carried into Tanimbar Trench and Aru Through. Consolidated lower part of sequence greater shear strength and little material from there scraped off and incorporated in wedge. If rich in organic material, tectonic processes in trench and beneath wedge will mature organic material. If reservoir rocks exist in front of wedge, migration and accumulation possible. Oil and gas in subduction complex of E Sulawesi may be explained in same way)

Katili, J.A. & S. Asikin (1987)- Hydrocarbon prospects in complex paleo subduction zones. Proc. 22nd Session Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Guangzhou 1985, 2, p. 279-301.
(Same paper as above)

Katili, J.A. & H.M.S. Hartono (1983)- Complications of Cenozoic tectonic development in Eastern Indonesia. In: T.W.C. Hilde & S. Uyeda (eds.) Geodynamics of the western Pacific-Indonesian region, American Geophysical Union (AGU) and Geological Society of America (GSA) Geodynamics Series 11, p. 387-399.
(Tectonic development of Indonesian archipelago as SE margin of Eurasian plate can be followed since Late Paleozoic from continental nucleus located between Sumatera and Kalimantan Archipelago developed E-ward until it attained present position as represented by Banda volcanic arc. During Late Paleozoic and throughout Mesozoic development of Sunda Arc system regular and always had arcuate shape of volcanic arc around continental margin. Tertiary more complicated)

Katili, J.A. & P. Marks (1963)- Geologi. Departemen Urusan Research Nasional, Kilatmadju Bandung, p. 1-855.
('Geology'. First general geology textbook in Indonesian language, with numerous illustrations from Indonesia)

Katili, J.A. & J.A. Reinemund (1984)- Southeast Asia: tectonic framework, earth resources and regional geological problems. International Union Geological Sciences (IUGS), Publ. 13, p. 1-68.

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(online at: http://jrisetgeotam.com/index.php/NIGM/article/viewFile/164/159)
(Four types of Quaternary tectonic deformation. Marine terraces around Bangka and Billiton on stable Sunda Shelf formed by Quaternary sea level highstands. Post-glacial strandlines at 0.5-1m (3500 BP), 1.5-2m (5000 BP) and 5m (6000 BP) above present sea level)

Kaufmann, G.F. (1951)- The tectonic framework of the Far East and the influence on the origin and accumulation of petroleum. Proc. 3rd World Petroleum Congress, The Hague, 1, p. 87-118.

Kaymakci, N., J. Decker, D. Orange, P. Teas & P. Van Heiningen (2013)- Geodynamic evolution of the Banda Sea region. American Geophysical Union (AGU) Fall Meeting, San Francisco, 1p. *(Abstract only)*
(online at: http://adsabs.harvard.edu/abs/2013AGUFM.T41B2574K)
(Summary of main structural elements of E Indonesia, from Sulawesi in W to W Papua in E, across N part of Banda Arc. N boundary of 'Birds Head' of W Papua is sinistral Sorong strike-slip fault zone with >48km displacement over last few Myrs. W boundary fault of Cendrawasih Basin defines E boundary of Birds Head and corresponds to Wandamen Peninsula with high-P metamorphic rocks with exhumation ages from 4-1 Ma. Birds Head and Pacific Plate coupled, so Birds Head completely detached from Irian Jaya. Etc.)

Kaymakci, N., J. Decker, D. Orange, P. Teas & P. Van Heiningen (2015)- Tectonic characteristics and evolution Banda Sea region. AAPG-SEG Int. Conference Exhibition (ICE), Melbourne 2015, p. 564. *(Abstract only)*
(online at: https://library.seg.org/doi/10.1190/ice2015-2205090)
(From M Miocene onwards, Banda Sea started to be devolved due to retreat and roll-back of N-ward subducting Indo-Australian oceanic plate below SE-most Eurasian margin. Process facilitated by trench perpendicular tear in slab, dissecting Sulawesi along Palu-Matana Fault and delimits S boundaries of Banggai-Sula, Birds Head (BH) and N boundary of Banda Sea plate. Sorong Fault Zone separates Birds Head and Halmahera and accommodated >48 km sinistral offset over last few Myrs. E margin of Cendrawasih Basin is major transpressive belt along which BH and main body of Papua/ Irian Jaya is decoupled. Etc.)

Kenyon, C.S. & L.R. Beddoes (1977)- Geothermal gradient map of Southeast Asia. SEAPEX/ Indonesian Petroleum Association (IPA) Publ., p.
(see also updated version by Rutherford & Qureshi 1981)

Kenyon, C.S., K. Roberti, M. Hughes-Clarke & M. de Matharel (1976)- Geothermal gradient map of Indonesia, a progress report. Proc. 5th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 81-90.

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('Earthquake activity in Indonesia- regional perspective')

Kertapati, E.K., A. Soehami & A. Djuhanda (1992)- Seismotectonic map of Indonesia, 1: 5 Million, Geological Research Development Centre (GRDC), Bandung.
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(online at: www.iagi.or.id/fosi/berita-sedimentologi-no-35-palaeogene-of-the-eastern-margin-of-sundaland-part-1.html)

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(online at: https://pubs.usgs.gov/of/1973/0143/report.pdf)
(Mainly a listing of English-language geological publications/ reports prior to 1973, by USGS geologist Keith B. Ketner, seconded to Geological Survey of Indonesia in 1970-1972)

Klompe, Th.H.F. (1951)- De structurele en economische betekenis der Mesozoische plooiingsfasen voor Zuidoost-Azie. Inaugural address Professor of Geology, University of Indonesia, Bandung, Vorkink, p.
('The structural and economic significance of the Mesozoic folding phases for Southeast Asia')

Klompe, Th.H.F. (1957)- Pacific and Variscan orogeny in Indonesia. A structural synthesis. Indonesian J. Natural Science (Majalah Ilmu Alam untuk Indonesia) 113, p. 43-87.
(Pre-plate tectonic tectonic synthesis of Indonesia. Stratigraphic and structural features of Indonesia suggests major differences between E and W parts. In E Indonesia extensive Paleozoic ('Variscan orogeny') land mass development, modified by later regeneration and epeirogenic movements. No trace of Paleozoic/ Variscan orogeny in W part, but widespread effects of Pacific orogeny (Mesozoic))

Klompe, Th.H.F. (1961)- Pacific and Variscan orogeny in Indonesia. A structural synthesis. Proc. 9th Pacific Science Congress, Bangkok 1957, 12, p. 76-115.
(online at: http://archive.org/details/geologyandgeophy032600mbp)
(Same as Klompe (1957) paper above)

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(On Permian- Triassic volcanics of C Sumatra, Triassic Pahang volcanics in Malay Peninsula and W-C Borneo. Two zones of Late Paleozoic- E Mesozoic volcanic activity: (1) northern, more acid zone in Malaya and C Borneo, and (2) southern, more basic zone in Sumatra. Djambi volcanites do not originate from Malaya, but form part of autochthonous series. This, and lack of indications for thrust movements in west C Sumatra, make occurrence of postulated sheet structures in Djambi and other parts of west C Sumatra rather doubtful. 'Perfect correlation between Permian volcanic series of Jambi and Silungkang Fm', Padang Highlands, W Sumatra, but different from Pahang Volcanics of Malay Peninsula)

Klompe, Th.H.F., J.A. Katili, Johannas & Soekendar (1961)- Late Palaeozoic- Early Mesozoic volcanic activity in the Sunda Land area. Proc. 9th Pacific Science Congress, Bangkok 1957, 12, p. 204-217.
(Same paper as Klompe et al. (1957), above)

Klompe, Th.H.F. & Sigit Soetardjo (1954, 1965)- Geologic map of Indonesia 1:2,000,000. Direktorat Geologi Indonesia, Bandung, and U.S. Geological Survey (USGS) Miscellaneous Geological Investigations. Map I-414, 2 sheets.
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(West sheet online at: https://pubs.usgs.gov/imap/0414/plate-2.pdf)
(East sheet online at: https://pubs.usgs.gov/imap/0414/plate-1.pdf)

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(vol. 2-3 online at: https://www.itbpress.id/buku-gratis/?fbclid=IwY2xjawILVytleHRuA2F#
(Comprehensive book on the geology of Indonesia, in two volumes, with focus on sedimentary basins)

Koesoemadinata, R.P. & D. Noeradi (eds.) (2003)- Indonesian island arcs: magmatism, mineralization and tectonic setting. Penerbit ITB, Bandung, p. 1-361.
(Collection of papers by professor R. Soeria-Atmadja 1974-2001, reprinted at 'Pak Rubini's retirement from ITB)

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(online at: https://journals.itb.ac.id/index.php/jmfs/article/view/9659)
(Early overview of offshore basins, originally presented at 12th Pacific Science Congress in 1971. With schematic cross sections of Sunda Shelf, Java Sea and Paternoster Platform)

Koesoemadinata, R.P., L. Samuel & M.I. Tachjudin (1995)- Subsidence curves and modelling of some Indonesian Tertiary basins. In: G.H. Teh (ed.) Southeast Asian basins: oil and gas for the 21st century, Proc. AAPG-GSM Int. Conference, Kuala Lumpur 1994, Bull. Geological Society Malaysia 37, p. 205-230.
(online at: https://gsm.org.my/wp-content/uploads/gsm_file_2/702001-100951-PDF.pdf)
(Subsidence curves of N and S Sumatra, Barito, NE Java and Salawati Basins constructed from well-bore data, calibrated by micropaleontology and seismic sections. All basins Tertiary age, but differences and similarities in basin forming mechanics, depositional fill and final modifying tectonics. Barito Basin typical foreland basin subsidence curve related to flexuring of continental crust, related to docking of Paternoster-East Sunda microcontinent on Sunda continent. N and S Sumatra and NW and NE Java basins back-arc basins)

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Koesoemadinata, R.P., S.I. Qivayanti & A.H.P. Kesumayana (1999)- Shale compaction curves of Tertiary basins of Western Indonesia. Proc. 28th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 3, p. 83-92.
(online at: https://www.iagi.or.id/web/digital/57/8.pdf)

(Shales exponential reduction of initial porosity value of 75% to 38% in upper 500m. From 500m down linear reduction to 3% below ~3000m?)

Koning, L.P.G. (1952)- Earthquakes in relation to their geographical distribution, depth and magnitude. I. The East Indian Archipelago. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, B55, 1, p. 60-77.
(First of series of papers on global distribution of earthquakes. Deep-focus earthquakes in Indonesia not arranged in single inclined surface, sloping to depth of 600 km and dipping towards continents, as previously suggested, but two separate seismic zones: (1) from W coast of Sumatra to Java, Lesser Sunda Islands to New Guinea and (2) J-shaped belt in NE part)

Koninklijk Nederlandsch Aardrijkskundig Genootschap (A.J. Pannekoek et al.) (1938)- Atlas van Tropisch Nederland. Batavia, 31 plates.
(Classic atlas with 38 topographic maps, mainly from Indonesian region, including details of volcanoes)

Koomans, C.M. (1938)- On tektites and pseudotektites from Dutch East Indies and Philippines. Leidsche Geologische Mededelingen 10, p. 63-80.
(online at: www.repository.naturalis.nl/document/549606)
(Some reported tektites in Indonesian region are true extra-terrestrial tektites (billitonites, Java, Thailand, Luzon), others are 'pseudo-tektites' (pebbles of volcanic glass/ obsidian; Palembang, Garut, Gunung Kiamis))

Koto, B. (1899)- On the geologic structure of the Malayan Archipelago. J. Faculty of Science, Imperial University of Tokyo 11, 2, p. 83-120.
(online at: http://repository.dl.itc.u-tokyo.ac.jp/dspace/bitstream/2261/32675/1/jcs011007.pdf)
(Very early review of Indonesia geology by a Japanese author)

Koulali, A., S. Susilo, S. McClusky, I. Meilano, P. Cummins, P. Tregoning, G. Lister, J. Efendi & M.A. Syafi'i (2016)- Crustal strain partitioning and the associated earthquake hazard in the eastern Sunda- Banda Arc. Geophysical Research Letters 43, 5, p. 1943-1949.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1002/2016GL067941)
(GPS measurements of surface deformation show convergence between Australian Plate and Sunda Block in E Indonesia partitioned between megathrust and continuous zone of back-arc thrusting extending 2000 km from E Java to N of Timor. Partitioning occurs via CCW rotation of arc segment called Sumba Block, and left-lateral movement along major NE-SW strike-slip fault W of Timor. Also W-ward extension of back-arc thrust for 300 km onshore into E Java, accommodating slip of ~6 mm/yr)

Krabbenhoeft, A., R.W. Weinrebe, H. Kopp, E.R. Flueh, S. Ladage, C. Papenberg, L. Planert & Y. Djajadihardja (2010)- Bathymetry of the Indonesian Sunda margin-relating morphological features of the upper plate slopes to the location and extent of the seismogenic zone. Natural Hazards Earth System Sciences (EGU) 10, p. 1899-1911.
(online at: www.nat-hazards-earth-syst-sci.net/10/1899/2010/nhess-10-1899-2010.pdf)
(Review of variations in character along Sunda subduction zone from N Sumatra to East of Java. Off Sumatra wider seismogenic zone with larger earthquakes. Variations controlled by increasing age of crust of subducting plate from W to E, decrease in thickness of sediment cover from W to E, topography of downgoing plate, etc.)

Kreemer, C., W.E. Holt, S. Goes & R. Govers (2000)- Active deformation in Eastern Indonesia and the Philippines from GPS and seismicity data. J. of Geophysical Research 105, B1, p. 663-680.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/1999JB900356/epdf)
(GPS and seismicity data show Java Trench delineates Australian plate (AU) - Sunda block boundary W of Sumba, but E of Sumba convergence distributed over back-arc and Banda Sea and no subduction at Timor Trough. In New Guinea most motion is strike-slip in N part of island, delineating Pacific- Australian plate boundary. Some trench-normal convergence at New Guinea Trench, evidence that strain is partitioned to accommodate oblique Pacific- Australia motion. Sulawesi Trench may take up some of AU-Sunda motion)

Kuenen, P.H. (1932)- Remarks on the undation theory of Van Bemmelen. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 35, 9, p. 1155-1160.
(online at: https://dwc.knaw.nl/DL/publications/PU00016337.pdf)
(Early criticism on Van Bemmelen's newly proposed, controversial tectonic 'undation theory')

Kuenen, P.H. (1934)- Relations between submarine topography and gravity field. In: F.A. Vening Meinesz (1934), Gravity expeditions at sea 1923-1932, Waltman, Delft, 2, Chapter 8, p. 183-193.
(online at: www.ncg.knaw.nl/Publicaties/Groen/pdf/04VeningMeinesz.pdf)
(Two types of deep water basins in Indonesia, each with two sub-groups)

Kuenen, P.H. (1935)- Geological interpretation of the bathymetrical results. In: Scientific results of the Snellius Expedition in the Eastern part of the Netherlands East Indies (1929-1930), 5. Geological Results, 1, Kemink, Utrecht, p. 1-124.
(online at: https://resolver.kb.nl/resolve?urn=MMKB24:073716000:pdf)
(Descriptions and interpretations of E Indonesia seafloor morphology. Includes overview of earlier tectonic syntheses of region)

Kuenen, P.H. (1936)- The negative isostatic anomalies in the East Indies (with experiments). Leidsche Geologische Mededelingen 8, 2, p. 169-214.
(online at: www.repository.naturalis.nl/document/549385)
(Sandbox compressional deformation modeling of crustal buckling, in attempt to model the belts of negative gravity anomalies of Vening Meinesz))

Kuenen, P.H. (1938)- Submarine slopes of volcanoes and coral reefs in the East Indian Archipelago. Comptes Rendus Congres International de Geographie, Amsterdam 1938, Brill, Leiden, 2, Oceanographie, p. 93-98.
(online at: https://resolver.kb.nl/resolve?urn=MMKB06:000004273:pdf)
(Brief review of slopes volcanoes and reefs (Tukang Besi, etc.) from submarine hydrographic survey data))

Kuenen, P.H. (1939)- Sediments of the East Indian Archipelago. In: P.D. Trask (ed.) Recent marine sediments: a symposium, AAPG/ Society for Sedimentary Geology (SEPM), Tulsa, Special Publ. 4, p. 348-355.
(Marine sediments of East Indonesia Archipelago vary greatly in character. Sediments in shallow Java Sea in S rel. fine-grained and rich in volcanic debris; in N, near Borneo, rel. coarse and rich in quartz. Deep water $CaCO_3$ content decreases with water depth, from ~50% in water <500 m deep to <5 % below 5000 m.. In areas in which the sea floor slopes > 5°, $CaCO_3$ content is greater at 2500-3500m than at depths of 1500-2500 m, perhaps due to slumping of sediments. Sediments of Kau Bay contain H_2S and $Fe2S_3$ and also are rich in organic matter, all as result of stagnation in 500 m deep with sill depth connection with sea only 50 m deep)

Kumar, R.T.R., T.K. Maji & R.R. Nair (2010)- Assessment of flexural analysis applied to the Sumatra-Java subduction zone. J. Earth System Science 119, 5, p. 717-730.
(Lithospheric mechanical strength variations of Indian Ocean subduction zone in Sumatra-Java from Bouguer gravity and bathymetry data. Strong coupling between subducting and over-riding plates and deeper mantle contributing to shallow focus-high magnitude seismicity for Sumatra, and vice versa for Java)

Kurniawan, A. (2014)- Geologi batuan granitoid di Indonesia dan distribusinya. Masyarakat Ilmu Bumi Indonesia 1, E-3, p. 1-16.
(online at: https://www.academia.edu/7756498/Geologi_Batuan_Granitoid_di_Indonesia_dan_Distribusinya)
('The geology of granitoid rocks in Indonesia and their distribution'. Brief review of distribution of granitoids in Indonesia. In Sumatra 3 groups: (1) Volcanic Arc Granitoid (U Triassic- Pliocene, 203- 5 Ma), (2) Main Range Granitoid (E Triassic- E Cretaceous, 247-143 Ma), (3) Eastern Granitoid (U Permian- U Jurassic, 264-216 Ma). In Kalimantan 4 groups: (1) Natuna-Semitau-Sanggau (Triassic-Jurassic), (2) Meratus (Carboniferous-Cretaceous), (3) Schwaner (Cretaceous- E Tertiary), (4) C Kalimantan Tertiary Arc (Late Eocene- E Miocene). Also Java, Lesser Sunda Islands, Sulawesi- Banggai Sula (3 groups) and W Papua (two groups: (1) Birds Head/ Permian-Triassic and (2) Papuan foldbelt/ U Pliocene). No maps)

Kusumahbrata, Y. (2008)- Geoheritage of Indonesia. In: M.S. Leman et al. (eds.) Geoheritage of East and Southeast Asia. Institut Alam Sekitar dan Pembangungan(LESTARI), Universiti Kebangsaan Malaysia, Kuala Lumpur, and CCOP, Bangkok, p. 57-92.
(online at: www.ccop.or.th/download/pub/CCOP-geoheritage-book.pdf)
(Proposed geological monuments in Indonesia)

Lam, H.J. (1930)- Het genetisch-plantengeografisch onderzoek van den Indischen Archipel en Wegener's verschuivingstheorie. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 2, 47, p. 553-581.
(online at: https://resolver.kb.nl/resolve?urn=MMUBA13:001673001:pdf)
('The genetic- plantgeographic investigation of the Indies Archipelago and Wegener's Continental drift theory'. Historically interesting review of plant communities and possible significance for plate movements)

Lam, H.J. (1937)- On a forgotten floristic map of Malaysia (H. Zollinger, 1857). Blumea 1937, Supplement 1, p. 176-182
(online at: https://repository.naturalis.nl/pub/526331/BLUMSUP1937001001023.pdf
(Alternatively titled "Wallace versus Zollinger", by Dutch plant biogeographer and Director of the Rijksherbarium in Leiden, Herman J. Lam (1892-1977). Laments the fact that divide between Asian and 'Australian' faunas and floras in Malay Archipelago, best known since 1860, 1869 as the 'Wallace Line', was already known to Salomon Muller (1839), Earle (1845) and was also depicted on a forgotten map by Swiss naturalist Heinrich Zollinger (1857))

Lambiase, J.J. (2011)- The stacked-channel reservoir sands of SE Asia. SEAPEX Exploration Conference, Singapore 2011, Presentation 26, p. 1-40. *(Presentation package)*

Landenberger, E. (1922)- Die Geologie von Niederlandisch-Indien, nebst einem kurzen Anhang Die Geologie der Philippinen. Schweizerbart Verlag, Stuttgart, p. 1-216.
('The geology of Netherlands Indies, with a short chapter on the geology of the Philippines'. Early overview of Indonesia geology, written for travelers. Not much new)

Lebedev, S. & G. Nolet (2003)- Upper mantle beneath Southeast Asia from S velocity tomography. J. of Geophysical Research 108, B1, 2048, p.
(3D S-velocity model of SE Asian- W Pacific upper mantle with 400-km lateral resolution. Hard to interpret?)

Lee, C. & R. McCabe (1986)- The Banda-Celebes-Sulu Basin: a trapped piece of Cretaceous- Eocene oceanic crust? Nature 322, 6074, p. 51-54.
(Banda basin underlain by oceanic crust, previously interpreted as trapped oceanic basin which was once continuous with Late Jurassic Argo abyssal plain (Bowin et al., etc.). Newly identified magnetic reversal ages, heatflow data, etc., suggest Celebes and Sulu Seas may have been continuous with Banda basin, and are all part of dissected Cretaceous-Eocene oceanic basin (Banda and Sulu Seas basins age now commonly accepted to be of Late Miocene- Pliocene age (Hamilton 1979, Hinschberger et al. 2001); JTvG))

Lee, T.Y. (1992)- Cenozoic plate reconstruction of Southeast Asia and sequence stratigraphy and tectonics of the Tainan Basin, offshore southwestern Taiwan. Ph.D. Thesis, University of Texas, Austin, p. 1-240.
(Paleocene (60 Ma) - Recent plate reconstructions of SE Asia)

Lee, T.Y. & L.A. Lawver (1994)- Cenozoic plate reconstruction of the South China Sea region. Tectonophysics 235, 1-2, p. 149-180.

Lee, T.Y. & L.A. Lawver (1995)- Cenozoic plate reconstruction of Southeast Asia. Tectonophysics 251, p. 85-138.
(Reconstructions of SE Asia region from 60- 5 Ma. Impact between Greater India and SE Asia in NW part of SE Asia, probably from M Eocene- E Miocene, W of Burma block, so no reason to assume Sumatra, Malay Peninsula and Kalimantan should extrude to SE along left-lateral Mae Ping and Three Pagodas fault zones as suggested by Peltzer and Tapponnier (1988). Opening of C Thailand basins, Gulf of Thailand, and Malay Basin require dextral

megashear zone to compensate relative motion between Indochina and Malay Peninsula, which may extend into W Kalimantan and serve as boundary between Indochina block and Kalimantan)

Lejay, P. (1946)- Gravimetrie et tectonique dans les Indes Neerlandaises. Bull. Societe Geologique France (5), 16, p. 525-540.
('Gravimetry and tectonics of the Netherlands Indies')

Leman, M.S., A. Reeedman & C.S. Pei (2008)- Geoheritage of East and Southeast Asia. Inst. Alam Sekitar dan Pembangunan (LESTARI) and CCOP, p. 1-320.
(online at: www.ccop.or.th/download/pub/CCOP-geoheritage-book.pdf)
(Book describing geological monuments and proposed monuments in Indonesia and other Asian countries)

Lemenkova, P. (2020)- Java and Sumatra segments of the Sunda Trench: geomorphology and geophysical settings analysed and visualized by GMT. Glasnik Srpskog Geografskog Drustva (Bull. Serbian Geographical Society) 100, 2, p. 1-23.
(online at: https://doiserbia.nb.rs/img/doi/0350-3593/2020/0350-35932002001L.pdf)
(Russian paper on submarine geomorphology of Sunda Trench in W Indonesia. With good images of West Indonesia topography/bathymetry, offshore sediment thickmess, free air gravity, geoid model, etc.)

Lemenkova, P. (2020)- Analysis of the difference in depths and variation in slope steepness of the Sunda Trench, Indonesia, East Indian Ocean, Revista de Geomorfologie 22, 1, p. 21-41
(online at: https://revistadegeomorfologie.ro/geo/index.php/revista/article/view/96/55)
(Analysis of differences in depths and variation in slope steepness between the two segments of Sunda Trench in S Java and N Sumatra. More about available data and methods than results?- JTvG))

Letouzey, J., P. de Clarens, J. Guignard & J.L. Berthon (1983)- Structure of the North Banda- Molucca area from multi-channel seismic reflection data. Proc. 12th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 143-156.
(N Banda-Molucca area at junction of three converging plates, a mosaic of remnant and active island arcs and continental and oceanic fragments. NW-SW late Neogene thrusts and anticlines in NE part of S Halmahera. S of Halmahera several sinistral, transcurrent, reverse faults prolong Sorong fault. From deep Salawati basin to N Buru large tectonic zone with mud diapirs. Due to collision, possible remnants of Molucca Sea Plate outcrop in E arm of Sulawesi and Obi Island. Good cross-sections Seram- Halmahera area)

Letouzey, J. & C. Muller (1988)- Structure of sedimentary basins in Eastern Asia. Proc. 7th Offshore South East Asia Conference, Singapore 1988, SEAPEX Proceedings 8, p. 63-68.
(Cross sections through E Asian basins S China Sea, Philippines, NW Borneo, etc.)

Letouzey, J., L. Sage & C. Muller (1988)- Geological and structural maps of eastern Asia- introductory notes. American Assoc. Petroleum Geol. (AAPG), Tulsa, p. 1-52. + 3 map sheets 1: 2,500,000.
(Three 1:2.5M scale maps, with introductory notes and cross-sections, compiled by Institut Francais du Petrole)

Letouzey, J., P. Werner & A. Marty (1990)- Fault reactivation and structural inversion. Backarc and intraplate compressive deformations. Example of the eastern Sunda shelf (Indonesia). Tectonophysics 183, p. 341-362.
(online at: https://www.academia.edu/19551149/Fault_reactivation_and_structural_inversion_Backarc_and_intraplate_compressive_deformations_Example_of_the_eastern_Sunda_shelf_Indonesia_)
(Three main Cenozoic tectonic periods:(1) Paleogene- E Miocene extension with graben fill (2) quiescent period, (3) M Miocene- Recent folding/ inversion/ thrusting. Many folds on E Sunda Platform are inversions of Paleogene grabens)

Leupold, W. & I.M. van der Vlerk (1931)- The Tertiary. In: B.G. Escher et al. (eds.) Stratigraphie van Nederlandsch Oost-Indie (K. Martin memorial volume), Leidsche Geologische Mededelingen 5, p. 611-648.
(online at: www.repository.naturalis.nl/document/549456)

(Overview of Tertiary formations and correlations across the 'Netherlands Indies' in K. Martin memorial volume. With formation correlation table and Tertiary larger foraminifera range chart))

Lin, Y.A., L. Colli, J. Wu & B.S.A. Schuberth (2020)- Where are the Proto-South China Sea slabs? SE Asian plate tectonics and mantle flow history from global mantle convection modeling. J. of Geophysical Research: Solid Earth 125, 12, e2020JB019758, p. 1-25.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2020JB019758)
(Four proto-S China Sea plate reconstruction models compared to tomographic images. S-ward PSCS subduction produces slabs beneath present Palawan, N Borneo, and offshore Palawan. Double-sided PSCS subduction combined with earlierBorneo rotations reproduce subhorizontal slabs under southern SCS at ~400-700 km depths and best fit seismic tomography. PSCS slabs now at <900 km under present-day Borneo, SCS, Sulu and Celebes Seas and S Philippines. Modeled Sundaland dynamic topography strongly depends on imposed plate reconstructions, varying by almost 1 km)

Linthout, K., H. Helmers & J. Sopaheluwakan (1997)- Late Miocene obduction and microplate migration around the southern Banda Sea and the closure of the Indonesian Seaway. Tectonophysics 281, p. 17-30.
(online at: https://www.academia.edu/7322502/Late_Miocene_obduction_and_microplate_migration_around_the_southern_Banda_Sea_and_the_closure_of_the_Indonesian_Seaway)
(Miocene shallowing and closure of Indonesian Seaway between Indian Ocean-Pacific related to plate-tectonic developments at S margins of Banda Sea. Model good agreement with 9.9-7.5 Ma history of shallowing and closure of Indonesian Seaway, as inferred from biogeographic patterns and thermal evolution of Miocene Equatorial Pacific waters. Obduction/post-obduction exhumation curve of Kaibobo ultramafic complex and its sole on Seram, suggests obduction started at ~9.5 Ma, emplacement was completed at ~ 8 Ma and fast vertical movements continued until ~7 Ma. Obduction of lherzolitic complex on N Timor also at 8 Ma and cooling to 300°C at 5.5 Ma, similar to Kaibobo. Proposed model features interarc spreading in short-lived, interarc Timor Plate (16-9.5 Ma) just N of line Timor-Tanimbar, lengthening of E Sunda volcanic arc by creation of volcanic Banda Arc, obduction-emplacement and exhumatian of ultramafics, and migration of Seram microcontinent)

Linthout, K., H. Helmers & J. Sopaheluwakan (1999)- Dual subduction and a Neogene microplate between Australia and the Banda Sea. In: H. Darman & F.H. Sidi (eds.) Tectonics and sedimentation of Indonesia, FOSI-IAGI-ITB Regional Seminar to commemorate 50th anniversary of Van Bemmelen's Geology of Indonesia, Bandung 1999, p. 92. *(Abstract only)*
(New tectonic model requires separate Timor microplate in Neogene, now part of Banda collision zone. Paleomagnetic data suggests Timor island contains allochthonous terranes that were separated from N Australian margin by >2500km in E Cretaceous. Late Neogene Banda Arc not related to subduction of 2500km of oceanic crust during Cretaceous- Pliocene. Upside-down metamorphism of Late Miocene age in soles of ultramafites requires obduction of hot lithosphere, etc. No figures)

Lloyd, P.M., R. Koch, D. Desautels, M. Amiruddin, M. Zain & R. Davis (1999)- Chasing channel sands in Southeast Asia. In: G.H. Teh (ed.) Proc. 9th Regional Congress Geology Mineral Energy Resources of SE Asia (GEOSEA '98), Kuala Lumpur 1998, Bull. Geological Society Malaysia 43, p. 377-384.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1999038.pdf)

Longley, I.M. (1997)- The tectonostratigraphic evolution of Southeast Asia. In: A.J. Fraser, S.J. Matthews & R.W. Murphy (eds.) Petroleum Geology of Southeast Asia. Geological Society, London, Special Publ. 126, p. 311-340.
(Tertiary tectono-stratigraphic evolution of SE Asia four phases: (1) 50-43.5 Ma: Start of India-Eurasia collision, reducing in convergence along Sunda Arc subduction system, resulting in extension in adjacent fore-arc and back arc areas; (2) 43.5-32 Ma: termination of oceanic subduction beneath India-Eurasia collision zone caused plate reorganization, producing second phase of rifting, with onset of extension in S China Sea and Makassar Straits failed rift. First major collision of Luconia Shoals block with subduction along NW Borneo margin; (3) 32-21 Ma): first phase of S China Sea seafloor spreading, rotations creating Malay Basin and inversion along Sunda Arc ending rifting in these basins; (4) 21–0 Ma: cessation of first phase of seafloor spreading inS China Sea

caused by collsion of Baram block with NW Borneo subduction system. Collisions in NW Borneo, Sulawesi and Timor areas, with rotation of Sumatra resulted in extensive structural inversion)

Longley, I.M. (2000)- Extrusion collusion and rotational confusion in SE Asian tectonic models. AAPG International Conference Exhib. Abstracts, American Assoc. Petroleum Geol. (AAPG) Bull. 84, 9, p. 1458. *(Abstract only)*
(In Paleogene SE Asia experienced rift phase with no significant transtension or transpression. Extrusion tectonics also fails to explain origin of backarc basins of Sumatra and Java, Malay Basin, etc. Paleogene evolution mainly driven by M Eocene plate re-organisation caused by India-Eurasia collision, with extrusion tectonics only as Neogene modifier to basins formed by Paleogene rifting. Model suggests all Tertiary rotations in SE Asia are clockwise, initially due to opening of S China Sea and later due to effects of extrusion tectonics)

Longley, I.M. (2002)- Extrusion tectonics- give it up!- it does not explain the Tertiary evolution of SE Asia. Indonesian Petroleum Association (IPA) Newsletter, June 2002, p. 16-19.

Longman, M. (1993)- Southeast Asian Tertiary carbonate reservoirs. Petroconsultants, 2 vols. *(Unpublished)*

Lovholt, F., D. Kuhn, H. Bungum, C.B. Harbitz & S. Glimsdal (2012)- Historical tsunamis and present tsunami hazard in eastern Indonesia and the southern Philippines. J. of Geophysical Research: Solid Earth 117, B09310, p. 1-19.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2012JB009425)
(With maps of historic tsunami occurrences and regional tsunami hazard maps in E Indonesia-Philippines)

Lowell, J.D. (1980)- Wrench vs. compressional structures with application to Southeast Asia. Proc. SE Asia Petroleum Exploration Society (SEAPEX) Conference 5, Singapore, p. 63-70.
(Criteria to distinguish between wrench and compressional faults. With examples of compressional faults in Kawengan, NE Java, and wrench structures in Pungut/ Tandun fields in C Sumatra)

Lukk, A.A. & V.G. Leonova (2022)- Sundaland: undeformed lithospheric block of Southeast Asia. Izvestiya, Atmospheric and Oceanic Physics 58, 7, p. 778–804.
(online at: https://www.researchgate.net/publication/366929150_Russian_Text_C_The_Authors_2022)
(Review of present-day geodetic data for SE Asia confirm assumption that central part (Sunda Plate) can be regarded as a rigid stable block with a continental lithosphere. Boundaries are represented by subduction zones and areas of recent continental tectonic deformation, where most deformation is concentrated)

Lukk, A.A. & V.I. Shevchenko (2008)- Island arcs, deep-sea trenches, and seismofocal zones of Indonesia and the Pacific Ocean; similarity and distinctions. Izvestia, Physics Solid Earth, Russian Academy of Sciences, 44, 2, p. 85-118.
(Non-plate tectonic interpretation, suggesting island arcs, deep-sea trenches and seismofocal zones of Indonesia differ from those of Pacific ring proper)

Luan, X. (2024)- A model of plate tectonic framework for the Southeast Asia margin in the mid-Cretaceous. Earth-Science Reviews 259, 104970, p.
(A global scale Cretaceous granitoid belt can be identified from Sikhote-Alin in N all the way to NW Borneo and Qiangtang terrane of Tibet, representing a giant magmatic arc system in response to direction change of subduction of Izinagi plate and Indian-Australian plate at ~100 Ma. This global subduction/magmatic system was displaced in E Cenozoic as result of India-Asian collision,with development of escape tectonics characterized by strike-slip fault systems.Subsequent rifting further broke and dispersed granitoid belts into fragments to present locations in Greater SE Asian tectonic realm)

Lunt, P. (2003)- Biogeography of some Eocene larger foraminifera, and their application in distinguishing geological plates. Palaeontologia Electronica 6, 1, p. 1-22.
(online at: http://palaeoelectronica.org/paleo/2003_2/geo/issue2_03.htm)

(Eocene larger foram assemblages can help distinguish between carbonates from Asian-Pacific-Mediterranean (Pellatispira-Assilina) or Australian- New Guinea (Lacazinella) realms (Nummulites and Discocyclina-Asterocyclina present in both realms))

Lunt, P. & X. Luan (2024)- When, how much, how fast, and why it matters. A quantitative view of stratigraphy and the emergence of a new paradigm. Berita Sedimentologi 49, 3, p. 18-46.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/431/419)
(Review of outdated concepts and paradigms in Cenozic stratigraphy of SE Asia, and the need for a more quantitative approach)

Lunt, P. & P.J. Woodroof (2023)- Tectono-stratigraphic controls on Cenozoic Southeast Asian carbonates. In: E.C. Rankey & M.C. Poppelreiter (eds.) Cenozoic isolated carbonate platforms- Focus Southeast Asia, Society for Sedimentary Geology (SEPM) Special Publ. 114, p. 85-110.
(online at: https://www.academia.edu/102441248/TECTONO_STRATIGRAPHIC_CONTROLS_ON_CENOZOIC_SOUTHEAST_ASIAN_CARBONATES)
(Review of stratigraphic framework for Cenozoic carbonates and related deposits of numerous localities in SE Asia, and their tectonic settings. With Late Eocene- Late Miocene paleogeographic maps)

Luo, Y., L.F. Zhao, Z.X. Ge, X.B. Xie & Z.X. Yao (2021)- Crustal Lg-wave attenuation in Southeast Asia and its implications for regional tectonic evolution. Geophysical J. International 226, p. 1873-1884.
(online at: http://sourcedb.igg.cas.cn/cn/zjrck/200907/W020210617384705757479.pdf)
(On crustal attenuation structure of geological blocks in SE Asia from earthquake data. Prominent low-attenuation anomalies in Sundaland Core (= stable ancient crust, incl. Indochina, Malay Peninsula, East Sumatra, Sunda Shelf and Borneo Core). Strong attenuation regions associated with complex tectonic conditions (Indo-Australian subduction zone, sutures in Sarawak and Sabah). Borneo Core and Singapore Platform may belong to same block (similar strength features). Borneo Core likely similar long accretion history with Malay Peninsula and E Sumatra. Etc.)

MacPherson, C.G. & R. Hall (1999)- Tectonic controls of geochemical evolution in arc magmatism of SE Asia. Proc. 4th PACRIM Congress, Bali 1999, Australasian Institute of Mining and Metallurgy (AusIMM), Melbourne, p. 359-368. *(online at: https://www.researchgate.net/profile/Colin-Macpherson-2/publication/292027433_Tectonic_controls_of_geochemical_evolution_in_arc_magmatism_of_SE_Asia)*
Retreats or advances in subducting plates trench hinge important control on presence or absence of magmatism. Several locations in SE Asia show magmatism with geochemical signature of subduction, but are far from active subduction zones. Such magmatism requires earlier period of mantle enrichment by subduction but may also result from localized extension. Adakitic magmatism occurred in tectonic settings where there is no evidence for subduction of young oceanic crust at that time)

MacPherson, C.G. & R. Hall (2002)- Timing and tectonic controls in the evolving orogen of SE Asia and the western Pacific and some implications for ore generation. In: D.J. Blundell et al. (eds.) The timing and location of major ore deposits in an evolving orogen, Geological Society, London, Special Publ. 204, p. 49-67.
(online at: https://www.researchgate.net/publication/228846989_Timing_and_tectonic_controls_in_the_evolving_orogen_of_SE_Asia_and_the_western_Pacific_and_some_implications_for_ore_generation)
(Review of SE Asia tectonics and associated mineral deposits. Timing and location of hydrothermal mineralization often related to major events at plate boundaries)

Madon, M.B.H. (1999)- Plate tectonic elements and evolution of Southeast Asia. In: The Petroleum Geology and Resources of Malaysia, Chapter 4, Petronas, Kuala Lumpur, p. 61-76.

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(Alphabetical overview of Indonesian region formation names and characteristics)

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(Addendum to Marks (1957) lexicon. Compilation of location maps of type areas of stratigraphic formations, some with cross-sections)

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('Travels in the Moluccas, in Ambon, the Uliassers, Seram and Buru'. Report of 1891-1892 pioneering geological investigations on E Indonesia islands by Prof. K. Martin of the Leiden Geological Museum)

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('When did the Indies Archipelago separate from the Tethys?'. Partly commentary of Haug (1908-1911), who drew Tethys geosyncline into SE Asia and New Guinea. According to Martin, Mesozoic faunas of Indonesia have indeed significant numbers of European species but Eocene and younger mollusc faunas have no European species, suggesting there was no longer a 'Tethys' marine connections between the two (but Eocene and E Miocene larger foraminifera do have similarities; JTvG))

Martin, K. (1931)- Wann loste sich das Gebiet des Indischen Archipels von der Tethys? (eine Fortsetzung). Leidsche Geologische Mededelingen 4, p. 1-8.
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('When did the area of the Indies Archipelago separate from the Tethys? (a continuation)'. Follow up on Martin (1914) paper. Late Eocene and Neogene mollusc assemblages of Java (and Philippines, Burma, NW India) of Indo-Pacific/ Indo-Malayan character with few or no European species, suggesting no marine connections between the two since that time)

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(Summary of U Triassic carbonates around Banda Sea (Sinta Ridge, C-E Sulawesi, Buru, Seram, Misool and off NW Australia (Wombat Plateau, W Timor). In U Triassic, Seram-Buru and E Sulawesi/ Kolonodale Block two separate entities, former located in more tropical position. Seram-Buru Block originated from Irian Jaya area, Kolonodale Block (E Sulawesi) from Australian NW Shelf/ Argo Abyssal Plain. No clear similarities between Triassic of Timor and Papua-New Guinea, NW coast of Australia, Wombat Plateau. Allochthonous Triassic of Timor sedimentary evolution different from that of Australian margin and microcontinents of Banda Sea)

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(Review of history of stratigraphic concepts in Indonesia, with correlation tables of biozones and stages. Geological- stratigraphic activities stagnant between 1945-1962)

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(Compilation of heat flow data in SE Asia from published data as of 1988 and unpublished data obtained from combining published temperature gradient data of hydrocarbon exploratory wells with average thermal conductivity for individual basins estimated from published data)

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McCaffrey, R. (1996)- Slip partitioning at convergent plate boundaries of SE Asia. In: R. Hall & D.J. Blundell (eds.) Tectonic evolution of SE Asia, Geological Society, London, Special Publ. 106, p. 3-18.
(Active tectonics of Sumatra, Philippines, New Guinea fold-and thrust belt, Huon-Finisterre collision and San Cristobal trench can be understood in terms of upper plate deformation associated with oblique convergence. W Java may also exhibit partitioning of oblique subduction. Structures accommodating normal and shear

components of motion often very close. Arc-parallel strain rates estimated for forearcs of region. In Sumatra oblique convergence results in NW translation and stretching of forearc area)

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(U-Pb-He triple-dating age determinations for porphyry Cu±Mo±Au deposits, including. Modelling results for Indonesian porphyry deposits: (1) Grasberg (W Papua), emplaced at 800m at 3.1 Ma, exposed at surface 1.7 Ma; (2) Batu Hijau (SW Sumbawa), emplaced at 2400m at ~3.8 Ma, exposed at surface 1.23 Ma; (3) Ciemas (SW Java), emplaced at 5500m at ~17.8 Ma, exposure at surface 5.34 Ma)

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(Radiometrically dated emergent coral terraces from SE Indonesia provide estimates of vertical strain in Banda Arc-continent collision complex. Roti island uplift 170m in last ~125,000 years. Late Quaternary surface uplift rates vary significantly along strike of Banda orogen. Vertical displacement rates greatest in young parts of orogen where shelf-slope break recently has been underthrust beneath orogenic wedge, as at Roti, and in older parts of orogen where retroarc thrust faulting occurs, as at Alor island)

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(online at: https://link.springer.com/content/pdf/10.1186%2FBF03352270.pdf)
(GPS measurements across SE Asia from GEODYSSEA project show differential plate motions. Sundaland-South China is stable tectonic block, decoupled from Eurasia, moving S relative to India and Australia)

Michel, G.W., Y.Q. Yu, S.Y. Zhu, C. Reigber, M. Becker, E. Reinhart, W. Simons et al. (2001)- Crustal motion and block behaviour in SE Asia from GPS measurements. Earth Planetary Science Letters 187, p. 239-244.
(online at: www.geologie.ens.fr/~vigny/articles/sunda_epsl.pdf)
(Sundaland stable tectonic block, moving E rel. to Eurasia at ~12 mm/yr; moves S rel. to India and Australia)

Miller, M.S., L.J. O'Driscoll, N. Roosmawati, C.W. Harris, R.W. Porritt, S. Widiyantoro, L.T. da Costa, E. Soares, T.W. Becker & A.J. West (2016)- Banda Arc experiment- transitions in the Banda Arc-Australian continental collision. Seismological Research Letters 87, 6, p. 1-7.
(online at: http://www-udc.ig.utexas.edu/external/becker/preprints/mm16.pdf)
(About ongoing Banda Arc passive seismic experiment. Recorded >600 local earthquakes by June 2016 (see also Porritt et al. 2016))

Milsom, J. (1999)- Arc-continent collision in SE Asia: Eastern Indonesia and Papua New Guinea. London University SE Asia Research Group, Report 201, p. 1-32. *(Unpublished)*
(Arc-continent collisions taking place today in NE New Guinea and E Indonesia and Taiwan, all started between 7- 3 Ma. Evidence of older collisions in E Indonesia and New Guinea)

Milsom, J. (2000)- Stratigraphic constraints on suture models for Eastern Indonesia. J. Asian Earth Sciences 18, 6, p. 761-779. *(online at: http://directory.umm.ac.id/Data%20Elmu/jurnal/J-a/Journal%20of%20Asian%20Earth%20Science Etc.)*
(Tectonostratigraphies of Outer Banda Arc islands (Sumba, Timor, Seram, etc.) suggest these were once part of Sundaland margin and that N and S Banda Sea basins are Late Cenozoic extensional features (first author to propose the slab rollback model for Banda Seas, subsequently supported with tomographic data by Spakman and Hall 2010; JTvG). Three separate tectonostratigraphic groups (1) Sundaland margin (SW Sulawesi, Sumba) (2) Birds Head/ Sula Spur; with Late Paleozoic granites similar to central PNG; and (3) Banda Association (Buton, Buru, Seram, W Kai, Banda ridges, E Sulawesi; rifted from Gondwanaland in Jurassic)

Milsom, J. (2001)- Subduction in eastern Indonesia: how many slabs? Tectonophysics 338, 2, p. 167-178.
(Seismicity associated with arc-continent collision in E Indonesia testifies to past N-directed subduction of Indian Ocean lithosphere beneath Banda Sea. Shallow-intermediate seismicity around Banda Arc supports subduction of two separate slabs, but between 150-500 km one continuous slag with 'shoehorn' shape. This shape confirms presence of subducted lithosphere beneath Seram in N, as well as beneath Timor in S. This is incompatible with subduction of two unconnected plates, and implies rapid E-wards retreat of subduction trace (Milsom was first author to suggest 'roll-back' of subducting Indian Ocean slab as mechanism for creation of Banda Sea; but has not generally been credited for it; JTvG))

Milsom, J. (2003)- Forearc ophiolites: a view from the western Pacific. In: Y. Dilek & P.T. Robinson (eds.) Ophiolites in Earth history, Geological Society, London, Special Publ. 218, p. 507-515.
(online at: https://www.academia.edu/17392252/Ophiolites_in_Earth_History)
(Review of ophiolites in New Guinea and farther East)

Milsom, J. (2003)- The shape of subduction in Eastern Indonesia. Indonesian Petroleum Association (IPA) Newsletter, March 2003, p. 10-14.

Milsom, J. (2009)- The Caribbean: an oroclinal basin? In: K.H. James et al. (eds.) The origin and evolution of the Caribbean Plate, Geological Society, London, Special Publ. 328, p. 139-154.
(Interesting comparisons between Caribbean oroclinal system and Banda Sea region of E Indonesia)

Milsom, J. (2023)- East Asian analogues for early Alpine orogenesis. Swiss J. of Geosciences 116, 20, p. 1-21.
(online at: https://link.springer.com/article/10.1186/s00015-023-00448-x)
(Review of present-day tectonic processes during early collision, as can be seen in islands of Indo-Pacific gateway between SE Asia and Australia: (1) seamount subduction at Java Trench (seamount subduction not easy and partial accretion to forearc wedge is likely); (2) strain partitioning and sliver plate during oblique convergence in Sumatra; (3). syntaxis (major change in orientation of main fold -thrust structures) in Luzon; (4) orocline in Banda Sea (hyperextension); (5) small oceanic basins in Solomon Sea. These offer insights into start of orogenesis in foldbelts like Alps and Carpathians. Studies of Banda gateway area emphasise importance of impact on subduction zones of topography on downgoing plate, and of effects of flows in asthenosphere on lithosphere tectonics)

Milsom, J. & M.G. Audley-Charles (1986)- Post-collision isostatic readjustment in the Southern Banda Arc. Geological Society, London, Special Publ. 19, p. 351-364.
(Late Miocene-mid-Pliocene compression resulted in emplacement from N of large thrust sheets on deformed Australian margin near Timor. During last 3 Ma compression unimportant but vertical movements common and rapid. In N Timor and Banda volcanic arc, uplift is occurring where gravity data suggest there should be subsidence. Possible explanation of high gravity values is cold, dense, subducted slab which is now sinking independently after rupture near continental margin. Because of rupture, sinking slab no longer exerts downward pull on overlying lithosphere which now rebounds isostatically)

Milsom, J., M.G. Audley-Charles, A.J. Barber & D.J. Carter (1983)- Geological-geophysical paradoxes of the Eastern Indonesia collision zone. In: T.W.C. Hilde & S. Uyeda (eds.) Geodynamics of the western Pacific-Indonesian region, American Geophysical Union (AGU) and Geological Society of America (GSA) Geodynamics Series 11, p. 401-411.
(Geology of Sunda and Banda arcs not all in accord with classic plate tectonic models; many unanswered questions)

Milsom, J., D. Masson & G. Nichols (1992)- Three trench endings in Eastern Indonesia. Marine Geology 104, p. 227-241.
(Terminations of Sunda, Philippine and New Guinea trenches in E Indonesia associated with presence of blocks of thickened crust. Transition between Sunda Trench and Timor-Tanimbar Trough consequence of collision with NW Australian continent. S termination of Philippine Trench defined by presence of oceanic plateau. New Guinea

Trench terminates in W at N-trending Mapia Ridge seafloor rise. No clear indications of present day subduction along N margin of New Guinea and subduction may have ceased in W-most part of New Guinea Trench and oceanic crust of Ayu Basin W of Mapia Ridge and N of Birds Head postdates active subduction)

Milsom, J. & V. Rocchi (1998)- The long wavelength gravity field in SE Asia. J. Geological Society of China, Taipei, 41, 4, p. 489-495.
(In SE Asia long wavelength field strongly correlated with anomalously high seismic velocities in mantle due to presence of deep subducted lithosphere. Comparisons with tomography indicate long wavelength field influenced most strongly by mass excesses in lower mantle, below 600 km discontinuity. Gravity patterns suggest subduction zones formerly existed close to present-day E and possibly W coastlines of Borneo and that E-ward extension of active margin of Eurasian Plate to Banda Arc is very recent)

Milsom, J., Sardjono & A. Susilo (2001)- Short-wavelength, high-amplitude gravity anomalies around the Banda Sea, and the collapse of the Sulawesi Orogen. Tectonophysics 333, 1-2, p. 61-74.
(High-density ophiolitic rocks outcropping on islands around Banda Sea in many cases associated with strong gravity anomalies and steep gravity gradients. Bouguer gravity levels and gradients over extensive E Sulawesi Ophiolite generally low. Most positive anomalies in Banda Arc due to ophiolites superimposed on steep regional gravity gradient but in W Seram spatial separation between two. On Buru gradient >10 mGal/km suggests presence of shallow, very dense rocks, despite absence of ophiolites in outcrop. Ophiolite distribution on Sulawesi and around Banda Sea compatible with ?Oligocene collision that produced Sulawesi orogen, which collapsed after collision with Australian-derived microcontinent)

Milsom, J., J. Thurow & D. Roques (2000)- Hydrocarbon source rocks and the paleogeography of Eastern Indonesia. SEAPEX Press 3, 4, p. 42-44, 49.
(Many of the islands surrounding Banda Sea are fragments of 'East Sulawesi Microcontinent' (ESM), which rifted off Australia- New Guinea margin in Late Triassic or E Jurassic, to collide with Eurasia margin in E Miocene. Parts of this continent are now in E Sulawesi, Buton, Buru and Seram and share Late Triassic bituminous marine shale deposits. Parts of Timor similar as well. Late Triassic of Sula Spur and New Guinea in continental facies and with granite intrusions, so clearly still part of Gondwana. In 'bacon-slicer model' Sula Spur therefore must have rifted off New Guinea at later date)

Mitchell, A.H.G. (1984)- Initiation of subduction by post-collision foreland thrusting and back-thrusting. J. Geodynamics 1, 2, p. 103-120.
(Ages of subduction zones bordering five collisional orogens suggest subduction may have initiated by foreland thrusts and backthrusts. Examples used include Late Jurassic at N Sunda Arc (Sumatra- Malaya), end-Miocene in Negros trench (Philippines) and incipient S-ward subduction of Banda Sea beneath Timor)

Mohr, E.C.J. (1930)- De grond van Java en Sumatra. De Bussy, Amsterdam, p. 1-258.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB21:045974000:00014)
('The soils of Java and Sumatra'. 2nd edition of 1922 book)

Mohr, E.C.J. (1933)- De bodem der Tropen in het algemeen en die van Nederlandsch-Indie in het bijzonder. Mededelingen Koninklijk Instituut van de Tropen, De Bussy, Amsterdam, vol. 1, p. 1-342.
('The soils of the tropics in general and those of the Netherlands Indies in particular'. In four volumes.1933-1938. Three additional volumes between 1933-1938 and English translation in 1944)

Mohr, E.C.J. (1944)- The soils of equatorial regions with special reference to the Netherlands East Indies. J.W. Edwards, Ann Arbor, p. 1-766.
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(English translation of Mohr (1934) by R.L. Pendleton)

Mohr, E.C.J. & F.A. van Baren (1954)- Tropical soils; a critical study of soil genesis as related to climate, rock and vegetation., W. Van Hoeve; The Hague and Interscience Publishers, New York, p. 1-498.
(Update of Mohr (1933) book of tropical soils, in particular of Indonesia)

Molengraaff, G.A.F. (1915)- Folded mountain chains, overthrust sheets and block-faulted mountains in the East Indian archipelago. 12th International Geological Congress, Toronto 1913, p. 689-702.
(Important, early interpretation of Timor geology. Island chain from Timor and Babar to Ceram and Buru much alike in geological structure: nucleus of thrust-faulted Permian- Eocene, covered by Neogene-Pleistocene that is not folded but generally uplifted high above sea level. Two main thrust sheets on Timor:(1) lower 'Tethys sheet' (Triassic-Cretaceous oceanic deposits) and (2) upper 'Fatu sheet' (Permian- Eocene in shallower marine facies: Permian fusulinid-crinoid limestones and tuffs, Triassic oolitic and coral limestones, schists, Eocene Nummulites-Alveolina limestones, etc., often found as isolated 'klippen', separated by squeezed and thrusted layers). On N coast highly tilted basic igneous rocks, with common brecciated serpentinites, geological position uncertain. Alpine style of thrusting in Late Miocene. followed by Pliocene-Recent uplift of island (common uplifted Late Pliocene- Pleistocene coral reefs; possibly Basin-Range style block faulting?). With simplified geologic map and cross-section of Central Timor)

Molengraaff, G.A.F. (1919)- De invloed van de geologische ligging der Nederlandsche kolonien in Oost-Indie op haar economische beteekenis. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2), 36, 5, p. 539-550.
(online at: https://resolver.kb.nl/resolve?urn=MMUBA13:001665001:pdf)
('The influence of the geological setting of the Dutch colonies in the East Indies on its economic significance'. Lecture summary Amsterdam; no figures)

Molengraaff, G.A.F. (1922)- Geologie. In: De zeeen van Nederlandsch Oost Indie, Koninklijk Nederlands Aardrijkskundig Genootschap, Brill, Leiden, Chapter 6, p. 272-357.
(online at: https://www.biodiversitylibrary.org/item/86172#page/346/mode/1up)
(Geology chapter in 'The seas of the Netherlands East Indies' book. Early overview of morphology and bottom sediments of Indonesian Seas, distribution of coral reefs, etc. Earliest recognition of incised Pleistocene river channels on Sunda Platform)

Morley, C.K. (2024)- Atypical syn-collisional wedges at thrust fronts: Their tectonic and gravity-driven development, and interpretation-related controversies. Earth-Science Reviews 249, 104663, p. 1-54.
(Examples of atypical syn-collisional wedges, which resemble accretionary prisms, but formed over subducted and/or underthrust lower plate continental crust in orogens. These syn-collision wedges can be in the order of several 100 kms wide (in transport direction) and > 8 km thick).Exampes discussed include (1) offshore Sabah and Palawan ('North Sabah-Pagasa Wedge', Miocene, developed on underthrusting of 300km wide Dangerous Grounds continental crust under NW Borneo in Miocene (post-Nido Limestone)), (2) Indo-Burma Ranges (Rakhine Basin, Myanmar), (3) Banda Arc (Timor, Kai, Seram; deepwater fold and thrust belts are syn-collisional wedges, not accretionary prisms), and other areas

Morley, R.J. (2014)- Rifting and mountain building across Sundaland, a palynological and sequence biostratigraphic perspective. Proc. 38th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA14-G-011, p. 1-20.
(online at: https://www.researchgate.net/publication/280042281_Rifting_and_Mountain_Building_Across_Sundaland_a_Palynological_and_Sequence_Biostratigraphic_Perspective)
(On timing of rifting and uplift events of Sundaland, constrained by palynology and sequence stratigraphy. Makassar/ Java Sea rifts initially formed at start of M Eocene (~49 Ma), with non-marine deposition and low paleo-elevations, followed by marine deposition in second rift phase in Late Eocene. Extensive uplift in Borneo began in latest E Miocene, with further uplift at ~8 Ma. N and W rifts of Sunda region initiated in Late Eocene, with synrift phase ending at ~31 Ma. Some rifts, especially in W Natuna and Malay Basin, characterised by Oligocene deep lake systems, which persisted for >6 Myrs)

Morley, R.J. (2018)- The complex history of mountain building and the establishment of mountain biota in Southeast Asia and Eastern Indonesia. In: C. Hoorn et al. (eds.) Mountains, climate and biodiversity, John Wiley & Sons, p. 475-492.

(Uplift scenarios for present and former upland areas in SE Asia from tectonic reconstruction, sedimentation rate changes and records of pollen of montane plants. Cenozoic pollen record reflects three different patterns with respect to mountain building across the region. (1) pollen record of southern conifers shows Pliocene -Pleistocene uplift of Lenguru fold belt and uplift of Birds Head in W Papua and Sumatra and Java, and provides examples of dispersal of Gondwanan elements into Sunda region; (2) In Equatorial Borneo, Ericaceae upland pollen indicate M and Late Miocene uplift of Borneo Central Ranges; (3) Thirdly, pollen of Laurasian conifers Picea, Abies and Tsuga from N Sunda Shelf, Borneo and Indochina indicate former occurrence of uplands with seasonal climate. Etc.)

Morley, R.J. & H.P. Morley (2018)- Montane pollen indicates character of Mid Cenozoic uplands across Sunda Shelf. In: PESGB SEAPEX Asia Pacific E&P Conference, London 2018, 4p *(Extended Abstract) (online at: www.researchgate.net/publication/326345401_Montane_pollen_indicates_character_of_mid_Cenozoic Etc.) (Montane pollen common element of palynomorph assemblages across Sundaland region and provides insight into paleoaltitudes and paleoclimates from Paleocene- Pliocene. In Late Eocene-Oligocene, Natuna Arch, Con Son Swell and Ammanite Ranges likely reached sufficient altitude to support temperate broadleaf and cool temperate conifer forests at altitudes of 2500m or more. Late Miocene-Pliocene uplifts in Borneo (Kinabalu, Meratus) and Sumatra Barisan Range. Volcanoes of Java formed in Pleistocene)*

Morley, R.J. & H.P. Morley (2022)- SEA depositional cycles, regional unconformities and the 'pulsebeat' of sedimentation across the Sunda region. Proc. SEAPEX-PESGB Asia Pacific E&P Conference, London 2022, p. 1-35. *(Abstract + Presentation)*
(SEA transgressive-regressive sequences useful chronostratigraphic tool. 46 depositional cycles from late Eocene to Pliocene recognised in review of 101 wells from Malaysia. In Paleogene non-marine basins offshore Vietnam and West Natuna Basin, 406 kyr eccentricity-driven astronomical cycles provide that pulsebeat and allow age interpretations of otherwise difficult-to-date fluvial and lacustrine successions in rift basins across region)

Morley, R.J. & H.P. Morley (2022)- Vegetation and climate change across tropical Asia during the Pleistocene. Proc. Workshop on Ecological drivers of Pleistocene hominin and faunal dispersal across Southeast Asia (EPHSEA 2022), Bangkok, p. 10. *(Abstract only)*
(online at: https://drive.google.com/drive/folders/1Xgtqkk-R6c: teD6tBnjFniH6QiERN7PcI)
(The suggestion that Pleistocene hominin and mammal faunas migrated fro Asia to Java along a 'savanna corridor' is dismissed. More likely there was a corridor of semi-evergreen forests across equatorial Sundaland. Even during Pleistocene glaciations perhumid rain forests remained along the Equator, with savanna occurring to N, in Indochina.Seasonal evergreen and deciduous forests expanded across emergent Java Sea and Java)

Morley, R.J., H.P. Morley & T. Swiecicki (2016)- Mio-Pliocene palaeogeography, uplands and river systems of the Sunda region based on mapping within a framework of VIM depositional cycles. Proc. 40th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA16-506-G, p. 1-26. *(online at: www.researchgate.net/publication/303550112_Mio-Pliocene_Palaeogeography_Uplands_And_River Etc.))*
(Paleogeography and sedimentation rates for Sunda region. Paleogeographic maps for 10 E Miocene-Pleistocene time slices. In M Miocene bulk of sedimentation across Sunda region on enlarged Proto-Mahakam Delta (4 times larger than today's Mahakam Delta) with minimal sedimentation off Sarawak. In latest Middle-Late Miocene sedimentation rates increased off Sarawak and sharply reduced in Makassar Straits; interpreted to reflect redirection of sediment transport as result of Borneo uplift and capture of Proto Mahakam River by Sarawak rivers in Late Miocene)

Morley, R.J., H.P. Morley & T. Swiecicki (2017)- Constructing Neogene palaeogeographical maps for the Sunda region. In: SEAPEX Exploration Conference 2017, Singapore, Session 7, p. 1-10. *(Extended Abstract)*
(online at: https://www.seapex.org/wp-content/themes/seapex/images/pdf/Session-7/7_1-Palynova.pdf)
(Generalized paleogeography maps of Sunda shelf for 10 time slices from E Miocene (23 Ma) - Pleistocene. Maximum development of 'Proto-Mahakam' delta at ~15-12 Ma, at time of limited clastic deposition rates along N Borneo margin (major deltas here Late Miocene- Pliocene). (abbreviated version of Morley et al. 2016))

Morley, R.J., J. Teasdale & H.P. Morley (2024)- Southeast Asia tectonics, palaeogeography and palaeoclimate. Proc. GESGB-SEAPEX Asia Pacific Conference, Exploring Asia Pacific's Energy Future, London 2024, p. 15-16 *(Abstract only)*

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('The distribution of ancient magnetism directions in Indonesia'. 1:5M scale map compilation of paleomagnetic directions data from Indonesia. Includes Birds Head paleolatitudes for Late Carboniferous Aimau Fm (47˚S), E Permian Aifat Fm (46˚S), Late Permian Ainim Fm (35˚S), and Late Triassic- Jurassic Tipuma Fm (42˚S))

Mukti, M.M., S. Aribowo & A. Nurhidayati (2018)- Origin of melange complexes in the Sunda and Banda arcs: tectonic, sedimentary, or diapiric melange. Proc. Global Colloquium on GeoSciences and Engineering, Bandung 2017, IOP Conference Series: Earth and Environmental Science 118, 012003, p. 1-5.
(online at: http://iopscience.iop.org/article/10.1088/1755-1315/118/1/012003/pdf)
(Brief review of possible different melange types of W Sumatra, Java, Timor. Remnants of Cretaceous subduction zone at Ciletuh, Luk Ulo and Meratus formed along S margin of Sundaland subduction and are known as tectonic melanges. Younger melange complexes in Sunda arc (Nias) and Banda arc (Timor) more likely diapiric melange)

Murphy, R.W. (1974)- Diversity of island arcs: Japan, Philippines, Northern Moluccas. Proc. SE Asia Petroleum Exploration Society (SEAPEX) 1, Singapore, p. 1-22.

Murphy, R.W. (1975)- Tertiary basins of Southeast Asia. Proc. SE Asia Petroleum Exploration Society (SEAPEX) 2, p. 1-36.
(46 basins, classified into four types: shelfal, continental margin, archipelagic and marginal seas)

Murphy, R.W. (1976)- Pre-Tertiary framework of Southeast Asia. SEAPEX Offshore South East Asia Conference, Singapore 1976, 3, p. 1-2. *(Abstract only)*

Murphy, R.W. (1987)- Southeast Asia: a tectonic triptych. In: M.K. Horn (ed.) Trans. 4th Circum Pacific Energy and Mineral Resources Conference, Singapore 1986, p. 395-400.
(SE margin of Eurasia has been compressional margin since Late Paleozoic, onto which dozens of arcs and microcontinents from Gondwanaland accreted. Map showing 10 Triassic-Recent magmatic arc systems. Late Cenomanian- E Turonian accretion of Meratus ophiolite cuts obliquely across older E-W trending arcs. Throughgoing wrench faults W of Sunda Strait right-lateral, those to E are left-lateral. Etc.)

Murphy, R.W. (1992)- Southeast Asia: linkage of tectonics, unconformities and hydrocarbons. In: M. Flower, R. McCabe & T. Hilde (eds.) Southeast Asia structure, tectonics and magmatism, Symposium Texas A&M University, College Station, p. 1-5. *(Extended abstract only)*

Murphy, R.W. (1998)- Southeast Asia reconstruction with a non-rotating Cenozoic Borneo. Bull. Geological Society Malaysia 42, p. 85-94.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1998008.pdf)
(SE Asia reconstruction, modification of Hall (1996). Sunda and Philippine Sea plates treated as rigid blocks between 50-15 Ma. Borneo CCW rotation, required by paleomagnetic data, probably Late Cretaceous in age)

Murphy, R.W. (2002)- Southeast Asia reconstruction with a non-rotating Cenozoic Borneo. SEAPEX Press 5, 3, p. 30-41.
(Similar to paper above. Modified plate reconstruction of SE Asia between 50- 15 Ma. In this interpretation Sunda block and Philippine Sea Plate treated as relatively rigid blocks and Indochina extruded ~700km between 35- 15 Ma. Right-lateral movement along Sumatra Fault/ Andaman/Sagaing system is paired with left-lateral movement along Red River Fault and its precursor, West Baram Line. No large-scale CCW rotation of Borneo between 20-10 Ma, as suggested by Hall (1996) model)

Nagao, T. & S. Uyeda (1995)- Heat-flow distribution in Southeast Asia with consideration of volcanic heat. Tectonophysics 251, p. 153-159.
(SE Asia 2539 heat flow measurements, but contribution of heat flux from active volcanoes overlooked in regional heat-flow maps)

Musson R.M.W. (2012)- A provisional catalogue of historical earthquakes in Indonesia. British Geological Survey, (BGS) Open Report OR/12/073, Edinburgh, p. 1-21.

Nagao, T., S. Uyeda & O. Matsubayashi (1995)- Overview of heat flow distribution in Asia based on the IHFC compilation with special emphasis on South-east Asia. In: M.L. Gupta & M. Yamano (eds.) Terrestrial heat flow and geothermal energy in Asia, Balkema, Rotterdam, p. 221-238.

Nairn, A.E.M., L.E. Ricou, B. Vrielynck & J. Dercourt (1996)- The ocean basins and margins, vol. 8: Tethys. Plenum Press, New York, p. 1-530.
(Collection of papers dealing with tectonics, deposits, paleoenvironments of Permian- Eocene Tethys Ocean(s) belt, now consumed in Alpine- Himalayan- SE Asian foldbelts)

Nayoan, G.A.S. (1995)- East Indonesia Mesozoic geology: compilation of field data. In: The Mesozoic in the eastern part of Indonesia, Symposium, p. 1-9.

Nayoan, G.A.S., Arpandi & M. Siregar (1981)- Tertiary carbonate reservoirs in Indonesia. In: M.T. Halbouty (ed.) Energy Resources of the Pacific region, American Assoc. Petroleum Geol. (AAPG), Studies in Geology 12, p. 133-145.
(Overview of Mio-Pliocene carbonate distribution in Indonesia)

Netherwood, R. (2000)- The petroleum geology of Indonesia, overview of Indonesia's oil and gas industry. In: Indonesia 2000 Reservoir Optimization Conference, Jakarta, PT Schlumberger Indonesia, p. 174-227.
(Elegant overview of Indonesia Tertiary geology, basins and hydrocarbons)

Newcomb, K.R. & W.R. McCann (1987)- Seismic history and seismotectonics of the Sunda arc. J. of Geophysical Research: Solid Earth 92, B1, p. 421-439.
(Review of historic earthquake distribution over last 300 years along Sunda Arc, from Andaman Sea to Lesser Sunda Islands. Great interplate earthquakes occur near Sumatra, where age of youngest subducting Indian Ocean crust is 46 Ma: entire length of Sumatra has potential to produce great thrust earthquakes). In contrast, off Java and Lesser Sunda Islands, where oldest crust is 152 Ma, the subduction plate interface should be considered to have low seismic potential)

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(SE Asia paleogeographic maps at 3, 17, 25 Ma)

Nishimura, S. & S. Suparka (1986)- Tectonic development of East Indonesia. J. Southeast Asian Earth Sciences 1, 1, p. 45-57.
(Outer non-volcanic arc in E Indonesia formed as a marginal part of the Australian continent in S hemisphere before Upper Jurassic. Timor and Sumba did not reach present positions until M Miocene or later. Ambonites on Wetar date time of collision between Australian Plate and proto- Banda Arc at 3 Ma, etc.)

Nishimura, S. & S. Suparka (1990)- Tectonics of East Indonesia. Tectonophysics 181, p. 257-266.

(Early models of tectonic evolution of E Indonesia, with reconstructions of 4 and 17 Ma)

Nishimura, S. & S. Suparka (1991)- Tectonic development of island-arc in Indonesian region. In: E.P. Utomo et al. (eds.) Proc. The Silver Jubilee LIPI- Symposium on the Dynamics of subduction and its products, Yogyakarta-Karangsambung 1991, Research and Development Center for Geotechnology (LIPI), Bandung, p. 20-34.

Nishimura, S. & S. Suparka (1997)- Tectonic approach to the Neogene evolution of Pacific-Indian Ocean seaways. Tectonophysics 281, p. 1-16.
(Mainly summary of activities of IGCP project 355. Paleomagnetic work on Sumatra suggests Sumatra was part of Gondwanaland in Triassic (off NW Australia), with paleolatitude close to 38°S and 62° CW rotation between Triassic and E Tertiary. Diagrammatic SE Asia reconstructions of 40, 25, 17 and 3 Ma, with implications for circulation of Indo-Pacific region. Neogene Indonesian seaway effectively closed in early M Miocene (17-15 Ma) and completely severed by ~6 Ma, preventing interchange between surface water of tropical Pacific and Indian oceans)

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(Discussion of collision of Australian continent with East Sunda- Banda island arcs, back arc Banda Basin, back arc thrusting, etc. Banda Sea small marginal oceanic plate probably formed in E Tertiary as slices of N New Guinea were transported W with Pacific plate and collided with island arc in E Sulawesi. Present complexity result of late Miocene- E Pliocene collision and obduction of Banda Sea island arc system over leading edge of Australian- New Guinea continental plate)

Norvick, M.S. (2002)- The tectono-stratigraphic history of the northern margins of the Australian Plate from the Carnarvon Basin to Papua New Guinea. In: M. Keep & S. Moss (eds.) The sedimentary basins of Western Australia 3, Proc. West Australian Basin Symposium, Petroleum Exploration Society Australia (PESA), Perth, p. 963-964.

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(New relocations of 25,000 earthquake hypocenters in Indonesian region, using teleseismic double-difference relocation algorithm. Average epicenter relocation shift 6.2 km)

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(Relocation of hypocenters of 6000 earthquakes along Sunda Arc between April 2009 to May 2015 reveals more tightly defined Wadati-Benioff zone geometry at trench and back thrusts in offshore areas of Sumatra and Java)

Nugrahanto, K., A.M. Surya Nugraha, J. Chandra & A. Pradipta (2017)- Stratigraphy of eastern Indonesia. In: Petroleum systems of the Eastern Indonesia region- Guidance for hydrocarbon exploration in Eastern Indonesia, SKK Migas Memoir 1, Jakarta, p. 90-223.

Nugroho, H. (2005)- GPS velocity field In the transition from subduction to collision of the Eastern Sunda and Banda Arcs, Indonesia. Masters Thesis, Brigham Young University, Utah, p. 1-89.
(online at: http://scholarsarchive.byu.edu/cgi/viewcontent.cgi?article=1552&context=etd)
(GPS measurements from 14 sites in active E Sunda- Banda arc during 2001-2003. Most blocks move in same direction as Australian lower plate, but at different rates. Block boundaries may exist between Lombok and Komodo, Flores and Sumba, Savu and W Timor, and between Timor and Darwin. Timor Trough may account for

20 mm/yr of motion between Timor and Darwin. Major transverse fault off W Timor separates Savu/ Flores/ Sumba block from Timor/Wetar Block. Flores thrust moves E Sunda arc N relative to Asia, by decreasing amounts to W. Back-arc Wetar Thrust system takes up most of plate convergence between Australia and Asia)

Nugroho, H., R. Harris, A.W. Lestariya & B. Maruf (2009)- Plate boundary reorganization in the active Banda Arc-continent collision: insights from new GPS measurements. Tectonophysics 479, 1-2, p. 52-65.
(GPS velocities suggest three Sunda Arc-forearc regions, ~500 km long, with different amounts of coupling to Australian Plate. Movements relative to SE Asia increases from 21% to 41% to 63% E-ward. Regions bounded by deformation front to S, Flores-Wetar backarc thrust system to N and poorly defined structures on sides. Suture zone between NW Australian margin and Sunda-Banda Arcs still evolving with >20 mm/yr of movement measured across Timor Trough between Timor and Australia)

Nurusman, S. & S. Subono (1995)- Heat flow measurements in Indonesia. In: M.L. Gupta & M. Yamano (eds.) Terrestrial heat flow and geothermal energy in Asia, Oxford & IBH Publishing Co., Cornell University, p 145-162.

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(Tomography data of SE Asia generally uses global seismic data. Japan-Indonesia Seismic NETwork (JISNET) seismic stations in C to W Indonesia used to better understand seismic structure of area. Claim better resolution data, but poorly illustrated: small, low resolution time slices, no cross sections)

Osagie, A.U. & I.A. Abir (2021)- Seismic tomographic imaging of P wave velocity perturbation beneath Sumatra, Java, Malacca Strait, Peninsular Malaysia and Singapore. J. Earth System Science (India) 130, 23, p. 1-13.
(online at: https://www.ias.ac.in/public/Volumes/jess/130/00/0023.pdf)
(P-wave tomographic imaging of crust down to 90 km around Sumatra, Java, Malacca Strait, Peninsular Malaysia and Singapore. Showing low-velocity anomalies that reflect accretion and possibly asthenospheric upwelling associated with subduction around Sumatra Subduction Zone. Prominent low-V anomaly trends SE beneath Sumatra and appears to have widest horizontal spread around 20 km depth). At this depth, it extends underMalacca Straits and parts of Peninsular Malaysia (heat anomaly?)

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(online at: www.jstage.jst.go.jp/article/jgeography1889/53/6/53_6_249/_pdf)
(Old, brief review of Paleozoic outcrops in Indonesia; in Japanese)

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Packham, G.H. (1993)- Plate tectonics and the development of sedimentary basins of the dextral regime in western Southeast Asia. In: B.K. Tan et al. (eds.) Proc. 7th Conference Geology Mineral Energy Resources of SE Asia (GEOSEA VII), Bangkok 1991, J. Southeast Asian Earth Sciences 8, p. 497-511.
(Present regime of oblique subduction in SE Asia initiated in M Eocene. Resulting dextral shear drove basin genesis and development. Effects identified from Malay Basin to C Thailand in East. Late Eocene-Oligocene phase formed rifts in C Sumatra, later spreading N to Mergui Basin and S to Sunda Basin. In Oligocene, dextral shear initiated Thailand basins and Malay Basin. Subsidence- extension continued until late M Miocene. Late Oligocene-E Miocene back arc basins subsidence extended out from initial rifts possibly due to withdrawal of heat beneath basins by cold subducted slab. Transpressional deformation started in Sumatra basins in M Miocene and continued through Late Miocene- Pliocene, resulting in uplift of Barisan Mts. Sumatra forearc transferred to Burma Plate with establishment of dextral Sumatra FZ in Pliocene)

Packham, G.H. (1996)- Cenozoic SE Asia: reconstructing its and reorganization. In: R. Hall & D. Blundell (eds.) Tectonic Evolution of Southeast Asia, Geological Society, London, Special Publ. 106, p. 123-152.

(Cenozoic SE Asia three major tectonic events: collision of India- Eurasia, rotational history of Philippine Sea plate and ongoing collision of Australia with E Indonesia. Models of Eocene India-Eurasia collision imply extrusion along major strike-slip faults or crustal thickening and block rotation)

Packham, G.H. & D.A. Falvey (1971)- An hypothesis for the formation of marginal basins in the western Pacific. Tectonophysics 11, 2, p. 79-109.
(Small ocean basins, or marginal seas, mainly located on W margin of Pacific Ocean. Tectonically they belong to Eurasian and Indo-Australian crustal plates to W and are bounded on E side by island arc-trench systems. Basins generally reach normal oceanic depths, but also contain seamounts, linear seamount chains and areas of submerged continental crust (rises). No evidence of mid-ocean ridge systems. Marginal basins also characterized by high regional gravity anomalies, high heat flow and linear magnetic anomalies. Geological data suggest formation of marginal seas by rifting of volcanic arc from adjacent continent, possibly by generation of oceanic crust by mantle upwelling immediately behind andesitic island arc, producing asymmetrical seafloor spreading. In Indonesian region: Andaman Sea, Sulu Sea, Celebes Sea, Banda Sea, and South China Sea basins)

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(online at: https://www.iagi.or.id/web/digital/10/2011_IAGI_Makassar_Variability-of-Heavy-Minerals.pdf)
(Different heavy mineral assemblages from Mesozoic granites of Sumatera (Sibolga, Tanjung Balai), Bangka (n casiterite, ilmenite, wolframite, zircon, allanite and xenotime; S-type granite) and Kalimantan. Sibolga with magnetite, chalcopyrite, gold, ilmenite, and allanite. Tanjung Balai with magnetite, chalcopyrite, and hematite. Etc. With overview of Mesozoic granites in W Indonesia)

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(online at: https://www.iagi.or.id/web/digital/8/2013_IAGI_Medan_Study-on-Heavy-Minerals.pdf)
(Mainly on heavy minerals from samples around Mesozoic granitoids of N Sumatra (Sibolga (~264 Ma; M Permian) and Tanjung Balai; both magnetite- hematite- chalcopyrite dominated), Bangka (Triassic; cassiterite-wolframite-ilmenite dominated) and C Kalimantan (Kuala Kurun; magnetite-chalcopyrite-ilmenite-dominated))

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(online at: https://www.pnas.org/doi/epdf/10.1073/pnas.2011033117)
(Ongoing arc–continent collision between Sunda-Banda arc system and Australia increased area of exposed land and silica weathering since M-Miocene. Concurrently, Earth's climate cooled since M Miocene Climatic Optimum (~15 Ma). Emergence of SE Asian islands possibly played role in driving this cooling trend)

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(Overview of Indonesia sedimentary basins. Classified by maturity for petroleum exploration into mature (14), semi-mature (9) and frontier (18) basins)

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(online at: https://doshisha.repo.nii.ac.jp/record/29236/files/zk1250.pdf)
(Pacific plate rapidly slips W-ward at rate of ~120 mm/yr relative to Australian plate. W-ward motion resulted in left-lateral slip of ~80 mm/yr across N part of E Indonesia. Slip accommodated by large left-lateral strike-slip fault systems, extending from NW Papua to NE Sulawesi. With detailed studies of Palu-Koro- Matano Fault zone in Sulawesi and N Banda Arc (Seram-Ambon) area. Some of left-lateral slip in E Indonesia accommodated by Papua fold-thrust Belt. Etc.)

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Korea, Papua New Guinea, Philippines, Far-eastern Russia, Singapore, South Korea, Taiwan, Thailand, Vietnam). Geochem. Geophysics Geosystems 5, 1, Q01B06, p. 1-8.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2003GC000619)
(Quantitative analyis the area-age distribution of sedimentary, igneous and metamorphic rock outcrops, based on 1997 CCOP digital surface geology maps of E and SE Asia. Surface exposures of sedimentary rocks 73.3%, volcanic rocks 8.5%, plutonic rocks 8.8%, ultramafic rocks 0.9% and metamorphic rocks 8.6%)

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(online at: https://www.academia.edu/81506484/Rifting_of_the_northern_margin_of_the_Australian_continent_and_the_origin_of_some_microcontinents_in_Eastern_Indonesia)
Classic paper linking New Guinea Jurassic-Cretaceous rift-drift stratigraphy to E Indonesian microcontinents like Buton, Buru-Seram and Banggai-Sula. New Guinea N margin rifting began at ~230 Ma. Onset of seafloor spreading (marked by post-breakup unconformity) ranges in age from 185 Ma in PNG to 170 Ma in Irian Jaya and continues to young in SW direction along W margin of Australian continent, reflecting opening of Indian Ocean off W Australia. By end Jurassic N margin of Australian continent faced seaway which linked proto-Indian and Proto-Pacific oceans, which was separated from pre-existing Neo-Tethys and Panthalassa oceans by microcontinents, now preserved in E Indonesia. Banggai-Sula and Buton rifted off PNG side of margin, Birds Head closer ties to N Queensland, NE Australia)

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(Early paper on 'plate rupture' (= slab breakoff) under Timor during Late Miocene- E Pliocene collision of Australian continental lithoshere and trench of Banda Arc, leading to uplift of 'outer Banda Arc')

Price, N.J. & M.G. Audley-Charles (1987)- Tectonic collision processes after plate rupture. Tectonophysics 140, p. 121-129.
(online at: http://searg.rhul.ac.uk/pubs/price_audley-charles_1987%20banda%20slab%20breakoff.pdf)
(Rupture of continental plate subducting below forearc produces fold-thrust mountain belt with fast overthrusting of nappes. Post-rupture plate unflexing provides mechanism for foreland basin formation. Accounts for origin of Timor Trough, its imbrication and contemporaneous extension in outer arc, as well as reversal of subduction direction after emplacement of nappes)

Prouteau, G. (1999)- Contribution des produits de fusion de la croute oceanique subductee au magmatisme d'arc: exemples du Sud-Est Asiatique et approche experimentale. Doct. Thesis Universite de Brest, p. 1-264.
('Contribution of slab melts to arc magmatism: examples from South-East Asia and experimental approach'. Adakitic magmas product of melting of basaltic oceanic crust. Examples from Philippines and Borneo)

Pubellier, M., N. Chamot-Rooke, F. Ego et al. (2008)- Structural map of Eastern Eurasia; evolution of structural blocks and tectonic belts through time. Commision Geologic Map of the World, scale 1:12.500.000, 1p.
(map online at: www.academia.edu/55861254/Structural_map_of_Eastern_Eurasia_Scale_1_12_500_000?uc-sb-sw=4746815)

Pubellier, M. (2013)- Re-exploring the formation processes of SE Asian Basins, from rifting to mountain belts. Proc. National Geoscience Conference (NGC 2013), Ipoh Geological Society Malaysia, p. 5-7. *(Extended Abstract)*
(online at: www.gsm.org.my/products/702001-101658-PDF.pdf)
(Discussion of diachronous opening of Tertiary marginal basins along E part of the Sundaland: (1) Proto S China Sea and S China Sea (with rifted off continental Palawan Block), (2) NW Sulu Sea, separated by Cagayan Arc; (3) late E Miocene Sulu Sea back-arc basin (W Mindanao and Sulu arc continental basement); (4) M Eocene Celebes Sea basin (N Arm of Sulawesi), Late Miocene N Banda Basin, Pliocene S Banda Basin. Basin closures started in E Miocene)

Pubellier, M., J. Ali & C. Monnier (2003)- Cenozoic plate interaction of the Australia and Philippine Sea Plates: "hit-and-run" tectonics. Tectonophysics 363, 3-4, p. 181-199.
(online at: https://www.academia.edu/download/31505493/Pubellier-et-al-2003-Tectonophys.pdf)
(NW New Guinea at least two marginal basins, both formed in back-arc settings. Older basin opened between M Jurassic- E Cretaceous, a remnant of which is now preserved as New Guinea Ophiolite. Its obduction started at 40 Ma and finally emplaced on Australian margin at ~30 Ma. Younger basin active in Oligocene- M Miocene and obducted in E Pliocene. W edge of Philippine Sea also hitherto unexplained Oligocene deformation of Philippine arc. Extensive area of oceanic crust extended Australian Plate N of craton. As Australia began N-ward drift in E Eocene, this lithosphere was subducted. Thus, portion of Philippine Sea Plate carrying Taiwan-Philippine Arc to present site may have actually been in contact with ophiolite now in New Guinea and obduction led to deformation of Philippine Sea Plate. Neogene Plate kinematics transported deformed belt in contact with Sunda block in Late Miocene-Pliocene)

Pubellier, M., A. Deschamps, A. Loevenbruck et al. (2001)- How plate kinematics creates and sweeps away supra subduction ophiolites? EOS Transactions AGU, 82, 47, Fall Meeting Suppl. *(Abstract only)*

Pubellier, M. & F. Ego (2004)- Geodynamic terrane map of Asia. Commision Geological Map of the World and UNESCO.
(Geodynamic map of Asia from eastern Europe to SE Asia. Asian continent has grown from Siberian nucleus by successive accretions of continental blocks of various sizes. Blocks originated from from rifted Gondwana margin at several times in Paleozoic, and amalgamated with the northern continent between Devonian and Tertiary)

Pubellier, M., F. Ego, N. Chamot-Rooke & C. Rangin (2003)- The building of pericratonic mountain ranges: structural and kinematic constraints applied to GIS-based reconstructions of SE Asia. Bull. Societe Geologique France 174, 6, p. 561-584.
(online at: www.geologie.ens.fr/~rooke/NCRpdf4web/Pubellier&al-2003.pdf)
(Nice set of Indonesia-scale geological cross-sections and reconstructions at 2, 4, 6, 10, 15 and 20 Ma; part of DOTSEA project. Mamberamo Basin shown as Miocene back-arc basin above S-ward subducting Caroline Plate, etc.)

Pubellier, M. & F. Meresse (2013)- Phanerozoic growth of Asia; geodynamic processes and evolution. J. Asian Earth Sciences 72, p. 118-128.
(online at: www.academia.edu/5211595/Phanerozoic_growth_of_Asia_Geodynamic_processes_and_evolution)
(On mechanism of Tertiary accretion processes in SE Asia. Early stages illustrated in E Sunda arc where subduction of Sunda Trench is blocked in Sumba and Timor region, and flipped into Flores Trough. Another stage, where part of upper plate basin has disappeared is in Celebes Sea (and Makassar Basin?). Next stage is consumption of marginal basin where both margins collide and accretionary wedge is thrust over margin, as in NW Borneo and Palawan. These events predate arrival of conjugate margin of large ocean, which marks beginning of continental subduction as observed in Himalaya-Tibet region. Closure generally diachronous through time. Ophiolite obducted in such context generally of back-arc origin rather than relict of vanishing large ocean, which is rarely preserved)

Pubellier, M., C. Monnier, R. Maury & R. Tamayo (2004)- Plate kinematics, origin and tectonic emplacement of supra-subduction ophiolites in SE Asia. Tectonophysics 392, p. 9-36. *(online at: www.academia.edu/5211614/Plate_kinematics_origin_and_tectonic_emplacement_of_supra_subduction_ophiolites_in_SE_Asia)*
(Majority of SE Asia ophiolites originated in backarc or island arc settings along edge of Sunda (Eurasia) and Australian cratons, or within Philippine Sea Plate. Ophiolites accreted to continental margins during Tertiary. Relatively 'autochthonous ophiolites' resulted from shortening of marginal basins like S China Sea or Coral Sea, and 'highly displaced ophiolites' developed in oblique convergent margins. Some ophiolites in front of Sunda plate represent supra-subduction zone basins formed along Australian Craton margin in Mesozoic)

Pubellier, M. & C.K. Morley (2014)- The basins of Sundaland (SE Asia): evolution and boundary conditions: J. Marine and Petroleum Geology 58, B, p. 555-578. *(online at: www.academia.edu/10231429/The_Basins_of_Sundaland_SE_Asia_evolution_and_boundary_conditions)*
(Major review of origin and evolution of Cenozoic basins of Sundaland. All basins in supra-subduction setting, but many different types, rift basins most widespread. Rift basin initiation is diachronous, with basins >45 Ma developing in E, and <45 Ma in C and N Sundaland, due to earlier onset of subduction rollback in Sulawesi-Celebes Sea area. Andean margin growth in NW Sundaland, Proto-South China Sea slab-pull and Andean margin collapse in NE Sundaland)

Pubellier, M., C. Rangin, X. Le Pichon and DOTSEA Working Group (2005)- DOTSEA Deep offshore tectonics of South East Asia: a synthesis of deep marine data in Southeast Asia. Memoires Societe Geologique France, n.s., 176, p. 1-32. *(+ many maps and figures on CD)*.
(SE Asia kinematic reconstructions back to 20 Ma, mainly driven by restoring plate motions from present-day GPS data. Rel. detailed maps and discussion of E Sunda margin (Philippines to N Sulawesi), S Sunda margin (Sumatra forearc) and S China Sea- Vietnam margin)

Pulunggono, A. (1976)- Tertiary carbonates distribution and oil potential in Indonesia. Proc. Carbonate Seminar Jakarta 1976, Indonesian Petroleum Association (IPA), Special Volume, p. 6-13.

Pulunggono, A. (1985)- The changing pattern of ideas on Sundaland within the last hundred years, its implications to oil exploration. Proc. 14th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 347-378.
(History of Sundaland tectonic interpretations from 1800s- 1970s. Sundaland is mosaic of microplates, initially accreted in Late Triassic. Zone of weakness between rigid microplates in Sumatra locus of extensional tectonism, high heat flow and subsequent compression, which led to optimum conditions for generation and trapping of Tertiary oils)

Purnomo Prijosoesilo, Y. Sunarya & A. Wahab (1993)- Recent progress of geological investigations in Indonesia. J. Southeast Asian Earth Sciences 8, 1-4, p. 5-23.
(Generic overview of Indonesian mineral resources, hydrocarbons, geothermal prospects, etc.)

Purwaningsih, R.E.Y., A, Sekarsaria, T. W. Sari, C. Pratam & S.T. Wibowo (2022)- Active tectonics of the Eastern Java based on a decade of recent continuous geodetic observation. Geodesy and Geodynamics 13, 4, p. 376-385.
(online at: www.sciencedirect.com/science/article/pii/S1674984722000210)
(Present-day strain in E Java mainly compression strain, due to Sunda subduction zone. However, highest compression estimated in NE part of Java to Madura Strait, which might indicate local fault activity)

Puspito, N.T. & K. Shimazaki (1995)- Mantle structure and seismotectonics of the Sunda and Banda arcs. Tectonophysics 251, p. 215-228.
(Subducted slab morphology from tomography and seismicity of Sunda-Banda Arc suggests three zones: (1) W Sunda (Sumatra), with slab-like image penetrating to ~500 km below W Sunda arc, but no seismicity below 250 km; (2) E Sunda (Java-Flores), with seismic gap between 300-500 km, but slab continuous and penetrating into lower mantle; and (3) Banda arc, with seismicity down to ~650 km, slab dips gently and does not penetrate into lower mantle. Along back-arc side of Sunda- Banda arcs heat flow decreases from W to E)

Puspito, N.T., Y. Yamanaka, T. Miyatake, K. Shimazaki & K. Hirahara (1993)- Three-dimensional P-wave velocity structure beneath the Indonesian region. Tectonophysics 220, p. 175-192.
(Early P-wave seismic tomography imaging study of Indonesian region)

Putra, A.F. & S. Husein (2019)- Regional overview of orogenic belts in Indonesia: emphasis on the occurrences of thrust wedge systems. Berita Sedimentologi 45, p. 19-41.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/65/36)
(Review of thrust wedge systems in Indonesia: Langsa (N Sumatra Basin), Banyumas (W Central Java), Kutei Basin, W Sulawesi (Lariang-Karama Basins and Makassar Straits), Offshore N Banggai Sula, Misool-Onin-Kumawa Ridge, Berau-Bintuni Basins, and Lengguru. Pliocene-Recent critical time for orogenesis. May be associated with strike-slip faults (Sumatran Fault, Palu-Koro, Balantak and Tarera-Aiduna) acting in response to slip partitioning. Thrust wedge systems in both subduction and collisional tectonics)

Rachman, M.G. & A.A. Shah (2026)- Satellite image-based structural mapping reveals new earthquake sources in eastern Indonesia: implications for active tectonics and earthquake hazards. NPJ Natural Hazards (Nature) 3, 16, p. 1-27.Nature npj Natural Hazards
(online at: https://www.nature.com/articles/s44304-026-00180-0.pdf)
(Extensive reviewof E Indonesia structure. Extension regionally pervasive fromBanda Sea into Lombok-Seram fold-thrust belt, Aru Trough and Bird's Neck of New Guinea. Kinematic indicators indicate NW–SE-directed extension driven by oblique Australia-Pacific plate convergence, producing transtension across Sulawesi, Seram–Buru, and Aru Trough. In contrast, Timor-Seram-Tanimbar frontal system relatively aseismic. E Indonesia best described as obliquely convergent plate boundary with distributed transtension, rather than a system governed by simple slab rollback)

Raghuram, G., F.A. Capitanio & M. Radhakrishna (2018)- Flexural analysis along the Sunda Trench: bending, buckling and plate coupling. Tectonics 37, 10, p. 3524-3544.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/full/10.1029/2017TC004926)
(Modeling of flexural bending of subducting Indian Ocean- Australian Plate at Sunda Trenck off Sumatra and Java, from gravity, bathymetry, seismic data, sediment thickness, seafloor age, etc. Significant variation in flexural properties along trench.)

Ramdhan, A.M. & S. O'Connor (2022)- Generation and estimation of overpressure from wireline logs using deterministic approaches in western Indonesia's Tertiary sedimentary basins. Petroleum Geoscience 28, 3, p. 1-36.
(manuscript online at: https://www.researchgate.net/publication/359453928_Generation_and_estimation_of_overpressure_from_wireline_logs_using_deterministic_approaches_in_western_Indonesia's_Tertiary_ Etc.)
(Many basins in Indonesia, such as N Sumatra, S Sumatra and Lower Kutai, are highly overpressured, causing drilling problems. Density log can determine contributions of loading and unloading)

Rangin, C. (2018)- The western Sunda basins and the India /Asia collision: an atlas. Geotecto Consulting, Paris, (Societe Geologique de France), p. 1-294.
(for sale at: https://www.geosoc.fr/boutique-en-ligne/beaux-livres/the-western-sunda-basins-and-the-india-asia-collision-an-atlas-detail.html)
(Atlas documenting tectonic processes related to oblique convergence between India and Sunda continents, along Bay of Bengal active E margin, from E Himalaya Syntaxis and N Sumatra, from 30° N to Equator)

Rangin, C. (1990)- South-East Asian marginal basins (South China Sea, Sulu and Celebes Seas): new data and interpretations. In: X. Jin et al. (eds.) Proc. Symposium Recent contributions to the geological history of the South China Sea, Hangzhou 1990, p. 38-51.
(online at: https://epic.awi.de/38705/2/south-china-sea_1990.pdf)
(Celebes and S China Seas rifted from Asian continental margin in Paleogene. Proto-S China Sea probably same origin, but now completely subducted. Basins resulted partly from Indo-Asian collision and partly from slab-pull forces along Sunda Trench. Neogene collision of Banggai Sula Block with S margin of Celebes Sea in Sulawesi

forced progressive closure of basins. Proto S China Sea was first to subduct below Cagayan Ridge in E Neogene, inducing opening of Sulu Sea and spreading reorganisation in S China Sea. Following collision of Cagayan Ridge with rifted margin of S China Sea in E Miocene, Sulu Sea initiated subduction along Sulu Archipelago and Celebes Sea along N Sulawesi Trench. Paleogene was period of stretching of Eurasian margin and opening of marginal basins, in Neogene mainly progressive subduction of these oceanic basins)

Rangin, C. (1994)- Tectonics of Cenozoic sedimentary basins in SE Asia. In: F. Roure, N. Ellouz, S. Shein & I. Skvortsov (eds.) Int. Symposium Geodynamic evolution of sedimentary basins, Moscow, p. 351-367.

Rangin, C. (2015)- Coeval Oligocene- Miocene extension in East Andaman Basin/ North Sumatra region and in the South China Sea: geodynamic consequences and implications for hydrocarbon research. Presentation AAPG Workshop Tectonic evolution and sedimentation of South China Sea region, Kota Kinabalu 2015, AAPG Search and Discovery Article 30408, p. 1-21.
(online at: www.searchanddiscovery.com/documents/2015/30408rangin/ndx_rangin.pdf)
(Both West and East Sunda block margins affected by Late Eocene- E Miocene continental crust thinning just before E Neogene impingement of Philippine Mobile Belt and Indian Ridges. This extension was controlled by subduction retreat along Sumatra Java trench and its E extension in C Sulawesi. Early M Miocene (15 Ma) multiple collisions around S China Sea (Banggai Sula- E Sulawesi, Mindanao Zamboanga microcontinent-Philippine Mobile Belt, Mindoro Palawan- Philippine Mobile Belt, Luzon-Taiwan), causing end of spreading in Sulu and S China Seas)

Rangin, C., L. Jolivet, M. Pubellier and Tethys working group (1990)- A simple model for the tectonic evolution of Southeast Asia and Indonesia region for the past 43 m.y. Bull. Societe Geologique France (8), 6, p. 889-905.
(online at: https://www.researchgate.net/publication/261438118_A_simple_model_for_the_tectonic_evolution_of_southeast_Asia_and_Indonesian_region_since_43_my)
(Set of paleotectonic reconstructions since M Eocene (43 Ma), showing steps in convergence of Sundaland, Philippine Sea Plate and Australia-New Guinea plate)

Rangin, C., X. Le Pichon, S. Mazzotti, M. Pubellier, N. Chamot-Rooke, M. Aurelio, A. Walpersdorf & R. Quebral (1999)- Plate convergence measured by GPS across the Sundaland/ Philippine Sea Plate deformed boundary: the Philippines and eastern Indonesia). Geophysical J. International 139, p. 296-316.
(online at: https://academic.oup.com/gji/article/139/2/296/553031)
(W boundary of Philippine Sea Plate (PH) wide deformation zone that includes stretched continental margin of Sundaland, Philippine Mobile Belt and continental blocks around PH-Australia-Sunda triple junction. 80% of PH-Sunda convergence absorbed in Molucca Sea double subduction system and <20% along continental margins of N Borneo. In triple junction between Sundaland, PH and Australia plates, from Sulawesi to Irian Jaya, preferential subduction of Celebes Sea induces CW rotation of Sulu block, which is escaping toward Celebes Sea from E-ward-advancing PH Plate. Undeformed Banda block rotates CCW with respect to Australia and CW with respect to Sundaland. Kinematics of this block enabled to compute rates of S-ward subduction of Banda block in Flores Trench and E-ward convergence of Makassar Straits with Banda block. Deformation compatible with E-ward motion of Sundaland with respect to Eurasia determined by GEODYSSEA, not with assumption that Sundaland belongs to Eurasia)

Rangin, C. & M. Pubellier, N. Chamot-Rooke, H. Bijwaard & W. Spakman (2000)- Late Cenozoic reconstructions in SE Asia; new GPS and tomographic constraints. AAPG International Conference and Exhibition, Bali 2000, Article 90913, p. 1. *(Abstract)*
(online at: https://www.searchanddiscovery.com/abstracts/html/2000/intl/abstracts/334.htm)
(Most Cenozoic marginal basins floored with oceanic crust and fringing Sundaland to E are presently subducting, and sedimentary basins are inverted. Subduction and basin contraction are associated with collision of Australian and Philippine Sea plates with Sundaland (SU) since the Miocene. Etc. (see also Rangin et al., 1999))

Rangin, C., M. Pubellier, J. Azema, A. Briais, P. Chotin, H. Fontaine, P. Huchon, L. Jolivet, R. Maury, C. Muller, J.P. Rampnoux, J.F. Stephan, J. Tournon et al. (1990)- The quest for Tethys in the western Pacific; eight paleogeodynamic maps for Cenozoic time. Bull. Societe Geologique France (8), 6, p. 907-913.

(Eight geodynamic reconstructions maps in color for Early Tertiary- Present. 35 distinct crustal blocks distinguished. All marginal basins opened in Cenozoic, after complete closure of Tethys. Final Tethys suture traced from S Sumatra-C Java, Meratus Range in Borneo to W Philippines)

Rangin, C., M. Pubellier, N. Chamot-Rooke, C. Vigny, X. Le Pichon, M. Aurelio & R. Quebral (1998)- Quantative estimation of plate convergence across the Sundaland/Philippine Sea boundary from GPS results. In: P. Wilson & G.W. Michel (eds.) The geodynamics of S and SE Asia (GEODYSSEA) Project. Scientific Technical Report STR/14, Geoforschungszentrum, Potsdam, Germany, p. 206-225.
(Convergence between Sundaland and the Philippine Sea Plate is absorbed across a 600km wide zone, including the strtched Eurasian continental argin, the Philippine Mobile Belt from Luzon to the Molucca Se, and the mosaic of continental blocks jammed in the PSP/ Australia/ Sunda triple junction. Etc.)

Rangin, C., M. Pubellier & L. Jolivet (1989)- Collision entre les marges de l'Eurasie et de l'Australie: un processus de fermeture des bassins marginaux du Sud-Est Asiatique. Comptes Rendus Academie Sciences, Paris 309, p. 1223-1229.
('Collision between the margins of Eurasia and Australia: a process of closing of marginal basins of SE Asia'. Convergence between Philippine Sea and Indo-Australian plates interpreted as E-M Miocene collision between two thinned continental margins with marginal basins floored by oceanic crust. This 'soft collision' initiated progressive subduction and closure of these basins and predate 'hypercollision' between Eurasia and Australia. So-called 'exotic fragments' also include Timor and Seram as parts of thinned continental margins of Eurasia and Australia respectively)

Rangin, C., W. Spakman, M. Pubellier & H. Bijwaard (1999)- Tomographic and geological constraints on subduction along the eastern Sundaland continental margin (South-East Asia). Bull. Societe Geologique France 170, 6, p. 775-788.
(Tomographic model suggests rel. continuous active margin from Taiwan to Java before collision of Banda Block with Sundaland in M Miocene. N-dipping slab below Timor- Banda Arc reflects new subduction after this collision (12- 0 Ma). Shortening within Sunda Block accommodated by subduction of SE Asia marginal basins that opened in Paleogene. Closure of Sulu and Celebes basins is recent, whereas subduction of Proto-South China Sea marked by 300 km long slab below Borneo)

Ranneft, T.S.M. (1972)- The effects of continental drift on the petroleum geology of W Indonesia. Australian Petroleum Exploration Assoc. (APEA) Journal 2, p. 55-63.

Richards, S., G. Lister & B. Kennett (2007)- A slab in depth: three-dimensional geometry and evolution of the Indo-Australian Plate. Geochem. Geophysics Geosystems 8, 12, Q12003, p. 1-11.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2007GC001657)
(3D image of subducted Indo-Australian plate below SE Asia and show geometry of subducted slab at depth is related to geometric evolution of SE Asia over past 50 Ma. Once semi-continuous subducting Indo-Australian plate segmented during collision between India, Australia and subduction margin to N. Complexities and evolution of subducted plate manifest in evolution of overriding plate)

Richter, B.W. (1996)- The Tertiary tectonic evolution of Southeast Asia; insights from paleomagnetism and plate reconstructions. Ph.D. Thesis, University of California, Santa Barbara, p. 1-247. *(Unpublished)*
(Paleomagnetic studies of parts of mainland SE Asia. Shan Plateau of Myanmar 33± 8° CW rotation relative to S China Block since M Cretaceous= 15.4 ± 5.4 ° CW rotation relative to Indochina Block. Peninsular Malaysia CCW declinations, similar to Borneo, Celebes Sea and Sulawesi, supporing hypothesis that much of Sundaland region rotated 35-40° CCW as rigid block since M Cretaceous. Java-Australia boundary probably passive margin until M Oligocene, so N-ward movement of Australia since Late Eocene initially pushed Borneo N-ward, driving CCW rotation of Borneo and Malaysia. Philippine Sea Plate rotating CW and moving NW through much of Tertiary, and arc fragments of this plate collided with Borneo through Tertiary)

Richter, B. & M. Fuller (1996)- Palaeomagnetism of the Sibumasu and Indochina blocks- implications for the extrusion tectonic model. In: R. Hall & D.J. Blundell (eds.) Tectonic evolution of Southeast Asia, Geological Society, London, Special Publ. 106, p. 203-224.
(Paleomagnetic data implications for extrusion tectonic model: (1) Sundaland only rotated 25-30° CW relative to S China during Tertiary; (2) SE-ward translation only 300-500 km; and (3) Sundaland composed of smaller sub-blocks, some of which moved N. This indicates deformation of Sibumasu dominated by oblique Indian Ocean Plate subduction, while deformation of Indochina dominated by extrusion, driven by Indian Craton)

Richter, B., I. Norton, E. Schmidtke & M. Fuller (1992)- Paleomagnetic rotations from Southeast Asia- implications for tectonic reconstructions of Sundaland. In: M. Flower et al. (conv.) Southeast Asia structure, tectonics and magmatism, Texas A&M University Symposium, College Station 1992, p. 1-3. *(Abstract only)*
(Paleomagnetic data from Thailand- E Myanmar suggest ~45° CW rotation since Cretaceous. Peninsular Malaysia, Borneo, SW Sulawesi and Celebes Sea mainly CCW declinations)

Ritsema, A.R. (1952)- Over diepe aardbevingen in de Indische Archipel. Ph.D. Thesis University of Utrecht, p. 1-132. *(Unpublished)*
('About deep earthquakes in the Indies Archipelago'. Study of 22 intermediate and deep earthquakes. Only two with good data. Promotor Prof. F.A. Vening Meinesz)

Ritsema, A.R. (1953)- New seismicity maps of the Banda Sea. J. Scientific Research Indonesia 2, 2, p. 48-54.

Ritsema, A.R. (1953)- Some new data about earthquake movements at great depth in the Indonesian Archipelago. Indonesian J. Natural Science (Majalah Ilmu Alam untuk Indonesia) 109, p. 34-40.
(In Indonesia shallow earthquakes widely distributed. Deeper earthquakes in narrower, rel. linear belts with deeper ones epicenters farther into Asian continent)

Ritsema, A.R. (1954)- The seismicity of the Sunda Arc in space and time. Indonesian J. Natural Science (Majalah Ilmu Alam untuk Indonesia) 110, p. 41-49.

Ritsema, A.R. (1956)- The seismicity of the Sunda Arc in space and time. Proc. 8th Pacific Science Congress Philippines 1953, 2a, p. 753-765.

Ritsema, A.R. (1957)- Earthquake-generating stress systems in SE Asia. Bull. Seismological Society of America 47, 3, p. 267-278.
(Data from 28 earthquakes in SE Asia between 1934-1954 suggest earthquakes (1) at crustal-depth dominated by transcurrent movements; (2) at intermediate depths mainly reverse fault movements and (3) at deep levels mainly normal fault movements)

Ritsema, A.R. & J. Veldkamp (1960)- Fault plane mechanisms of Southeast Asian earthquakes. Mededelingen en Verhandelingen 76, Kon. Nederlands Meteorologisch Instituut, De Bilt, p. 1-63.
(online at: www.knmi.nl/bibliotheek/knmipubmetnummer/knmipub102-76.pdf)
(In SE Asia fault movement and earthquake-generating stresses associated with deep-seated earthquakes are located in essentially vertical plane, those of shallow earthquakes in essentially horizontal plane. Eight seismic zones of ~2000km length: (1) Sumatra- Sunda Strait (NNE-SSW horoizontal pressure), (2) Java- Timor and (3) N Sulawesi (N-S horizontal pressure), (4) Philippines, (5) Solomon Islands, (6) E New Guinea, (7) W New Guinea and (8) Moluccas)

Robertson Research/ Simon PT /PERTAMINA (1992)- Eastern Indonesia: biostratigraphy, geochemistry and petroleum geology. Multi-client study, 238p. *(Unpublished)*

Robertson Research Int. (1998)- Global play fairways and petroleum systems: Eastern Indonesia. Multi-client study, p. . *(Unpublished)*
(Comprehensive hydrocarbon systems study Eastern Indonesia)

Robertson Utama Indonesia/ Horizon (2001)- Eastern Indonesia palaeogeography and sequence stratigraphy studies. Multi-client study, p. 1-107 + Enclosures *(Unpublished)*

Robertson/ Fugro (2006)- Cenozoic isopach of Southeast Asia. Multi-client study, 8p + map *(Unpublished)*

Rodnikova, R.D. (1986)- Geodynamics and petroleum formation in the sedimentary basins of Southeast Asia. International Geology Review 28, 4, p. 435-443.
(Russian point of view on 40+ sedimentary basins and petroleum content of Indo-Pacific region)

Royden, L.H. & L. Husson (2009)- Subduction with variations in slab buoyancy: models and application to the Banda and Apennine systems. In: S. Lallemand & F. Funiciello (eds.) Subduction zone geodynamics, Springer Verlag, Berlin, p. 35-45.
(Variations in buoyancy of subducting lithosphere control subduction rate, slab dip and position of volcanic arc. More buoyant slab segments correlate with slower subduction rates and steeper slab dip. In Banda and S Apennine subduction systems subduction slowed and ended shortly after entry of continental lithosphere into trench. Time period of ~10 m.y. needed for model subduction rates to slow to near zero, longer than ~3 M.y. observed in Banda systems. Possible explanation is slab break-off or formation of large slab windows during last stages of subduction allowing slab to steepen rapidly into final position)

Rutherford, K.J. & M.K. Qureshi (1981)- Geothermal gradient map of Southeast Asia, 2nd Edition. SE Asia Petroleum Exploration Society (SEAPEX) and Indonesian Petroleum Association (IPA), Jakarta, p. 1-51.

Rutten, L.M.R. (1923)- Cuba, The Antilles and the Southern Moluccas. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 25, 7-8, p. 263-274.
(online at: https://dwc.knaw.nl/DL/publications/PU00014881.pdf)
(Similarities between the Antilles and Southern Moluccas islands chains already noted by Wichmann (1887), Martin (1890), etc. In both areas Mesozoic and Tertiary radiolarian deposits. No good maps, etc.)

Rutten, L.M.R. (1927)- Voordrachten over de geologie van Nederlandsch Oost-Indie. J.B. Wolters, Groningen, p. 1-839.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB21:046525000:00068)
('Presentations on the geology of Netherlands East Indies'. Classic book, composed of comprehensive lecture series, remarkably well describing 1927 state of knowledge of geology of Indonesia. In Dutch)

Rutten, L.M.R. (1932)- De geologie van Nederlands Indie. Van Stockum, The Hague, p. 1-216.
(online at: https://resolver.kb.nl/resolve?urn=MMKB21:046525000:pdf)
('The geology of Netherlands Indies'. Concise, early textbook on the geology of Indonesia)

Rutten, L. (1938)- Le paysage des Indes Orientales et occidentales. Comptes Rendus Congres International de Geographie, Amsterdam 1938, 1-Actes du Congres, Brill, Leiden, p. 58-77.
(online at: https://resolver.kb.nl/resolve?urn=MMKB21:043939000:pdf)
('The landscapes of the East and West Indies'. Relatively little work done on geomorphology of the Indies (later significant geomorphology work by A.J. Pannekoek, H. Verstappen, etc.; JTvG). Landforms shaped by tropical climate with high rainfall, originally all covered by tropical rainforest with very rare rock outcrops. High denudation rates, creating mainly fine-grained sediments. More arid and seasonal in SE. Large parts of Indonesia, incl. N, E and SE Sumatra, C Java, E Borneo, Sulawesi, Seram, were once eroded to peneplains, but after recent uplifts became incised terranes with subhorizontal ridge crests up to 1000-2000m elevation. Young volcanoes in various stages of erosion. Areas with broad coastal swamps with mangroves indicate subrecent drowning. Etc.)

Rutten, M.G. (1952)- Geosynclinal subsidence versus glacially controlled movements in Java and Sumatra. Geologie en Mijnbouw 14, 6, p. 201-220.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0S2czQkxZN3B5cE0/view)
(Mainly critique of Smit Sibinga (1949) Pleistocene glacial cycles interpretation)

Saint-Marc, P., F. Paltrinieri & B. Situmorang (1977)- Le Cenozoique d'Indonesie occidentale. Bull. Societe Geologique France 19, 1, p. 125-134.
('The Cenozoic of Western Indonesia'. Review of stratigraphy of Sumatra, Java, Java Sea and Kalimantan, based largely on Lemigas- Jakarta data)

Saita, T., D. Suetsugu, T. Ohtaki, H. Takenaka, K. Kanjo & I. Purwana (2002)- Transition zone thickness beneath Indonesia as inferred using the receiver function method for data from the JISNET regional broadband seismic network. Geophysical Research Letters 29, 7, 1115, p. 19/1-19/4.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/2001GL013629/epdf)
(Seismicity-based study of variations in depths of 410km and 660km mantle discontinuities under Indonesia)

Salahudin, M. et al. (2007)- Map of sedimentary basins of Indonesia, 1:5 million. Geological Survey Indonesia, Bandung.
(Update of Hamilton (1974 sedimentary basins map)

Samuel, L., Purwoko, J. Purnomo, A.J. Bertagne & N.G. Smith (1994)- Results from interpretation of regional transects in Central Indonesia. Proc. 23rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 4, p. 261-266.

Samuel, L., Purwoko, J. Purnomo, A.J. Bertagne & N.G. Smith (1996)- Results from interpretation of regional transects in Central Indonesia. The Leading Edge 15, 4, p. 261-266 (+ Errata, p. 720).
(Example of N-S megaregional seismic line from S of Lombok to East Borneo)

Samuel, L. & L. Gultom (1984)- Daur pengendapan di cekungan-cekungan minyak, Indonesia Barat. Geologi Indonesia (IAGI) 11, 1, p. 14-23.
('Sedimentation cycles in western Indonesian basins'. Four main sedimentary cycles in Eocene- Recent of Java, Sumatra, Kalimantan)

Sander, N.J., W.E. Humphrey & J.F. Mason (1975)- Tectonic framework of Southeast Asia and Australasia: its significance in the occurrence of petroleum. Proc. 9th World Petroleum Congress, Tokyo 1975, 9, 3, p. 83-105.

Sandiford, M. (2010)- Complex subduction. Nature Geoscience 3, p. 518-520.
(Mainly brief review of Spakman & Hall (2010) on how Banda arc formed above single horseshoe-shaped subducted slab, reflecting slab rollback. Large intermediate-depth earthquakes may reflect rupturing of slab)

Sani, K. & B.E. Yusuf (2016)- Eastern Region of Indonesia: continents adrift & the potential new play models. In: Revisit on Tectonic of SE Asia, Pertamina Internal Report, p. *(unpublished)*

Sano, S., M. Untung & K. Fujii (1978)- Some gravity features of island arcs of Java and Japan and their tectonic implications. Geological Survey Indonesia, Special Publ. 6, p. 183-207.

Sapiie, B., I. Gunawan, A. Rudyawan, A. Pamumpuni, A.H. Harsolumakso, C.I. Abdullah, A.H.P. Kusumadjana et al. (2017)- Development of new tectonic model and paleogeography as challenge for future hydrocarbon exploration of Eastern Indonesia. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 57, p. 1-5.
(online at: https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_Development-of-New-Tectonic.pdf)
(In last 10 years much new2D and 3D seismic, gravity and fieldwork data acquired from E Indonesia. Also >25 new exploration wells drilled, mainly offshore, but no significant discoveries except for Kasuri area. New tectonic model and paleogeography study suggests new plays, including Triassic sandstone, normal fault blocks and flexural Jurassic reservoir. (unfortunately maps and charts illegible; printed at microscopic scale- JTvG)

Sapiie, B. & M. Hadiana (2007)- Mechanism of some rift basins in the Western Indonesia. Proc. 31st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA07-G-138, p. 1-9.

(Models for Paleogene rifting along W margin of Sundaland include purely extensional and strike slip fault control. Thermal anomalies in grabens parallel to subduction zone suggest back arc setting during rift phase, but other grabens not parallel to subduction zone. Different orientations suggest basins in W Indonesia developed by different tectonic system in Eocene-E Miocene. Sandbox modeling shows pre-existing basement structures fundamental control element on rifting)

Sartono, S. (1962)- The Banda geosyncline during Permian time: a palaeogeographic synthesis. Proceedings Institut Teknologi Bandung (ITB) 2, 4, p. 8-43.
(online at: https://journals.itb.ac.id/index.php/jmfs/article/view/9811)
(Presence of marine Permian rocks around Banda Sea on Savu, Roti, Timor, Leti, Luang and Babar (outer Banda Arc), E Sulawesi, Sula Spur, West Papua suggests existence of Banda geosyncline in Permian time. Banda geosyncline bordered land mass which included Sahul shelf. Trend of geosynclines follows present geanticlinal ridge of Outer Banda Arc islands. Distribution of Permian rocks and overthrust units in Timor suggests Permian geosyncline in SE Indonesia formed by two parallel basins, i.e. Sonnebait- Mutis in N (with neritic volcanic rocks of and Mutis overthrust units) and Kekneno basin in S)

Sartono, S. (1979)- Stratigrafi Indonesia. Dept. Teknik, Institut Teknologi Bandung (ITB), p.
('Stratigraphy of Indonesia. Course manual?)

Sartono, S. & S. Hadiwisastra (1988)- Comparison of post-Variscan tectonostratigraphic framework of Western and Eastern Indonesia. Proc. 17th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta,1, p. 447-459.
(Somewhat 'different' tectonics paper. Tectonostratigraphic reconstructions of Permo-Carboniferous to Quaternary rock formations in Sumatra and Timor indicate very similar geotectonic elements)

Sartono, S., S. Hadiwisastra & K.A.S. Astadiredja (1984)- Orogenesa intra-Miosen di Indonesia. Proc. 13th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, p. 491-516.
('Intra-Miocene orogenesis in Indonesia')

Sato, T. (1981)- Geology of Southeast Asia: a review. In: S Ishihara & A. Sasaki (eds) Metallogeny of Asia, Proc. International Symposium on Metallogeny of Asia, Tsukuba-Tokyo 1980, Geological Survey of Japan, Report 261, p. 7-19.
(online at: https://www.gsj.jp/data/rep-gsj/No261.pdf)
(Brief 1980 review of plate tectonics and main structural elements in SE Asia (Indochina- Indonesia- Philippines-Japan)

Satyana, A.H. (2003)- Accretion and dispersion of Southeast Sundaland: the growing and slivering of a continent. Proc. 32nd Annual Conv. Indonesian Association Geologists (IAGI) and 28th HAGI, Jakarta 2003, p. 1-31.
(online at: www.academia.edu/12962139/ACCRETION_AND_DISPERSION_OF_SOUTHEAST_SUN Etc.)
(Sundaland made up of terranes or micro-plates from N Gondwanaland. SE Sundaland accreted crustal masses include oceanic Meratus, continental Paternoster, Ciletuh-Luk Ulo-Bayat subduction complex, Bantimala-Barru-Biru subduction complex, Flores Sea Islands, and continental Sumba Island. These crustal masses accreted to 'original' SE Sundaland (Schwaner Core) during 150-60 Ma (Late Jurassic- E Tertiary). Starting at ~50 Ma, in M Eocene, parts of SE Sundaland rifted and drifted E and SE-ward slivering continent. Dispersed masses include SW Sulawesi through opening of Makassar Strait, Flores Sea Islands, and Sumba. Slivering caused segmentation of E Java Sea basement to presently extend more E than should be)

Satyana, A.H. (2006)- Post-collisional tectonic escapes in Indonesia: fashioning the Cenozoic history. Proc. 35th Conv. Indonesian Association Geologists (IAGI), Pekanbaru 2006, PITIAGI2006-036, p. 1-27.
(online at: https://www.iagi.or.id/web/digital/15/2006_IAGI_Pekan-Baru_-Post-Collisional-Tectonic.pdf
(Five major collisional events fashioned Cenozoic tectonics of Indonesia, all with lateral escape features: (1) collision of India to Eurasia at 50 or 45 Ma (E-M Eocene), followed by escape of Sundaland SE-ward, formation of Sundaland sedimentary basins, opening of marginal seas of S China Sea, Andaman Sea; (2) 25 Ma (Late Oligocene) collision of oceanic island arc at S margin of Philippine Sea Plate collided with New Guinea; (3) collision of Bird's Head microcontinent with Papua at 10 Ma (Late Miocene) creating Lengguru foldbelt; (4) 11-

5 Ma Buton-Tukang Besi and Banggai-Sula microcontinents collision with E Sulawesi ophiolite; (5) ~3 Ma N margin of Australian continent collision with Banda Island Arc)

Satyana, A.H. (2006)- Kontribusi eksplorasi hidrokarbon dalam beberapa pemikiran baru geodinamika Indonesia (makalah kunci). Seminar Nasional Geologi Indonesia: Dinamika dan produknya Pusat Survei Geologi, Badan Geologi Departemen Energi dan Sumberdaya Mineral, Bandung 2006, p. 1-27.
(online at: www.academia.edu/12104489/KONTRIBUSI_EKSPLORASI_HIDROKARBON_DALAM Etc.)
('Contributions to hydrocarbon exploration in some new thinking on the geodynamics of Indonesie (key papers)'. Discussion of impact on hydrocarbon exploration of some new thinking on Indonesia's geodynamics, including (1) collisional orogens, (2) escape tectonics, (3) accretion and dispersion of Sundaland, (4) dissimilarities of tectonics and structure of the Barito, Kutei, and Tarakan Basins, (5) tectonic indentatation of C Java, (6) deepwater sedimentation of Java, (7) nature of Rembang-Madura-Kangean-Sakala (RMKS) strike-slip fault, (8) Makassar Straits opening, and (9) Salawati Basin Polarity Reversal)

Satyana, A.H. (2007)- Cekungan sedimen Indonesia 1949-2006: Perkembangan konsep dan status terkini. Majalah Geologi Indonesia (IAGI) 21, 1, p. 1-5.
('Sedimentary basins of Indonesia 1949-2006- The development of concepts and the current status')

Satyana, A.H. (2007)- Sumbangsih eksplorasi minyak dan gas bumi terhadap pengetahuan geologi Indonesia: data dan pandangan baru geodinamika Indonesia. In: Geologi Indonesia: dinamika dan produknya, Geological Research Development Centre (GRDC), Bandung, Special Publ. 33, 2, p. 1-26.
('Contributions of oil and gas exploration towards the knowledge of Indonesia geology and geodynamics'. Discussion of aspects of Indonesia tectonics and sedimentation, particularly E Kalimantan, Java, Makassar straits and Salawati Basin)

Satyana, A.H. (2009)- Finding remnants of the Tethys Oceans in Indonesia: sutures of the terranes amalgamation. Proc. 38th Annual Conv. Indonesian Association Geologists (IAGI), Semarang 2009, p. 1-21.
(Indonesia built by terranes rifted off Gondwana between Devonian and Paleogene. Three successive Tethyan oceans opened and closed, leaving five belts of sutures. Paleo-Tethys (Devonian opening, M-L Triassic closing): Karimun-Bangka suture off NE Sumatra, linking E Malaya and Sibumasu terranes, and Natuna-Belitung suture between SW Borneo and E Malaya terranes. Meso-Tethys (Jurassic opening, mid-Cretaceous closing): Takengon-Bandar Lampung, W Sumatra, between Sibumasu and Woyla terranes and Meratus-Bawean suture between SW Borneo/Schwaner and Paternoster-Kangean terranes. Ceno-Tethys suture is E Sulawesi Ophiolite Belt, marking suture between Banggai microcontinent and W Sulawesi terrane)

Satyana, A.H. (2010)- Finding remnants of the Tethys Oceans in Indonesia: sutures of the terranes amalgamation and petroleum implications. Proc. 34th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA10-G-153, p. 1-26.
(Same paper as above)

Satyana, A.H. (2010)- Crustal structures of the Eastern Sundaland's rifts, Central Indonesia: geophysical constraints and petroleum implications. Proc. HAGI-SEG Int. Geosci. Conf., Bali 2010, IGCE10-OP-108, Jurnal Geofisika, p. 1-10.
(online at: www.academia.edu/16757061/CRUSTAL_STRUCTURE_OF_EASTERN_SUNDALAND_S_RIFTS_CENTRAL_INDONESIA_GEOPHYSICAL_CONSTRAINTS_AND_PETROLEUM_IMPLICATIONS)
(Discussion of M Eocene (~50Ma) and younger rift basins along E margin of Sundaland. Seimic sections across Makassar Straits, East Java Sea, Gorontalo and Bone Basins)

Satyana, A.H. (2010)- Gravity tectonics in Indonesia- a companion to plate tectonics: cases of isostatic exhumation and gravitational sliding. Proc. 39th Annual Conv. Indonesian Association Geologists (IAGI), Lombok, PIT-IAGI-2010-205, p. 1-12.
(online at: https://www.iagi.or.id/web/digital/12/2010_IAGI_Lombok_Gravity-Tectonics-in-Indonesia.pdf)
(At several areas in Indonesia geologic phenomena can not be explained by plate tectonics only. Uplifts in collision zones of Indonesia (Meratus (SE Kalimantan), Batui (E Sulawesi), Central Ranges of Papua, and Timor-

Tanimbar uplifts may be caused by isostatic exhumation of once subducted microcontinents in collision zones. Compressional structures such as Samarinda Anticlinorium (E Kalimantan) and N Serayu fold-thrust belt (N C Java) may be related to gravitational gliding after hinterlands uplifts. Collision of microcontinents is by plate tectonics, but their subsequent uplifts of collisional through gravity tectonics)

Satyana, A.H. (2012)- Origins of the Banda Arcs collisional orogen and the Banda Sea. Berita Sedimentologi 23, p. 17-20.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/download/188/158)
(Review of literature on the origin of oceanic Banda Sea and Banda collisional zone)

Satyana, A.H. (2012)- Accretion and dispersion of Southeastern Sundaland: the growing and slivering of continent and petroleum implications. AAPG Int. Conv. Exh., Singapore 2012, Search and Discovery Article 30261, p. 1-39. *(Abstract + Presentation)*
(online at: www.searchanddiscovery.com/documents/2012/30261satyana/ndx_satyana.pdf)
(Sundaland made up of terranes from N Gondwanaland, which rifted, drifted, and amalgamated in Late Paleozoic- Mesozoic. A number of SE Sundaland crustal masses accreted to original SE Sundaland (Schwaner Core) in 150-60 Ma. Starting at ~50 Ma (M Eocene), some of accreted mass of SE Sundaland rifted and drifted apart (SW Sulawesi, Flores Sea Islands, Sumba), due to transtension rifting related to tectonic escape of India-Eurasia collision and/or back-arc spreading by rollback of slower subduction, resulting in opening of Makassar Straits and Bone Basins, segmentation of E Java Basement and slivering of Sumba terrane)

Satyana, A.H. (2013)- Gravity tectonics in Indonesia: petroleum implications. Proc. 37th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA13-G-161, p. 1-14.
(Examples of gravity tectonics (compressional structures not requiring tectonic shortening) in Indonesia: (1) Meratus Uplift, SE Kalimantan, (2) Samarinda Anticlinorium (E Kalimantan), (3) growth faults and toe thrusts in Tarakan offshore and N Makassar Basins, and (4) N Serayu Anticlinorium, C Java (reminescent of Van Bemmelen's 'undation theory'; JTvG))

Satyana, A.H. (2014)- New consideration on the Cretaceous subduction zone of Ciletuh- Luk Ulo- Bayat-Meratus: implications for southeast Sundaland petroleum geology. Proc. 38th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA14-G-129, p. 1-41.
(online at: https://geologi.fitb.itb.ac.id/wp-content/uploads/sites/63/2021/09/IPA14-G-129.pdf)
(Cretaceous subduction under SE Sundaland more complex than previously considered. Subduction ceased in Bantimala and Meratus trenches in mid-Cretaceous due to docking of W Sulawesi and Paternoster-Kangean microcontinents, respectively. Late Cretaceous subduction migrated to Paternoster trench resulting in volcanic and magmatic rocks as well as forearc sediments in Meratus and Bantimala. Subduction in Ciletuh and Luk Ulo continued into Late Cretaceous. Bayat area may not be subduction continuation of Luk Ulo due to absence of subduction zone rock assemblages. Presence of NW Australian-derived microcontinents (W Sulawesi, Paternoster-Kangean, SE Java) opens petroleum possibilities in pre-Tertiary deposits)

Satyana, A.H. (2014)- Tectonic evolution of Cretaceous convergence of Southeast Sundaland: a new synthesis and its implications on petroleum geology. Proc. 43rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 1-28. *(online at: www.academia.edu/43212914/TECTONIC_EVOLUTION_OF_CRETACEOUS_CONVERGENCE_OF_SOUTHEAST_SUNDALAND_A_NEW_SYNTHESIS_AND_ITS_IMPLICATIONS_ON_PETROLEUM_GEOLOGY)*
(SE Sundaland recorded subduction of oceanic plate in Jurassic- Late Cretaceous (Meratus, Bantimala, Luk Ulo, Ciletuh). Subduction ceased in Bantimala and Meratus trenches in mid-Cretaceous due to docking of W Sulawesi and Paternoster-Kangean microcontinents. In Late Cretaceous, subduction migrated to Paternoster trench, resulting in volcanic- magmatic rocks and forearc sediments in Meratus and Bantimala. In Paleogene Meratus and Bantimala separated by opening of Makassar Straits. Subduction in Luk Ulo and Ciletuh trenches continued into Late Cretaceous (but no Late Cretaceous subduction-related metamorphic rocks). Jiwo Hills, Bayat, not subduction zone, but part of SE Java Microcontinent that docked in E Cretaceous)

Satyana, A.H. (2018)- Contribution of post-2000's petroleum exploration in Indonesia to some issues of tectonics: solutions to problems, new knowledge, and hydrocarbon implications. Proc. 42nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA18-591-G, p. 1-23.
(Recent petroleum exploration contributed to solving debates on tectonics of Indonesia: (1) N Makassar Straits opening mechanism and nature of basement (extended continental crust from interpretation of volcanic geochemistry in well), (2) origin of Sumba micro-continent (rifted block from Sulawesi), (3) basement of Cendrawasih Bay (Pacific Plate oceanic/ arc volcanic crust). Some issues now better defined: (4) forearc areas of Sumatra- W Java (with Paleogene rift structures), and (5) foredeep areas of Seram-Tanimbar-Timor troughs (foredeeps, not subduction troughs). New knowledge of tectonics: (6) presence of Late Paleozoic-Mesozoic sections of Gondwanan micro-continents in East Java and S Makassar Straits (from interpretation of seismic and geochemical data), and (7) multiple rifts/terranes of Gorontalo Basin (from seismic interpretation))

Satyana, A.H. (2022)- The Neogene in Indonesia: the most important period of geologic evolution and formation of petroleum resources. Proc. 46th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA22-G-313, p. 1-25.
(Extensive review of Neogene events, deposits, basins, petroleum systems, etc.)

Satyana, A.H., C. Armandita & R.L. Tarigan (2008)- Collision and post-collision tectonics in Indonesia: roles for basin formation and petroleum systems. Proc. 32nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA08-G-140, p. 1-18.
(Collision following subduction and accretion of buoyant crustal masses and post-collision tectonics significant for basin formation and resultant petroleum systems. Examples of collisions important for petroleum geology: (1) Meratus (SE Kalimantan), (2) Buton and Banggai (E Sulawesi), (3) Seram, (4) Timor-Tanimbar, (5) Lengguru (Birds Head of Papua) and (6) Central Range of Papua)

Satyana, A.H., A.B. Nugroho & D. Sugandi (2021)- Trilogy of Southeast Sundaland terranes: re-uniting drifted terranes of Southeast Sundaland using common marker of the Late Cretaceous volcanics to volcanic-clastics of the Meratus Mountains, South Sulawesi and Sumba- implications for petroleum opportunities. Proc. 45th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA21-G-39, p. 1-30.
(online at: https://tektonesiana.files.wordpress.com/2021/11/2021-re-uniting-trilogy-of-se-sundaland-terranes-satyana-et-al.-2021-ipa-proceedings.pdf)
(Meratus Range in SE Kalimantan, SW Sulawesi and Sumba all have similar Late Cretaceous volcanism and related volcanic-clastic sedimentation, suggesting they were contiguous parts of a Late Cretaceous volcanic arc system along SE Sundaland since mid-Cretaceous, and before Eocene- Oligocene dispersion (Palelo arc volcanics in Banda Terrane of Timor also part of this 'trilogy'?; JTvG))

Satyana, A.H., R.L. Tarigan & C. Armandita (2007)- Collisional orogens in Indonesia: origin, anatomy, and nature of deformation. Proc. Joint Convention 36th IAGI, 32nd HAGI, and 29th IATMI, Bali 2007, p. 1003-1061.
(online at: https://www.iagi.or.id/web/digital/28/2007_IAGI-Bali_Collisional-Orogens-in-Indonesia.pdf)
Extensive review of Indonesia collisional orogens: (1) Meratus: collision of Schwaner continental core with Paternoster micro-continent, (2) Sulawesi: collision of Banggai-Sula microcontinent and E Sulawesi Ophiolite, (3) Molucca Sea: collision of accretionary wedges of Sangihe and Halmahera arc-trench systems, (4) Seram: collision of Seram/N Banda arc and Bird's Head micro-continent, (5) Lengguru: collision between Bird's Head of N margin of Australian continent, (6) Papua Central Range: collision of island arc to S of Philippine Sea plate and N margin of Australian continent, and (7) Timor-Tanimbar: collision of Australian continent and Timor-Tanimbar/ S Banda arc)

Schneider, C.F.A. (1876)- Geologische Uebersicht uber den hollandisch-ostindischen Archipel. Jahrbuch Kaiserlich-Koniglichen Geologischen Reichsanstalt, Vienna, 26, 2, p. 113-134.
(online at: www.zobodat.at/pdf/JbGeolReichsanst_026_0113-0134.pdf)
('Geological overview of the Dutch East Indies archipelago'. First? countrywide review of Indonesia geology and useful minerals by German medical doctor Fr. Schneider. Two plates with small maps of Timor, Ambon, Leitimor, and Upper Siak and Anee (Anai) Gorge in Sumatra)

Schoffel, H. & S. Das (1999)- Fine details of the Wadati-Benioff zone under Indonesia and its geodynamic implications. J. of Geophysical Research 104, B6, p. 13101-13114.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/1999JB900091)
(Relocated earthquakes hypocenters show (1) portion of Indonesian arc between ~110°E- 123°E and >500 km deep, dips S at ~75° angle, direction opposite to upper part of N dipping slab, and (2) E of ~108 °E seismic zone wider near 670km than near 500 km depth. The first suggests S-ward lateral flow in mantle, relative to plate motion vector. From contortion of seismic zone along E portion of arc, average lateral shear strain rate in 300-670 km depth range is ~10-16s-1 over last 10-20 Myr)

Schuppli, H.M. (1946)- Geology of oil basins in the East Indian archipelago. American Assoc. Petroleum Geol. (AAPG) Bull. 30, 1, p. 1-22.
(Broad review of Indonesian oil-bearing basins by BPM-Shell geologist. Oil fields of Tertiary basins of Sumatra, Java, and Borneo produced > one billion barrels of oil to end of 1940. Oil produced to date almost exclusively from sands of Miocene and Pliocene age. Etc.)

Schwartz, M.O., S.S. Rajah, A.K. Askury, P. Putthapiban & S. Djaswadi (1995)- The Southeast Asian tin belt. Earth-Science Reviews 38, p. 95-290.
(online at: https://www.academia.edu/112378209/The_Southeast_Asian_tin_belt)
(N-S trending SE Asian tin belt 2800 km long/ 400 km wide, from Myanmar- Thailand to Malay Peninsula and Indonesian Tin Islands Bangka- Belitung. Five granitoid provinces: (1) Main Range in W Malay Peninsula, S Peninsular Thailand and C Thailand (184-230 Ma; almost entirely biotite granite, 55% of tin production); (2) Northern Province of N Thailand (200-269 Ma; 0.1% of tin production, also mainly biotite granite); (3) Eastern Province of E Peninsular Malaysia- E Thailand (Malaysian part subdivided into E Coast Belt (220-263 Ma), Boundary Range Belt (197-257 Ma) and Central Belt (79-219 Ma; wide compositional range; tin deposits only in biotite granite in E Coast Belt) (3% of production); (4) Western Province in N Peninsular and W Thailand and Burma (22-149 Ma; biotite granite, 14% of tin production); (5) Granitoids of Indonesian Tin Islands (193-251 Ma) do not permit grouping into above units; most tin deposits associated with Main Range-like plutons)

Scotese, C.R., L.M. Gagahan & R.L. Larson (1988)- Plate tectonic reconstructions of the Cretaceous and Cenozoic ocean basins. Tectonophysics 155, p. 27-48.
(Nine global reconstructions of ocean basins and continental plates for E Cretaceous- Pleistocene times. Late Cretaceous and Early Tertiary plate reorganizations in Indian Ocean e result of progressive subduction of intra-Tethyan rift/ spreading system)

Setiawan, N.I. (2013)- Metamorphic evolution of Central Indonesia. Ph.D. Thesis Kyushu University, Japan, p. 1-318. *(Unpublished)*
(Petrological, geochemical and geochronological investigations of metamorphic rocks from Bantimala and Barru Complexes in S Sulawesi, Luk Ulo Complex in C Java, Meratus Complex in S Kalimantan, and Nangapinoh area of Schwaner Mountains in W Kalimantan. High-P metamorphic rocks predominantly eclogites and blueschists with Early Cretaceous K-Ar ages. Eclogites-blueschists from S Sulawesi contain MORB, within-plate basalt, and arc signatures. Eclogites-blueschists from C Java mostly within-plate basalt signatures. Protoliths of metatonalites from Schwaner Mountains from volcanic-arc tectonic environment. Detrital zircons from S Sulawesi metamorphics similar clusters of Silurian-Permian ages (~430–280 Ma). S Sulawesi, SE Kalimantan and C Java possibility parts of single (E Cretaceous) subduction complex.

Setiawan, N.I., S. Husein & M.F. Alfyan (2014)- Speculative models of exhumation of High-Pressure Low-Temperature metamorphic rocks from central part of Indonesia: an implementation of concepts and processes. Proc. Seminar National Kebumian 7, Universitas Gadjah Mada, Yogyakarta 2014, P3O-02, p. 504-523.
(online at: https://repository.ugm.ac.id/135217/1/504-523%20P3O-02.pdf)
(Published exhumation models of high-P/low-T metamorphic rocks in subduction zones suggest buoyancy is only effective force to exhume rocks from deeply subducted levels to base of crust. Serpentinites are extremely buoyant and may facilitate exhumation. Requires rapid uplift and cooling to maintain high-P minerals in rocks. Presence of melange units intercalated with high-P metamorphics and chaotic occurrence of different metamorphic facies typically in subduction channel environment)

Setiawan, N.I., Y. Osanai & M.I. Khalif (2016)- U-Pb detrital zircon geochronology of metamorphic rocks from South Kalimantan, South Sulawesi, and Central Java, Indonesia: related metamorphism and tectonic implications in Central Indonesia region. Proc. 14th Regional Conference Geology and Mineral Resources of SE Asia (GEOSEA XIV) and 45th Annual Conv. Indonesian Association Geologists (IAGI) (GIC 2016), Bandung, p. 289-292.
(High P metamorphics from Meratus in SE Kalimantan, Bantimala in S Sulawesi and Luk Ulo in C Java generally tied to NW-directed Cretaceous subduction. Zircons show no metamorphic rims and therefore viewed as detrital grains and provenance ages of metamorphic rock protoliths. Youngest detrital zircon ages in Bantimala- Meratus ~199-194 Ma, in Luk Ulo ~100 Ma. Ages from Bantimala glaucophane-quartz schist ~430-199 Ma (Silurian- E Jurassic), Barru garnet schist ~1930, 1730, 1600-1400 Ma, 1050 Ma (Proterozoic), and 550-280 Ma (Cambrian-Permian); Meratus epidote-barroisite schist 232 ± 39 Ma (Late Triassic; range 296-194 Ma); Luk Ulo gneiss mainly 127-100 Ma (E Cretaceous; also older)

Setiawan, N.I., Y. Osanai, N. Nakano, T. Adachi, Y. Tatsuro, K. Yonemura, A. Yoshimoto, J. Wahyudiono & K. Mamma (2013)- An overview of metamorphic geology from Central Indonesia: importance of South Sulawesi, Central Java and South-West Kalimantan metamorphic terranes. Bull. Graduate School Social and Cultural Studies, Kyushu University, 19, p. 39-55.
(online at: https://api.lib.kyushu-u.ac.jp/opac_download_md/26209/p039.pdf)
(Study of metamorphic complexes at Bantimala and Barru (S Sulawesi; High P), Luk Ulo (C Java; High P; pelitic schist, eclogite, blueschist), Meratus (S Kalimantan) and Nangapinoh area of Schwaner Mountains (W Kalimantan). Metamorphic rocks from S Sulawesi, C Java and S Kalimantan E Cretaceous ages (~110-130 Ma) and possibly from single subduction complex. Metamorphic rocks in Schwaner Mts metatonalite with Late Triassic U-Pb zircon magmatic ages (~233 Ma), i.e. older than most Schwaner Mts granitoids (Late Jurassic-Cretaceous), but within range of NW Kalimantan granitoids (Carboniferous- Triassic; 204-320 Ma))

Setiawan, N.I., Y. Osanai, N. Nakano, T. Adachi, K. Yonemura, A. Yoshimoto, L.D. Setiadji, K. Mamma & J. Wahyudiono (2014)- Geochemical characteristic of metamorphic rocks from South Sulawesi, Central Java, South and West Kalimantan in Indonesia. ASEAN Engineering J., C, 3, 1, p. 107-127.
(online at: www.seed-net.org/download/GeoE013_revised_060513.pdf)
(Metamorphic complexes as products of Cretaceous subduction outcrop in C Java, S Kalimantan and S Sulawesi. Mainly high-pressure metamorphic rocks from metabasic and sedimentary protoliths. Metabasic rocks from S Sulawesi and C Java basalts with both MORB and within-plate signatures. Metatonalites from Schwaner Mountains calc-alkaline arc volcanics; adakitic metatonalite age of 233± 3 Ma (Late Triassic))

Setijadji, L.D. (2010)- Cretaceous subduction zones in Indonesia: paleogeography, arc granitoid plutonism and metallic mineralizations. Proc. IGCP 507 Project Symposium Paleoclimates in Asia during the Cretaceous, Yogyakarta 2010, p. 59-60. *(Abstract only)*
(Two or three separate Cretaceous subduction zones in W Indonesia, with oceanic crust subducting under Eurasia plate (1) M-Lt Cretaceous Sumatra-Meratus arc, E and N- facing subduction, 2000 km long, with granitoid plutonism from W Sumatra (Sikuleh, Manunggal, Ulai, Garba and Sulan granites; 120-75 Ma), N of Java, to Meratus Mountains of SE Kalimantan; (2) S-facing subduction at NW Kalimantan, resulting in two granitoid plutonic arcs, i.e. late E Cretaceous Schwaner Arc and Late Cretaceous Sunda Shelf Arc. Both are parallel in E-W direction, ~1500 km long, in W-C Kalimantan, with Late K arc south of Early K arc. Cretaceous arc granitoid plutonism very different from Triassic granitoids of Bangka- Belitung)

Seubert, B.W. (2015)- Volcaniclastic petroleum-systems- theory and examples from Indonesia. Proc. 39th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA15-G-026, p. 1-19. *(online at: https://www.petropep.com/download_1_html_files/Seubert_2015_Volcaniclastic_petroleum_systems.pdf)*
(Potential volcaniclastic reservoirs present in Indonesia across range of stratigraphic intervals, but underexplored. Presence of volcanic material may enhance preservation and of organic matter and maturation of hydrocarbons. Porosity prediction still problematic. Examples of volcaniclastic reseroirs in Indonesia: Bengkulu, W, C and E Java, S Sulawesi, etc.)

Sevastjanova, I. & R. Hall (2011)- Detrital zircon from the Banda Arc: insights into the palaeogeographic reconstructions. In: Conf. Sediment provenance studies in hydrocarbon exploration & production, Geological Society, London, 2011, p. 27-28. *(Abstract only)*
(Zircon U-Pb ages from Karimunjawa Arch (SW Borneo Block) similar to those from Seram, suggesting similar source areas. Mesoproterozoic zircons in Karimunjawa Arch uncommon on Cathaysian Blocks, providing evidence against Cathaysian affinity for SW Borneo Block. Triassic zircons abundant in Karimunjawa Arch. Zircons suggest existence of local Permian-Triassic zircon source in E Indonesia and/or on Australia NW Shelf)

Sevastjanova, I., R. Hall & S. Zimmermann (2012)- Detrital zircon provenance and insights into palaeogeographic reconstructions of the Banda Arc. Proc. 1st Congres Int. Geologia de Timor-Leste, Dili 2012, Abstract book, p. 103-105. *(Abstract only)*

Shaw, R.D. (1990)- Frontier basins of Southeast Asia: a review of their hydrocarbon potential. Proc. 8th Offshore South East Asia Conference, Singapore, SE Asia Petroleum Exploration Society (SEAPEX) 9, OSEA 90176, p. 69-80.
(70% of SE Asian basins frontier basins with no significant hydrocarbon production, but contain estimated 22% of recoverable oil reserves. Basins in regions of oceanic-continent convergence (N Australia, Sunda margin) more prospective than areas of oceanic plates convergence)

Shaw, R.D. & G.H. Packham (1992)- The tectonic setting of sedimentary basins of Eastern Indonesia: implications for hydrocarbon prospectivity. Australian Petroleum Exploration Assoc. (APEA) Journal 32, 1, p. 195-213.

Shaw, R.D. & G.H. Packham (1992)- Heatflow trends in Southeast Asia: implications for petroleum prospectivity. In: 9th SEAPEX Offshore Southeast Asia Conf. (OFFSEA 92), Singapore 1992, Proc. SE Asia Petroleum Exploration Society (SEAPEX) 10, OSEA 92243, p. 130-144.
(75% of SE Asia oil reserves in basins with contemporary heatflow of 2 HFU or more)

Shi, H., T. Li, R. Zhang, G. Zhang & H. Yang (2020)- Imaging of the upper mantle beneath Southeast Asia: constrained by teleseismic P-wave tomography. Remote Sensing (MDPI) 12, 18, 2975, p. 1-23.
(online at: https://www.mdpi.com/2072-4292/12/18/2975)
(Tomography velocity model, mainly over Indonesia. High velocity anomalies correlated to subduction plates and stable land masses, low velocity anomalies to island arcs and upwelling of mantle materialf rom subducting plates. S-ward subducting high-V body in Nansha Trough remnant of subduction of Dangerous Grounds under Borneo. High-V body under Indochina-Natuna-Borneo-Palawan at 240-660 km likely remnant of Proto-South China Sea (PSCS) and Paleo-Tethys. PSCS was southern branch of Paleo-Tethys and gateway between Paleo-Tethys and Paleo-Pacific Ocean (Map of Tethyan sutures does not agree with known outcrop informatio; JTvG))

Shulgin, A. (2012)- Subduction zone segmentation along the Sunda margin. Doct. Thesis Christian-Albrechts-Universitat, Kiel, Germany, p. 1-128.
(online at: http://d-nb.info/1023870339/34)
(Mainly collection of five papers on Java-Sumatra forearc regions. Geophysical models show significant variations of crustal and upper mantle structure of Sunda Arc subduction complex along-strike and across-strike of margin. Increased thickness of crystalline crust in Savu Sea attributed to approach of Australian shelf to trench. Offshore Lombok oceanic crust thickness 7 km thick and heavily fractured by normal faults. Crustal structure of Roo Rise oceanic plateau revealing crustal thickness of 15km, its subduction causing deformation of forearc and complex evolution of subduction processes)

Sigit, S. & T.H.F. Klompe (1962)- I. A brief outline of the geology of the Indonesian Archipelago. II. Geological Map of Indonesia, scale 1:5,000,000, p. 1-18.
(Brief summary of Indonesia geology, with schematic structural map and 1:5m geologic map (see also updated version by Sukamto et al., 2011))

Simandjuntak, T.O. (1988)- An outline of tectonic development of the Indonesian archipelago and its bearing on occurrence of energy resources. In: Symposium on Tectonics and energy resources in East Asia, WGMM-CCOP, Tsukuba, Japan, p.

Simandjuntak, T.O. (1992)- Tectonic development of the Indonesian archipelago and its bearing on the occurrence of energy resources. Indonesia. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 2, 9, p. 2-23.
(Review of Indonesian tectonics and relation to hydrocarbons, coal, geothermal potential. Indonesia triple junction convergence since Neogene. Pre-Neogene tectonics (1) Paleozoic- Mesozoic_Paleogene convergence in W Indonesia; (2) Mesozoic- Paleogene divergence in E Indonesia, producing allochthonous terranes in E Indonesia. Permian convergence recorded by Permian andesitic volcanics, similar to rocks present in W Kalimantan and E Main Range of Malay Peninsula. Similarities between E Indonesian microcontinents include Permo-Carboniferous metamorphics, Permo-Triassic plutonics, overlain by Mesozoic passive margin seqeunce, E Cretaceous mostly missing, Late Cretaceous radiolarian calcilutites and Tertiary platform carbonates, etc.;generally regarded as derived from New Guinea. No plate reconstructions)

Simandjuntak, T.O. (1992)- Review of tectonic evolution of Central Indonesia. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 2, 15, p. 2-18.
(C Indonesia nine tectonic provinces or belts: (1) W Sulawesi Magmatic Arc (Late Cretaceous- Paleogene flysch and arc volcanics and some probably Cretaceous granitoids); (2) C Sulawesi Metamorphic Belt (tightly folded schist, incl. blueschist, N-S fold axes, probably Late Cretaceous metamorphism); (3) E Sulawesi Ophiolite Belt (>1000km long belt from E Arm Sulawesi to Kabaena and Buton in SE, possibly up to 15km thick; in places with deformed Late Cretaceous radiolarian chert, K-Ar ages of ophiolite ~93-37 Ma; E Miocene obduction?); (4) Banda Micro-continents (Banggai-Sula, Seram-Buru platform, Misool-Birds Head, etc., terranes of Paleozoic metamorphic basement with Permo-Triassic granitic plutons, overlain by Late Triassic sediments, E Jurassic hiatus, M-L Jurassic passive margin sediment, etc.; originated from N Papuan margin); (5) Banda Sea floor (Cretaceous?)/ Sulawesi Sea floor (Eocene), (6) N Maluku Basin and Talaud- Tifore Ridge; (7) Minahasa-Sangihe Volcanic Arc; (8) W Halmahera Province (Tertiary Arc volcanics) and (9) E Halmahera Province (ophiolites of poorly known age))

Simandjuntak, T.O. (1993)- Neogene tectonics and orogenesis of Indonesia. In: G.H. Teh (ed.) Proc. Symposium Tectonic framework and energy resources of the western margin of the Pacific Basin, Kuala Lumpur 1992, Bull. Geological Society Malaysia 33, p. 43-64.
(online at: https://gsm.org.my/wp-content/uploads/gsm_file_2/702001-101022-PDF.pdf)
(Indonesian Archipelago developed during Neogene convergence of 3 megaplates, Eurasian craton, Pacific plate and Australian craton. Five major crustal elements, 4 orogenic belts: Sunda orogeny, (2) Banda orogeny, (3) Melanesian orogeny, (4) Talaud orogeny. 'Transitional Complex': between 3 major plates composed of 17 disctinct units: E Sulawesi, Banggai-Sula, Timor-Tanimbar, Misool-Birds Head, etc.)

Simandjuntak, T.O. (1993)- Neogene tectonics and orogenesis of Indonesia. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 3, 20, p. 2-32.
(Similar to other Simandjuntak (1993) above)

Simandjuntak, T.O. (1994)- Tectonic evolution of Central Indonesia. In: J.L. Rau (ed.) Proc. 29th Session Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Hanoi 1992, 2, p. 91-113.
(Central Indonesia is triple junction of Indo-Australian, Pacific and Eurasian plate convergence. Seven tectonostratigraphic provices, various episodes of convergence and divergence. Reconstructions show Banda Microcontinent (which subsequently breaks up into Banggai-Sula, Tukang-Besi, Seram-Buru, Misool-Birds Head, etc.) attached to Papua New Guinea part of Australian continent in Triassic-Jurassic time (similar to Pigram, Struckmeyer reconstructions, but not Hall and others))

Simandjuntak, T.O. (1994)- Neogene orogeny and mountain building in Indonesia. In: J.L. Rau (ed.) Proc. 30th Session Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Bali 1993, 2, p. 47-86.

(online at: https://repository.unescap.org/items/177e9366-1a15-4fc9-986f-15520603d2c3)
(Neogene tectonics of Indonesia marked by five different orogenic belts, Barisan Orogeny in Sumatra, Late Neogene Sunda Orogeny in Java and Nusatenggara, Banda Orogeny in Sulawesi (Tethyan-type collision in E Sulawesi), Talaud Orogeny in North Molucca Sea and Melanesian Orogeny in New Guinea)

Simandjuntak, T.O. (1998)- Tsunamis in active plate margins of Indonesia. Proc. 33rd Session Coord. Comm. Coastal and Offshore Programmes E and SE Asia (CCOP), Shanghai 1996, 2, p. 334-361.
(Overview of active tectonics across Indonesia and relation to tsunamis. Tsunamis triggered by earthquakes below seafloor, most of them over graben-like structures in areas of extensional tectonics, but transtensional zones also have tsunami potential)

Simandjuntak, T.O. (2000)- Geotectonic of Indonesia: the birth of the Indonesian Archipelago. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 10, 104, p. 8-21.
(Tectonic development of Indonesia initiated by collision in Sumatra and Kalimantan in E Triassic of Paleozoic microcontinents detached from Gondwana, followed by reccurring subduction systems until today. In Sumatra 3 terrnanes: (1) SE part of Sibumasu Terrane (Mergui, Tigapuluh Mts and Kuantan- Duabelas Mts); (2) SE end of Lhasa- W Burma Terrane (Woyla, Sikuleh, Natal and Asai-Garba Terranes); (3) SE-most Malaysia Terrain (Gunungkasih-Lingga-Singkep). W Kalimantan and Meratus also parts of S-most China- Indochina terranes. Irian Jaya and PNG part of N Australian continental margin, which rifted in Triassic, followed by development of passive margin in Jurassic- Cretaceous and carbonate platform in Paleogene. At end-Paleogene, promontory of Australian continent collided with oceanic island arc at S margin of Philippine Sea Plate. Prior to Neogene emplacement of allochthonous microcontinents from N margin of Australia in Banda Sea, E Indonesia was part of N Indian Ocean and S Philippine Sea plates, in which a number of oceanic island arcs formed in Paleogene. Six Neogene orogenic belts in Indonesian region. No reconstruction maps (refers to map of 1999 Indonesian-Japanese Geotectonics Working Group; Sato et al.))

Simandjuntak, T.O. (2000)- Neogene tectonics of Indonesia. AAPG International Conference Exhib., American Assoc. Petroleum Geol. (AAPG) Bull. 84, 9, p. 1492. *(Abstract only)*
(Seven distinctive Neogene orogenies in Indonesia: 1) Sunda Orogeny in Java and E Indonesia: normal convergence producing Andean type orogenic belt, 2) Barisan Orogeny: oblique convergence and dextral transpressional wrenching in Sumatra, 3) Talaud Orogeny in N Maluku Sea: double-arc collision with sinistral transpressional wrenching, 5) Banda Orogeny: M Miocene collision between Banggai-Sula, Tukangbesi- Buton and Mekongga Platform against E Sulawesi ophiolite belt; 6) Melanesian Orogeny in Irian Jaya and PNG: oblique convergence with thin-skinned tectonics, 7) Dayak Orogeny in Kalimantan: triple junction extensional tectonics with hot spots of Neogene volcanics)

Simandjuntak, T.O. (2003)- The Indonesian active margins. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 13, 136, p. 2-24.
(Discussion of young collisional and strike-slip belts of Indonesia)

Simandjuntak, T.O. & A.J. Barber (1996)- Contrasting tectonic styles in the Neogene orogenic belts of Indonesia. In: R. Hall & D. Blundell (eds.) Tectonic evolution of Southeast Asia, Geological Society, London, Special Publ. 106, p. 185-201. *(online at: https://earthjay.com/earthquakes/20190714_halmahera/simandjuntak_barber_2016_orogenic_belts_indonesia.pdf)*
(Six separate Neogene orogenic belts: Sunda (W Java-Flores), Barisan, Talaud, Sulawesi, Banda (Timor-Tanimbar) and Melanesian (New Guinea))

Simatupang, M. (1988)- Indonesian mineral development digest: a sourcebook on mining and mineral development in Indonesia. Indonesian Mining Association, Jakarta, p. 1-565.

Simons, W.J.F., B.A.C. Ambrosius, R. Noomen, D. Angermann, P. Wilson, M. Becker, E. Reinhart, A. Walpersdorf & C. Vigny (1998)- The final geodetic results of the GEODYSSEA project: the combined solution. In: P. Wilson & G.W. Michel (eds.) The Geodynamics of S and SE Asia (GEODYSSEA) Project, GeoForschungsZentrum, Potsdam, Scientific Technical Report STR 98/14, p. 27-38.

Simons, W.J.F., B.A.C. Ambrosius, R. Noomen, D. Angermann, P. Wilson et al. (1999)- Observing plate tectonics in SE Asia: geodetic results of the GEODYSSEA project. Geophysical Research Letters 26, 14, p. 2081-2084.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1029/1999GL900395)
(Geodetic results of GEODYSSEA Project 1994-1996 GPS data)

Simons, W., B. Ambrosius, C. Vigny, A. Socquet, C. Subarya et al. (2003)- Crustal motion and block behaviour in S.E. Asia: a decade of GPS measurements. EGS-AGU-EUG Joint Assembly, Nice 2003, Abstract 10940.
(SE Asia region was observed with 45 GPS site 'GEODYSSEA project (1991-1998). Additional GPS sites have set-up since 2000. High-quality GPS data set, spanning almost decade, combined into kinematic model, with 100+ station motions in ITRF-2000. Highlights are relative motion and boundaries of Sundaland block. In Sulawesi, two micro-blocks confirmed and number of sites on E Malaysia, indicate small but consistent relative motion with respect to Sundaland block (see also full paper by Simons et al. (2007))

Simons, W.J.F., A. Socquet, C. Vigny, B.A.C. Ambrosius, S. Haji Abu, C. Promthong, C. Subarya, D.A. Sarsito, S. Matheussen, P. Morgan & W. Spakman (2007)- A decade of GPS in Southeast Asia: resolving Sundaland motion and boundaries. J. of Geophysical Research 112, B06420, p. 1-20.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2005JB003868)
(GPS velocity field of SE Asia based on 10 years (1994-2004) of GPS data at more than 100 sites in Indonesia, Malaysia, Thailand, Myanmar, the Philippines, and Vietnam. Sundaland moves E at ~6 mm/yr in S to 10 mm/yr in N. Sundaland moves independently with respect to S China, E Java, Sulawesi and N tip of Borneo. Slow W-ward movement of N tip of Borneo relative to Sundaland absorbed at NW Borneo Trench. Red River fault still active. Sundaland deformation occurs along its boundaries with fast-moving neighboring plates)

Siregar, P. (2024)- Tectonostratigraphy of Eastern Indonesia: a new understanding of the Mesozoic stratigraphy of Eastern Indonesia using sequence stratigraphy approach. Proc. 48th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA24-G-22, p.
(Conference presention only; paper not published in IPA Proceedings for administrative reasons)

Siregar, P.H., H. Panggabean & D.A. Sebayang (2024)- New understanding of the Mesozoic tectonostratigraphy of Eastern Indonesia. Berita Sedimentologi 50, 1, p. 51-74.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/459/435)
(Timing of Late Paleozoic Mesozic pre-, syn and post-rift 'megasequences' in E Indonesia different between N (Aru-Kumawa, Bintuni, Berau, Semai, Papua Birds Head, Seram) and S (Timor Sea, Abadi-Tanimbar, W Arafura Sea), related to fragmentation history of Australian continental margin: (1). North area with Late Permian-Triassic syn-rift fill and separation from Australian mainland by M-Late Triassic (Meso-Tethys opening); (2) South area with Triassic-Late Jurassic rift-fill and separation from Australian Continent by Late Jurassic. With series of regional seismic lines and tectonostratigraphic charts)

Situmorang, B. (1977)- The western Indonesia fault pattern: tectonic significance with relation to wrench tectonics. Lemigas Scientific Contributions 1, 2, p. 5-18.
(Four compression phases in W Indonesia since pre M Mesozoic: (1) N80°- 260E pre- M Mesozoic equatorial compression; (2) N158- 338E M Mesozoic meridional compression; (3) N2- 182E late Cretaceous- E Tertiary meridional compression, and (4) N174- 35E Plio-Pleistocene compression. Bantam trend three fault systems of different ages: M-Mesozoic left lateral strike-slip faults in C and S Sumatra, late Cretaceous- E Tertiary right lateral strike-slip faults in Sunda Strait and on Java, and Plio-Pleistocene left lateral strike-slip faults in Sumatra. M Mesozoic and late Cretaceous- E Tertiary compression responsible for creation of basic basin configuration in C and S Sumatra, W Java and W Java Sea areas. En echelon folds forming hydrocarbon bearing anticlines in Sumatra and Java related to Plio-Pleistocene compression)

Situmorang, B. (1986)- Notes on the Pre-Tertiary petroleum potential of Eastern Indonesia. Lemigas Scientific Contributions 10, 2, p. 16-23.
(online at: www.journal.lemigas.esdm.go.id/index.php/SCOG/article/view/70)

(Thick late Paleozoic-Mesozoic rift-drift facies formed excellent hydrocarbon plays in NW Australia and potential prospects extend into microcontinental blocks of E Indonesia)

Situmorang, B. (1987)- Pre Tertiary petroleum potential of Eastern Indonesia. Proc. 23rd Session Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Madang 1986, 2, p. 72-79.
(E Indonesia prospective hydrocarbon plays in Pre-Tertiary, mainly in microcontinental blocks of Australian origin and associated Pre-Tertiary rift basins)

Situmorang, B. (ed.) (1989)- Proceedings Sixth Regional Conference on the geology, mineral and hydrocarbon Resources of SE Asia (GEOSEA VI), Jakarta 1987. Indonesian Association Geologists (IAGI), Jakarta, p. 1-504.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_2/1987/7...)

Situmorang, B., Siswoyo, M. Thamrin & B. Yulianto (1983)- Heatflow variation in Western Indonesian basinal areas: implication on basin formation and hydrocarbon potential. Proc. 12th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 157-169.
(Average heat flow in Tertiary Basins of W Indonesia ~1.95- 2.58 μ Cal/cm2 s, except in C Sumatra where heat flow is ~3.27 ± 0.9 μ Cal/cm2 s. Less variability of heat flow in Java than in Sumatra basins. Lowest variability in S Sumatra, largest in C Sumatra. Variability probably reflects variation in amount of extension)

Situmorang, M. (1994)- Distribution and characteristics of detrital heavy minerals in Eastern Indonesian waters. In: J.L. Rau (ed.) Proc. 29th Session Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Hanoi 1992, Bangkok, 2, p. 231-251.
(Heavy minerals in seafloor sediments around Banda Arc region mainly mafic volcanic and sedimentary minerals, with some metamorphic minerals. Principal minerals hyperstene, augite, zircon, tourmaline, enstatite, garnet, chlorite and hornblende)

SKK Migas Memoir Team (2017)- Petroleum systems of the Eastern Indonesia region- Guidance for hydrocarbon exploration in Eastern Indonesia. SKK Migas Memoir 1, Jakarta, p. 1-489.

SKK Migas and FITB ITB (2024)- Cenozoic Carbonate Reservoir in Indonesia. SKK Migas Memoir 2, vol. 1 (Eastern Indonesia), Jakarta, ITB Press, p. 1-
(preprint online at: https://bit.ly/MemoirCarbonateEasternID?r=qr)
(10 chapters on oil-gas fields with Cenozoic carbonate reservoirs in Java (incl. chapter 2- Banyu Urip and Cepu Block Oligo-Miocene carbonates by Agung B. Cahyono & Ethika), Makassar Straits (Ruby), E Sulawesi (Senoro) and W Papua (Matoa))

SKK Migas and FITB ITB (2024)- Cenozoic Carbonate Reservoir in Indonesia. SKK Migas Memoir 2, vol. 2 (Western Indonesia), Jakarta, ITB Press, p. 1-581.
(preprint online at: https://bit.ly/MemoirCarbonateWesternID?r=qr)
(22? chapters on oil-gas fields with Cenozoic carbonate reservoirs in Sumatra, Java, S Kalimantam)

Sladen, C. (1997)- Exploring the lake basins of East and Southeast Asia. In: A.J. Fraser et al. (eds.) Petroleum geology of Southeast Asia, Geological Society, London, Special Publ. 126, p. 49-76.
(SE Asia contains large number of lake basins producing significant amounts of oil and gas: Late Mesozoic-Early Tertiary basins of China, Early Tertiary basins of Malaysia- West Indonesia. Wax content commonly 10-35% in oils from lacustrine source-rocks, occasionally reaching 45%. Source rock petroleum generators dominated by Botryoccocus and Pediastrum green algae)

Slancova, A., A. Spicak, V. Hanus & J. Vanek (2000)- How the state of stress varies in the Wadati-Benioff zone: indications from focal mechanisms in the Wadati-Benioff zone beneath Sumatra and Java. Geophysical J. International 143, p. 909-930.
(Earthquake focal mechanisms define eight stress domains: 3 in Sumatra (SI-SIII), 5 in Java region (JI-JV). Domains with similar states of stress occur in both regions in similar positions. Maximum compression perpendicular to trench in SI, SII and JII (depth range 0-165 km). Orientation of max. compression almost

parallel to trench in SIII and JIII (depth 25-225 km). Focal mechanisms of domains SII, SIII, and JII, JIII different stress layers and overlap of earthquakes with different focal mechanisms from two different stress-state layers, parallel to Wadati-Benioff zone. Slab-dip-parallel extension observed in JIV (depth 225-315 km), slab-dip-parallel compression in JV (>400 km))

Smit Sibinga, G.L. (1926)- De geologische bouw van het Euraziatisch grensgebied. Handelingen 4e Nederlandsch-Indisch Natuurwetenschappelijk Congres, Weltevreden 1926, p. 440- .
('The geological structure of the Eurasian border area')

Smit Sibinga, G.L. (1927)- Wegener's theorie en het ontstaan van den Oostelijken O.I. Archipel. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2) 44, p. 581-598.
(Discussion on merits of Wegener's continental drift theory (1912) in Indonesian archipelago. Considers basic idea of horizontal movements of continents and associated polar wandering as valid. As did Molengraaff, SS struggles with origin of the configuration of the 'Circum-synclinal Banda basin'. Remarkable conclusion: 'Various reasons to believe 'the Lesser Sunda islands, Sulawesi and the Moluccas are originally marginal chains of Sundaland, from which they separated and developed their present position and character as result of collision with the Australian continent'. No figures)

Smit Sibinga, G.L. (1928)- De geologische ligging der Boven-Triadische olie- en asfaltafzettingen in de Molukken. Natuurkundig Tijdschrift voor Nederlandsch-Indie 58, p. 111-121.
('The geological setting of the Upper Triassic oil and asphalt deposits in the Moluccas'. Triassic oil and asphalt deposits in Moluccas in similar facies on Timor, Ceram, Buru, Buton and SE Sulawesi. Formed at edge of Mesozoic Sundaland craton. No figures)

Smit Sibinga, G.L. (1933)- The Malay double (triple) orogen, I. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 36, 2, p. 202-210.
(online at: https://dwc.knaw.nl/DL/publications/PU00016394.pdf)
(Discussion of orogenetic belts of Indonesia: Sunda Orogen, Molucca Orogen, Pelew orogen. One of early authors suggesting current geotectonic structure of the Indonesian region is result of N-ward movement of Australian continent (similar to Wegener suggestion; now commonly accepted, but rejected by Van Bemmelen 1933 and others), etc.' JTvG))

Smit Sibinga, G.L. (1933)- The Malay double (triple) orogen, II. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 36, 3, p. 323-330.
(online at: https://dwc.knaw.nl/DL/publications/PU00016411.pdf)
(Discussion of 'Australian double orogen' in New Guinea, etc. No figures)

Smit Sibinga, G.L. (1933)- The Malay double (triple) orogen, III. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 36, 4, p. 447-453.
(online at: https://dwc.knaw.nl/DL/publications/PU00016429.pdf)
(East Indian Archipelago consists of double, partly triple orogen between Asiatic and Australian continental masses. Molucca-orogen shows larger negative gravity anomalies than Sunda-orogen)

Smit Sibinga, G.L. (1935)- Geologie en zwaartekracht in den Indischen Archipel. Critische beschouwing over eenige recente publicaties van Prof. Dr. J.H.F. Umbgrove. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2) 52, p. 581-598.
(online at: https://resolver.kb.nl/resolve?urn=MMUBA13:001683001:pdf)
('Geology and gravity in the Indies Archipelago; a critical review of some recent publications of Prof. Umbgrove'. Discussion of timing of Old Tertiary (Te4?), M Miocene (Tf2?) and Plio-Pleistocene (underappreciated by Umbgrove 1932, 1935) folding events)

Smit Sibinga, G.L. (1937)- On the relation between deep-focus earthquakes, gravity and morphology in the Netherlands East Indies. Gerlands Beitrage Geophysik, Leipzig, 51, 4, p. 402-409.

(On zones of deep earthquakes that dip towards SE Asia mainland, recently identified by Berlage (now known as Wadati-Benioff zone), with apparent irregularies in Molucca Sea, etc. Asiatic and Australian deep-focus earthquake hypocenter planes down to 700km, both with increasing focal depth towards continent, may be regarded as deep-seated fault- or thrust planes. Remarkable coincidence between morphological discrepancies, excessive negative gravity anomalies and active bathyseismic belt suggest intimate relationships and consequently great youth of these phenomena. With two maps)

Smit Sibinga, G.L. (1938)- Additional note on the relation between deep-focus earthquakes, gravity and morphology in the Netherlands East Indies. Gerlands Beitrage Geophysik, Leipzig, 53, 4, p. 392-394.
(Reply to Visser (1938) critique of Smit Sibinga (1937) conclusions. New hypocenter data from Gutenberg and Richter support earlier conclusion))

Smit Sibinga, G.L. (1939)- The Malay Archipelago in Pre-Tertiary times. Proc. Sixth Pacific Science Congress, San Francisco 1939, p. 231-240.
(Review of pre-Tertiary stratigraphy of Indonesia, from crystalline schists of pre-Paleozoic or E Paleozoic age through Silurian and Devonian, Carboniferous, Permian, Triassic, Jurassic, and Cretaceous, with observations on tectonics and paleogeography)

Smit Sibinga, G.L. (1940)- Der Malayische Archipel. Geologische Jahresberichte (Borntraeger, Berlin) II, B, p. 393-416.
('The Malay Archipelago'. Part 1 of review of geology of Indonesian region)

Smit Sibinga, G.L. (1942)- Der Malayische Archipel. Geologische Jahresberichte (Borntraeger, Berlin) IV, B, p. 362-382.
(('The Malay Archipelago'. Continuation of paper above. Brief reviews of geology of Timor, Mesozoic stratigraphy, etc. No new synthesis)

Smit Sibinga, G.L. & L.F. de Beaufort (1925)- Over het ontstaan van den Maleischen Archipel. Verslagen Geologische Sectie Geologisch Mijnbouwkundig Genootschap 3, 4, p. 64- .
(Summary of lecture on tectonics of Indonesian region, incorporating zoogeographic data)

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Sobari, I., A. Susilo, Subagio & E. Mirnanda (1993)- Bouguer anomaly map of Indonesia, scale 1:5M. Geological Research Development Centre (GRDC), Bandung, p. .

Soeria-Atmadja, R., R.C. Maury, H. Bellon, J.L. Joron, Y. Cyrille, H. Bougault & Hasanuddin (1986)- The occurrence of back-arc basalts in western Indonesia. Proc. 14th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 125-132.
(online at: https://www.iagi.or.id/web/digital/40/PIT_IAGI_1985_paper12.pdf)
(Incl. Quaterny back-arc basaltic volcanics of Sukadana in S Sumatra. Lack plagioclase phenocrysts and closer to MORB-type tholeiites than island-arc basalts. Resemble weakly alkaline Neogene Karimunjawa volcanics (Java Sea))

Soeria-Atmadja, R., H. Permana & A. Kadarusman (2005)- High-pressure metamorphics and associated peridotite in Eastern Indonesia. Majalah Geologi Indonesia (IAGI) 20, 2, Special Edition, p. 61-67.
(Association of high-pressure metamorphic rocks and ophiolites in E Indonesia, SE Kalimantan and Java)

Soeria-Atmadja, R., S. Suparka, C. Abdullah, D. Noeradi & Sutanto (1998)- Magmatism in western Indonesia, the trapping of the Sumba Block and the gateways to the east of Sundaland. J. Asian Earth Sciences 16, 1, p. 1-12.
(online at: http://eprints.upnyk.ac.id/12476/1/Magmatism%20in%20western%20Indonesia.pdf)

(Similarities in Late Cretaceous-Paleogene stratigraphy and calc-alkaline magmatism between Sumba, S Sulawesi and SE Kalimantan suggest Sundaland origin for all these areas. S-ward migration of Sumba to present fore-arc position is after Late Cretaceous-Paleocene time)

Soesilo, J. (2012)- New Cretaceous tectonic setting of southeast Sundaland based on metamorphic evolution. Ph.D. Thesis, Institut Teknologi Bandung (ITB), p. 1-224. *(Unpublished)*
(parts online at: https://digilib.itb.ac.id/assets/files/2019/2012_DS_PP_JOKO_SOESILO_1-BAB_52.pdf)
(See also Soesilo et al. (2015). Includes new U-Pb dating of zircons in high-metamorphic rocks of Meratus (136.8 ± 3.6 and Luk Ulo (125-101 Ma))

Soesilo, J., V. Schenk, E. Suparka & C.I. Abdullah (2015)- The Mesozoic tectonic setting of SE Sundaland based on metamorphic evolution. Proc. 39th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA15-G-205, p. 1-13. *(online at: http://eprints.upnyk.ac.id/12899/1/2015_Proceedings%20The%2039th%20IPA%20Annual%20Conven Etc.)*
(SE Sundaland marked by two tectonic sutures, separated by Paternoster microcontinent: (1) Jurassic accretionary remnant W of micro-continent (S Meratus Suture, with metamorphic belt extending offshore beneath Java Sea and N-ward to Mangkalihat Peninsula or to W part of C Sulawesi. Part of Jurassic high-P belt, overprinted by lower P and thermal metamorphism, in response to crustal thickening due to collision of Paternoster against Sundaland in E Cretaceous and subsequent Cretaceous calc-alkaline magmatism; (2) mid-Cretaceous accretionary complex E of Paternoster micro-continent, extending from Karangsambung, C Java, to Bantimala-Latimojong-Pompangeo in Sulawesi (HP metamorphic rocks ages ~100-128 Ma))

Song, W., Y. Yu, S.S. Gao, K.H. Liu & Y. Fu (2021)- Seismic anisotropy and mantle deformation beneath the Central Sunda Plate. J. of Geophysical Research: Solid Earth 126, 3, e2020JB021259, p. 1-12.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1029/2020JB021259)
(Seismic shear wave splitting suggests spatial variation of azimuthal anisotropy beneath central Sunda plate. Most of Malay Peninsula with mostly trench-perpendicular fast orientations that can be attributed to mantle flow induced by Indo-Australian subduction. Plate motion-parallel anisotropy observed in N Borneo and Nansha Block, where APM-driven simple shear in the transitional layer between the partially coupled lithosphere and asthenosphere. APM-induced flow may be locally modified by fossil slab segment beneath Sabah. etc.)

Sopaheluwakan, J. (1994)- Tectonic evolution of the Banda Arc, East Indonesia: Southern Tethyan crust obduction metamorphism and fragmentation of eastern Gondwanaland. Proc. 30th Anniversary Symposium, Research and Development Center for Geotechnology (LIPI), Bandung 1994, 2, p. 157-162.
(online at: elib.pdii.lipi.go.id/katalog/index.php/searchkatalog/.../1194.pdf)
(Studies of metamorphic aureoles at base of dismembered ophiolites on Timor, Seram, etc., suggest ophiolite obduction is major mechanism for emplacement of southern Tethyan crust onto Australian continental margin)

Sopaheluwakan, J. (1994)- Critiques and a new perspective on basement tectonic studies in Indonesia: a review of current results and their significance in geological exploration. Proc. 30th Anniversary Symposium, Research and Development Center for Geotechnology (LIPI), Bandung 1994, 2, p. 163-175.
(online at: elib.pdii.lipi.go.id/katalog/index.php/searchkatalog/.../1195.pdf)
(Not all metamorphic rocks in Indonesia are of pre-Tertiary age and of continental origin. Places like Timor and Seram have very young metamorphic rocks, formed during ophiolite obduction. Mutis Complex of Timor formed in oceanic setting near Jurassic spreading center)

Sopaheluwakan, J. (1995)- Cenozoic tectonic evolution of Indonesian seaways. In: S. Nishimura & R. Tsuchi (eds.) Proc. Oji Seminar on Neogene evolution of Pacific Ocean Gateways, Kyoto, IGCP-355, p.

Sopaheluwakan, J. (1999)- Understanding the Indonesian orogeny: a basement geology perspective. In: H. Darman & F.H. Sidi (eds.) Tectonics and sedimentation of Indonesia, FOSI-IAGI-ITB Regional Seminar to commemorate 50th anniversary of Van Bemmelen's Geology of Indonesia, Bandung 1999, p. 19. (*Abstract)*
(Indonesia three types of orogeny: (1) Sunda type, Late Mesozoic Cordilleran-type Meratus-Karangsambung orogen along rim of SE Sundaland and Neogene orogeny. Suspected collision of microcontinent in Meratus-

Karangsambung orogen. (2) Makassar type, outboard of Meratus-Karangsambung orogen, Oligocene and Miocene orogenies as result of obduction events of E Arm of Sulawesi and docking of Australian-derived microcontinents onto Sulawesi; (3) Banda type, with repeated pre-collisional obductions of short-lived spreading ridges in front of Australian passive margins in Oligocene and Miocene)

Sopaheluwakan, J. (2007)- Geodinamika Indonesia dan keberlangsungan hidup Manusia: dari ilmu kebumian ke ilmu-ilmu sistem kebumian. In: Geologi Indonesia: dinamika dan produknya, Geological Research Development Centre (GRDC), Bandung, Special Publ. 33, 1, p. 1-27.
('Indonesian geodynamics and human survival: from geography to the sciences of the earth system'. Three major tectonic theories for Indonesia: (1) undation theory, (2) plate tectonics and more recently (3) plume tectonics becoming fashionable)

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(online at: https://www.academia.edu/48818340/Earth_System_Processes_of_the_Wallacea_and_Their_Implications_to_the_Indonesian_Throughflow_and_Biogeography)
(Review of complex plate tectonic evolution of Central Indonesia Wallacea region (Sulawesi, Banda Sea, Banda Arcs, Moluccas, etc.), and its effects on Indonesian Throughflow currents from W Pacific to Indian Ocean)

Spakman, W. & H. Bijwaard (1998)- Mantle structure and large-scale dynamics of South-East Asia. In: P. Wilson & G.W. Michel (eds.) The geodynamics of S and SE Asia (GEODYSSEA) Project. Scientific Technical Report STR/14, Geoforschungszentrum, Potsdam, Germany, p. 313-339.
('New' Utrecht tomographic velocity model in general agreement with previous findings (e.g. subduction of Indian plate below Sunda Arc), but do not find detachment of (or tear in) slab around 400 km below Sumatra. Sunda slab bends W toward Andaman island arc below N Sumatra. Subduction below Sunda arc imaged down to 1500km, indicating penetration into lower mantle. Subduction below Sulawesi is S extension of Philippines subduction. Slab also imaged below Halmahera (Molucca collision zone). Banda subduction no lower mantle anomaly, suggesting limited duration of subduction (~10-12 Myrs). Huge lower mantle reservoir of subducted slab beneath Sundaland)

Spakman, W. & R. Hall (2010)- Surface deformation and slab-mantle interaction during Banda arc subduction rollback. Nature Geoscience 3, 8, p. 562-566.
(online at: https://www.researchgate.net/profile/W-Spakman/publication/234362891_The_Banda_Arc_subduction_enigma/links/5ad083514585154f3f485143/The-Banda-Arc-subduction-enigma.pdf)
(with supplementary material, movie at http://searg.rhul.ac.uk/current_research/plate_tectonics/index.html)
(Tomography velocity model of mantle under suggests Banda arc results from subduction of single slab. Jurassic embayment of dense oceanic lithosphere enclosed by continental crust once existed within Australian plate. Banda subduction began at ~15 Ma when active Java subduction tore E-ward into embayment. Present morphology of subducting slab only partially controlled by shape of embayment. As Australian plate moved N, Banda oceanic slab rolled back towards SSE. Increasing resistance of mantle to plate motion folded slab and caused strong deformation of crust)

Spakman, W., C. Rangin & H. Bijwaard (1998)- Tomographic constraints on the tectonic evolution of SE Asia. In: AAPG International Conference Exhib, American Assoc. Petroleum Geol. (AAPG) Bull. 84, 9, p. 1495. *(Abstract only)*
(online at: https://www.searchanddiscovery.com/abstracts/html/2000/intl/abstracts/394.htm)
(New 3D image of P-wave seismic velocity heterogeneity of lithosphere and mantle of SE Asia. Subducted oceanic slab found below most of Sunda arc but with varying depth penetration. A 500 km long slab under Burma separated from Andaman-Sumatra slab (~700 km deep) by 300-400 km wide gap associated with Andaman Basin. Central Sunda slab penetrates lower mantle to 1500 km, but subduction below Banda arc confined to 700 km. No clear slab imaged below W New Guinea; long N dipping slab under E New Guinea)

Spicak, A., R. Matejkova & J. Vanek (2013)- Seismic response to recent tectonic processes in the Banda Arc region. J. Asian Earth Sciences 64, p. 1-13.

(Analysis of shallow (<100 km) seismological data. 11 domains of earthquakes identified. Two discrete recent subduction zones in region: N- dipping Banda subduction in S and S-dipping Seram subduction in N; no W-dipping subduction zone observed to interconnect Banda and Seram zones into a single bent subduction zone. Instead, area between them is cut by elongated domain of earthquakes corresponding to W-ward continuation of Tarera-Aiduna fault zone)

Stauffer, H.K. (1945)- The geology of the Netherlands Indies. In: P. Honig & F. Verdoorn (eds.) Science and scientists in the Netherlands Indies. Board for the Netherlands Indies, Surinam and Curacao, New York, p. 320-335.
(online at: https://archive.org/details/in.ernet.dli.2015.183759)
(Old, general overview of Indonesia geology by former BPM petroleum geologist)

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(online at: https://pubs.usgs.gov/of/1997/ofr-97-470/OF97-470F/aspac.PDF)
(Report with three 1:7.5 M scale maps of geology, geologic provinces and oil-gas fields: 1 The Far East, 2 Southeast Asia, 3 Australia and New Zealand)

Stille, H. (1920)- Die angebliche junge Vorwartsbewegung im Timor- Ceram Bogen. Nachrichten Kon. Gesellschaft Wissenschaften Gottingen, Mathematisch-Physikalische Klasse, p. 174-180.
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('The supposed young forward movements in the Timor- Ceram arc'. Discussion of Brouwer (1917 and 1920) papers, questioning the importance of horizontal movements. Not much new, no figures)

Stille, H. (1943)- Malaiischer Archipel und Alpen. Abhandlungen Preussischen Akademie Wissenschaften, Mathematisch-Naturwissenschaftliche Klasse, Berlin, p. 1-16.
('The Malay Archipelago and the Alps'. Comparison of Indonesian region tectonics and European Alps)

Stille, H. (1945)- Die tektonische Entwicklung der hinterindischen Festlands- und Inselgebiete. In: H. Stille & F. Lotze (eds.) Die tektonische Entwicklung der pazifischen Randgebiete II, Geotektonische Forschungen 7/8, Borntraeger, Berlin, p. 34-153.
('The tectonic development of the SE Asian mainland and island areas'. Review of geology and tectonic development of Indonesian region, in chapter 3 of textbook on tectonic developments of Circum-Pacific regions (p. 67-122). Interpretations in framework of Stille's famous but outdated ideas of geosynclines and continental growth during 'Variscan', Cimmeride', 'Laramide', etc. orogenic cycles)

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('The tectonic development of the Neo-Australian island world'. Chapter 5 of textbook on tectonic developments of Circum-Pacific regions)

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(online at: www.gsm.org.my/products/702001-100611-PDF.pdf)
(Unconventional 'Global Wrench Tectonics' model for SE Asia tectonics, particularly NW Borneo margin)

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(Another 'unconventional' SE Asia tectonic paper from the 'Global Wrench Tectonics' school)

Subarya, C. (2004)- The maintenance of Indonesia geodetic control network- in the earth deforming zones. In: 3rd Int. Federation of Surveyors (FIG) Regional Conference, Jakarta 2004, TS8, p. 1-6.
(online at: www.fig.net/pub/jakarta/papers/ts_08/ts_08_1_subarya.pdf)
(On increase of GPS geodetic measurements in Indonesia since 1992 and velocities across plate boundaries)

Subono, S. & Siswoyo (1995)- Thermal studies of Indonesian oil basins. In: Y. Togashi (ed.) Symposium on Heat flow map, geodynamic implications and maturity modelling for hydrocarbons, Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Bangkok, Technical Bulletin 25, p. 37-53.

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(19 papers in English, 5 in Indonesian, as tribute to Prof. J.A. Katili. Mostly on tectonic history and volcanism in Indonesia)

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(Areas of Indonesia like New Guinea, Borneo, Sumatra, etc., produce very high volumes of sediments relative to size of its landmasses. Possibly tied to intense precipitation/ runoff and many areas of recent rapid uplift)

Sukamto, R., T.C. Amin & D. Sukarna (eds.) (2003)- Atlas geologi dan potensi sumberdaya mineral dan energi kawasan Indonesia, scale 1: 10,000,000. Geological Research Development Centre (GRDC), Bandung, p. 1-39.
('Atlas of geology and potential of minerals and energy in Indonesia'. Atlas with 33 Indonesia-wide maps of regional geology, volcanic rocks, radiometric ages, gravity, carbonates, ophiolites, Pre-Tertiary rocks, earthquakes, mineral resources, energy resources, etc.)

Sukamto, R. & M.M. Purbo-Hadiwidjoyo (1997)- Regional geology of Indonesia. In: E.M. Moores & R.W. Fairbridge (eds.) Encyclopedia of European and Asian regional geology, Chapman and Hall, London, p. 376-384.

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Sukamto, R., B. Setyogroho, S. Atmawinata, S. Aziz, B. Jamal, Suharsono & S. Andi-Mangga (1990)- The Jurassic rocks in Indonesia. Bull. Geological Research Development Centre (GRDC) 14, p. 1-14.
(Overview of the 17 regions in Indonesia with Jurassic rocks in outcrop, mainly in E Indonesia, also in Kalimantan and Sumatra)

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('New thoughts on the origin of geological terranes in Indonesia'. Brief overview of terranes)

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(online at: https://gsm.org.my/wp-content/uploads/gsm_file_2/702001-101288-PDF.pdf)
(Review of Permian-Recent volcanic and non-volcanic arcs in NE Indonesia, with different types of metallic mineral belts)

Sukamto, R. & G.E.G. Westermann (1992)- Indonesia and Papua New Guinea. In: G.E.G. Westermann (ed.) The Jurassic of the Circum-Pacific, Cambridge University Press, p. 181-193.

(Summary of Jurassic stratigraphy and ammonites in Irian Jaya, Waigeo, Misool, Obi, Bangai-Sula, SE and S Sulawesi, Buton, Buru, Seram, Tanimbar-Babar, Timor-Roti, Kalimantan, Sumatra and PNG)

Sukandarrumidi (1994)- Geologi Sejarah. Gadjah Mada University Press, p. 1-109.
('Historical Geology'. Introductory textbook of historical geology, with examples from Indonesia)

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('Geology of metallic minerals'. Introductory textbook, with examples from Indonesia)

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(online at: https://iopscience.iop.org/article/10.1088/1755-1315/873/1/012068/pdf)
(Relocated 2015-2019 earthquake data from E Indonesia and new P-wave tomography model depict geological features like continuous Banda Slab subducted all around Banda Arc from Timor to Seram, dipping down to 600 km depth. Seram Slab with discontinuity from 300-350 km, suggesting possible break-off or tearing slab W of Seram. Negative velocity anomaly along Banda Volcanic arc at 30 80 km depth known as Volcanic front-line zone, reflecting partial melting (with volcanoes Banda Api, Manuk, Serua, Nila, Teon and Damar. Etc.))

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(LEMIGAS (2007) basins map lists 63 Tertiary sedimentary basins in Indonesia. Example of use of gravity data in S Kalimantan to determine basin outlines: propose to combine Pembuang and Barito basins)

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(Description of new Lemigas Tertiary basins map, 2007. Showing 63 Tertiary sedimentary basins (16 oil-gas producing basins, 8 drilled basins with discovery, 15 drilled basins with no discovery and 24 undrilled basins)

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(online at: www.seed-net.org/download/C1-1_Paper10.pdf)
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Susilo, I. Meilano, H.Z. Abidin & B. Sapiie (2015)- A new definition of Sunda Block rotation model. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI, Balikpapan, JCB2015-373, p. 1-3.
(online at: https://www.iagi.or.id/web/digital/3/2015_IAGI_Balikpapan_A-New-Definition-of-Sunda.pdf)
(GPS observations from 1996-2013 suggest Sunda block (Indochina, Thailand, Peninsular Malaysia, Sumatra, Borneo, Java) moves ESE-ward at 26-32 mm/yr)

Susilo, I. Meilano, H.Z. Abidin, B. Sapiie, J. Efendi & A.B. Wijanarto (2016)- Preliminary result of Indonesian strain map based on geodetic measurements. Proc. 5th Int. Symposium on Earth hazard and disaster mitigation, Bandung 2015, AIP Conference Proceedings 1730, 040004, p. 1-3. *(Extended Abstract) (online at: https://www.researchgate.net/profile/Hasanuddin-Z-Abidin/publication/302073690_Preliminary_result Etc.)*

(GPS measurements from 1993-2014 across Indonesia region provide 2-3mm-level precision of surface velocity estimates. GPS velocities used here to construct crustal strain rate map. Highest strain rates along Sumatran fault, Sumatra-Java trench, North Molucca Sea and Seram- northern West Papua areas)

Suzuki, Y. (1993)- On the formation of Southeast Asia island arcs. Hokuriku Geological Institute Report 3, p. 107-123.

Syracuse, E.M. & G.A. Abers (2006)- Global compilation of variations in slab depth beneath arc volcanoes and implications. Geochem. Geophysics Geosystems 7, 5, Q05017, p. 1-18.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2005GC001045)
(Depth to top of subducting slab below arc volcanoes 72- 173 km, with global average of 105 km. Depths correlate poorly with most subduction parameters, but correlations exist between depth and slab dip. Largest along-strike variation in Java, where depth shifts by 70 km on either side of 108° E from 90 km in W Java- SE Sumatra to 150 km in Central and East Java, changing over ~150 km along strike. Jump at overlapping of ends of two volcanic lines. Dominant change is shift in location of volcanoes in relation to slab and trench. E of 119° E (W Banda Sea), volcanoes step back toward trench, and slab depths once again become near 100 km)

Syirojudin, M., J. Murjaya, S. Zubaidah, Hasanudin, S. Ahadi, N. Efendi & T. Suroyo (2018)- Indonesian geomagnetic maps for Epoch 2015.0 to cover of Indonesian regions. Proc. 41st HAGI Annual Conv. Exhib. 2016, IOP Conference Series: Earth and Environmental Science 132, 012003, p. 1-7.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/132/1/012003)
(Updated 2015 geomagnetic map of Indonesia. (N.B.: First geomagnetic map of Indonesia by Dr. Elie van Rijckevorsel from Rotterdam, published in 1879-1880 not mentioned; JTvG))

Tandon, K.A. (1998)- A study of models and controls for basin formation during continental collision: (1) Australian lithosphere along Banda Orogen (Indonesia) and (2) Alboran Sea Basin (Western Mediterranean). Ph.D. Thesis Louisiana State University, Baton Rouge, p. 1-197.
(online at: https://digitalcommons.lsu.edu/cgi/viewcontent.cgi?referer=&httpsredir=1&article=7792&context=gradschool_disstheses)
(Studies of Pliocene-Recent formation of foreland basin along Banda orogen at start of continental collision (Australian continental foreland) and Alboran Sea post-orogenic continental Miocene extensional basin)

Tandon, K., J.M. Lorenzo & G.W. O'Brien (2000)- Effective elastic thickness of the northern continental lithosphere subducting beneath the Banda orogen (Indonesia): inelastic failure at the start of continental subduction. Tectonophysics 329, p. 39-60.
(online at: http://www.geol.lsu.edu/jlorenzo/literature/Juan/papers_pdf/Tandon_Tectonophyscis2000_24.pdf)
(Pliocene-Recent Australian continent- arc collision from Roti to Kai created underfilled foreland basin in Timor-Tanimbar-Aru Trough. Collision most advanced near C Timor. Australian continental lithosphere N of Timor detached from oceanic lithosphere. Change in Effective Elastic Thickness (EET) at start of continental subduction at Mio- Pliocene boundary due to change in curvature of N Australian lithosphere near shelf-slope, in map and cross-section. Evidence for inelastic yielding of N Australian continental lithosphere near present-day shelf-slope at continental subduction: (1) maximum change of EET near shelf-slope in laterally variable EET calculations, and (2) cessation of most normal faulting in Late Miocene- E Pliocene on seismic)

Tandon, K., J.M. Lorenzo, S. Widiyantoro & G.W. O'Brien (2002)- Variations in inelastic failure of subducting continental lithosphere and tectonic development: Australia-Banda Arc convergence. In: S. Stein & J.T. Freymueller (eds.) Plate boundary zones, American Geophysical Union (AGU), Geodynamics Series 30, p. 341-357.
(online at: http://www.geol.lsu.edu/jlorenzo/literature/Juan/papers_pdf/Tandonetal_AGU.pdf)
(Effective Elastic Thickness map at incipient continental collision (Pliocene-Recent) along N Australian continental lithosphere along Banda orogen suggests more rigid N Australian lithosphere indenting between 125-127°E longitude. Sharp decrease in EET from 230-180 km on continental shelf (from Roti to W of Aru Island) down to ~40 km on continental slope and beneath Banda orogen favoring inelastic failure at start of continental subduction)

Taylor, D. & T.M. van Leeuwen (1980)- Porphyry-type deposits in Southeast Asia. In: S. Ishihara & S. Takenouchi (eds.) Granitic magmatism and related mineralization, Tokyo, Mining Geology, Special Issue 8, p. 95-116.
(14 porphyry copper or molybdenum deposits known from SE Asia outside Philippines; Sabah (Mamut), N and W Sulawesi (Tapadaa, Tombuililado, Sassak, Malala), Sumatra (Tangse + 4 non-economic; all associated with C Sumatra Fault Zone, Thailand (2; Triassic?)) and C Burma (Monywa). All except Thailand of Miocene and younger ages. Sabah and Sulawesi occurrences underlain by oceanic crust, similar to Philippines)

Thamrin, M. (1985)- An investigation of the relationship between the geology of Indonesian sedimentary basins and heat flow density. Tectonophysics 121, 1, p. 45-62.
(Geothermal data from 929 wells in 20 Tertiary basins. Thermal conductivity increases with depth of burial and compaction. T gradient controlled by depth and T of heat source beneath basin. High heat-flow densities in C Sumatra, S Sumatra, Salawati Basin and Bintuni Basin may be caused by shallow magmatic diapirism)

Thamrin, M. (1985)- Heat flow study in the oil basinal areas in Indonesia. United Nations ESCAP, CCOP, Technical Publication TP 15, p. 435-444.

Thamrin, M. (1986)- Terrestrial heat flow map of Indonesian Basins. Indonesian Petroleum Association (IPA), Jakarta, p. 33-70.

Thamrin, M. & P.H. Mey (1987)- Terrestrial heat flow map of Indonesian Basins. Indonesian Petroleum Association (IPA), Jakarta, p. 1-70.

Thamrin, M., Prayitno & Siswoyo (1984)- Heat flow study in the oil basinal areas in Indonesia. Proc. Joint ASCOPE/ CCOP Workshops I and II, p. 49-60.

Thurow, J. & J. Milsom & D. Roques (2000)- Mesozoic tectono-sedimentary evolution of the Banda Arc area. AAPG International Conference, American Assoc. Petroleum Geol. (AAPG) Bull. 84, 9, p. 1505-1506.
(Abstract only. Mesozoic on Buru, Buton, Seram, E Sulawesi and plateaus off NW Australian Shelf. Pre-collision sediments record complicated rift-drift-history from higher latitudes at NW Australian margin and include source and reservoir rocks (e.g. Triassic sandstone and platform carbonates/ black shales), some with oil, oil seeps, asphalt. Sediments represent rifting off NW Australia. Widespread condensed oceanic sediments with Late Jurassic macrofossils overlie them. This sequence may be preceded by basaltic volcanic phase. E Cretaceous sediments pelagic with abundant radiolaria. Late Cretaceous 'couches rouges' facies rich in calcareous plankton. First Eurasian microfauna in Maastrichtian, indicating beginning of collision. Mesozoic pelagic microfaunas of NW-Australia typical Austral affinities (high latitude); those from Banda Arc mixed Austral-Tethyan elements, deposited in subtropical environment)

Tjia, H.D. (1968)- New evidence of recent diastrophism in East Indonesia. Contributions Department of Geology, Institute of Technology Bandung (ITB) 69, p. 71-76.

Tjia, H.D. (1970)- Rates of diastrophic movement during the Quaternary in Indonesia. Geologie en Mijnbouw 49, 4, p. 335-338.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0MWZtWTJsb0ZnT1U/view)
(In mobile regions of Indonesia average rate of Quaternary uplift, with or without attendant folding, 0.5- 1.0 mm/yr (common coral reefs uplifted to 500-1000m on Outer Arc islands like Sumba, Timor, Babar, Kai, Seram; also E Sulawesi, Buton, etc.). Subsidence occurs at rates of 2.0 mm/yr. Diastrophic movements in continental areas much slower. Wrench faulting most rapid movements, with rates of strike-slip of 5 mm/yr or more)

Tjia, H.D. (1973)- Displacement patterns of strike-slip faults in Malaysia- Indonesia- Philippines. Geologie en Mijnbouw 52, 1, p. 21-30.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0Yjl3aHFCa0w1cE0/view)

(Field studies on 7 important strike-slip faults in Malay Peninsula, Sarawak, W Sumatra, W Java, C Sulawesi New Guinea and Seram, using fault-plane markings to determine the sense of displacement. Directions of regional compression, parallel to computed compressive stress directions. Directions of regional compression are 10°-190° (Sumatra and Java) and ~E-W for Philippines and islands E of Makassar Straits)

Tjia, H.D. (1978)- Active faults in Indonesia. Bull. Geological Society Malaysia 10, p. 73-92.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1978006.pdf)
(Main known active faults in Indonesia: Sumatra Fault Zone (1600 km). Palu-Koro FZ, Sulawesi (700km), Irian FZ (1300km), central depression of Timor, Lembang Fault, W Java, Banyumas Depression of Java, active volcanoes and extensive limestone terrains (caving))

Tjia, H.D. (1981)- Examples of young tectonism in Eastern Indonesia. In: A.J. Barber & S. Wiryosujono (eds.) The geology and tectonics of Eastern Indonesia, Proc. CCOP-IOC SEATAR Working Group Meeting, Bandung 1979, Geological Research Development Centre (GRDC), Bandung, Special Publ. 2, Bandung, p. 89-104.
(Tectonic mobility of E Indonesia reflected in high topographic relief between mountainous islands (+5000m in W Papua) and adjacent deep oceanic sea floors (Weber Deep -7440m), zones of negative isostatic gravity anomalies, volcanic arcs earthquake belts and major wrench fault zones. Also uplifted Pliocene-Recent reef terraces on many E Indonesian islands, up to +1293m on Timor, with long-term uplift rates of 3mm/year)

Tjia, H.D. (1983)- Earthquake stress directions in the Indonesian Archipelago. In: T.W.C. Hilde & S. Uyeda (eds.) Geodynamics of the western Pacific-Indonesian region, American Geophysical Union (AGU) and Geological Society of America (GSA) Geodynamics Series 11, p. 413-422.
(Compressive stresses of shallow earthquakes in 1929-1973 roughly perpendicular and occasionally parallel to structural grain of Sumatra, Lesser Sunda islands, Irian Jaya, Halmahera, and N-most Moluccas. East of the Makassar Straits 3-4 tectonic domains. Boundaries between domains are E-W striking Irian fault zone and NW trending Palu-Koro fault zone. Etc.)

Tjia, H.D. (1987)- Tectonics, volcanism and sea level changes during the Quaternary in Southeast Asia. In: N. Thiramongkol (ed.) Proc. Workshop on Economic geology, tectonics, sedimentary processes and environment of the Quaternary in Southeast Asia, Haid Yai, Thailand 1986, IGCP 218/ Chulalongkorn University, Bangkok, p. 3-21.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/1986/5083...)
(Sundaland Holocene sealevel rise 2cm/year after last deglaciation, reaching 4m above present 6000 yrs ago. Vertical uplifts of coral reef terraces and abrasion surfaces in region up to ~1300m. 500 Quaternary volcanic centers identified, 130 active. Etc.)

Tjia, H.D. (1989)- Active tectonics in the Indonesian Archipelago. In: N. Thiramongkol (ed.) Proc. Workshop on Correlation of Quaternary successions in South, East and Southeast Asia, Bangkok, p. 165-185.

Tjia, H.D. (1991)- Active tectonics in the Indonesian Archipelago-2. Proc. 20th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 281-300.
(online at: https://www.iagi.or.id/web/digital/49/20th-(10-12-Des-1991)-19.pdf)
(During Quaternary vertical displacement in Indonesian archipelago ranged from +2000m to -2000m). Most uplift vertical, as suggested by untilted appearance of most of highest terraces. Lateral slip movements response to convergence of SE Asia, India-Australia and Pacific plates. Influence of Pacific convergence reached W of Makassar Straits, Indian-Australian convergence only traceable in Java and Sumatra. Discussion of uplifted calcirudites at Banyuwangi, E Sulawesi raised reef terraces at Luwuk and Peleng island, etc.)

Tjia, H.D. (1998)- Meridian-parallel faults and Tertiary basins of Sundaland. Bull. Geological Society Malaysia 42, p. 101-118.
(online at: www.gsm.org.my/products/702001-100852-PDF.pdf)
(Pre-Tertiary core of Sundaland contains numerous N-S striking regional faults. In Malay Peninsula Thai-Bentong- Bengkalis FZ coincides with Raub-Bentong suture, which existed since M Triassic. N-S faults of Sundaland functioned as (1) originators/ initiators of Tertiary basins (Mekong, Nam Con Son), (2) determinants

of basin location (C Thailand, Gulf of Thailand, Balam-Pematang Trough, BengkalisTrough, Benakat Gully, Asri, Seribu, Arjuna, basement depressions in Malacca Strait), and (3)modifiers of basin geometry (Peusangan fault in N Sumatra basin; dextral offsets of old series in Malay basin))

Tjia, H.D. (2001)- Wrench tectonics in Sundaland; subsurface and offshore evidence. In: G.H. Teh et al. (eds.) Geological Society of Malaysia Annual Geological Conference 2001, Pangkor Island, p. 71-77.
(online at: https://gsmpubl.files.wordpress.com/2014/10/agc2001_12.pdf)
(Wrenching widespread in Sundaland. Principal stress directions from wrench patterns, well-bore breakouts and major earthquakes show most of Sundaland currently subjected to N-S stress. Towards margins stress trajectories deviate due to convergence of adjoining megaplates and SE extrusion of Indosinia. Until onset of M Miocene most wrenching transtensional, forming pull-apart depressions and modifying structure of large depocenters. Cessation of spreading in Philippine Sea and Caroline basins by M Miocene changed wrenching into transpression, accompanied by slip-sense reversals and structural inversion)

Tjia, H.D. (2014)- Wrench-slip reversals and structural inversions: Cenozoic slide-rule tectonics in Sundaland. Indonesian J. on Geoscience (IJOG) 1, 1, p. 35-52.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/174/174)
(Sundaland Oligocene transtension evolves into post-E Miocene transpression at Langhian time (~17-15.5Ma), after end of S China sea spreading)

Tjia, H.D., S. Fujii, K. Kigoshi, A. Sugimura & T. Zakaria (1972)- Radiocarbon dates of elevated shorelines, Indonesia and Malaysia. Part 1. Quaternary Research 2, 4, p. 487-495.
(Four radiocarbon dates of elevated strandlines in tectonically active areas of E Indonesia and E Malaysia indicate uplift rates between 4.5- 9 mm/ year during past 24,000 yr. Data from S arm of Sulawesi indicate rates of uplift of 1.4-2.5 mm/ year. At Langkawi islands, W Malaysia, one of regionally common shorelines at 2 m above sea level dated at 2590 ± 100 yr BP)

Tjia, H.D., S. Fujii, K. Kigoshi, A. Sugimura & T. Zakaria (1974)- Late Quaternary uplift in Eastern Indonesia. Tectonophysics 23, 4, p. 427-433.
(Radiocarbon dates of 15 samples from raised shorelines on various islands of E Indonesia suggest rates of tectonic uplift up to 12.5 mm/year)

Tjia, H.D. & K.K. Liew (1996)- Changes in tectonic stress field in northern Sunda Shelf basin. In: R. Hall & D. Blundell (eds.) Tectonic Evolution of Southeast Asia, Geological Society, London, Special Publ. 106, p. 291-306.
(Tertiary basins of N Sunda Shelf underlain by normal and attenuated continental crust with moderate- high geothermal gradients >5°C/100 m. In Malay basin, U Oligocene and younger sediments >12 km thick; other basins, 4-8 km thick. Malay, Penyu and W Natuna basins are aulacogens meeting at triple junction that marks Late Cretaceous hot spot in center of Malay Dome. Sub-basins developed as pull-apart basins within regional, N-NW striking, wrench fault zones. Initial basin subsidence Eocene-Oligocene, with extension prevailing until E Miocene. M-Late Miocene regional compression caused inversions of basin-fill. Some N-striking wrench faults indications of up to 45 km right-lateral displacement, possibly post-Miocene)

Tsuboi, C (1957)- Crustal structure along a certain profile across the East Indies as deduced by a new calculation method. Verhandelingen Kon. Nederlands Geologisch Mijnbouwkundig Genootschap, Geologische Serie 18 (Gedenkboek Vening Meinesz), p. 295-304.

Umbgrove, J.H.F. (1930)- Tertiary sea-connections between Europe and the Indo-Pacific area. Proc. Fourth Pacific Science Congress, Java 1929, IIA, p. 91-104.
(On similarities and differences between Indo-Pacific and European Tertiary faunas. Similarities suggest open sea connections in M Eocene, no connection in Late Eocene, and some faunal interchange of fauna in Oligocene and later)

Umbgrove, J.H.F. (1932)- Het Neogeen in den Indischen Archipel. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2) 49, 6, p. 769-834.

(online at: https://resolver.kb.nl/resolve?urn=MMUBA13:001678001:pdf)
'The Neogene in the Indies Archipelago'. Substantial review of Neogene stratigraphy in Indonesia, with comments on 163 areas. Neogene sediments highly variable in thickness and intensity and timing of deformation. With map showing 11 Neogene tectostratigraphic regions A-M)

Umbgrove, J.H.F. (1933)- Verschillende typen van Tertiaire geosynclinalen in den Indischen archipel. Leidsche Geologische Mededelingen 6, 1, p. 33-43.
(online at: https://repository.naturalis.nl/pub/505939/LGM1933006001003.pdf)
('Different types of Tertiary geosynclines in the Indies Archipelago'. Tertiary basins of Sumatra, Java and Kalimantan relatively rapid subsidence and sedimentation. Most of fill is neritic with some hemipelagic sediments, but no abyssal sediments. Subsidence and sedimentation starts in continental areas with fluvial-alluvial deposits. Tertiary basins not connected 'geosynclines', but rel. independent basins)

Umbgrove, J.H.F. (1934)- Tijd en type der tertiaire plooiingen binnen de zone van sterk negatieve afwijkingen der zwaartekracht in den Indischen archipel. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2) 51, 1, p. 20-34.
(online at: https://resolver.kb.nl/resolve?urn=MMUBA13:001682001:pdf)
('Timing and types of Tertiary folding in zone of negative gravity anomalies in the Indies Archipelago'. Discussion of timing and styles of Tertiary folding in E Indonesian islands, many of which show evidence of folding episode between Eocene Tb or Td and-Early Miocene Te5 (Timor, Seram, Buru, etc.). With information on Tanimbar and Kai stratigraphy from unpublished works by F. Weber (BPM) and H. Terpstra. Kai and Tanimbar Islands and East Sulawesi main folding after Te5? (E Miocene))

Umbgrove, J.H.F. (1934)- The relation between geology and gravity field in the East Indian Archipelago. In: F.A. Vening Meinesz (1934), Gravity expeditions at sea 1923-1932, Waltman, Delft, 2, Chapter 6, p. 140-162.
(online at: www.ncg.knaw.nl/Publicaties/Groen/pdf/04VeningMeinesz.pdf)

Umbgrove, J.H.F. (1934)- A short survey of theories on the origin of the East Indian Archipelago. In: F.A. Vening Meinesz (1934), Gravity expeditions at sea 1923-1932, Netherlands Geodetic Commision, Waltman, Delft, 2, Chapter 7, p. 163-182.
(online at: www.ncg.knaw.nl/Publicaties/Groen/pdf/04VeningMeinesz.pdf)
(Review of the more than two dozen theories proposed for origin of Indonesian archipelago since early 1900's)

Umbgrove, J.H.F. (1935)- Over het ontstaan van den Indischen Archipel. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap II, 52, p. 17-24.
(online at: https://resolver.kb.nl/resolve?urn=MMUBA13:001683001:pdf)
('On the origin of the Indies Archipelago'. Brief discussion on origin of Indonesian archipelago, mainly focused on gravity anomaly belts of Vening Meinesz. No new model proposed, but is skeptical about 'continental drift theory' of Wegener. With regional gravity anomaly map)

Umbgrove, J.H.F. (1935)- De Pretertiaire historie van den Indischen Archipel, met bijdragen van Dr. Friedr. Weber. Leidsche Geologische Mededelingen 7, p. 119-155.
(online at: www.repository.naturalis.nl/document/549307)
('The Pre-Tertiary history of the Indies Archipelago, with contributions from (Swiss BPM geologist) Dr. Friedrich Weber'. Review of Paleozoic-Mesozoic rocks in Indonesian Archipelago. With small distribution maps of Triassic, Jurassic, Cretaceous fossils, and with important map + table (Figs. 5-6), showing grouping into 7 different Mesozoic tectonostratigraphies A-G (including A- Timor- East Celebes geosyncline with near-continuous Permian- Eocene marine facies, now known to represent dispersed remnants of Mesotethys suture- JTvG))

Umbgrove, J.H.F. (1938)- On the time of origin of the submarine relief in the East Indies. Comptes Rendus Congres Int. Geographie, Amsterdam 1938, Brill, Leiden, 2, p. 150-159.
(online at: https://resolver.kb.nl/resolve?urn=MMKB06:000004273:pdf)
(Like Kuenen (1935) and others, the present-day deep sea basins of Eastern Indonesia are believed to have formed recently by the subsidence of 'continental (sialic) area))

Umbgrove, J.H.F. (1938)- Geological history of the East Indies. American Assoc. Petroleum Geol. (AAPG) Bull. 22, 1, p. 1-70.
(Classic overview of geologic evolution Indonesian archipelago, with maps of tectonostratigraphic provinces from Permian- Eocene)

Umbgrove, J.H.F. (1949)- Structural history of the East Indies. Cambridge University Press, p. 1-63.
(online at: https://archive.org/details/in.ernet.dli.2015.85833)
(Elegant overview of Indonesian seas, deep sea basins, volcanoes, structural zones, etc., with series of broad paleogeographic maps)

Umbgrove, J.H.F. (1950)- The origin of deep-sea troughs in the East Indies (with discussion). International Geological Congress 18th Session, Great Britain 1948, 8, p. 73-80.
(Pre-plate tectonic explanation of origin of deep sea trenches by 'downbuckling of crust')

Untung, M. (1996)- Geoscientific study along Jawa-Kalimantan-Sarawak-South China Sea transect. In: G.P. & A.C. Salisbury (eds.) Trans. 5th Circum-Pacific Energy and Mineral Resources Conference, Honolulu 1990, Gulf Publishing, Houston, p. 163-183.
(W Borneo tectonically active from Triassic- Late Cretaceous. CCW rotation of ~90° since then. Tectonic activity resulted in uplift and erosion of basement rocks, formation of melange (Boyan, Lubok Antu), followed by sedimentation of shallow marine deposits and magmatism. In Java tectonic activities only since Late Cretaceous (Luk-U1o Melange). Etc.)

Untung, M. & B.C. Barlow (1981)- The gravity field of Eastern Indonesia. In: A.J. Barber & S. Wiryusujono (eds.) The geology and tectonics of East Indonesia. Geological Research Development Centre (GRDC), Bandung, Special Publ. 2, p. 53-63.
(Incl. strong E-W trending gravity gradient along N coast Irian Jaya, etc.)

Vacquier, V. (1984)- Oil fields- a source of heat flow data. Tectonophysics 103, p. 81-98.
(Heat flows somewhat elevated in Tertiary basins of W Indonesia, with values decreasing from 130 mW/m2 in C Sumatra to 70 mW/m2 in E Kalimantan)

Vanacore, E., F. Niu & H. Kawakatsu (2006)- Observations of the mid-mantle discontinuity beneath Indonesia from S to P converted waveforms. Geophysical Research Letters 33, L04302, p. 1-4.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2005GL025106)
(Data from nine deep earthquakes confirmed existence of mid-mantle discontinuity beneath Java arc and also revealed its presence N to Kalimantan. S to P waves converted at discontinuity at depth range ~1080 km in W to ~930 km in E)

Van Bemmelen, R.W. (1931)- De bicausaliteit der bodembewegingen. Natuurkundig Tijdschrift voor Nederlandsch-Indie 91, 3, p. 363-413.
(online at: https://www.delpher.nl/nl/tijdschriften/view?identifier=MMTEY01:179530001:00009 Etc.))
('The double causes of ground movements'. Preliminary unveiling of Van Bemmelen's 'undation theory', a tectonic theory that is variation of the oscillation-theory of Haarmann, but never found much acceptance. Crystallization processes in upper mantle trigger uplift ('geotumors'), subsidence and outward flows to re-establish hydrostatic equilibrium)

Van Bemmelen, R.W. (1932)- De undatie-theorie (hare afleiding en toepassing op het westelijk deel van de Soenda boog). Natuurkundig Tijdschrift voor Nederlandsch-Indie 92, 1, p. 85-242.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB24:063529000:00001)
(Principal unveiling of Van Bemmelen's 'undation theory' and its application to the W part of the Sunda orogenic arc. With discussion of deep tectonic processes and also of geology of S Sumatra. See also critical discussion by Van Tuijn and Westerveld (1932))

Van Bemmelen, R.W. (1932)- Nadere toelichting der undatie-theorie. Natuurkundig Tijdschrift voor Nederlandsch-Indie 92, 2, p. 373-402.
('Clarifying comments on the undation-theory'. Reply to critical comments of Van Tuijn & Westerveld (1932))

Van Bemmelen, R.W. (1933)- Versuch einer geotektonischen Analyse Sudostasiens nach der Undationstheorie. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 36, 7, p. 730-739.
(online at: https://dwc.knaw.nl/DL/publications/PU00016473.pdf)
('Attempt at a geotectonic analysis of SE Asia after the undation theory'. Historically interesting, but otherwise very controversial interpretation of SE Asia tectonics)

Van Bemmelen, R.W. (1933)- Versuch einer geotektonischen Analyse Australiens und des Sudwestpazifik nach der Undationstheorie. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 36, 7, p. 740-749.
(online at: https://dwc.knaw.nl/DL/publications/PU00016473.pdf)
('Attempt at a geotectonic analysis of Australia and the SW Pacific after the undation theory'. Historically interesting, but otherwise very controversial interpretation of Australia-Pacific tectonics)

Van Bemmelen, R.W. (1933)- Die Neogene Struktur des Malaysischen Archipels nach der Undationstheorie. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 36, 10, p. 888-897.
(online at: https://dwc.knaw.nl/DL/publications/PU00016473.pdf)
('The Neogene structure of the Malay Archipelago after the undation theory'. Historically interesting, but otherwise very controversial interpretation of Indonesia tectonics)

Van Bemmelen, R.W. (1933)- Moderne richtingen in de geotektoniek (in verband met de geotektonische positie van den Nederlandsch-Indischen archipel. De Mijningenieur 14, 12, p. 205-212.
('Modern theories in geotectonics (in relation to the geotectonic position of the Netherlands Indies archipelago'. Discussion of tectonic theories. At that time in the Indonesian region were several supporters of the Wegener/ Holmes-inspired 'mobilist' school (Vening Meinesz, Escher, Umbgrove, Smit Sibinga), while Van Bemmelen with his undation theory is firmly in 'fixist' camp)

Van Bemmelen, R.W. (1935)- Over het karakter der jongtertiaire ertsgangen in den vulkanischen binnenboog van het Soenda systeem. Geologie en Mijnbouw 14, 4, p. 21-25.
(online at: https://drive.google.com/file/d/1YydzhGQK3nsnG_MkVDjsU0QQB5CrNviF/view)
('On the nature of the young Tertiary ore veins in the volcanic inner arc of the Sunda system'. During M-U Miocene, Sunda Mountain system became' geanticlinal'. Associated intrusions of granitoid batholiths caused gold-silver mineralization. No figures)

Van Bemmelen, R.W. (1935)- Uber die Deutung der Schwerkraft-Anomalien in Niederlandisch Indien. Geologische Rundschau 26, 3, p. 199-226.
('On the significance of the gravity anomalies in the Netherlands Indies'. Belt of negative gravity anomalies identified by Vening Meinesz and explained by him as downwarping/ buckling of light sialic crust thought to be better explained with Van Bemmelen's 'undation theory')

Van Bemmelen, R.W. (1936)- Kritische beschouwingen naar aanleiding van Bijlaard's theorie over plastische defomaties van de aardkorst. De Ingenieur in Nederlandsch-Indie (I) 3, 7, p. I.87- I.93.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1936-07.pdf)
('Critical discussion of Bijlaard's theory on plastic deformations of the Earth's crust')

Van Bemmelen, R.W. (1936)- Geologische contra mechanische analyse der geotektoniek (Geologische bezwaren tegen Bijlaard's theorie der lokal, plastische deformaties van de aardkorst). De Ingenieur in Nederlandsch-Indie 3, 11, p. I.150- I.160.
('Geological versus mechanical analysis of geotectonics (Geological objections against Bijlaard's theory of local plastic deformations of the Earth's crust)'. Second part of discussion between Van Bemmelen and Bijlaard on tectonic theory for Indonesian region)

Van Bemmelen, R.W. (1937)- De isostatische anomalieen in den Indischen Archipel. De Ingenieur in Nederlandsch-Indie (IV) 4, 2, p. IV.9- IV.29.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1937-02.pdf)
('The isostatic anomalies in the Indies Archipelago'. Discussion of models explaining belts of negative gravity anomalies by crustal downbuckling (Vening Meinesz, Bijlaard, Umbgrove, Kuenen). These models do not explain observed asymmetric thrust tectonics. Van B proposes alternative 'fixist' 'undation theory')

Van Bemmelen, R.W. (1938)- The distribution of the regional isostatic anomalies in the Malayan Archipelago. De Ingenieur in Nederlandsch-Indie (IV) 5, 4, p. IV.61- IV.67.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1938-04.pdf)
(Review of regional gravity anomalies and apparent relations to deep-focus earthquakes, with interpretation in terms of Van Bemmelen's favorite 'undation theory')

Van Bemmelen, R.W. (1939)- Gravitational tectogenesis in the Soenda Mountain system. Proc. 17th International Geological Congress, Moscow 1937, 2, p. 361-382.

Van Bemmelen, R.W. (1949)- The geology of Indonesia, vol. 1A, General geology of Indonesia and adjacent archipelagoes. Government Printing Office, The Hague, p. 1-732.
(also in 1970 reprint edition by Martinus Nijhoff Publishers, with updated references list)
(Classic, monumental overview of pre-WWII knowledge of Indonesia geology, in 3 volumes. Still the most comprehensive compilation of geology of region. Excellent documentation of state of knowledge of regional geology and stratigraphy of Indonesia at end of colonial period, although many of vB's tectonic interpretations using the 'undation theory' model have always been controversial and are now outdated)

Van Bemmelen, R.W. (1949)- The geology of Indonesia, vol. 1B, Portfolio. Government Printing Office, (Martinus Nijhoff), The Hague.
(Box set of 41 plates and Literature references list, accompanying vol. 1A)

Van Bemmelen, R.W. (1949)- The geology of Indonesia, vol. 2, Economic geology. Government Printing Office (Martinus Nijhoff), The Hague, p. 1-265.
(Comprehensive review of deposits of oil, coal, metals, industrial minerals in Indonesia, as known in 1949)

Van Bemmelen, R.W. (1950)- On the origin of igneous rocks in Indonesia. Geologie en Mijnbouw 12, 7, p. 207-220.
(online at: https://drive.google.com/file/d/1VmYPZcRfi805lErwX2tKGVTeF7M89i6j/view)
(On relationships between igneous rock types and tectonic settings. Rather outdated ideas)

Van Bemmelen, R.W. (1950)- Gravitational tectogenesis in Indonesia. Geologie en Mijnbouw 12, 12, p. 351-361.
(online at: https://drive.google.com/file/d/1wRMmVn3SPhsuaGvt1Sezvz2B-GtkN9Ev/view)
(Similar title to Van Bemmelen 1939. Only vertical movements are result of endogenic forces; all other tectonic forces are reactions to gravitation: (1) 'epidermal (within sedimentary cover: slumping, volcano-tectonic collapse (Tambakan Ridge folding N of Bandung), free gliding (Karangkobar, C Java, Seram, Timor, Jambi nappes), compressive settling in lows (Samarinda anticlinorium in E Kalimantan, Kendeng zone in E Java), etc.), (2) 'dermal' (includes crystalline crust; Flores, Npart of southern mountains from Lombok to W Java), (3) bathydermal' (sidewards displacement mainly in lower crust; Sunda Straits) and (4) subcrustal (sideward displacements in base of crust or deeper). With examples from Indonesia)

Van Bemmelen, R.W. (1951)- De geologie van Indonesie. Natuurkundige Voordrachten, Nieuwe Reeks 29, Maatschappij Diligentia, Van Stockum, The Hague, p. 17-36.
(online at: https://natuurwetenschappen-diligentia.nl/wp-content/uploads/2020/02/Diligentia_jaarboek_29.pdf)
(Summary of March 1951 lecture on the geology of Indonesia)

Van Bemmelen, R.W. (1952)- De geologische geschiedenis van Indonesie. Van Stockum, Den Haag, p. 1-139.

(online at: https://lib.ui.ac.id/file?file=digital/20379081-De%20geologische%20geschiedenis uan%20indonesie,%201952.pdf)
('The geological history of Indonesia'. Popular summary of Indonesia geological evolution)

Van Bemmelen, R.W. (1953)- Relations entre le volcanisme et la tectogenese en Indonesie. Bulletin of Volcanology (Bulletin Volcanologique), ser. II, 13, p. 57-62.
('Relations between volcanism and tectonics in Indonesia'. Summary of a 1951 lecture in Brussels. Uses Sunda Arc region as examples, but not much detail)

Van Bemmelen, R.W. (1954)- Mountain building; a study primarily based on Indonesia region of the world's most active deformations. Martinus Nijhoff, The Hague, p. 1-177.
(Pre-plate tectonics text book on mountain building, primarily based on Indonesian geology and interpreted mainly in terms of the controversial 'undation theory'. Two parts: 'Principles of mountain building' (p. 1-35) and 'The orogenic evolution of the Earth's crust in Indonesia' (p. 36-167))

Van Bemmelen, R.W. (1954)- The geophysical contrast between orogenic and stable areas. Geologie en Mijnbouw 16, 8, p. 326-334.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0QzA4cUJzVmlrNGM/view)
(Extended commentary of Collette (1954) thesis 'On the gravity field of the Sunda region'. Includes chapter on interpretation of gravity field of West Indonesia. Positive anomaly with steep gradients over Wijnkoopsbaai (Ciletuh Bay) on Profile VI probably results from ophiolithic high-density rocks near surface. Belt of negative anomalies over Kendeng zone of NE Java result of either bending down of crust and filling with low-density sediments or small asthenolithic blisters at base of sialic crust. Etc. With Collette reply)

Van Bemmelen, R.W. (1955)- L'evolution orogenetique de la Sonde (Indonesie). Bull. Societe Belge Geologie Paleontologie Hydrologie 64, 1, p. 124-152.
('The orogenetic evolution of Indonesia'. Another overview of Indonesia tectonic evolution in terms of Van Bemmelen's'undation theory')

Van Bemmelen, R.W. (1965)- Mega-undations as the cause of continental drift. Geologie en Mijnbouw 44, 9, p. 320-333.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0N3RER1RoZ0J2d1E/view)
(Modification in Van Bemmelen's 'unique' tectonic views, now allowing some mobilism in his previously fixist 'undation theory'. Where 'mega-undations' (large mantle-driven uplifts) occur in continental areas, such as Gondwana, new oceanic basins will open up above a 'basaltic blister', with mid-oceanic rifts forming on crest by 'oceanization'. Overlying units drift sidewards under gravity, towards 'mega-undatory downwarps'. Controversial and not much on SE Asia)

Van Bemmelen, R.W. (1965)- The evolution of the Indian Ocean mega-undation (causing the Indico-fugal spreading of Gondwana fragments). Tectonophysics 2, 1, p. 29-57.
(online at: http://igitur-archive.library.uu.nl/geo/2006-1215-204156/bemmelen_65_evolution.pdf)

Van Bemmelen, R.W. (1976)- Plate tectonics and the undation model. Tectonophysiscs 32, p. 145-182.
(One of later papers by Van Bemmelen on his undation theory', first proposed by him in 1931, but debated from start and never found general acceptance. Unlike the vast majority of the scientic community, Van Bemmelen never accepted plate tectonics theory or subduction)

Van Bemmelen, R.W. (1978)- The present formulation of the undation theory. Zeitschrift Geologische Wissenschaften 6, 6, p. 523-540.
('Final?' review of Van Bemmelen's Undation theory, with short summary how it drives Indonesian tectonics)

Van der Voo, R. (1993)- Paleomagnetism of the Atlantic, Tethys and Iapetus Oceans. Cambridge University Press, p. 1-411.

(Extensive review of global paleomagnetic data, including Sibumasu, Borneo, E Indonesia, etc. Misool-Timor probably not continuously part of Australian Plate: Misool paleolatitudes 10-20° lower than predicted if remained with Australia. Good paleomagnetic data set for Borneo suggests all paleolatitudes close to Equator. Large rotations suggested for Cretaceous of Sumba and Timor, etc.)

Van Es, L.J.C. (1918)- De voorhistorische verhoudingen van land en zee in den Oost-Indischen Archipel, en de invloed daarvan op de verspreiding der diersoorten. Jaarboek Mijnwezen Nederlandsch Oost-Indie 45 (1916), Verhandelingen 2, p. 255-304.
('The prehistoric relationships of land and sea in the East Indies Archipeago and its influence on the distribution of the animal species'. Pliocene paleogeography of Indonesian archipelago)

Van Es, L.J.C. (1919)- De tektoniek van de westelijke helft van de Oost Indische Archipel. Jaarboek Mijnwezen Nederlandsch Oost-Indie 46 (1917), Verhandelingen 2, p. 15-144.
('The tectonics of the western half of the East Indies Archipelago'. Synthesis of Western Indonesia geology as known in 1917. With 4 map sheets)

Van Es, L.J.C. (1930)- Beschouwingen over een nieuwe geotektonische kaart van Nederlandsch-Indie. De Mijningenieur 11, p. 1-32.
('Comments on a new geotectonic map of the Netherlands Indies'. Critical discussion of new tectonic map of Indonesia by Zwierzycki (1929-1930))

Van Hinte, J.E., T.C.E. van Weering & A.R. Fortuin (eds.) (1989)- Proceedings of the Snellius II Symposium, Geology and geophysics of the Banda Arc and adjacent areas, Jakarta 1987, vol. 1. Netherlands J. of Sea Research 24, 2-3, p. 93-381.
(Volume one of Jakarta 1987 Snellius II conference proceedings)

Van Hinte, J.E., T.C.E. van Weering & A.R. Fortuin (eds.) (1989)- Proceedings of the Snellius II Symposium, Geology and geophysics of the Banda Arc and adjacent areas, Jakarta 1987, vol.2. Netherlands J. of Sea Research 24, 4, p. 383-622.
(Volume two of Jakarta 1987 Snellius II conference proceedings)

Van Kampen, P.N. (1909)- De zoogeografie van den Indischen Archipel. Natuurkundig Tijdschrift voor Nederlandsch-Indie, Bijblad 3-4, Weltevreden, p.
('The zoogeography of the Indies Archipelago'. Review of earlier work. Argues that Wallace's line has no value as a zoogeographic boundary: 'Indian animals in many cases reach to E of it, while Australian forms do not reach out to it, so naturally do not cross it'. With small maps showing E and W limits of animal groups)

Van Kampen, P.N. (1911)- The zoogeography of the East Indian Archipelago. The American Naturalist 45, 537, p. 537-560
(online at: https://www.journals.uchicago.edu/doi/pdf/10.1086/279235)
(English translation of Van Kampen (1909), above. Considerable faunistic differentiation between W ('Asian') and E ('Australian') halves of Indo-Australian archipelago has long been known to exist, perhaps most evident amongst mammals. Celebes received its fauna from S, N and E, but not directly from Borneo. Etc.)

Van Tuijn, J. & J. Westerveld (1932)- Opmerkingen naar aanleiding der 'undatie theorie' van Bemmelen en hare toepassing op het westelijk deel van de Soendaboog. Natuurkundig Tijdschrift voor Nederlandsch-Indie 92, p. 341-372.
(online at: http://62.41.28.253/cgi-bin/)
(Critical review of Van Bemmelen's (1932) new tectonic 'undation theory' and its application to the western part of the Sunda Arc. With discussion of Sumatra geology, which is not believed to fit 'undation theory')

Vening Meinesz, F.A. (1930)- Maritime gravity survey in the Netherlands East Indies, tentative interpretation of provisional results. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 33, p. 566-577.
(online at: https://dwc.knaw.nl/DL/publications/PU00015922.pdf)

(First account of Vening Meinesz' well-known shipboard (submarine) gravity work in Indonesia, after spending 8 months on Dutch Navy submarines, starting with theHr. Ms. K II in 1923, followed by the K XIII expedition in 1926. Principal gravity anomaly discovered is 'Axis of Vening Meinesz', a ~100 miles wide narrow strip of strong negative anomalies through whole archipelago (W of Sumatra, S of Java, islands of Timor, Tanimbar, Kei, Seram, then to North), bordered at both sides by fields of positive anomalies. With map of ship traverses and stations, and axis of negative gravity anomalies)

Vening Meinesz, F.A. (1931)- Releve gravimetrique maritime de l'Archipel Indien. Relation entre l'intensite de la pesanteur et l'activite tectonique de 'ecorce terrestre. Publ. Commission Geodesique Neerlandaise, Waltman, Delft, p. 1-6.
(online at: https://resolver.kb.nl/resolve?urn=MMKB24:075637000:pdf)
('Marine gravity survey of the Indies Archipelago. Relationship between the intensity of gravity and the tectonic activity of the Earth's crust'. French summary of Vening Meinesz' marine gravity work in the Netherlands Indies)

Vening Meinesz, F.A. (1931)- Gravity anomalies in the East Indian Archipelago. The Geographical Journal 77, 4, p. 323-332.
(Summary of lecture for Royal Geographical Society in London on discovery of remarkable strip of negative gravity anomalies during 16,000 miles voyage across Indonesia with Dutch Navy submarine K XVIII in 1930. This led to hypothesis that the crust undergoes a downward folding along this line". With map of traverses)

Vening Meinesz, F.A. (1932)- Gravity expeditions at sea 1923-1930, Vol. I. The expeditions, the computations and the results. Netherlands Geodetic Commision, Waltman, Delft, p. 1-109.
(online at: www.ncg.knaw.nl/Publicaties/Groen/pdf/03VeningMeinesz.pdf)
(First report on marine gravity expeditions in Dutch Navy submarines, sponsored by the Netherlands Geodetic Commission during 1923-1930. Much of focus was on Indonesian waters, but also included crossings of the Atlantic and Pacific Oceans. (An American expedition, organized by the U.S. Navy in cooperation with the Carnegie Institution of Washington, was also conducted in October-November 1928 in the Caribbean))

Vening Meinesz, F.A. (1933)- The mechanism of mountain-formation in geosynclinal belts. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam 36, p. 372-377.
(online at: https://dwc.knaw.nl/DL/publications/PU00016417.pdf)
(Speculation on process of mountain building, mainly driven by VM's observation of long belts of highly negative gravity anomalies and associated earthquake centra in Indonesian region. Apparent crustal downbuckling and associated folding-thrusting are early stages of alpine-style mountain building. 'Probable that the earth's crust is pushing laterally under the islands of the Indonesia orogenic belt'. (No figures)

Vening Meinesz, F.A. (1934)- De ontstaangeschiedenis van den Nederlandsch-Indischen Archipel in het licht van het zwaartekrachtsonderzoek met Hr. Ms. K. XIII. Natuurkundige Voordrachten, Nieuwe Reeks 12, Maatschappij Diligentia, Van Stockum, The Hague, p. 51-61. *(online at: https://natuurwetenschappen-diligentia.nl//wp-content/uploads/2020/02/Diligentia_jaarboek_12.pdf)*
(Summary of 1933 lecture on tectonic history of the Netherlands Indies, in the light of new gravity data collected during the 8-month journey of the Navy submarine K.XIII from the Netherlands through the Panama Canal to Indonesia in 1929-1930. Points out remarkable belts of negative gravity anomalies (with parallel belts of volcanoes and earthquakes) that suggest buckling of crust. The deep Banda basin result of very young subsidence. Etc. No figures)

Vening Meinesz, F.A. (1934)- Gravity expeditions at sea 1923-1932, Vol. II. The interpretation of the results. Publication of Netherlands Geodetic Commision, Waltman, Delft, p. 1-208.
(online at: https://www.ncgeo.nl/downloads/04VeningMeinesz.pdf)
(Includes chapters VI on 'The relation between geology and gravity field in the East Indian Archipelago' (Umbgronve, p. 140-162), Chapter VII 'A short survey of theories on the origin of the East Indian Archipelago' by Umbgrove (p. 163-182) and Chapter VIII. 'Relations between submarine topography and gravity field' by Kuenen (p. 183-194))

Vening Meinesz, F.A. (1934)- Interpretation of the gravity anomalies in the Netherlands East Indies. In: F.A. Vening Meinesz (1934), Gravity expeditions at sea 1923-1932, II. The interpretation of the results., Netherlands Geodetic Commision, Waltman, Delft, Chapter 5, p. 116-139.
(online at: www.ncg.knaw.nl/Publicaties/Groen/pdf/04VeningMeinesz.pdf)
(One of first Indonesia-wide gravity anomalies maps. Control density is limited, but clearly shows belts of negative anomalies outlining accretionary wedge belts, maximum positive anomalies for oceanic basins, etc. First paper to suggest trenches with their negative anomalies are site of seafloor 'downbuckling', later understood as subduction)

Vening Meinesz, F.A. (1939)- De theorie van Wegener. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 56, p. 453-457.
('The theory of Wegener'. Geophysical work in Netherlands Indies and other regions no clear data to support or negate the Wegener theory of continental drift (Vening Meinesz was originally a supporter of the Continental Drift Theory, untilresults of his own gravity work in the Indies demonstrated rigidity of oceanic crust, and thus making it unlikely that continental blocks would float across it. The 1960s discoveries of subduction and plate tectonics solved that problen- JTvG)

Vening Meinesz, F.A. (1940)- The earth's crust deformation in the East Indies. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam 43, 3, p. 278-293.
(online at: https://dwc.knaw.nl/DL/publications/PU00017410.pdf)
(New regional isostatic gravity anomaly map of Indonesia. Shift of axis of Sunda-Banda trench minimum gravity zone between Sumba and Timor)

Vening Meinesz, F.A. (1941)- Gravity expeditions at sea 1934-1939, Vol. III. The expeditions, the computations and the results. Netherlands Geodetic Commision, Waltman, Delft, p. 1-97.
(online at: https://resolver.kb.nl/resolve?urn=MMKB31:033000000:pdf)
(Results of marine gravity expeditions of the Netherlands Geodetic Commission in 1934-1939. Largest voyage was an 8-month trip in 14 November 1934- 11 July 1935 with Navy submarine Hr. Ms. K 18 from the Netherlands to Java, via Buenos Aires, Cape Town, Mauritius and Fremantle (W Australia), during which the sub made >220 dives, and Vening Meinesz also conducted land gravity measurements. No interpretations in this volume)

Vening Meinesz, F.A. (1946)- Deep focus and intermediate earthquakes in the East Indies. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam 49, 8, p. 855-865.
(online at: https://dwc.knaw.nl/DL/publications/PU00015922.pdf)
(Earthquake centers in 3 groups: (1) shallow (<60 km) in rigid crust and mostly in tectonically active areas; (2) intermediate shocks at depths of 60-300 km, and (3) deep shocks between 300-700 km. In many cases these centers are more or less located in inclined planes cutting surface in belts of strong tectonic activity. No deep shocks in Sumatra area. Deep earthquakes tied to convection currents in mantle)

Vening Meinesz, F.A. (1948)- Gravity expeditions at sea, 1923-1938, Vol. 4, Complete results with isostatic reduction, Interpretation of the results. Nederlandse Commissie voor Geodesie, Waltman, Delft, p. 1-233.
(online at: https://ncgeo.nl/index.php/en/publicatiesgb/green-series/item/2328-gs-9-f-a-vening-meinesz-gravity-expeditions-at-sea-1923-1938-vol-iv)
(Includes most recent report on Netherlands Indies gravity results, including data from the K-XVIII expedition in 1935 (chapters 2, 3))

Vening Meinesz, F.A. (1954)- Indonesian archipelago- a geophysical study. Geological Society of America (GSA) Bull. 65, 2, p. 143-164.
(Paper on belts of strong negative gravity anomalies and VM's theory of 'crustal downbuckling' (which came close to recognizing subduction). Main tectonic arcs of Indonesia caused by SSE movement of inner crustal block relative to crust outside arc and, for second tectonic arc, by movement of a NE block in E direction. Mantle convection currents may account for relative block movements and crustal compression and also explain deep and intermediate earthquake foci, the sinking of deep basins, etc. North Makassar Straits, Celebes Sea and N and

S Banda Seas positive isostatic anomalies of +50- +100 mgal (remarkably, no mention of Van Bemmelen interpretations and theories))

Verbeek, R.D.M. (1900)- Voorlopig verslag over eene geologische reis door het oostelijk gedeelte van den Indischen Archipel. Extra bijvoegsel (appendix) Javasche Courant 1900, 66, p. 3-48.
('Preliminary account of a geological trip through the eastern part of the Indies Archipelago'. Early summary of the monumental Verbeek (1908) Moluccas Report)

Verbeek, R.D.M. (1908)- Molukkenverslag. Geologische verkenningstochten in het oostelijke gedeelte van den Nederlandsch Oostindische Archipel. Jaarboek Mijnwezen Nederlandsch Oost-Indie 37 (1908), Wetenschappelijk Gedeelte, p. 1-826 + Atlas
('Moluccas Report- geological reconnaissance trips in the eastern part of the Netherlands East Indies archipelago'. Classic early geological reconnaissance survey of 250 islands in E Indonesia in 9 months in 1899, and last of Verbeek's voluminous reports on geology of parts of Indonesia. Includes brief reports by specialist paleontologists. 'Old schist formation' metamorphics rel. widespread. Permian present on Timor and adjacent islands, possibly also on Ambon and Babar. Locally bituminous Triassic brachiopod limestones on Ambon. Widespread marine Mesozoic sediments. Triassic- Jurassic rocks and faunas similarities with Himalayas and Alps, etc. Samples from Kai Besar with illustrations of Eocene Discocyclina- Asterocyclina + Lacazina)

Verbeek, R.D.M. (1908)- Rapport sur les Moluques. Reconnaissances geologiques dan la partie orientale de l'archipel des Indes orientales neerlandaises. Government Printing Office, Batavia, 844p. + Atlas.
(Atlas online at: https://gallica.bnf.fr/ark:/12148/bpt6k64702884.texteImage)
(French edition of the Dutch-language 'Molukkenverlag' by Verbeek (1908))

Verbeek, R.D.M. (1910)- Geologie van den Nederlandsch Oost-Indischen Archipel. In: Geillustreerd handboek van Insulinde, Uitgeversmaatschappij Vivat, Amsterdam, p.

Vergnolle, M., E. Calais & L. Dong (2007)- Dynamics of continental deformation in Asia. J. of Geophysical Research 112, B11403, p. 1-22.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/2006JB004807/pdf)
(Another model of Asia tectonic plates relative to present-day horizontal motions measured by GPS)

Verstappen, H.T. (1960)- On the geomorphology of raised coral reefs and its tectonic significance. Zeitschrift fur Geomorphologie 4, p. 1-28.
(Large-scale, young regional uplifts characterized by island surrounded by uplifted reef terraces, with many examples from E Indonesian Archipelago. 'Reefcaps' generally thin and quickly disappear by dissolution (e.g. common notches in raised reefs at sea level). Six types of reefcaps distinguished. Generally, highest reef terraces are oldest. Discussions of reef caps of Muna and Kai Kecil islands)

Verstappen, H.Th. (2010)- Indonesian landforms and plate tectonics. Jurnal Geologi Indonesia 5, 3, p. 197-207.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/275)
(Landforms in Indonesia resulted primarily from plate tectonics. Greatest relief amplitudes near plate boundaries: deep ocean trenches at subduction zones and mountain ranges at collision belts. Living and raised coral reefs, volcanoes, and fault scarps are important geomorphic indicators of active plate tectonics)

Villeneuve, M., J.J. Cornee, J.P. Rehault, C. Honthaas, W. Gunawan and Geobanda Group (2000)- Tectonostratigraphy of the East Indonesian blocks. AAPG International Conference Bali 2000, American Assoc. Petroleum Geol. (AAPG) Bull. 84, 9, p. 1511. (*Abstract*).
(online at: https://www.searchanddiscovery.com/abstracts/html/2000/intl/abstracts/458.htm)
(Apart from the Asiatic, Australian and Pacific margin, four microblocks have been distinguished in East Indonesia area: Banda, Lucipara, Banggai-Sula and Irian Jaya. All very different stratigraphic and tectonic evolution.N Gondwana origin suggsted for Banggai-Sula, Lucipara and Irian Jaya blocks)

Villeneuve, M., R. Martini, H. Bellon, J.P. Rehault, J.J. Cornee, O. Bellier, S. Burhanuddin, F. Hinschberger, C. Honthaas & C. Monnier (2010)- Deciphering of six blocks of Gondwanan origin within Eastern Indonesia (South East Asia). Gondwana Research 18, 2-3, p. 420-437.
(online at: www.academia.edu/74035027/Deciphering_of_six_blocks_of_Gondwanan_origin_within_Eastern_Indonesia_South_East_Asia)
(E Indonesia 3 main plates (Eurasian, Indo-Australian, Philippine-Pacific), 7 blocks (six from NE Gondwanan margin, Halmahera from Pacific plate). Timor and Kolonodale (or Argo) blocks came from NW Australian margin. Lucipara, Seram and Banggai-Sula blocks originated from W extension of PNG while Irian Jaya block is still linked to N Australian margin. Timor and Kolonodale blocks detached from Gondwana in Jurassic; Lucipara, Seram and Banggai-Sula detached from PNG in Neogene. All Gondwanan blocks collided with Eurasian active margin near Sulawesi. Timor and Kolonodale joined Eurasian margin by end Paleogene. Lucipara, Seram and Banggai-Sula collided with Sulawesi between M Miocene- M Pliocene and, with Kolonodale, suffered opening of N and S Banda back-arc basins by Late Miocene. Timor block moved S with S margin of S Banda basin and collided with N Australian margin in M Pliocene)

Villeneuve, M., J.P. Rehault, J.J. Cornee, C. Honthaas & W. Gunawan (1998)- Evolution geodynamique de l'Indonesie orientale, de l'Eocene au Pliocene. Comptes Rendus Academie Sciences, Paris, Ser. IIA, Earth Planetary Science, 327, 5, p. 291-302.
(online at: www.academia.edu/9355841/volution_g%C3%A9odynamique_de_lIndon%C3%A9sie_orien Etc.)
('Geodynamic evolution of Eastern Indonesia from the Eocene to the Pliocene' Geodynamic reconstruction based on evolution of 4 continental blocks, trapped by convergence of Asian, Australian and Pacific plates: (1) Banda (= dismembered E Sulawesi, Buru, Seram, Sinta Ridge), (2) Banggai- Sula, (3) Lucipara (S Banda Ridges, Tukang-Besi Ridge + Kur, Tanimbar; Oligocene-E Miocene arc, with E Miocene metamorphism event) and (4) Halmahera. Main events: (1) Late Eocene-Oligocene collision Banda block- Sulawesi; (2) E Miocene collision Lucipara Block (incl. Tukang Besi) - Banda Block in Buton; (3) Late Miocene extension with opening of N. Banda, S. Banda, Savu basins; (4) E Pliocene collision Banggai Sula- E Sulawesi; (5) Late Pliocene collisions of Australia and Banda and Irian Jaya blocks. Timor with its Late Miocene calc-alkaline intrusions in N was part of Banda Arc before M Pliocene collision with Australia)

Villeneuve, M., J.P. Rehault, J.J. Cornee, C. Honthaas, W. Gunawan and Geobanda-Group (1998)- The main steps of the geodynamic evolution of Eastern Indonesia since Upper Eocene. In: P. Wilson & G.W. Michel (eds.) The geodynamics of S and SE Asia (GEODYSSEA) Project. Scientific Technical Report STR/14, Geoforschungszentrum, Potsdam, Germany, p 264-275.
(online at: https://www.researchgate.net/publication/338825274_The_Main_Steps_of_the_Geodynamic_Evolution_of_Eastern_Indonesia_since_Upper_Eocene)
(Key geodynamic reconstruction from 6-year French-Indonesian project, showing geological evolution of five small continental blocks trapped by convergence of three main plates. Main steps (1) Late Eocene- Oligocene: Banda block (E and SE Sulawesi + Buton + Buru-Seram) joined SE Asia margin in Sulawesi (overthrusted by E Sulawesi ophiolite nappe);(2) E Miocene: Lucipara block (including Tukang Besi platform) collided with Banda block mainly in Buton area, (3) Late Miocene: broad NW-SE extensional regime, opening N Banda, S Banda, Savu, etc. basins;.(4) Late Pliocene: main collisions between Australian continental margin and Banda Arc at Timor and Irian Jaya blocks. Bangai-Sula collided with E Sulawesi at end of E Pliocene; (5) Pleistocene: Australian block pushed N-ward the S part of Banda arc and new collision at N Irian Jaya with obduction of Solomon ophiolite onto Irian Jaya. Timor Block separate block, not part of Australian margin)

Visser, S.W. (1930)- On the distribution of earthquakes in the Netherlands East Indian Archipelago II, 1902-1926. Verhandelingen Koninklijk Magnetisch en Meteorologisch Observatorium, Batavia, 22, Albrecht, Weltevreden, p. 1-120.

Visser, S.W. (1937)- Aardbevingen met zeer diepen haard. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2) 54, 3, p. 313-335.
(online at: https://www.delpher.nl/nl/tijdschriften/...)
('Earthquakes with very deep source'. Mainly a general review of deep earthquakes, with comments on earthquake belts in the Netherlands Indies)

Visser, S.W. (1937)- Aardbevingen met zeer diepen haard in Nederlandsch Indie. Natuurkundig Tijdschrift voor Nederlandsch-Indie 97, 3, p. 168-172.
(online at: http://62.41.28.253/cgi-bin/...)
('Earthquakes with very deep source in Netherlands Indies'. Describes Berlage (1937) observation that deep-focus earthquakes occur along inclined surface, dipping 30°-50° from borders of ocean under continent in Indonesia)

Visser, S.W. (1937)- A connection between deep-focus earthquakes and anomalies of terrestrial magmatism and gravity. Terrestrial Magnetism and Atmospheric Electricity 42, 4, p. 361-362.
(online at: www.agu.org/journals/te/v042/i004/TE042i004p00361/TE042i004p00361.pdf)
(Deep-focus earthquakes occur in well-defined areas. Loci deeper than 600 km in Japan, Philippines, Moluccas, Java Sea, etc., all along inclined surface, sloping 30-40° from borders of ocean down below continents. Associated with axis of negative gravity anomalies of Vening Meinesz. May be related to current systems in inner earth (N.B.: Visser and Berlage discovered here what later would be called Wadati-Benioff zone; JTvG))

Visser, S.W. (1938)- Seismic isobaths in the East Indian Archipelago. Gerlands Beitrage Geophysik 53, p. 389-391.
(On earthquake belts and possible connection with Vening Meinesz's gravity anomalies)

Vogelsang, H. (1867)- Philosophie der Geologie und mikroskopische Gesteinsstudien. Verlag Max Cohen, Bonn, p. 1-273.
(online at: https://www.digitale-sammlungen.de/en/details/bsb10284797)
('Philosophy of geology and microscopic rock studies'. Early textbook on geology, its historic development and prominent geologists, and microscopic studies. By German Dr. Hermann Vogelsang (1838-1874), Professor of Mineralogy and Geology at the Polytechnical School of Delft in 1864-1874, who trained several of the first geologically-oriented mining engineers in the Netherlands Indies (Verbeek, Fennema, Hooze, etc.). Includes 'pioneering' microscopical rock thin section descriptions of several volcanic and igneous rocks from Java)

Volz, W. (1912)- Der Malaiische Archipel, sein Bau und sein Zusammenhang mit Asien. Sitzungsberichte Physikalisch-Medizinischen Sozietat Erlangen 44, p. 178-204.
(online at: https://www.zobodat.at/pdf/Sitzber-physik-med-Soc-Erlangen_44_0178-0204.pdf)
('The Malay Archipelago: its framework and relation with Asia'. Early, obsolete tectonic model of Indonesia)

Voris, H.K. (2000)- Maps of Pleistocene sea levels in Southeast Asia: shorelines, river systems and time durations. J. of Biogeography 27, 5, p. 1153-1167.
(Often used but rather simplistic series of maps from Australia to Sri Lanka to Taiwan showing areas of exposed land in Indo-Australian region during periods of Pleistocene lowered sea levels)

Vroon, P.Z., M.J. Van Bergen & E.J. Forde (1996)- Pb and Nd isotope constraints on the provenance of tectonically dispersed continental fragments in East Indonesia. In: R. Hall & D. Blundell (eds.) Tectonic Evolution of Southeast Asia, Geological Society, London, Special Publ. 106, p. 445-453.
(online at: https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=7a8d19b05a365e5724c1ed24886dd4e78798fc3f)
(Pb-Nd isotope signatures of igneous and (meta) sedimentary rocks from E Indonesia continental fragments help identify provenance areas: Ambon-Seram= southern New Guinea, Bacan= North Australia, Banda Ridges = 'Pacific' New Guinea, and Sumba= Sundaland)

VSI (Volcanological Survey Indonesia) (2005)- Geothermal resources in Indonesia. Volcanological Survey Indonesia (VSI) Geothermal Division, p.
(online at: www.vsi.esdm.go.id/pbumi/index.html)

Wakita, K. (1996)- Cretaceous subduction, accretion and collison along the southeastern margin of Sundaland. In: S.Y. Kim et al. (eds.) Proc. 32nd Annual Session Coord. Comm. Coastal Offshore Geoscience Programmes E and SE Asia (CCOP), Tsukuba 1995, p. 201-218.
(Early version of Wakita series of papers on Cretaceous accretionary complexes at SE Sundaland margin, particularly Luk-Ulo melange complex in C Java and Bantimala Complex of S Sulawesi)

Wakita, K. (1997)- Oceanic plate stratigraphy and tectonics in East and Southeast Asia. In: P. Dheeradilok et al. (eds.) Proc. Int. Conf. Stratigraphy and tectonic evolution in Southeast Asia and the South Pacific (GEOTHAI'97), Bangkok, Dept. Mineral Resources, 1, p. 388-401.
(Components of ancient accretionary complexes include pillow basalt, limestone, radiolarian chert and shale, ultramafic rocks, glaucophane schist, etc. Radiolarian biostratigraphy useful for reconstruction of accretionary complexes, as shown in example of Luk-Ulo Melange of C Java. Lithologic successions in different tectonic units similar and reflect 'Oceanic Plate Stratigraphy' sequence:(1) birth of oceanic plate at oceanic ridge, (2) formation of volcanic islands near ridge covered by reefs (= Orbitolina Limestone?; HvG), (3) calcilutite sedimentation at flank of volcanic islands, (4) pelagic deposition of radiolarians on oceanic plate, (5) mixing with detrital clays to form hemipelagic siliceous shale, and (6) sandstone- shale near trench of convergent margin. Radiolarian biostratigraphy of Luk Ulo show Valanginian- Campanian oceanic chert deposition)

Wakita, K. (1999)- Mesozoic melange formation in Indonesia; with special reference to Jurassic melanges of Japan. In: G.H. Teh (ed.) Proc. 9th Regional Congress Geology Mineral Energy Resources of SE Asia (GEOSEA '98), Kuala Lumpur 1998, Bull. Geological Society Malaysia 43, p. 19-30.
(online at: www.gsm.org.my/products/702001-100838-PDF.pdf)
(Cretaceous melanges in (1) C Java (Luk Ulo; mainly HP metamorphics, bedded cherts siliceous shale, ultramafics, etc.; overlain by Eocene), (2) S Sulawesi (Bantimala; also mainly HP metamorphics, ultramafics, bedded cherts etc.) and (3) S Kalimantan (Meratus; mainly bedded chert, ultramafics, schist; unconformably overlain by Eocene). Clasts of metamorphic and ultrabasic rocks derived from blocks exhumed following microcontinent collision; incorporated within melanges during microcontinental collision)

Wakita, K. (2000)- Cretaceous accretionary: collision complexes in central Indonesia. J. Asian Earth Sciences 18, 6, p. 739-749. *(online at: http://directory.umm.ac.id/Data%20Elmu/jurnal/J-a/Journal%20of%20Asian%20Earth%20Science/Vol18.Issue6.Dec2000/404.pdf)*
(Cretaceous accretionary complexes in W Java (Ciletuh), C Java (Karangsambung, Jiwo), S and C Sulawesi and SE Kalimantan (Meratus, Pulau Laut) reflect Cretaceous convergent SE margin of Sundaland craton, which was surrounded by marginal sea, with immature volcanic arc at periphery. Oceanic plate subducted beneath arc from S, carrying microcontinents detached from Gondwanaland. Accretionary wedge with fragments of oceanic crust. Jurassic shallow marine allochthonous formation was emplaced by collision of continental blocks in Bantimala, S Sulawesi. Collision exhumed very high pressure metamorphic rocks from deeper parts of accretionary wedge)

Wakita, K. & I. Metcalfe (2005)- Ocean plate stratigraphy in East and Southeast Asia. J. Asian Earth Sciences 24, p. 679-702.
(online at: https://www.academia.edu/10273902/Ocean_Plate_Stratigraphy_in_East_and_Southeast_Asia)
(Ancient accretionary wedges recognized by glaucophane schist, radiolarian chert and melange. Typical 'Ocean Plate Stratigraphy' (OPS) from old to young: pillow basalts (birth of oceanic plate at mid-ocean ridge), limestone (ridge covered by reefs), radiolarian chert (pelagic sediment), siliceous shale (mixed radiolarians and detrital grains in hemipelagic setting) and shale- sandstone (sedimentation at or near trench of convergent margin). Radiolarian biostratigraphy provides information on time and duration of ocean plate subduction)

Wakita, K., I. Metcalfe, S. Hada & M.J.N. Daigo (2000)- Digital terrane map of East and Southeast Asia. Geosciences Journal 4, p. 19-22.

Wakita, K., K. Miyazaki, J. Sopaheluwakan, I. Zulkarnain, C. Parkinson & Munasri (1997)- Cretaceous subduction complexes along the southeastern margin of Sundaland. Memoir Geological Society Japan 48, p. 152-162.
(online at: https://dl.ndl.go.jp/view/prepareDownload?itemId=info%3Andljp%2Fpid%2F10810232)

Sundaland surrounded by accretionary complexes and accreted microcontinents rifted from Gondwanaland. Cretaceous accretionary complexes in C Java, S Sulawesi and S Kalimantan similar components, but different histories. Luk-Ulo, C Java, subduction complex formed by continuous subduction of oceanic plate throughout Cretaceous. Meratus (S Kalimantan), also product of oceanic plate subduction in island arc setting. Bantimala, S Sulawesi, ocean plate subduction followed by collision of continental fragment)

Wakita, K., M. Pubellier & B.F. Windley (2013)- Tectonic processes, from rifting to collision via subduction, in SE Asia and the western Pacific: a key to understanding the architecture of the Central Asian orogenic belt Lithosphere 5, 3, p. 265-276.
(online at: www.academia.edu/38111468/Tectonic_processes_from_rifting_to_collision_via_subduction Etc.)
(On processes of accretion of continental blocks in Tertiary in SE Asia and W Pacific. Subduction associated with back-arc extension, particularly in Indonesia and SW Pacific region. Arc-arc collisional complexes present in Taiwan, Philippines and Japan. Geological record of SE Asia and W Pacific provides modern analogue for geological and tectonic history of Central Asian Orogenic Belt)

Waluyo (1992)- Seismotectonics of eastern Indonesian region. Ph.D. Thesis St. Louis University, p. 1-343. *(Unpublished)*
(Earthquake data (ISC 1970-1986) used for interpretation of East Indonesia tectonics)

Wang, L. & X. He (2020)- Seismic anisotropy in the Java-Banda and Philippine subduction zones and its implications for the mantle flow system beneath the Sunda Plate. Geochem. Geophysics Geosystems 21, 4, e2019GC008658, p. 1-19.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2019GC008658)
(Sunda Plate is minor tectonic plate, bounded by active convergent boundaries, with subducting Philippine Sea Plate to E and Indo-Australian Plate to S and W. Mantle flow system beneath Sunda Plate composed of various types of flow developed in mantle wedges. Interactions play important role in regional geodynamics in upper mantle above 670-km discontinuity)

Wanner, J. (1907)- Triaspetrefakten der Molukken und des Timorarchipels. Neues Jahrbuch Mineralogie Geologie Palaontologie, Beilage Band 24, p. 159-220.
(online at: http://mmtk.ginras.ru/pdf/Wanner_1907_Tr_Timor_HI.pdf)
('Triassic fossils from the Moluccas and Timor Archipelago'. Late Triassic molluscs, corals, ammonites faunas from Misool (Carnian dark shales with Daonella), Seram (typical Tethys-Mediteranean Norian molluscs Monotis salinaria, Amonotis and brachiopod Halorella). From Seram limestone come corals Thecosmilia n.sp. aff. clathrata and Montlivaltia molukkana n.sp. and Pachypora intabulata n.sp. (= Lovcenipora vinassai; JTvG). Also Triassic fossils from Timor-Roti- Savu (generally deeper water facies, but potentially similar 'alpine' character with mainly Halobia, Daonella, but also 'Pacific' mollusc Pseudomonotis ochotica). Timor/Roti/ Savu Triassic reminiscent of North Sumatra Upper Triassic described by Volz, 1899. First author to recognize Alpine/ Tethyan affinities of Late Triassic bivalves and ammonites of Seram and Timor)

Wanner, J. (1910)- Einige geologische Ergebnisse einer im Jahre 1909 ausgefuhrten Reise durch den Ostlichen Teil des indoaustralischen Archipels: Vorlaufige Mitteilung. Centralblatt Mineralogie Geologie Palaontologie 1910, 5, p. 137-147.
(online at: https://www.zobodat.at/pdf/Centralblatt-Mineral-Geol-Palaeont_1910_0137-0147.pdf)
('Some geological results of a 1909 trip through the eastern part of the Indo-Australian Archipelago; preliminary communication'. Summary of journey to Misool (fossil-rich Mesozoic), C Halmahera (ultramafic rocks, ?Mesozoic red-brown radiolarite, Tertiary clastics), Obi (found M Jurassic Stephanoceras and other ammonites at W coast along Akelamo River, and Miocene fossil-rich clastics) and Timor (Permian rich in fossils, marine Triassic and Jurassic (no Cretaceous seen), widespread Eocene Alveolina and Nummulites limestones, now uplifted to 1400m, etc. No figures)

Wanner, J. (1910)- Neues uber die Perm-, Trias- und Juraformation des Indo-Australischen Archipels. Centralblatt Mineralogie Geologie Palaontologie 1910, p. 736-741.
(online at: www.biodiversitylibrary.org/item/192869#page/766/mode/1up)

('News on the Permian, Triassic and Jurassic formations of the Indo- Australian Archipelago'. Short note on Timor Permian ammonites (incl. common Agathiceras), and U Triassic fauna of platy limestone of Bukit Kandung/ Lurah Tambang in W Sumatra, previously decribed by Boettger and interpreted as Eocene, with Myophoria, Cardita. Fauna very similar to Nucula Marl of Misool and probably of U Norian age. No figures)

Wanner, J. (1921)- Zur Tektonik der Molukken. Geologische Rundschau 12, 3-5, p. 155-165.
(online at: https://www.digizeitschriften.de/dms/img/?PID=GDZPPN000456594)
('On the tectonics of the Moluccas'. Early paper, with focus on geology of Buru and Seram Islands)

Wanner, J. (1925)- Die Malayische Geosynklinale im Mesozoikum. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 8 (Gedenkboek Verbeek, memorial volume), p. 569-599.
(online at: https://books.google.com/books?id=Yy0RAAAAIAAJ&pg)
('The Malayan geosyncline in the Mesozoic'. Rel. lengthy review of Triassic- Cretaceous deposits and macrofaunas across Indonesia. Unfortunately no figures)

Wanner, J. (1931)- Echinodermata In: B.G. Escher et al. (eds.) De palaeontologie en stratigraphie van Nederlandsch Oost-Indie, Leidsche Geologische Mededelingen 5 (K. Martin memorial volume), p. 436-460.
(online at: www.repository.naturalis.nl/document/549766)
(Listings of Paleozoic- Neogene echinodermata described from Indonesia. Permian of Timor richest in world with 320 species (50 blastoids, 270 crinoids). Number of Mesozoic species ~10% of Permian, mainly in Triassic. In Jurassic only two species, Pentacrinus rotiensis from Roti and Holectypus from Buru, Cretaceous similarly poor). Tertiary 85 species)

Wanner, J. (1931)- Mesozoikum. In: B.G. Escher et al. (eds.) De palaeontologie en stratigraphie van Nederlandsch Oost-Indie, Leidsche Geologische Mededelingen 5 (K. Martin memorial volume), p. 567-609.
(online at: www.repository.naturalis.nl/document/549402)
(Comprehensive review of distribution of Mesozoic rocks and fossils in E Indonesia, Sumatra, Borneo, etc. With correlation tables for Triassic, Jurassic and Cretaceous)

Wanner, J. (1940)- Gesteinsbildende Foraminiferen aus dem Malm und Unterkreide des ostlichen Ostindischen Archipels, nebst Bemerkungen uber *Orbulinaria* Rhumbler und andere verwandte Foraminiferen. Palaeontologische Zeitschrift 22, 2, p. 75-99.
('Rock-building foraminifera from the Malm and Lower Cretaceous in the eastern East Indies Archipelago'. First description of Late Jurassic calcispheres (Stomiosphaera moluccana, Cadosina fusca) from Timor, Misool, Seram, Roti, Buton and E Sulawesi. Indicator species for Tethyan latest Jurassic (+earliest Cretaceous?) (NB: these are not foraminifera, but more closely related to calcareous nannofossils/ pelagic algae; JTvG))

Ward, J.F. (2024)- Late Cenozoic alkaline magmatism in East Asia and Indonesia: Tectonic controls on melt generation and implications for mineral prospectivity. Ph.D. Thesis, University of Queensland, p. 1-135.
(online at: https://espace.library.uq.edu.au/data/UQ_06f88eb/s4357107_phd_thesis.pdf)
(Mainly collection of papers. Study of E Asia/ Indonesia/ PNG volcanoes using tomography, geochemistry, etc. Relationships between geochemically anomalous volcanoes and Pliocene- Recent porphyry ore deposits seemingly tied to slab tears))

Ward, J.F., G. Rosenbaum, T. Ubide & M. Sandiford (2024)- Slab segmentation, anomalous arc volcanism, and giant porphyry copper deposits in Indonesia. Earth Planetary Science Letters 626, 118532, p. 1-11.
(online at: https://www.sciencedirect.com/science/article/pii/S0012821X23005447)
(Most Holocene volcanoes in Indonesia display geochemical and geophysical properties characteristic of formation via mantle wedge metasomatism. Some volcanoes (Toba, Ungaran, Muriah, Rinjani, Tambora, Sangeang Api, Batu Tara) with anomalous alkaline geochemistry, violent eruptions, and above sections of subducting slab considered too deep to induce mantle melting via slab dehydration. Anomalous volcanoes associated with giant Pliocene- Recent porphyry Cu deposits and linked to slab segmentation due to slab tearing.

Slab tearing also locally enhanced magma flux, leading to extremely violent eruptions at Toba, Rinjani and Tambora)

Watkinson, I.M. & R. Hall (2017)- Fault systems of the eastern Indonesian triple junction: evaluation of Quaternary activity and implications for seismic hazards. In: P. Cummins & I. Meilano (eds.) Geohazards in Indonesia: Earth science for disaster risk reduction, Geol. Soc, London, Special Publ. 441, p. 71-120. *(online at: https://earthjay.com/earthquakes/20180928_indonesia/watkinson_hall_2017_East_Indonesia_faults.pdf)*
(Study of 27 fault systems in Eastern Indonesia. Most fault systems highly segmented, many linked by narrow (<3 km) stepovers to form quasi-continuous segments capable of M>7.5 earthquakes. Sinistral shear across soft-linked Yapen and Tarera- Aiduna faults and continuation into transpressive Seram fold thrust belt perhaps most active belt of deformation. Palu-Koro Fault of Sulawesi long, straight and capable of super shear ruptures, considered to be greatest seismic risk in region)

Watkinson, I.M., R. Hall, M.A. Cottam, I. Sevastjanova, S. Suggate, I. Gunawan et al. (2012)- New insights into the geological evolution of Eastern Indonesia from recent research projects by the SE Asia Research Group. Berita Sedimentologi 23, p. 21-27.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/189)
(Brief review of ongoing Indonesia research projects at University of London/ Royal Holloway group)

Wegener, A. (1922)- Die Entstehung der Kontinente und Ozeanen. 3rd ed., Vieweg, Braunschweig, p. 1-144.
(online at: https://babel.hathitrust.org/cgi/pt?id=uc1.$b34771;view=1up;seq=1)
('The origin of the continents and oceans'. Third edition of classic book on Continental Drift theory and breakup of the Pangea supercontinent after Late Carboniferous. Includes explanation for arcuate shape of Banda Arc by NW movement of Australia- New Guinea continent into Indonesian archipelago)

Wehner, D., N. Blom, N. Rawlinson, Daryono, C. Bohm, M.S. Miller, P. Supendi & S. Widiyantoro (2022)- SASSY21: A 3-D seismic structural model of the lithosphere and underlying mantle beneath Southeast Asia from multi-scale adjoint waveform tomography. J. of Geophysical Research: Solid Earth 127, 3, e2021JB022930, p. 1-25.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1029/2021JB022930)
(First continental-scale seismic model of lithosphere and mantle beneath SE Asia obtained from adjoint waveform tomography. SASSY21 reveals detailed anomalies down to mantle transition zone, including multiple subduction zones. Most prominent feature is (Indo-)Australian plate descending beneath Indonesia, imaged as one continuous slab along the 180° curvature of Banda Arc. Tomography confirms existence of hole in slab 300km under Mt Tambora. High S-wave velocity zone 100-300km under N Borneo possibly associated with remnant subduction zone that terminated in M-L Miocene. S-shape anomaly 100-300km under E coast of Borneo may be tied to underthrusting from Sulawesi in Miocene)

Wensink, H. (1987)- Displaced terranes of Gondwana origin in Indonesia: paleomagnetic implications. Annales Soc. Geologique du Nord CVII, p. 81-87.
(Summary of paleomagnetic data from E Indonesia. Timor: Permian is displaced terrane of Australian origin; Early Cretaceous deep sea sediment formed ~1000km to S, shifted N with N drift of Australia). Original position of Misool rel. to Australia was farther N than today)

Westerveld, J. (1936)- The granites of the Malayan tin belt compared with tin-granites from other regions. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 39, 10, p. 1199-1209.
(online at: https://dwc.knaw.nl/DL/publications/PU00016993.pdf)
(Great petrographic uniformity of tin-bearing and related granite rocks of Inner Malayan Arc (Malay PeninsuIa, Indonesia Tin Islands, etc.) Tin-granites end-stages of differentiation of acid magmas, with proportions of main constituents not essentially different from non- tin-bearing biotite-granites)

Westerveld, J. (1939)- Metaalprovincies in Nederlandsch Oost-Indie. Public address at the start of position of lecturer in economic geology at the University of Amsterdam. Amsterdam, p. 1-30.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB21:034955000:00028)

('Metal provinces in the Netherlands East Indies'. Four main metallogenic provinces: (1) tin islands Bangka-Billition, etc. (2) Gold-silver mineralization on Sumatra, associated with ?Cretaceous intrusives, (3) W and S Sumatra gold-silver associated with post-Miocene intrusives and (4) nickel-iron in Banda Arc- E Sulawesi, associated with ultrabasic rocks. No figures)

Westerveld, J. (1949)- Fasen van gebergtevorming en ertsprovincies in Nederlands Oost-Indie. De Ingenieur 1949, 12-13, p. 1-25.
('Phases of mountain building and ore provinces in Netherlands East Indies'.Review of tectonics of Indonesia and associated mineral deposits. W of New Guinea four concentric orogens: (1) Late Jurassic 'Malaya orogen', connecting W Borneo with E Burma through Malaya, with tin, gold and bauxite; (2) Cretaceous 'Sumatra orogen' (Sumatra-Java- SE Borneo), with Au-Ag-bearing base metals in Sumatra, iron laterites and diamond-gold placers in Borneo (3) M Miocene 'Sunda orogen' from W Burma through inner Sunda islands to W arc of Sulawesi, with epithermal Au-Ag-and Mn-ores; (4) Late Cretaceous- M Miocene 'Moluccas orogen' with nickel and lateritic iron ores on peridotites. Good maps of ore deposits. See also English version (Westerveld,1952))

Westerveld, J. (1952)- Phases of mountain building and mineral provinces in the East Indies. Reports 18th Session International Geological Congress, Great Britain 1948, Section 1, 13, p. 245-255.
(Abbreviated, English version of Westerveld (1949))

Wheeler, P. & N. White (2000)- Quest for dynamic topography: observations from Southeast Asia. Geology (GSA) 28, 11, p. 963-966.
(Concludes that there is no measurable dynamic topography in SE Asia)

Wheeler, P. & N. White (2002)- Measuring dynamic topography: an analysis of Southeast Asia. Tectonics 21, 1040, p. 1-24.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2001TC900023)
(Models of dynamic topography generated by subducting slabs, predict ~1-2 km of subsidence on wavelengths of 100- 1000 km. Existence of such subsidence important for understanding basin formation, relative sea level changes, etc. Analysis of SE Asia constrains maximum amplitude of dynamic subsidence to ~300m with range of 0-500 m, less than predicted. Distribution of anomalous subsidence suggests this may not be caused by dynamic topography and subducting slabs)

White, J.Th. (1925)- Petrographische werkzaamheden ten behoeve van het Bodemkundig Onderzoek in Nederlandsch Oost-Indie. Mededelingen Algemeen Proefstation Landbouw, Buitenzorg (Bogor) 18, p. 1-12.
(online at: https://resolver.kb.nl/resolve?urn=MMKB24:078441000:pdf))
('Petrographic studies for soil science research in the Netherlands Indies'. Paper by Dr. Ir. John Thomas White, who replaced Dr. E.C.J. Mohr as'Hoofd voor het Laboratorium voor Bodemonderzoek (Head of the Soil Science Laboratory) in 1920, and stayed until 1930 or later)

Whittaker, J.M., R.D. Muller, M. Sdrolias & C. Heine (2007)- Sunda-Java trench kinematics, slab window formation and overriding plate deformation since the Cretaceous. Earth Planetary Science Letters 255, p. 445-457.
(Plate motions and reconstructions of subducted ocean floor used to analyse subduction kinematics and observed upper plate strain since 80 Ma along Sunda-Java trench. Upper plate advance and retreat is main influence on upper plate strain, but subduction of large bathymetric ridges also significant. Compression in Sundaland back-arc region linked to upper plate advance. Sundaland backarc extension correlates with (a) retreat of upper plate, and (b) advance of upper plate with more rapid advance of Sundaland margin due to hinge rollback. Subduction of large bathymetric ridges causes compression in upper plate, especially Wharton Ridge subduction under Sumatra between 15-0 Ma)

Wichmann, A. (1890)- Bericht uber eine im Jahre 1888-1889 im Auftrag der Niederlandischen Geographischen Gesellschaft ausgefuhrte Reise nach dem Indischen Archipel, Part 1: I. Java and II. Celebes. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2) 7, p. 907-994.
(online at: https://www.delpher.nl/nl/tijdschriften/view?identifier=MMUBA13:001604001:00003)

(Report on a 1888-1889 geographic reconnaissance trip to Indies Archipelago- part 1 (Java, Sulawesi) by German geologist and first geology professor at University of Utrecht, Arthur Wichmann, sponsored by KNAG (Royal Netherlands Geographical Society). Mainly travel and scenery descriptions)

Wichmann, A. (1925)- Geologische Ergebnisse der Siboga Expedition. Siboga Expeditie Monograph LXVI, Brill, Leiden, p. 1-164.
(Read online at: https://catalog.hathitrust.org/Record/001675376)
(Geological results of rocks collected during the 1899-1900 Siboga marine expedition around Banda arc islands (under leadership of Prof. Max Weber; samples deposited in Geological Institute, Utrecht). Descriptions of rocks from 31 E Indonesia islands, mainly volcanic, but also incl. folded, reddish, thin-bedded Triassic radiolarian limestone on Sawu, Jurassic ammonites from claystones on Obi Mayor, Tertiary limestones on Pisang Islands, Mesozoic limestones near Misool, Mesozoic bituminous limestone on Buru, serpentinite and gabbro on Manowoko, Kasiui (SE of Seram) with Seram-like Triassic limestones and radiolarite, schists-phyllites-amphibolites on small islands between Seram and Kai strikingly similar to Seram pre-Upper Triassic (Valk 1945, p. 38), Upper Eocene limestone from Kai Besar, etc.)

Widiyantoro, S., J.D. Pesicek & C.H. Thurber (2011)- Complex structure of the lithospheric slab beneath the Banda arc, eastern Indonesia depicted by a seismic tomographic model. Research in Geophysics 1, 1, p. 1-6.
(online at: https://www.pagepress.org/journals/rg/article/view/rg.2011.e1/pdf)
(New seismic tomographic images of E Indonesia confirm previous observations of spoon-shaped structure of subducted slab beneath curved Banda arc. A slab lying flat on 660 km discontinuity beneath Banda Sea also well imaged. Data support scenario of Banda arc subduction rollback. Slab detachment beneath Buru also confirmed by new model)

Widiyantoro, S., J.D. Pesicek & C.H. Thurber (2011)- Subducting slab structure below the eastern Sunda Arc inferred from non-linear seismic tomographic imaging. In: R. Hall et al. (eds.) The SE Asian gateway: history and tectonics of Australia-Asia collision, Geological Society, London, Special Publ. 355, p. 139-155.
(online at: https://earthjay.com/earthquakes/20180819_indonesia/widiyantoro_etal_2011_slab_structure_eastern_sunda_arc.pdf)
(New seismic tomographic images across Sunda Arc from Java to Timor. Confirm previous observations of hole in subducted slab in upper mantle beneath E Java, which may be related to arrival of buoyant plateau near E Java at ~8 Ma. Images also suggest tear in slab below E-most part of Sunda arc, where downgoing slab is deflected in mantle transition zone, possibly related to arc-continent collision around Timor at ~3 Ma)

Widiyantoro, S. & N.T. Puspito (1998)- Tomografi waktu tempuh gelombang S dan struktur 3-D zona penunjaman di bawah Busur Sunda. J. Matematika Sains 3, 2, p. 97-104.
(online at: http://journal.fmipa.itb.ac.id/jms/article/viewFile/48/43)
('S-wave travel time tomography and 3-D structure of the subduction zone beneath the Sunda Arc'. Tomographic imaging using S-wave traveltime show 3-D mantle structure below Sunda arc subduction zone. Lithospheric slab penetrates into lower mantle beneath Sunda arc. Under Sumatra deep slab may be detached from seismogenic slab, under Java slab in upper mantle is necking)

Widiyantoro, S. & R. van der Hilst (1996)- Structure and evolution of subducted lithosphere beneath the Sunda arc, Indonesia. Science 271, p. 1566-1570.
(online at: https://hilst.mit.edu/wp-content/uploads/2017/05/1996_science_271-1566-1570.pdf)
(Tomographic imaging reveals seismic anomalies below Sunda island arc, suggesting lithospheric slab down to at least 1500 km. Sunda slab forms E end of deep anomaly associated with past subduction of Mesozoic Tethys Ocean. Lithospheric slab continuous feature from surface to lower mantle below Java, with local deflection where slab continues into lower mantle. Deep slab seems detached from upper mantle slab beneath Sumatra)

Widiyantoro, S. & R. van der Hilst (1997)- Mantle structure beneath Indonesia inferred from high-resolution tomographic imaging. Geophysical J. International 130, p. 167-182.
(online at: https://hilst.mit.edu/wp-content/uploads/2017/05/1997_gji_130-167-182.pdf)

(Tomographic inversions give images of subducted slabs. Beniof zone steep (60°N) below Java, gently dipping at 60° W below E Banda Arc. Sunda Arc slab below 300 km looks detached in Sumatra, possibly also in Java)

Wiyanto, B., Sulistiyono, T. Junaedi & S. Hadipanjoyo (2009)- The re-analysis of the mature western area of Indonesian Tertiary basins for finding additional oil and gas resources. Lemigas Scientific Contributions 32, 1, p. 45-55.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/833)

Wikarno, R., T. Hardjono & D.S. Graha (1993)- Distribution of radiometric ages in Indonesia. 1:5,000,000. map. Geological Research Development Centre (GRDC), Bandung.

Wilson, P., B.A.C. Ambrosius, R. Noomen, D. Angermann, P. Wilson, M. Becker, E. Reinhart, A. Walpersdorf & C. Vigny (1999)- Observing plate motions in S.E. Asia: Geodetic results of the GEODYSSEA project. Geophysical Research Letters 26, 14, p. 2081-2084.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/1999GL900395/pdf)
(Brief review of geodetic results and precision of 1994-1998 GPS project with 42 observation stations across SE Asia. Sundaland block does move E relative to stable Eurasian plate. Island of Biak moved >1 m horizontally due to two heavy earthquakes in 1996. Etc.)

Wilson, P. & G.W. Michel (1998)- The geodynamics of S and SE Asia (GEODYSSEA) Project. GeoForschungs Zentrum Potsdam, Scientific Technical Report 98/14, p. 1-359.
(Individual papers referenced separately here)

Wilson, P., J. Rais, C. Reigber & The GEODYSSEA project (1998)- An investigation of the geology and geodynamics of South and Southeast Asia. In: P. Wilson & G.W. Michel (eds.) The geodynamics of S and SE Asia (GEODYSSEA) Project, GeoForschungsZentrum, Potsdam, Scientific Technical Report STR 98/14, p. 9-27.
(Introduction to GEODYSSEA volume on results of 3.5-year international GPS motions acquisition project in 1994-1998))

Wilson, P., J. Rais, C. Reigber, E. Reinhart, B.A.C. Ambrosius, X. Le Pichon et al. (1998)- Study provides data on active plate tectonics in Southeast Asia Region. AGU EOS Transactions 79, 45, p. 545-549.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/98EO00398/epdf)
(On GEODYSSEA Geodynamics of SE Asia GPS project)

Wing Easton, N. (1921)- Het ontstaan van den Maleischen archipel in het licht van Wegener's hypothesen. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 38, p. 484-512.
(online at: https://www.delpher.nl/nl/tijdschriften/view?identifier=MMUBA13:001667001:00520)
(The origin of the Malay Archipelago (= Indonesia) in the light of Wegener's hypotheses'. Early paper in support of Wegener's continental drift theory. Major differences in geology between W and E parts of the 'Malay Archipelago' (Indonesia) lend support to Wegener's mechanism of a series of drifing continental plates, with E Indonesian islands derived from Australia. No maps)

Wing Easton, N. (1921)- On some extensions of Wegener's hypothesis and their bearing upon the meaning of the terms geosynclines and isostasy. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 5, p. 113-133.
(General discussion of Wegener's continental drift theory, with few references to W Borneo geology. Mainly of historic interest, reflecting widespread early support for the Wegener continental drift theory in Netherlands Indies)

Wirakusumah, A.D. (2008)- Tectonics and geothermal potential of Indonesia. In: J.A. Katili et al. (eds.) Tectonics and resources of Central and SE Asia (Halbouty volume), Pusat Survei Geol., Bandung, Special Publ. 34, p. 139-150.
(251 geothermal fields identified in Indonesia. 80% can be tied to volcanic processes, in four volcanic arcs)

Wiryosujono, S. & S. Tjokrosapoetro (1978)- Ophiolites in Eastern Indonesia. In: P. Nutalya (ed.) Proc. 3rd Regional Conference Geology and Mineral Resources of SE Asia (GEOSEA III), Bangkok, p. 641-651.
(Most or all mafic-ultramafic assemblages in E Indonesia may be regarded as ophiolites, but complete suites only on Timor and E Sulawesi. W Timor ophiolites limited to Mutis Zone, where low-angle overthrusts of allochthonous units commonly have sheared/ serpentinized ultramafics at base. Overlying ultramafic base are metamorphics and Permian- Triassic limestones associated with volcanics that probably developed on ancient seamounts. Two parallel ophiolite belts in W Papua, where N-dipping subduction zone at N margin of Australian Plate during Late Cretaceous- Eocene changed to S-dipping subduction in M-L Miocene and later)

Witoelar Kartaadiputra, L., Z. Ahmad & A. Reymond (1982)- Deep-sea basins in Indonesia. Proc. 11th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 53-81.

Wood, B.G.M. (1985)- The mechanics of progressive deformation in crustal plates- a working model for Southeast Asia. Bull. Geological Society Malaysia 18, p. 55-99.
(online at: www.gsm.org.my/products/702001-101144-PDF.pdf)
(Model for Tertiary deformation of SE Asian plates, linking Wrench Tectonics and Plate Tectonics. Irian shear system, Sabah shear system, Trans-Borneo shear system, etc. Back-arc basins form along margins of major continental plates where there is large component of strike-slip movement due to oblique plate convergence)

Xie, F., Z. Wang, D. Zhao, R. Gao & X. Chen (2024)- Tilting-axis anisotropic tomography and subduction dynamics of the Java-Banda Arc. Geophysical Research Letters 51, 5, e2023GL107720, p. 1-11.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1029/2023GL107720)
(High-resolution 3-D anisotropic tomographic model beneath Java-Banda region shows significant differences between Java and Banda in pattern of anisotropy in both subductingAustralian slab and surrounding mantle, reflecting two different deformation modes in the two domains. Results support the single-slab subduction model (with 180° curvature) for Banda region.Trench-normal and upright fast-velocity-planes appear in deep upper mantle, which may indicate migrations in mantle wedge. Fast-velocity-planes in shallow mantle exhibit toroidal distribution, reflecting past counter-clockwise rotation of Kalimantan and asthenospheric material extrusion)

Yan, P., N. Zhang, H. Yuan, L. Qi & X. Liu (2023)- Possible south-dipping Mesozoic subduction at Southern Tethys Ocean- constrained from global tectonic reconstructions and seismic tomography. J. of Earth Science (China) 34, 1, p. 260-279. *(proof online at: https://www.researchgate.net/publication/350855995_Possible_South-dipping_Mesozoic_Subduction_at Etc.)*
(S margin of Tethys several episodes of ocean opening (Paleo-Tethys, Neo-Tethys) as terranes rifted away from E Gondwana. These oceans were terminated by N-dipping subduction during accretion to S Eurasia. However, S-dipping subduction situations proposed by many studies, but rarely shown in Tethyan reconstructions. possible Jurassic-Cretaceous S-dipping subduction: (1) along N edges of SW Borneo Block and (2) Incertus-Woyla Arc, supported by fast velocity anomalies under southern Indian Ocean)

Yang, T., M. Gurnis & S. Zahirovic (2016)- Mantle-induced subsidence and compression in SE Asia since the Early Miocene. Geophysical Research Letters 43, 5, p. 1901-1909.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1002/2016GL068050)
(Rift basins developed extensively across Sundaland since Eocene. Starting in E Miocene, basins in S Sundaland experienced poorly understood, widespread synchronous compression (inversion) and marine inundation, despite large drop in global sea level. Models suggest slab stagnates in transition zone beneath SE Asia before Miocene, but penetrated through 660 km mantle discontinuity during E Miocene and formed slab avalanche event, causing large-scale marine inundation, compression and basin inversion across S Sundaland (poor fit between subsidence prediction model and observed subsidence?; also, most or all Sundaland basins timing of early inversion and inundation not synchronous?; JTvG))

Yokoyama, T. & S. Nishimura (1981)- Results of age determination of Neogene rocks in Indonesia. Proc. 4th Regional Conference Geology and Mineral Energy Resources Southeast Asia (GEOSEA IV), Manila 1981, Geological Society Philippines, p. 239-244.

Yong, C.Z., P.H. Denys & C.F. Pearson (2017)- Present-day kinematics of the Sundaland plate. J. Applied Geodesy 11, 3, p. 169-177.
(Mainly on transient effect of coseismic and postseismic deformation on long-ternm GPS motions)

Zhang; X., S.L. Chung, J.T. Tang, A. Maulana, M. Mawaleda, T. Oo, C.Y. Tien & H.Y. Lee (2020)- Tracing Argoland in eastern Tethys and implications for India-Asia convergence. Geological Society of America (GSA) Bull. 133, 7-8, p. 1712-1722.
(online at: http://repository.unhas.ac.id/id/eprint/4940/1/Maulana_Argoland.pdf)
(Argoland continental fragment rifted from NW Australia in Late Jurassic, marking opening of Indian Ocean. East Java-West Sulawesi block currently (erroneously) assumed most likely candidate for missing Argoland. Detrital zircon data from W Sulawesi derived from Triassic basement of C Sulawesi metamorphic belt and SE Borneo (data from Witts, 2011) comparable to Birds Head (New Guinea)?. Age patterns of W Burma and E/W Java (data from Smyth 2007, Clements 2011) similar to NW Australia, suggesting W Burma is mysterious Argoland, not W Java-E Sulawesi. E Java originated from NW Australia and W Sulawesi from Birds Head)

Zhang, Y. & W.D. Mooney (2023)- Regional crustal structure of Indonesia from receiver functions. Tectonophysics 865, 230033, p. 1-12.
(New maps of crustal thickness and bulk Vp/Vs ratio in Indonesia and surrounding area from P-wave receiver functions at 36 seismic stations by USGS. Thickest crust (~38 km) beneath Flores- Timor Islands, S Maluku (Ambon), and neighboring N-most Australia. Thinnest crust (~24 km) underNorth Borneo, also Halmahera. Vp/Vs ratios ~1.79, with high values (>1.85) along Banda-Sunda arc-trench system (also Aceh, Timor, Banda, N Sulawesi, Sabah, Philippines, etc.) attributed to: (1) presence of mafic island arc and oceanic crust and (2) partial melting in this volcanic region, causing larger decrease in S-wave velocities)

Zhao, Q., Y. Yan, A. Carter, P.D. Clift, J. Wu, J.B. Asis, Z. Zhu, S. Gou & Y. Zhou (2025)- Interaction between the Tethyan and Paleo-Pacific tectonic domains in Southeast Asia: late Triassic initiation of an inward-dipping double subduction system. Tectonics 44, 8, e2024TC008762, p. .
(manuscript online at: https://discovery.ucl.ac.uk/id/eprint/10212584/1/1016988_2_merged_1753084571.pdf)
(Zircon U-Pb and Hf data sets from Borneo (Paleo-Pacific domain) and Sumatra (Tethyan domain) suggest isotopically juvenile magmatism was active on both sides of Sundaland, due to inward-dipping double subduction since latest Triassic when Indochina collided with Sibumasu, as evidenced by positive shift in zircon εHf(t) values from both Cenozoic sediments and Mesozoic magmatic rocks in Sumatra and Borneo. Triassic-Cretaceous values in Borneo show broad range, and Sumatra narrower variability, likely reflecting differences in slab dip angles between subducting Meso-Tethys and Paleo-Pacific oceanic lithosphere. After 80 Ma double subduction system was disrupted, marked by cessation of arc magmatism in Borneo while isotopically juvenile magmatism continued on Sumatra. SE Asia developed more juvenile crust due to large-scale upper plate extension driven by inward-dipping double subduction)

Zhao, S., S. McClusky, P.R. Cummins, M.S. Miller & H. Nugroho (2023)- New insights into crustal deformation of the Indonesia-Australia-New Guinea collision zone from a broad-scale kinematic model. J. of Geophysical Research: Solid Earth 128, e2022JB024810, p. 1-20.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/pdfdirect/10.1029/2022JB024810)
(200 GPS observations of crustal motion and 492 earthquake slip vectors allow estimates of motion of plates and microplates in Indonesia-Australia-New Guinea collision zone. With new model for development of Cendrawasih Embayment in north-central New Guinea, by CCW rotation of Bird's Head Block and SW-directed convergence along Lowlands fault (along E side of Cenderawasih Bay))

Zimmermann, S. & R. Hall (2014)- Provenance of Mesozoic sandstones in the Banda Arc, Indonesia. Proc. 38th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA14-G-301, p. 1-13.
(online at: http://searg.rhul.ac.uk/pubs/zimmermann_hall_2014%20Banda%20arc%20sandstones.pdf)
(Triassic and Jurassic sandstones from outer Banda Arc islands Timor, Babar and Tanimbar texturally immature, with volcanic quartz. Heavy minerals mainly from acidic igneous and metamorphic rocks and also ultramafic material. Zircon populations similar to Triassic sandstones of Birds Head, not nearby Australian continent.

Cretaceous sandstones from Sumba, E Timor and Tanimbar with zircons suggesting reworking of Triassic and Jurassic sediments, but also contain Jurassic and Cretaceous zircons. These represent fragments rifted from Australian margin in Late Jurassic and added to SE Asia in Late Cretaceous which record volcanic activity associated with rifting and accretion to active Sundaland margin)

Zimmermann, S. & R. Hall (2016)- Triassic and Jurassic sandstones in the Banda Arc: provenance and correlations with the Australian NW Shelf. Proc. 40th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA16-77-G, p. 1-18.
(online at: http://searg.rhul.ac.uk/pubs/zimmermann_hall_2016%20Banda%20sandstones%20IPA.pdf)
Most Triassic-Jurassic sandstones of Banda Arc between Timor and Tanimbar quartz-rich and of recycled origin and/or continental affinity, but commonly texturally immature and with volcanic quartz and lithics. Heavy mineral assemblages dominated by rounded stable minerals, but also angular grains and origin from acid igneous and metamorphic sources. Detrital zircon ages Archean-Mesozoic, suggesting source mainly from Birds Head/ Sula Spur, W and C Australia in Triassic. In Jurassic new local sources close to Timor and recycled NW Shelf material. Tanimbar Islands and Babar sediment came from both Australian continent and Birds Head. Sandstones in Timor dominant acid igneous signature in E and metamorphic sources in W (NB: no mention of key papers on similar topic by Ely 2009, 2014, Zobell 2007, Kwon et al. 2014, JTvG))

Zimmermann, S. & R. Hall (2016)- Provenance of Triassic and Jurassic sandstones in the Banda Arc: petrography, heavy minerals and zircon geochronology. Gondwana Research 37, p. 1-19.
(manuscript online at: https://pure.royalholloway.ac.uk/ws/portalfiles/portal/26526243/Zimmermann_Hall_2016_Provenance_Banda_Ssts_Trias_Jur.pdf)
(Same as Zimmermann and Hall 2016, above)

Zimmermann, S. & R. Hall (2019)- Provenance of Cretaceous sandstones in the Banda Arc and their tectonic significance. Gondwana Research 67, p. 1-20.
(Cretaceous sandstones from Sumba, Timor and Tanimbar deposited in SE Sundaland. Syn-sedimentary Cretaceous (68- 140 Ma) sources probably Schwaner Mts in SW Borneo and Sumba. Material from older recycled sediments from Bird's Head, W and C Australia, and local sources close to Timor)

Zimmermann, S., C. Mark, D. Chew & P.J. Voice (2018)- Maximising data and precision from detrital zircon U-Pb analysis by LA-ICPMS: The use of core-rim ages and the single-analysis concordia age. Sedimentary Geology 375, p. 5-13.
(online at: https://www.academia.edu/90061033/Maximising_data_and_precision_from_detrital_zircon_U_Pb_analysis_by_LA_ICPMS_The_use_of_core_rim_ages_and_the_single_analysis_concordia_age)
(Cores and rims of detrital zircon crystals may yield different U-Pb ages. Discussion with examples of Triassic sediment samples from Banda Arc (Timor, Babar, Tanimbar), with age peaks at ~1847 Ma (N-C Australian provenance) ~1540 Ma and 1140 Ma (W Australian origin), peaks between 600 and 402 Ma, and major peaks 312, 285, 269 and 240 Ma (= Permian- early M Triassc prolonged magmatic activity in Birds Head of New Guinea). Rim age peaks often similar, but older ages of crystal cores typically not recorded in rim overgrowths)

Zollinger, H. (1857)- Over het begip en den omvang eener “Flora Malesiana”. Natuurkundig Tijdschrift voor Nederlandsch-Indie 13, p. 293-322.
(‘About the concept and distribution of a ‘Flora Malesiana’. Overview with map of floral boundaries in the’Malesian (Indonesian) floristic region’, as proposed by Swiss naturalist Heinrich Zollinger across Indonesia. (one of the floral boundaries identified within the Malayan floral realm closely follows what later became known as the ‘Wallace Line’. See also essay on “Wallace versus Zollinger” by botanist H.J. Lam in 1937; JTvG))

Zollinger, H. (1857)- Uber den Begriff und Umfang einer “Flora Malesiana”. Vierteljahrsschrift Naturforschenden Gesellschaft Zurich 2, p. 317-349. + map
(online at: https://ngzh.ch/wp-content/uploads/2024/04/Malesiana.pdf))
(‘About the concept and distribution of a ‘Flora Malesiana’. German-language version of Dutch-language paper above)

Zollinger, H. (1858)- Der Indische Archipel. Petermann's Geographische Mitteilungen 1, p. 56-63.
('The Indies Archipelago'. Early description of geography and geology of the Indonesian archipelago (mainly on volcanoes))

Zuhair, M., T. Gollapalli, F.A. Capitanio, P.G. Betts, J.C. Graciosa (2022)- The role of slab steps on tectonic loading along subduction zones: inferences on the seismotectonics of the Sunda convergent margin. Tectonics 41, 9, e2022TC007242, p. 1-24.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1029/2022TC007242)
(Comparison of seismotectonics and available slab pull forces along Sunda convergent margin shows enigmatic inverse relationship: upper plate thickening and seismicity magnitude highest along Sumatra-Andaman segment, where slab is < ~300 km; but are negligible along Java segment, where slab reaches to ~660 km

Zwierzycki, J. (1925)- Overzicht van de Trias-formatie in Nederlandsch Indie. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie, 8 (Gedenkboek Verbeek, memorial volume), p. 633-648.
(online at: https://books.google.com/books?id=Yy0RAAAAIAAJ&pg)
('Overview of the Triassic formations in the Netherlands Indies'. Complete Triassic series found only on Timor, where it is conformable on Permian marine beds. U Triassic present on Savu/ Roti, Timor, Leti/Babar, Ceram, Ambon, Misool, Buru, Buton, Borneo, Lingga, Sumatra and Malay Peninsula. Everywhere in Indonesia U Triassic developed in 'Alpine (Tethyan) facies'. Very similar and partly bituminous and intensively folded Late Triassic (Carnian-Norian) deep marine limestones in Buton, Buru and Seram (and possibly also Timor). With one overview map)

Zwierzycki, J. (1928)- The stratigraphy of the coal and oil fields in the Netherlands East Indies. Proc. 3rd Pan-Pacific Science Congress, Tokyo, November 1926, National Research Council of Japan, 2, p. 1572-1593.
(online at: https://books.google.com/books?id=Y4wKAAAAIAAJ)
(Exploitable coal and oil in Netherlands Indies only in Tertiary deposits. Most of the workable coal is in Paleogene deposits, all exploitable oil is in Neogene beds. Best conditions for these accumulations existed along margins of the geosyncline that surrounded the 'Sunda Peninsula'. Etc/)

Zwierzycki, J. (1930)- Toelichting bij de geotektonische kaart van Nederlandsch-Indie. Jaarboek Mijnwezen Nederlandsch-Indie 58 (1929), Verhandelingen, p. 347-371.
('Explanatory notes of the geotectonic map of the Netherlands East Indies'. With map at scale 1:5,000,000. Assumes all metamorphic rocks are Paleozoic or olderage and maps several 'orogenic periods':mid-Cretaceous (Sumatra), base Eocene?, Miocene (East), Late Pliocene (West part of archipelago))

Zwierzycki, J. (1930)- "Tektonische hoofdlijnen", een nieuwe goedkoope geologische methode tot oplossing van petrographische en tektonische vraagstukken en opsporing van aardolie en tin. De Mijningenieur 11, p. 185-

Zwierzycki, J. (1957)- Pojecie geosynkliny w swietle nowszych badan Indonezji. Kosmos, B, 3, p. 1-9.
('The concept of geosynclines in the light of more recent research from Indonesia'. In Polish)

II. SUMATRA- SUNDA SHELF

II.1. Sumatra - General, Onshore geology, Volcanism, Minerals

Abdurrachman, M., M.E. Suparka, C.I. Abdullah, S. Piadhy & M. Latuconsina (2008)- Pre-Tertiary basement petrography: Suban Barat-1, South Sumatra. In: Sumatra stratigraphy workshop, Duri (Riau) 2005, Indonesian Association Geologists (IAGI), p. 115-125.
(Suban 1910 shallow gas discovery, 180km NW of Palembang. W Suban 1 well drilled 479m of hydrothermally altered granite- from 2771-3006m, and mainly granodiorite with some spilitic basalt and marble between 3010-3250m)

Abe, E., S. Nishimura, T. Yokoyama, O. Tamada, S. Wirasantosa & A. Dharma (1980)- Gravity measurements in Sumatra, Indonesia. In: S. Nishimura (Ed.) Physical geology of Indonesia island arcs, Kyoto University, Japan, p. 165-188.

Abidin, H.Z. (2008)- Pb-Zn-Ag deposits at Tanjung Balit, Limapuluh Kota Regency, West Sumatera. Jurnal Sumber Daya Geologi (JSDG) 18, 4, p. 253-263.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/247/227)
(Epithermal Pb-Zn-Ag mineralization in district Limapuluh Kota, NNE of Padang, in metasediments of Tapanuli Gp/ Kuantan Fm (Permian). Veins up to 5m thick. Main ores sphalerite, chalcopyrite, pyrite, silver)

Abidin, H.Z. (2010)- Characteristics of the Arai Granite associated with the iron ore and Zn-Cu-Pb deposits in Musi Rawas Regency, South Sumatera. Jurnal Sumber Daya Geologi (JSDG) 20, 3, p. 133-146.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/167/162)
(Cretaceous Arai Granite near Jangkat Village (SW of Jambi, S Sumatra), part of 'Rawas cluster' of mineralization. Intruded into Peneta and Rawas Fms. (or Kuantan/ Kluet Fm?). Tectonically part of 'Cathaysian' W Sumatra Block. I-type granite associated with skarn-like Zn-Cu-Pb limestone replacement. Chemistry suggest Volcanic Arc or syn-collisional tectonic environment)

Abidin, H.Z. & B.H. Harahap (2007)- Indikasi mineralisasi epitermal emas bersulfi da rendah, di Wilayah Kecamatan Bonjol, Kabupaten Pasaman, Sumatera Barat. Jurnal Geologi Indonesia 2, 1, p. 55-67.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/28)
(Bonjol gold prospect, Pasaman District, N of Padang, W Sumatra, several ore bodies in E Miocene age (9.3-11.9 Ma; should be Late Miocene?;JTvG) altered rhyolitic volcanics of Gunung Amas Fm. Gold deposit probably of low sulphidation epithermal type)

Abidin, H.Z. & B.H. Harahap (2007)- Prospek emas Bonjol bersulfida rendah di Wilayah Kecamatan Bonjol, Kabupaten Pasaman, Sumatera Barat. J. Teknologi Mineral dan Batubara 15, 42, p. 1-9.
(Bonjol gold prospect paper, similar to above)

Abidin, H.Z. & T. Suwarti (2005)- Petrology and gochemistry of the Neogene granite in the Kerinci Regency Region, Jambi. Majalah Geologi Indonesia (IAGI) 20, 3, p. 155-164.
(Reprinted in 'Metalogeni Sundaland I (2014), p. 15-24. Mio-Pliocene Sungau Penuh granite pluton in Barisan Range, age 3.6- 13.9 Ma. S-type and transitional/ I-type granite, derived from island arc. Mineralization potential)

Abidin, H.Z. & Suyono (2004)- Indication of mineral deposit in the Kerinci Regency Region, Jambi. Majalah Geologi Indonesia (IAGI) 19, 3, p. 173-185.
(Reprinted in 'Metalogeni Sundaland I (2014), p. 3-13. Sulfide alteration in Hulu Simpang Fm volcanics ('Old Andesite') in Barisan Range W of Sungeipenuh, S Sumatra. Tied to granite with 3.6- 13.9 Ma fission track ages)

Abidin, H.Z. &.H. Utoyo (2014)- Mineralization of the selected base metal deposits in the Barisan Range, Sumatera, Indonesia (case study at Lokop, Dairi, Latong, Tanjung Balit and Tuboh). Indonesian Mining J. 17, 3, p. 122-133.
(online at: http://jurnal.tekmira.esdm.go.id/index.php/imj/article/view/316/199)

(Three types of base metal occurrences along Barisan Range: (1) skarn (e.g. Lokop, Latong, Tuboh) (2) sedimentary exhalative (sedex) (Dairi; in Kluet Fm) and (3) hydrothermal (Tanjung Balit; in Silungkang Fm)

Acocella, V., O. Bellier, L. Sandri, M. Sebrier & S. Pramumijoyo (2018)- Weak tectono-magmatic relationships along an obliquely convergent plate boundary, Sumatra, Indonesia. Frontiers in Earth Science 6, 3, p. 1-20.
(online at: https://www.frontiersin.org/articles/10.3389/feart.2018.00003/full)
(Sumatra volcanic arc 48 active volcanoes; 46% within 10 km from dextral Great Sumatra Fault, which carries most horizontal displacement on overriding plate. Half of these show possible structural relation to GSF. Data suggest limited tectonic control of GSF on arc volcanism)

Adam, J.W.H. (1915)- Korte mededeeelingen over Indische delfstoffen, Loeboek Soelassih, Mangani. Jaarboek Mijnwezen Nederlandsch Oost-Indie 43 (1914), Verhandelingen 2, p. 1-15.
('Brief communications on Indies mineral deposits: Loeboek Soelassih, Mangani'.Young silver-gold deposits in W Sumatra. Lubuk Sulasih lead (galena) mineralization lenses in (Oligo-Miocene?) breccia-like andesite tuff with large limestone blocks (see also Crow et al. 1993- Solok quadrangle). Mangani black manganese-bearing silver-gold ores in up to 10m wide, N-S trending, steeply dipping breccia (1913-1914 fieldwork, funded by Mijnbouw Maatschappij "Aequator", which acquired mining concession Equator in 1911))

Adhari, M.R. & R. Hidayat (2023)- A geological overview of the limestone members of the Woyla Group of Sumatra, Indonesia. J. Geoscience Engineering Environment Technology (JGEET) 8, 3, p. 189-195.
(online at: https://journal.uir.ac.id/index.php/JGEET/article/view/12190/5600)
(Jurassic- Cretaceous limestone units of Woyla group identified in many places in N Sumatra, Indonesia. Generally highly deformed. At least six microfacies. Previously unreported siliciclastic materials within limestone members?(not figured) (mainly literature review Bennett et al. 1981, etc.); no new (bio-)stratigraphic data; 'Orbitolina' illustrated on Fig. 8 is not Orbitolina- JTvG))

Adinegoro, U. & P. Hartoyo (1974)- Paleogeography of North East Sumatra. Proc. 3rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 45-61.
(Broad Oligo-Miocene paleogeographic maps of N Sumatra onshore, E of Barisan Range, between Tamiang River to N and Toba-Asahan River to S. Eo-Oligocene sediments in NE Sumatra basin 5000-7000m thick. With discussion of N Sumatra geology and stratigraphy

Adiwidjaja, P. & G.L. de Coster (1973)- Pre-Tertiary paleotopography and related sedimentation in South Sumatra. Proc. 2nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 89-103.

Advokaat, E., M.L.M. Bongers, A. Rudyawan, M.K. Boudagher-Fadel, C.G. Langereis & D. van Hinsbergen (2018)- Early Cretaceous origin of the Woyla Arc (Sumatra, Indonesia) on the Australian plate. Earth Planetary Science Letters 498, p. 348-361.
(online at: www.sciencedirect.com/science/article/pii/S0012821X18300463)
(Original version in EPSL 487, p. 151-164, but retracted) (Intra-oceanic Woyla Arc formed above W-dipping subduction zone in E Cretaceous (~105-122 Ma?) and accreted to W Sundaland in mid-Cretaceous. Oceanic plate that existed between Woyla Arc and Sundaland now lost to subduction. Paleomagnetic results indicate Woyla Arc formed at equatorial latitudes, presumably on edge of Australian plate. Accretion of Woyla Arc to W Sundaland margin diachronous. Continuing convergence of Australia- Eurasia accommodated by subduction polarity reversal behind Woyla Arc, possibly recorded by Cretaceous ophiolites in Indo-Burman Ranges and Andaman-Nicobar Islands. Biostrat from limestones in Woyla Gp: (1) N Sumatra Lamno and Raba Lst Late Jurassic- E Cretaceous, (2) C Sumatra massive Indarung/Lubuk Peraku Limestone Aptian- E Albian)

Advokaat, E., M. Bongers, D. van Hinsbergen, A. Rudyawan & E. Marshal (2017)- Paleomagnetic tests for tectonic reconstructions of the Late Jurassic- Early Cretaceous Woyla Group, Sumatra. EGU General Assembly 2017, Geophysical Research Abstracts 19, EGU2017-4720, 1p. *(Abstract only)*
(Woyla Arc exposed in W Sumatra mainly basaltic- andesitic volcanics, dykes, volcaniclastics and limestones with volcanic debris, interpreted as fringing reefs. Interpreted as remnants of E Cretaceous intra-oceanic arc. New preliminary paleomagnetic data from U Jurassic- Lower Cretaceous limestones suggest Woyla Arc formed

near equatorial latitudes, precluding origin from Gondwana, and more likely intra-oceanic arc formed above SW dipping subduction zone in E Cretaceous, thrusted over W Sumatra margin in M Cretaceous)

Aernout, W.A.J. (1927)- Enkele nieuwere gegevens over de ertsafzettingen van Salida. De Mijningenieur 8, p. 73-76.
('Some newer data on the ore deposits of Salida'. W Sumatra gold-silver mine)

Aernout, W.A.J. (1927)- De ertsmijn Lebong Donok. De Mijningenieur 8, p. 162-177.
('The ore mine Lebong Donok'. Gold-silver mine in Barisan Mts of SW Sumatra)

Afifansyah, M. & Y.Z. Rochmana (2023)- Studi petrogenesis batuan tuff menggunakan analisis petrografi pada Formasi Kasai, daerah Tungku Jaya, Kabupaten Ogan Komering Ulu, Provinsi Sumatera Selatan. Jurnal Geomine 11, 2, p. 111-120.
(online at: https://jurnal.fti.umi.ac.id/index.php/JG/article/view/276/99)
('Petrogenesis study of tuff rocks using petrographic analysis in the Kasai Formation, Tungku Jaya area, Ogan Komering Ulu Regency, South Sumatra Province'. Petrography of Plio-Pleistocene pumice-rich Kasai Tuffs in S Sumatra)

Afrilita, A. Idrus & I.W. Warmada (2021)- Geology and hydrothermal alteration of Tambulun Cu-Au skarn prospect in Sulit Air area, Solok district, West Sumatra province, Indonesia. Proc. 3rd Int. Conf. Global Issue for Infrastructure, Environment, and Socio-Economic Development (GIESED 2020, Makassar), IOP Conference Series: Earth and Environmental Science 921, 012033, p. 1-8.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/921/1/012033/pdf)
(Tambulun copper-gold skarn prospect in Sulit Air area, Solok district, NE of Padang, W Sumatra, known for long time. Skarn alteration and mineralization mostly along contact between Triassic Tuhur Fm crystalline limestone and Sulit Air Jurassic granodiorite. Ore mineralization structurally controlled by WNW-ESE dextral and NE-SW, N-S sinistral slip faults. Copper bearing sulfides bornite and chalcopyrite, with supergene products chalcocite, covellite, chrysocolla, azurite and malachite)

Afrilita, D.R. Yoni, S. Pambudi, S.U. Pratomo & I.P. Haty (2025)- Mineral parageness of copper skarn deposits in Tambulun Prospect, Sulit Air, West Sumatera. J. Ilmiah Dinamika Rekayasa 21, 2, p. 153-156.
(online at: https://jurnaldinarek.id/index.php/jidr/article/view/32/25)
(Tambulun Prospect, Sulit Air, Solok Regency, W Sumatra, is Cu skarn mineralization related to intrusion of Jurassic Sulit Air granodiorite into Triassic Tuhur Fm limestone. Four alteration zones. Cu mineralization dominated by chalcopyrite, bornite, covellite,and chalcocite)

Akmaluddin, E.M. Nurhidayah, M.V. Agustin, F. Wirakusuma, M.I. Novian & D.H. Barianto (2024)- Microfacies and paleoenvironmental study of the Peneta Limestone Formation from Tebing Tinggi, Kerinci Area. Jurnal Kelautan Tropis 27, 2, p. 261-268.
(online at: https://ejournal2.undip.ac.id/index.php/jkt/article/download/22263/10944)
(Peneta Fm in S Sumatra composed of shale, sandstone, and limestone of Jurassic-Cretaceous age (from ammonites and forams identified in 1925 and no new work since?). Study of limestone in Goa Kelelawar area show rock is dolomitic limestone with hints of larger foraminifera (Choffatella cf. cyclamminoides?). Part of Woyla terrane)

Aldiss, D.T. & S.A. Ghazali (1984)- The regional geology and evolution of the Toba volcanotectonic depression, Indonesia. Quarterly J. Geological Society, London, 141, 3, p. 487-500.
(online at: https://www.academia.edu/98212448/The_regional_geology_and_evolution_of_the_Toba_volcano_tectonic_depression_Indonesia)
(Sumatra Late Quaternary Toba volcano-tectonic depression largest resurgent cauldron and one of largest ignimbrite fields (Toba Tuffs: 3000 km^3 of acid tuffs over 20,000 km^2). Greater part of Toba Tuffs single ignimbrite cooling unit, formed ~100,000 years ago. Toba depression formed after lithification of Toba Tuffs by collapse along regional faults. Resurgent uplift raised lake sediments in depression by 500 m. Eruption of Toba Tuffs and

post-ignimbrite volcanism on line of W marginal fault of depression. This marginal fault once extended N offshore into zone of Miocene back-arc rifting)

Aldiss, D.T., R. Whandoyo, S.A. Ghazali & Kusyono (1983)- The geology of the Sidikalang and part of the Sinabang quadrangles (0618), Sumatra, 1:250,000. Geological Research Development Centre (GRDC), Bandung, p. 1-41.
(North Sumatra map sheet with Lake Toba caldera. W of Lake Toba common Permian Tapanuli Gp (Kluet Fm metasediments, Alat Fm limestone intruded by large Sibolga Complex granites, E of Lake E Permian Bohorok Fm. Widespread cover of Toba Tuffs)

Alfani, B.I., I. Anindita,M.A.B. Aji & O.B.Nugroho (2024)- Sequence stratigraphy of the Miocene Pendopo Formation: implication to low quality reservoir potential in South Sumatra Basin, Proc. 48th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA24-SG-62, p. 1-17.
(Earliest Miocene Pendopo Fm shale in deltaic-marine facies long recognized as seal formation over Talang Akar Fm reservoirs in North Palembang sub-basin of South Sumatra Basin, but low quality reservoir sand may be present. With Geminilithela jafari, a calcareous nannofossil signifying NN2 zone)

Al Furqan, R. (2014)- The geology of Pinang-Pinang Au-Cu +/- Mo skarn, Aceh, Indonesia. Proc. Sundaland Resources MGEI Annual Convention, Palembang 2014, p. 291-299. *(online at: https://www.researchgate.net/profile/Reza-Al-Furqan/publication/325405822_The_Geology_of_Pinang- Etc.)*
(Skarn gold-copper-molybdenum deposits in Pinang-Pinang District at southern W coast of Aceh (Woyla Terrane). Associated with Late Cretaceous deformation and ~51 Ma granites?)

Al Hakim, M.M., A. Idrus & W. Suryanto (2023)- Low sulfidation epithermal gold mineralization at Tambang Sawah, Lebong, Bengkulu Province, Indonesia. Proc. 4th Geoscience and Environmental Management Symposium, Gadjah Mada University (ICST UGM), Yogyakarta 2023, E3S Web of Conferences 468, 02003, p. 1-5.
(online at: https://www.e3s-conferences.org/articles/e3sconf/pdf/2023/105/e3sconf_icstugm2023_02003.pdf)
(Tambang Sawah area in Barisan Mts and Sumatran fault zone, with Sunda- Banda magmatic arc rocks. Low sulfidation epithermal gold mineralization at Tambang Sawah associated with quartz diorite, hosted by granite and andesitic breccia, and controlled by Ketahun fault zone. Characteristic sulfide minerals in Sawah Mine area pyrite, chalcopyrite, covelite, sphalerite and galena. (Remarkably, no mention of Netherlands Indies government Tambang Sawah silver-gold mine, which operated in this area in 1920s- early 1930s; JTvG))

Al Hakim, M.M., A. Idrus, W. Suryanto, N.A. Raharjanti, P.D. Ananke, Ernowo & B. Pardiarto (2024)- Ore characteristics and distribution based on geological and geophysical features of the Tambang Sawah low sulfidation epithermal gold prospect in Lebong District, Sumatra Island, Indonesia. Iraqi Geological J. 57, 2B, p. 219-239.
(online at: https://igj-iraq.org/igj/index.php/igj/article/view/1723/2041)
(One of epithermal gold deposits prospects "discovered" is Tambang Sawah at North Lebong, Lebong district, central Barisan zone. Located in 'Neogene gold axis' of Sumatra (remarkably, no mention of a century of gold-silver mining in Tambang Sawah area, including by Netherlands Indies government since 1920s; JTvG)

Alif, S.M., E.I. Fattah & M. Kholil (2020)- Geodetic slip rate and locking depth of east Semangko Fault derived from GPS measurement. Geodesy and Geodynamics 11, 3, p. 222-228.
(online at: https://www.sciencedirect.com/science/article/pii/S1674984720300331)
(65 km Semangko Fault is part of southern segments of Sumatran Fault Zone, corresponding to transition from strike-slip regime of SFZ to normal faulting tectonics of Sunda Strait. East Semangko Fault geodetic slip rate, of 12.5 ± 2 mm/yr was lower than West SF, which is 16.5 ± 2 mm/yr)

Alloway, B.V., A. Pribadi, J.A. Westgate, M. Bird, L.K. Fifield, A. Hogg & I. Smith (2004)- Correspondence between glass-FT and 14C ages of silicic pyroclastic flow deposits sourced from Maninjau caldera, west-central Sumatra. Earth Planetary Science Letters 227, p. 121-133.

(Concordant ages of 52±3 ka derived from glass-FT and 14C techniques for latest silicic eruptive activity at Maninjau caldera, W-C Sumatra)

Amin, T.C., Kusnama, E. Rustandi & S. Gafoer (1993)- Geological map of the Manna and Enggano Sheets (0910, 0911), Sumatra, 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(Geologic map of part of W coastal area of S Sumatra around Manna- Bintunan, and offshore Enggano Island (folded Miocene clastics). Manna area oldest rock Late Oligocene- E Miocene Hulusimpang andesitic volcanics, interfingering with latest Oligocene- M Miocene marine Seblat Fm clastics. NW-SE trending belt of rel. small and closely spaced Middle Miocene granites. Incl. fission track age of granite near Tanjungsakti of 9.5 ± 0.6 Ma)

Amin, T.C., Sidarto, S. Santosa & W. Gunawan (1994)- Geology of the Kotaagung Quadrangle, Sumatra. Geological Research Development Centre (GRDC), Bandung.
(Map sheet of SW corner of Sumatra, around Semangko Bay. In NE corner Late Paleozoic Gunungkasih meta-sediment complex, overlain by M Cretaceous Menanga Fm clastics with some limestone, chert and basalt (equivalent of Lingsing Fm of Gumai Mts?). Intruded by Late Cretaceous Padean and Curug granite intrusions (K-Ar ages 79-85 Ma; McCourt and Cobbing 1993) (part of Lampung High?))

Amiruddin (2011)- Tectonic rifting of Upper Paleozoic- Mesozoic intra-cratonic basins in the southeastern Gondwanaland and its economic aspects; with reference to the geology of North Sumatra and West Australia. Jurnal Sumber Daya Geologi (JSDG) 21, 5, p. 249-255.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/151/147)
(Lower Permian fluvio-marine glacial sediments of Bohorok Fm in Bohorok- Mentulu Basin of N Sumatra probably originally located in SE part of Gondwanaland. Occurrence of ultrapotassic Late Permian?- Triassic A-type Sibolga granite (radiometric ages 257, 217 Ma) may suggest rifting episode. Paleomag data from Nishimura & Suparka (1997) suggest paleolatitudes of ~47S?, possibly closest to NW Australian margin in Permian- Triassic)

Ananke, P.D., A. Idrus & A.D. Titisari (2023)- Geology and Fe-skarn mineralization in Lolo Prospect, Solok West Sumatra, Indonesia. Iraqi Geological J. 56, 2C, p. 1-18
(online at: https://igj-iraq.org/igj/index.php/igj/article/view/1539/1573)
(Mineralogy of iron skarn mineralization of Fe-skarn in Ulu Lolo prospect, Solok Regency, W Sumatra. Hosted by Siguntur Fm limestone (Mesozoic age?), intruded by granodiorite. Mineralization controlled by NW-SE strike-slip fault)

Andianto, R. Damayanti, L.M. Dewi, A. Ismanto & H. Oktariani (2021)- Fossil wood diversity record from Merangin region, Jambi, Indonesia. Proc. 6th Int. Conf. Indonesia Forestry Researchers, Bogor 2021, IOP Conference Series: Earth and Environmental Science 914, 012067, p. 1-10.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/914/1/012067)
(In Merangin Regency of Jambi, Sumatra, fossil woods of different geological ages: Permian Mengkareng and Palepat Fm volcanoclastics, Late Miocene Air Benakat Fm, Late Pliocene -E Pleistocene Kasai Fm and Holocene. Most fossil woods are of Dipterocarpaceae family (Dryobalanoxylon, etc.))

Andi Mangga, S. (2000)- Amalgamasi mintakat pegungan Tigapuluh dengen mintakat Kuantan- Pegunungan Duabelas, Sumatra Bagian Selatan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 10, 105, p. 12-18.
('Amalgamation between the Tigapuluh Mts zone with the Kuantan- Duabelas Mts zone, S Sumatra'. S Sumatra four amalgamated terrranes, separated by sutures: (1) Tigapuluh Mts, (2), Kuantan- Duabelas Mts, (3) Gumai-Garba and (4) Gunungkasih- Tanjungkarang. Kuantan- Duabelas Mts separated from Eurasia continent in pre-Triassic (Permian), drifted from N to S and collided with Gondwana-derived Tigapuluh Mts Terrane in Triassic, forming Proto-Sundaland. Paleomag position for N part Tigapuluh Mts = 41°S)

Andi Mangga, S. (2001)- Karakteristik dan genesa mintakat Gunungkasih- Tanjungkarang dan mintakat Gumai-Garba di daerah Lampung, Sumatera. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 11, 115, p. 2-8.
('Characteristics and genesis of the Gunungkasih- Tandjungkarang zone and Gumai-Garba zone in Lampung area, Sumatra'. Two terranes in S Sumatra of different origin: Tanjungkarang-Gunungkasih of Lampung High

Paleozoic metamorphics (schist, amphibolite, quartzite, gneiss, etc.), probably tectonized in E Jurassic time and intruded by Cretaceous I-type granites. Gumai-Garba terrane collided with Sundaland in Late Jurassic-Cretaceous)

Andi Mangga, S., Amiruddin, T. Suwarti, S. Gafoer & Sidarto (1993)- Geological map of the Tanjungkarang Quadrangle (1110), Sumatra, 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(SE Sumatra map sheet. With outcrops of old rocks of Lampung High at N end of Lampung Bay, SE corner of Sumatra. With Paleozoic? Gunung Kasih complex metamorphics (schist, gneiss, amphibolite schist, quartzite, marble, migmatitie), mid-Cretaceous Menanga Fm sediments with thin limestones with Orbitolina, interbedded with basalts and arc volcanics. Associated amphibolite schist 125-108 Ma. Intruded by large mid-upper Cretaceous Sulan granite (111, 113 Ma) and farther North Seputih granodiorite, others)

Andi Mangga, S., Sukardi & Sidarto (1993)- Geological map of the Tulung Selapan Quadrangle (1112), Sumatra, 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(SE Sumatra map sheet of SE part of S Sumatra Basin, SE of Palembang. Mainly coastal plain swamp. In NW two small outcrops of light-colored ?Jurassic Bukit Batu biotite granite (with quartz-cassiterite veins; Crow and Van Leeuwen 2005; related to 'Main Range' Triassic- E Jurassic tin granites?; Gasparon and Varne 1995))

Andi Mangga, S., K. Sutisna & Suminto (1996)- Karakteristik batuan klastika Formasi Peneta dan kaitannya dengan indikasi minyak dan gas bumi. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 6, 52, p. 1-11.
('Characteristics of the Peneta Fm clastics and its relation to oil and gas indications'. Late Jurassic- Early Cretaceous clastics with limestone intercalations at NW side of Jambi/ S Sumatra basin.Mainly fine-grained in E, coarse in W. Q-F-L diagrams suggest sandstone derived from 'recycled orogen' and quartzose orogens. Vitrinite reflectivity rel. high (Ro typically between 1.2- 1.7%), i.e. in gas window)

Andi Mangga, S., Suminto, Suyoko & K. Sutisna (1996)- Lingkungan tektonik formasi Mengkarang di daerah Dusunbaru, Jambi. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 6, 60, p. 16-20.
('Tectonic setting of the Mengkarang Fm in the Dusunbaru area, Jambi'. Permian Mengkarang Fm sediments near Duabelas Mts with warm water fauna and Cathaysian flora, part of Kuantan- Duabelas Mts Terrane. In Late Carboniferous Bohorok- Tigapuluh Mts Terrane separated from Gondwana and moved N-ward, colliding with Kuantan- Tigapuluh (Duabelas?) Terrane in Triassic (evidenced by NW-SE trending strike slip fault contact). E Permian subduction activity in SW Sumatra produced tholeitic and basalto-andesitic volcanics in island arc setting known as Palepat Fm, changing to sedimentary facies of Mengkarang Fm in backarc basin. Q-F-L diagrams of Mengkarang Fm sandstones collected along Merangin River show dominant quartz %, with 'recycled orogen' and 'craton interior' provenance (contradicts volcanic arc setting?; JTvG))

Andi Mangga, S., S. Santosa & B. Hermanto (1993)- Geological map of the Jambi Quadrangle (1014), Sumatra, 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(Geologic map of NE part of Jambi Basin, E of Jambi town. Many young surface anticlines, with oldest exposed rocks in core M-L Miocene Air Benakat Fm)

Andi Mangga, S.A. & Suyono (2007)- Perkembangan tektonik dan petrogenesis batuan ranitan Kapur hingga Tersier di daerah Lampung. In: Geologi Indonesia: dinamika dan produknya, Geological Research Development Centre (GRDC), Bandung, Special Publ. 33, 1, p. 69-82.
(Cretaceous- Tertiary granitoids exposed in Lampung, especially SE side of Barisan Mts. I and S type granites, volcanic arc granites and syn-collisional granites and volcanic rocks related to subduction)

Andrews, M. (2013)- The exploration, discovery and development of the Way Linggo epithermal gold-silver mine in Southern Sumatra. Proc. Symposium East Asia: Geology, exploration technologies and mines, Bali, Bull. Australian Institute of Geoscientists (AIG), Sydney, 57, p. 3-4. *(Abstract only)*
(Way Linggo gold-silver mine in S Sumatra producing since 2010. At N end of Semangka Graben, a pull-apart basin with Trans Sumatra Fault in W and Semangka Fault in E. Low sulphidation epithermal vein system in porphyritic dacite host)

Andrews, M.J., G.H. Dodds & W.V. Hewitt (1991)- Methods and approach to exploration for hardrock and alluvial gold in Indonesia. Proc. WorldGold 91, Australasian Institute of Mining and Metallurgy (AusIMM), Parkville, p, 259-269.

Anggara, O., I. Meilano, S.M. Alif, S. Susilo & A.B. Setyadji (2026)- Present-day crustal deformation in central Sumatra, Indonesia derived from GNSS observation and tectonic implications. Geodesy and Geodynamics 17, 1, p. 1-10.
(online at: https://www.sciencedirect.com/science/article/pii/S1674984725000503)
(Present-day crustal deformation data derived from GNNS (Global Navigation Satellite System) from 24 stations around Central Sumatra during 2018-2021. C Sumatra estimated slip rate 16.5 ± 4 mm/year, with locking depth of 15 ± 3 km)

Anonymous (1918)- Mijnbouwkundig-geologisch onderzoek in Bengkoelen en Palembang, I. Rawas verslag. Verslagen Mededeelingen Indische Delfstoffen en hare toepassingen, Dienst Mijnwezen Nederlandsch Oost-Indie, Bandung, 3, p. 1-62.
(online at: https://resolver.kb.nl/resolve?urn=MMKB24:078916000:pdf)
('Mining- geological investigations in Bengkulu and Palembang, Rawas and Palembang'. Surveys of iron, gold, silver occurrences in Barisan Mountains of S Sumatra in 1905-1915: Bt. Rajah, Soengei Toeboh, etc., from work by Moerman, Tobler, etc. Common remnants of native alluvial gold diggings in Rawas drainage area)

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('Mining- geological investigations in Palembang and Bengkulu, II. Bengkulu report')

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(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB24:078905000:00001)
('Results of geological-mining reconnaissance in Korinci (Jambi Residency)'. Brief review of geology (mainly summary of Tobler 1910: folded Permian sediments unconformably overlain by Tertiary sediments and Quaternary volcanic deposits) . Gold-silver occurrences in Barisan Mts of SW Sumatra. With 1:200,000 scale geologic map of Jambi part of Barisan Mts, Rawas 'Slate Mountains', Lake Korinci area, etc.)

Apendi, I.A. (2019)- Lithospheric-scale thermal characterization of Central Sumatra Basin, Indonesia. Master Thesis, Department of Earth Sciences, Utrecht University, p. 1-44.
(online at: https://studenttheses.uu.nl/bitstream/handle/20.500.12932/33637/Ikbal_Apendi_6204236_-_Master_Thesis_Report.pdf?sequence=1)

Ariani, R.P. & H.W. Utama (2022)- Petrogenesis and geological structure of Tantan Granitoid in Sungai Manau District, Merangin Regency, Jambi Province. Eksplorium 43, 2, p. 79-88.
(online at: https://ejournal.brin.go.id/eksplorium/article/view/8140/6246)
(Late Triassic–E Jurassic Tantan granitoids quite extensive, including in Sungai Manau Sub-district, Merangin Regency, Jambi Province. Two types: granite and quartz monzodiorite (I-type metaluminous). Formed in Continental Arc setting, possibly associated with Meso-Tethys subduction against NW edge of West Sumatra Terrane. NW-SE horizontal faults and NE-SW regional faults, etc.)

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(online at: http://iopscience.iop.org/article/10.1088/1755-1315/118/1/012002/pdf)
(On two lake-forming pull-apart basins between overstepping segments of Great Sumatra Fault zone in S Sumatra; Ranau and Suoh)

Aribowo, S., Munasri, M.M. Mukti, H. Permana & N. Supriatna (2016)- Geologi struktur pada daerah subduksi purba di Komplek Gunungkasih, Provinsi Lampung. In: R. Delinom et al. (eds.) Pros. Geotek Expo 2016, Pusat Penelitian Geoteknologi (LIPI), Bandung, p. 363-371.
(online at: http://pustaka.geotek.lipi.go.id/index.php/2017/10/05/prosiding-2016/)
('Structural geology of ancient subduction zone in the Gunungkasih Complex, Lampung Province')

Arifin, A., M.F. Rosana, E.T. Yuningsih & B. Yoseph (2019)- Geologi dan karakteristik bijih Pit Ramba Joring Martabe deposit, North Sumatra. Bull. Sumber Daya Geologi 14, 2, p. 79-95.
(online at: http://buletinsdg.geologi.esdm.go.id/index.php/bsdg/article/view/BSDG_VOL_14_NO_2_2019_1)
('Geology and ore chacteristics of the Ramba Joring pit, Martabe deposit, North Sumatra'. Ramba Joring deposit in Aek Pining Village, S Tapanuli Regency, in CoW area of PT Agincourt Resources. Two lithologic units: lower hornblende andesite unit, and younger breccia unit. Both altered by four types of alterations)

Ariyono, D., A. Jervis, B. Davis & D. Rudd (2021)- New perspective on the source rock facies of offshore Aceh's Andaman Trough, North Sumatra Indonesia, based on the latest onshore oil sampling and analysis. Proc. 45th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA21-G-212, p. 1-18.
(Geochemical analyses of oil samples from14 old onshore wells in Bireun (6) and Aceh Timur (8) districts (not clear which wells or fields). Results suggest oils sourced from late mature, oil-prone lacustrine source facies. Authors believe this questions conventional wisdom that adjacent offshore Andaman Basin is gas-prone)

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(Map sheet at Sumatra W coast near Sibolga. Rel. widespread Late Paleozoic)

Aspden, J.A., B. Stephenson & N.R. Cameron (1982)- Tectonic map of northern Sumatra (1:500,000). Directorate of Overseas Surveys, Inst. Geological Sciences, Keyworth, p. *(Unpublished)*

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(Pakanbaru to Padang fieldtrip guidebook, via Ombilin Basin)

Bachri, S., S. Andi Mangga, H. Panggabean, D.A. Agustiyanto & B. Hermanto (2004)- Genesis kompleks Sekampung, daerah Tanjungkarang, Lampung dengan penekanan data struktur lipatan dan nilai kemagnetan. Jurnal Sumber Daya Geologi (JSDG), 14, 2 (146), p. 93-101.
('Genesis of the Sekampung complex, Tanjung Karang area, Lampung, with emphasis on fold structures and the value of magnetism'. Pretertiary Way Sekampung complex of Lampung, S-most Sumatra, with isoclinally foliated metamorphic rocks (originally thin-bedded sediments) and I-type granitoids with high magnetic susceptibility)

Bachtiar, A., M.J. Punguriseng, H. Gultaf & Y.S. Purnama (2012)- The boundary character of Pre-Tertiary and Tertiary rocks in the southern end of the North Sumatra basin: Barisan Mountain thrust front? Proc. 36th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA12-G-164, p. 1-9.
(online at: https://www.researchgate.net/publication/334163053_THE_BOUNDARY_CHARACTER_OF_PRE-TERTIARY_AND_TERTIARY_ROCKS_IN_THE_SOUTHERN_END_OF_THE_NORTH_SUMATRA_BASIN_BARISAN_MOUNTAIN_THRUST_FRONT)
(Nature of the boundary between Pre-Tertiary and Tertiary rocks in W margin of S end of North Sumatra Basin not necessary thrust fault, more likely onlap of Tertiary sediments onto Pre-Tertiary rocks)

Bachtiar, A., P.T. Setyobudi, S. Asyiah, A. Suleiman & P.A. Suandhi (2014)- Sedimentology and petrography of selected North Sumatra Pre-Tertiary formations: anticipating new petroleum systems in Western Indonesia. Proc. 3rd Int. Conf. Geological and Environmental Sciences, IPCBEE 73, Singapore, p. 35-39. *(Extended Abstract) (online at: www.ipcbee.com/vol73/008-ICGES2014-B0004.pdf)*
(Paleozoic- Mesozoic stratigraphy of N Sumatra mainly part of East Sumatra (Sibumasu) Terrane. Divided into Carboniferous- E Permian Tapanuli Gp (Alas Fm, Kluet Fm, Bohorok Fm) and Permian- Triassic Peusangan Gp (Pangururan Bryozoa Bed, Batumilmil Fm, Kaloi Fm, Kualu Fm). Deposited in deep marine (Triassic Sibaganding Lst with radiolarian limestone); shallow marine (Permian Batumilmil- Kaloi Fm limestone); moraine glacier and till (Bohorok pebbly mudstone); and shallow water (Kualu Mudstone with Halobia charlyana, Pangururan Bryozoa Bed). Tampur Limestone Fm here viewed as part of Pertertiary. Source rock potential in Batumilmil and Kualu Mudstone)

Bachtiar, A., J.B. Unir, A. Bunyamin, H.I. Darmawan, F.H. Darmawan, F.H. Korah et al. (2014)- The Pre-Tertiary petroleum system in North Sumatra Basin: an integrated study from onshore North Sumatra outcrops and subsurface data from offshore West Glagah Kambuna. Proc. 38th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA14-G-175, p. 1-31.
(On potential Pre-Tertiary 'basement' play in W Glagah Kambuna Block, offshore N Sumatra Basin, N of Medan. Basement of W Glagah Kambuna area probably mainly Permian-Triassic, similar to outcrops in W, which consist of Permian Tapanuli Gp and Batumilmil crinoidal Lst, and Triassic Kaloi Lst and Kualu Fm claystone (with Norian bivalve Halobia charlyana), which outcrop to W (all part of Sibumasu Block). (with some unusual K-Ar radiometric age dates of sedimentary rocks?; JTvG))

Barbee, O., C. Chesner & C. Deering (2020)- Quartz crystals in Toba rhyolites show textures symptomatic of rapid crystallization. American Mineralogist 105, 2, p. 194-226.
(Rhyolites produced by 74 ka Toba supereruption (>2800 km^3) rich in large (1-2 cm) quartz crystals, rife with imperfections and disequilibrium features, etc., pointing to rapid disequilibrium crystal growth)

Barber, A.J. (2000)- The origin of the Woyla Terranes in Sumatra and the Late Mesozoic evolution of the Sundaland margin. J. Asian Earth Sciences 18, 6, p. 713-738.
(online at: http://directory.umm.ac.id/Data%20Elmu/jurnal/J-a/Journal%20of%20Asian%20Earth%20Science/Vol18.Issue6.Dec2000/408.pdf)
(Jurassic-Cretaceous Woyla Gp of N Sumatra includes fragments of volcanic arcs and imbricated oceanic assemblage. Arc rocks intruded by granitic batholith and separated from original margin of Sundaland by oceanic assemblage. Arc assemblage underlain by continental basement. Quartzose sediments correlated with units in Paleozoic basement. Continental sliver separated from margin of Sundaland in Late Jurassic-Early Cretaceous in extensional strike-slip faulting regime, producing short-lived marginal basin. Separated Sikuleh and Natal microcontinents. In mid-Cretaceous extension followed by compression, crushing continental fragments back against Sundaland, with destroyed marginal basin now represented by imbricated oceanic assemblage. Volcanic assemblage and intrusive granites in Natal area part of Eocene-Oligocene volcanic arc. Radiolarian chert in Woyla Gp of Natal and Padang areas show it is part of Triassic- M Cretaceous ocean basin. Sikuleh microcontinent may be allochthonous and may have originated on N margin of Gondwana)

Barber, A.J. & M.J. Crow (2003)- An evaluation of plate tectonic models for the development of Sumatra. Gondwana Research 6, 1, p. 1-28.
(Greater part of Sumatra considered to form part of Sibumasu Block, which accreted to Indochina Block in Triassic. S part of Sibumasu divided into Malacca and Mergui microplates by Mutus Assemblage, which represents another suture. Permo-Carboniferous in N Sumatra with tilloids links Sumatra to Sibumasu Block in North. Permo-Carboniferous in C Sumatra contains Cathaysian Jambi flora and fauna related to Indochina Block and is associated with E Permian volcanic arc, which probably formed at margin of Cathaysian Block and was emplaced in present position by strike-slip faulting. Woyla Group is Jurassic- E Cretaceous oceanic volcanic arc, which was thrust over W margin of Sumatra in mid-Cretaceous)

Barber, A.J. & M.J. Crow (2005)- Pre-Tertiary stratigraphy. In: A.J. Barber, M.J. Crow & J.S. Milsom (eds.) Sumatra- geology, resources and tectonic evolution, Geological Society, London, Memoir 31, chapter 4, p. 24-53.
(Carboniferous- Cretaceous rocks widely exposed in Barisan Mts in W part of Sumatra. Rocks are variably metamorphosed and were termed the 'Barisan-Schiefer' and 'Old-Slates Formation' in C Sumatra, and 'Crystalline Schists' in Lampung area. Locally these rocks contain E Carboniferous and Permian fossils. Carboniferous- E Permian Tapanuli Gp clastics include 'glacial' unbedded pebbly mudstones)

Barber, A.J. & M.J. Crow (2005)- Structure and structural history. In: A.J. Barber, M.J. Crow & J.S. Milsom (eds.) Sumatra- geology, resources and tectonic evolution, Geological Society, London, Memoir 31, chapter 13, p. 175-233.

Barber, A.J. & M.J. Crow (2008)- The origin and emplacement of the West Burma- West Sumatra ribbon-continent. Proc. Int. Symposium Geoscience Resources and Environments of Asian Terranes (GREAT 2008), 4th IGCP 516 and 5th APSEG, Bangkok 2008, p. 18-21.
(online at: www.geo.sc.chula.ac.th/Geology/Thai/News/Technique/GREAT_2008/PDF/001.pdf)
(Combined W Burma-W Sumatra ribbon-continent has Cathaysian E Permian fauna and flora similar to S China and Vietnam. Became separated in M-L Permian from E margin of Cathaysia as thin continental sliver by formation of backarc basin. By M Triassic had moved along transcurrent fault system around Indochina into present position W of Sibumasu. In Miocene two blocks were separated by formation of Andaman Sea)

Barber, A.J. & M.J. Crow (2009)- Structure of Sumatra and its implications for the tectonic assembly of Southeast Asia and the destruction of Paleotethys. Island Arc 18, 1, p. 8-20.
(From E to W Malay Peninsula and Sumatra 3 continental blocks: (1) E Malaya with Cathaysian Permian fauna and flora; (2) Sibumasu (W Malay Peninsula and E Sumatra) with glaciogenic Late Carboniferous-Early Permian; (3) W Sumatra, also Cathaysian. Woyla nappe is intra-oceanic arc, thrust over W Sumatra block in M Cretaceous. Age of Sibumasu- East Malaya collision and destruction of Paleotethys Triassic? W Sumatra block derived from Cathaysia and emplaced against Sibumasu W margin by dextral transcurrent faulting. E Malaya block is part of Indochina block. W Burma block is extension of W Sumatra block, from which it separated by formation of Andaman Sea in Miocene. Woyla nappe correlated with Mawgyi nappe of Myanmar)

Barber, A.J., M.J. Crow & M.E.M de Smet (2005)- Tectonic evolution. In: A.J. Barber, M.J. Crow & J.S. Milsom (eds.) Sumatra- geology, resources and tectonic evolution, Geological Society, London, Memoir 31, chapter 14, p. 234-259.
(Review of crustal blocks of Sumatra and proposed models of assembly)

Barber, A.J., M.J. Crow & J.S. Milsom (eds.) (2005)- Sumatra: geology, resources and tectonic evolution. Geological Society, London, Memoir 31, p. 1-290.
(Major overview of Sumatra geology and mineral occurrences)

Barton, M.D., C. Kieft, E.A.J. Burke & I.S. Oen (1978)- Uytenbogaardtite, a new silver-gold sulfide. Canadian Mineralogist 16, p. 651-657.
(New mineral uytenbogaardtite (Ag3AuS2) from hydrothermally-altered Tertiary andesitic rocks from Tambang Sawah gold mine, Bengkulu District, W Sumatra)

Bassoulet, J.P. (1989)- New micropaleontological data on some Upper Jurassic- Lower Cretaceous limestones of Sumatra. In: H. Fontaine & S. Gafoer (eds.) The Pre-Tertiary fossils of Sumatra and their environments, United Nations ESCAP, CCOP, Technical Publication TP 19, Bangkok, p. 227-241.
(Latest Jurassic- basal Cretaceous limestones with Pseudocyclammina lituus from N Sumatra (Tapaktuan, Raba Lamno) and S Sumatra (Tembesi Basin). Also Early Cretaceous limestone with primitive orbitolinids from Gumai Mts, S Sumatra (all representative of 'Woyla Terranes'?; JTvG))

Baumberger, E. (1922)- Uber die Valanginienfauna von Pobungo auf Sumatra. Eclogae Geologicae Helvetiae 16, 5, p. 581-582

(online at: www.e-periodica.ch/digbib/view?pid=egh-001:1920-1922:16#598)
('On the Valanginian fauna from Pobungo on Sumatra' (Jambi Basin). Brief report on Lower Cretaceous (Valanginian) fossils from thick shales in Barisan Mts, collected by Tobler in Jambi area. Mainly small ammonites, like Neocomites neocomiensis and N. pseudo-pexiptychus/platycostatus, Kilianella, etc., and Nucula and Arca-like bivalves. Typical Early Cretaceous 'Mediterranean' fauna, with hardly any 'Himalayan' elements, and very similar to species described from SE France. See also Baumberger (1925))

Baumberger, E. (1925)- Die Kreidefossilien von Dusun Pobungo, Batu Kapur-Menkadai und Sungi Pobungo (Djambi, Sumatra). Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 8 (Gedenkboek Verbeek, memorial volume), p. 17-47.
(online at: https://books.google.com/books?id=Yy0RAAAAIAAJ&pg))
(Lower Cretaceous fossils collected by Tobler in 1907 from 3 Jambi localities. No. 6 of A. Tobler's series Beitrage zur Geologie und Palaontologie von Sumatra. Dark folded shales with ammonites (Neocomites neocomiensis, N. teschensis, Thurmannites spp.), bivalves (Cardita, Amussium, Nucula, Arca) and gastropods (Nerinea) of Valanginian age in Dusun Pobungo and Batu Kapur, showing open marine facies with European 'alpine' and Himalayan (Spiti) affinities. Breccious calcareous sandstones with Nerinea in Sungi Pobungo also similar to European Valanginian species ('Himalayan Province' of Uhlig 1911))

Beaudouin, T., O. Bellier & M. Sebrier (1995)- Segmentation et alea sismique sur la grande faille de Sumatra (Indonesie). Comptes Rendus Academie Sciences, Paris 321, 409-416.
('Segmentation and seismic hazard along the Great Sumatran Fault, Indonesia')

Beauvais, L. (1983)- Jurassic Cnidaria from the Philippines and Sumatra. United Nations ESCAP, CCOP, Technical Bulletin 16, p. 39-76.
(online at: https://repository.unescap.org/items/72341977-4dbb-441d-962f-088707385870)
(Brief descriptions of poorly preserved Upper Jurassic coral and stromatoporoids fauna from Indarung, E of Padang, W Sumatra, incl. Cladocoropsis (initially placed in Lovcenipora by Renz (1926), but different), Actinostroma, etc. (also described by Yancey and Alif (1977). Coral- stromatoporoid (Cladocoropsis) faunas related to those described from Japan and Tethys Also M and U Jurassic corals from reefal limestones in Philippines)

Beauvais, L. (1985)- Donnees nouvelles sur les calcaires 'recifaux' du Jurassique superieur de Sumatra. Memoires Societe Geologique France, Paris, n.s., 147, p. 21-27.
('New data on the 'reefal' limestones of the Upper Jurassic of Sumatra')

Beauvais, L. (1989)- Upper Jurassic Madreporia and calcisponges of Sumatra. In: H. Fontaine & S. Gafoer (eds.) The Pre-Tertiary fossils of Sumatra and their environments, United Nations ESCAP, CCOP, Technical Publication 19, Bangkok, p. 243-297.
(Taxonomic descriptions of diverse Upper Jurassic coral and calcisponge assemblages from N Sumatra, C Sumatra (Tembesi River) and Gumai Mts (S Sumatra). Incl. occurrences of Late Jurassic Tethyan reefal sponge Cladocoropsis mirabilis Felix 1907 from Gumai Mts., Jambi, Aceh))

Beauvais, L., M.C. Bernet-Rolande & A.F. Maurin (1985)- Re-interpretation of pre-Tertiary classical reefs from Indo-Pacific Jurassic examples. Proc. 5th International Coral Reef Symposium, Tahiti, 6, p. 581-586.
(M-U Jurassic carbonates of Thailand, Sumatra and Philippines not classic reefs, but mud mounds. Corals and calcareous sponges (Cladocoropsis) present, but often in mud matrix and main rock-building organisms are algae of Baccinellid- Lithocodium- stromatolite consortium. C Sumatra, Tembesi River mounds assembled in clusters at different bathymetric levels)

Beauvais, L., M.C. Bernet-Rolande & A.F. Maurin (1989)- Microfacies analysis of the Triassic limestone of Sibaganding. In: H. Fontaine & S. Gafoer (eds.) The Pre-Tertiary fossils of Sumatra and their environments, United Nations ESCAP, CCOP, Technical Publication 19, Bangkok, p. 195-204.
(Massive Triassic reefal limestones at Sibaganding, N of Prapat, Lake Toba area, N Sumatra with branching corals, calcisponges (Cladocoropsis?) and stromatolites in carbonate mud matrix; see also Vachard 1989)

Beauvais, L., M.C. Bernet-Rolande & A.F. Maurin (1989)- Microfacies analysis of the Upper Jurassic limestones of Sumatra. In: H. Fontaine & S. Gafoer (eds.) The Pre-Tertiary fossils of Sumatra and their environments, United Nations ESCAP, CCOP, Technical Publication 19, Bangkok, p. 299-309.
(Upper Jurassic limestones of Sumatra with common corals but are not true reefs. Most species thin, in sediments with high mud content)

Beauvais, L., P. Blanc, M.C. Bernet-Rollande & A.F. Maurin (1988)- Sedimentology of Upper Jurassic deposits in the Tembesi River area, Central Sumatra. Bull. Geological Society Malaysia 22, p. 45-64.
(online at: https://gsm.org.my/wp-content/uploads/gsm_file_2/702001-101123-PDF.pdf)
(Tembesi River area interbedded black limestone with U Jurassic corals and black shales-sandstones. 'Tethyan' corals in limestones indicate Kimmeridgian-age beds in Padang area, and Tithonian age in Jambi area. With Stylosmilia corallina and Cladocoropsis mirabilis. U Jurassic corals of Sumatra do not build true reefs, but form mud-mounds, probably due to terrigenous sediments coming from nearby continent)

Beauvais, L., H. Fontaine, S. Gafoer & J.R. Geyssant (1989)- The Cretaceous. In: H. Fontaine & S. Gafoer (eds.) The Pre-Tertiary fossils of Sumatra and their environments. United Nations ESCAP, CCOP, Technical Publication 19, Bangkok, p. 313-319.
(Cretaceous rel. common on Sumatra, especially S Sumatra. Lower Cretaceous limestones hard to distinguish from Upper Jurassic. Upper Cretaceous may be absent. Two areas with E Cretaceous Orbitolina in S Sumatra)

Beauvais, L., H. Fontaine, Suharsono & D. Vachard (1984)- The Pretertiary palaeontology of the Sarolangun sheet, 1:250,000, South Sumatra. CCOP Newsletter, p.

Beck, M.E. (1983)- On the mechanism of tectonic transport in zones of oblique subduction. Tectonophysics 93, p. 1-11.
(Sumatra oblique subduction created strike-slip fault that traverses magmatic arc)

Beddoe-Stephens, B. (1986)- Gold mineralisation and potential of the Anu-Reunguet area of Aceh, Sumatra, Indonesia. British Geological Survey (BGS) Overseas Division, Technical Report WC/NS/86/10, p. 1-21.
(online at: https://resources.bgs.ac.uk/PublicationPDFs/19800195.pdf)
(Gold potential in Reungeut River area, where natives have been panning for alluvial gold for many decades (and by Marsman mining company dredges in late 1930s-1942; JTvG). Most of area underlain by Jurassic Woyla Group (imbricated? steeply-dipping slates, phyllites, metavolcanics, cherts, with serpentinites, Baso granodiorite intrusion, etc.). Little evidence for in-situ primary gold deposits)

Beddoe-Stephens, B., J.A. Aspden & T.J. Shepherd (1983)- Glass inclusions and melt compositions of the Toba Tuffs, Northern Sumatra. Contributions to Mineralogy and Petrology 83, p. 278-287.
(Glass (melt) inclusions in quartz and feldspar phenocrysts in Toba Tuff ignimbrites all highly evolved, rhyolitic compositions, identical to glass forming matrix of rocks. Ignimbritic magmas at Toba erupted from ~3-4 km depth and represent silicic cap to batholithic body consolidating beneath Toba caldera)

Beddoe-Stephens, B., T.J. Shepherd, J.F.W. Bowles & M. Brook (1987)- Gold mineralization and skarn development near Muara Sipongi, West Sumatra, Indonesia. Economic Geology 82, 7, p. 1732-1749.
(Gold-mineralized skarns along Sumatra Fault Zone near Muara Sipongi, W Sumatra, mined in Pagaran Siayu mine in 1936-1939 (by N.V. Mijnbouw Maatschapplj Moeara Sipongi). Hosted in Permo-Triassic limestones and andesitic volcanics, into which Late Jurassic I-type diorites and granodiorites intruded in volcanic arc-related environment. Rb-Sr dating of emplacement of Muara Sipongi batholith 158 ±23 Ma)

Bellier, O., H. Bellon, M. Sebrier, Sutanto & R. Maury (1999)- K/Ar age of the Ranau tuffs: implications for the Ranau caldera emplacement and slip-partitioning in Sumatra (Indonesia). Tectonophysics 312, p. 347-359.
(Great Sumatran dextral Fault follows approximately magmatic arc, where major calderas are installed. Ranau caldera tuff sample yielded K-Ar ages of 0.55±0.15 Ma for separated feldspars, which places major Ranau caldera collapse between 0.7- 0.4 Ma)

Bellier, O. & M. Sebrier (1994)- Relationship between tectonism and volcanism along the Great Sumatran Fault zone deduced by SPOT image analyses. Tectonophysics 233, p. 215-231.
(Satellite images provide evidence for numerous stepovers, pull-apart grabens and volcanic structures along NW-trending right-lateral Great Sumatran Fault Zone. Geometry of strike-slip fault evolves through time. Huge volcanic calderas in large releasing stepover fault zones and bounding faults of rectangular pull-apart basins are analogous to circular ring faults of calderas. Toba caldera elongated parallel to present trace of Great Sumatran Fault and associated with wide pull-apart basin not active at present)

Bellier, O. & M. Sebrier (1995)- Is the slip rate variation on the Great Sumatran Fault accommodated by fore-arc stretching? Geophysical Research Letters 22, p. 1969-1972.
(Along Great Sumatran Fault zone, which is associated with oblique convergent Sunda subduction system, a N-ward increase of slip rate, from <10mm/yr near Sunda Strait to ~20mm/yr near Lake Toba to >40mm/yr in Andaman Sea. Transpressional back-arc deformation accommodates part of slip rate variation while no significant fore-arc stretching is observed. Oblique convergence may be accommodated by deformation of 500 km wide zone, from fore-arc toe back-arc domains)

Bellier O., M. Sebrier & S. Pramumijoyo (1991)- La grande faille de Sumatra: geometrie, cinematique et quantite de deplacement mises en evidence par l'imagerie satellitaire.Comptes Rendus Academie Sciences, Paris, 312, 2, p. 1219-1226.
('The Great Sumatra fault zone: kinematics and amount of displacement as shown by satellite imagery'. Satellite image analysis of S-most part of fault zone suggests right-lateral strike slip motion at ~6 ± 4 mm/yr (close to 40mm/ year near Andaman Sea?))

Bellier, O., M. Sebrier, S. Pramumijoyo, T. Beaudouin, H. Harjono, I. Bahar & O. Forni (1997)- Paleoseismicity and seismic hazard along the Great Sumatran Fault (Indonesia). J. Geodynamics 24, p. 169-183.
(online at: www.academia.edu/29448304/Paleoseismicity_and_seismic_hazard_along_the_Great_Suma Etc.)
(Great Sumatran Fault is 1650km-long dextral strike-slip fault zone which accommodates part of oblique convergence of subduction between Indo-Australian and Eurasian plates. Segmentation map shows 18 major fault segments (45-200 km long). Historical seismicity 17 earthquakes since 1835. N-ward increase of segment lengths, which parallels GSF slip-rate increase. Seismic gap of 300 km between 3-5°N)

Bellon, H., R.C. Maury, Sutanto, R. Soeria-Atmadja, J. Cotton & M. Polve (2004)- 65 m.y.-long magmatic activity in Sumatra (Indonesia), from Paleocene to Present. Bull. Societe Geologique France 175, 1, p. 61-72.
(online at: www.academia.edu/121082084/65_m_y_long_magmatic_activity_in_Sumatra_Indonesia_fr Etc.)
(Cenozoic Sumatra NW-SE trending volcanic arc location closely follows Great Sumatran Fault Zone (GSFZ). K-Ar ages show magmatic activity from Paleocene (~63 Ma) until Present. Spatial distribution increased at ~20 Ma, possibly connected to development of GSFZ. Position of Plio-Quaternary magmatic rocks shifted away from trench by few 10's of km relative to Paleogene- Miocene arcs, consistent with Cenozoic tectonic erosion of Sundaland margin. Samples display typical subduction-related signatures, but no clear geochemical trends. Lack of regular variations reflects complex igneous petrogenesis where contribution of Sundaland continental crust overprinted those of mantle wedge and subducted slab)

Belyanin, P.S. (2017)- Structure of volcanic landscape in the equatorial belt (a case study of the Kerinci volcano, Sumatra Island). Geography and Natural Resources 38, 2, p. 196-203.
(online at: www.researchgate.net/profile/P-Belyanin/publication/317805601_Structure_of_volcanic_l Etc.)
(Geomorphology and plant communities of 3805m high Kerinci/Korinci volcano in Barisan Mts of Sumatra)

Bennett, J.D. (1978)- The structure and metamorphism of Sumatra North of latitude 38°N. Proc. Second Symposium Integrated Geological Survey North Sumatra, 1977, Direktorat Mineral Resources, Bandung, Indonesia, 3, 1, p. 5-19.

Bennett, J.D., D. McC Bridge, N.R. Cameron, A. Djunuddin, S.A. Ghazali, D.H. Jeffrey, W. Kartawa et al. (1981)- The geology of the Calang Quadrangle, Sumatra (1:250,000). Geological Research Development Centre (GRDC), Bandung, p. 1-15.
(NW Sumatra sheet, mainly occupied by Late? Cretaceous Sikuleh Batholith, surrounded by Woyla Group, incl. Tangse serpentinite)

Bennett, J.D., D. McC Bridge, N.R. Cameron, A. Djunuddin, S.A. Ghazali, D.H. Jeffery et al. (1981)- Geologic map of the Banda Aceh Quadrangle, Sumatra, 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(With Tangse serpentinite and Indrapura Complex melange. Incl. Woyla Group with thick Late Jurassic- E Cretaceous Lamno Lst with Pseudocyclammina lituus above similar age Bentaro Volcanics magmatic arc basalts, unconformably overlain by Oligocene and younger Tangla Fm clastics, etc.)

Berman, A.E. (2005)- Northern Sumatra earthquake: 40 years of ignoring plate tectonics. First Break 23, 3, p. 77-85.

Bonhomme, M., J. Philibert & Y. Vialette (1960)- Table des ages apparents determines en 1959 par la methode au plombe-alpha et par la methode au strontium. Travaux Laboratoire Geologie Mineralogie Faculte Sciences Clermont-Ferrand, Serie documentation, 2, p.
('Table of apparent ages determined in 1959 by the Lead-alpha method and by the Strontium method'. Early radiometric age dating results, including for Lassi biotite granite of C Sumatra: zircon 99 Ma, Rb-Sr 135± 55 and 112± 25 Ma. Latter number believed to be most reliable (= mid-Cretaceous; Klompe 1962))

Booi, M. (2017)- Innovation and stasis: gymnosperms from the early Permian Jambi flora. Ph.D. Thesis University of Leiden, Netherlands, p. 1-220.
(parts online at: https://openaccess.leidenuniv.nl/handle/1887/57351)
(E Permian (296 Ma) 'Cathaysian' Jambi Flora from outcrops near Bangko in Sumatra characterized by plant groups known from classic coal swamp floras, as well as newly emerging groups that would play important role in vegetations of Permian era. Latter group with ecology generally drier than swamp flora species. Quantitative morphologic analysis of early gymnosperm woods suggests no individual species can be discerned)

Booi, M., I.M. van Waveren & J.H.A. van Konijnenburg-van Cittert (2009)- *Comia* and *Rhachiphyllum* from the early Permian of Sumatra, Indonesia. Review Palaeobotany Palynology 156, p. 418-435.
(online at: www.academia.edu/23204544/Late_Palaeozoic_peltasperms_migrational_sifting_along Etc.)
(E Permian flora from Mengkarang Fm of Jambi with Comia, Rhachiphyllum, Supaia-like material and Autunia fructification, corroborating peltasperm affinity. Material shows strong relationships with N China and even Angara region, but no Gondwanan elements, suggesting migration zone running from N China Block to W Sumatra- W Myanmar terrane)

Booi, M., I.M. van Waveren & J.H.A. van Konijnenburg-van Cittert (2009)- The Jambi gigantopterids and their place in gigantopterid classification. Botanical J. Linnean Society, London, 161, 3, p. 302-328.
(online at: https://academic.oup.com/botlinnean/article/161/3/302/2418339)
(Two gigantopterid species/genera from E Permian Mengkarang Fm of Jambi, originally described by Jongmans & Gothan 1935 as Gigantopteris bosschana (reclassified to Gothanopteris by Koidzumi 1936) and G. mengkarangensis (reclassified to Palaeogoniopteris by Koidzumi 1936). Similar to other gigantopterids, but not directly related. Possible scenario for evolution of gigantopterid leaf morphology)

Booi, M., I.M. van Waveren & J.H.A. van Konijnenburg-van Cittert (2014)- Wood anatomical variability in Early Permian 'araucarioids'. Int. Assoc. Wood Anatomists (IAWA) J. 35, 3, p. 307-331.
(E Permian from Merangin River with rel. common gymnosperm wood (one trunk 2.4m high), also some angiosperm woods (Dipterocarpaceae). Some are upright tree trunks up to 3.4m tall in encased in pyroclastic deposits. Anatomical analysis of araucarioid wood from E Permian Mengkarang Fm of Jambi, Sumatra, Indonesia. Many species of Araucarioxylon described in literature, but woods from Mengkareng Fm form contiguous micromorphological unit in which no individual species can be distinguished)

Booi, M., I.M. van Waveren, J.H.A. van Konijnenburg-van Cittert & P.L. de Boer (2008)- New material of *Macralethopteris* from the Early Permian Jambi flora (Middle Sumatra, Indonesia) and its palaeoecological implications. Review Palaeobotany Palynology 152, p. 101-112.
(New material of E Permian Jambi flora. Comparison with related Cathaysian and Euramerican species show isolated occurrence of alethopterid genus Macralethopteris in Cathaysian region)

Boomgaart, L. (1941)- Rapport van de mijnbouwkundige en geologische onderzoekingen op de Boelangsi-concessies (S.W.K.). Archives Bureau of Mines, Bandung, p. . *(Unpublished report Dienst van den Mijnbouw)*
('Report of mining and geological investigations of the Bulangsi concessions', West Sumatra)

Boomgaart, L. (1943)- Localities of copper ore in Sumatra. Archives Bureau of Mines, Bandung, p. . *(Unpublished)*

Boomgaart, L. (1947)- Oude mijnwerken op Sumatra's westkust. Geologie en Mijnbouw 9, 5, p. 75-77.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0TDhWaXE3RmprYXc/view)
('Old mine workings on Sumatra's West coast'. Numerous indications of small-scale native gold mining operations near Sapat (Moeara Laboeh, Solok area), Barisan Mts of W Sumatra. In older literature called 'area of 1300 mines', exploited before 1840)

Boomgaart, L. (1948)- Tectonics and ore deposits of Mangani (Sumatra). Geologie en Mijnbouw 10, 11, p. 293-298.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0bDRJVnhGMkVyWG8/view)
(Critical discussion of De Haan (1933) monograph on Mangani ore deposits in Barisan Mts and new map of ore-bearing veins)

Bora, D.K., K. Borah & A. Goyal (2016)- Crustal shear-wave velocity structure beneath Sumatra from receiver function modeling. J. Asian Earth Sciences 121, p. 127-138.
(Shear velocity structure model of crust of Sumatra region. Large variations in sediment thickness (3-7 km). Crustal thickness beneath Sumatra mostly between 27-35 km, except beneath Nias island (19 km))

Bowles, J.F.W., N. Cameron, B. Beddoe-Stephens & R.D. Young (1984)- Alluvial gold, platinum, osmium-iridium, copper-tin and copper-zinc alloys from Sumatra- their composition and genesis. Trans. Institute of Mining and Metallurgy (IMM), London, 93, p. B23-B30.

Bowles, J.F.W., B. Beddoe-Stephens, M.C.G.Clarke, A. Djunuddin, S.A. Ghazali & Miswar (1985)- Precious metal mining prospects in northern Sumatra. Proc. Asian Mining '85 Conf., London, Institute of Mining and Metallurgy (IMM), p. 173-184.

Brinkschulte, W. (1922)- Beitrage zur Petrographie von Süd-Sumatra (Goemaigebirge, Palembang). Dissertation, Wilhelms Universitat, Munster, p. 1-22. *(Unpublished)*
('Contibutions to the petrography of South Sumatra (Gumai Mountains, Palembang)'; some information in Westerveld, 1953)

Bronto, S., P. Asmoro, G. Hartono & S. Sulistiyono (2012)- Gunung api purba di daerah Bakauheni- Pulau Sangiang, Selat Sunda, Kabupaten Lampung Selatan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 22, 1, p. 3-14.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/102/94)
('Paleovolcanoes in the Bakauheni area- Sangiang Island, Sunda Strait, South Lampung Regency'. Three paleovolcanoes in N Sunda Straits, along planned Sunda Strait bridge route between Merak- Bakauheni)

Brouwer, H.A. (1915)- Erosieverschijnselen in puimsteentuffen der Padangsche Bovenlanden. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2), 32, p. 338-345.
(online at: https://babel.hathitrust.org/cgi/pt?id=mdp. 39015078113514;view=1up;seq=378)

('Erosional features in pumice tuffs of the Padang Highlands'. On formation of canyons in soft pumice formations near Fort De Kock, etc.)

Brouwer, H.A. (1915)- Uber einen Granitkontakthof in Mittelsumatra. Geologische Rundschau 5, p. 551-554.
(online at: https://www.digizeitschriften.de/dms/img/?PID=GDZPPN000452483)
('About a granite contact zone in Central Sumatra'. Hornfels contactmetamorphism rich in biotite at contact between granite and adjacent shales, between Rakan and Lubuk Bandhara))

Brouwer, H.A. (1915)- On the granitic area of Rokan (Middle Sumatra) and on contact-phenomena in the surrounding schists. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam 17, 3, p. 1190-1202.
(online at: https://dwc.knaw.nl/DL/publications/PU00012756.pdf)

Brouwer, H.A. (1915)- Bijdrage tot de geologie van Boven Kampar- en Rokan streken (Midden Sumatra). Jaarboek Mijnwezen Nederlands-Indie 42 (1913), Verhandelingen, p. 130-170.
('Contribution to the geology of the Upper Kampar and Rokan areas (C Sumatra)'. Early review of C Sumatra surface geology, incl. unfossiliferous Pretertiary micaschists, schistose claystones and sandy quartzites and granites and poorly dated Tertiary sediments, incl ?Eocene quartz sandstones with coal. Also undated conglomeratic rocks with clasts of quartz/quartzite and common radiolarian cherts, reminescent of rocks on Malay Peninsula. With brief report on Neogene mollusc from Padang Highlands by Tesch))

Brouwer, H.A. (1915)- Pneumatolytic hornfels from the hill countries of Siak (Sumatra). Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 18, 1, p. 584-591.
(online at: https://dwc.knaw.nl/DL/publications/PU00012536.pdf)
(Contact-metamorphic hornfelsels near contact with tourmaline-bearing granites (without biotite?) in hills of Siak with common tourmaline. Also alluvial tin ores in area)

Brouwer, H.A. (1916)- On the post-Carboniferous age of granites of the highlands of Padang. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 18, 2, p. 1513-1520.
(online at: https://dwc.knaw.nl/DL/publications/PU00012618.pdf)
(Contact metamorphism of Carboniferous (should be E Permian) fusulinid limestone around granites demonstrates younger age of granites of Padang Highlands)

Brouwer, H.A. (1920)- Studien uber Kontaktmetamorphose in Niederland.-Ostindien. VIII. Anderung der Kontaktmetamorphose nach der Tiefe und Zinnertzlagerstatten in Mitel-Sumatra. Centralblatt Mineralogie Geologie Palaontologie 1920, p. 40-45.
(online at: https://ia801209.us.archive.org/18/items/centralblattfrm1920unse_0/centralblattfrm1920unse_0.pdf)
('Studies on contact-metamorphism in the Netherlands East Indies, VIII. Changes in contact-metamorphism with depth and tin ore deposits in Central Sumatra'. About two types of contactmetamorphism in C Sumatra, (1) at contact zone of large Rokan granite massif (with pegmatite masses in center), and (2) hornfels around smaal grnites in Siak Highlands. Cassiterite tin deposits near Kota Rehah assumed to be from adjacent granites. No figures (see also Brouwer (1915a, b))

Bucking, H. (1904)- Zur Geologie von Nord und Ost-Sumatra. Sammlungen Geologischen Reichs-Museums Leiden, ser. 1, 8, p. 1-101.
(online at: www.repository.naturalis.nl/document/552376)
('On the geology of North and East Sumatra'. Geological observations by Prof. H. Bucking and Dr. L. van Werveke from University of Strasbourg during 1898 visit to NE Sumatra Upper Langkat area (sponsored by the 'Deli Maatschappij' tobacco company), including a trek into the Karo-Batak highlands, SW of Medan. Limestones include Late Paleozoic red crinoid limestones and dense gray crinoid limestones. With contribution by Prof. A. Tornquist on 'probably Late Carboniferous-age' corals (Lophophyllum vermiforme n. sp., Zaphrentis?) and brachiopod (Martinia glabra) from red limestones along Besitang River (=Permian?; JTvG). Also a variety of igneous rocks. Several native alluvial gold mining sites in Batak highlands)

Budiharto, R. (1985)- Effects of the Indian Ocean plate convergent to the Central and South Sumatra Basin during Tertiary. Proc. Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p.

Burhan, G., W. Gunawan & Y. Noya (1993)- Geologic map of the Menggala Quadrangle (1111), Sumatra, 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(Map sheet in SE corner of Sumatra. Mainly coastal plain, with oldest rocks M-L Miocene Muaraenim Fm)

Burton, P.W. & T.R. Hall (2014)- Segmentation of the Sumatran fault. Geophysical Research Letters 41, 12, p. 4149-4158.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1002/2014GL060242)
(Segmentation of Sumatran fault zone reconstructed from earthquakes. Fault has 16 earthquake clusters, with segment lengths from 22-196 km. Eight great central segments, distributed symmetrically about Lake Maninjau, dominate hazard, which is less in far north because segments are shorter)

Cameron, N.R. (1981)- The geological framework of Northern Sumatra. Berita Direktorat Geologi, Geosurvey Newsletter 4, p. 37-39.

Cameron, N.R. (1981)- The regional tectonic setting of Sumatra. Proc. Second Symposium Integrated geological survey of northern Sumatra, Bandung, Bull. Directorate Mineral Resources Indonesia, 1981, 3B, p. 137-150.

Cameron, N.R., J.A. Aspden, D.McC. Bridge, A. Djunuddin, S.A. Ghazali, H. Harahap et al. (1982)- Geologic map of the Medan Quadrangle (0619), Sumatra, 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(Map sheet in N Sumatra, with in SW partly metamorphosed Permo-Carboniferous clastics and oolitic limestones of Kluet, Bohorok and Alas Fms of Tapanuli Gp. In E flanked by folded Tertiary basin with Telaga Said oilfield)

Cameron, N.R., J.A. Aspden, Miswar & H.H. Syah (1981)- Geologic map of the Tebingtinggi Quadrangle (0719), Sumatra, 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(Map sheet at E coast of Central Sumatra. All Quaternary volcanics and alluvium)

Cameron, N.R., J.D. Bennett, D.McC. Bridge, M.C.G.Clarke, A. Djunuddin, S.A. Ghazali et al. (1982)- The geology of the Tapaktuan Quadrangle (0519), Sumatra, 1: 250,000. Geological Research Development Centre (GRDC), Bandung, p. 1-19. + map
(N Sumatra sheet S of Takengon sheet, with complex Barisan Mts geology. Widespread metamorphic Permian Kluet and Alas Fms, intruded by Permian Sibubung and other intrusives. Flanked in W by folded Late Jurassic-E Cretaceous Tapaktuan basaltic volcanics with calcilutite limestone member)

Cameron, N.R., J.D. Bennett, D.McC. Bridge, M.C.G.Clarke, A. Djunuddin, S.A. Ghazali et al. (1983)- The geology of the Takengon Quadrangle (0520), Sumatra, 1: 250,000. Geological Research Development Centre (GRDC), Bandung, p. 1-26. + map
(NW Sumatra map sheet with complex Barisan Mts geology, with Late Permian- Triassic metamorphics with Tawar Fm reefal limestones, Late Permian Situtup Fm volcanics, Permian Kluet Fm, occurrences of Woyla Group with basalts, serpentinite, red chert and Late Jurassic reefal Sise Lst with Pseudocyclammina, Montlivaltia, Myriopora, etc., etc)

Cameron, N.R., M.C.G. Clarke, D.T. Aldiss, J.A. Aspden & A. Djunuddin (1980)- The geological evolution of Northern Sumatra. Proc. 9th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 149-187.
(Three pre-Tertiary and one Tertiary- Recent volcano-sedimentary sequences, separated by unconformities. Late Paleozoic Tapanuli Gp primarily clastic, probably Permian glaciomarine. Two deformation periods. Metamorphism prior to deposition of Peusangan Gp Late Permian volcanic arc assemblage (E-dipping subduction) and M-L Triassic back-arc succession. Late Mesozoic Woyla Gp volcanic arc rocks and dismembered ophiolite with back-arc basin cover sequence. Late Cretaceous basin closure and Tertiary low angle plate convergence resulted in deformation of Woyla Group ophiolite. Since at least Late Eocene N Sumatra volcanic arc activity, with sedimentation in fore-arc. Last event, contemporary with start of Andaman Sea sea-floor

spreading, led to rise of Barisan Mts in Pleistocene and growth of Sumatran Fault System. Serpentinites from Woyla Group ophiolite emplaced from latest Miocene)

Cameron, N., M. Crow & T. Koning (2022)- Suban, South Sumatra: not only one of the world's largest basement gas fields, but also a rich new source of information on the island's Mesozoic evolution. Proc. SEAPEX-PESGB Asia Pacific E&P Conference, London 2022, 1p. *(Abstract + Poster)*
(Wells in Suban gas field in fractured basement rocks also document Jurassic- Cretaceous arc granitoids ('Suban Igneous Complex')

Cameron, N.R. & A. Djunuddin (1980)- The occurrence and structural evolution of a dismembered late Mesozoic ophiolite in N. Sumatra, Indonesia. Geologi Indonesia (J. Indonesian Association Geologists IAGI) 7, 1, p. 8-16.

Cameron, N.R., A. Djunuddin, S.A. Ghazali, H. Harahap, W. Keats, W. Kartawa, Miswar, H. Ngabito et al. (1981)- Geologic map of the Langsa Quadrangle, 1:250,000. Geological Research Development Centre (GRDC), Bandung. *(Explanatory Notes of this map sheet generally referred to as Bennett et al. 1981)*
(Map sheet at NE coast of SE Aceh, N Sumatra. Mainly Cenozoic basin with late folding, with oilfields in anticlines. At W margin Barisan Mts front with Oligocene sediments over Permian granodiorite and Permo-Triassic Sembuang and Kaloi Limestones, E Permian Bohorok Fm low metamorphic 'pebbly mudstones' and Kluet Fm metasediments with Serbajadi Batholith, etc. Kaloi Lst with Permian trilobites Phillipsia, Neoproetus indicus (Tesch 1916). Also E Oligocene (?)Totl Tampur Limestone Fm outcrops, described as 'reefal limestones and dolomites with chert nodules', overlying Pub- Permian Bohorok Fm (glacial?) conglomerates), overlain by Oligocene Tob- Bruksah Fm conglomerates and Tlb- Bampo Fm dark clastic sediments (although geological cross-section and strat column show conflicting relationships of 'Tob'. (nearby are limestones in apparently similar relationship with Pub and Tob as Tampur Lst, mapped as MPkl Kaloi Fm massive limestones))

Cameron, N.R., S.A. Ghazali & S.J. Thompson (1982)- Geologic map of the Bengkalis Quadrangle (0917), Sumatra, 1: 250,000. Geological Research Development Centre (GRDC), Bandung.
(Quaternary deposits of Coastal plain of C Sumatra Basin and part of Karimun Besr Island with Permian and Triassic granite intrusives and Mesozoic (Rhaetian- Jurassic? Bintang Fm clastics and conglomerates

Cameron, N.R., S.A. Ghazali & S.J. Thompson (1982)- Geologic map of the Siak Sri Indrapura and Tandjung Pinang Quadrangles (0916-1016), Sumatra, 1: 250,000. Geological Research Development Centre (GRDC), Bandung.
(Geologic map of Central Sumatra basin coastal plain, with oil fields Beruk, Zamrud, Merbau, etc., and Pulau Kundur islands group in Malacca Straits (mainly granite))

Cameron, N.R. & T. Koning (2022)- Assessing the basement gas potential of the Suban Cluster and the greater South Sumatra Basin. Proc. PESGB/ SEAPEX Asia Pacific E&P Conference, London 2022, p. 1-24. *(Abstract and Presentation)*
(Suban Gas Field with 5-7 TCF gas one of world's largest basement-reservoir fields. Jurassic-Cretaceous arc magmatism started in E Jurassic at 180 Ma with andesites onto landscape dominated by Permian and older metasediments. M Jurassic rhyolite volcanism followed with monzodiorite at 169 Ma and granite at 168 Ma)

Cameron, N.R., W. Kartawa & S.J.Thompson (1982)- Geologic map of the Dumai and Bagansiapiapi Quadrangles (0817), Sumatra, 1: 250,000. Geological Research Development Centre (GRDC), Bandung.
(Geologic map of part of C Sumatra Basin, with Duri, Petani and many other oilfields. Oldest rocks Oligocene Pematang Fm in core of anticline)

Caron, M.H. (1917)- Korte mededeelingen over Indische delfstoffen, I. Het zilver-gouderts voorkomen van Ajer Gedang Ilir, afdeeling Lebong der Residentie Benkoelen, Sumatra. Jaarboek Mijnwezen Nederlandsch Oost-Indie 44 (1915), Verhandelingen 2, p. 55-69.
('The silver-gold occurrence of Ayer Gedang Ilir, Lebong, Benggkulu' Descriptions of ores in three gold-silver-bearing veins in propylitised volcanic breccia, 9 km N of Rejang Lebong mine. Part of government-operated Tambang Sawah gold mining venture. Originally reported by Hovig (1912))

Caron, M.H. (1920)- De goud- en zilverertsen van Tambang Sawah. De Ingenieur 35, 45, p. 837-841.
(online at: https://resolver.kb.nl/resolve?urn=dts:2961063:mpeg21:pdf)
('The gold and silver ores of Tambang Sawah'. February 1920 presentation, focused on ore processing at government silver-gold mine in W Sumatra. Mine expected to produce 100 times more silver than gold. Silver ores rel. rich in MnO2, requiring a preliminary oxide reduction processing step before 'standard' cyanide leaching. This process became known as the 'Caron Process' and was tested at US Bureau of Mines facilities in Colorado Springs in 1917-1918. With photos of test installations for Tambang Sawah ore processing (T.S. mine produced from 1924 until 1931, when reserves were depleted))

Carthaus, E. (1902)- Uber Goldlagerstatten in Niederlandisch Indien, nebst Beobachtungen uber den Aufbau des Gebirges im Flussgebiet des oberen Gadis (Sumatra). Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap, ser. 2, 19, p. 581-586.
(online at: https://archive.org/details/tijdschriftvanh20genogoog)
('On gold deposits in the Netherlands Indies, with observations on the structures of the mountains in the Upper Gadis drainage area, Sumatra'. Summary of 3 years of gold mining investigations in the Netherlands Indies by German geologist Dr. Emil Carthaus. Primary gold deposits generally hosted in pyrite-bearing quartz veins in metamorphic rocks, often in proximity of diorite or diabase igneous rocks. Gold-rich upper Batang Gadis river in SE Tapanuli, W Sumatra, could not be linked to primary veins)

Chambers, M.J.G. & A. Sobur (1975)- The rates and processes of recent coastal accretion in the province of South Sumatra, a preliminary study. In: Wiryosujono & A. Sudradjat (eds.) Proc. 2nd Regional Conference Geology and Mineral Resources of SE Asia (GEOSEA), Jakarta 1975, Indonesian Association Geologists (IAGI), p. 165-174.
(Palembang had open sea access 700 years ago, now 70km inland, suggesting coastal accretion of ~100m/ yr)

Chapkanski, S., M. Le Doare, G. Brocard, A. Steuer, B. Siemon, F. Lavigne, N. Ismail et al. (2022)- Distribution of landforms and buried sedimentary deposits during the growth of the Aceh River delta (Sumatra, Indonesia). Journal of Maps 19, 1, p.
(online at: https://www.tandfonline.com/doi/full/10.1080/17445647.2022.2139203)
(Geomorphological map of Aceh River delta plain in N Sumatra, including rivers, tidal and buried channels, fluvial levees, beach ridges, swales, tidal flats and lagoons. Buried channel belts and floodplain deposits document former locations of distributary channels of Aceh River. Coastal-parallel beach ridges demonstrate 7-8 km of asymmetric delta progradation since mid-Holocene sea-level high stand (~5500 years ago))

Chesner, C.A. (1998)- The Toba Tuffs and caldera complex, Sumatra, Indonesia: insights into magma bodies and eruptions. Ph.D. Thesis Michigan Technological University, p. 1-428.
(Since 1.2 Ma, a magma chamber of batholithic proportions developed under the 100x30 km Toba Caldera Complex. Four eruptions from vents within present collapse structure document growth of laterally continuous magma body which eventually erupted 2800 km2 of Youngest Toba Tuff at 75 ka)

Chesner, C.A. (1998)- Petrogenesis of the Toba Tuffs, Sumatra, Indonesia. Journal of Petrology 39, p. 397-438.
(online at: http://petrology.oxfordjournals.org/content/39/3/397.full.pdf+html)
(In last 1-2 my, at least 3400 km^3 of magma erupted in four ash flow tuff units from Toba Caldera Complex. Fourth eruption at 74 ka was largest, producing 2800 km^3 of magma and caldera of 100 x 30 km. First phase dacite, successive eruptions rhyodacite-rhyolite with up to 40% crystals of quartz, sanidine, plagioclase, biotite and amphibole. Much of crystallization of quartz-bearing tuffs between 700-760°C at depths of 10 km. Dense welding of all units except top of youngest unit, and thick rhyodacitic magma in collapsing calderas)

Chesner, C.A. (2012)- The Toba caldera complex. Quaternary International 258, p. 5-18.
(online at: http://pages.mtu.edu/~raman/VBigIdeas/Supereruptions_files/Toba%20QI.pdf)
(Review of Toba Caldera, N Sumatra. During past 1.3 My Toba erupted intermediate lavas, followed by intermediate pyroclastics. Three quartz-bearing silicic tuffs, followed by intermediate to silicic lavas. Apparent

migration of activity to W. Oldest Toba Tuff with 40Ar/39Ar age of 840 ka (Diehl et al., 1987). Middle Toba Tuff ~500ka age? Youngest Toba Toff age 74 ka)

Chesner, C.A., O.A. Barbee & W.C McIntosh (2020)- The enigmatic origin and emplacement of the Samosir Island lava domes, Toba Caldera, Sumatra, Indonesia. Bulletin of Volcanology 82, 26, p. 1-20.
(The 60 × 20-km Samosir resurgent dome within 74-ka Toba Caldera features clusters of rhyolitic lava domes. Composition and 40Ar/39Ar ages of ~ 74-76 ka overlap with those of Youngest Toba Tuff (YTT; ~ 74-75 ka). Domes likely represent remnant YTT magma that erupted shortly after climactic YTT eruption. Later, during resurgence, these pre-resurgent lava domes were uplifted to present locations, up to 440 m above lake level)

Chesner, C.A. & A.D. Ettlinger (1989)- Composition of volcanic allanite from the Toba Tuffs, Sumatra, Indonesia. American Mineralogist 74, p. 750-758.
(Toba Tuffs with common accessory allanite (monoclinic member of epidote group), which is rare or absent in most volcanic rocks. Allanite compositions vary with magma composition and temperature)

Chesner, C.A. & J.F. Luhr (2010)- A melt inclusion study of the Toba Tuffs, Sumatra, Indonesia. J. Volcanology Geothermal Research 197, p. 259-278.
(Quartz-rich Pleistocene Toba Tuff with melt inclusions indicating that parental melts were high-silica rhyolites, with 74.5- 77% SiO2)

Chesner, C.A. & W.I. Rose (1991)- Stratigraphy of the Toba tuffs and the evolution of the Toba caldera complex, Sumatra, Indonesia. Bulletin of Volcanology 53, p. 343-356.
(During past 1.2 Ma magma chamber of batholithic proportions developed under 100 x 30 km Toba Caldera Complex, N Sumatra. Four eruptions occurred within present collapse structure, which formed from eruption of Youngest Toba Tuff (YTT) at 74 ka. Calderas of three older tuffs obscured by collapse and resurgence resulting from YTT eruption. Samosir Island composed of thick YTT caldera fill, whereas Uluan Block consists mainly of Oldest Toba Tuff (OTT). Toba eruptions document growth of laterally continuous magma body)

Chesner, C.A., W.I. Rose, A. Deino, R. Drake & J.A. Westgate (1991)- Eruptive history of Earth's largest Quaternary caldera (Toba, Indonesia) clarified. Geology (GSA) 19, 3, p. 200-203.
(Two youngest Toba tuffs dated as ~73 and 501 Ma. Timing of youngest and largest eruption coincident with early Wisconsin glacial advance)

Clarke, M.C.G. & B. Beddoe-Stephens (1987)- Geochemistry, mineralogy and plate tectonic setting of a Late Cretaceous Sn-W granite from Sumatra, Indonesia. Mineralogical Magazine 51, 3, p. 371-387.
(online at: www.minersoc.org/pages/Archive-MM/Volume_51/51-361-371.pdf)
(Hatapang granite in N Sumatra S-type two-mica granite with Sn and W mineralization. Rb-Sr and biotite K-Ar ages of 80 Ma, emplaced in Tapanuli Gp Carboniferous-Triassic greywackes with diamictites. Identification of Cretaceous Sn-W granite in N Sumatra provides link with economically important Late Cretaceous Sn-W granites in Thailand and Burma)

Clarke, M.C.G., S.A. Ghazali, H. Harahap, Kusyono & B. Stephenson (1982)- Geologic map of the Pematangsiantar Quadrangle (0718), Sumatra, 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(Geologic map of sheet between N and C Sumatra basins, E of Laka Toba. In Barisan Mts below Toba volcanic cover mainly Permian conglomeratic Bohorok Fm and finer Tapanuli Gp, intruded by Permo-Triassic? (or Cretaceous?) Hatapang and other granites. With remnants of Miocene- Pliocene sediments)

Clarke, M.C.G., W. Kartawa, A. Djunuddin, E. Suganda & M. Bagdja (1982)- Geologic map of the Pakanbaru Quadrangle (0816), Sumatra, 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(C Sumatra map sheet. Most of map Cenozoic C Sumatra basin around Pakanbaru, with Minas Field. Oldest rocks in Barisan Mts Permo-Carboniferous Kuantan and Bohorok Fms with Triassic granite intrusives. Overlain by Miocene Sihapas and Telisa Fms))

Clevenger, G.H. & M.H. Caron (1925)- The treatment of manganese-silver ores. U.S. Bureau of Mines Bulletin 226, Washington, p. 1-110.
(online at: https://digital.library.unt.edu/ark:/67531/metadc12409/m2/1/high_res_d/Bulletin0226.pdf)
(Includes discussion of treatment of hard-to-process manganese-silver-gold ores from the government-owned Gedung Ilir mine in Bengkulu Residency, W Sumatra, using the 'Caron process' (nothing on geology))

Cobbing, E.J. (2005)- Granites. In: A.J. Barber, M.J. Crow & J.S. Milsom (eds.) Sumatra- geology, resources and tectonic evolution, Geological Society, London, Memoir 31, chapter 5, p. 54-62.
(Sumatra many granite units within batholiths such as Lassi, Bungo and Garba, as well as numerous isolated plutons. Carboniferous-Permian and Late Triassic-E Jurassic cycles of syn-post collisional granites, peaking at 220-200 Ma, with tin granites. Younger plutonism associated with arc volcanism, broad age range: 203-5 Ma)

Coulson, F.I.E., C.C. Johnson, Miswar & H. Lahar (1986)- Mineral exploration of the Baso Granodiorite and adjacent areas, Aceh Barat, Northern Sumatra: a preliminary report. British Geological Survey (BGS)/ DMR Bandung, NSGMEP Report Series 6, WC/NS/86/6, p. 1-48.
(online at: https://resources.bgs.ac.uk/PublicationPDFs/19800196.pdf)
(Baso granodiorite just N of Sumatra fault zone in remote part of W Aceh. Geologically in steeply dipping, isoclinally folded, 'eugeosynclinal' Late Jurassic- E Cretaceous Woyla Group (Geumpang Fm) metasediments and metavolcanics with NW-SE trending serpentinite bodies. NE-SW elongate stock, 6 km long, 2 km wide. No primary gold seen but alluvial gold common in area. Baso granodiorite rel. young, fresh, unmineralized and no metalliferous mineral potential)

Coulson, F.I.E., R.J. Peart & C.C. Johnson (1988)- The North Sumatra Geochemical and Mineral Exploration Project: a final report. British Geological Survey (BGS)/ DMR Bandung, NSGMEP Report Series 25, WC/NS/87/25, p. 1-46.
(online at: https://resources.bgs.ac.uk/PublicationPDFs/19798084.pdf)
(Summary of 1984-1988 N Sumatra Geochemical and Mineral Exploration Project (NSHMEP) by geologists of British Geological Survey and Directorate of Mineral Resources, Bandung (follow-up project of 1975-1980 N Sumatra Maping Project). Not much on mineral exploration or geological results)

Crippa, G., L. Angiolini, I. Van Waveren, M.J. Crow, F. Hasibuan, M.H. Stephenson & K. Ueno (2014)- Brachiopods, fusulines and palynomorphs of the Mengkarang Formation (Early Permian, Sumatra) and their palaeobiogeographical significance. J. Asian Earth Sciences 79, p. 206-223.
(Brachiopods, fusulines and palynomorphs from Lower Permian Mengkarang Fm, Jambi, part of W Sumatra Block Volcanic Arc deposits. Brachiopods 6 genera (mainly Stereochia aff. S. irianensis, and Neochonetes carboniferus, also Marginifera, Reticulatia, etc.), mainly anti-tropical taxa (but here grouped with warm water taxa rather than with cold water taxa from Gondwanan-Perigondwanan region). Fusulinids at one level at Teluk Gedang (poor assemblage of 6 species, mainly Pseudofusulina rutschi Thompson, also Eostaffella, Schubertella, Pseudoschwagerina cf. afghanensis, P. meranginensis, Eoparafusulina ?haydeni), a rel. poor assemblage of widespread genera but tropical Tethyan affinity suggested by large schwagerinids. Most likely age Sakmarian, but E Artinskian age cannot be excluded. Palynomorphs dominated by Laevigatosporites spp., Florinites florini and Convolutispora sp., different from coeval assemblages of Gondwanan region, but affinity with Cathaysian province as represented in N China, etc.)

Crispin, S., J. Hertrijana & P. Albert (2015)- Exploration success at the Martabe gold mine, Indonesia. Proc. PACRIM 2015 Congress, Hongkong, Australasian Institute of Mining and Metallurgy (AusIMM), Melbourne, Publ. Ser. 2/2015, p. 567-572. *(Extended Abstract)*
(Large Martabe gold mine SE of Sibolga near W coast of N Sumatra province, producing since mid-2012. Martabe deposit cluster of 6 high-sulfidation epithermal deposits in ~8 x 1.5 km N-S corridor. Limited geology)

Crow, M.J. (2005)- Pre-Tertiary volcanic rocks. In: A.J. Barber, M.J. Crow & J.S. Milsom (eds.) Sumatra- geology, resources and tectonic evolution, Geological Society, London, Memoir 31, chapter 6, p. 63-85.

(Long range of volcanic activity in Sumatra, mainly arc volcanics: Carboniferous, Permian (W Sumatra belt), Triassic, Jurassic-Late Cretaceous (oceanic volcanic arc in Woyla terrane, associated with limestones). Most widespread E-M Permian and Late Jurassic- Early Cretaceous)

Crow, M.J. (2005)- Tertiary volcanicity. In: A.J. Barber, M.J. Crow & J.S. Milsom (eds.) Sumatra- geology, resources and tectonic evolution, Geological Society, London, Memoir 31, chapter 8, p. 98-119.
(Well-defined Paleocene- E Eocene 'Kikim Volcanics' (65-50 Ma) in S Sumatra, Late M Eocene along W coast, 50-46 Ma non-volcanic interval, Late Eocene- E Oligocene volcanic episode (~37-30 Ma), Late E- M Miocene arc volcanics along W coast and high K- shoshonitic intrusions in C Sumatra back arc basin, Late Miocene-Pliocene (6-1.6 Ma; mainly in Sumatra, contemporaneous with back-arc inversion at ~5 Ma?) (for Sumatra Quaternary volcanism see Gasparon 2005))

Crow, M.J., C.C. Johnson, W.J. McCourt & Harmanto (1993)- The simplified geology and known metalliferous mineral occurrences, Padang Quadrangle, Southern Sumatra. Direct. Mineral Resources, Bandung/ British Geological Survey, Special Publ. 49-B, p. 1-18.
(online at: https://www.researchgate.net/publication/264533037_The_simplified_geology_and_known_metalliferous_mineral_occurrences_Padang_Quadrangle_Southern_Sumatra)
(Part of map series produced by the Southern Sumatra Geological and Mineral Exploration Project (SSGMEP) (1988-1994) of the Geological Research and Development Centre (GRDC, Bandung) in collaboration with British Geological Survey (BGS). Brief review of W Sumatra Padang map sheet geology and metallic mineral occurrences (Au-Ag, Cu, Pb-Zn). With old gold-silver mines Mangani, Balimbing, Pamicikan, Pagadis, etc., in epithermal quartz veins, associated with Plio-Pleistocene andesitic volcanics and young extensional faults. Also Pb-Zn anomalies at Salodako NNE of Padang near skarn associated with Tertiary granite)

Crow, M.J., C.C. Johnson, W.J. McCourt & Harmanto (1993)- The simplified geology and known metalliferous mineral occurrences, Solok Quadrangle Southern Sumatra. Direct. Mineral Resources, Bandung/ British Geological Survey, Special Publ. 50-B, p. 1-19.
(online at: https://www.researchgate.net/publication/307856570_The_simplified_geology_and_known_metalliferous_mineral_occurrences_Solok_Quadrangle_Southern_Sumatra)
(Summary of SW Sumatra Solok quad geology and metallic mineral occurrences (Cu, Au, Ag, Fe). Gold-silver in quartz veins hosted in Oligo-Miocene volcanics, copper mineralization in hydrothermal veins (Timbulan) and limestone skarns and alluvial gold deposits in Bengkalis area)

Crow, M.J., C.C. Johnson, W.J. McCourt & Harmanto (1993)- The simplified geology and known metalliferous mineral occurrences, Painan Quadrangle, Southern Sumatra. Direct. Mineral Resources, Bandung/ British Geological Survey, Special Publ. 52-B, p. 1-30.
(online at: https://www.researchgate.net/publication/264533123_The_simplified_geology_and_known_metalliferous_mineral_occurrences_Painan_Quadrangle_Southern_Sumatra_Southern_Sumatra_Geological_and_Mineral_Exploration_Project)
(Painan Sheet of W Sumatra with basement of Carboniferous? and Permo-Triassic metasediments (with Permian arc volcanism, deep marine Triassic), Late Triassic- Jurassic granitoids, late Jurassic- E Cretaceous meta-limestones and clastics (Woyla Gp), also serpentinite bodies. Unconformably overlain by Oligocene and younger sediments and volcanics. With listing of metallic mineral occurrences)

Crow, M.J., C.C. Johnson, W.J. McCourt & Harmanto (1993)- The simplified geology and known metalliferous mineral occurrences, Sungaipenuh and Ketaun Quadrangles, Southern Sumatra. Direct. Mineral Resources, Bandung/ British Geological Survey, Special Publ. 54-B, p. 1-17.
(online at: https://www.researchgate.net/publication/264532972_The_simplified_geology_and_known_metalliferous_mineral_occurrences_Sungaipenuh_and_Ketaun_Quadrangles_Southern_Sumatra)
(SW Sumatra map sheets, with active Lebong Tandai gold-silver mine in mineralized breccia in Ketaun Quad. Oldest rock is extreme NE corner: M Permian volcanics of Palepat Fm, intruded by latest Triassic- E Jurassic Tantan Granite. M-L Jurassic flysch-type Asai Fm and shallow marine Late Jurassic- E Cretaceous Peneta Fm (part of Woyla Gp foreland to island arc). With listing of metallic mineral occurrences (Cu, Pb, Zn, Au, Ag))

Crow, M.J., W.J. McCourt, C.C. Johnson, & Harmanto (1994)- The simplified geology and known metalliferous mineral occurrences, Manna Quadrangle (0911), Southern Sumatra. Direct. Mineral Resources, Bandung/ British Geological Survey, Special Publ. 59-B, p. 1-19.
(online at: https://www.researchgate.net/publication/264532972_The_simplified_geology_and_known_metalliferous_mineral_occurrences_Sungaipenuh_and_Ketaun_Quadrangles_Southern_Sumatra)
(SW Sumatra map sheet dominated by Tertiary- Recent volcanic products of Barisan Arc and flanking Bengkulu forearc basin. With listing of metallic mineral occurrences (Au, Pb- Zn, Ag, Cu), mainly around Tanjungsakti of Sumatra Fault Zone)

Crow, M.J., W.J. McCourt, C.C. Johnson & Harmanto (1994)- The simplified geology and known metalliferous mineral occurrences, Bengkulu Quadrangle Southern Sumatra (0912). Direct. Mineral Resources, Bandung/ British Geological Survey, Special Publ. 57-B, p. 1-19. *(online at: www.researchgate.net/profile/Christopher-Johnson-10/publication/264532965_The_simplified_geology Etc.)*
(Map sheet dominated by Tertiary- Recent volcanic products of Barisan Range. In SE corner Gumai Mts with remnants of Late Mesozoic subduction Complex, similar to Woyla Gp in N Sumatra. With many former mines of Lebong Mining District, active between ~1906-1941. Etc. With listing of metallic mineral occurrences (Au, Ag, Pb, Zn, Cu))

Crow, M.J., W.J. McCourt & Harmanto (1994)- The simplified geology and known metalliferous mineral occurrences, Rengat Quadrangle, southern Sumatra (0915). Directorate Mineral Resources, Bandung/ British Geological Survey, Special Publ. 51-B, p. 1-22.
(online at: https://www.researchgate.net/publication/307856692_The_simplified_geology_and_known_metalliferous_mineral_occurrences_Rengat_Quadrangle_southern_Sumatra)
(SE Sumatra map sheet with oldest exposed rocks metasediments and NW-SE striking low metamorphic Permo-Carboniferous Tigapuluh Gp meta-clastics and limestones (probaby correlative to glacial or debris flow Bohorok Fm of N Sumatra). Intruded by porphyritic granitoids with K-Ar ages from ~198-128 Ma (most whole rock radiometric ages too young; granites may be slightly younger (earliest Jurassic) continuation of Late Triassic (~220 Ma) Main Range-equivalent S-type granites of Malay Peninsula). Three deformation phases. Many small alluvial Sn, W (cassiterite) occurrences near granites of Tigapuluh Mts in S, Au occurrences in W. Also primary cassiterite veins in greisen at Sungei Isahan granite))

Crow, M.J., W.J. McCourt & Harmanto (1994)- The simplified geology and known metalliferous mineral occurrences, Muarabungo and Jambi Quadrangles Southern Sumatra. Directorate Mineral Resources, Bandung/ British Geological Survey, Special Publ. 53-B, p. 1-19.
(online at: https://www.researchgate.net/publication/264533114_The_simplified_geology_and_known_metalliferous_mineral_occurrences_Muarabungo_and_Jambi_Quadrangles_Southern_Sumatra)
(Oldest rocks exposed in Tigapuluh Mts: NW-SE striking low metamorphic Permo-Carboniferous Tigapuluh Gp meta-clastics and limestones, intruded by Late Triassic- E-M Jurassic granitoids (K-Ar mineral ages ~198, 180 Ma). With Permian pebbly mudstones, probaby correlative to glacial Bohorok Fm of N Sumatra. Etc. With listing of metallic mineral (Sn, Au) deposits (rel. common alluvial cassiterite, but non-economic))

Crow, M.J., W.J. McCourt, C.C. Johnson & Harmanto (1994)- The simplified geology and known metalliferous mineral occurrences, Bengkulu Quadrangle (0912), Southern Sumatra. Directorate Mineral Resources, Bandung/ British Geological Survey, Special Publ. 57-B, p. 1-24.
(online at: https://www.researchgate.net/publication/264532965_The_simplified_geology_and_known_metalliferous_mineral_occurrences_Bengkulu_Quadrangle_Southern_Sumatra)
(Review of Bengkulu sheet of GRDC/BGS S Sumatra Geological and Mineral Exploration Project (SSGMEP). Includes many of the mines of government-operated Lebong mining district in Barisan Mts of W Sumatra. Geology dominated by Tertiary-Recent volcanics in W half or area. Oldest exposed rocks Late Jurassic- Cretaceous metasediments and volcanics (Woyla Gp?; Gumai Mts). Cretaceous-Pliocene granitoids. Plio-Pleistocene uplift of Barisan Arc. Main Au-Ag mines associated with quartz vein system in 'Old Andesites': Lebong Donok (1899-1941), Lebok Simpang (1921-1925), Tambang Sawah (1923-1931) and Lebong Sulit (1903-1913; Ketahoen Maatschappij (1902-19))

Crow, M.J., W.J. McCourt, C.C. Johnson & Harmanto (1994)- The simplified geology and known metalliferous mineral occurrences, Baturaja Quadrangle, Southern Sumatra. Directorate Mineral Resources, Bandung/ British Geological Survey, Special Publ. 60-B, p. 1-19.
(online at: https://www.researchgate.net/publication/307509715_The_simplified_geology_and_known_metalliferous_mineral_occurrences_Baturaja_Quadrangle_Southern_Sumatra)
(Oldest rocks exposed in Baturaja Sheet in Garba Mts and are ?Carboniferous- Mesozoic metasediments. Mesozoic of Garba Mts includes highly tectonized late Jurassic- E Cretaceous radiolarian cherts, associated with metavolcanics, melange and ultrabasic rocks; can be correlated with Lingsing series of Gumai Mts and oceanic sequences of Woyla Gp. Granitoids along E side of Barisan Range of M-L Cretaceous age (115-80 Ma), postdating accretion of Woyla Gp. With listing of metallic (Au, Ag, Sn) mineral deposits)

Crow, M.J. & T.M. van Leeuwen (2005)- Metallic mineral deposits. In: A.J. Barber, M.J. Crow & J.S. Milsom (eds.) Sumatra- geology, resources and tectonic evolution, Geological Society, London, Memoir 31, chapter 12, p. 147-174.
(Review of Paleozoic- Neogene mineral deposits of Sumatra: Paleozoic lead-zinc, Late Triassic- E Jurassic tin granites, Late Cretaceous tin, gold, Mio-Pliocene arc magmatism with copper, molybdenum, silver, gold. Over last 35 years, mining in Sumatra produced disappointing results)

Crow, M.J. & I.M. Van Waveren (2010)- A preliminary account of the Karing Volcanic Complex in the Permian West Sumatra Volcanic Arc. In: C.P. Lee et al. (eds.) 6th Symposium Int. Geological Correlation Program, Project 516 (IGCP516), Geological anatomy of East and South Asia, Kuala Lumpur 2010, p. 36 *(Abstract only)*
(Karing Volcanic Complex, host of E Permian Cathaysian 'Jambi Flora', is eroded remnant of subaerial volcanic complex on margin of Permian W Sumatra volcanic arc. Mineralogy of complex entirely volcanic provenance, with no 'continental' mineral components. Olivine basalts and dacitic pyroclastics may support E-M Permian oceanic island arc within W Sumatra Block)

Crow, M.J., I.M. Van Waveren & S.K. Donovan (2008)- Tobler's oyster and the age of the Tabir Formation, Jambi Province, Central Sumatra. Geological Journal 44, 1, p. 117-121.
(Tabir Fm of Jambi long considered to be Upper Jurassic, based on small molluscs collected by Tobler and assigned to Ostrea by Frech. These are not oysters and other fauna/flora show Tabir Fm is Late Permian)

Crow, M.J., I.M. Van Waveren & F. Hasibuan (2015)- Two Hg-Au occurrences in the West Sumatra Permian volcanic-plutonic arc West of Bangko in Sumatra, Indonesia. Proc. PACRIM 2015 Congress, Hongkong, Australasian Institute of Mining and Metallurgy (AusIMM), Melbourne, Publ. Ser. 2/2015, p. 573-578. *(Presentation) (online at: http://www.pacrim2015.ausimm.com.au/Media/PACRIM2015/presentations/Day%202/1415%20-%20Au-Hg%20Sumatra_PACRIM.pdf)*
(Two Hg-Au occurrences W of Bangko in W Sumatra Permian Volcanic Plutonic Arc: (1) Melipun Hg-Au occurrence, exploited in 1970's, with mineralisation in hydrothermally altered cupola of buried intrusion; (2) Salak Hg-Au occurrence in outcrop of Asselian Dusunbaru pluton/ volcanic center, likely within caldera in which (Triassic?) hydrothermal mineralisation developed. Both formed late in history of volcanic arc, probably Triassic- E Jurassic)

Crow, M.J., I.M. Van Waveren & F. Hasibuan (2019)- The geochemistry, tectonic and palaeogeographic setting of the Karing Volcanic Complex and the Dusunbaru pluton, an Early Permian volcanic-plutonic centre in Sumatra, Indonesia. J. Asian Earth Sciences 169, p. 257-283.
(online at: https://www.sciencedirect.com/science/article/pii/S1367912018303407)
(E Permian Karing Volcanic Complex and Dusunbaru Pluton comprise volcanic-plutonic center in Volcanic-Plutonic Arc on W margin of Kluet-Kuantan basin of West Sumatra Block. Karing Volcanics mainly intermediate tuffs interfingering with volcanoclastics and sediments of Mengkarang Fm. Eight cycles of tuffs overlain by volcanoclastics and sediments in Merangin river section. Zircon CA-IDTMS dates from tuffs bracket volcanic activity over 630 kyrs within Asselian (~297-296 Ma). Dusunbaru pluton composed of gabbroids, granitoids with subordinate metabasalt and tuff xenoliths. Metabasalts and gabbroids derived from N-MORB lithospheric mantle, granitoids reacted with lower crust. Chemistry of Dusunbaru Pluton typical of continent margin volcanic-plutonic

arcs. Late hydrothermal event during which Dusunbaru Pluton was faulted against Karing Volcanic Complex attributed to collision of Woyla oceanic terrains with Sumatra in late-mid Cretaceous. West Sumatra Volcanic Arc and Kluet-Kuantan Basin resembles Sukhothai Volcanic Arc in Indochina Block. West Sumatra Block originally was appendage to Indochina Block at paleolatitude 5-15° S)

Dahlius, A.Zardi, A. Purba & H. Wibowo (2007)- Geology and alteration-mineralization characteristics of Timbaan epithermal gold deposit in South Solok, West Sumatra, Indonesia. Proc. Joint Convention 32nd HAGI, 36th IAGI and 29th IATMI, Bali, p. 1339-1346.

Da Silva Carvalho, H., Purwoko, Siswoyo, M. Thamrin & V. Vacquier (1980)- Terrestrial heat flow in the Tertiary basin of Central Sumatra. Tectonophysics 69, p. 163-188.
(Heat flow in C Sumatra basin of calculated from 92 wells. Average T gradient 3.7 °F/ 100' (= 67.6°C/km) and average heat flow 3.27 ± 0.93 HFU, twice world average. Gradient and heat flow vary inversely with depth. Heat flow in N Sumatra basin, S Sumatra Basin, Sunda Strait and W Java is 2.5 HFU, while in Java E of 110°E it drops to 1.9 HFU)

Davies, P.R. (1989)- Tectonics of North Sumatra. In: B. Situmorang (ed.) Proc. 6th Regional Conference Geology mineral hydrocarbon Resources of SE Asia (GEOSEA VI), Jakarta 1987, IAGI, p. 207-227.
(online at: https://www.iagi.or.id/web/digital/45/PIT-IAGI-1987-Paper-14.pdf)
(*Tertiary structural evolution of N Sumatra basin described as consequence of position along trailing edge of Sunda Plate. Oblique convergence during Eocene- E Oligocene caused N-propagating dextral overstepping wrench faults along W edge of plate. Counterclockwise rotating Sunda microplate, starting in Late Oligocene. E-M Miocene uplift, followed by rapid subsidence. Second phase of CCW rotation in late M Miocene. LateM Miocene regional compression with Barisan Mts uplift and regressive sedimentation across N Sumatra basin*)

De Groot, P.F. (1946)- Goud in Atjeh. Jaarboek Mijnbouwkundige Vereeniging te Delft 1941-1946, p. 178-190.
(online at: http://lib.tudelft.nl/mscans/mscans0428)
('Gold in Aceh'. Summary of lecture by former manager of Marsman's Algemeene Exploratie Maatschappij mining company. Mainly about Geudong concession in Meulaboh basin at W coast of Aceh. Around 1940- 1941 alluvial gold was dredged from low-terrace deposits in Woyla River. Pre-Recent Aceh rivers were much larger and formed larger valleys and alluvial terraces than today. Many traces of historic gold mining in terrace deposits in Aceh, but reportedly not by Acehnese or Chinese people. All Marsman shallow core hole exploration data destroyed during Japanese invasion. With geologic map (more detailed than Zwierzycki (1922) map?))

De Haan, W. (1918)- Herinneringen aan mijnbouwkundig exploratiewerk in het Zuiden der Residentie Tapanoeli (een bijdrage tot de geschiedenis van de Nederlandsch-Indischen mijnbouw). Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Mijnbouwkundige Serie 1, 5, p. 229-296.
('Memories of mining exploration work in S of Tapanuli Residency (a contribution to the history of Netherlands Indies mining)'. Report on 1910-1913 survey work for the 'Midden Sumatra Exploratie Maatschappij' in Barisan Range of N Sumatra. Several occurrences of gold-rich rocks near Muari Sipongi, and common older native gold digging works could be observed in area. Reviews gold prospecting work at Goenoeng Oebi (Gunung Ubi), and nearby exploration work at Gunung Marisi by H.Burton Corbin of the 'West-Sumatra Mijnen Syndicaat' (relinquished 1910). All surface gold ore occurrences evaluated by them were of very limited extent and therefore deemed to be non-commercial)

De Haan, W. (1929)- De Mangani breccie. De Mijningenieur 10, 3, p. 62-65.
(Breccia in Manggani gold mine in W Sumatra with angular clasts, often composed of andesite. Limited horizontal but significant vertical extent. Likely eruptive origin)

De Haan, W. (1935)- Gesteeenten van Sumatra's Westkust. De Ingenieur in Nederlandsch-Indie (IV) 2, 10, p. IV.88- IV.97.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1935-10.pdf)
('Rocks of Sumatra's West coast'. Descriptions of igneous and metamorphic rocks from W Sumatra: Salida, Fort de Kock, Soeliki, Mangani. No maps or figures)

De Haan, W. (1937)- Jong-Tertiaire ertstypen en ertsbrengers op Sumatra's Westkust. De Ingenieur 52, 2, Mijnbouw, p. 11-16.
(Late Tertiary ore type and ore sources on Sumatra's West coast')

De Haan, W. (1942)- Over de stratigraphie en tektoniek van het Mangani gebied (Sumatra's Westkust). Geologie en Mijnbouw 4, 2, p. 21-31.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0OXNPRVdRWFNfaUU/view)
('On the stratigraphy and tectonics of the Mangani area, West coast of Sumatra'. Preteriary granite overlain by rel. undeformed Tertiary Brani basal conglomerate, overlain by quartz sandstone and Miocene marine marls)

De Haan, W. (1942)- Hydrothermale veranderingen te Mangani. Geologie en Mijnbouw 4, 9-10, p. 65-77.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0M2J4MHJoQVhiZ1E/view)
('Hydrothermal alterations at Mangani'. Mangani volcanics in Mangani gold mine in Barisan Mts of Sumatra probably part of 'Old Andesites'. Multiple phases of hydrothemal alteration in gabbro, basalt, andesites and dacites. No figures)

De Haan, W. (1943)- Over de goud-zilververhouding in the jonge edelmetaalformatie op Sumatra. Geologie en Mijnbouw 5, 5-6, p. 33-47.
(online at: https://drive.google.com/file/d/1igqddPxVjZzDN8aWW_der3FAZe6UxZ7M/view)
('On the gold-silver ratio in the young precious metals formation on Sumatra'. Highly variable gold-silver ratios in young precious metal deposits of Barisan Mts of Sumatra (But generally much more silver). Formed probably in Late Miocene. Silver-rich veins appear to be from higher parts of igneous systems and generally associated with granodiorites, gold-rich veins from deeper parts and more granitic compositions)

De Haan, W. (1943)- Gissingen omtrent de geologische gesteldheid in de omgeving van het Singkarak meer. Geologie en Mijnbouw 5, 11-12, p. 86-89.
(online at: https://drive.google.com/file/d/1O4CV_zUaki3dQOBEe8iaNPEyrDoJK8DV/view)
('Speculations on the geology of the area of Singkarak Lake'. Mainly descriptions of granitoid rocks in Delft collection, collected by Verbeek around Lake Singkarak, W Sumatra. No figures)

De Haan, W. (1948)- The Mangani vein system. Geologie en Mijnbouw 10, 11, p. 298-300.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0bDRJVnhGMkVyWG8/view)
On mineralization at Mangani gold mine district, C Sumatra. Presents alternative interpretation of tectonics of Mangani gold-silver region to that of Boomgaart (1948))

De Haan, W. (1948)- Raadselachtige ertsvondsten ter Sumatra's westkust (Pagadis). Geologie en Mijnbouw 10, 12, p. 325-327.
(online at: https://drive.google.com/file/d/1udDmKuje2-QNnT1aVuwwItPV_lYZOGCd/view)
('Mysterious ore discoveries at Sumatra's West coast'. Occurrence of silver and gold float of enigmatic origin at Pagadis, West coast of Sumatra, in 1910)

De Haan, W. (1949)- Bevat Sumatra 'porphyry coppers'? Geologie en Mijnbouw 11, 5, p. 162-164.
(online at: https://drive.google.com/file/d/1v14MEpc91FtsXSyltIFg0O2l2MjkSkZ7/view)
('Does Sumatra contain porphyry coppers?'. Possible presence of copper porphyries at depth near Soelit Ajer, E of Lake Singkarak. Region with granite intruded into Triassic sediments, probably during Cretaceous. Copper ores disseminated in granite and intruded sediments of no economic significance. No figures. (follow-up work until 1973 suggests the answer in "no"; Van Leeuwen, 2014))

De Haan, W. (1950)- De ertsafzettingen bij Moeara Sipongi (Tapanoeli, Sumatra). Geologie en Mijnbouw 12, 2, p. 61-67.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0dk9TUHlaUEs2dk0/view)
('The ore deposits near Moeara Sipongi (Tapanuli, Sumatra)'. Gold-bearing mineralization in (Carboniferous?) limestones and sandstones in area with common older native gold diggings. Limestones of Gunung Oebi variable

strikes, and dips 40-55°, suggesting significant fragmentation, etc. (Pagaran Si Ajoe (Siayu) gold mine in S Tapanuli was operational in this area in 1936-1939, owned by the N.V. Mijnbouw Maatschappij Moeara Sipongi (an Erdtmann & Sielcken company), in skarn deposits; see also Beddoe-Stephens et al. 1987) (original Pagaran Si Ajoe mining concession around 1900 held by Sumatra-Batavia Mijnbouw Maatschappij, associated with German prospector L. Hundeshagen; transfered to Gebroeders Veth in 1910))

De Haan, W. (1954)- De Tertiaire ertsgangtektoniek op Sumatra. Geologie en Mijnbouw 16, 1, p. 1-7.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0aXROSlVpbXN0a1U/view)
('The Tertiary ore vein tectonics of Sumatra'. Directions of mineralized joint systems in Sumatra usually N-NE trending and steeply E-dipping, suggesting pressure normal to axis of Sumatra (N50° E))

De Haan, W. (1956)- Dekblad of autochtoon in het Ombilin gebied (Sumatra). Geologie en Mijnbouw 18, 6, p. 199.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0M3VVc2Z5VlpZZVU/view?resourcekey=0-BDEeTqSpmA7_7dMIIpsZkQ)
('Nappes or autochthonous in the Ombilin region, C Sumatra'. Brief commentary on Osberger (1955) paper on interpreted nappe structure of Sumatra (De Haan argues about details, but does not question the interpreted nappe tectonic style in E Sumatra). No figures or new info)

De Haan, W., C. Schouten & P.M. Matthijsen (1933)- Monografie van de ertsafzettingen te Mangani (Sumatra) op de concessies der Mijnbouw-Maatschappij "Aequator". Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Mijnbouwkundige Serie 3, p. 1-212.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB21:032341000:00016)
('Monograph on the ore deposits at Mangani (Sumatra) on the concessions of the Aequator mining company'. Detailed descriptions of geology, rocks, mineralization and mine development of Mangani mine, West Sumatra, 185km from Padang. Mineralization first discovered in 1907, in area without older native gold diggings, by native prospectors working for German prospector L. Hundeshagen. The prospect was further evaluated in 1908 by mining engineers E. Geist, A.W. Egert and H.B. Corbin, and more geological work was conducted in 1913-1914 by J.W.H. Adam for the 'Mijnbouw Maatschappij Aequator'. Mineralization associated with M Miocene or younger Mangani andesitic-basaltic volcanics. Multiple mineralization events. Gold in veins in steeply folded Miocene shales, related to Plio-Pleistocene volcanism (?))

De Jongh, C.A. (1918)- Verslag over het tinertsonderzoek in de V Kota en aangrenzende streken gedurende de jaren 1911-1916. Jaarboek Mijnwezen Nederlandsch Oost-Indie 46 (1917), Verhandelingen, 1, p. 312-358.
('Account of the tin ore investigation in the V Kota and adjacent regions during the years 1911-1916'. Survey for alluvial tin ores in C Sumatra by Irs. A.J. Gouka, C.A. de Jongh, H.A. Brouwer and H. Von Steiger. Numerous small occurrences of tin in river terraces in Siak sultanate, some mined by locals. Mijnwezen engineers C. de Groot (1858), Everwijn (1864) and Verbeek (1880) and also American mining engineer C. Rolker (1891) confirmed presence of alluvial tin ore, but of low quality. Small-scale exploitation by the 'Oost Sumatra Tin en Landbouw Maatschappij' (later 'Siak Tin en Landbouw Maatschappij') near Kotah Renah (Ranah)/ Bukit Seligi, in late l880s. Some potentially exploitable deposits in Siak uplands near Bangkinang (later briefly dredged by Billiton Maatschappij). Tin probably derived from granite in Soeligi Mountains)

De Meyier, J.E. (1911)- De goud- en zilvermijn Salida ter Sumatras Westkust. Indische Gids 33, p. 28-67.
('The gold and silver mine Salida at Sumatra's West coast'.)

De Neve, G.A. (1949)- *Mizzia* in Palaeozoische gesteenten uit de omgeving van Palembang. Chronica Naturae, Batavia, 106, 9, p. 224-225.
(M Permian dasyclad calcareous algae Mizzia velebitana Pia in grey-black limestone from two localities at Bukit Pendopo, S Sumatra, collected by Keil in 1931. Associated with fusulinids Fusulina and Neoschwagerina. (also known from Guguk Bulat, Padang Highlands (Pia 1935, Fontaine 1983))

De Neve, G.A. (1961)- Mesozoic orogenies in the island of Sumatra and their ore deposits. Proc. 9th Pacific Science Congress, Bangkok 1957, Geology and Geophysics 12, p. 116. *(Brief abstract only)*

(Two two main periods of orogenesis tied to economic ore-deposits in Sumatra: (1) cassiterite, gold, wolframite and bauxite deposits in Upper Jurassic tectonic unit, called Malayan orogen by Westerveld; (2) Cretaceous tectonic unit in Sumatra with iron ore and gold-silver deposits of the so-called Sumatran orogen)

De Neve, G.A. (1961)- Correlation of fusulinid rocks from southern Sumatra, Bangka, and Borneo, with similar rocks from Malaya, Thailand and Burma. Proc. 9th Pacific Science Congress, Bangkok 1957, Geology and Geophysics 12, p. 249. *(Abstract only)*
(Four occurrences of U Paleozoic rocks with fusulinids in Indonesia: (1) U Paleozoic pebbles with Fusulina spp. in Lower Tertiary conglomerate in Kutai, E Kalimantan (Tan Sin Hok 1930); (2) Permo-Carboniferous Fusulinidae in limestones, marbles and combustible shales from W Borneo found by Krekeler (1932, 1933); (3) Two localities of limestone with Neoschwagerina and Fusulina spp. in Palembang area, S Sumatra, (3a) E of Bukit Pendopo, discovered by Keil and (3b) 18 km W of Palembang, in Sekaju area pebbles with fusulinids in Old Neogene conglomerate by Van Tuijn (1931) and (4) silicified limestones and fine crystalline quartzites with fusulinids of Sungailiat area near Aerduren, Bangka island collected by de Roever)

De Neve, G.A. (1983)- Quaternary volcanism and other phenomena attributed to volcanicity in the Aceh region North Sumatra. Proc. 12th Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, p. 67-113.
(online at: https://www.iagi.or.id/web/digital/37/PIT-1983-Paper-10.pdf)
(Sumatra has been a volcanic are above a NE-dipping subduction zone since at least the U Paleozoic (Late Permian). Principal volcanic episodes on Sumatra N of Equator: Late Permian, Late Mesozoic, Palaeogene, Mio-Pliocene and Quaternary. Older inventories suggested six Quaternary eruption centers in Aceh, but should be at least nine, 2 of Type A, 4 of Type B and 3 of Type C).

De Neve, G.A. (1984)- Pleistocene- Holocene volcanism of Aceh (North Sumatra). Berita Geologi 16, 18, p. 150-158.

De Neve, G.A. (1993)- Preliminary outline of the inventory on the old workings and recent mining for gold and/or other precious metals in the Aceh North and West Sumatra Provinces. Proc. 22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 926-936.
(online at: https://www.iagi.or.id/web/digital/53/22nd-Volume-2-(6-9-Des-1993)-324-334.pdf)
(Listing of old mining sites and prospects in Sumatra N of Equator. Not much detail. Alluvial gold mined in Sumatra for centuries)

De Roever, W.P. (1966)- Dacitic ignimbrites with upwards increasing compactness near Sibolangit (NE Sumatra, Indonesia) and their peculiar hydrology. Bulletin of Volcanology (Bulletin Volcanologique) 29, 1, p. 105-112.
(Water springs between Medan and Brastagi from level about half way up in massive, 150-200m thick layer of ignimbrite or ash-flow tuff of Quaternary age, here called Sibolangit Tuff. Ignimbritic biotite-hypersthene-hornblende dacite vitrophyre- tuff, very hard in upper part, with gradual transition to rather loose at base)

Detourbet, C. (1995)- Analyse des relations entre la Grande Faille de Sumatra (Indonesie) et les structures compressives del l'arriere arc. Ph.D. Thesis, Universite de Paris 11-Paris Sud, Orsay, p. *(Unpublished)*
('Analysis of the relations between the Great Sumatra Great Fault and the compressional structures of the back arc'. Total young shortening in C Sumatra basin ~14 km since M Miocene, representing 4% of initial width of basin. Compressional movements in back-arc accommodate only small portion of oblique convergence in Sumatra)

Detourbet, C., O. Bellier & M. Sebrier (1993)- La caldera volcanique de Toba et le systeme de faille de Sumatra (Indonesia) vue par SPOT. Comptes Rendus Academie Sciences, Paris, Ser II, 316, p. 1439-1445. *(online at: https://www.researchgate.net/publication/291815309_The_Toba_volcanic_caldera_and_the_Great_Sumatran_Fault_Indonesia_analysed_by_SPOT_imagery)*
('The volcanic caldera of Toba and the Sumatra fault system viewed by SPOT'. (Analysis of SPOT images of Toba caldera region results in estimate of dextral strike-slip motion along Great Sumatran Fault (~23 ± 3 mm/yr). Toba caldera formed in ancient step-over along Great Sumatran Fault.)

Dieckmann, W. (1918)- Praetertiaire goudafzettingen en de hieruit voortgekomen stroomgoudbeddingen in het gebied tussen de rivieren Rawas (Residentie Palembang) en Tabir (Residentie Djambi). Jaarboek Mijnwezen Nederlandsch Oost-Indie 46 (1917), Verhandelingen 1, p. 78-135.
('Pre-Tertiary gold deposits and the alluvial gold deposits in the area between the Rawas and Tabir rivers', S Sumatra. Gold in veins in Paleozoic metamorphic rocks associated with Pretertiary granodiorite intrusions and in alluvial deposits of most rivers in area)

Diehl, J.F., T.C. Onstott, C.A. Chesner & M.D. Knight (1987)- No short reversals of Brunhes age recorded in the Toba Tuffs, North Sumatra, Indonesia. Geophysical Research Letters 14, 7, p. 753-756.
(Paleomagnetic and 40Ar/39Ar data indicate two tuffs at Siguragura, N Sumatra: (1) reversely magnetized earliest tuff of Toba caldera, of Matuyama age (0.84 Ma) and (2) normally magnetized Young Toba Tuff of late Brunhes age. No reversely magnetized tuffs of late Brunhes age present, as suggested by previous investigators. Dating of oldest Toba Tephra to 834 ± 10 ka (also 200m thick Middle Toba Tuff, normally magnetized))

Djumhana, D. (1995)- Petrogenesa batuan granit daerah Toba dan sekitarnya. Geological Research Development Centre (GRDC), Bandung, Special Publ. 16, p. 80-100.
('Petrogenesis of granites of the Toba area and its surroundings')

Donovan, S.K., I.M. van Waveren & R.W. Portell (2013)- Island slopes and jumbled shell beds. J. Geological Society, London, 170, 3, p. 527-534.
(Examples of fossil shell beds of different ages and locations, supposedly representing deeper marine facies around islands. Incl. example of basal interval of Permian Mengkarang Fm of Sumatra, which represents deep-water facies at base of volcanic arc section. Nektonic cephalopods overlie possibly turbiditic, redeposited vitric tuff with broken brachiopod shells and diverse association of terrestrial pollen. Overlain by marine shales with brachiopod Stereochia semireticulata)

Druif, J.H. (1932)- De bodem van Deli. I. Inleiding tot de geologie van Deli. Mededeelingen Deli Proefstation Medan, ser. 2, 75, p. 1-158.
(online at: http://hdl.handle.net/1887.1/item:2213336)
('The soil of Deli. 1. Introduction to the geology of Deli'. Part 1 of 3-volume series on soils of NE Sumatra. Most of the soils in Deli are volcanic: liparite tuffs, andesite tuffs and lahar deposits)

Druif, J.H. (1934)- De bodem van Deli. II. Mineralogische onderzoekingen van de bodem van Deli. Bulletin Deli Proefstation Medan 32, p. 1-195.
(online at: https://resolver.kb.nl/resolve?urn=MMKB24:063567000:pdf
('The soil of Deli. I1. Mineralogical investigations of the soil of Deli'. Part 2 of 3-volume series)

Druif, J.H. (1935)- Over gesteenten van Poeloe Berhala (Straat van Malakka, Sumatra Oostkust). Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam 38, 6, p. 639-650.
(online at: https://dwc.knaw.nl/DL/publications/PU00016745.pdf)
('On rocks from Pulau Berhala (Malacca Straits, Sumatra East coast)'. Island 90 km E of Belawan Deli mainly composed of granites, also aplite-pegmatite, gneiss, mica schists, hornfels. Gneiss and mica schist highly deformed, strike NE-SW, dipping ~35-40° to NW)

Druif, J.H. (1938)- De bodem van Deli (III-Slot). De Deli gronden en hun eigenschappen. Buitenzorgsche Drukkerij, p. 1-140.
(online at: https://resolver.kb.nl/resolve?urn=MMKB21:035700000:pdf)
('The soil of Deli (Final). The soils of Deli and their characteristics'. Part 3 of 3-volume series)

Druif, J.H. (1938)- Agrogeologische overzichtskaart van een gedeelte van de Oostkust van Sumatra, 1:100,000. Deli Proefstation, Medan.
(online at: http://hdl.handle.net/1887.1/item:2012323)
('Agrogeological map of a part of the East Coast of Sumatra, 1: 100.000')

Druif, J.H. (1938)- Bodemkaarteeringen in Deli, methoden en resultaten. Handelingen 8e Nederlandsch-Indisch Natuurwetenschappelijk Congres, Soerabaia, July 1938, p. 497-501.
(online at: https://resolver.kb.nl/resolve?urn=MMKB31:042287000:pdf)
('Soil mapping in Deli, methods and results'. History of soil mapping in Deli area of important tobacco plantations in NE Sumatra, by van Bijlert (1896), Vriens (1910), Mohr (1917), Oostingh (1925-1929) and since 1929 by J. Druijf. Mainly liparite tuffs, not from Old Toba, but younger Similir volcano. No figures)

Druif, J. H. (1939)- De bodem van Deli: 3, Toelichting bij de agrogeologische kaarten en beschrijving der grondsoorten van Deli. Mededeelingen Deli Proefstation Medan, Derde serie, 4, p.
('The soils of Deli: 3. Explanatory notes to the agrogeological maps and descriptions of the soil types of Deli')

Duquesnoy, T., O. Bellier, M. Sebrier, M. Kasser, C. Vigny, F. Ego, I. Baha, E. Putranto & I. Effendi (1999)- Etude geodesique d'un segment sismique de la Grande Faille de Sumatra (Indonesie). Bull. Societe Geologique France 170, 1, p. 25-30.
('Geodetic study of a seismic segment of the Great Sumatra fault'. Deformation around central part of Great Sumatran Fault determined by geodetic surveys 1991-1994. About 90 mm displacement of far field points. Fault segment is locked. Slip rate calculated from far field points (27.5 mm/yr) similar with geologically determined long term slip rate (23 mm/yr))

Durham, J.W. (1940)- Oeloe Aer fault zone, Sumatra. American Assoc. Petroleum Geol. (AAPG) Bull. 24, 2, p. 359-363.
(One of earliest observations of right-lateral stream offsets along Medan-Padang segment of Great Sumatra Fault zone)

Durham, J.W. (1940)- Triassic fossils near Rantauprapat. De Ingenieur in Nederlandsch-Indie (IV) 7, 3, p. IV.41-IV.42.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1940-03.pdf)
(Brief report of Triassic outcrops at Sungei Bila and Aek Pamengka W and NW of Rantauprapat, N-C Sumatra, by J. Wyatt Durham, NPPM/ Caltex geologist- paleontologist in 1936-1939. Four localities with casts of Triassic bivalve Halobia in red-brown W-dipping marine clastics. To W Triassic overlain by non-marine Paleogene quartz sandstones and conglomerates, with material derived from underlying sediments. Occurrences of Halobia probably same as locality noted by Volz (1899) on Soengei Koeala to NW and other places. No fossil photos)

Eklund, O. (1933)- Guldsilverbergsbruket i vastra Sumatra. Teknisk Tidskrift Bergsvetenskap 1933, 1, p. 1-5.
(online at: http://runeberg.org/tektid/1933b/0003.html)
(In Swedish; 'Gold-silver mines in West Sumatra'. Brief review of geology and mineralization at W Sumatra gold mines Mangani, Simau, etc. With follow-up on mining practices and reserves in 1933-2 issue, p. 12-16)

Elber, R. (1938)- Geologie des Kustengebietes von Benkoelen zwischen Seblat (NW) und Bintoehan (SE) (Westkueste von Sumatra). BPM Report, p. 1-24.
(Unpublished BPM report on geology of W Sumatra coastal region near Bengkulu between Seblat in NW and Bintuhan in SE)

Elbert, J. (1909)- Magnet- und Roteisenerzvorkommen in Sud-Sumatra. Zeitschrift fur Praktische Geologie 17, p. 509-513.
('Magnetite and hematite occurrences in S Sumatra'. Occurrence of iron ores in mica schist formation of Lampung. Most of Lampong area composed of mica schists (more than mapped by Verbeek), mostly covered by laterite. Main strike of schist WNW-ESE, dips up to 75°. Locally significant magnetite ore bodies in schist (= banded iron ore formation of Subandrio & Tabir 2006?; JTvG). Intrusions of red granites with some gold-silver mineralization. No figures)

Erb, J. (1905)- Beitrage zur Geologie und Morphologie der sudlichen Westkuste von Sumatra. Zeitschrift Gesellschaft Erdkunde Berlin 4, p. 251-284.

('Contributions to the geology and morphology of the southern West coast of Sumatra'. Mainly summary of observations on coastal geomorphology of Bengkulu province)

Faridsyah, W.A., R. Yustiawan, N. Muhamad, U. Sukanta & A. Wibowo (2015)- Basement rocks of the Malacca Strait coastal plain, Central Sumatra Basin. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI, Balikpapan, JCB2015-087, p. 1-11.
(online at: https://www.iagi.or.id/web/digital/3/2015_IAGI_Balikpapan_Basement-Rocks-of-The-Malacca.pdf)
(On Pre-Tertiary basement rocks in Malacca Straits PSC. Late Triassic melange/suture zone between Sibumasu and Indochina terranes believed to propagate S across coastal plain of C Sumatra Basin where Malacca Straits PSC is located. Wells in PSC penetrated quartzite, meta-siliciclastics and black shale-limestone facies. Basement cores from Kurau field fractured and recrystallized limestone and claystone with illites with K-Ar age of 275 Ma (late E Permian). This 'Malacca Limestone' was correlated to the Gua Musang Fm outcropping on the (western) Malay Peninsula)

Forni, F., M. Phua, M.G. Fellin, J.A. Oalmann, B. Jicha, K. Bradley, C. Maden, H. Rifai & C. Bouvet de Maisonneuve (2025)- A geological record of highly explosive eruptions from Sumatra (Indonesia). Earth-Science Reviews 271, 105303, p. 1-26.
(online at: https://www.sciencedirect.com/science/article/pii/S0012825225002648)
(Between ~ 7.3 Ma and 33 ka, Sumatran region experienced multiple highly explosive eruptions (VEI ≥ 6) often associated with caldera collapses (with widespread rhyolitic tuffs), as well as moderately explosive eruptions (VEI ≤ 5) from stratovolcanoes. Frequency of highly explosive eruptions increased gradually during Quaternary and peaked in last 48 ky. Most information regarding older Plio-Pleistocene explosive Sumatran eruptions came from deep-sea tephra layers with unknown sources, in W Sunda volcanic arc and wider SE Asia region. With maps of tuffs distribution of main young eruption centers in N, W and S Sumatra)

Fauzi, R.M., R. McCaffrey, D. Wark, P.Y. Prih Haryadi & Sunarjo (1996)- Lateral variation in slab orientation beneath Toba caldera, northern Sumatra. Geophysical Research Letters 23, p. 443-446.
(Investigator Fracture zone subducts beneath Toba caldera, suggesting possible relationship to volcanism. High rate of seismicity along subducted Investigator Fracture Zone uncommon at subducted fracture zones)

Fediaevsky, A. & Sujatmiko (1975)- Existence d'une episode climatique aride a la base du Tertiaire de Sumatra. Proc. 9th Int. Congress of Sedimentology, IAS, Nice 1975, 1, p. 79-85.
('Existence of a dry climate period at the base of the Tertiary of Sumatra'. Faceted sand-blasted pebbles from basal Tertiary conglomerate near Murobungo, Barisan mountain front, C Sumatra, below Talang Akar Fm white quartz-rich sandstones)

Fennema, R. (1876)- Sumatra's Westkust. Verslag No. 8. Onderzoek naar het voorkomen van kwikerts bij den berg Sombong in de nabijheid van Sibelaoe, zoomede aan de riviertjes Tapir en Gade-Talang, Sumatra's Westkust. Jaarboek Mijnwezen Nederlandsch Oost-Indie 5 (1876), 1, p. 35-70.
('Investigation of the occurrence of mercury ore near Sombong mountain, near Sibelaoe, as well as in creeks Tapir and Gade-Talang, Sumatra west Coast'. Area of steeply dipping slates and massive limestones with (Permian) brachiopods, intruded by porphyry granite and veins, W of Sibelabu and along Tapir River, Tanah Datar district, S Padang Highlands. Alluvial cinnabar associated with magnetite, from veins in slate)

Fennema, R. (1887)- Topographische en geologische beschrijving van het Noordelijk gedeelte van het Gouvernement Sumatra's Westkust. Jaarboek Mijnwezen Nederlandsch Oost-Indie 16 (1887), Wetenschappelijk Gedeelte, p. 129-252.
('Topographic and geologic description of the northern part of the Sumatra West Coast province'. Geologic description of W Sumatra from Tapanuli Bay in NW to Fort de Kock (Bukittinggi) in SE. With 1:500,000 geologic map, 11 cross sections. Oldest rocks 'old slate-quartzite' formation. Overlain by unfossiliferous steeply dipping shales and limestones, probably of Carboniferous age (now assigned to Permian; JTvG). Intruded by granites and diabase. Unconformably overlain by rel. gently dipping Eocene/ Old Tertiary with quartz sandstones and thin coal beds. Late Tertiary volcanics. Minor occurrences of gold, copper, lead)

Fernandez-Blanco, D., M. Philippon & C. von Hagke (2016)- Structure and kinematics of the Sumatran Fault system in North Sumatra (Indonesia). Tectonophysics 693, B, p. 453-464.
(online at: www.ged.rwth-aachen.de/files/publications/publication_2733.pdf)
(Study of northern sector of Sumatran Fault System at northernmost tip of Sumatra and islands to NW. Fault bifurcates into two fault strands and two independent kinematic regimes evolve: E branch is classic Riedel system, W branch features fold-thrust belt, accommodating ~20% of shortening of system in study area)

Fitriana, B.S., J. Saputro & A. Rudyawan (2022)- Pre-Tertiary Basement detailed lithology & age dating study in the Ogan Komering Block, South Sumatra Basin. Proc. 51st Annual Conv. Indonesian Association Geologists (IAGI), Makassar, p. 1-6.
(online at: https://www.iagi.or.id/web/digital/71/PITIAGI-22-P-Abs-077.pdf)
(Pre-Tertiary basement rock in Ogan Komering (OK) block, S Sumatra, proven hydrocarbon reservoir since ASD-1 well flowed 1,890 BOPD from (fractured) diorite in 1992. Basement lithologies granodiorite, marble, andesite, slate, phyllite, and greywacke with K-Ar ages from 61-131Ma (Cretaceous), interpreted as part of Mutus Assemblage at Mergui, Malacca, and Woyla microplates contact)

Fliegel, G. (1898)- Die Verbreitung des marinen Obercarbon in Sud- und Ostasien. Zeitschrift Deutschen Geologischen Gesellschaft, Berlin, 50, p. 385-408.
(online at: https://www.biodiversitylibrary.org/item/150471#page/435/mode/1up)
('The distribution of marine Upper Carboniferous in South and East Asia'. Old review of fossiliferous 'Upper Carboniferous (= mainly E-M Permian) limestones near Padang, W Sumatra, and localities in China. Similarities with age-equivalent faunas of European Russia and Mediterranean)

Fliegel, G. (1901)- Uber Oberkarbonische Faunen aus Ost und Sudasien. I. Oberkarbonische Fauna von Padang. Palaeontographica 48, 2-3, p. 91-136.
(online at: http://archive.org/details/palaeontographic48cass)
('On Upper Carboniferous faunas from East and South Asia, 1. Upper Carboniferous of Padang'. Redescription of 59 Permian fossil species from dark limestones in Padang Highlands, collected by Verbeek, donated to Breslau University, and first described by Roemer (1880). Incl. fusulinids (Fusulina granum-avenae, Mollerina/ Schwagerina verbeeki), corals, brachiopods (Dalmanella, Orthothetes, Productus, Spirifer, Spirigera, etc.), bivalves (Aviculopecten verbeeki), gastropods (Bellerophon spp.), cephalopods (Orthoceras, etc.), nautiloids (Pleuronautilus sumatrensis), trilobites (Phillipsia). (Now regarded as mainly M Permian age; JTvG))

Fontaine, H. (1983)- Some Permian corals from the Highlands of Padang, Sumatra, Indonesia. Publ. Geological Research Development Centre (GRDC), Bandung, Seri Paleontologi 4, p. 1-31.
(M Permian reefal limestone from Guguk Bulat and Silungkang areas E of Singkarak lake, C Sumatra. Coral faunas include Sinophyllum, Pavastehphyllum, Thomasiphyllum, Ipciphyllum fliegeli (Lange), I. subelegans, I. laosense, Wentzelophyllum, Wentzelloides frechi, etc. Similar to those from mainland SE Asia. Associated with rich fusulinid fauna, small foram Hemigordius sp. and algae Mizzia velebitana and Permocalculus (NB: Thomasiphyllum commonly viewed as taxon of Cimmerian/ Sibumasu terrane?; Wang et al. 2021, Li et al. 2022))

Fontaine, H. (1986)- Microfacies of a few Permian limestones of Sumatra, Peninsular Malaysia and Thailand. United Nations CCOP, Technical Bulletin 18, p. 148-157.
(online at: https://repository.unescap.org/items/312125a5-1653-453e-97d7-3adb1899913d)
(Incl. photomicrographs of Permian foram-algal grainstones-packstones and oolitic limestone from Jambi Province)

Fontaine, H. (1986)- Discovery of Lower Permian corals in Sumatra. In: G.H. Teh & S. Paramananthan (eds.) Proc. 5th Regional Congress Geology Mineral Energy Resources of SE Asia (GEOSEA V), Kuala Lumpur 1984, 1, Bull. Geological Society Malaysia 19, p. 183-191.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1986015.pdf)
(First E Permian corals from Sumatra, in Jambi Province, W of Bangko, in tributaries of Merangin River with 'Jambi Flora'. Pulau Apat, Muara Liso, Batu Gajah, Batu Impi localities with Protomichelinia (in Thailand mainly 'Artinskian'; Fontaine et al. 1994), Kepingophyllum, Chusenophyllum? and Polythecalis. Associated with

M-L Asselian Pseudoschwagerina zone fusulinids. Lower Permian sediments well developed in upper Mesumai River area and represent forested volcanic arc surrounded by shallow sea)

Fontaine, H. (1989)- Lower Carboniferous corals. In: H. Fontaine & S. Gafoer (eds.) The Pre-Tertiary fossils of Sumatra and their environments, CCOP, Technical Paper 19, Bangkok, p. 41-44.
(Corals present but not prolific in Lower Carboniferous limestones of N and C Sumatra. Mainly solitary Rugosa (Zaphrentites) and compound Rugosa (Siphodendron). No massive Rugosa found)

Fontaine, H. (1989)- Lower Permian corals of Sumatra. In: H. Fontaine & S. Gafoer (eds.) The Pre-Tertiary fossils of Sumatra and their environments, CCOP, Technical Paper 19, Bangkok, p. 95-98.
(Two species of colonial rugose coral (Kepingophyllum sp.) and large colonies of tabulate coral (Protomichelinia) from Lower Permian Batu Gajah and Batu Impi localities, Mesumai River, Jambi Province)

Fontaine, H. (1989)- Middle Permian corals of Sumatra. In: H. Fontaine & S. Gafoer (eds.) The Pre-Tertiary fossils of Sumatra and their environments, CCOP, Technical Paper 19, Bangkok, p. 149-165.
(M Permian corals from three localities: some Tabulata (Sinopora asiatica) and abundant Tetracoralliia. Guguk Bulat rich and massive tetracorallia colonies (mainly Ipciphyllum spp., and Wentzelloides (called Lonsdaleia by Volz 1904 and Lange 1925)), and is reefal facies)

Fontaine, H. (1990)- Guguk Bulat, a very famous Permian limestone locality of Sumatra, Indonesia. In: H. Fontaine (ed.) Ten years of CCOP Research on the Pre-Tertiary of East Asia, United Nations ESCAP, CCOP, Technical Publication 20, p. 43-54.
(Reprint of Fontaine (1982) paper in CCOP Newsletter. Classic locality 3.5 km NE of Singkarak Lake in Padang Highlands of ~150m thick grey, bedded M Permian limestone rich in corals (including massive tetracorallia of Waagenophyllidae family), tubular sponges, algae and occasional fusulinids (type locality of Sumatrina, also Verbeekina). Faunas many similarities with M Permian rocks on SE Asia mainland. Limestone not metamorphosed, but some local recrystallization near ?Triassic granite intrusions)

Fontaine, H., M.S. Asiah & S.H. Sanatul (1992)- Pre-Tertiary limestones found at the bottom of wells drilled in Malacca Straits. CCOP Newsletter 17, 4, p. 12-17.
(Report on study of cuttings in deeper parts of 1989 Sun Malaysia wells Singa Besar 1, Dayang 1 and Langgun Timur1. In Singa Besar-1 gas-bearing basal carbonate ('Melaka carbonate' fractured limestone and dolomite = equivalent of 'Tampur Fm' of North Sumatra basin?) contains M Permian age microfossils, including benthic forams Shanita sp., Hemigordiopsis renzi, Globivalvulina and Pachyphloia, at depth 2630'- 2740' (genus Shanita generally associated withM-L Permian limestones of 'Sibumasu'/ Cimmerian terranes: JTvG) (see also Madon et al. 1999, who noted similarities with M Permian Chuping Lst of western Malay Peninsula))

Fontaine, H. & S. Gafoer (eds.) (1989)- The pre-Tertiary fossils of Sumatra and their environments. Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas, United Nations ESCAP, CCOP, Technical Publication TP 19, Bangkok, p. 1-356.
(Extensive collection of papers on Carboniferous- Cretaceous fossils of Sumatra. Main localities: Aceh area, Tapaktuan, Sungai Alas, Rantauprapat, Sibaganding near Lake Toba, Sawahlunto, Agam River, Kuantan Go)

Fontaine, H. & S. Gafoer (1989)- Pre-Carboniferous rocks. In: H. Fontaine & S. Gafoer (eds.) The Pre-Tertiary fossils of Sumatra and their environments, United Nations ESCAP, CCOP, Technical Publication TP 19, Bangkok, p. 15-17.
(Pre-Carboniferous ages postulated for low-metamorphic sediments wells in C Sumatra and for metamorphics in Lampung, S Sumatra (possibly Archean; Umbgrove 1938))

Fontaine, H. & S. Gafoer (1989)- The Carboniferous. In: H. Fontaine & S. Gafoer (eds.) The Pre-Tertiary fossils of Sumatra and their environments, United Nations ESCAP, CCOP, Technical Publication TP 19, Bangkok, p. 19-29.

(Carboniferous rel. widespread in N Sumatra and correlates with Carboniferous of western Malay Peninsula. Kuantan Fm shows affinities with Carboniferous of eastern Malay Peninsula. N Sumatra Bohorok Fm contains pebbly mudstones, of possible glacial origin. Lower Carboniferous limestones with cosmopolitan foram faunas)

Fontaine, H. & S. Gafoer (1989)- The Lower Permian. In: H. Fontaine & S. Gafoer (eds.) The Pre-Tertiary fossils of Sumatra and their environments, United Nations ESCAP, CCOP, Technical Publication TP 19, Bangkok, p. 47-51.
(Lower Permian of Merangin River area W of Bangko, Jambi Province, well known since 1930's for its Cathaysian 'Jambi Flora' in Mengkarang Fm. This E Permian flora and fauna similarities with C Europe; nothing similar in Australia. Limestones with fusulinids, incl. Monodiexodina wanneri in Padang Higlands (Hahn & Weber 1981))

Fontaine, H. & S. Gafoer (1989)- The Middle Permian. In: H. Fontaine & S. Gafoer (eds.) The pre-Tertiary fossils of Sumatra and their environments, Papers 22nd Session Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Guangzhou 1985, United Nations ESCAP, CCOP, Technical Publication TP 19, Bangkok, p. 99-112.
(Review of M Permian fossil localities of Sumatra. Mainly limestones, many with fusulinids, some associated with volcanics: Padang Highlands (Guguk Bulat, Silungkang, Tanjung Alai), Jambi Province (Sungei Luati, Batang Tabir, Sg. Kibul, Sg. Palepat), Bukit Pendopo (Palembang), near Lubuksikaping (Muara Sipongi) and N Sumatra near Takengon (Situtup Lst))

Fontaine, H. & S. Gafoer (1989)- Upper Permian- Lower Triassic. In: H. Fontaine & S. Gafoer (eds.) The Pre-Tertiary fossils of Sumatra and their environments, United Nations ESCAP, CCOP, Technical Publication TP 19, Bangkok, p. 167.
(Upper Permian not established with certainty on Sumatra. Lower Triassic also absent or rare)

Fontaine, H. & S. Gafoer (1989)- Triassic. In: H. Fontaine & S. Gafoer (eds.) The Pre-Tertiary fossils of Sumatra and their environments, United Nations ESCAP, CCOP, Technical Publication 19, Bangkok, p. 169-177.
(Middle-Late Triassic sediments known from N Sumatra since 1899, when Volz described 6 species of Daonella and Halobia. Triassic also present in Padang Highlands, Lake Toba area (Sibaganding Limestone), Bangka and Belitung (Norian), etc. Deep water Mutus assemblage in oil wells in Pakanbaru area, C Sumatra)

Fontaine, H. & S. Gafoer (1989)- The Jurassic. In: H. Fontaine & S. Gafoer (eds.) The Pre-Tertiary fossils of Sumatra and their environments, United Nations ESCAP, CCOP, Technical Publication 19, Bangkok, p. 207-225.
(Overview of Jurassic localities in N, C and S Sumatra.Almost 30 formations identified. Mainly shallow marine shelf deposits)

Fontaine, H., S. Gafoer & Suharsono (1990)- Well-dated horizons of the pre-Tertiary of Sumatra. In: H. Fontaine (ed.) Ten years of CCOP research on the Pre-Tertiary of East Asia, United Nations ESCAP, CCOP, Technical Publication 20, p. 55-58.
(Reprint of Fontaine et al. (1988) paper in CCOP Newsletter 13, 2, p. 26-30. Table of occurrences of fossiliferous Lower Carboniferous, Permian, Triassic, Jurassic and Cretaceous outcrops on Sumatra)

Fontaine, H. & D. Vachard (1981)- A note on the discovery of Lower Carboniferous (Middle Visean) in Central Sumatra. CCOP Newsletter 8, 1, p. 14-18.
(Lower Carboniferous limestones with M Visean foraminifera in Agam River, E of Bukit Tinggi along road to Payakumbuh. Lower Carboniferous limestones rel. poor in fossils and darker than associated Permian fusulinid limestone. No regional metamorphism, just local contact metamorphism around igneous intrusions)

Fontaine, H. & D. Vachard (1990)- A note on the discovery of Lower Carboniferous (Middle Visean) in Central Sumatra. In: H. Fontaine (ed.) Ten years of CCOP research on the Pre-Tertiary of East Asia, United Nations ESCAP, CCOP, Technical Publication 20, p. 35-41.
(Reprint of Fontaine and Vachard (1981))

Fontaine, H. & D. Vachard (1984)- New palaeontological data on the Upper Paleozoic of Sumatra. Memoires Societe Geologique France, n.s., 147, p. 49-54.
(Lower Carboniferous corals in Padang Highlands may be considered part of Chinese province. Early Permian volcanics, clastics and limestone with fusulinids in Jambi Province, with no evidence of glaciations)

Fontaine, H. & D. Vachard (1986)- Study of Permian samples collected from Sumatra. CCOP, Technical Bulletin 18, p. 112-116.
(online at: https://repository.unescap.org/items/312125a5-1653-453e-97d7-3adb1899913d)
(Brief review of five Permian limestone localities with fusulinids in Jambi Province (all first discovered by Tobler (1922): Mudik (Pulau) Bayur (Asselian age), Lubuk Cada and Lubuk Kelawaralong Tabir River (Murgabian age), Muara Selajau (Murgabian) and Batu Tjangap (Upper Murgabian). No figures)

Force, E.R., S. Djaswadi & T. Van Leeuwen (1984)- Contributions to the geology of mineral deposits: A. Exploration for porphyry metal deposits based on rutile distribution- a test in Sumatra. U.S. Geological Survey (USGS) Bull. 1558 A, p. A1-A9.
(online at: http://pubs.usgs.gov/bul/1558a-b/report.pdf)
(Rutile in thick soil at Tangse porphyry-copper prospect, along Sumatra Fault Zone in Aceh reflects distribution of quartz-sericite and biotite-chlorite zones of hydrothermal alteration at depth)

Frech, F. & O.E. Meyer (1922)- Mitteljurassische Bivalven von Sungi Temalang im Schieferbarissan (Residentschaft Djambi). Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 5, 5, p. 223-229.
('Middle Jurassic bivalves from Sungei Temalang, Jambi, in the 'Schieferbarisan'. No. 3 of A. Tobler's series Beitrage zur Geologie und Palaontologie von Sumatra. Small bivalve fauna of probable M Jurassic age collected by Tobler in isoclinally folded phyllitic rocks in tributary of Limun River in S part of Jambi Residency. With Astarte, spp., Opis and Cypricardia. Ammonites-belemnites absent)

Frijling, H. (1928)- Geologisch-mijnbouwkundig onderzoek in den omtrek van de Asahan- and Koealoe rivieren (Toba landen, Oost Sumatra). Jaarboek Mijnwezen Nederlandsch-Indie 54 (1925), Verhandelingen 2, p. 153-173.
('Geological-mining investigation in the vicinity of the Asahan and Kualu rivers, Toba Lands, E Sumatra'. Primarily investigation of folded Triassic limestones, unconformably overlain by Eocene conglomerates and coaly beds)

Furqan, R.Al (2014)- The geology of Pinang-Pinang Au-Cu±Mo skarn, Aceh, Indonesia. In: I. Basuki & A.Z. Dahlius (eds.) Sundaland Resources, Proc. Annual Conv. Indonesian Soc. Economic Geologists (MGEI), Palembang, p. 291-299.
(online at: www.researchgate.net/profile/Reza-Al-Furqan/publication/325405822_The_Geology_of_Pin Etc.)
(Pinang-Pinang gold-copper±molybdenum project ~20km SE of Tapaktuan on SW coast of Aceh consists of two skarn deposits,~3km apart. Granitoids and limestones present but no ages discussed)

Gafoer, S. (2002)- Stratigrafi dan karakter mintakat Pra-Tersier di Sumatra bagian selatan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 12, 121, p. 2-24.
('Stratigraphy and character of the Pre-Tertiary zone in South Sumatra'. Four basement terranes in S Sumatra: (1) MTB Tigapuluh- Bohorok (Permo-Carboniferous, incl. glaciomarine deposits, with Late Triassic- E Jurassic granites; paleolatitude 41°S, 115° CW rotation) (=Sibumasu); (2) MKD-Kuantan- Duabelas (Carboniferous-Cretaceous sediments and low-grade metamorphics, from N latitudes; 30°N paleolatitude for E Permian Mengkareng Fm with 'Jambi flora'; ~90° CW rotation; with Late Permian, Late Triassic- E Jurassic and Cretaceous granites); (3) MGk-Gunungkasih (pre-Carboniferous? high metamorphic rocks, also with Late Permian, Late Triassic- E Jurassic and Cretaceous granite, from low-latitude S Hemisphere (19°N/ 339°CW rotation for Pre-Carboniferous in Table4?; JTvG)= Malacca microcontinent of Pulunggono and Cameron 1984); (4) MGW- Garba-Woyla Terrane (latest docked; Jurassic- E Cretaceous oceanic and accretionary zone rock types with ultramafics). Raub-Bentong suture interpreted to run through N Bangka)

Gafoer, S. & T.C. Amin (1993)- Tinjauan kembali geologi Pra-Tersier daerah Garba, Sumatera Selatan. Bull. Geological Research Development Centre (GRDC) 16, p. 17-26.
(New geologic observations in the pre-Tertiary area of Garba, S Sumatra. Oldest rocks are low-grade metamorphics of possible Carboniferous age. Tectonically juxtaposed against Late Jurassic- E Cretaceous volcanic rocks and chert of possible oceanic affinity in E Cretaceous (melange complex of Barremian- Aptian age 125-120 Ma). Both rock types intruded by Late Cretaceous granites; 116-80 Ma)

Gafoer S., T.C. Amin & R. Pardede (1992)- Geological map of the Bengkulu Quadrangle (0912), Sumatra, 1: 250,000, 2nd Ed., Geological Research Development Centre (GRDC), Bandung.
(Geologic map sheet of SW Sumatra NE of Bengkulu, with folded Oligo-Miocene clastics in Bengkulu forearc area, young volcanics only in Barisan Mountains and SW part of S Sumatra (Palembang) Basin in NE. In SE corner Gumai Mts anticlinorium with Late Jurassic- E Cretaceous interfingering Saling Fm andesitic-basaltic lavas and Lingsing Fm bathyal clastics (=oceanic; Barber et al. 2005), both unconformably overlain by Sepingtiang Fm reefal limestones (with Orbitolina?) and calcarenites, unconformably overlain by ?Paleo-Eocene Kikim Tuffs)

Gafoer S., T.C. Amin & R. Pardede (1993)- Geological map of the Baturaja Quadrangle, Sumatra. Geological Research Development Centre (GRDC), Bandung.
(Geologic map of SE part of S Sumatra Basin, with folded Late Oligocene- Miocene sediments, incl. E Miocene limestone outcrops at Baturaja town and around Garba Mts. Pre-Tertiary rocks in Garba Mts Anticlinorium look like Cretaceous accretionary complex with Late Paleozoic/ E Carboniferous? Tarap Fm meta-sediments, Late Jurassic- E Cretaceous Garba Fm with radiolarian cherts and basalts interbedded with chert and occasional serpentinite, with NW-SE foliation, mid-Cretaceous melange complex (mixed boulders in scaly clay), intruded by M-L Cretaceous Garba Granite (~115, 80 Ma ages; Saefudin 2000), unconformably overlain by Tertiary sediments (incl. Paleogene quartz sandstone of Cawang Fm, Kikim volcanic breccia and tuffs)

Gafoer, S., G. Burhan & J. Purnomo (1986)- The geology of the Palembang Quadrangle, Sumatra (Quadrangle 1013), 1:250,000. Geological Research Development Centre (GRDC), Bandung, p. 1-18. + map.
(Also 2nd Edition 1995. Map sheet of folded Miocene- Pleistocene sediments of South Sumatra Basin NW of Palembang. Large NW-SE trending anticlines (Babat, Keluang, Tamiang, Berau-Bentayan, etc.))

Gafoer, S., T. Cobrie & J. Purnomo (1986)- The geology of the Lahat Quadrangle, Sumatra (Quadrangle 1012), 1:250,000. Geological Research Development Centre (GRDC), Bandung, p. 1-25. + map.
(Map sheet mainly of SW part of S Sumatra (Palembang) Basin. With large Pendopo- Limau and Benuang-Prabumulih anticlines, all with old oil fields. Series of smaller anticlines in Muara Enim- Lahat area in SW with outcrops of coal-bearing M-L Miocene sediments, intruded by Quaternary volcanic necks (Bukit Serelo, etc.))

Gafoer, S. & K.D. Kusumah (2002)- Cekungan batubara Paleogen daerah Pangkalan Kotabaru dan sekitarnya, Sumatra Barat-Riau. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 12, 129, p. 2-22.
('Paleogene coal basins in the area of Pangkalan Kotabaru and surroundings, Sumatra West Riau'. W margin of C Sumatra rift basin near Barisan Mts front with outcrops of up to 8m? thick M-L Eocene coals in Pematang Fm (age supported by Florschuetzia trilobata, Gemmatricolporites pilatus a.o.))

Gafoer, S., K.D. Kusumah & N. Suryono (2001)- Kegiatan tektonik Tersier: hubunannya dengan pembentukan cekungan dan akumulasi batubara di sub-cekungan Jambi bagian Barat. Geological Research Development Centre (GRDC), Bandung, Special Publ. 26, p. 73-97.
('Relations between Tertiary tectonics and coal deposits in W Jambi sub-basin, S Sumatra')

Gafoer, S. & M.M. Purbo-Hadiwidjoyo (1986)- The geology of Southern Sumatra and its bearing on the occurrence of mineral deposits. Bull. Geological Research Development Centre (GRDC) 12, p. 15-30.
(Oldest rocks in S Sumatra locally metamorphosed Carboniferous and Permian sediments. Silurian- Devonian granites known from two wells. Also Permian volcanics, unconformably overlain by Triassic clastics. Late Triassic tin-granites on Bangka-Belitung. Flysch-type U Jurassic- Lw Cretaceous. M-Late Cretaceous granites and Kikim Tuffs. Widespread Late Oligocene- earliest Miocene 'Old Andesite' along Barisan Range)

Gao, M.H., P.P. Liu, S.L. Chung, Q.L. Li, B. Wang, W. Tian, X.H. Li & H.Y. Lee (2022)- Himalayan zircons resurface in Sumatran arc volcanoes through sediment recycling. Nature Communications Earth & Environment 3, 283, p. 1-11.
(online at: https://www.nature.com/articles/s43247-022-00611-6)
(Hf-O isotopes of inherited zircons of basalts and andesites near Toba Caldera (Sibayak, Sipisupisu and Sinabung volcanoes, Haranggaol Andesites) indicate some came from subducted terrigenous sediments from E Himalaya, most likely via ongoing subduction of Andaman-Nicobar Fan sediment below Sumatra. Zircon U-Pb ages wide range from <1 to ~1600 Ma; difficult to differentiate whether they come from subducted sediments or Sumatra crust. E negative εHf(t) values of zircons with ages beween ~120- 30 Ma from volcanics near Toba indicate probably derived from subducted Nicobar Fan. Mixing of subducted sediments with mantle accounts for enriched Sr-Nd isotopic compositions of Toba arc volcanics. Thermodynamic modeling and geochemical evidence indicates subducted sediments did not melt on slab surface, but formed diapirs that rose buoyantly through hot mantle wedge and contribute to ~30-45% of magma source of Toba arc volcanic rocks)

Gasparon, M. (1993)- Origin and evolution of mafic volcanics of Sumatra (Indonesia): their mantle sources, and the role of subducted oceanic sediments and crustal contamination. Ph.D. Thesis, University of Tasmania, p. 1-395.
(online at: http://eprints.utas.edu.au/19511/1/whole_GasparonMassimo1994_thesis.pdf)
(Sediments, or fluids derived from sediments subducted along Sunda Trench, affect chemistry of Quaternary arc volcanics in some sectors of Sunda arc, whereas isotopic signature of other sectors mainly reflects composition of mantle source. Two groups of ganitoids identified in Sumatra: (1) Arc-related granitoids along calc-alkaline trend of arc rocks, with Sr, Nd, and Pb isotope systematics similar to those of Indian Ocean basalts (including basalts from S Sumatra); (2) E of Semangko fault, granitoids and pyroclastic rocks mainly of 'S-type', with high 87Sr/86Sr values, similar to C Granitoid Province of SE Asia. Therefore, Semangko fault and Quaternary arc may define SE margin of Sibumasu terrane. No systematic variations in geochemical and isotopic composition from N to S Sumatra observed in two groups of granitoids. Sr, Nd, and Pb isotopes suggest pre-Mesozoic continental crust present in Sumatra and W Java, but absent from E Java- Lombok)

Gasparon, M. (2005)- Quaternary volcanicity. In: A.J. Barber, M.J. Crow & J.S. Milsom (eds.) Sumatra: geology, resources and tectonic evolution, Geological Society, London, Memoir 31, Chapter 9, p. 120-130.
(Quaternary volcanics of Sumatra rel. rich in young silicic volcanic rocks, associated with major caldera-forming events)

Gasparon, M. & R. Varne (1995)- Sumatran granitoids and their relationship to Southeast Asian terranes. Tectonophysics 251, p. 277-299.
(Three subparallel Late Paleozoic- Mesozoic granitoid provinces in SE Asia: (1) East (E peninsular Malaysia); (2) Central (NW Thailand to W Peninsular Malaysia and 'Tin Islands', Indonesia) and (3) West (W Thailand-Burma). Compositions of Sumatran granitoids suggest (1) granitoids in E/ NE Sumatra (incl. 'Tin Islands', Bukit Batu near Palembang, Hatapang pluton, Lake Toba area and possibly Sijunjung pluton in C Sumatra), all have high Sr-87/86 values and other S-type similarities, and can be related to 'Sibumasu terrane'/ Central Granitoid Province; (2) granitoids W of Semangko fault and in basement of Quaternary volcanics low initial Sr-87/Sr-86 values and I-type characteristics, similar to young arc volcanics and may represent young post-Gondwanan Sumatran arc lithosphere; (3) Granitoids comparable to W Province not known in Sumatra, and (4) granitoids similar to E Province are rare. Semangko fault and Sunda Strait may mark SW- and SE-most limits of Sibumasu terrane. Boundary between Central and E Granite Provinces may run through 'Tin Islands')

Geinitz, H.B. (1876)- Zur Geologie von Sumatra. I. Zur Geologie von Sumatra's Westkuste. Palaeontographica 22, p. 399-414.
(online at: https://www.biodiversitylibrary.org/item/103416#page/7/mode/1up)
('On the geology of Sumatra'. Brief description of rocks collected by Verbeek from around Ombilin coal-bearing basin, Padang Highlands, W Sumatra. Incl. descriptions of grey limestone with globular fusulinids (here suggested to be named Fusulina verbeeki n.sp.), crinoids, brachiopods, etc. Also 50m thick Eocene coral limestone. With companion paper by Von der Marck (1876) on Tertiary fossil fish from region, p. 405-414)

Geinitz, H.B. (1878)- Zur Geologie von Sumatra's Westkuste. Jaarboek Mijnwezen Nederlandsch-Indie 7 (1878), 1, p. 127-137.
('On the geology of Sumatra'. Reprint of Geinitz (1876))

Genrich, J.F., Y. Bock, R. McCaffrey, L. Prawirodirdjo, C.W. Stevens, S.S.O. Puntodewo, C. Subarya & S. Wdowinski (2000)- Distribution of slip at the northern Sumatran fault system. J. of Geophysical Research 105, B12, p. 28327-28342.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/2000JB900158/epdf)
(Sumatran fault in N Sumatra (1°S- 3°N) GPS-derived slip rates increase slightly N-ward from 23 mm/yr at 0.8°S to 26 mm/yr at 2.7°N. Banda Aceh embayment is extruded to NW at 5 mm/yr. N part of back arc basin is part of rigid Sunda Shelf, while N forearc is subjected to extension nearly parallel to arc)

Geyr, E. (1921)- Beitrage zur Petrographie von Sud-Sumatra. Lampong Distrikte und angrenzende Gebiete. Dissertation Munster University, p. 1-. *(Unpublished)*
('Contributions to the petrography of South Sumatra: Lampung Districts and adjacent areas. Petrographic descriptions of igneous rocks from Lampung and Bengkulu, collected by J. Elbert in 1908. Quartz porphyry, liparite, basalts, etc.)

Gibbons, A., J.M. Whittaker & P. Muller (2010)- Revisiting the magnetic anomalies along the West Australian margin identifies a new continental fragment that accreted to Sumatra during the Early Eocene. American Geophysical Union (AGU), Fall Meeting 2010, Poster Abstract T13C-2223. *(Abstract only)*
(Reconstruction of abyssal plains along W Australian margin reveals that, apart from Greater India and Argoland, a third continental block (Gascoyneland) rifted from Australia since Jurassic. From 132 Ma (Hauterivian; E Cretaceous) it formed stretched continental crust of Exmouth Plateau, then oceanic crust of Gascoyne and Cuvier abyssal plains. At 115 Ma (= late Aptian) Gascoyneland began moving N while Greater India continued West. 'Gascoyneland' would have reached W Sumatra at ~60 Ma. Woyla Group, consisting of Sikuleh, Natal and Bengkulu terranes, along W coast of Sumatra, identified as oceanic arc, which accreted in Jurassic-E Cretaceous after formation of short-lived, narrow marginal sea and may overlie continental crust due to presence of Sikuleh granitoid batholith. Gascoyneland now probably buried beneath Woyla Terrane)

Graha, D.S. (1992)- Percontohan untuk penarikhan metoda kalium-argon batuan daerah Danau Toba dan sekitarnya, Sumatera Utara. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 2, 11, p. 2-8.
('Sampling for study of potassium-argon method in rocks from Lake Toba area and surroundings, N Sumatra')

Graha, D.S. & T. Hardjono (1990)- Biotit sebagai petunjuk umur granit di Aceh selatan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 2, 5, p. 2-5.
('Biotite as age indicator of granite in southern Aceh'. K-Ar age of biotite from west coast of W Sumatra, S Aceh (Tapaktuan map sheet; Woyla Terranes?). Wide spread of ages: Susoh 98.2 Ma, Kila 130 Ma and Samadua 51.3 Ma)

Graha, D.S., T. Hardjono, I. Rustami, A. Sonjaya, P. Kawoco & Herwinsyah (1998)- Perioda pengendapan Tuf Toba, Sumatera Utara, berdasarkan hasil penarikhan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 8, 76, p. 11-17.
('Periods of Toba Tuff deposition, based on the results of withdrawal' (?). Thick Quaternary Toba Tuff deposits consist of andesitic lava in lower part and alternating pyroclastic flows, ignimbrites and welded tuffs in upper part). Five phases: (1) Dacite tuff (1.2 Ma), (2) Older Toba Tuff (0.84-0.71 Ma), (3) Middle Toba Tuff (0.50- 0.39 Ma, (4) Younger Toba Tuff (0.10- 0.05 Ma) and (5) Post- Younger Toba Tuff (0.031-0.017 Ma))

Graha, D.S., S. Permanadewi & D.A. Siregar (1990)- Penarikhan Kalium Argon dan radiokarbon di daerah Propinsi Bengkulu. Proc. 19th Annual Conv. Indonesian Association Geologists (IAGI), 2, p. 42-49.
(online at: https://www.iagi.or.id/web/digital/48/19th-(11-13-Des-1990)-Book-II-52-59.pdf)
('K-Ar and radiocarbon analyses in the area of the Bengkulu province'. K-Ar age of plagioclase of Gunung Muncung diorite ~4.76 Ma (Pliocene). Also young C14 ages for Quaternary alluvium around Bengkulu city)

Grand Pre, C.A., B.P. Horton, H.M. Kelsey, C.M. Rubin, A.D. Hawkes, M.R. Daryono, G. Rosenberg & S.J. Culver (2012)- Stratigraphic evidence for an early Holocene earthquake in Aceh, Indonesia. Quaternary Science Reviews 54, p. 142-151.
(Holocene stratigraphy of coastal plain of NW Aceh 6 m of sediment with three regionally consistent buried soils above pre-Holocene bedrock or sediment. Rapid change in relative sea-level caused by coseismic subsidence during E Holocene megathrust earthquake suggested by mangrove soil overlain by thin tsunami sand with abraded foraminifera of both offshore and onshore environments. Tsunami sand age ~7000 yrs BP)

Grey, D.W.J. (1935)- Notes on the Balimbing Mine, West Coast of Sumatra. Transactions Institution of Mining and Metallurgy, London, 45, p. 221-281.
(Relatively detailed overview of ore bodies and operations at relatively small Balimbing gold mine, by British mining engineer Donald W.J. Grey, mine manager in 1930-1932. Exploited by the Bondjol Exploratie Maatschappij and Balimbing Mijnbouw Maatschappij. Mine closed in June 1934. Located in Barisan Mts, 2 km E of Bonjol village, 60km from Fort de Kock and 8km WSW of now depleted Mangani mine. Young gold-silver hydrothermal mineralization, mainly along two N10°E-striking faults. Surrounding rocks isoclinally folded Permo-Carboniferous slates and sandstones, Eocene 'Brani-conglomerate', E Miocene bituminous shales with Lepidocyclina, Miogypsina, etc., overlain by younger Balimbing- Mangani volcanic rocks)

Grutterink, J.A. (1925)- Truscottiet. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 8 (Gedenkboek Verbeek, memorial volume), p. 197-200.
(online at: https://books.google.com/books?id=Yy0RAAAAIAAJ&pg)
(Description and analysis of rare mineral truscottite from Lebong Donok Au-Ag mine, Bengkulu, Sumatra, first described by Hovig (1914). Spheroidal aggregates of Ca-zeolite, closely related to gyrolite (see also MacKay and Taylor (1954). Mineral since then also found in Japan, Hawaii, Yellowstone; JTvG))

Grysen, T., D. Gibson & K. Nicholson (2016)- Geothermal heat flow map of Sumatra, Indonesia. Proc. 50th Annual Geological Society of America (GSA) North-Central Section Meeting, T25, Paper No. 36-7, 1p. *(Abstract + Poster)*
(poster online at: https://www.smu.edu/-/media/site/dedman/academics/programs/geothermal-lab/conference/pastpresentations/2016/grysen_smupowerplays_poster_2016.pdf)
(Heat flow maps for N, C and S Sumatra basins, compiled from published and unplished well data))

Gultaf, H., B. Sapiie, W. Triyoso, M. Hadiana, Y Halauwet & H.A.A.M. Narwadan (2025)- Stress regime analysis in the structural transition between Sumatra and Jawa. Scientific Contributions Oil and Gas (SCOG), Lemigas, Jakarta, 48, 1, p. 41-49.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/1687/1332)
(Orientation of structural trends shifts from NW-SE in W Sumatra to W-E in S Java. Stress inversion from earthquake focal mechanism data between 0-33 km suggests Lampung main stress regime is strike-slip, Sunda Strait transtensional, while W Java has shallow thrust fault regime, transitioning to strike-slip at 15-33 km)

Gunawan, W., A. Kadir, S. Sukmono, M.T. Zen, L. Hendrajaya & D. Santoso (1996)- Gravity evidence for the thinning of the crust around the North Sumatra area. Proc. 25th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 81-91.
(Major structural discontinuity around N Sumatra, tied to split in descending oceanic plate along continuation of Investigator Ridge Transform. Discontinuity reflected by a change of Sumatra Fault segment's geometrical fractal dimension, volcanic line offset and major changes to strike of Batee fault and Batee trench. Area around discontinuity characterized by very low gravity anomaly closure (up to -96 mgal) with higher anomaly in center, indicating low density body of mantle material intruded by higher density igneous material in center)

Gunderson, R.P., P.F. Dobson, W.D. Sharp, R. Pudjianto & A. Hasibuan (1995)- Geology and thermal features of the Sarulla Contract Block, North Sumatra, Indonesia. Proc. World Geothermal Congress 1995, Florence, 2, p. 687-692.
(online at: www.geothermal-energy.org/pdf/IGAstandard/WGC/1995/2-Gunderson.pdf)

(Exploration for geothermal energy in Sarulla area of W Sumatra, along active Sumatra Fault System. No active volcanoes in contract area, but extensive Quaternary andesite-rhyolite lavas and dacite-rhyolite ash flow tuffs (dated between 1.8- 0.12 Ma). Hydrothermal features clustered in four groups: Namora-I-Langit, Silangkitang, Donotasik, and Sibualbuali; each associated with Quaternary volcanic eruptive center)

Gunderson, R., N. Ganefianto, K. Riedel, L. Sirad-Azwar & S. Suleiman (2000)- Exploration results in the Sarulla Block, North Sumatra, Indonesia. Proc. World Geothermal Congress 2000, Kyushu, Tohoku, Japan, p. 1183-1188.
(online at: www.geothermal-energy.org/pdf/IGAstandard/WGC/2000/R0892.PDF)
(Geothermal exploration in Sarulla Block discovered three new geothermal systems in Quaternary andesitic and rhyolitic volcanics along Great Sumatra Fault Zone in W Sumatra)

Gutzwiller, E. (1914)- Petrografische beschrijving der eruptiefgesteenten van het Goemai-gebergte. Jaarboek Mijnwezen Nederlandsch Oost-Indie 41 (1912), Verhandelingen, p. 50-86.
(Petrographic descriptions of igneous rocks from Gumai Mountains, collected by Tobler: Pre-Tertiary granites, porphyrites, diabase, tuffs and Young Tertiary liparite, dacite, andesite, basalt)

Hady, A.K. & G.I. Marliyani (2020)- Updated segmentation model of the Aceh segment of the Great Sumatran fault system in Northern Sumatra, Indonesia. J. Applied Geology (UGM) 5, 2, p. 84-100.
(online at: https://journal.ugm.ac.id/jag/article/download/56134/30350)

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('On the methodology of uranium prospecting in tropical rain forests areas in the example of Sumatra'. On regional uranium reconnaissance survey in Sumatra in 1976-1978)

Hahn, L. & H.S. Weber (1981)- Geological map of West Central Sumatra 1:250,000- with explanatory notes. Geologisches Jahrbuch B47, p. 5-19.
(Geologic map of W Central Sumatra, compiled during 1976-1978 Indonesian- German Uranium Exploration Project. Mainly Barisan Mountains NE of Padang, including Ombilin Basin. Permian Limestones with fusulinids (at Batang Siputar with 'antitropical' Monodiexodina wanneri). Triassic clastics with Halobia and also Triassic limestones. Unconformably overlain by Oligocene lacustrine deposits rich in fish fossils and Oligo-Miocene quartz sandstones. Permian- Recent volcanics and Permian-Tertiary granitic massifs)

Hahn, L. & H.S. Weber (1981)- The structure system of West Central Sumatra. Geologisches Jahrbuch B47, p. 21-39.
(Central Barisan Mts area four prominent NW-SE trending fault zones, main one is Central Barisan dextral strike-slip fault zone. Intimate relationship between tectonic and volcanic history. Major tectonic events M Cretaceous, M Miocene and Plio-Pleistocene)

Haile, N.S. (1978)- A comment on stratigraphical relationships in the Indarung Area, Padang District, West Sumatra. Bull. Geological Society Malaysia 10, p. 93-95.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1978007.pdf)
(Critical discussion of Yancey and Alif (1977). Inclusion of deep water radiolarian cherts with shallow-marine limestones in single formation deemed inappropriate. Cherts less extensive than shown by Yancey and Alif (no chert was seen as outcrops ~0.5 km E of Ngalau Quarry. Some rocks at Ngalau Quarry not chert, but weathered stratified rock)

Haile, N.S. (1979)- Palaeomagnetic evidence for rotation and northward drift of Sumatra. J. Geological Society, London, 136, p. 541-546.
(?Permian, U Triassic, Lower Cretaceous, and Lower Tertiary rocks from 25 sites in N and C Sumatra. Results indicate 12° N-ward drift since Late Triassic, with 40° clockwise rotation. Remaining localities less reliable, but confirm low paleolatitudes (within 26° of present latitude) and clockwise rotation since Permian. Clockwise

rotation of Sumatra contrasts with anti-clockwise rotation of W Borneo, Malay Peninsula and SW Sulawesi and suggests Sumatra not coupled to 'Sundaland' until mid-Tertia

Hakim, A.S. (2003)- Cebakan sedex Zn-Pb di daerah Pagar Gunung, Kabupaten Kotanopan, Kabupaten Madina, Sumatera Utara. Buletin Geologi (ITB), 35, 3, p. 117-131.
(Zn-Pb sedimentary-exhalative deposits in the Pagar Gunung area, Kotanopan and Madina regencies, North Sumatra'. Old Dutch-era prospect, resurrected in late 1980s)

Hakim, A.Y.A., M.N. Heriawan, T. Indriati, D.B. Darma & M. Sanjaya (2013)- Mineralogical observation of Fe-skarn deposit in Lhoong Prospect, Nanggroe Aceh Darussalam, Indonesia.Proc. Int. Symposium on Earth Science and Technology, Fukuoka 2013, p. 274-279.
(online at: https://www.researchgate.net/publication/259347093_Mineralogical_Observation_of_Fe-Skarn_Deposit_in_Lhoong_Prospect_Nanggroe_Aceh_Darussalam_Indonesia)
(Fe-Cu skarn deposit at contact of Miocene? Geunteut granodiorite and E Cretaceous Raba and Lamno Limestones associated with Bentaro Volcanics in Barisan Mts of N Sumatra (= probably part of Woyla arc terranes; see also Susanto and Suparka 2012))

Hall, A. & S.J. Moss (1997)- The occurrence of laumontite in volcanic and volcaniclastic rocks from southern Sumatra. J. Southeast Asian Earth Sciences 15, 1, p. 55-59.
(online at: http://searg.rhul.ac.uk/pubs/hall_moss_1997%20Laumontite%20from%20Sumatra.pdf)
(Zeolite-group mineral laumontite in Gumai Mts in Eocene Kikim Tuff and in Quaternary Bukit Balai volcanic center. Product of hydrothermal alteration rather than weathering or metamorphism)

Hamid, D., S. Ardiansyah & B. Safrihadi (2014)- Discovery, exploration history and geology of the Upper Tengkereng porphyry gold and copper deposit, Gayo Lues, Aceh. In: I. Basuki & A.Z. Dahlius (eds.) Sundaland Resources, Proc. Annual Conv. Indonesian Soc. Economic Geologists (MGEI), Palembang 2014, p. 219-244.
(Upper Tengkereng Au-Cu-(Mo) porphyry deposit in Gayo Lues regency, C Aceh. One of six porphyries in Tengkereng - Ise Ise mineralization belt, associated with Late Pliocene (~2.0 Ma) age intrusive complexes in M Jurassic? volcanics and limestones of the Woyla Gp)

Hamidsyah, H. & M.C.G. Clarke (1982)- Discovery of primary tungsten and tin mineralisation in North Sumatra, Indonesia. In: J.V. Hepworth & Y.H. Zhang (eds.) Symposium on Tungsten geology, Jiangxi, China, ESCAP/RMRDC (UN), p. 49-58.
(Tin and Tungsten mineralization associated with Late Cretaceous (~80 Ma) Hatapang granite, N Sumatra)

Handarbeni, A., D.K. Dewi & I.S.Ivaniahu (2012)- Epithermal gold deposits in Tambang Sawah Area, Lebong District, Bengkulu Province. Proc. 41st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2012-M-13, p. 32-35.
(Tambang Sawah area in Lebong District, W Sumatra, with widespread gold and silver ores exploited since 14th century by local and Hindu miners, and during Dutch colonial era since 1910. Both low and high sulphidation epithermal deposits. Mineralization veins in form of tabular quartz-cemented breccias bodies along faults. Highly variable concentrations of associated pyrite).

Handini, E., N.I. Setiawan, S. Husein, P.C. Adi & Hendarsyah (2017)- Petrologi batuan alas cekungan (Basement) Pra-Tersier di Pegunungan Garba, Sumatera Selatan. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, p. 1-2.
(online at: https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_Petrologi-Batuan-Alas-Cekungan-(Basement) -Pra-Tersier.pdf)
('Petrology of basement rocks in Pre-Tertiary in Garba Mountains, South Sumatra'. Brief report on basement rocks in Garba Mts: (1) metamorphics dominated by phyllites (Carboniferous- E Permian Tarap Fm?); (2) andesites- gabbro (E Cretaceous) magmatism; (3) polymict breccia of clay matrix with chert, marble blocks; (4) youngest unit Garba granite, with new K-Ar date of 91.3 ± 1.9 Ma (~Turonian). Garba Mts part of Jurassic-Cretaceous Saling volcanic arc, in E Cretaceous collision zone between Woyla and W Sumatra terranes?)

Hanzawa, S. (1947)- Note on some species of *Pseudocyclammina* from Sumatra. Japanese J. Geology and Geography 20, 2-4, p. 5-8.
(Fontaine et al. 1983: Upper Jurassic or Lower Cretaceous Pseudocyclammina from Gumai Mountains and in deep well in Kikim oilfield near Gumai Mts. Including P. lamellifera, P. cyclamminoides, P. bemmeleni)

Harahap, B.H. (2006)- Petrology of the Upper Miocene volcanic rocks on the western Barisan Mountain Ranges, Lubuk Sikaping region, West Sumatera. Buletin Geologi (ITB) 38, 3, p. 81-108.
(see also Harahap 2011)

Harahap, B.H. (2007)- Petrologi batuan magmatis Neogen daerah Pangkalan Kotabaru Limapuluh kota, Sumatera Barat. Jurnal Sumber Daya Geologi (JSDG) 17, 4, p. 207-217.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/290/261)
('Petrology of Neogene magmatic rocks in Pangkalan Kotabaru region, W Sumatra'. Andesites- dacites NNE of Padang are related to subduction)

Harahap, B.H. (2010)- Ciri geokimia batuan vulkaniklastika di daerah Tanjung Balit, Sumatra Barat: suatu indikasi kegiatan magma pada Eosen. Jurnal Geologi Indonesia 5, 2, p. 75-91.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/266)
('Geochemical characteristics of volcanoclastic rocks in the Tunjung Balit area, W Sumatra: some indications of magmatic activity in the Eocene'. Chemistry of ?Eocene red mudstones overlying Permian Kuantan Fm in Barisan Mts suggests altered volcanoclastic origin)

Harahap, B.H. (2011)- Petrology and geochemistry of the Upper Miocene volcanics on the western part of the Barisan Mountain Ranges, Lubuk Sikapeng region, West Sumatra. Jurnal Sumber Daya Geologi (JSDG) 21, 1, p. 9-21.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/131/128)
(Andesitic and basaltic lavas are main product of U Miocene volcanism in Lubuk Sikaping region, W Sumatra. Associated with base metals and gold, mined during colonial period at Bonjol, Mangani, etc. Resemble arc setting, with involvement of subducted sediment. Lava from Lubuk Sikaping is product of Maninjau eruption in Late Miocene, overlain by Pleistocene deposits of Maninjau Crater)

Harahap, B.H. (2011)- Magma genesis in Kabanjahe region continental margin arc of Sumatra. Jurnal Geologi Indonesia 6, 2, p. 105-127.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/307)
(Volcanic rocks in Kabanjahe area, N Sumatra Province, are products of old Toba Caldera, Sibayak Volcano, and Sipiso-piso Volcano. Rhyolitic tuff most common, also basalt, andesite, dacitic, rhyolite. Rocks originated from magma of continental origin formed at subduction zone environment)

Harahap, B.H. & Z.A. Abidin (2006)- Petrology of lava from the Maninjau Lake, West Sumatera. Jurnal Sumber Daya Geologi (JSDG) (GRDC, Bandung) 16, 6 (156), p. 359-370.
(online at: http://download.garuda.kemdikbud.go.id/article.php?article=493925&val=10104&title=Petrology%20of%20Lava%20from%20The%20Maninjau%20Lake%20West%20Sumatera)
(Pleistocene (~0.8 Ma) subaerial volcanics from Maninjau Crater/ caldera, 60km NW of Padang, mainly porphyric andesite and some rhyolite. Lavas distributed over 20 km, ignimbrite tuffs over 100 km. Belong to high-K calc-alkaline arc volcanics. Oldest rocks in area Carboniferous Kuantan Fm phyllite-limestone, under Permian- Jurassic. Barisan Range uplift began in late M Miocene, peaking at Mio-Pliocene boundary)

Harahap, B.H. & Z.A. Abidin (2012)- Karakteristik inklusi fluida dalam mineralisasi emas di daerah Lumban Julu, Tobasa, Sumatra Utara. Jurnal Sumber Daya Geologi (JSDG) 22, 3, p. 155-168.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/117/108)
('Characteristics of fluid inclusions in gold mineralization in the Lumban Julu area, Tobasa, North Sumatra'. Quartz veins in Lumban Julu area with Ag-Au-Cu-Pb-Zn mineralization. Fluid inclusions in quartz consist of liquid and vapor. Two systems of mineral deposition in area: (1) associated with high-T with mesothermal system at ~1600m depth and (2) associated with ephythermal system at ~550m depth)

Harahap, B.H., H.Z. Abidin, W. Gunawan & R. Yuniarni (2015)- Genesis of Pb-Zn-Cu-Ag deposits within Permian-Carboniferous carbonate rocks in Madina Regency, North Sumatra. Indonesian J. on Geoscience (IJOG) 2, 3, p. 167-184.
(online at: http://ijog.bgl.esdm.go.id/index.php/IJOG/article/view/209/200)
(Latong River outcrops near Siabu in W Sumatra between Sibolga and Natal. Folded Permian-Carboniferous Tapanuli Gp (Kluet/ Kuantan Fms) low-grade metasediments with limestone interbeds with galena-sphalerite-marcasite mineralization. Mineralization origin probably tied to sedimentary processes rather than igneous activity. Also older (Carboniferous; 333 Ma) and younger (E Cretaceous; 119Ma) hornblende and biotite granite intrusives in area)

Harahap, B.H. & Harmanto (1987)- Tin mineralization in Pegunungan Tigapuluh, Central Sumatra. Indonesia. In: W. Gocht (ed.) Proc. Seminar on Importance of primary tin mining in Southeast Asia, Bandung 1986, Intertechnik 28, Aachen, p. 111-124.
(Cassiterite- arsenopyrite mineralization in 70-100cm quartz veins in marginal greisen zone of Sungei Isahan granite, Tigapuluh Mts, E C Sumatra. Up to 7.5 kg/m3 cassiterite in stream sediment (see also Schwartz 1987))

Harbowo, D.G., R.N.F.A. Nahar, D. Sari, T. Julian, T.A. Kuswara, R.A. Abimayu, R.A. Lajona & S. Huzaifah (2022)- The significances of Cretaceous petrified wood fossils from Padangcermin, Lampung in paleoenvironmental perspectives. Proc. 1st Int. Seminar on Earth Sciences and Technology (ISEST 2021), Bandung, IOP Conference Series: Earth and Environmental Science 1047, 012016, p. 1-9.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1047/1/012016/pdf)
(Silicified wood in Menanga Fm interbedded grey claystone-siltstone, reddish sandstone and chert in Padangcermin, Lampung. Believed to be of Cretaceous age (but no evidence presented for age and no Cretaceous terrestrial deposits known from Sumatra previously?; JTvG). Microscopic analysis suggests wood from Juglandaceae family (angiosperms, walnut tree group))

Harbowo, D.G., D. Pratama, B. Priadi, T. Julian, D.J.P. Sihombing & E.S. Sitinjak (2023)- The marine fossils and paleoecological significance of the southern edge of South Sumatra Basin in Linggapura Lampung, Indonesia. Proc. 2nd Int. Seminar on Earth Sciences and Technology (ISEST-2023), Bandung, IOP Conference Series: Earth and Environmental Science 1245, 012001, p. 1-12.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1245/1/012001/pdf)
(Well-written and well-illusttrated, but somewhat pointless paper?: authors seem unable to correctly identifying one microfossil species; Some this sections of Baturaja limestone show W Miocene Miogypsina; JTvG)

Hardjawidjaksana, K. (1996)- Geochemistry and magnetic susceptibility of Toba ash layer in Indian Ocean (preliminary results of Barat cruise 1994). In: S.Y. Kim et al. (eds.) Proc. 32nd Annual Session Coord. Comm. Coastal Offshore Geoscience Programmes E and SE Asia (CCOP), Tsukuba 1995, p. 219-229.
(On distribution of ash from large Toba eruption of 75,000 years BP, N Sumatra)

Hariawan, M.N. & T. Mulya (2017)- Spatial relations between gold, associated metals and lithologies at the Miwah acid-sulfate (high sulfidation) epithermal deposit, Aceh, North Sumatra, Indonesia. Proc. 14th SGA Biennial Meeting- Mineral resources to discover, Quebec 2017, 4, p. 1353-1356.

Haridhi, H.A., B.S. Huang, K.L. Wen, D. Denzema, R.A. Prasety & C.S. Lee (2018)- A study of large earthquake sequences in the Sumatra subduction zone and its possible implications. Terrestrial Atmospheric Oceanic Sciences (TAO) 29, 6, p. 636-652.
(online at: http://tao.cgu.org.tw/index.php/articles/archive/geophysics/item/1613)

Harlan, J.B., M.L. Jones, B. Sutopo & T. Hoschke (2005)- Discovery and characterization of the Martabe epithermal gold deposits, North Sumatra, Indonesia. In: H.N. Rhoden et al. (eds.) Proc. Window to the world Symposium, Geological Society Nevada, Reno, p. 917-942.
(Newmont Martabe District high sulphidation epithermal gold deposits 1997 discoveries E of Sibolga. Near strand of Sumatra Fault Zone. See also Sutopo et al. 2003, 2013)

Harris, L. (1989)- Conjugate faulting associated with orthogonal subduction in Indonesia: structural constraints for the timing of the rotation of Sumatra. SGTSG Conference, Kangaroo Island 1989, Geological Society Australia, Abstracts 24, p. 59-60. *(Abstract only)*

Harris, L.B. (1989)- Structural controls of epithermal gold mineralization in Sumatra, Indonesia. In: J.L. Baxter (ed.) Shear zones, mineralisation and basin development, Postgraduate training course in mineral exploration, Western Australia School of Mines, Topic, 8, p. 1-40.

Hartmann, E. (1917)- Over de geologie van de Lampongsche Distrikten en het zuidelijk deel der residentie Palembang, Zuid Sumatra. Jaarboek Mijnwezen Nederlandsch Oost-Indie 44 (1915), Verhandelingen 2, p. 90-132.
('On the geology of the Lampung Districts and the southern part of the Palembang Residency, S Sumatra' Results of 1915 reconnaissance. Pretertiary metamorphics and granites, overlain by folded 'Eocene' quartz sandstones with coal, Oligocene Baturaja Limestone (few 100m thick; should be E Miocene age; JTvG), 500m or more marine Telisa/ Gumai clays, tuffs and limestones, 1000m of Miocene-Pliocene L-M Palembang clays-sandstones (rel. little coal in this area) and 500m Upper Palembang Fm quartz-rich tuffs. Overlain by unfolded Quaternary conglomerates and volcanics)

Hartmann, E. (1921)- Geologisch rapport over het kolenvoorkomen in de mijnconcessies 'Soekamarinda' en 'Boenian' en het tusschen deze beide gelegen kolenveld 'Ajer Serillo', gelegen in de onderafdeeling Lematang Oeloe, Residentie Palembang. Jaarboek Mijnwezen Nederlandsch Oost-Indie 47 (1918), Verhandelingen 2, p. 108-140.
(Detailed study of Middle Palembang Fm coal deposits in 3 mining concessions in Lematang Ulu area, Palembang Residency, S Sumatra. Interesting 'progressive superposition' model, suggesting back-stepping/ transgressive stacking of Middle Palembang Fm coal beds in paleo-landward direction)

Hartmann, M.A. (1936)- De Hoeloebeloe-hoogvlakte in Zuid Sumatra. De Tropische Natuur 25, 4, p. 53-60.
(online at: https://natuurtijdschriften.nl/pub/511228/TN1936025004001.pdf)
(The Hoeloebeloe (or Oeloebeloe-) high plateau in the Lampongsche Districts at 700 m above sea level, ~20 km NNW of Kota Agung on Semangka Bay and is southernmost part of Barisan Range. Many solfatara, hot springs, mud eruptions and three cone-shaped features suggest Hoeloebelo is an ancient volcanic caldera with younger andesitic cones, possibly associated with a fault zone)

Hartono, U. (2002)- Permian magmatism in Sumatra: their tectonic setting and magmatic source. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 12, 129, p. 33-46.
(Permian magmatism in W Sumatra demonstrated by volcanic rocks in Barisan Mts in Palepat and Silungkang areas (= Kuantan-Duabelas Mts Block= Mergui Plate). Tectonic setting debated, Volcanic rocks vary from low-K, medium-K to high-K affinities and consist of basalt, andesite and rhyolite. Low MgO and Ti02, enriched in large ion lithophile elements, light Rare Earth Elements (LREE), etc., indicate subduction zone environment. Magma source peridotitic upper mantle. Origin of rhyolite still unknown; characteristics no relationship to andesite)

Hartono, U., A. Achdan & S. Andi Mangga (1998)- Fractionation process evidences on the Palepat volcanic magmatism in Southern Sumatra. Jurnal Geologi dan Sumberdaya Mineral (JGSM), 8, 79, p. 2-9.
(Permian Palepat and Silungkang Fm volcanics are oldest rocks exposed along E flank Barisan Mts in S Sumatra. Three groups: (1) low-K basalt, basaltic andesite and low-medium-K andesites (subduction magmatism); (2) high-K andesite and rhyolite and (3) Low Na andesite and rhyolite (origins of 2 and 3 still unclear, but not co-magmatic with Group 1) (Suparka and Asikin 1981: not result of subduction))

Hartono, U., S. Andi Mangga & A. Achdan (1996)- Geochemical results of the Permian Palepat and Silungkang volcanics, southern Sumatra. Jurnal Geologi dan Sumberdaya Mineral (JGSM), 5, 56, p. 18-24.
(Permian Palepat and Silungkang volcanics from SW Sumatra (Kuantan- Duabelas Mts Zone= Mergui Plate of Pulunggono and Cameron, 1984). Predominantly andesitic and basaltic in composition, with minor rhyolites.

Previously interpreted as products of melting of continental crust (Suparka & Asikin, 1981), but geochemistry more typical of subduction-related magmatism, with high Al2O3 and low MgO and Ti02 concentrations. Silungkang volcanics characterised by FeO enrichment typical of tholeiite, Palepat rocks evolved from tholeiitic basalts to calc-alkaline andesites (no localities information or justification of age assigment; JTvG))

Hasibuan, F. (1993)- *Posidonia* dari Sumatera Barat. Proc. 22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 1061-1074.
(online at: https://www.iagi.or.id/web/digital/53/22nd-Volume-2-(6-9-Des-1993)-459-472.pdf)
('Posidonia from West Sumatra'. Two varieties of Triassic (Carnian?) marine mollusc Posidonia cf. kedahensis Kobayashi (A and B) from shaly horizon below M-L Triassic Sawahlunto Limestone in two localities NE of Padang, W Sumatra: S of Sawahlunto (E of Lake Singgkarak) and Sulit Air/ Mt Si Karikir (NE of Lake Singkarak). Associated with ammonite Trachyceras (Protrachyceras). Overlain by limestone with mollusc Paleocardita spp.))

Hasibuan, F. (2007)- A study on paleoflora (Permian) of Jambi, South Sumatera. In: Geologi Indonesia: dinamika dan produknya, Geological Research Development Centre (GRDC), Bandung, Special Publ. 33, 2, p. 135-147.
(Revisit of Mengkarang Fm along Merangin River, W of Bangko, W Jambi, by multi-disciplinary team in 2003. Mengkarang Fm 400m thick, basal basalt overlain by fluviatile system, with marine limestone beds ands shale interbeds containing fusulinids, crinoids, ammonites, and brachiopods. Two plant associations of Jambi Early Permian paleoflora, suggesting one new local and one probable S Cathaysian affinity paleofloral domain)

Hasibuan, F., S. Andi Mangga & Suyoko (2000)- *Stereochia semireticulatus* (Martin) dari Formasi Mengkarang, Jambi, Sumatra. Geological Research Development Centre (GRDC), Bandung, Seri Paleontologi 10, Bandung, p. 59-69.
(Permian brachiopods from Jambi series along Mengkarang River, SW of Bangko, C Sumatra. All belong to Stereochia semireticulatus (Martin), called Productus semireticulatus by Woodward (1879) (reclassified as Stereochia aff. S. irianensis by Crippa et al. 2014) (Sterochia believed to range from Sakmarian- Kungurian; Grant 1976; also known from Bitauni, Timor (Broili 1916) as Productus semireticulatus; JTvG))

Hastuti, E.W.D. (2017)- Geochemical study of pyroclastic rocks in Maninjau Lake, West Sumatra. In: 2nd Int. Conference Transdisciplinary research on environmental problems in Southeast Asia (TREPSEA), Bandung 2016, IOP Conference Series: Earth and Environmental Science, 71, 012034, p. 1-9.
(online at: http://iopscience.iop.org/article/10.1088/1755-1315/71/1/012034/pdf)
(Pleistocene- Holocene pyroclastic deposits in Maninjau area in Barisan Mts range in composition from high-K rhyolite to calc-alkaline andesite)

Hayes, G.P., M. Bernardino, F. Dannemann, G. Smoczyk, R. Briggs et al. (2013)- Seismicity of the Earth 1900-2012, Sumatra and vicinity. U.S. Geological Survey (USGS) Open File Report 2010-1083-L, 1p.
(online at: http://pubs.usgs.gov/of/2010/1083/l/pdf/OF10-1083_L-508.pdf)

Heesterman, L.J.H. (1984)- Geology and mineralisation of the Mangani Area, West Sumatra, Indonesia. Ph.D. Thesis Chelsea College, University of London, p. 1-418.
(online at: https://kclpure.kcl.ac.uk/portal/files/2932475/542393.pdf)
(Mangani gold mine area in eastern, inactive part of dextral Sumatra Fault Zone, near Bukittinggi. Several new mineralised areas discovered, incl. unexposed lead/zinc mineralisation (original Mangani mine operational ~1913-1931; with additional mining by Marsman A.E.M. company around 1940-1941)

Hehuwat, F. (1977)- The CCOP/ IDOE Sumatra Transect: a summary of activities. Proc. 14th Session Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Manila 1977, p. 399-406.

Hendrawan, R.N. & W.A. Draniswari (2016)- Possibility of enhanced geothermal system in South Sumatra Basin. Proc. 4th Indonesia International Geothermal Convention & Exhibition, 4, Jakarta, p. 1-6.
(online at: https://www.researchgate.net/publication/306064886_The_Possibility_of_Enhanced_Geothermal_System_in_South_Sumatra_Basin)
(Middle to E area of S Sumatra Basin potential site for Enhanced Geothermal System at depth)

Hertrijana, J., P. Hehuwat, M.L. Jones & B. Harlan (2005)- Martabe high sulphidation gold deposits, North Sumatra. In: S. Prihatmoko et al. (eds.) Indonesian mineral and coal discoveries, Indonesian Association Geologists (IAGI), Jakarta, Special Issue, p. 59-73.
(PT Newmont Martabe gold district at NW coast of Sumatra, 30 km E of Sibolga. Epithermal high-sulphidation gold mineralization associated with Late Tertiary (Pliocene?) dacite-andesite dome and diatreme complex, W of Sumatra Fault Zone. Epithermal alteration dated as 2.1-3.3 Ma. Basement rocks in area Carboniferous- Permian Tapanuli Gp meta-clastics, intruded by Late Triassic Nagodang Granite (Ar/Ar age 209 Ma), which may be related to 'Jurassic' Sibolga Granite Complex 30km to NW)

Hertrijana, J.J. & G.N. Petersen (2009)- A review of Martabe gold-silver deposits. Geologi Ekonomi Indonesia (MGEI) 1, 1, p. 15-21.

Hinz, K. (1980)- Malacca Strait survey 1979. Proc. 17th Session Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Bangkok 1980, p. 212-215.

Hirschi, H. (1903)- Uber eine expedition nach den Gajoelanden 26 Mei-13 Juni 1903. BPM report PB77/79, p. 1-9. *(Unpublished)*
('About an expedition to the Gajo Lands, 26 May-13 June 1903'. Probably the first North Sumatra geological survey, conducted by Swiss geologist Hans Hirschi on behalf of the 'Koninklijke Olie' (Royal Dutch Petroleum Company))

Hirschi, H. (1910)- Geographisch-geologische Skizze vom Nordrand von Sumatra. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2) 27, p. 741-763.
(online at: https://babel.hathitrust.org/cgi/pt?id=mdp. 39015078113365;view=1up;seq=119)
('Geographic-geological sketch of the northern margin of Sumatra'. Early geographic-geological survey in 1903 of N Sumatra coastal region by Swiss geologist Hans Hirschi, under contract with 'Koninklijke Nederlandsche Petroleum Maatschappij' (later named Royal Dutch/Shell/ BPM). Barisan Mts rocks include Permian-Carboniferous rocks with limestone in western Tamiang region, serpentinites and diabase, overlain by folded Tertiary sediments and young volcanics. Glauconitic sandstone from Krung Nilang in Tamiang, SE Aceh, contains small Nummulites believed to indicate Eocene age (confirmed by Tobler 1923, who also observed small Discocylina in same samples (no figures; = same mistake as Brady (1875), who mistook E Oligocene Nummulites fichteli with Eulepidina (Td) in Ombilin Basin for Eocene?). With 1:800,000 sketch map)

Hirschi, H. (1915)- Geologische Reiseskizze durch das Aquatoriale Sumatra. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2) 32, p. 476-508.
('Geological travels through Equatorial Sumatra', Brief desciption of a private expedition of Swiss BPM geologist Hirschi across C Sumatra in 1909. Includes probably the first decriptions of Eocene coals in the Upper Singingis River area, in SE corner of Central Sumatra Tertiary basin, later described by Heim and Potonie (1932). The coals were later mined in 1944-1945, by Japanese with forced labor, and was one of the reasons for construction of the 'Pakanbaru death railroad')

Hochstein, M.P. & S. Sudarman (1993)- Geothermal resources of Sumatra. Geothermics 22, 3, p. 181-200.
(online at: https://www.researchgate.net/publication/223244885_Geothermal_resources_of_Sumatra)
(At least 30 high T systems along active Sumatra Arc that transfer heat from crustal intrusions to the surface. These systems, together with eleven active volcanoes, five degassing volcanoes and one caldera volcano (Lake Toba), are controlled by Sumatra Fault Zone. Large, low T resources exist in Tertiary sedimentary basins of Sumatra back-arc region, where anomalously high T gradients (up to 8°C/100 m) have been measured. Etc.).

Hogenraad, G.B. (1915)- Een en ander over de mijn "Salida". Technisch Studenten Tijdschrift, Delft, 6, 1, p. 1-12.
(online at: http://lib.tudelft.nl/mscans/mscans1847)
(also in Jaarboek 1914-1915 van de Mijnbouwkundige Vereeniging te Delft, p. 287-296; online at: https://resolver.kb.nl/resolve?urn=MMAD01:000055001:pdf))

(Review of the Salida gold-silver mine, 70km S of Padang, W Sumatra (see also Hoogenraad 1934))

Hogenraad, G.B. (1934)- De Salida Mijn. De Ingenieur in Nederlandsch-Indie (IV) 1, 1, p. IV.3- IV.13.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1934-01.pdf)
('The Salida mine'. Authors name misspelled as Hoogenraad, former Salida mine administrator. Review of operations of Salida gold-silver mine of W Sumatra, 80 km S of Padang. First exploited with mixed success by Dutch East Indies Company (VOC) in 1669-1735, with miners from Hungary and Saxony and slave laborers from Madagascar, then from 1912-1928 by Salida Mining company. Two main ore veins hosted by Oligo-Miocene volcanics and sediments. Peak production in 1917: 427 kg gold, 8633 kg silver)

Holis, Z. & B. Sapiie (2012)- Fractured basement reservoirs characterization in Central Sumatera Basin, Kotopanjang Area, Riau, Western Indonesia: an outcrop analog study. AAPG Int. Convention Exhib., Singapore 2012, Search and Discovery Article 50735, p. 1-4. *(Poster Presentation)*
(online at: www.searchanddiscovery.com/documents/2012/50735holis/ndx_holis.pdf)
(On fracture characterization of basement outcrops (Carboniferous- E Permian Bohorok Fm pebbly mudstone))

Holthausen, E. (1925)- Beitrag zur Kenntnis der Petrographie des Gebietes des Toba-Sees in Nordsumatra. Inaugural Dissertation, Wilhelms Universitat, Munster, p. 1-44.
('Contribution to the knowledge of the petrography of the Lake Toba area in North Sumatra'. Brief petrographic descriptions of rocks collected by Siccama in 1923 along E bank of Lake Toba, mainly from volcanic massif of Prapat: diorites, porphyrites, liparite, andesite, tuff and contactmetamorphic rocks. No maps or figures)

Hovig, P. (1914)- De goudertsen van de Lebongstreek (Benkoelen). Jaarboek Mijnwezen Nederlandsch Oost-Indie 41 (1912), Verhandelingen, p. 87-276.
('The gold ores of the Lebong area (Bengkulu)'. With detail maps of the 8 principal gold mines. Includes first description of truscottite (Ca-zeolite) from Lebong Donok mine in Bengkulu district. Official name Hövig)

Hovig, P. (1917)- Contactmetamorphe ijzerertsafzettingen in Nederlandsch-Indie. Natuurkundig Tijdschrift voor Nederlandsch-Indie 77, 3, p. 71-103.
(online at: http://archive.org/details/mobot31753002490198)
('Contact-metamorphic iron ore deposits in Netherlands Indies'. On epithermal iron ore deposits, mainly at contact zones of Salo-Talimbanga, 12km NW of Rante Pao (C Sulawesi), Bukit Rajah at border of Jambi and Palembang provinces (S Sumatra), Lampung, etc.). No maps or figures)

Hovig, P. (1919)- Mijnbouw maatschappij Redjang-Lebong: Rapport uitgebracht over het geologisch onderzoek van het concessie-terrein "Lebong Donok". Ruygrok & Co., Batavia, 76p.
(Report of minerals survey of Lebong Donok terrain near Rejang Lebong gold mine, N of Bengkulu, W Sumatra)

Hu, H., D. Zhao, J. Lin, S. Pilia (2023)- A slab window beneath North Sumatra revealed by P-wave mantle tomography. J. of Geophysical Research: Solid Earth 128, 6, e2022JB025976, p. 1-18.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1029/2022JB025976)
(New 3-D tomographic model of crust and upper mantle beneath N Sumatra reveals well-defined low-velocity channel that cuts across subducting slab beneath Toba caldera. Not a tear in slab, as previously suggested, but a slab window caused by high seafloor relief of subducted Investigator Fracture Zone. Window allows exchange of mantle material from subslab region up to Toba volcano)

Hu, P., L. Cao, H. Zhang, Q. Yang, Tampubolon Armin & X. Cheng (2019)- Late Miocene adakites associated with the Tangse porphyry Cu-Mo deposit within the Sunda arc, north Sumatra, Indonesia. Ore Geology Reviews 111, 102983, p. 1-15.
(Quartz diorite porphyry from Tangse porphyry Cu-Mo deposit near Sumatra Fault Zone in Aceh, NW Sumatra, is adakite with calc-alkaline affinities (emplacement age 8.7 Ma). Adakite mainly generated by partial melting of subducted oceanic slab)

Huang, C., G.F. Du, H.J. Jiang, J.F. Xie, D. Zha, H. Li & C.K. Lai (2019)- Ore-forming fluids characteristics and metallogenesis of the Anjing Hitam Pb-Zn deposit in Northern Sumatra, Indonesia. In: Mesozoic metallogeny of Southeast Asia, J. of Earth Science (China) 30, 1, p. 131-141.
(online at: http://en.earth-science.net/fileDQKXEN/journal/article/jes/2019/1/PDF/jes-30-1-131.pdf)
(Anjing Hitam Pb-Zn deposit in N Sumatra one of the largest Pb-Zn deposits in region, with stratiform orebodies in middle member of Carboniferous-Permian Kluet Fm of Tapanuli Group. Mineral paragenesis and crosscutting relationships suggest two-stage mineralization. Anjing Hitam is Carboniferous exhalative sedimentary (SEDEX) deposit overprinted by Pleistocene magmatic-hydrothermal mineralization)

Huang, X. & P. Tong (2024)- New insight into the velocity and anisotropy structures of the subduction zone in northern Sumatra. Tectonophysics 892, 230534, p.
(P-wave seismic tomographic inversion model of N Sumatra. Low-velocity zones beneathToba and Sinabung volcanoes potentially indicate presence of magma reservoirs. Etc.

Huchon, P. & X. Le Pichon (1984)- Sunda Strait and central Sumatra fault. Geology (GSA) 12, p. 668-672.
(Right-lateral Central Sumatra fault accommodates oblique subduction and terminates in SE at extensional zone of Sunda Strait)

Huguenin, O.F.U.J. (1854)- Bijdragen tot de geologische en mineralogische kennis van Nederlandsch Indie, VI. Mijnbouwkundig onderzoek der koperertsen in de Residentie Padangsche Bovenlanden. Natuurkundig Tijdschrift voor Nederlandsch-Indie (3) 6, p. 223-254.
('Mining investigation of the copper ores in the Padang Highlands'. Old report on survey of relatively widespread copper mineralization in Batipo- Kotta's area of Barisan Range (Timboelon, etc.). No maps)

Huguenin, O.F.U.J. (1856)- Bijdragen tot de geologische en mineralogische kennis van Nederlandsch Indie, XVII. Onderzoek naar het aanwezen van steenkolen in het terrein aan de Tjiletoekbaai, Residentie Preanger Landschappen. Natuurkundig Tijdschrift voor Nederlandsch-Indie (3) 12, p. 110-128.
('Investigation of the presence of coal in the area of Ciletuk Bay, Priangan Residency (SW Java)'. Report of a survey of the west side of Ciletuh Bay in 1855. No coal found anywhere, instead outcrops of breccias with basaltic andgreeish rock clasts, 'greenstones', serpentinites, gabbro, sandstones and conglomerates, etc.)

Hundeshagen, L. (1904)- The occurrence of platinum in wollastinite on the island of Sumatra, Netherlands East Indies. Transactions Inst. Mining Metallurgy 13, p. 550-552.
(Singenggu River locality 35 miles from Sibolga, N Sumatra. Occurrence of traces of platinum and gold in wollastonite in limestone lens altered at granodiorite intrusion (skarn) (no peridotites noticed in area))

Hundeshagen, L. (1905)- Coal and gold in Sumatra. Engineering Mining J., March 1905, p. 533- .

Hurukawa, N., B.R. Wulandari & M. Kasahara (2014)- Earthquake history of the Sumatran Fault, Indonesia, since 1892, derived from relocation of large earthquakes. Bull. Seismological Society of America 104, 4, p. 1750-1762.
(Many shallow right-lateral strike-slip fault earthquakes along Sumatran fault zone. Hypocenter relocations of 27 large earthquakes (M ≥6:0) from 1921-2012 and identification of fault planes of 6 earthquakes of M ≥7:0 s)

Husein, S., A. Setianto, S.T. Nurseto & H. Koestono (2015)- Tectonic control to geothermal system of Way Panas, Lampung, Indonesia. Proc. World Geothermal Congress 2015, Melbourne 2-15, p. 1-12 *(online at: www.researchgate.net/publication/282650806_Tectonic_Control_to_Geothermal_System_of_Way_Pan Etc.)*
(Remote sensing study of Way Panas in S end of Sumatra, WNW of Tanggamus volcano and part of Ulubelu geothermal field. Field developed along active Sumatera Fault Zone (Semangko FZ), the main control on geothermal activity in area. With hot springs, fumaroles, gas discharges, mud pots, altered rocks, etc., associated with major NW-SE normal fault, which acts as boundary fault of E Pliocene structural graben filled by Plio-Pleistocene volcanic complex. This NW-SE structural trend was part of the Sumatran Fault system)

Hutchison, C.S. (1989)- Chemical variation of biotite and hornblende in some Malaysian and Sumatran granitoids. Bull. Geological Society Malaysia 24, p. 101-119.

(online at: www.gsm.org.my/products/702001-101309-PDF.pdf)
(Eastern Belt granitoids of Malay Peninsula commonly contain hornblende and biotite. Hornblendes and co-existing biotites equilibrium partitioning of Fe/Mg proving magmatic origin. Aluminium in amphiboles prove epizonal emplacement for E Belt granitoids and even higher sub-volcanic environment for SE province. Known occurrences of amphibole in Main Range are few. Sibolga granite from N Sumatra Permo-Triassic ages (Rb-Sr 247± 24 Ma, most K-Ar ages 215 Ma, Late Triassic) S-type granite, but no known tin association. Hornblende of Sumatran plutons suggest shallow emplacements with crystallization pressures <~2.4 kb)

Idarwati, H.S. Purwanto, E. Sutriyono & C. Prasetyadi (2018)- Revealing granitic basement of Garba Hill, Muara Dua Region, South Sumatera based on Landsat images, structure, and petrography. Proc. International Conference Earth Science Mineral Energy, Yogyakarta 2018, IOP Conference Series: Earth and Environmental Science 212, 012041, p. 1-6.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/212/1/012041/pdf)

Idarwati, H.S. Purwanto, E. Sutriyono & C. Prasetyadi (2021)- The geologic process of the Saka River area: related to the history Woyla elevated ocean in the South Sumatra island region, Republic of Indonesia. Proc. 3rd Int. Conf. Advanced Engineering and Technology (ICATECH 2021) Surabaya 2021, Journal of Physics: Conference Series 2117, 012014, p. 1-7.
(online at: https://iopscience.iop.org/article/10.1088/1742-6596/2117/1/012014/pdf)
(Remnants of accreted intra-oceanic Woyla Arc in Saka segment of W Garba Mts, S Sumatra. Woyla Arc is mix of volcanics (basalt, and andesite) and oceanic rocks with chert and serpentine. Late Cretaceous granites)

Idarwati, H.S. Purwanto, E. Sutriyono, C. Prasetyadi & S.N. Jati (2021)- History Woyla Arc of the Garba Complex: implications for tectonic evolution of the South Sumatra Region, Indonesia. J. Geoscience and Environment Protection 9, 12, p. 118-132.
(online at: https://www.scirp.org/pdf/gep_2021122815125189.pdf)
(Garba Mts outcrops with Cretaceous arc volcanics and granite, metamorphics and melange? with Triassic-age chert-bearing sediments considered part of Woyla Group and W Sumatra basement. Earlier structuring episode extensional, perhaps associated with Paleogene rifting along W margin of Sundaland. In Late Neogene compression across entire region, allowing inversion of the Pre-Tertiary sequence. Pleistocene extension caused ENE-WSW tensional block faulting and possible exhumation of area)

Idarwati, B. Setiawan, S.N. Jati, Y.Z. Rochmana, E.D. Mayasari & M. Rendana (2025)- Schematic formation of boudine granite and microfold phyllite of Gilas River: Implications for Triassic to Tertiary tectonics of Garba Hill, South Ogan Komering Ulu Regency, South Sumatra Province. Geosystems and Geoenvironment 4, 3, 100414, p. 1-11.
(online at: https://www.sciencedirect.com/science/article/pii/S2772883825000640)
(Garba Hills near Tanjung Kuring in S Sumatra represent complex collision zone between Sibumasu and Indochina blocks. Woyla Volcanic Arc is result of subduction between Mesotethys and Cenotethys. Subsequent subduction of Woyla Block against West Sumatra Block in Cretaceous produced Garba granite. Multistage deformation at Gilas section: (1) Triassic foliation in phyllite rocks, (2) Late Cretaceous faulting and creation of boudine structures and (3) Neogene uplift of Garba Mountains)

Imtihanah (2000)- Isotopic dating of igneous sequences of the Sumatra Fault System. M.Sc. Thesis, London University, p. 1-150. *(Unpublished)*

Imtihanah (2004)- 40Ar/39Ar geochronology of rocks affected by the Sumateran fault system (SFS) collected from West-Central Sumatra. Jurnal Sumber Daya Geologi (JSDG) 14, 3 (147), p. 16-31.
(Ar/Ar dating of 3 granitoid plutons near Sumatra Fault zone: 1) Sulit Air biotite-hornblende granodiorite, SE of Ombilin, intruding folded Permian limestones: 193-192 Ma (E Jurassic) (K-Ar ages by McCourt and Cobbing, 1993) (200-180 Ma and 150-140 Ma), (2) Lassi granite-granodiorite, E of Solok: 56-54.8 Ma (E Eocene) (previous K-Ar ages ~57-53 Ma); and (3) Lolo biotite-hornblende granodiorite (mainly 9-5.6 Ma; one biotite granite sample ~15 Ma) (previous K-Ar ages ~11-5 Ma))

Imtihanah (2005)- A petrographic study of igneous rocks from western part of Central Sumatra and their suitability for 40Ar/39Ar dating (a preliminary study). Jurnal Sumber Daya Geologi (JSDG) 15, 1 (148), p. 26-37.
(Petrography of granites along Sumatra Fault Zone, from Ombilin (muscovite granodiorite, E of Lake Singkarak), Sulit Air (hornblende granodiorite; intruded into folded Permian limestones), Lassi Pluton, Lolo Pluton (biotite-hornblende granodiorite) and Sungaipenuh areas)

Imtihanah (2005)- Rb/Sr geochronology and geochemistry of granitoid rocks from Western part of Central Sumatra. Jurnal Sumber Daya Geologi (JSDG) 15, 2 (149), p. 103-117.
(Radiometric ages of three western C Sumatra granitoid plutons: (1) Sulit Air (~192 Ma; E Jurassic; previous analyses 202 Ma and 200-180 Ma); (2) Lassi (55-52.2 Ma; Eocene)(= much younger than 122 Ma of Katili 1973, but in line with 52-57 Ma ages in McCourt & Cobbing 1993; JTvG) and (3) Lolo (K-Ar and Rb-Srages 15.1- 5.8 Ma; M-L Miocene). All calk-alkaline and with Sr isotopes suggesting similar source)

Indrajat, B., I. Bruce, H. Hardian, S. Prabowo & M.M. Sinaga (2009)- The geology and mineralization of the sedex and MVT deposits of the Dairi District, North Sumatra, Indonesia. Geologi Ekonomi Indonesia (MGEI) 6, 1, p. 22-36.
(Sedimentary exhalative style mineralisation in Permo-Carboniferous Tapanuli Gp of Sopokomil dome of Dairi Regency)

Irwansyah, Panuju, D. Kurniadi & Y. Helmi (2017)- Paleogene bioevents in the Pematang Group, Central Sumatera Basin, Rokan Block Area, Riau. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), 26, Malang, p. 1-6. *(online at: https://www.iagi.or.id/web/digital/5/24-(26)-PROCEEDINGS-Joint-Convention-Malang,-September-2017.pdf)*
(M Eocene- Oligocene palynology of Pematang Gp rift fill of C Sumatra basin (basal Brown Shale Formation overlain by Red Beds member of Pematang Gp). With Meyeripollis naharkotensis, Proxapertites operculatus Florschutzia trilobata,etc. LO Cicatricosisporites eocenicus within lower Brown Shale in one well. Age range not older than Proxapertites operculatus zone to not younger than Meyeripollis naharkotensis subzone (Oligocene))

Irzon, R. (2022)- Kondisi pembentukan dan pengaruh diagenesis batugamping dari wilayah Solok dan sekitarnya berdasarkan kadar geokimia. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 23, 2, p. 81-89.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/684/477)
('Formation conditions and diagenesis of limestones from Solok and Surrounding areas based on geochemical Composition'. Geochemical analyses of Permian-Triassic limestones of Solok Regency, in Silungkang Fm (Permian volcanoclastics), Limestone Member of Tuhur Fm and Limestone Member of Kuantan Fm)

Irzon, R., Kurnia, M. Firdaus, E. Yulianto & F. Djabar (2023)- Geochemistry of I-type volcanic arc granitoid from Tanggamus Regency, Southern Sumatra. J. Mathematical Fundamental Sciences (ITB) 55, 2, p. 180-194. *online at: https://journals.itb.ac.id/index.php/jmfs/article/view/21992/6930)*
(Study of (Miocene?) granitoid from Tanggamus region, Lampung, and surroundings near Bukit Barisan. Intermediate- acidic intrusive rocks with SiO_2 61-75%. Rocks diorite to granodiorite and formed as result of subduction processes. Granitic rocks I-type features and of volcanic arc granite affinity. Total Rare Earth content medium (average 50 ppm). Similarity of Rare Earth normalized diagram against chondrite value suggests samples come from identical origin)

Irzon, R., I. Syafri, I. Agustiany, A. Prabowo, P. Sendjaja & J. Hutabarat (2019)- Petrology and geochemistry of the volcanic arc Tarusan Pluton in comparison to Lolo Pluton, West Sumatra. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 20, 4, p. 199-210.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/471/416)
(Tertiary Tarusan and Lolo granitoid plutons at W coast of Sumatra both of I-type calc-alkaline series character (volcanic arc granitoid))

Irzon, R., I. Syafri, Kurnia, P. Sendjadja, V.E. Setiawan & J. Hutabarat (2018)- Rare Earth Elements on the A-type Unggan Granite and its comparison to the A-type section of Sibolga Granite. Proc. 6th Int. Conference Indonesian Chemical Society, IOP Conference Series 1095, 012033, p. 1-7.
(online at: https://iopscience.iop.org/article/10.1088/1742-6596/1095/1/012033/pdf)
(A-type Unggan Granite in Sijunjung Regency, W Sumatra, higher REE abundance than A-type section of Sibolga Granite)

Irzon, R., I. Syafri, N. Suwarna, J. Hutabarat, P. Sendjaja & V.E. Setiawan (2021)- Geochemistry of plutons in Central Sumatra and their correlation to Southeast Asia tectonic history. Geologica Acta (Universitat de Barcelona) 19, 9, p. 1-14.
(online at: https://revistes.ub.edu/index.php/GEOACTA/article/view/32365/35065)
(Geochemical classification of granitoid intrusions in C Sumatra and relation to SE Asia tectonics. Six of seven studied plutons (Balimbing, Sulit Air, Tanjung Gadang, Lassi, Lolo, Tarusan) range from monzodiorite to granite; most are classified as I-type. Sijunjung Granite A-type. Existence of A-type implies extensional setting during long time subduction episodes, which triggered I-type magmatism in Late Permian-Neogene in Sumatra)

Irzon, R., H. Syaeful, A. Kusworo, J. Wahyudiono & Ngadenin (2022)- Review on granitic rocks in Sumatra: intrusion process, classification, mineralization, and potential uses. Eksplorium 43, 1, p. 1-12.
(online at: https://ejournal.brin.go.id/eksplorium/article/view/8132/6239)
(Granites widespread in Sumatra. S-type granite intrusions may be associated with tin mineralization ('Main Range granite Province'); I-type granites with silver-gold-copper mineralization (Eastern and Volcanic Arc provinces). A-type granites with relatively more REE, but extraction difficult. Etc.)

Ivey, J.H. (1904)- Notes on the Redjang-Lebong mine, Sumatra. Transactions Inst. Mining Metallurgy 12, p. 340-347.

Jambak, M.A., H.F. Yuda, D. Syavitri, Benyamin, S.D. Hafix (2020)- Paleontology and petrology of Late Paleozoikum age in West Sumatera of Silungkang Formation. Int. J. Advanced Science and Technology (IJAST) 29, 3, p. 6903-6911. *(online at: http://www.karyailmiah.trisakti.ac.id/uploads/kilmiah/dosen/Turnitin-Paleontology_and_Petrology.pdf)*
(Widespread old carbonate rocks of Silungkang Fm in W Sumatra (20 locations, incl. Sianuk, Gua, Silokek, Silungkang, Singkarak, etc), commonly transformed into unfossiliferous marble. Some non-metamorphosed parts allowed identification of large foraminifera (Fusulina, Fusulinella, Verbeekina and Loftusia, and smaller forams Climacammina antiqua, Bigenerina, Elenella, Koskinotextularia, Paleoeotextularia longiseptata, Fusulinids indicate M-L Permian age. Intense metamorphism at least during Mesozoic- Cenozoic)

Jansen, P.J. (1903)- Verslag ener geologisch- mijnbouwkundige verkenning der Atjeh-Vallei gedurende het jaar 1902. Jaarboek Mijnwezen Nederlandsch-Indie 32 (1903), p. 179-184.
('Report of a geological-mining reconnaissance in the year 1902'. Brief report on geologic reconnaissance in valley of Aceh River, N Sumatra. Only Tertiary sediments with some limestones, but no coal beds. With 1:200,000 color geologic map and cross-sections)

Jansen, P.J. (1936)- Rapport van Ir. P.J. Jansen, Technisch Adviseur der Directie, uitgebracht naar aanleiding van de gepubliceerde rapporten van Dr. Max Muller, Dipl. Ing. J. Kuntz en Dr. Ing. J. Zwierzycki. Mijnbouw Maatschappij Redjang-Lebong, Erdmann & Sielcken, Batavia, p. 1-55.
(online at: https://resolver.kb.nl/resolve?urn=MMKB31:034007000:pdf)
('Expert opinion' report to shareholders of the Redjang Lebong gold mine, Lebong Donok, Sumatra, based on separate recent geological investigations by M. Muller, J. Kuntz and J. Zwierzycki. Jansen objects to optimistic views of Kuntz on remaining minable deposits and agrees with Zwierzycki to recommend closing of Lebong Donok mine within months)

Jansen, P.J., B.B. Lindberg & H. Wolvekamp (1922)- Ertsonderzoekingen in Atjeh en onderhoorigheden, samengesteld naar de verslagen van mijningenieurs P.J. Jansen, B.B. Lindberg en H. Wolvekamp. Jaarboek Mijnwezen Nederlandsch-Indie 48 (1919), Verhandelingen 1, p. 130-162.

(Ore investigations in Atjeh and dependencies composed after the reports of mining engineers P.J. Jansen (1900-1901), B.B. Lindberg (1916-1917) and H. Wolvekamp (1917-1919. Brief review of contact-metamorphic iron ore and Tertiary-alluvial gold occurrences in Aceh, particularly the West coast. Conclusion: no commercial deposits encountered)

Jobson, D.H., C.A. Boulter & R.P. Foster (1994)- Structural controls and genesis of epithermal gold-bearing breccias at the Lebong Tandai Mine, western Sumatra, Indonesia. J. Geochemical Exploration 50, p. 409-428.
(Lebong Tandai mine discovered in late 1800s. Neogene low-sulphidation, volcanic-hosted epithermal gold deposit in foothills of Barisan Mts. Mineralisation as tabular quartz-cemented breccias bodies, localised along sinistral strike-slip faults associated with Sumatran Fault System)

Johari, S. (1988)- Geochemistry and tin mineralisation in northern Sumatra, Indonesia. In: C.S. Hutchison (ed.) Geology of tin deposits in Asia and the Pacific, Selected papers from the International Symposium on the Geology of tin deposits, Nanning, China, 1984, Springer Verlag, Heidelberg, p. 541-556.
(online at https://repository.unescap.org/items/f0e6c175-01e9-4218-9d43-94ae4ec4573e)
(Two areas in N Sumatra identified with cassiterite tin mineralization: Mabundar-Kutacane and Hatapang Rantau Prapat (SE of Lake Toba; K-Ar age ~76-78 Ma). Both areas are underlain by Carboniferous-Permian sediments, intruded by Late Cretaceous granites. Hatapang pluton mainly coarse-grained porphyritic biotite granites, of 'S' or ilmenite-type. They resemble 'Western Belt' granites in Phuket in Cretaceous? tin granite zone of Thailand)

Johnson, C.C., F.I. Coulson & Sumartono (1987)- Mineral exploration of the Sigalagala area, Sumatra Utara, Northern Sumatra. British Geological Survey (BGS)/ Directorate Mineral Resources, Bandung, NSGMEP Report Series 17 (BGS # WC/NS/87/17), p. 1-50.
(online at: https://resources.bgs.ac.uk/PublicationPDFs/21527422.pdf)
(Mineral geochemical survey around Miocene (12 Ma; Hehuwat, 1975) microdiorite/granite intrusive complex in Sigalagala area, Aceh, suggest possible Cu-Mo porphyry style mineralisation. Oldest rocks in area Permo-Carboniferous Bohorok Fm slates/ schists, metawackes, metalimestones, etc. (Tapanuli Gp), unconformably overlain by Miocene sediments)

Johnson, C.C., W.J. McCourt & Suganda (1993)- A report on the geochemistry of stream sediment samples and simplified geology of the Palembang Quadrangle (1033). Directorate Mineral Resources, Bandung/ British Geological Survey (BGS), Special Publ. 56-A, p. 1-32.
(No known metalliferous occurrences in Palembang Quadrangle, S Sumatra)

Jones, S.C. (2007)- The Toba supervolcanic eruption: tephra-fall deposits in India and paleoanthropological implications. In: M.D. Petraglia & B. Allchin (eds.) The evolution and history of human populations in South Asia, Springer, p. 173-200.
(Youngest Toba Tuff (74 ka) occurrences documented in river valleys throughout Indian subcontinent, ranging in thickness from 0.2-6m (probably thickened due to reworking and redeposition). May have caused mass human extiction. Fossil evidence suggests human colonization of India took place soon after Toba event)

Jongmans, W.J. (1937)- The flora of the upper Carboniferous of Djambi (Sumatra, Netherl. India) and its possible bearing on the paleogeography of the Carboniferous. Compte Rendu 2nd Int. Congress on Carboniferous Stratigraphy and Geology, Heerlen 1935, 1, p. 345-362.
(Abbreviated, English version of Jongmans and Gothan (1925) monograph on new material of E Permian Jambi flora)

Jongmans, W.J. & W. Gothan (1925)- Beitrage zur Kenntnis der Flora des Oberkarbons von Sumatra. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 8 (Gedenkboek Verbeek, memorial volume), p. 279-303.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:036826000:00001)
('Contributions to the knowledge of the flora of the Upper Carboniferous of Sumatra'. No. 7 of A. Tobler's series Beitrage zur Geologie und Palaontologie von Sumatra. First report on classic Early Permian 'Jambi flora' of W

Sumatra: 80 species, incl. 14 Pecopteris spp., Taenopteris, Sphenophyllum, etc. Interpreted here as Upper Carboniferous age (but Posthumus (1927) and subsequent workers all assigned it to Early Permian) and of 'European' affinity, with no relations to Gondwana flora. See also Jongmans & Gothan (1935) and papers by Booi. Van Waveren, etc.)

Jongmans, W.J. & W. Gothan (1935)- Die Ergebnisse der palaobotanischen Djambi-Expedition 1925. 2. Die palaeobotanischen Ergebnisse. Jaarboek Mijnwezen Nederlandsch-Indie (1930), 59, Verhandelingen 2, p. 71-201.
('The results of the 1925 paleobotanic Jambi expedition, 2. The paleobotanic results'. Additional Permian plant fossils of 'Jambi Flora', collected by 1925 Djambi Expedition, led by Zwierzycki and Posthumus. Two plant-bearing horizons in thick tuff-sandstone-shale series, ~100 and 250m above lowest fossil-rich limestone bed (= 'Productus Limestone' of Tobler?). Age of plant fossils here still regarded as 'Upper Carboniferous' instead of more likely E Permian age. Presence of typical low-latitude 'Cathaysian' species including Sphenopteris, Pecopteris, Taeniopteris, Gigantopteris, etc.; no Gondwana elements (NB: Asama et al. (1975) argued only limited % of Cathaysian species in Jambi flora. Two species described here as Gigantopteris not true Cathaysian Gigantopteris; see also Zwierzycki 1935, Van Waveren et al. 2007; JTvG)

Jongmans, W.J. & W. Gothan (1935)- Permo- karbonische Flora auf Sumatra, Niederl. Indien. Acta Pontificiae Academiae Scientiarum Novi Lyncaei (Vatican, R) 88, 2, p. 54-63.
('Permo-Carboniferous flora on Sumatra, Netherlands Indies'. Summary of Jongmans & Gothan, 1925)

Jurkovic, I. & I.B. Zalokar (1990)- Paragenetic and genetic characteristics and mode of occurrence of some gold-bearing copper deposits in Island Sumatra, Indonesia. Geoloski Vjesnik, Zagreb, 43, p. 195-203.
(online at: http://31.147.204.208/clanci/1990_Jurkovic%20&%20Zalokar_989.pdf)
(N and C Sumatra ore prospects along Semangko Fault Zone, investigated by geologists from Zagreb University (Croatia) in 1962: (1) hydrothermal Dolok Pinapan in N Tapanuli, with gold-bearing pyrite, chalcopyrite and tetrahedrite, etc;. (2) pyrometasomatic Huta Pungkut (Muara Sipongi area), garnet-pyroxene skarn in Permo-Triassic marble near Late Jurassic diorite/granodiorite/plagiogranite, with magnetite and chalcopyrite; (3) pyrometasomatic Timbulun copper deposit near Lake Singkarak (also explored during Dutch and Japanese occupations), in garnet-pyroxene skam with neodigenite and chalcopyrite. Prospects of very limited economic value. No known porphyry copper deposits of economic importance in Sumatra)

Kadir, W.G.A., S. Sukmono, M.T. Zen, L. Hendrajaya & D. Santoso (1996)- Gravity evidence for the thinning of the crust around the North Sumatra area. Proc. 25th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 81-91.
(Structural discontinuity around N Sumatra effect of split in descending oceanic plate along continuation of Investigator Ridge Transform Fault. Discontinuity reflected by sharp change of Sumatra Fault, volcanic line offset and major changes to strike of Batee fault and Batee trench. Area around discontinuity low gravity anomaly with higher anomaly in center, indicating low density body of mantle material intruded by higher density igneous material in center. Gravity model pattern reflects thinning of crust beneath N Sumatra due to regional tensional stresses of mantle depth at ~20 km depth)

Kanao, N. et al. (1971)- Summary report on the survey of Sumatra, Block No. 5. Japanese Overseas Mineral Development Company Ltd., Bull. N.I.G.M. 2, p. 29-31.
(Wayzer et al. 1991: K/Ar date of W Sumatra Manunggul Granite batholith 87.0 Ma (Late Cretaceous))

Kastowo, G.W. Leo, S. Gafoer & T.C. Amin (1996)- Geological map of the Padang Quadrangle (0715), Sumatra, 1:250,000. Geological Research Development Centre (GRDC), Bandung
(2nd ed. of 1973 map by Kastowo & W.L. Gerhard. Geologic map of W coast of Sumatra, N of Padang.With Quaternary Maninjau crater lake and Merapi volcano. Late Paleozoic rocks in NE corner Permo-Carboniferous metamorphics (equivalent of phyllite Mb of Kuantan Fm) and E-M Permian carbonates N of Padang with fusulinids (Neoschwagerina, Verbeekina, Chusenella) (Limestone Mb of Kuantan Fm), associated with minor serpentinite in fault zone. Cretaceous granite SE of Singkarak dated as 112± 24 Ma by Katili, 1962)

Katili, J.A. (1960)- Geological investigations in the Lassi granite mass (Central Sumatra). Doct. Thesis Institut Teknologi Bandung (ITB), p. 1-127. *(Unpublished)*

Katili, J.A. (1962)- On the age of the granitic rocks in relation to the structural features of Sumatra. In: G.A. MacDonald & H. Kuno (eds.) The crust of the Pacific Basin. American Geophysical Union (AGU) Monograph 6, p. 116-121.
Most granites of Sumatra post-Triassic and pre-Tertiary in age, but some granites in S Sumatra of Cretaceous age. In C Sumatra only one definite unconformity between Triassic and Tertiary deposits. No accurate age of folding can be established from field data. Radiometric age of Lassi granites in C Sumatra 112 ± 24 Ma, mid-Cretaceous= tied to folding?)

Katili, J.A. (1964)- On the Sumatran nappe hypothesis. Report 22nd Session International Geological Congress, New Delhi 1964, Section 4, p. 134-147.
(JAK argues against nappe structures of Sumatra basement, as first proposed by A. Tobler in early 1900s, and accepted by Zwierzycki, Osberger, etc.))

Katili, J.A. (1968)- Permian volcanism and its relation to the tectonic development of Sumatra. Bull. of National Institute Geology and Mining (NIGM), Bandung, 1, 1, p. 3-13.
(online at: http://jrisetgeotam.com/index.php/NIGM/article/view/3-13/156)
(Also reprinted in "Geotectonics of Indonesia- a modern view', Bandung 1980)
(Extensive Permian volcanics SE of Lake Singkarak. Named Silungkang Fm, ~1000m thick, mainly flows of hornblende and augite andesites (= 'diabase' of Verbeek 1883), with calcareous member of thin-bedded limestone-shale in tuffs, containing Upper Permian fusulinids Doliolina lepida, Pseudofusulina padangensis, Neoschwagerina multiseptata and Fusulinella lantenoisi. Local contact metamorphism around mid-Cretaceous Lassi granites, simultaneous with main folding phase of region)

Katili, J.A. (1969)- Permian volcanism and its relation to the tectonic development of Sumatra. Bulletin of Volcanology (Bulletin Volcanologique) 33, 2, p. 530-540.
(Same paper as above. Permian volcanics cover extensive area SE of Lake Singkarak, C Sumatra. In Permian C Sumatra was elongated marine with thick sequence of bathyal and neritic sediments. Volcanic products mainly flows of hornblende and augite andesites with their tuffs. Main phase of folding at ~120 Ma, accompanied by emplacement of granitic rocks. Uplift in younger Cretaceous time, followed by erosion. 'Unusual andesitic character of geosynclinal volcanism')

Katili, J.A. (1969)- Large transcurrent faults in Southeast Asia, with special reference to Indonesia. Bull. of National Institute Geology and Mining (NIGM), Bandung, 2, 3, p. 1-20.
(Large wrench fault systems in Indonesia include the 1650km long NW-SE trending dextral Great Sumatra Fault zone (= Semangko Fault of Van Bemmelen), sinistral Palu-Koro Fault ('Fossa Sarasina') of Sulawesi, sinistral Sorong Fault Zone of West Papua)

Katili, J.A. (1970)- Additional evidence of transcurrent faulting in Sumatera and Sulawesi. Bull. of National Institute Geology and Mining (NIGM), Bandung, 3, 3, p. 15-28.
(Additional observations on dextral Great Sumatra Fault Zone and sinistral Palu-Koro Fault of Sulawesi)

Katili, J.A. (1970)- Large transcurrent faults in Southeast Asia, with special reference to Indonesia. Geologische Rundschau 59, 2, p. 581-600.
(Same as Katili 1969)

Katili, J.A. (1970)- Naplet structures and transcurrent faults in Sumatra. Bull. of National Institute Geology and Mining (NIGM), Bandung, 3, 1, p. 11-28.
(Disputes major nappe structure of Sumatra Pre-Tertiary, as proposed by Tobler 1917, etc. Djambi nappe is small overthrust (naplet) along minor transcurrent fault associated with Great Sumatran Fault zone)

Katili, J.A. (1973)- Geochronology of West Indonesia and its implication on plate tectonics. Tectonophysics 19, p. 195-212.
(Radiometric age dates from Sumatra, Java, Natuna, etc.)

Katili, J.A. (1974)- Sumatra. In: A.M. Spencer (ed.) Mesozoic-Cenozoic orogenic belts, Geological Society, London, Special Publ. 4, p. 317-331.
(Brief review of Sumatra geology. Oldest known rock are of Permo-Carboniferous age, deposited in elongated marine basin, in which thick sequence of bathyal and neritic sediments was deposited. Pelitic sediments dominated, but also volcanic activity, at first mainly tuffs, but later also andesitic lavas, which alternated with thin limestone and shale. Triassic dominantly shale and sandstone in M. Triassic, mainly limestone and marl in U Triassic. In Gumai Mts. volcanic activity continued till E Cretaceous, when volcanic breccias andesitic lava flows formed in alternation with limestones. Main phase of folding in M Cretaceous, when all pre-Tertiary pelitic rocks deformed into isoclinal folds, accompanied by emplacement of granitic and granodioritic rocks. Uplift in younger Cretaceous. Old Andesites in Oligo-Miocene, etc.)

Katili, J.A. & F. Hehuwat (1967)- On the occurrence of large transcurrent faults in Sumatra, Indonesia. J. Geosciences, Osaka City University 10, 1, p. 5-17.
(Several geologic features suggesting 20-25km right-lateral slip along Sumatra fault zone)

Katili, J.A. & Kamal (1961)- Laporan sementara mengenai geologi daerah Ombilin pesisir utara Danau Singkarak. Proceedings Institut Teknologi Bandung (ITB) 1, 1, p. 5-23.
(online at: https://journals.itb.ac.id/index.php/jmfs/article/view/9823/3781
('Interim report on the geology of the Ombilin area N of Lake Singkarak'. Thick (~1000m) Permian volcanic Silungkang Fm, with M-U Permian fusulinid limestone intercalations near top and overlain by 375m thick Triassic limestone, overlain by Oligo-Miocene clastics. Permian fusulinids identified by P. Marks as Doliolina lepida, Pseudofusulina padangensis, Neoschwagerina multiseptata, Fusulinella lantenoisi. Triassic limestones with Myophoria verbeeki, Cardita, etc. Silungkang Fm correlated wtth similar sedimentary-volcanic series with fusulinids of Gk. Gie Si Top Top and Lake Air Tawar in N Sumatra. No Pre-Permian granites at Guguk Bulat. Arkosic rocks part of Paleogene quartz sandstone formation, resulting from weathering of granite of possible Cretaceous age (area also surveyed by Verbeek (1883), Volz (1904), Musper (1930), etc.))

Kato, M., D. Sundari, T.C. Amin, D. Kosasih, S.L. Tobing et al. (1999)- A note on the reconfirmation of Lower Carboniferous age of the Agam River limestone of the Kuantan Formation, West Sumatra. Geological Research Development Centre (GRDC), Bandung, Seri Paleontologi 9, p. 53-61.
(Corals in massive oolitic Kuantan Fm limestone in Agam River in Padang Highlands E of Bukittingi include corals Michelina, Cyathaxonia, Clisiophyllum and algae Koninckopora. Confirm E Carboniferous (Visean) age (see also Metcalfe 1983, Fontaine and Gafoer 1989)

Kavalieris, I., D.J. Turvey & L.J.L. Heesterman (1987)- The geology and mineralization of the Mangani Mine, Sumatra, Indonesia. In: E. Brennan (ed.) Proc. Pacific Rim Congress 1987, Gold Coast, Australasian Institute of Mining and Metallurgy (AusIMM), Parkville, p. 221-225.
(Historically important, but small Mangani gold-silver mine was discovered in 1907, exploited between 1912-1931 and in1940-1941. Located along splay of NW-SE trending Sumatran Fault System. Mineralization young low sulfur type epithermal system, hosted by Tertiary andesite)

Keats, W., N.R. Cameron, A. Djunuddin, S.A. Ghazali, H. Harahap, W. Kartawa, H. Ngabito, N.M.S. Rock & R. Whandoyo (1981)- The geology of the Lhokseumawe Quadrangle (0521), Sumatra, 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(Basal Late Permian- Triassic Uneun Unit slate and meta-limestones, overlain by Eocene- Pliocene sediments)

Kemmerling, G.L.L. (1921)- Vulkanen en vulkanische verschijnselen in de Residentien Sumatra's Westkust (noordelijke deel) en Tapanoeli. Dienst Mijnwezen Nederlandsch Oost-Indie, Vulkanologische Mededeelingen 1, p. 1-93.

('Volcanoes and volcanic features in the Residencies West Coast (N part) and Tapanuli'. Descriptions of volcanic features and rocks of active volcanoes in Lake Maninjau area, G. Tandikat, G. Merapi, G. Sorik Merapi, G. Talamau)

Kertapati, E.K. (1984)- Penelitian seismotektonik Teluk Lampung dan sekitarnya. Proc. 13th Annual Conv. Indonesian Association Geologists (IAGI), p. 65-96.
('Investigation of seismotectonics of Lampung Bay and surroundings')

Kieft, C. & I.S. Oen (1973)- Ore minerals in the Telluride-bearing gold-silver ores of Salida, Indonesia, with special referenc to the distribution of Selenium. Mineralium Deposita 8, 4, p. 312-320.
(Epithermal gold-silver deposits of old Salida mine, N of Painan, SW Sumatra, were exploited in 1669-1735 and 1914-1928. Ores hosted in two quartz veins in Miocene andesites. With carbonate and sulfidic diffusion bands in quartz incrustations. Earliest or inner zone with concentrations of Zn, Cu, Fe, S (sphalerite, chalcopyrite, pyrite); intermediate zone with concentrations of Pb, Au, Ag, S, Te, Se (galena and Au-Ag-tellurides in Te-bearing parageneses; galena, electrum and acanthite in Te-free parageneses); and zone of As-bearing minerals (tennantite, enargite or luzonite, arsenpolybasite)

Kieft, C. & I.S. Oen (1977)- Ore mineral parageneses in Mn-Sn-Ag-Au-Se-bearing veins of Mangani, Sumatra, Indonesia. In: B. Bogdanov et al. (eds.) Problems of ore deposition, Proc. 4th Symposium Int. Assoc. Genesis of Ore Deposits (IAGOD) 2, Varna 1974, Publ. House Bulgarian Academy of Sciences, Sofia, 2, p. 295-302.
(Incl. unusual occurence of tin (as stannite))

Kimpe, W.F.M. (1944)- De eruptiva van het Siboemboen-gebergte en hun contactgesteenten (Padangsche Bovenlanden, Sumatra). Doct. Thesis University of Amsterdam, p. 1-141.
(The volcanic rocks of the Sibumbum Mountains and their contact rocks (Padang Highlands, Sumatra)'. Descriptions of igneous rocks collected by Brouwer in 1913 from area E of Lake Singkarak and W of Ombilin River. Mainly granodiorite massif, with low-metamorphic older sedimentary rocks (unfossiliferous, thermally altered Late Paleozoic?- E Mesozoic marbles, hornfels) and Tertiary clastics)

Klein, W.C. (1916)- On a trilobite fauna of presumably Devonian age in the Dutch East Indies near Kaloee, Tamiang District, S.E. Atjeh. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 18, 2, p. 1632-1636.
(online at: https://dwc.knaw.nl/DL/publications/PU00012632.pdf)
(English version of 'Een vermoedelijk Devonische trilobietenfauna in Nederlandsch-Indie nabij Kaloee (afdeeling Tamiang, Z.O. Atjeh' (1916). Discovery of presumably Devonian limestones with trilobites W of Kaloee on Simpang Kiri River, SE Aceh, in 190m thick, weakly folded limestone-shale succession. Trilobite probably of genus Proetus. Associated with brachiopods, corals and crinoids. No map or illustrations. (Trilobite assemblage subsequently identified as Permian in age by Tesch, 1916)

Klein, W.C. (1917)- Voorloopige mededeeling over de geologie van den oostoever van het Tobameer in N.-Sumatra. Natuurkundig Tijdschrift voor Nederlandsch-Indie 77, 3, p. 206-216.
(online at: http://archive.org/details/mobot31753002490198)
('Preliminary communication on the geology of the eastern shore of Lake Toba, N Sumatra'. Two amphibole-biotite granite massifs intruded into highly folded Paleozoic limestones and slates, overlain by little- folded ?Eocene quartz sandstones, liparite tuffs and andesite intrusives. Old lake terraces up to 250m above present lake level. No maps or figures)

Klein, W.C. (1918)- De Oostoever van het Toba-meer in Noord-Sumatra. Jaarboek Mijnwezen Nederlandsch Oost-Indie 46 (1917), Verhandelingen 1, p. 136-187.
('The eastern banks of Lake Toba in North Sumatra'. Geologic description of poorly known eastern shores of Lake Toba, with 1:200,000 geologic map)

Klompe, Th.H.F. (1954)- On the supposed Upper Paleozoic unconformity in North Sumatra. Indonesian J. Natural Science (Majalah Ilmu Alam untuk Indonesia) 111, p. 151-165.

(No obvious Paleozoic- Mesozoic unconformity along NE shore lake Toba, but folded Upper Triassic shales-limestones unconformably overlain directly by Paleogene conglomerates, E Miocene marine shale, etc.)

Klompe, Th.H.F. (1955)- On the supposed Upper Paleozoic unconformity in North Sumatra. Leidsche Geologische Mededelingen 20, p. 120-134.
(online at: www.repository.naturalis.nl/document/549364)
(Same paper as above. No indications for occurrence of Variscian phase of diastrophism in area of N Sumatra, etc., until we reach E part of Malaya Peninsula (vague indications for stronger movements) and E Thailand (sufficient evidence for Saalian phase of Variscian orogeny)

Knight, M.D., G.P.L. Walker, B.B. Ellwood & J.F. Diehl (1986)- Stratigraphy, paleomagnetism, and magnetic fabric of the Toba tuffs: constraints on the sources and eruptive styles. J. of Geophysical Research: Solid Earth 91, B10, p. 10355-10382.
(Toba depression in N Sumatra is complex of overlapping calderas resulting from 3 major eruptions. Welded tuffs of Samosir and Uluan different magnetic polarities, so at least two different ignimbrites present. First ignimbrite eruption at 0.84 Ma produced >400 m densely welded unit with reversed polarity. Second ignimbrite normally magnetized. At ~0.075 Ma last and largest ignimbrite eruption from calderas in N and S parts of Toba depression, with ignimbrite mostly non-welded and normally magnetized)

Kobayashi, T. & K. Masatani (1968)- Upper Triassic *Halobia* (Pelecypoda) from North Sumatra with a note on the *Halobia* facies in Indonesia. Japanese J. Geology and Geography 39, 2-4, p. 113-123.
(Halobia thin-shelled deeper marine bivalves known from N Sumatra since Volz (1899). Two new localities of Halobia shale: (1) Prapat, Lake Toba area 'Kualu clay-slate' with ?lower Carnian bivalves Halobia tobaensis n.sp. and H. kwaluana Volz; (2) Simaimai tributary of Belumai River in Deli county S of Medan: probably Norian-age Halobia simaimaiensis n.sp. (advanced form of H. norica). Carnian-Norian four zones based on Halobia species. In Lake Singkarak region also Norian with Myophoria (Costatoria) myophoria, similar to Singapore assemblages)

Koesoemadinata, R.P. & S. Sastrawiharjo (1988)- Uranium prospects in Tertiary sediments in the Sibolga area, North Sumatera. Proc. Conf. Uranium deposits in Asia and the Pacific; geology and exploration, Jakarta 1985, Int. Atomic Energy Agency (IAEA), Vienna, IAEA-TC-543/9, p. 121-140.
(Small 'Wyoming-type' uranium anomalies in Paleogene Sibolga Fm sediments, adjacent to Triassic granites (206-257 Ma; with 20-50 ppm uranium), Sibolga area, N Sumatra. Sibolga Granite age 201-216 Ma; Late Triassic))

Kong, F., S.S. Gao, K.H. Liu, W. Ding & J. Li. (2020)- Slab dehydration and mantle upwelling in the vicinity of the Sumatra subduction zone: evidence from receiver function imaging of mantle transition zone discontinuities. J. of Geophysical Research 125, 9, e2020JB019381, p. 1-17.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2020JB019381)

Kong, F., S.S. Gao, K.H. Liu, J. Zhang & J. Li (2020)- Seismic anisotropy and mantle flow in the Sumatra subduction zone constrained by shear wave splitting and Receiver Function analyses. Geochem. Geophysics Geosystems 21, 2, e2019GC008766, p. 1-13.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1029/2019GC008766)
(Investigation of anisotropic structures in crust of overriding plate, mantle wedge, and subslab mantle in Sumatra subduction zone)

Koolhoven, W.C.B. & W.A.J. Aernout (1928)- De afzettingen van Simau (Res. Benkoelen). De Mijningenieur 9, p. 150-163 and p. 177-187.
('The deposits of Simau, Residency of Bengkulu'. Rel. detailed descriptions of geology and mineralogy of gold-silver deposits in Simau (= Lebong Tandai) mine area, SW Sumatra. These mines were exploited by 'Mijnbouw Maatschappij Simau' from 1910-1941, and connected to outside world only by 30km narrow guage rail line)

Koulakov, I., E. Kasatkina, N. Shapiro, C. Jaupart, A. Vasilevsky, S. El Khrepy, N. Al-Arifi & S. Smirnov (2016)- The feeder system of the Toba supervolcano from the slab to the shallow reservoir. Nature Communications 7, 12228, p. 1-12.
(online at: www.nature.com/ncomms/2016/160719/ncomms12228/pdf/ncomms12228.pdf)
(Toba Caldera site of several recent, large explosive eruptions, including world's largest Pleistocene eruption 74,000 years ago. Major cause may be subduction of fluid-rich Investigator Fracture Zone under continental crust of Sumatra and possible tear of slab. Seismic tomography model shows multi-level plumbing system. Large amounts of volatiles originate in subducting slab at of ~150 km depth, migrate up and cause melting in mantle wedge. Volatile-rich basic magmas accumulate at base of crust in a ~50,000 km^3 reservoir. Overheated volatiles continue ascending through crust, cause melting of upper crust rocks, leading to shallow crustal reservoir responsible for supereruptions)

Koulakov, I., T. Yudistira, B.G. Luhr & Wandono (2009)- P, S velocity and VP/VS ratio beneath the Toba caldera complex (Northern Sumatra) from local earthquake tomography. Geophysical J. International 177, 3, p. 1121-1139.
(online at: https://academic.oup.com/gji/article/177/3/1121/625322)
(Local seismicity data beneath Lake Toba caldera and other volcanoes suggest negative P- and S-velocity anomalies of 18% in uppermost layer, 10-12% in lower crust and ~7% in uppermost mantle. At depth of 5 km beneath active volcanoes, small patterns (7-15 km size) with high VP/VS ratio that might be magma chambers with partially molten material. In mantle wedge vertical anomaly with low P and S velocities and high VP/VS ratio that link cluster of events at 120-140 km depth with Toba caldera, possibly image of ascending fluids/ melts released from subducted slab)

Kristanto, A.S. (1991)- Structural analysis of the Sumatran Fault Zone around the Semangka Bay. Proc. 20th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 354-375.
(online at: https://www.iagi.or.id/web/digital/49/20th-(10-12-Des-1991)-24.pdf)
(Fault movements along Semangka segment of right-lateral Sumatra fault in Lampung intermittently active in at least 3 periods: (1) E-M Miocene NNE-SSW compression, creating Tabuan island, (2) Late Miocene? NE-SW extension creating Semangka Bay pull-apart structure; (3) E Pliocene (~5 Ma) WNW-ESE extension)

Krumbeck, L. (1914)- Obere Trias von Sumatra (Die Padang-Schichten von West-Sumatra nebst Anhang). Palaeontographica Supplement IV, Beitrage zur Geologie von Niederlandisch-Indien II, 3, p. 195-266.
(online at: http://sammlungen.ub.uni-frankfurt.de/botanik/periodical/pageview/4499569)
('Upper Triassic of Sumatra (The Padang Beds of West Sumatra)'. With review of geologic setting of Triassic beds E of Lake Singkarak in Padang Highlands by Verbeek (Triassic overlies Permocarboniferous granites, clastics and fusulinid limestones, described by Volz 1904, and overlain by Eocene sandstones of Ombilin Basin). Stratigraphy- paleontology of >210m thick U Triassic Padang beds from two main localities, Lurah Tambang and Bukit Kandung/Katialo. Poorly fossiliferous clastics with four layers of dark, marly fossiliferous, bituminous platy limestones, rich in thick-walled bivalves that look related to Carnian North Alpine 'Cardita facies': 38 species, incl. Pecten (Aequipecten) verbeeki, Myophoria myophoria, Cardita globiformis, Cassianella verbeeki n.sp., Gervilleia bouei, Pinna blanfordi, Halobia sumatrana n.sp., etc. Most similar to fauna from Napeng Beds of Upper Myanmar as described by Healy (1908). (Also similar to Jurong Fauna of Singapore; Kobayashi & Tamura 1968) (Some species described earlier by Boettger 1881, but erroneously assigned E Eocene age; JTvG) (Absence of Misolia, despite same age as Fogi Beds of Buru?; JTvG))

Kugler, H. (1921)- Geologie des Sangir-Batangharigebietes (Mittel-Sumatra). Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 5, 4, p. 135-201.
('Geology of the Sangir- Batang Hari area (Central Sumatra)'. (also as Dissertation Universitat Basel). No. 1 of A. Tobler's series Beitrage zur Geologie und Palaontologie von Sumatra. Geology of S part of Padang Highlands, N of Korinci volcano. Literature compilation and descriptions of rocks collected by Tobler in 1909. Metamorphic rocks of 'Schieferbarisan'. In Vorbarisan 'old diabase' with Permian fusulinid-crinoid limestones, Late Triassic limestones with molluscs Cardita aff. globiformis, Nucula, Gervilleia and Loxonema, granites, peridotites, etc. With 1:200,000 geologic compilation map)

Kuntz, J. (1936)- Rapport over een onderzoek van de goudmijnen der Mijnbouw Maatschappij Redjang Lebong. In: Rapporten betreffende geologische onderzoekingen in opdracht van de Directie der Mijnbouw Maatschappij Redjang-Lebong, Batavia, p. 23-36.
('Report on an evaluation of the gold mines of the Redjang Lebong mining company'. Lebong Donok ore body is Au-Ag bearing quartz vein, >20m thick, at contact between dacite body and Miocene shales and sands, dipping ~75°NE. Lebong Simpang mine 30km SSE of Lebong Donok, with two near-vertical, NNE-SSW trending main ore bodies)

Kuntz, J. (1937)- Das Problem Redjang Lebong. Zeitschrift fur Praktische Geologie 45, p. 167-171.
('The Rejang Lebong problem'. On structure and mineralization of Rejang Lebong gold deposit, Bengkulu District, W Sumatra)

Kurniawan, P. (2021)- Coal geometry modeling and resources estimation in Darmo and surrounding area, Muara Enim, South Sumatra. Indonesian J. of Economic Geology 1,1, p. 85-91.
(online at: https://journal.iagi.or.id/index.php/IJEG/article/view/344/352)
(Coals in Miocene Kasai and Muaraenim Formations in S Sumatra of variable thickness (0.5 12.8 m), and generally good continuity. Four main seams, A-D. With coal resource estimates. (nothing on large volumes of coal already mined in area during last 100+ years; JTvG))

Kurnio, H., U. Schwarz-Schampera & M. Wiedicke (2008)- Structural geological control on the mineralization on Tabuan Island, Semangko Bay, South Sumatera, Indonesia. Bulletin of the Marine Geology 23, 1, p. 18-25.
(online at: http://isjd.lipi.go.id/admin/jurnal/231081825.pdf)
(Basaltic-andesitic volcanics of Late Oligocene- earliest Miocene Hulusimpang Fm distributed in broad zone along Semangko Fault zone and are hosts for several epithermal-style gold deposits. Mineralization on Tabuan island in Semangko Bay, SE Sumatra, with moderate enrichments in Au, Ag, Zn, Pb, Cu, As, Sb, Ba, and Mn. Normal faults and margins of grabens may have acted as fluid channelling structures)

Kusnama (2005)- Stratigrafi daerah Toba-Samosir, Sumatera Utara. Jurnal Sumber Daya Geologi (JSDG) 15, 2 (149), p. 31-48.
('Stratigraphy of the Toba-Samosir area, N Sumatra'. Area in Barisan magmatic arc and Sumatera back arc. Paleozoic Tapanuli Group with Pangururan Fm slate, marble, and mudstone and glacial Late Carb.- E Permian Bohorok Fm conglomeratic sandstone with schist, quartzite, granitic rocks, marble and quartz fragments, ~600m thick. Unconformably overlain by Triassic Sibaganding Fm bioclastic limestone (~750m?) and Late Triassic Kualu Fm clastics with Halobia and andesitic clasts (~500m). Tertiary consists of Oligo- Miocene Parapat Fm clastics, M-L Miocene Haranggaol Fm welded tuff and pyroclastics and Plio-Pleistocene Simbolon and Takur-Takur Fm. Pyroclastic and lava rocks (incl. 'Toba Tuffs') are youngest rock units (Paleozoic- Mesozoic typical 'Sibumasu' succession; JTvG))

Kusnama & S. Andi Mangga (2007)- Perkembangan geologi dan tektonik Pretersier pada mintakat Kuantan Pegunungan Dua Belas dan mintakat Gumai-Garba, Sumatera Bagian Selatan. Jurnal Sumber Daya Geologi (JSDG) 17, 6, 162, p. 370-384.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/315)
('Geological and tectonic development of the Pre-Tertiary in the Kuantan Duabelas Mountains zone and the Gumai-Garba zone, S Sumatra'. Kuantan-Duabelas Mts terrane Carboniferous-Triassic metamorphics intruded by Permian and E Jurassic granitoids. Presence of E-M Permian Cathaysian fusulinids and floras. Gumai- Garba terrane is Jurassic-Cretaceous melange intruded by late Cretaceous granitoids)

Kusnama, R. Pardede, S. Andi Mangga & Sidarto (1992)- Geologic map of the Sungaipenuh and Ketaun sheets, Sumatra, 1: 250.000, 2nd Edition. Geological Research Development Centre (GRDC), Bandung.
(Map sheet of West coast of C Sumatra, S of Kerinci Lake.Mainly Tertiary- Quaternary volcanics and granodiorites. In NE corner thick Jurassic Asai Fm flysch-type metasediments with Nagan hornblende granodiorite (E Eocene~51-55 Ma). At NE-most corner, across Sumatra Fault Zone? Permian Palepat Fm andesitic lavas and tuffs intruded by Tantan Granodiorite (Late Triassic- E Jurassic?))

Kusnanto, B. & S. Hughes (2014)- Geology and mineralization of Beutong copper deposit, Nagan Raya, Aceh. In: I. Basuki & A.Z. Dahlius (eds.) Sundaland Resources, Proc. Annual Conv. Indonesian Soc. Economic Geologists (MGEI), Palembang, p. 245-269.
(Beutong porphyry copper deposit ~60 km NE of Meulaboh, Aceh. Two mineralized Cu-Mo-Au porphyry centers in E Pliocene (~4.2 – 4.6 Ma) Beutong Intrusive Complex, into Jurassic-Cretaceous Woyla Gp, which includes NW-SE-trending dismembered ophiolite slivers. Overprinted by high sulphidation epithermal event)

Lai, Y.M., S.L. Chung, A.A. Ghani, S. Murtadha, H.Y. Lee & M.F. Chu (2021)- Mid-Miocene volcanic migration in the westernmost Sunda arc induced by India-Eurasia collision. Geology (GSA) 49, 6, p. 713-717.
(online at: https://doi.org/10.1130/G48568.1)
(In NW Sumatra, volcanism ceased at 15-10 Ma on S coast, but reignited in series of active volcanoes N of Sumatran fault zone. Volcanic rocks from N more enriched in K2O and other elements, reflecting increase in Benioff zone depth. M Miocene volcanic migration related to far-field effect of propagating extrusion tectonics driven by India-Eurasia collision)

Lai, Y.M., P.P. Liu, S.L. Chung, A.A. Ghani, H.Y. Lee, L.X. Quek.M.H. Roselee, S. Murtadha et al. (2023)- Zircon U-Pb geochronology and Hf isotopic compositions of igneous rocks from Sumatra: implications for the Cenozoic magmatic evolution of the western Sunda Arc. Geological Society, London, Special Publ. 537, p. 455-478.
(online at: https://www.lyellcollection.org/doi/epdf/10.1144/SP537-2022-199)
(Two main Cenozoic magmatic stages in Sumatra, with 25 My magmatic quiescence in-between: (1) Paleocene-E Eocene (66-48 Ma = Neo-Tethyan subduction) and (2) E Miocene-Recent (23-0 Ma = Indian Ocean subduction). Magmatic zircons with positive and high εHf(t) values, indicating isotopically juvenile magma source in mantle wedge along W Sunda Arc. Negative /low εHf(t) values around Toba volcano evidence for sediment subduction)

Lai, Y.M., P.P. Liu, A.A. Ghani, H.Y. Lee, S. Li, S. Murtadha, L.X. Quek.M.H. Roselee & S.L. Chung. (2020)- Cenozoic magmatic stages in Sumatra and the incipient of Toba: zircon ages and Hf isotope evidence. Abstracts 30th Goldschmidt Conference, 2020, 1p.
(online at: https://goldschmidtabstracts.info/abstracts/abstractView?doi=10.46427/gold2020.1399
(zircon U-Pb ages and Hf isotopes of 38 Cenozoic volcanic rocks and 18 plutonic rocks from Sumatra suggest 4 major flare-up events: 55-50 Ma (E Eocene), 25-20 Ma, 15-10 Ma, and 5-0 Ma, with magmatic gap between 48-23 Ma. Hf isotopes show typical Sunda Arc ratios, except in Toba area in all magmas of 50 Ma- Recent)

Lang, R. (1914)- Geologisch-mineralogische Beobachtungen in Indien. 1. Klimawechsel der Diluvialzeit auf Sumatra. Zentralblatt Mineralogie Geologie Palaontologie 1914, p. 257-261.
('Geological and mineralogical observations in the Indies. 1. Climatic change of the Diluvial period on Sumatra' (Diluvial= period of the Biblical Flood; formerly used for glacial Pleistocene). Lang finds it remarkable how little lateritic weathering is taking place in most of South Sumatra today, as would be expected in rain-rich tropics. Below regular red and yellow soils sometimes horizons of lateritic iron concretions. Possibly points to different climate, i.e. less rainfall in Pleistocene)

Lange, E. (1925)- Eine mittelpermische Fauna von Guguk Bulat (Padanger Oberland, Sumatra). Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 7, 3, p. 213-295.
('A Middle Permian fauna from Guguk-Bulat, Padang Highlands, Sumatra'. No. 5 of A. Tobler's series Beitrage zur Geologie und Palaontologie von Sumatra. Famous M Permian reefal limestone locality in Padang Highlands near Lake Singkarak, first decribed as Carboniferous by Volz 1904. Re-sampled by Tobler in 1909 and Fontaine in 1982?. Bivalves, cephalopods and trilobites absent. Mainly description of 79 species of foraminifera (incl. 18 fusulinid species of Fusulinella, Verbeekina, Doliolina, Neoschwagerina), colonial corals (incl. massive Waagenophyllidae, Lonsdaleia) and 8 brachiopod species (= part of 'Cathaysian' West Sumatra block of Barber et al. (2005); JTvG))

Langenheim, A.P. (1903)- Bericht over de goudhoudende alluvien van de Si Lajang Koroe Rivier gelegen in de vergunning der Mijnbouw Maatschappij Barma Sawah. Java Bode, p. 1-15.

('Report on the gold-bearing alluvial deposits of the Si Lajang Koroe Rivier in the concession of mining company Barma Sawah')

Laumonier, Y. (1997)- The vegetation and physiography of Sumatra. Geobotany 22, Kluwer Academic Publishers, Dordrecht, p. 1-227. *(online at: https://www.researchgate.net/publication/236834293_The_physiography_and_vegetation_of_Sumatra)*
(Overview of present-day geomorphology and vegetation of Sumatra)

Lawless, J.V., P.J. White, I. Bogie & M.J. Andrews (1995)- Tectonic features of Sumatra and New Zealand in relation to active and fossil hydrothermal systems: a comparison. Proc. PACRIM' 95 Conf., Australasian Institute of Mining and Metallurgy (AusIMM), Melbourne, p. 311-316.

Lee, M.Y., C.H. Chen, K.Y. Wei, Y. Iizuka & S. Carey (2004)- First Toba supereruption revival. Geology (GSA) 32, 1, p. 61-64.
(online at: https://www.researchgate.net/publication/249521232_First_Toba_supereruption_revival)
(Oldest Toba tuff in S China Sea sediments, 2500 km away from source. Tephra deposits below Brunhes-Matuyama geomagnetic boundary (778 ka) and above Australasian microtektite layer (793 ka). Calibration to oxygen isotope stratigraphy (between stages 20 and 19) suggests M Pleistocene Toba eruption occurred during deglaciation at 788 ± 2.2 ka, in good agreement with 40Ar/39Ar date of 800 ± 20 ka for Toba tephra (layer D) at ODP Site 758, but younger than commonly cited Ar/Ar age of 840 ± 30 ka. Eruption expelled at least 800-1000 km^3 dense-rock-equivalent of rhyolitic magma)

Leinz, V. (1933)- Petrographische Untersuchungen der Sedimente des Toba-Sees (Nord-Sumatra). Archiv fur Hydrobiologie, Supplement Band, 12, p. 635-669.
('Petrographic investigations of the sediments of Lake Toba, N Sumatra'. Sub-Recent lacustrine sands from around Lake Toba composed mainly of quartz, volcanic glass, sanidine, plagioclase, biotite and hornblende)

Leo, G.W., C.E. Hedge & R.F. Marvin (1980)- Geochemistry, strontium isotope data, and potassium-argon ages of the andesite-rhyolite association in the Padang area, West Sumatra. J. Volcanology Geothermal Research 7, p. 139-156.
(Quaternary volcanoes in Padang area, W coast Sumatra. Maninjau caldera andesite compositions 55-61% SiO2. K-Ar whole-rock age determinations range from 0.27- 0.83 Ma. Rel. high high $^{87}Sr/^{86}Sr$ ratios may reflect crustal source for andesites)

Lestari, Y. & A.D. Nugraha (2015)- Imaging of 3-D seismic velocity structure of Southern Sumatra region using double difference tomographic method. Proc. 4th Int. Symposium Earthquake and Disaster Mitigation, Bandung 2024, AIP Conference Proceedings 1658, 030014, p. 1-7.
(online at: https://www.researchgate.net/profile/Andri-Nugraha-2/publication/275643523_Imaging_of_3-D_seismic_velocity_structure_of_Southern_Sumatra_region_using_double_difference_tomographic Etc.)
(see also similar study by Y. Liu et al. 2021)

Levet, B, M. Jones & B. Sutopo (2003)- The Purnama gold deposit in the Martabe District of North Sumatra, Indonesia. Proc. Symposium Asian update on mineral exploration and development, Sydney 2003, Bull. Australian Institute of Geoscientists (AIG) 39, p. 55-63.
(online at: https://www.aig.org.au/library/publications/aig-bulletins/)
(Purnama gold deposit part of Martabe high-sulphidation gold system (discovered in 1997) in Tertiary (E Miocene?) volcanic and sedimentary rocks, near fault splay of Great Sumatran Fault Zone)

Li, S., S.L. Chung, Y.M. Lai, A.A. Ghani, H.Y. Lee & S. Murtadha (2020)- Mesozoic juvenile crustal formation in the easternmost Tethys: Zircon Hf isotopic evidence from Sumatran granitoids, Indonesia. Geology (GSA) 48, 10, p. 1002-1005.
(online at: https://www.researchgate.net/publication/342185046_Mesozoic_juvenile_crustal_formation_in_the_easternmost_Tethys_Zircon_Hf_isotopic_evidence_from_Sumatran_granitoids_Indonesia)

(Zircon U-Pb and Hf isotopic data from Mesozoic granitoids in Sumatra show 3 magmatic episodes: (1) 214-201 Ma (Late Triassic), (2) 148-143 Ma (Late Jurassic), and (3) 102-84 Ma (mid-Cretaceous). Change in magmatic zircon εHf(t) values from −13.1 to +17.7 in Late Triassic granitoids suggests restructuring of arc system, from trapped ancient continental crust to juvenile arc input. Jurassic-Late Cretaceous granitoids positive zircon εHf(t) values, consistent with Tethyan juvenile arc development during subduction of easternmost Tethyan lithosphere beneath Sumatra (similar to Gangdese arc system in Lhasa/S Asia))

Li, X., T. Hao & Z. Li (2018)- Upper mantle structure and geodynamics of the Sumatra subduction zone from 3-D teleseismic P-wave tomography. J. Asian Earth Sciences 161, p. 25-34.
(3D P-wave seismic tomographic inversions over Sumatra subduction zone image velocity structure of the upper mantle. Subducting Indo-Australian Plate clearly imaged as continuous high-velocity anomalous zone in mantle along Sumatra Island Trench-parallel low-velocity features in upper mantle may be trench-parallel flow beneath subducting slab. Beneath S Sumatrapossible lateral detachment of high-velocity anomaly from ~560 km to deeper parts of slab, possibly slab tearing that terminated around 17.5 Ma. Etc.)

Liebermann, C. (2018)- Provenance of modern and ancient sediments from Sumatra, Indonesia. Ph.D. Thesis Royal Holloway, University of London, p. *(Unpublished)*
('A provenance study investigating the evolution of the Cenozoic basins of Sumatra utilizing detrital U-Pb zircon geochronology, heavy mineral characterization via Raman spectroscopy counting, and light mineral modes based on extensive fieldwork investigations'. Increase of unstable heavy mineral phases of proximal signature in Lower-Miocene strata suggests major change of source at Oligocene-Miocene boundary, possibly indicating pulse in uplift of Barisan Mts. Detrital zircon ages as old as Archean present in all sediments. Prominent Triassic age group can be correlated with Main Range Province granitoids from Malay-Peninsula. Zircon age spectra from Sumatra lack Cretaceous ages, unlike Schwaner Mountains/SW Borneo. Modern river sands mainly sourced from Recent Barisan volcanic arc)

Liebermann, C., R. Hall & A. Gough (2018)- Provenance of sediments from Sumatra, Indonesia - Insights from detrital U-Pb zircon geochronology, heavy mineral analyses and Raman Spectroscopy. Proc. 2018 PESGB- South East Asia Petroleum Exploration Society (SEAPEX) Asia Pacific E&P Conference, London 2018, 1p. *(Poster Abstract)*
(Characteristic Precambrian zircon age spectra found in all analysed Cenozoic sediments. Phanerozoic age spectra of Cenozoic formations characterised by distinct Carboniferous, Permo-Triassic, and Jurassic-Cretaceous zircon populations. Prominent Triassic (~220 Ma; Norian) zircon age group correlated with Main Range granitoids in Malay Peninsula or Sumatra itself. Unlike Borneo (and W Java; see Clements et al., 2012), no Cretaceous zircon ages. Cenozoic zircons appear only from M Miocene onwards, suggesting new contribution from local volcanic arc)

Liu, D., Z. Wang, D. Zhao, H. Hu & R. Gao (2024)- Accretionary wedge, arc magmatism and fluid migration in Northern Sumatra: insight from seismic attenuation tomography. J. of Geophysical Research: Solid Earth 129, 12, e2024JB029777, p. *(manuscript online at: https://www.researchgate.net/publication/387060770_Accretionary_Wedge_Arc_Magmatism_and_Fluid_Migration_in_Northern_Sumatra_Insight_From_Seismic_Attenuation_Tomography)*
(First 3-D P and S wave attenuation tomography of crust and upper mantle of N Sumatra subduction zone)

Liu, S., I. Suardi, D. Yang, S. Wei & P. Tong (2018)- Teleseismic traveltime tomography of Northern Sumatra. Geophysical Research Letters 45, 24, p. 13231-13239.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1029/2018GL078610)
(Similar to Liu et al. 2019. Maximum penetration depth of subducted Indo-Australian slab into mantle below Sumatra varies from ~400 km in N to 800 km in S. Plunging fold of subducted slab, which mimics shape of trench and volcanic arc, has less curvature than reported before. Gentle slab fold can be traced to depth of ~500 km)

Liu, S., I. Suardi, X. Xu, S. Yang & P. Tong (2021)- The geometry of the subducted slab beneath Sumatra revealed by regional and teleseismic traveltime tomography. J. of Geophysical Research: Solid Earth 126, 1, e2020JB020169, p. 1-29.

(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2020JB020169)
(New seismic data since 2005 allow high-resolution tomographic images of velocity structure beneath Sumatra. Slab in upper mantle generally follows strike of trench and orientation of volcanic arc. Maximum penetration depth of subducted slab increases from N (barely arrives at 410-km discontinuity) to S (penetrates to at least 660 km). Slab tear at ~120 km between 0° N and 2°N may relate to Toba supervolcanic eruption in Pleistocene. Dip of subducted slab dramatically decreases across Sunda Strait; possibly pointing to another subvertical slab tear beneath Sunda Strait)

Liu, S., I. Suardi, M. Zheng, D. Yang, X. Huang & P. Tong (2019)- Slab morphology beneath Northern Sumatra revealed by regional and teleseismic traveltime tomography. J. of Geophysical Research: Solid Earth 124, 10, p. 10544-10564.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1029/2019JB017625)
(P and S wave tomography show Indo-Australian oceanic plate penetrates downward beneath N Sumatra to ~400 km at N tip of Sumatra to ~800 km around S boundary of study area. Significant slab folding or bending not found. P wave tomography shows low-velocity anomalies beneath Sumatra in lower crust and uppermost mantle. Also slab tear at ~120-km depth, considered to be related to eruption of Toba supervolcano)

Liu, Y., I. Suardi, X. Huang, S. Liu & P. Tong (2021)- Seismic velocity and anisotropy tomography of southern Sumatra. Physics Earth Planetary Interiors 316, 106722, p. 1-11.
(New isotropic P- and S-wave velocity tomography models from earthquake data in S Sumatra. Clear high-V belt in uppermost mantle represents subducting Indo-Australian slab. Low-V anomalies in mantle wedge may be from ascending fluids and partial melts caused by slab dehydration. Trench-normal fast velocity directions prevail in lower crust, possibly associated with plastic flow induced by oblique plate convergence. Etc.)

Lohr, R. (1922)- Beitrage zur Petrographie von Sud-Sumatra (West Palembang). Dissertation Munster University, Wilhelm Brinkschulte, p. 1-65. *(Unpublished)*
('Contributions to the petrography of S Sumatra (W Palembang)'. Petrographic descriptions of rocks collected in South Sumatra by BPM geologist H.M.E. Schurmann. Mainly from Gumai Mountains?)

Loth, J.E. (1926)- Eenige nieuwe gezichtspunten in verband met het ontstaan der stroomgoudafzettingen in Indragiri en het aangrenzend Zuid-Pelalawan. Handelingen 4e Nederlandsch-Indisch Natuurwetenschappelijk Congres 1926, p. 430- .
('Some new views on the origin of placer gold deposits in Indragiri and bordering South Pelawan')

Loth, J.E. (1937)- Beschouwingen over oorsprong en vorming van de alluviale goud afzettingen in de afdeelingen Bengkalis en Indragiri. De Ingenieur 52, 38, Mijnbouw, p. M29-M36.
(online at: https://resolver.kb.nl/resolve?urn=dts:2980093:mpeg21:pdf)
(Observations on the origin and formation of the alluvial gold deposits in the Departments Bengkalis and Indragiri'. Many old gold panning operations in alluvial gold deposits in Central Sumatra. No figures)

Lubis, A.M., R. Salman, I. Hermawan, K. Bradley, L. Feng, Q. Qiu, R. Sahputra, D.H. Natawidjaja, K. Sieh & E.M. Hill (2024)- Slip rates and locking depths of the southern Sumatran Fault Zone revealed by new campaign GPS observations. Geophysical J. International 239, 1, p. 248-257.
(online at: https://academic.oup.com/gji/article/239/1/248/7721131)
(Sumatran Fault Zone composed of 19 fault segmentss and accommodates much of trench-parallel component of oblique convergence between Indo-Australian and Sunda plates. New GPS data from three SFZ segments in S Sumatra suggest average slip rate of ~15 mm/year, similar to earlier estimates for entire SFZ. Forearc sliver west of SFZ behaves as rigid microplate)

Lubis, A.M., R. Samdara, R. Sahputra, L. Handayani, Q. Qiang, A. Triahadini, M.M.Mukti & O. Prayoga (2025)- Present-day inter-seismic velocities and fault slip rate of Ketahun segment, Sumatran Fault System (SFS) inferred from Global Positioning System (GPS) observations. Tectonophysics 914, 230879, p.

(GPS data during 2018-2024 suggests slip rate of Ketahun segment of Great Sumatran Fault System is ~14.5 mm/yr, with locking depth ~14.4 km. Ketahun segment (Bengkulu) capable of generating a magnitude ~6- 7+ earthquake)

Lubis, H., T. Situmorang, A.M. Harsono & S. Digdowiroko (2000)- Sedex: a new type explortion target for lead and zinc in Indonesia. Proc. 29th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 121-140.
(Review of sedimentary-exhalative lead-zinc deposits. With example from Sopokomil in Permo-Carboniferous Tapanuli Gp in N Sumatra, with up to 8m thick massive sulphides over ~3km)

Lubis, S., S. Hartosukorahardjo, R. Prawirsasra & M. Widjajanegara (1985)- Shallow seismic reflection survey in Cantu waters, Lampung Bay, South Sumatra. Proc. 21st Session Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Bandung 1984, 2, Technical Reports, p. 33-39.
(online at: https://repository.unescap.org/items/69c82b4b-501e-4b22-84e9-e8571a408cba)
(Boomer profiles show system of young N-S normal faults in Lampung Bay)

Lukk, A.A. & V.G. Leonova (2018)- Variations in the kinematics of deformation in the vicinity of the catastrophic Sumatra Earthquake. Izvestiya, Atmospheric and Oceanic Physics 54, 11, p. 1517-1526.
(online at: https://www.researchgate.net/publication/331030892_Variations_in_the_Kinematics_of_Deformation_in_the_Vicinity_of_the_Catastrophic_Sumatra_Earthquake)
(Great Andaman- Sumatra Mw 9.2 earthquake of December 26, 2004 in Indian Ocean near NE coast of Sumatra at depth of 30 km (3rd-largest earthquake in history of seismic observations). Surface rupture of 1200-1600 km caused right-lateral strike-slip along Indian Plate subduction zone beneath Sunda arc and Burma Plate. Etc.)

Lyu, X.M., L. Yang, R.H. Wang, W.H. Guo, Q.F. Han & Z.C. Li (2016)- A case study on multiple stratigraphic reservoirs related with weathered granite buried-hill. Proc. 78th EAGE Conference & Exhibition, Vienna 2016, Tu P5 01, p. 1-5.
(Betara gas field complex in granite buried-hill at N margin of S Sumatra basin, with gas column height 280 m and area of 80 km^2. Basement lithology phyllite, granite and metaquartzite. Reservoir facies in 40-50m thick granitic weathered rind (porosity 12-21%), leached fracture zones in granite and in onlapping/ overlying Eocene -Oligocene alluvial fans. Three groups of faults: NNW trending reactivated basement faults, NE normal faults and NW reverse faults)

MacKay, A.L. & H.F.W. Taylor (1954)- Truscottite. Mineralogical Magazine 30, p. 450-457.
(Mineralogical study of truscottite, a mineral of Ca-zeolite-group, first discovered at Lebong Donok mine, Bengkulu, Sumatra, by Hovig (1914))

Macpherson, K.A., D. Hidayat & S.H. Goh (2012)- Receiver function structure beneath four seismic stations in the Sumatra region. J. Asian Earth Sciences 46, p. 161-176.
(On velocity structure beneath the four broad-band seismic stations in Sumatra region.Crustal thicknesses beneath stations range from 16 km at forearc to 30km at backarc basin)

Mannhardt, F.G. (1921)- Verslag over de resultaten van geologisch- mijnbouwkundig onderzoek der Tandjoeng kolenvelden (Res. Palembang). Jaarboek Mijnwezen Nederlandsch-Indie 47 (1918), Verhandelingen 2, p. 67-107.
(Investigation of Tanjung coal fields (including Bukit Asam), 13 km S of Muara Enim, S Sumatra. Coal beds in 700-800m thick M Palembang Fm. Coal grade locally improved by andesite intrusives)

Mark, D.F., M. Petraglia, V.C. Smith, L.E. Morgan, D.N. Barfod, B.S. Ellis, N.J. Pearce, J.N. Pal & R. Korisettar (2013)- A high-precision 40Ar/39Ar age for the Young Toba Tuff and dating of ultra-distal tephra: forcing of Quaternary climate and implications for hominin occupation of India. Quaternary Geochronology 21, p. 90-103.
(online at: www.academia.edu/2388761/A_high_precision_40Ar_39Ar_age_for_the_Young_Toba_Tuff_and_dating_of_ultra_distal_tephra_forcing_of_Quaternary_climate_and_implications_for_hominin_occ Etc.)
(New inverse isochron 40Ar/39Ar age forbiotite shards from ultra-distal youngest Toba super-eruption deposit in India: 75.0 ± 0.9 ka. See also comments of Haslam, 2013)

Mark, D.F., P.R. Renne, R. Dymock, V.C. Smith, J.I. Simon, L.E. Morgan, R.A. Staff & B.S. Ellis (2017)- High-precision 40Ar/39Ar dating of Pleistocene tuffs and temporal anchoring of the Matuyama-Brunhes boundary. Quaternary Geochronology 39, p. 1-23.
(online at: www.sciencedirect.com/science/article/pii/S1871101417300055)
(New 40Ar/39Ar ages for tuffs from Toba volcano on Sumatra in core from ODP Site 758 in Indian Ocean. Tephra layers geochemically correlated to Young Toba Tuff (Ash A; 73.7 ± 0.3 ka) and Middle Toba Tuff (502 ± 0.7 ka). Ash units D (785.6 ± 0.7 ka) and E (792.4 ± 0.5) (tentatively correlated to 'Old Toba Tuff'). Ages and depth model used here to estimate ages for Matuyama-Brunhes boundary (~784 ka) and Australasian tektites layer (peak 8 cm below Ash D; ~786 ± 2 ka))

Maryanto, S. (1993)- Petrogenesis sabak di sekitar tepi barat Danau Toba, Sumatera Utara. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 3, 26, p. 14-20.
('Petrogenesis of slate around the western edge of Lake Toba, N Sumatra'. Metamorphic rocks of Permo-Carboniferous Kluet Fm at W side of Lake Toba (slates and metagreywacke) represent dynamic and low burial, greenschist facies metamorphism of greywacke and shales)

Maryono, A., D.H. Natawidjaja, T.M. van Leeuwen, R.L. Harrison & B. Santoso (2014)- Sumatra, an emerging world-class magmatic gold belt. In: I. Basuki & A.Z. Dahlius (eds.) Sundaland Resources, Proc. Annual Conv. Indonesian Soc. Economic Geologists (MGEI), Palembang, p. 89-101.
(online at: www.academia.edu/24312771/Sumatra_an_Emerging_World_Class_Magmatic_Gold_Belt? Etc.)
Sumatra has become an emerging world-class magmatic gold belt. Island contains known endowment of 27.2M ounces of gold, 151M ounces of silver and 9.2 Billion pounds of copper from 32 deposits and prospects. Prime gold sources from high-sulfidation epithermal deposits (41.3%), with largest deposit being Martabe. Two distinct metallogenic systems, Aceh-Toba (Au-Cu+Mo) high sulfidation epithermal and porphyryProvince in N Sumatra and Barisan (Au-Ag) low sulfidation epithermal province in C and S Sumatra along with Lubuk Sikaping and W Jambi clusters of Au-Cu-base metals reflect distinctive tectonic and geologic histories.Main gold mineralization across island from 1 to 4 Ma)

Masturyono, R. McCaffrey, D.A. Wark, S.W. Roecker, Fauzi, G. Ibrahim & Sukhyar (2001)- Distribution of magma beneath the Toba caldera, North Sumatra, Indonesia, constrained by 3-dimensional P-wave velocities, seismicity, and gravity data. Geochem. Geophysics Geosystems 2, 4, p. 1-24.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/full/10.1029/2000GC000096)
(P wave velocity structure under 30 x 100 km large Toba caldera from local earthquakes used to map distribution of magma within this subduction-related volcanic system)

Matthews, N.E., V.C. Smith, A. Costa, A.J. Durant, D.M. Pyle & N.J.G. Pearce (2012)- Ultra-distal tephra deposits from super-eruptions: examples from Toba, Indonesia and Taupo Volcanic Zone, New Zealand. Quaternary International 258, p. 54-79.
(online at: www.academia.edu/742564/Ultra_distal_tephra_deposits_from_super_eruptions_examples_ Etc.)
(The ~74 ka Youngest Toba Tuff eruption deposited ash over Bay of Bengal and 4cm thick ash layer over India subcontinent, over 2000 km to W)

Mattinson, P.G. (1987)- Structural controls and alteration assemblages at the Lebong Tandai Mine, Sumatra: implications for the genesis of epithermal silver-gold mineralisation. M.Sc. Thesis, University of Western Australia, Perth, p. 1-285. *(Unpublished)*

Matysova, P., M. Booi, M.C. Crow, F. Hasibuan, A.P. Perdono, I.M. Van Waveren & S.K. Donovan (2018)- Burial and preservation of a fossil forest on an early Permian (Asselian) volcano (Merangin River, Sumatra, Indonesia). Geological Journal 53, 5, p. 2352-2370.
(E Permian (Asselian) Mengkarang Fm of W Jambi Province preserves abundant evidence of E Permian forest, which grew at foot of active volcano, where pyroclastic flows often made way and destroyed vegetation and where epiclastic reworked pyroclastics rapidly entombed vegetation. In situ Agathoxylon close enough to volcanic slope to be buried rapidly, but shallow enough to avoid recrystallization)

McCarroll, R.J., I.T. Graham, R. Fountain, K. Privat & J. Woodhead (2014)- The Ojolali region, Sumatra, Indonesia: epithermal gold-silver mineralisation within the Sunda Arc. Gondwana Research 26, p. 218-240.
(Ojolali region in Lampung, S Sumatra, two main epithermal gold-silver deposits: (1) Tambang intermediate-sulfidation deposit along fault in siltstone and (2) Bukit Jambi high-level, low-sulfidation Au-Ag deposit in andesitic tuffs. Mineralisation hosted in window of Miocene intermediate-mafic volcanics)

McCarthy, A.J. (1997)- The evolution of the transcurrent Sumatran fault system, Indonesia. Ph.D. Thesis, University London, p. 1-387. *(Unpublished)*

McCarthy, A.J. & C.F. Elders (1997)- Cenozoic deformation in Sumatra: oblique subduction and the development of the Sumatran fault system. In: A.J. Fraser & S.J. Matthews (eds.) Petroleum Geology of SE Asia. Geological Society, London, Special Publ. 126, p. 355-363.
(Sumatra pre-Tertiary history of accretion was followed byPaleogene basin formation. Strong mid-Miocene inversion event recorded in onshore part of forearc basin in S Sumatra, same time as inception of seafloor spreading in Andaman Sea and probable inception of major strike-slip movement along the SFS, possibly following clockwise rotation of Sumatra towards it present NW-SE trend. SFS complex deformation history including polyphase reactivation of fault surfaces and contemporaneous strike-slip and orthogonal compression or extension. New estimate of ~150 km offset of Mesozoic units across SFS in C Sumatra proposed. Several basins formed along SFS in Quaternary)

McCarthy, A.J., B. Jasin & N.S. Haile (2001)- Middle Jurassic radiolarian chert, Indarung, Padang District, and its implications for the tectonic evolution of western Sumatra, Indonesia. J. Asian Earth Sciences 19, p. 31-44.
(Radiolaria chert in Indarung Area, 10km E of Padang of Aalenian (lower M Jurassic) age. Beds dipping steeply to SW. Lubuk Peraku Lst dated as U Jurassic- E Cretaceous based on occurrence of Lovcenipora (Yancey & Alif 1977, but is Cladocoropsis; Beauvais 1983). Interbedded with volcanics and limestone conglomerate/breccias, Interpreted as carbonate cap on seamount. Limestone overlain by Golok crystal tuffs (K/Ar age of ~105 Ma/ Albian, but suspect?). M Jurassic Ngalau bedded chert probably faulted into younger limestone during Cretaceous ENE-directed compression. Radiolarian assemblage Aalenian or E Bajocian Transhsuum hisuikyoense Zone (= part of oceanic assemblage of Woyla Group: M- Late Cretaceous SW dipping accretionary prism with M Jurassic seafloor oceanic material and Late Jurassic volcanic seamount; JTvG)

McCloskey, J., D. Lange, F. Tilmann, S.S. Nalbant, A.F. Bell, D.H. Natawidjaja & A. Rietbrock (2010)- The September 2009 Padang earthquake. Nature Geoscience 3, February, p. 70-72.
(Mw= 7.6 earthquake of 30 September 2009 with epicenter WNW of Padang at depth of 80-90 km, within lower part of Wadati-Benioff zone. Did not rupture Sunda megathrust or relax stress on Mentawai segment)

McCourt, W.J. & E.J. Cobbing (1993)- The geochemistry, geochronology and tectonic setting of granitoid rocks from southern Sumatra, western Indonesia. South Sumatra Geol. Mineral Exploration Project (SSGMPE) Report 9, Geological Research Development Centre (GRDC), Bandung, p. *(Unpublished)*
(Includes Eocene (52-57 Ma) ages for Lassi granite/ diorite, 53-55 Ma and 129-169 Ma for Bungo batholith, 79-85 Ma for Padean granite, 111-113 Ma for Sulan pluton, 82-117 Ma for Garba Pluton, 138-149 Ma and 192 Ma for Sulit Air granite, etc. (Barber et al. 2005))

McCourt, W.J., M.J. Crow, E.J. Cobbing & T.C. Amin (1996)- Mesozoic and Cenozoic plutonic evolution of SE Asia: evidence from Sumatra, Indonesia. In: R. Hall & D. Blundell (eds.) Tectonic evolution of Southeast Asia, Geological Society, London, Special Publ. 106, p. 321-335. *(online at: https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=ef8ce8dc16988be4313732e09c76672bf77000c8)*
(Barisan Mts of S Sumatra four periods of plutonic activity: Miocene-Pliocene (20-5 Ma), E Eocene (60-50 Ma), Mid-Late Cretaceous (117-80 Ma) and Jurassic-E Cretaceous (203-130 Ma). Also plutonic activity in Permian (287-256 Ma) and suggestions of magmatism in Late Triassic- E Jurassic (220-190 Ma) and M Jurassic-E Cretaceous (170-130 Ma). Ages from E Sumatra indicate Triassic- E Jurassic (240-195 Ma) tin-belt magmatism of Peninsular Malaysia Main Range extends into area. Plutonic suites in NW-SE trending belts. Breaks in plutonic

activity correspond to changes in approach angle and/or rate of subduction, and in some instances relate to periods of collision and accretion of allochthonous material. At least two such events: early M Cretaceous collision and accretion of oceanic Woyla terranes, and latest Cretaceous possible collision of continental sliver/block, the W Sumatra terrane to Sundaland margin)

Mentari, S.G., Winantris & L. Jurnaliah (2023)- Paleoenvironment of the Miocene Lemau Formation based on the palynology analysis in Seluma, Bengkulu. Jambura Geoscience Review 5, 1, p. 33-41.
(online at: https://ejurnal.ung.ac.id/index.php/jgeosrev/article/view/17150/5812)
(Palynology of 3m thick E-M Miocene coal-bearing part of Lemau Fm in coal mine in Seluma, Bengkulu basin. Freshwater peat swamp environment and mangrove environments in E Miocene, marked by Florschuetzia levipoli. Environment with some marine influence in M Miocene with Alnipollenites verus, indicated by foraminifera linings and dinocysts. Environment changed again to mangrove higher in M Miocene)

Metcalfe, I. (1983)- Conodont faunas, age and correlation of the Alas Formation (Carboniferous), Sumatra. Geological Magazine 120, 6, p. 737-746.
(*online at: www.academia.edu/17183349/Conodont_faunas_age_and_correlation_of_the_Alas_Formation_Carboniferous_Sumatra)*
(Conodonts Spathognathodus campbelli, S. scitulus, Synprioniodina microdenta and Gnathodus girtyi rhodesi from NW Sumatra Alas Fm shelfal limestones suggest Late Visean (E Carboniferous) age, making it oldest dated formation on Sumatra. Previously single solitary coral identified as Allotropiophyllum sinense Grabau thought to indicate E Permian age. Brachiopods from same locality identified as Cleiothyridina and Marginalia or Inflatia, suggesting probable Visean age)

Metcalfe, I. (1986)- Conodont biostratigraphic studies in Sumatra: preliminary results. In: G.H. Teh & S. Paramananthan (eds.) Proc. 5th Regional Congress Geology Mineral Energy Resources of SE Asia (GEOSEA V), Kuala Lumpur 1984, 2, Bull. Geological Society Malaysia 20, p. 243-247.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1986b13.pdf)
(Samples from Sumatra Late Paleozoic- Triassic limestones analyzed for conodonts. Lower Carboniferous (Late Visean) with Gnathodus girtyi rhodesi, etc. in Alas Fm of Alas Valley and near near Bukittinggi. Prapat, Lake Toba limestones with Late Carnian Neogondolella polygnathiformis conodont zone. M and U Triassic conodonts from dark limestones of six other localities, some of which (e.g. Sungei Kalue Lst) were previously considered to be Permo-Carboniferous)

Metcalfe, I. (1989)- Triassic conodonts of Sumatra. In: H. Fontaine & S. Gafoer (eds.) The Pre-Tertiary fossils of Sumatra and their environments, United Nations ESCAP, CCOP, Technical Publication 19, Bangkok, p. 191-194.
(Six limestone localities in N Sumatra Lake Toba area with Late Triassic (Carnian) conodonts)

Metcalfe, I. (1989)- Carboniferous conodonts. In: H. Fontaine & S. Gafoer (eds.) The Pre-Tertiary fossils of Sumatra and their environments, United Nations ESCAP, CCOP, Technical Publication 19, Bangkok, p. 45-46.
(Two limestone localities with E Carboniferous conodonts: Alas Fm in Alas Valley (N Sumatra; Late Visean, Metcalfe 1983) and Agam River (C Sumatra near Bukittingi; M-L Visean)

Metcalfe, I., T. Koike, M.B. Rafek & N.S. Haile (1979)- Triassic conodonts from Sumatra. Paleontology 22, 3, p. 737-746. *(online at: www.palass.org/sites/default/files/media/publications/palaeontology/volume_22/vol22_part3_pp737-746.pdf)*
(Late Carnian conodonts from limestones of N Sumatra (3 km N of Prapat, Lake Toba, overlying Halobia-Daonella shale. Contains Metapolygnathus polygnathiformis, M. nodosa and Epigondolella primitia. Also probably Late Triassic conodonts from limestones from C Sumatra Padang Highlands, Silungkang- Sawahlunto area)

Meyer, O.E. (1922)- Brachiopoden des Perm und Untercarbon der Residentschaft Djambi (Sumatra). Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 5, 5, p. 203-221.

('Brachiopods form the Permian and Late Carboniferous from the Jambi Residency'. 15 species of brachiopods, collected by Tobler from 6 localities in Jambi area. At Sungei Selajau with Dalmanella, Chonetes, Productus, Spiriferina, Spirigera, etc. Most species described also known from Timor. Productus sumatrensis believed to signify Late Permian age? (Little or no locality or stratigraphic information. Tobler 1922 also mentioned fusulinids Verbeekina, Sumatrina from here?. Fontaine & Gafoer 1989 assigned to late Early- M Permian Silungkang/ Palepat Fm))

Michel, G.W., M. Becker, C. Reigber, R. Tibi, Y.Q. Yu & S.Y. Zhu (2001)- Regional GPS data confirm high strain accumulation prior to the 2000 June 4 Mw=7.8 earthquake at southeast Sumatra. Geophysical J. International 146, 3, p. 571-582.
(online at: https://academic.oup.com/gji/article-pdf/146/3/571/1760740/146-3-571.pdf)

Middleton, T.W. (2003)- The Dairi zinc-lead project, North Sumatra, Indonesia, Discovery to feasability. Proc. Symposium Asian update on mineral exploration and development, Sydney 2003, Bull. Australian Institute of Geoscientists (AIG) 39, p. 73-82.
(online at: https://www.aig.org.au/library/publications/aig-bulletins/)
(also online at: https://www.smedg.org.au/Tiger/DairiZinc.htm)
(Sediment hosted, massive sulphidic, zinc-lead mineralisation in core of Sopokomil Dome, Dairi Regency, N Sumatra, in laminated carbonaceous shale and dolomitic siltstones of Julu and Jehe members of Permo-Carboniferous Tapanuli Group. First of its kind in Indonesia)

Milch, L. (1899)- Ueber Gesteine von der Battak-Hochflache (Central Sumatra). Zeitschrift Deutschen Geologischen Gesellschaft, Berlin, 51, p. 62-74.
(online at: https://www.biodiversitylibrary.org/item/148115#page/76/mode/1up)
('On rocks from the Batak Highlands (Central Sumatra)'. Petrography of volcanic-igneous and metamorphic rocks of the Batak Highlands, collected by W. Volz (liparite, dacite, andesites, tuff, granite-gneiss, biotite-gneiss))

Milsom, J. (2005)- Seismology and neotectonics. In: A.J. Barber, M.J. Crow & J.S. Milsom (eds.) Sumatra-geology, resources and tectonic evolution, Geological Society, London, Memoir 31, p. 7-15.
(Present-day tectonic processes of Sumatra controlled by three major fault systems: (1) subduction thrust in Sunda Trench (water depths of >6000 m in S but <5000m in N. Change, of more than 45°, in trend of trench between 96°E and 97°E ('Nias Elbow') may have been initiated by subduction of 2 km high Investigator Ridge; (2) onland dextral Sumatran Fault runs from Banda Aceh to the Sunda Strait (19 segments; possibly 150km displacement); (3) Mentawai Fault at outer margin of forearc basin. Etc.)

Milsom, J. (2016)- The separated twins: Sumatra and Myanmar in a dynamic world. In: Development of the Asian Tethyan Realm: genesis, process and outcomes, 5th Int. Symposium Int. Geoscience Program (IGCP) Project 589, Yangon, p. 42. *(Abstract only)*
(online at: http://igcp589.cags.ac.cn/5th%20Symposium/Abstract%20Volume.pdf)
(For much of geological history Sumatra and Myanmar occupied adjacent positions at active southern margin of Asian continent. Impact of India on margin rotated them by different amounts and opened gap that is now Andaman Sea. Continuity between Sumatra forearc and Rakhine Yoma via Andaman-Nicobar ridge. Elements of subduction-related tectonics can still be observed in Myanmar despite its present orientation. In Sumatra significant hydrocarbons are produced only N and E of modern volcanic line; in Myanmar only to its W)

Milsom, J. & A. Walker (2005)- The gravity field. In: A.J. Barber, M.J. Crow & J.S. Milsom (eds.) Sumatra-geology, resources and tectonic evolution, Geological Society, London, Memoir 31, chapter 3, p. 16-23.
(Gravity map of Sumatra: onshore Bouguer, offshore free gravity. Fundamental differences between SE and NW Sumatra; junction between these may reflect post-amalgamation processes, but may also be unrecognized basement suture)

Miswar, S. Kamal, H. Lahar, F.I. Coulson & C.C. Johnson (1986)- Mineral exploration of the Dusun intrusive complex Aceh Tengah, Northern Sumatra: a final report on the 1984 fieldwork. British Geological Survey (BGS)/ DMR Bandung, NSGMEP Report Series 7, p. 1-52.

(online at: https://resources.bgs.ac.uk/PublicationPDFs/19801420.pdf)
(Area with Permo-Carboniferous metasediments of Kluet Fm (Tapanuli Gp), intruded by Late Paleozoic? Dusun granitoid intrusives. Mineralized float with molybdenite, also Pb-Zn anomalies in stream sediments)

Miyamoto, H. (1943)- The mineral resources of Sumatra. J. of Geography (Chigaku Zasshi) 55, 2, p. 62-83.
(online at: www.jstage.jst.go.jp/article/jgeography1889/55/2/55_2_62/_pdf)
(In Japanese; mainly literature review)

Moerman, C. (1916)- Verslag van een geologisch-mijnbouwkundigen verkenningstocht in een gedeelte der residentien Benkoelen en Palembang (Zuid-Sumatra). Jaarboek Mijnwezen Nederlandsch Oost-Indie 44 (1915), Verhandelingen 1, p. 33-198.
('Report of a geological-mining reconnaissance survey in parts of the residencies of Bengkulu and Palembang (S Sumatra)'. Traveled 6450 km in 576 field days in 1909-1911. With 4 maps at 1:200,000 scale. Reports granites, Jurassic phyllites and diabase tuffs, Eocene sst-shales, Miocene marls, Quaternary volcanics, etc.)

Moore, D.E. (1997)- Mineralogical and microstructural investigations of core samples from the vicinity of the Great Sumatran Fault, Indonesia. U.S. Geological Survey (USGS) Open-File Report 97-694, p. 1-112.
(online at: http://pubs.usgs.gov/of/1997/0694/report.pdf)
(Summary of petrographic investigations of core samples from geothermal wells drilled by Unocal near Great Sumatran fault zone.)

Monecke, K., W. Finger, D. Klarer, W. Kongko, B.G. McAdoo, A.L. Moore & S.U. Sudrajat (2008)- A 1,000-year sediment record of tsunami recurrence in northern Sumatra. Nature 455, p. 1232-1234.
(2004 tsunami in N Aceh deposited sand sheet up to 1.8 km inland on marshy beach ridge plain. Sediment cores from coastal marshes with two older similar extensive sand sheets, deposited soon after AD 1290-1400 and AD 780-990, probably from earlier tsunamis. Additional sand sheet of limited extent may correlate with smaller tsunami of AD 1907)

Moore, D.E., S. Hickman, D.A. Lockner & P.F. Dobson (2001)- Hydrothermal minerals and microstructures in the Silangkitang geothermal field along the Great Sumatran fault zone, Sumatra, Indonesia. Geological Society of America (GSA) Bull. 113, 9, p. 1179-1192.
(Core samples of silicic tuff from geothermal wells along Great Sumatran fault zone near Silangkitang, N Sumatra, suggest enhanced hydrothermal circulation adjacent to fault)

Muchsin, A.M., C.C. Johnson, M.J. Crow, A. Djumsari & Sumartono (1997)- Atlas geokimia daerah Sumatera bagian selatan. Regional Geochemical Atlas series of Indonesia 2, Directorate Mineral Resources (Bandung) and British Geological Survey, p. 1-63.
('Geochemical atlas of Southern Sumatra'. Distributions of 15 metals/elements (Ag, As, Co, Cr, Cu, Fe, K, Li, Mn, Ni, Pb, Sn, W, Mo, Zn) in 13,187 stream sediments from Sumatra S of Equator. Identified clusters of increased Au, Sn-W and base metals)

Muksin (2010)- Understanding the seismic structure beneath Sumatra and its surrounding regions. M. Phil. Thesis Australian National University (ANU), p. 1-145.
(online at: https://openresearch-repository.anu.edu.au/handle/1885/150636)
(Seismic tomography models of Sumatra region)

Muksin, U., Arifullah, A.V.H. Simanjuntak, N. Asra, Muzli, S. Wei, E. Gunawan & M. Okubo (2023)- Secondary fault system in Northern Sumatra, evidenced by recent seismicity and geomorphic structure. J. Asian Earth Sciences 245, 105557, p. 1-12.
(Several medium-sized inland earthquakes away from main Sumatra fault, indicating secondary faults in SE Aceh between Lake Laut Tawar and lake Toba)

Muksin, U., K. Bauer & C. Haberland (2013)- Seismic Vp and Vp/Vs structure of the geothermal area around Tarutung (North Sumatra, Indonesia) derived from local earthquake tomography. J. Volcanology Geothermal Research 260, p. 27-42.

Muksin, U., K. Bauer, M. Muzli, T. Ryberg, I. Nurdin, M. Masturiyono & M. Weber (2019)- AcehSeis project provides insights into the detailed seismicity distribution and relation to fault structures in Central Aceh, Northern Sumatra. J. Asian Earth Sciences 171, p. 20-27.
(Network of 30 short-period seismic stations in 2014 recorded 1790 local earthquake events in 10 months in Central Aceh, N. Sumatra. Seismicity distribution correlates with active segments of Great Sumatra Fault and its main secondary faults)

Muksin, U., C. Haberland, K. Bauer & M. Weber (2013)- Three-dimensional upper crustal structure of the geothermal system in Tarutung (North Sumatra, Indonesia) revealed by seismic attenuation tomography. Geophysical J. International 195, p. 2037-2049.
(online at: https://academic.oup.com/gji/article/195/3/2037/628314)
(Geothermal potential in Tarutung controlled by Sumatra Fault system and young arc volcanism. Spatial distribution of seismic attenuation was used to map subsurface temperature anomalies and fluid distribution. In SW of Tarutung Basin high attenuation zone associated with Martimbang volcano. In Sarulla region anomaly along graben near Hopong caldera)

Muksin, U., C. Haberland, M. Nukman, K. Bauer & M. Weber (2014)- Detailed fault structure of the Tarutung pull-apart basin in Sumatra, Indonesia, derived from local earthquake data. J. Asian Earth Sciences 96, p. 123-131.
(Tarutung pull-apart basin in N central segment of dextral strike-slip Sumatran Fault System. Earthquake lineations reflect extensional duplex fault system and negative flower structure within basin. Focal mechanisms of events at edge of basin dominantly strike-slip type representing dextral strike-slip Sumatran Fault System. N-S striking normal fault events along extensional zones correlate with maximum principal stress direction which is direction of Indo-Australian plate motion)

Mulja, T. (2021)- Toward a mineral potential map of central Aceh, North Sumatra: contributions from spectrum-area and local singularity fractal analysis of stream sediment geochemistry and its relationships to magmatic-hydrothermal Cu and Au mineralisation. Applied Earth Science (Transactions of the Institution of Mining and Metallurgy, IMM), London, 131, 2, p. 50-68.
(online at: https://doi.org/10.1080/25726838.2022.2053376)
(Reassessment of geochemistry of stream sediments collected by 1975-1980 British North Sumatra Project. Majority of fractal geochemical patterns from stream sediments spatially related to known porphyry Cu, epithermal Au-Ag, and skarn-vein Pb mineralisation. N-trending structures control epithermal Au-Ag and porphyry Cu mineralisation. E–W structural-geochemical-magmatic corridor for porphyry Cu mineralisation)

Mulja, T., M. Collins, H.H. Wong, R. Rizal, T. Brown & M. Zainuddin (2003)- An integrated mineral exploration programme in the Takengon tenement, Aceh magmatic arc, North Sumatra. Geochemistry Exploration Environment Analysis 3, 4, p. 321-335.
(Discovery of gold and base metals in 1996-1998 in Takengon tenement of Aceh magmatic arc, N Sumatra. NNW-SSE and NNE-SSW trending fault zones related to mineralization Mineralization types include: (1) Au + base metal-bearing quartz veins; (2) porphyry Cu-style mineralization; (3) skarn-like Au and Cu-sulphide mineralization; and (4) granite-hosted molybdenite veins)

Mulja, T., S. Ebert & L. Groat (2021)- Initial exploration results of the Collins epithermal Au-base metal prospect, Aceh, Indonesia. Resource Geology 72, 1, e12277, p. 1-16.
(Read online at: https://onlinelibrary.wiley.com/doi/epdf/10.1111/rge.12277)
(Collins intermediate sulfidation epithermal Au-base metal project in Aceh)

Mulja, T., M.N. Heriawan & B.D.H. Supomo (2020)- The Miwah high-sulphidation epithermal Au-Ag deposit, Aceh, Indonesia: Geology and spatial relationships of gold with associated metals and structures. Ore Geology Reviews 123, 103564, p. 1-26.
(Mineralization in Plio-Pleistocene Miwah high-sulphidation Au-Ag deposit, near Sumatra fault in Aceh, in zone of phreatic breccias 1.1 km long/ 400 m wide/ 200-350 m deep in fault-bounded andesite ridge. Three mineralised centers, controlled by steeply dipping (>60°) and N-trending pre- to syn-mineral feeders)

Mulja, T. & M.N. Heriawan (2022)- The Miwah high sulphidation epithermal Au-Ag deposit, Aceh, Indonesia: Dynamics of hydrothermal alteration and mineralisation interpreted from principal component analysis of lithogeochemical data. Ore Geology Reviews 147, 104988, p. 1-26.
(online at: www.sciencedirect.com/science/article/pii/S0169136822002967?via%3Dihub)
(Principal component analysis of lithogeochemical data from Miwah high-sulphidation epithermal Au-Ag deposit revealed distinct elemental assemblages, reflecting m main-stage mineralization in core to late-stage mineralisation in near-surface environment)

Muller-Herrings, P. (1909)- Magneteisenerz in Sud-Sumatra. Zeitschrift fur Praktische Geologie 17, p. 498-499.
('Magnetite iron ore in South Sumatra'. Brief report by employee (or relative?) of the 'Lampongsche Exploratie Maatschappij' in Teluk Betung,owned by German tobacco planter/ prospector Herman T. Herrings in 1908)

Muller-Herrings, P. (1915)- Erz und Kohle auf Sumatra. Gluck Auf, Glückauf. Berg und Huttenmännische Zeitschrift 51, Nr. 38, p. 913-920 and continuation in Nr. 40, p. 961-964, also p. 985- ?.
(online at: https://delibra.bg.polsl.pl/Content/10707/No38.pdf)
('Ore and coal on Sumarta'. Brief reviews after 1909 study journey to S and W Sumatra by Bergassessor Paul Muller-Herrings from Colmar, Alsace. With focus on iron ore deposits at the Bay of Telukbetung, Lampung, S Sumatra, and gold-silver mines at Rejang Lebong in W Sumatra))

Mulyaningsih, S. (2014)- Vulkanisme Pratersier batuan gunung api Kelompok Woyla di Kecamatan Beutong dan Darul Makmue, Kabupaten Nagan Raya, Provinsi Nangroe Aceh Darussalam. Majalah Geologi Indonesia 29, 3, p. 183-198.
(Pre-Tertiary volcanism of the volcanic rocks of the Woyla Group in the Beutong and Darul Makmue sub-regency, Nagan Raya Regency, Nanggroe Aceh Darussalam'. Woyla Gp with intermediate volcanic rocks, metamorphic rocks and granodiorite intrusions. Metamorphic rocks thought to be alterations of volcanism)

Mulya, R.C. & D. Hendrawan (2014)- The Anjing Hitam underground zinc lead deposit, North Sumatra. In: I. Basuki & A.Z. Dahlius (eds.) Sundaland Resources, Proc. Annual Conv. Indonesian Soc. Economic Geologists (MGEI), Palembang, p. 309-317.
(Anjing Hitam deposit large shale-hosted Zn-Pb system within Late Carboniferous or E Permian Tapanuli Gp in N Sumatra. Includes black shale-hosted massive sulfide Zn-Pb mineralisation, Zn mineralisation in veins, breccias, polymetallic Zn-Pb-Cu- Ag vein mineralisation and secondary Zn-Pb mineralisation Same as Dairi project of earlier authors)

Munasri, M.M. Mukti, H. Permana & A.M. Putra (2015)- Jejak subduksi Mesozoikum di Komplek Garba, Sumatra bagian Selatan berdasarkan fosil radiolaria dan data geokimia. In: H. Harjono et al. (eds.) Pros. Pemaparan Hasil Penelitian Geoteknologi 2015, Pusat Penelitian Geoteknologi (LIPI), Bandung, p. 63-72.
(online at: http://pustaka.geotek.lipi.go.id/wp-content/uploads/2016/04/Prosiding-2015.pdf
('Traces of Mesozoic subduction in the Garba Complex, S Sumatra, from radiolarian fossils and geochemical analysis'. In S Sumatra trace of Mesozoic subduction complex(es) exposed in Gumai, Garba and Gunung Kasih (Lampung). In SE Garba Mts subduction complex rocks from continental margin and from oceanic plates. Presence of island arc basalts and radiolaria of possible Triassic age)

Munasri & A.M. Putra (2019)- First evidence of Middle to Late Triassic radiolarians in the Garba mountains, South Sumatra, Indonesia. Island Arc 28, 3, p. 1-13.
(M-L Triassic (Ladinian-Carnian) radiolaria in cherts of Situlanglang Member of Garba Fm, S Sumatra, which is generally regarded as of Late Jur assic- E Cretaceous age. With Annulotriassocampe sulovensis, Triassocampe

postdeweveri, Spongotortilispinus tortilis, etc. May indicate deposition after collision of Sibumasu and East Malaya blocks. SitulanglangMember proposed to be contemporaneous with M-U Triassic Kualu and Tuhur Fms in N and C Sumatra)

Muraoka, H., M. Takahashi, H. Sundhoro, S. Dwipa, Y. Soeda, M. Momita & K. Shimada (2010)- Geothermal systems constrained by the Sumatran Fault and its pull-apart basins in Sumatra, Western Indonesia. Proc. World Geothermal Congress 2010, Bali, p. 1-8.
(online at: http://b-dig.iie.org.mx/BibDig/P10-0464/pdf/1248.pdf)
(Two types of geothermal systems in Sumatra (1) on slope of volcanic edifices and (2) in pull-apart basins along Sumatran strike-slip fault zone. Thirteen pull-apart basins identified)

Musper, K.A.F.R. (1928)- Indragiri en Pelalawan. Uitkomsten van het mijnbouwkundig- geologisch onderzoek in de jaren 1922-1926. Jaarboek Mijnwezen Nederlandsch Oost-Indie 56 (1927), Verhandelingen 1, p. 1-245.
(Report on 1922-1926 geological-mining investigations in Indragiri and Pelalawan. Extensive geological descriptions and maps based on 5-year mapping program with 3 geologists in SW part of Central Sumatra basin and adjacent Barisan Range. With 1:25,000 scale detail maps of anticlines (some later drilled by NKPM/Stanvac and contain Lirik- Japura, etc. oilfields; JTvG))

Musper, K.A.F.R. (1928)- Geologische waarnemingen in de Padangsche Bovenlanden, I. Over een voorkomen van Trias in de omgeving van Sawahloento. De Mijningenieur 9, 7, p. 124-127.
('Geological observations in the Padang Highlands, I. On an occurrence of Triassic in the area of Sawahlunto'. Sawahlunto at SW side of Tertiary Ombilin Basin. Pretertiary limestones SW of Sawahlunto originally believed to be Permian fusulinid-bearing limestones by Verbeek, but fusulinids are present only in reworked limestone clasts in basal Tertiary conglomerates. In-situ limestone series at least 500m thick, thin-bedded, and locally rich in Triassic bivalve molluscs: Myophoria verbeeki, M. myophoria, Cardita globiformis, Gonodon sphaerioides, Anatina and possible Gervilleia (fauna described by Boettger 1881 and Krumbeck 1914) (limestones overlie Permian 'Silungkang Fm' diabase-shale series?; JTvG))

Musper, K.A.F.R. (1929)- Geologische waarnemingen in de Padangsche Bovenlanden, II. Het Si Karikir-gebergte. De Mijningenieur 10, 5, p. 112-118.
('Geological observations in the Padang Highlands, II. The Si Karikir Mountains'. Mountain chain between Ombilin River and Lake Singkarak composed of intensely folded, grey Upper Triassic limestone, similar to described in 1928 in Sawahlunto area. Limestone at least 750m thick, locally rich in molluscs (Cardita, Myophoria myophoria, Gervilleia, possible Gonodon sphaerioides; no Halobia), rare corals and ammonoids (Trachyceras, Cyrtopleurites, Drepanites). Limestones conformable over 'Kiezel en mergel schiefers' of Verbeek. Intruded by younger granodiorite of Mesozoic age, because erosional products present in E Tertiary)

Musper, K.A.F.R. (1930)- Beknopt verslag over uitkomsten van nieuwe geologische onderzoekingen in de Padangsche bovenlanden. Jaarboek Mijnwezen Nederlandsch Oost-Indie 58 (1929), Verhandelingen, p. 265-331.
('Brief report on the results of 1927-1928 geological investigations in Padang Highlands' (area E of Lake Singkarak and W of Tertiary Ombilin Basin with its Eocene fish localities). A few km NE of Singkarak town M Permian limestone associated with age-equivalent 'porphyry tuffs'.Three ages of folded Pretertiary limestones: (1) ~200m thick M Permian limestones at Goegoek Boelat (Guguk Bulat), ~3km from NE corner of Lake Singkarak:M Permian fusulinid limestones (see also Verbeek, Volz, Lange, Fontaine), (2) Carboniferous N of Moeko Moeko; with Paleozoic tabulate corals, and (3) (Late?) Triassic S of Sawah Loento; >500m thick, rich in Triassic bivalves Cardita, Myophoria, Gonodon) and ammonoid Trachyceras. Also Mesozoic granites and Tertiary sediments (thick quartz sandstones overlain by E Miocene (upper Te) limestones with Miogypsina))

Musper, K.A.F.R. (1933)- Geologische kaart van Sumatra 1:200 000. Toelichting bij Blad 15 (Praboemoelih). Dienst Mijnbouw Nederlandsch-Indie, Bandung, p. 1-41 + map.
(map online at: https://digitalcollections.universiteitleiden.nl/view/item/813160)
('Geologic map of Sumatra 1:200,000, Explanatory Notes of Sheet 15 (Prabumulih)')

Musper, K.A.F.R. (1934)- Nieuwe fossielresten en de ouderdom der kalksteenen in het Pretertiair van het Goemai Gebergte. De Ingenieur in Nederlandsch-Indie)IV) 1, 8, p. IV.134- IV.142.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1934-08.pdf)
('New fossils and the age of the limestones in the Pre-Tertiary of the Gumai Mountains'. Limestones from folded Saling series interbedded with basic andesitic volcanics in Saling River, S Sumatra, contain Orbitolina, Loftusia and nerineid gastropods, suggesting E-M Cretaceous age. Earlier determination of Triassic age based on Lovcenipora wrong (Yabe 1943 suggested Late Jurassic age; JTvG). Also new gastropod species Nerinea palembangensis from Air Saling, associated with Lovcenipora and Loftusia = likely Early Cretaceous age)

Musper, K.A.F.R. (1934)- Een bezoek aan de grot Soeroeman Besar in het Goemaigebergte (Palembang, Zuid-Sumatra). Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 51, 4, p. 521-531.
(online at: https://resolver.kb.nl/resolve?urn=MMUBA13:001682001:pdf)
('A visit to the Suruman Besar cave in the Gumai Mountains, S Sumatra'. Extensive cave systems in 12km WNW-ESE strip of Cretaceous limestones. Soeroeman Besar cave with >425m of subterranean river. Little geology information)

Musper, K.A.F.R. (1937)- Geologische kaart van Sumatra 1:200,000. Toelichting bij Blad 16 (Lahat). Dienst Mijnbouw Nederlandsch-Indie, Bandung, p. 1-110.
(map online at: https://digitalcollections.universiteitleiden.nl/view/item/817291)
(Explanatory notes and geological map of Sumatra Sheet sheet 16 Lahat, S Sumatra. Map area extends from Gumai Mts in SW, Pasumah Highlands in South, Muara Enim in E, across South Palembang basin. With extensive explanatory notes)

Muston, J., M. Forster, C. Alderton, S. Crispin & G. Lister (2021)- Direct dating of overprinting fluid systems in the Martabe epithermal gold deposit using highly retentive alunite. Geochronology Discussions, p. 1-16. *(Preprint)*
(online at: https://gchron.copernicus.org/preprints/gchron-2021-25/gchron-2021-25.pdf)
(Martabe Au deposits in W Sumatra discovered in 1997 and producing since 2012. Formed in shallow crustal epithermal environment (1-2 km), associated with Neogene mafic intrusions, adjacent to Great Sumatra Fault system. Alunite geochronology suggests formation at T <200 °C at depth <2 km. Gold in Purnama pit formed during short mineral growth episodes at ~2.25 and ~2.0 Ma)

Nainggolan, D.A. (2007)- Tinjauan analisis gaya berat terhadap bentukan struktur bawah permukaan di Lembar Medan, Sumatera Utara. Jurnal Sumber Daya Geologi (JSDG) 17, 4 (160), p. 243-256.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/293/264)
('A review of gravity analysis on the formation of subsurface structures in the Medan Sheet, North Sumatra'))

Nainggolan, M.J.H., E.S. Siregar, B.P. Sitanggang & G. Sinaga (2012)- Fasies and paleo-environment of Permian Mengkarang Formation and its implication to potensial of coal. Proc. 41st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2012-SS-38, p. 1-5.
(online at: https://www.iagi.or.id/web/digital/9/2012_IAGI_Yogyakarta_Fasies-and-Paleo-Environment-of-Permian-Mengkarang.pdf)
(Permian flora and fauna in intact positions in Mengkarang coal bearing formation in Jambi Province. Fossil flora includes Lepidodendracreae shaped stems and leaves of tree or branched fork-shape Sphenophyllaceae. Coal organic facies suggest deposition in swamp zone, in area surrounded by active volcanoes)

Najili, A., P. Sendjaja, B. Priadi, V.E. Setiawan, B.M. Hartono (2021)- Petrogenesis of Pre-Tertiary A-type granitoid in Jambi area and its implications of Rare Earth Element potential on Main Range Sumatra belt. Indonesian J. of Economic Geology (IJEG) 1, 1, p. 49-71.
(online at: https://journal.iagi.or.id/index.php/IJEG/article/view/342)
(Late Triassic- Early Jurassic A-type granitoids in Tigapuluh (Tanjungjabung Barat) and Duabelas (Sarolangun) Mountains, Jambi. Formed in (Triassic?) post-collision environment, following collision of Sibumasu Block with Indochina. Magma contaminated in rift environment due to roll-back of Meso-Tethys in Late Triassic. High REE

contents, similar to S-type granite in Bangka. With A-type granitoid in Sarudik Sibolga, (N Sumatra) and Bukit Batu (S Sumatra), suggest A-type granitoid belt in Sumatra Main Range)

Nakano, M., H. Kumagai, S. Toda, R. Ando, T. Yamashina, H. Inoue & Sunarjo (2010)- Source model of an earthquake doublet that occurred in a pull-apart basin along the Sumatran fault, Indonesia. Geophysical J. International 181, p. 141-153.
(2007 earthquake doublet along Sumatran Fault Zone near Padang Panjang, C Sumatra. Focal mechanisms indicate right-lateral strike-slip faults, consistent with geometry of Sumatran fault. Both nucleated below N end of Lake Singkarak, which is pull-apart basin between Sumani and Sianok segments of Sumatran fault system)

Nash, J.M.W. (1929)- Causerie over den tocht met Prof. Dr. A. Lacroix en Dr. H. Tanakadate van Tandjong-Karang tot Medan (Juni-Juli 1929). De Mijningenieur 10, part I, Nr. 9, p. 191-200 and II, Nr. 10, p. 212-222.
('Report on the trip with Prof. Dr. A. Lacroix and Dr. H. Tanakadate from Tandjong-Karang to Medan (June-July 1929' Report of a 2-month geological fieldtrip across Sumatra from S to N, led by Dr. James Nash, with a prominent French and a Japanese geologist/volcanologist, after attending the Fourth Pacific Science Congress in Bandung in 1929. With interesting geological factoids)

Nash, J.M.W. (1929)- Radiolarienhoudende gesteenten van Sumatra. De Mijningenieur 10, 11, p. 249-255.
('Radiolarian-bearing rocks from Sumatra'. Many new localities with radiolarians in S Sumatra, but no age-diagnostic species identified. Listing of radiolarian-bearing rocks encountered across Sumatra:7 in S Palembang area (Muara Dua Massif= Garba Mts?), 1 in S Bengkulu, 1 near Singkarak Lake in W Sumatra (in Permian-Triassic transition beds),12 localities in Lampung Districts on middle peninsula of S Sumatra (some associated with E Cretaceous Orbitolina; in Ratai Bay red deep sea clay). No true radiolarites anywhere, but all interpreted as deep marine deposits (No ages given; probably ranging from Permian- Cretaceous; JTvG))

Nash, J.M.W. (1930)- De Trias ten zuiden van Sawah Loento. De Mijningenieur 11, 8, p. 159-164.
('The Triassic South of Sawahlunto'. In area S of Sawahlunto intensely folded Upper Triassic marls and limestone with bivalves Myophoria, Gervilleia, etc., mainly dipping to N-NE, unconformably overlain by Eocene and younger quartz sandstones. Triassic sediments intruded by augite-microdiorite porphyry in Jurassic or Cretaceous, during or after folding)

Natalia, H.C., Widiyawati, A.J. Widiatama, R. Naufan, Hendrawan, D.A.G. Christi, A.T. Kemala et al. (2024)- Distribution of manganese ore deposit in Sukaagung Village, Tanggamus Regency, Lampung. Proc. 2nd Int. Conference Geological Engineering and Geosciences (ICGOES-2022), Yogyakarta, IOP Conference Series: Earth and Environmental Science 1378, 012026, p. 1-8.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1378/1/012026/pdf)

Natawidjaja, D.H. (2002)- Neotectonics of the Sumatran Fault and paleogeodesy of the Sumatran subduction zone. Ph.D. Thesis California Institute of Technology, Pasadena, p. 1-289.
(online at: http://thesis.library.caltech.edu/1939/)
(Australian-Indian plate is subducting under Sumatran plate boundary at ~60 mm/yr. Oblique convergence partitioned into trench-parallel slip, accommodated largely by Sumatran fault zone and trench-perpendicular slip, accommodated by subduction zone. Sumatran fault zone highly segmented. Largest geomorphic offsets along fault zone ~20 km, and may represent total offset across fault. Location of Sumatran fault and active volcanic arc highly correlated with shape and character of underlying subducting oceanic lithosphere. Coral microatolls in W Sumatra used to document evidence for deformation)

Natawidjaja, D.H. (2014)- The Sumatran Fault Zone: neotectonics, magmatism, and metal resources. In: I. Basuki & A.Z. Dahlius (eds.) Sundaland Resources, Proc. Annual Conv. Indonesian Soc. Economic Geologists (MGEI), Palembang, p. 59-87.
(Extensive review of 1900km-long, trench-parallel Sumatran fault zone. SFZ highly segmented, with 18 major segments. Many volcanoes, geothermal activities and metal resources near breaks between segments and also on and around major fault traces. Maximum offsets of rivers and folds along fault ~20-25 km. Measured fault slip

rates 10- 27 mm/year, suggesting presently active SFZ may only about 1-3 Myrs old, which correlates with ages of most of major gold mineralizations between 1-3 Ma)

Natawidjaja, D.H. (2018)- Updating active fault maps and slip rates along the Sumatran Fault Zone, Indonesia. Proc. Global Colloquium on GeoSciences and Engineering, Bandung 2017, IOP Conference Series: Earth and Environmental Science 118, 012001, p. 1-11.
(online at: http://iopscience.iop.org/article/10.1088/1755-1315/118/1/012001/pdf)
(Latest geological and GPS studies suggest slip rates along Sumatran Fault Zone ~15 mm/yr. Total amount of extension in the Sunda-strait marine grabens ~18.7 km, almost identical with largest geomorphic offset along SFZ. Sumatran fore-arc moving N along SFZ like rigid block instead of being stretched)

Natawidjaja, D.H. (2018)- Major bifurcations, slip rates, and a creeping segment of Sumatran Fault Zone in Tarutung-Sarulla-Sipirok-Padangsidempuan, Central Sumatra, Indonesia. Indonesian J. on Geoscience (IJOG) 5, 2, p. 137-160.
(online at: http://ijog.bgl.esdm.go.id/index.php/IJOG/article/view/451/264)
(Study of active Tarutung-Sarulla-Sipirok-Padangsidempuan fault. Slip rates at Sianok to Renun segments ~14 mm/year. In bifurcation zone partitioned into ~9.3 mm/yr on Toru and ~4- 5 mm/yr on Angkola segment)

Natawidjaja, D.H., K. Bradley, M.R. Daryono, S. Aribowo & J. Herrin (2017)- Late Quaternary eruption of the Ranau Caldera and new geological slip rates of the Sumatran Fault Zone in Southern Sumatra, Indonesia. Geoscience Letters (Asia Oceania Geosciences Society; AOGS) 4, 21, p. 1-15.
(online at: https://geoscienceletters.springeropen.com/articles/10.1186/s40562-017-0087-2)
(Paleosols buried under Ranau Tuff constrain large caldera-forming eruption to ~33,830-33,450 yrs BP. In N Sumatra lateral displacement of river channels incised into Ranau Tuff show right-lateral channel offsets of ~350 ± 50m (minimum slip rate 10.4 ± 1.5 mm/yr). S of Suoh pull-apart depression. In SW Sumatra West Semangko segment offsets Semangko River by 230 ± 60m, (slip rate of 6.8 ± 1.8 mm/yr))

Natawidjaja, D.H., L. Handayani & C. Widiwijayantani (1994)- Proses subduksi miring pengaruhnya terhadap variasi slip-rate sesar Sumatra serta deformasi pada busur depan: pendekatan model kuantitatif tektonik dan elemen hingga. Proc. 23rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 1, p. 413-432.
(online at: https://www.iagi.or.id/web/digital/62/33.pdf)
(The oblique subduction process and its effects on slip-rate variation of the Sumatra fault and deformation of the forearc: quantitative tectonic model and finite element approach')

Natawidjaja, D.H. & W. Triyoso (2007)- The Sumatran fault zone- from source to hazard. J. Earthquake and Tsunami 1, 1, p. 21-47. *(online at: https://earthjay.com/earthquakes/20220225_sumatra/natawidjadja_triyoso_2007_sumatran_fault_hazzard.pdf)*
(Substantial portion of Sumatran oblique convergence accommodated by Sumatran fault. 1900 km-long active strike-slip fault, 20 major segments, ranging from ~60- 200 km. Slip rates along fault increase NW-ward, from ~5 mm/yr around Sunda Strait to 27 mm/yr around Toba Lake)

Neeb, E.A. (1902)- Verslag omtrent het onderzoek naar tinertsafzettingen in een gedeelte van Midden- Sumatra, omvattende de landschappen V. Kota, III. Kota Kampar, IV. Kota di Moedik, VII. Kota Kampar di Ilir, Rokan Kiri, IV. Kota, Koento, Ramba, Daloe-Daloe, Kapenoean en aangrenzende streken. Jaarboek Mijnwezen Nederlandsch Oost-Indie 31 (1902), p. 113-145.
(online at: https://babel.hathitrust.org/cgi/pt?id=coo.31924024025656)
('Report on the investigation of tin ore deposits in a part of C Sumatra, in the areas of Kota, Kota Kampar, etc.'. Oldest rocks slates and quartzites ('probably Silurian or Devonian', but no fossils), locally with crystalline limestone (Permian?). Concludes that, despite some local exploitation, there are no commercial tin deposits left in this part of C Sumatra. With two 1:100,000 scale geologic maps of Upper Kampar, Rokan Kiri rivers areas)

Ninkovich, D. (1976)- Late Cenozoic clockwise rotation of Sumatra. Earth Planetary Science Letters 29, p. 269-275.

(Clockwise rotation of Sumatra of ~20° about axis near Sunda Strait inferred from: (1) Sumatra volcanic arc at angle of 20° with volcanic arc farther E; (2) Benioff zone maximum depth of 600 km E of Sunda Strait, but decreases to 200 km NW along Sumatra island; (3) age of volcanic activity younging to NW (?). Increase in sea-floor spreading rate since 10 Ma pushed N Sumatra and Malaya NE for ~500 km along system of presently inactive faults, causing CW of Sumatra and Malaya. When this rotation ceased underthrusting of N Sumatra begin, producing shallow and short Benioff zone and delayed volcanic activity)

Ninkovich, D., N.J. Shackleton, A.A. Abdel-Monem, J.D. Obradovich & G. Izett (1978)- K-Ar age of the Pleistocene eruption of Toba, North Sumatra. Nature 276, p. 574-577.
(Late Pleistocene eruption of Toba is largest explosive eruption documented from Quaternary. K–Ar dating of the uppermost Toba Tuff (welded tuff along Asahan River) gives age of ~75,000 yr. Similar in composition to widepread ash layer in Indian Ocean deep sea cores and 1.5m thick ash bed at Tampan, W Malay Peninsula)

Ninkovich, D., R.S.J. Sparks & M.T. Ledbetter (1978)- The exceptional magnitude and intensity of the Toba eruption, Sumatra: an example of the use of deep-sea tephra layers as a geological tool. Bulletin of Volcanology 41, 3, p. 286-298.
(Eruption of Toba, N Sumatra at 75,000 yr BP, is largest magnitude Quaternary eruption. Produced largest-known caldera (100 x 30 km), surrounded by rhyolitic ignimbrite covering area of >20,000 km^2. Associated deep-sea tephra layer found in piston cores in NE Indian Ocean covering minimum area of 5 M km^2. Volume of ignimbrite and distal tephra fall deposit of Toba eruption at least 1000 km^3 of dense rhyolitic magma. Eruption estimated to last 9-14 days)

Nirsal, N., S. Clark, A. Jervis & D. Rudd (2021)- New perspectives on the stratigraphy of the Andaman Trough, offshore North Sumatra, Indonesia. Utilising modern quantitative biostratigraphical analysis, integrated with newly acquired 3D multi client seismic data. Proc. 45th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA21-G-31, p. 1-10.
(New seismic data and wells reevaluation of deepwater Andaman Trough off N Sumatra. Identification of Late Eocene marine -paralic ('lower Parapat Fm') sediments in BLD-1 and ITU-1A. but no Eocene Tampur Fm dolomites. Early Oligocene syn-rift fluvial-deltaic Parapat Fm overlain by continuous bathyal Late Oligocene and younger Bampo-Belumai-Baong-Keutapang section)

Nishimura, S., E. Abe, J. Nishida, T. Yokoyama, A. Dharma, P. Hehanussa & F. Hehuwat (1984)- A gravity and volcanostratigraphic interpretation of the Lake Toba region, North Sumatra, Indonesia. Tectonophysics 109, p. 253-261, 265-272.

Nishimura, S., S. Sasajima, K. Hirooka, K.H. Thio & F. Hehuwat (1978)- Radiometric ages of volcanic products in Sunda Arc. CCOP/ SEATAR Workshop on the Sumatra Transect, Parapat, p.

Nocker, H. (1919)- Beitrage zur Petrographie von Sud-Sumatra (Lampong Distrikte). Inaugural Dissertation, Wilhelms Universitat, Munster, p. 1-53.
('Contributions to the petrography of South Sumatra (Lampong Districts)'. Petrographic descriptions of igneous (granite, gabbro, diorite), volcanic (andesite, liparite, dacite) and metamorphic rocks (gneiss, amphibolite, muscovite schist, quartzite) collected by Elbert around Lampung Bay. No pictures; poor locality descriptions)

Novianti, Y. & E. Hastuti (2019)- The comparison of Qhv Tuff and Kasai Tuff characteristic based on petrography study of Batanghari Area, Ogan Komering Ulu District, South Sumatera. Proc. 2nd Sriwijaya Int. Conf. Science Engineering and Technology (SICEST), Palembang 2018, IOP Conference Series: Materials Science and Engineering, 620, 012127, p. 1-7.
(online at: https://iopscience.iop.org/article/10.1088/1757-899X/620/1/012127/pdf)
(On Quaternary Qhv crystal tuff of and Plio-Pleistocene Kasai Fm vitric tuff)

Nugroho, I.D.R., K.A. Lubis, Y. Herdiana, J. Saputra & E.F. Butarbutar (2024)- The new potential of fractured basement reservoir identification with integrated seismic attributes analysis and structural modeling in Ogan

Komering Block, South Sumatra. Proc. 48th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA24-G-222, p. 1-10.
(BDA-1 well (2014) in Ogan Komering block. on Bandar Agung basement high at S boundary of SE-most corner of S Sumatra basin, flowed gas at 3.4 mmscf/d from basement interval. ASD-1 well (1988) was first discovery, flowing 1,890 BOPD from igneous diorite. Fracture modelling in basement)

Nugroho, B., H. Mustapha, A. Prasetya, J. Boast, M. Kaur, R.W.C. Nusantara, S. Dewawisesa & H. Utomo (2015)- Aruah Island's geology, northeastern edge of Central Sumatra Basin. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI, Balikpapan, JCB2015-056, p. 1-17.
(Fieldwork on Aruah Islands in Malacca Straits, 80km N of Bagiansiapiapi, C Sumatra. Steeply dipping meta-quartzites and meta-conglomerate, inferred to be of Paleozoic age, with regional dip ~60° to E, and N-S oriented fractures. Unconformably overlain by Miocene? Sihapas Fm? quartz sandstones. Islands believed to be part of Mutus Assemblage terrane and structurally on trend with Minas, Duri, Bagansiapiapi and Perak Highs. Similar meta-quartzite in Malacca Straits CSB A-1 well (90 km SE of Aruah) had spores indicating Devonian-E Carboniferous age)

Nukman, M. & M.P. Hochstein (2019)- The Sipoholon geothermal field and adjacent geothermal systems along the North-Central Sumatra Fault Belt, Indonesia: Reviews on geochemistry, tectonics, and natural heat loss. J. Asian Earth Sciences 170, p. 316-328.
(Sipoholon system in Tarutung Basin one of five geothermal systems associated with ~100 km stretch of Sumatra Fault System (SFS) in N-C Sumatra)

Oktariadi, O. & R. Suhendar (2014)- Warisan geologi Sumatra. Badan Geologi, Bandung, p. 1-259.
(online at: https://geologi.esdm.go.id/publikasi/laporan-dan-buku/keragaman-geologi-indonesia-warisan-geologi-sumatra)
('Sumatra's Geological Heritage'. Guide to Sumatra's most famous geological and mining objects, like Lake Toba caldera, Sawahlunto coal mines, the Maninjau, Singkarak and Ranau lakes, Belitung granite, Korinci volcano complex, Krakatau volcano, etc.))

Oostingh, C.H. (1928)- Voorloopig overzicht van de gronden in het tabaksgebied van Deli. Mededeelingen Deli Proefstation Medan, Sumatra, ser. 2, 54, p. 1-61.
(online at: www.googlebooks....)
('Preliminary overview of the soils in the tobacco region of Deli. All characterized by rel. thick, young volcanic deposits (tuffs, lahars, etc.), the weathering of which delivers nutrients for crops. See also papers bij J.H. Druif)

Oppenoorth, W.F.F. & J. Zwierzycki (1918)- Geomorfologische en tektonische waarnemingen als bijdrage tot verklaring van de landschapsvormen van Noord Sumatra. Jaarboek Mijnwezen Nederlandsch Oost-Indie 46 (1917), Verhandelingen 1, p. 276-311.
('Geomorphological and tectonic observations as a contribution to the explanation of the landforms of North Sumatra'. Review of erosianal cycles, uplift events, extensive river terraces, etc.))

Osberger, R. (1954)- Die Geologie des Sibumbungebirges nebst Beschreibung der hier und in benachbarten Gebieten liegenden Ertzvorkommen (Mittel-Sumatra). Sitzungsberichte Osterreichischen Akademie der Wissenschaften, Math.-Naturwisschaftliche Klasse, Wien, 1, 163, 9-10, p. 689-723.
(online at: https://www.zobodat.at/pdf/SBAWW_163_0689-0723.pdf)
('The geology of the Sibumbun Mountains with description of associated and nearby ore occurrences (Central Sumatra)'. Summary of geology and copper and iron mineralizations associated with Carboniferous- Triassic intrusives in area NE of Singkarak Lake, Padang province. At least 1400m thick Carboniferous-Permian- Triassic series, followed by non-deposition from Late Triassic to end-Mesozoic. Intruded by various intrusive rocks, from dacite to gabbro to granodiorite)

Osberger, R. (1955)- Uber Deckenbau und andere geologische Probleme im Pratertiair Sumatras. Neues Jahrbuch Geologie Palaontologie, Monatshefte 1955, 8, p. 321-341.

('On nappe structures and other geological problems in the Pre-Tertiary of Sumatra'. Assumes existence of nappe structural style in Padang Highlands and Toba area of N Sumatra. Main thrusting was to NE and took place in post-Turonian Cretaceous time. Folding at depth in Tertiary responsible for movement to SW. Neither rock facies nor structural evidence supports view that root zone of nappes is in Riau islands or Malaya)

Osberger, R. (1956)- On the nappe structure and other geological problems in the Pre-Tertiary of Sumatra. 20th Session International Geological Congress, Mexico, 5, p. 411-420.
(Similar to paper above. Previous investigators showed nappe structures Jambi province, C Sumatra. Present studies confirmed existence of nappe in Padang highlands and probable existence of post-Turonian(?) 'Toba nappe' in E part of N Sumatra. Lithofacies studies indicate Permo-Carboniferous continent E of Malaya and Sumatra. Main thrusting was to NE in Cretaceous)

Ozawa, Y. (1929)- A new occurrence of *Schwagerina princeps* in Sumatra. Eclogae Geologicae Helvetiae 22, p. 51-52.
(online at: http://retro.seals.ch/cntmng?type=pdf&rid=egh-001:1929:22::8&subp=hires)
(Short paper on fusulinids in Productus limestone of Teluk Gedang on Merangin River, below plant beds with Pecopteris (= 'Jambi Flora'; JTvG) of Garing River. Some already described by Lange (1925). Schwagerina princeps, Neoschwagerina craticulifera Fusulina japonica not reported from Sumatra before (Schwagerina princeps from this locality re-described as Pseudoschwagerina meranginensis n.sp. by Thompson (1936))

Page, B.G.N. (1981)- Late Palaeozoic pebbly mudstones in Sumatra. In: M.J. Hambrey & W.B. Harland (eds.) Earth's pre-Pleistocene glacial record, Cambridge University Press, p. 337. *(Brief abstract only)*
(Pebbly mudstones dated as Carboniferous- E Permian found in Sumatra along Barisan Mountain Range. In places they are interbedded with limestones and calcareous siltstones. Glacial origin less likely than submarine mass-flow deposit along continental margin)

Page, B.G.N., J.D. Bennett, N.R. Cameron, D.M. Bridge, D.H. Jeffrey et al. (1979)- A review of the main structural and magmatic features of northern Sumatra. J. Geological Society, London, 136, 5, p. 569-579.
(Three main periods of Cenozoic volcanism in N Sumatra: E Oligocene, Oligo-Miocene and Miocene- Recent. Large transcurrent movements on SFS indicated by (a) regional slivers of oceanic crust trapped at leading junction of W continental plate as it moved NW against main mass of island; (b) paleomagnetic evidence showing E Sumatra as part of Malaya block and in equatorial position since Cretaceous, while paleolatitude of NW tip of Sumatra (W of SFS), was farther S; (c) juxtaposition of Li-rich and Li-poor geochemical provinces along SFS. Sumatran magmatic arc commenced at least in Mesozoic. Offset of current arc to E at Lake Toba ascribed to change in angle of Benioff Zone, divided by split in descending plate coincident with prolongation of Investigator transform fault)

Page, B.G.N. & R.D. Young (1981)- Anomalous geochemical patterns from northern Sumatra: their assessment in terms of mineral exploration and regional geology. J. Geochemical Exploration 15, p. 325-365.
(Stream sediment geochemical survey in Sumatra N of 4°N. Linear high-copper zone along axial Barisan Mts, derived from ophiolites and copper-rich calc-alkaline intrusives. High chromium over ophiolites. High lead E of linear copper zone and along oil and gas basins of E coast strip. High tin values W of copper-rich intrusives. Pattern does not conform to classic zonation of mineral deposits across simple subduction system. High Lithium values E Sumatran Fault System and virtually absent W of it)

Panggabean, H. (2015)- Pre-Tertiary tectono-stratigraphy and paleogeography of the Sumatra terranes, Southeast Asia, Indonesia. Abstracts AAPG European Regional Conference Exhibition, Lisbon, 2015, 1 p.
(online at: https://www.searchanddiscovery.com/abstracts/html/2015/90226erm/abstracts/10323787.html)
(Sumatra is Pretertiary amalgamation Gondwanan and Cathaysian terranes: (1) Bohorok- Tigapuluh Mts continental block with Permo-Carboniferous glacial deposits; (2) Kluet- Kuantan Mengkareng Fm. metaclastics, volcanics and carbonates with Permian Jambi flora (Cathaysian) (3) Gunungkasih- Tanjung Karang pre-Carboniferous metamorphic complex in S Sumatra and (4) Sikuleh- Garba (Woyla) Jurassic- Cretaceous terrane of melange, metasediment, carbonate, oceanic tholeiitesc and I-type granitoid rocks in W Sumatra, Terranes separated by mostly NW-SE faults/sutures. Paleomagnetic data: pebbly mudstone from Tigapuluh Mts (1) showed

block was at 41° S and part of NW Australia; (2) Cathaysian Permo-Carboniferous Mengkarang Fm (2) was at 30° N. Triassic Tuhur Fm was 24° N, probably part of E Malaya/ Indochina terrane, which collided with (1) prohably in E Triassic along Medial Sumatra Tectonic Zone (continuation of Bentong- Raub line), forming Proto Sundaland. Sediments from Sikuleh- Garba (Woyla) accretionary/ foreland terrane formed at ~31° S and collided with Proto-Sundaland in Late Cretaceous- E Tertiary)

Pardede, R. & K. Brata (1984)- Geologic map of the Sungaipenuh and Ketaun Quadrangles, Sumatra (Quadrangle 0812 and 0813), 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(see also 2nd Edition, Kusnama et al. 1995)

Patton, J.R., C. Goldfinger, A.E. Morey, K. Ikehara, C. Romsos, J. Stoner, Y. Djadjadihardja, Udrekh, S. Ardhyastuti, E. Zulkarnaen Gaffar & A. Vizcaino (2015)- A 6600 year earthquake history in the region of the 2004 Sumatra-Andaman subduction zone earthquake. Geosphere 11, 6, p. 2067-2129.
(Paleoseismic history from offshore 144 deep-sea sediment cores in trench and lower slope piggyback basins of Sumatra accretionary prism. Include very young surface turbidites along N Sumatra margin, probablyemplaced in the past few decades in 2004 and 2005 earthquake rupture zones, with no overlying hemipelagic sediment)

Peng, H.U., Z. Zhu & W. Xiang (2014)- The lithogeochemical characteristics and tectonic setting research of Sulit skarn-type copper deposit in Sumatra Island, Indonesia. Acta Geologica Sinica 88, 2, p. 875. *(Abstract only)*
(Sulit copper deposit associated with E Jurassic low-SiO2 Sulit Diorite, with tholeitic geochemistry. May be related to intrusion of magma from extensional settings after late Indosinian period)

Permana, H., Munasri, S. Aribowo & M.M. Mukti (2016)- Petrologi batuan dasar Kompleks Gunungkasih, Tanjungkarang, Lampung Selatan. In: R. Delinom et al. (eds.) Pros. Geotek Expo 2016, Pusat Penelitian Geoteknologi (LIPI), Bandung, p. 623-636.
(online at: http://pustaka.geotek.lipi.go.id/index.php/2017/10/05/prosiding-2016/)
('Petrology of basement rocks of the Gunungkasih Complex, Tanjungkarang, South Lampung'. Pretertiary Gunungkasih complex rocks in Lampung greenschist-facies metamorphics (derived from volcanic arc or oceanic crust rocks; Sikuleh-Sekampung arc?). Basement rocks of Ratai Bay mica schist, chlorite schist and quartzite (meta-sediments; part of Woyla Accretionary Complex?))

Permana, R., B. Sutopo, Y.P. Simanjuntak, R. Pitaloka & E. Sukmawan (2014)- High sulfidation epithermal Au-Cu and porphyry Cu-Au mineralization in Bujang prospect, Batangasai, Jambi Province, Indonesia. In: I. Basuki & A.Z. Dahlius (eds.) Sundaland Resources, Proc. Annual Conv. Indonesian Soc. Economic Geologists (MGEI), Palembang, p. 281-290.

Petersen, M.D., J. Dewey, S. Hartzell, C. Mueller, S. Harmsen, A.D. Frankel & K. Rukstales (2004)- Probabilistic seismic hazard analysis for Sumatra, Indonesia, and across the Southern Malaysian Peninsula. Tectonophysics 390, p. 141-158.
(Ground motion hazard models for Sumatra and Malay Peninsula by USGS)

Petronas (2011?)- Mergui-North Sumatra Basin- an overview (Malaysian side). CCOP WPPM P1W4 meeting, p. 1-22. *(Presentation only)*
(online at: http://www.ccop.or.th/eppm/projects/1/docs/MY_MerguiREV.pdf)
(Review of geology and wells in Malacca Straits part of N Sumatra- Mergui basin. Wells Singga Besar 1 and Langgun Timur 1 (Sun Malaysia Petroleum, 1989) bottomed in fractured dolomitic limestone with gas shows (elsewhere called Melaka or Tampur Limestone, and here portrayed as part of Pretertiary basement))

Philippi, H. (1917)- De beteekenis en de toekomst van den mijnbouw in Zuid-Sumatra. In: Eerste Zuid-Sumatra Conferentie, Zuid-Sumatra Landbouw en Nijverheids Vereeniging, I, 57, p. 1-57.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:024967000:00001
('The significance and future of mining in South Sumatra'. Brief review of gold, coal, iron, etc. occurrences and mining regulations. No figures)

Philippi, H. (1917)- Morphologische en geologische aantekeningen bij de kaart van Zuid-Sumatra, 1. Het Ranau Meer. Jaarverslag Topographische Dienst Nederlandsch-Indie 1916, p, 182-207.
('Morphological and geological notes with the map of South Sumatra, 1. Ranau Lake')

Philippi, H. (1918)- Morphologische en geologische aantekeningen bij de kaart van Zuid-Sumatra, 2. Kolenterreinen in Benkoelen. Mededelingen Encyclopedisch Bureau (Batavia) 18, p. 1-86.
(Text online at: https://resolver.kb.nl/resolve?urn=MMKB24:079133000:pdf)
('Morphological and geological notes with the map of South Sumatra, 2. Coal terrains in Bengkulu'. Notes on coal occurrences in Bengkulu area, made during topographic survey. Coal in Bengkulu surveyed earlier by Van Dijk (1875), Verbeek (1881) and Moerman (1915). Coal in two horizons, both folded/ faulted: 'Old Miocene' (rel. good quality; locally improved by thermal metamorphism by common young igneous intrusions) and 'Young Miocene' (low grade, poor quality, water content 15-19%), separated by 'Middle Miocene' interval rich in tuffs (Sekajoen Tuffs, Balai Tuffs, Kaboe andesites-breccias). Age control of formations poor)

Philippi, H. (1923)- Contributions a la geologie de la partie meridionale de Sumatra: gisements de fer dans les districts des Lampongs. Thesis Universite de Geneve Faculte des Sciences, 720, p. 1-42.
('Contributions to the geology of the southern part of Sumatra; iron-bearing beds in the Lampung District.' Rel. little-detailed description of iron-bearing rocks near Sukadana/ Telukbetung)

Philippi, H. (1925)- Beschrijving van ijzerertsafzettingen op de hellingen van den Radjabasa (Lampongsche Districten). Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 8 (Gedenkboek Verbeek, memorial volume), p. 393-403.
(online at: https://books.google.com/books?id=Yy0RAAAAIAAJ&pg)
('Description of iron ore deposits on the slopes of the Rajabasa (Lampong Districts)'. Non-commercial iron ore on N slope Rajabasa volcano, S Sumatra)

Poedjoprajitno, S. (2007)- Morfotektonik dan reaktivitas sesar Sumatera di Padangpanjang, Sumatera Barat. Jurnal Sumber Daya Geologi (JSDG) 17, 3, p. 187-204.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/289/260)
('Morphotectonics and Sumatran fault reactivation in Padangpanjang, West Sumatra'. Remote sensing study)

Poedjoprajitno, S. (2008)- Morfostratigrafi tuf ignimbrit Maninjau di Ngarai Sianok, Dusun Belakang Balok-Bukittinggi, Sumatera Barat. Jurnal Sumber Daya Geologi (JSDG) 18, 3, p. 171-184.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/264/244)
('Morphostratigraphy of the Maninjau ignimbrite tuff in Sianok Gorge, Belakang Balok village, Bukittinggi, West Sumatera'. Ignimbrite plateau of Sianok Valley produced by two periods of Maninjau volcanic eruptions, separated by fluvio-volcanic sands and conglomerates. Pyroclastic deposits faulted, forming terrace morphology. Sianok Valley formed by reactivation of basement faults)

Pooley, R.H. & R.F. West (1986)- Construction and commissioning of the Lebong Tandai gold mine and treatment plant. Second Project Development Symposium, Sydney, Australasian Institute of Mining and Metallurgy (AIMM) Symposia Series 47, p. 279-298
(On re-start in 1980s of gold mining at Dutch colonial-era Lebong Tandai mines, N Bengkulu Regency)

Posavec, M., D. Taylor, T. van Leeuwen & A. Spector (1973)- Tectonic controls of volcanism and complex movements along the Sumatran fault system. In: B.K. Tan (ed.) Proc. Regional Conference on the Geology of SE Asia, Kuala Lumpur 1972, Bull. Geological Society Malaysia 6, p. 43-60.
(online at: www.gsm.org.my/products/702001-101354-PDF.pdf)
(Rio Tinto work along Sumatra fault zone. Igneous activity along E-W alignments suggested by magnetic lineaments. Active volcanic centers spaced at 75-100 km along active fault zone. Total horizontal offset along fault ~130 km since inception of present volcanic cycle)

Posthumus, O. (1927)- Some remarks concerning the Palaeozoic flora of Djambi, Sumatra. Proc. Koninklijke Nederlandse Akademie van Wetenschappen Amsterdam 30, 6, p. 628-634.

(online at: https://dwc.knaw.nl/DL/publications/PU00015487.pdf)
(English version of 1926 Dutch paper. Carboniferous or Permian fossil plants from Jambi show most resemblance to Gigantoperis flora of E Asia, not Gondwana Glossopteris fauna. Also first author to suggest 'Jambi Flora' is of E Permian age, not Carboniferous as initially suggested by Jongmans (1925, 1935))

Pramumijoyo, S. (1991)- Neotectonique et sismotectonique de la terminaison meridionale de la Grande Faille de Sumatra et du Detroit de la Sonde (Indonesie). Doct. Thesis, Universite Paris XI, Orsay, p. 1-230. *(Unpublished)*
('Neotectonics and seismotectonics at the southern end of the Great Sumatra Fault and Sunda Straits')

Prasetio, A.D., R. Syahputra, T.H.W. Kristyanto & Rokhmatuloh (2017)- Geological history of Mengkarang Formation for enhancing the geodiversity of Merangin Geopark. Proc. Int. Symposium on Current Progress in Mathematics and Sciences (ISCPMS), Depok 2016, AIP Conference Proceedings 1862, 030166, p. 1-5.
(online at: https://aip.scitation.org/doi/pdf/10.1063/1.4991270)
(Most significant outcrop in Merangin area is Permian Mengkarang Fm with abundant plant fossils. With schematic Carboniferous-Triassic tectonic reconstruction showing evolution of 'Cathaysian' W Sumatra block))

Prasetyo, I.; W. Gunawan, A. Kadir, D. Abdurrahman, D. Dahrin, K. Ibrahim & A. Kurniawan (2025)- New insight into the structural model in Southern Sumatra Indonesia using gravity and magnetic data: implications for geothermal resources. Rudarsko-geolosko-naftni Zbornik (Mining-Geology-Petroleum Engineering Bulletin), Zagreb, p. 43-60.

Prasetyono, B., H. Irdhan, P. Ibnu, M. Farmer & D. den Boer (2014)- Review of geology and mineral resources at the Tembang Deposit, Sumatra, Indonesia. In: I. Basuki & A.Z. Dahlius (eds.) Sundaland Resources, Proc. Annual Conv. Indonesian Soc. Economic Geologists (MGEI), Palembang, p. 271-279.
(Tembang low-sulphidation epithermal Au-Ag vein system in Barisan Mts, 130km NNE of Bengkulu, S Sumatra. Hosted in volcanics of E Miocene Hulusimpang Fm ('Old andesites') and M Miocene andesitic intrusions. Age of mineralization assumed to be similar to known epithermal Au-Ag deposits in S Sumatra and W Java. Near Rawas open pit mine, operational from 1997-2000)

Prasojo, O.A., F.M.H. Sihombing, R. Syahputra & T.H.W. Kristyanto (2018)- Paleogeographical significance of benthic foraminifera from the Mengkarang Formation (early Permian, Sumatera). Proc. 3rd Int. Symposium on Current Progress in Mathematics and Sciences 2017 (ISCPMS2017), AIP Conference Proceedings 2023, 020191, p. 1-5.
(online at: https://aip.scitation.org/doi/pdf/10.1063/1.5064188)
(Curious paper on (impossible and almost certainly misidentified) occurrence of Neogene-Recent benthic foraminifera Ammonia umbonata, Cibicides, Elphidium, etc. in Early Permian Mengkarang Fm sediments. No specimens figured and no sample locality information)

Prawirodirdjo, L.M. (2000)- A geodetic study of Sumatra and the Indonesia region: kinematics and crustal deformation from GPS and triangulation. Ph.D. Thesis University of California, San Diego, p. 1-150. *(Unpublished)*
(Analysis of geodetic GPS data collected in Indonesia from 1959 to 1994 suggests three large blocks: (1) Sunda Shelf, with low velocities to ESE, (2) S Banda Arc- E New Guinea, moving NE and NNE, (3) Birds Head region of W Papua, with high velocity to NW and WNW. NE Sulawesi is fourth, smaller block)

Prawirodirdjo, L., Y. Bock, J.F. Genrich, S.S.O. Puntodewo, J. Rais, C. Subarya & S. Sutisna (2000)- One century of tectonic deformation along the Sumatran fault from triangulation and Global Positioning System surveys. J. of Geophysical Research: Solid Earth 105, B12, 115, p. 28,343-28,361.
(Analysis combining historical triangulation and recent GPS measurements in W and N Sumatra reveals detailed slip history along central part of Sumatran fault. Sumatra fault arc-parallel slip rates 23-24mm/yr)

Pribadi, A., E. Mulyadi & I. Pratomo (2007)- Mekanisme erupsi ignimbrit kaldera Maninjau, Sumatera Barat. Jurnal Geologi Indonesia 2, 1, p. 31-41.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/182)

('Mechanism of ignimbrite eruption of Maninjau caldera, West Sumatra'. Maninjau is collapse caldera, formed by major eruption around 70-80 ka, scattering 220-250 km^3 of pyroclastic material up to >75 km from center of eruption. Two types of rocks: pyroclastic surge deposits and air-fall deposits)

Priyomarsono, S. & A. Sumarsono (1993)- Tektonik geologi daerah pegunungan Tigapuluh dan daerah sekitarnya, cekungan Sumatra selatan. Proc. 22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 103-111.
(online at: https://www.iagi.or.id/web/digital/61/14.pdf)
('Tectonics and geology of the Tigapuluh Mountains and surrounding area, S Sumatra Basin'. Lemigas paper)

Pudjowalujo, H. (1990)- Cenozoic tectonics of North Sumatra with particular reference to the Sumatran fault system. Proc. Pacific Rim Congress 90, Gold Coast 1990, Australasian Institute of Mining and Metallurgy (AusIMM), Parkville, 3, p. 209-215.

Pulunggono, A. & N.R. Cameron (1984)- Sumatran microplates, their characteristics and their role in the evolution of Central and South Sumatra basins. Proc. 13th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 121-143.
(Milestone paper on Sumatra Pre-Tertiary mosaic of basement terranes. Mergui, Malacca and East Malaya continental microplates joined in Late Triassic to form Sundaland, followed by Late Cretaceous accretion of W coast Woyla volcanic arc terrain(s). Suture zone between Mergui and Malacca microplates, named Mutus assemblage, major zone of weakness during formation of Tertiary C and S Sumatra basins. It is a zone of high heat flow and underlies ~95% of two basin's oil production. Young Tertiary structures in this zone are related to wrenching in N and S, and to compressional reactivation of cross cutting WNW-ESE faults formed during Cretaceous accretion of Woyla Terrains)

Pulunggono, A. & B. Gumilar (2000)- Sumatra. In: H. Darman & F.H. Sidi (eds.) An outline of the geology of Indonesia, Indonesian Association Geologists (IAGI), Jakarta, p. 11-36.
(Sumatra chapter in General Outline of geology of Indonesia)

Pulunggono, A., A. Suparman, A. Assegaf & T. Purwanto (1990)- Geologi daerah Garba dan sekitarnya, Sumatra Selatan. Universitas Trisakti, Jakarta, p. 1-56. *(Unpublished)*
('Geology of the Garba area and surroundings, South Sumatra'))

Purnama, A.B., S. Salinita, Sudirman, Y.A. Sendjadja & B. Muljana (2018)- Penentuan lingkungan pengendapan lapisan batubara D, Formasi Muara Enim, Blok Suban Burung, Cekungan Sumatera Selatan. J. Teknologi Mineral dan Batubara 1, 1, p. 1-18. *(online at: http://download.garuda.kemdikbud.go.id/article.php?article=586742&val=10012&title=PENENTUAN Etc.)*
('Interpretation of the depositional environment of Coal seam D, Muara Enim Formation, Suban Burung Block, South Sumatra Basin'. Coal seam D in M-L Miocene Muara Enim Fm in C Palembang Sub-Basin deposited in limnic depositional environment. Coal macerals vitrinite (71%), inertinite (17.6%,), liptinite (5.9%), and mineral matter (6.4%). Vitrinite reflectance (Rv max) 0.25-0.38% (lignite-subbituminous))

Purucker, M. & T. Ishihara (2005)- Magnetic images of the Sumatra region crust. EOS Transactions American Geophysical Union (AGU) 86, 10, p. 101-102.
(Magnetic images near Great Sumatra earthquake. Along fault rupture magnetic crustal thicknesses increase to E and NE. Island arc and subducting slab are magnetic, and subducting slab is diving into mantle at steep angle, increasing magnetic thickness. Between Singapore and S coast Borneo, a previously unrecognized first-order feature parallels active subduction zone. Like present subduction zone, it is characterized by 2-3 fold increase in magnetic thickness in NE direction, probably reflecting past history of subduction in region)

Putra, A.F. & P. Chenrai (2023)- Geomorphic interpretation on the formation of strike-slip basins along the Northern Sumatran fault. J. Asian Earth Sciences: X, 10, 100167, p. 1-19.
(online at: https://www.sciencedirect.com/science/article/pii/S2590056023000324)

(Geomorphic study of 400km NW-SE right-lateral strike-slip fault in three segments of Great Sumatra Fault zone in N Sumatra (Tripa, Aceh and Seulimeum Fault segments. With nine small pull-apart basins)

Putra, A.F. & S. Husein (2016)- Pull-apart basins of Sumatra fault: previous works and current perspectives. In: R. Hidayat et al. (eds.) Proc. Seminar Nasional Kebumian 9, Dept. Teknik Geologi, Gadjah Mada University, Yogyakarta, p. 42-60.
(online at: https://repository.ugm.ac.id/273463/)
(Sumatran Fault zone 1900 km long NW-SE trending transcurrent fault. 19 segments from Aceh to Sunda Strait with stepovers with pull-apart basin. CCW rotation of Sundaland in M Miocene triggered activation of fault in right-handed kinematics, facilitated by pre-existing basement grain (obduction of Woyla nappe))

Putra, A.F., S. Husein & P. Ariyanto (2018)- Thrust wedge orogeny in North Sumatra Basin: mountain front structures and subsurface evidences. Proc. 47th Annual Convention Indonesian Association Geologists (IAGI), Pekanbaru 2018, p. 1-5.
(online at: https://www.researchgate.net/publication/328703992_Thrust_Wedge_Orogeny_in_North_Sumatra_Basin_Mountain_Front_Structures_and_Subsurface_Evidences)
(Plio-Pleistocene uplift of Sundaland led to thrust wedge orogeny in N Sumatra Basin. Compressive structures in mountain front and continue to subsurface foreland. Thrust wedge developed in Pre-Tertiary stratigraphy and generated NW-SE thrusts along Barisan Mountain Front. Thrust wedge orogeny initiated since E Pliocene and transpressive deformation since Late Pliocene to Recent. Foreland setting developed in N Sumatra Basin, updating previous knowledge of strike-slip dominated basin inversion)

Putra, A.M. & Munasri (2016)- Characteristics of radiolaria and its bearing rocks in the Garba mountains, South Sumatra. Proc. 14th Regional Conference Geology and Mineral Resources of SE Asia (GEOSEA XIV) and 45th Annual Conv. Indonesian Association Geologists (IAGI) (GIC 2016), Bandung, p. 576-578.
(Massive chert of Situlanglang Mb of Garba Fm in Garba Mts with poor-moderate preserved radiolaria, low diversity and abundance. Presence of Triassocampe suggests Triassic age (older than supposed Jurassic-Cretaceous age of Woyla Group)

Putra, A.S., A.D. Nugraha, D.P. Sahara, Z. Zulfakriza, A.N.T. Puspito, F. Muttaqy et al. (2023)- Seismicity pattern of the Great Sumatran Fault System from hypocenter relocation of regional seismic network. Indonesian J. on Geoscience (IJOG) 10, 1, p. 83-95.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/773)

Putra, P.S. & E. Yulianto (2017)- Karakteristik endapan tsunami Krakatau 1883 di daerah Tarahan, Lampung. J. RISET Geologi dan Pertambangan (LIPI) 27, 1, p. 83-95.
(online at: http://jrisetgeotam.com/index.php/jrisgeotam/article/view/301/pdf)
('Characteristics of the 1883 Krakatau tsunami deposits in the Tarahan area, Lampung'. Tsunami deposit of 1883 Krakatau volcano eruption off Lampung Bay is f-c sand layer (10-30cm thick?) with pumice and volcanic ash. Shallow marine benthic foraminifera and molluscs show tsunami waves erode sea floor sediments down to 30-40m depth. Four fining upward patterns indicate at least four tsunami waves inundated study area.

Qian, X., S. Jin, T. Bai, X. Yu, T.C. Sheldrick, C. Gan, K.A. Mustapha, S. Murtadha & Y. Wang (2025)- Triassic tectonic affinity to Indochina-East Malaya Block for West Sumatra and Paleo-Tethys implications: constraints from Late Triassic igneous rocks. Geochem. Geophysics Geosystems 26, 3, e2024GC012030, p. 1-23.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2024GC012030)
(Late Triassic igneous rocks from Sibolga-Taratung-Padang Sidempuan area in W Sumatra with new zircon ages of 227-211 Ma (Norian). Also similar isotopic compositions to post-collisional granitoids along >3000km long Lincang- Sukhothai- Chanthaburi- East Malaya Paleo-Tethys arc system (post-collisional extension setting). W Sumatra shared similar sedimentary sources with E Malaya and formed S part of Indochina-E Malaya Block. Eastern Paleo-Tethys ('Cathaysian') zone likely extended into Sumatra)

Qiu, Z., X. Han, X. Jin, Y. Wang & J. Zhu (2014)- Tephra records from abyssal sediments off western Sumatra in recent 135 ka: evidence from Core IR-GC1. Acta Oceanologica Sinica 33, 12, p. 75-80.

(Three volcanic ash layers in deep-sea Core IR-GC1 from NE Indian Ocean, adjacent to W Indonesian arc, ~1000km W of Lake Toba. Tephra dominated by glass shards with minor plagioclase, biotite, and hornblende. Layer A correlated to youngest Toba tuff (~76-80 ka), Layer B with older eruption of Toba caldera (~98-100 ka), Layer C (>135 ka) different composition and originated from another volcanic eruption event)

Ratman, N. & G.P. Robinson (1999)- Umur batuan sedimen meta dan batugamping Mesozoikum di daerah Tembesi, Jambi, Sumatera Bagian Selatan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 9, 89, p. 2-9.
('Age of Mesozoic metasediments and limestones in the Tembesi area, S Sumatra'. Middle? Jurassic- U Cretaceous 'flysch-type' accretionary wedge sediments of M Jurassic Asai Fm (but with Late Jurassic nannofossils?) and Late Jurassic- Cretaceous Rawas Fm, with some serpentinites W of Jambi and SW of Bangko (= Woyla Terrane of Pulunggono & Cameron 1984, Schieferbarisan of Tobler 1922). ?Unconformably overlain by Mersip Fm limestone Mb with Maastrichtian nannofossils (Watznaueria spp, etc.). Arai Granite with K-Ar age 141 Ma (earliest Cretaceous))

Retgers, J.W. (1895)- Mikroskopisch onderzoek van gesteenten uit Nederlandsch Oost-Indie, E. Liparieten van Toba, Sumatra. Jaarboek Mijnwezen Nederlandsch Oost-Indie 24 (1895), Wetenschappelijk Gedeelte, p. 99-107.
('Microscopic investigations of rocks from the Netherlands East Indies. Liparites from Toba, North Sumatra'. Brief petrographic descriptions of Toba Tuffs)

Rivai, T.M., Y. Kon, K. Sanematsu & Syafrizal (2022)- Pb-isotope systematics at the Sopokomil shale-hosted massive sulfide deposit, North Sumatra, Indonesia. J. Asian Earth Sciences 234, 105275, p. 1-13.
(Sopokomil shale-hosted, stratiform massive sulfide (SHMS) Zn-Pb deposit, in Lower Carboniferous interbedded dolomitic siltstone and carbonaceous shale of Kluet-Kuantan Fm. Not associated with contemporaneous igneous rocks. Most important Zn-Pb deposit on Sumatra. Pb-isotopes from galena show highly radiogenic Pb ratios, suggesting Pb in Sopokomil likely originated from upper crust)

Rivai, T.A., Syafrizal, K. Yonezu, K. Sanematsu, T. Tindell, A.J. Boyce, K. Sanematsu, S. Satori & K. Watanabe (2020)- The Dairi SEDEX Zn+Pb+Ag deposit (North Sumatra, Indonesia): insights from mineralogy and sulfur isotope systematics. Ore Geology Reviews 122, 103510, p. 1-25.
(online at: https://www.sciencedirect.com/science/article/pii/S0169136820300962)
(Giant Dairi Zn + Pb + Ag deposit is only giant SEDEX deposit discovered to date in Sumatra. Stratiform orebodies hosted by Carboniferous Julu unit dolomitic siltstone and carbonaceous shale of West Sumatra Block. Heavier δ34S of sulfides suggest large-scale bacteriogenic reduction of Carboniferous seawater sulfate in restricted, anoxic basin. Bacteriogenic reduced sulfur reservoir more likely than hydrothermal sulfur)

Rivai, T.A., Syafrizal, K. Yonezu, K. Sanematsu & K. Watanabe (2021)- Nature of ore fluid at the Sopokomil Zn-Pb deposit, North Sumatra, Indonesia: implications for metal transport and sulfide deposition. Geosciences (MDPI), 11, 7, 298, p. 1-19.
(online at: https://www.mdpi.com/2076-3263/11/7/298)
(On ore fluid at Sopokomil shale-hosted massive sulfide Zn-Pb deposit in N Sumatra, Indonesia. Hosted in E Carboniferous Kluet-Kuantan Formation, basement of West Sumatra Block)

Rivai, T.A., K. Yonezu, Syafrizal & K. Watanabe (2017)- Dairi Zn-Pb±Ag deposit, North Sumatra, Indonesia: preliminary study on host rock petrology and ore mineralogy. Proc. Int. Forum for Green Asia 2017, Kyushu University, P23, p. 61-66.
(online at: http://www.tj.kyushu-u.ac.jp/leading/pdf/06-2017Seminar-Proceedings_P23.pdf)
(Dairi sediment-hosted Zn-Pb±Ag deposit along E limb of Sopokomil dome, ~290km SW of Medan. Orebodies hosted by metasediments of Kluet Fm of Sibumasu Block. Minerals sphalerite, galena, chalcopyrite, arsenopyrite)

Rivai, T.A., K. Yonezu, Syafrizal & K. Watanabe (2019)- Mineralogy and geochemistry of host rocks and orebodies at the Anjing Hitam Prospect (Dairi, North Sumatra, Indonesia) and their environmental implications. Evergreen 6, 1, p. 18-28.
(online at: www.tj.kyushu-u.ac.jp/evergreen/contents/EG2019-6_1_content/pdf/Pages_18-28.pdf)

(On potential environmental issues during mining of Anjing Hitam prospect Zn-Pb orebodies in Dairi deposit in E flank of Sopokomil Dome, 65km NW of Laka Toba)

Robock, A., C.M. Ammann, L. Oman, D. Shindell, S. Levis & G. Stenchikov (2009)- Did the Toba volcanic eruption of ~74k BP produce widespread glaciation? J. of Geophysical Research 114, D10107, p. 1-9.
(online at: https://pubs.giss.nasa.gov/docs/2009/2009_Robock_ro09900j.pdf)
(Climate simulation model of 'volcanic winter' following supervolcano eruption of size of Toba suggests devastating consequences for humanity and global ecosystems)

Rock, N.M.S., D.T. Aldiss, J.A. Aspden, M.C.G. Clarke, A. Djunuddin, W. Kartawa, Miswar, S.J. Thompson & R. Whandoyo (1983)- Geologic map of the Lubuksikaping Quadrangle (0716), Sumatra, 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(Map sheet of W side of C Sumatra near Natal. Oldest rocks in Barisan Mts Permo-Carboniferous Kuantan Fm, incl. meta-limestones and meta-volcanics, and Permian Silungkang Fm basic meta-volcanic, sandstones, tuffs and limestone member, intruded by Permo-Triassic and younger granites. In W juxtaposed against Woyla Gp, incl. melange, argillites, schist, meta-limestones, etc.)

Rock, N.M.S., H.H. Syah, A.E. Davis, D. Hutchison, M.T. Styles & R. Lena (1982)- Permian to Recent volcanism in northern Sumatra, Indonesia: a preliminary study of its distribution, chemistry and peculiarities. Bulletin of Volcanology (Bulletin Volcanologique) 45, 2, p. 127-152.
(Sumatra has been volcanic arc above NE-dipping subduction zone since Late Permian. Main volcanic episodes N of Equator: (1) Late Permian Peusangan Gp porphyritic basic lavas interstratified with limestones and phyllites; (2) Late Mesozoic Woyla Gp volcanic rocks widely distributed along and W of Sumatra Fault System, include ophiolite-related spilites, andesites and basalts; (3) Paleogene volcanic rocks include altered basalt pile in NW, intruded by E Miocene (19 Ma) dioritic stock; and basic lavas in SW; (4)Miocene volcanic rocks widely distributed along W coast; (5) Quaternary volcanism irregular and anomalous relative to S Sumatra and Java-Bali. Depths to subduction zone below calc-alkaline volcanoes in Java/Bali 160-210 km, but barely over 100 km in N Sumatra, possibly because Sumatra underlain by continental crust and more akin to destructive continental margins than typical island-arcs such as E Java or Bali)

Roemer, F. (1880)- Kurzer Bericht uber Kohlenkalkversteinerungen von Sumatra und Timor. Lethaea Geognostica, I, 1880, 5, p. 75- .
('Brief note on Carboniferous fossils from the West coast of Sumatra and Timor'. Incl. first description of Permian fusulinid Schwagerina verbeeki)

Roemer, F. (1880)- Uber eine Kohlenkalk-fauna der Westkuste von Sumatra. Palaeontographica 27, 3, p. 5-11.
(online at: https://www.zobodat.at/pdf/Palaeontographica_27_0001-0011.pdf)
('On a 'coal-limestone' (=Carboniferous) fauna from the West coast of Sumatra'. Same as Roemer 1881, below (same faunas redescribed by G. Fliegel, 1901). Includes description of new species Fusulina granum-avenae, Productus sumatrensis, Phillipsia sumatrensis, etc. (Phillipsia sumatrensis became type species of genus Pseudophillipsia Gemmelaro 1892 and now generally called Pseudophillipsia sumatrensis (Roemer); type locality Roadian/Wordian (lower M Permian) carbonates of Silungkang Fm with Verbeekina verbeeki)

Roemer, F. (1881)- Uber eine Kohlenkalk-fauna der Westkuste von Sumatra. Jaarboek Mijnwezen Nederlandsch Oost-Indie 10 (1881), 1, p. 289-305.
('On a 'coal-limestone' (=Carboniferous) fauna from the West coast of Sumatra'. First description of dark grey, limestone from Padang Highlands, W Sumatra, with striking resemblance to Upper Carboniferous 'Kohlenkalk' of NW Europe. Contains fusulinids (Fusulina granum-avenae n.sp., Schwagerina verbeeki= Verbeekina verbeeki), brachiopods (incl. Productus sumatrensis n.sp.= Stereochia sumatrensis), crinoids, nautiloids, gastropods and trilobite (incl. Phillipsia sumatrensis n.sp.= Pseudophillipsia) (From Silungkang Fm; Age now commonly accepted as early M Permian; JTvG))

Rolker, C.M. (1892)- The alluvial tin deposits of Siak, Sumatra. Transactions American Institute Mining Engineers 20 (1891), New York City, p. 50-84.

(Review of alluvial tin mining operations in headwaters of Siak (and Rokan and Kampar) rivers near Pakanbaru, in east part of C Sumatra, by American mining engineer Charles M. Rolker. Exploited mainly by Chinese contract miners, presumably for the 'Siak Tin en Landbouw Maatschappij' (a relatively short-lived tin mining venture, compared to Bangka and Belitung))

Rose, W.I. & C.A. Chesner (1987)- Dispersal of ash in the great Toba eruption, 75 ka. Geology (GSA) 15, p. 913-917.
(Pleistocene Toba eruption of 75 ka left caldera of 100x30km, with caldera ash fill >600m. It produced minimum of 2800 km^3 of magma, >800 km^3 deposited as ash fall, covering area of 4 million km^2. Extensive rhyolite ash horizon in deep sea cores of Bay of Bengal, possibly also in India (3100 km away))

Rose, W.I. & C.A. Chesner (1990)- Worldwide dispersal of ash and gases from earth's largest known eruption: Toba, Sumatra, 75 ka. Palaeogeogr. Palaeoclim. Palaeoecology 89, 3, p. 269-275.
(Eruption of Youngest Toba Tuff at ~75 ka in N Sumatra produced >2800 km3 of dense rock equivalent rhyolite magma. Much of volume preserved as non-welded outflow sheet covering 20,000-30,000 km^2 and thick, welded intra-caldera tuff. At least 800 km^3 of Toba ash deposited in ash blanket over Indian Ocean and S Asia. Masses of ash and gases released nearly two orders of magnitude higher than any known historic eruption)

Rosidi, H.M.D, S. Tjokrosaputro, B. Pendowo, S. Gafoer & Suharsono (1996)- Geologic map of the Painan and northeastern part of the Muarasiberut Quadrangles (0714-0814), Sumatra, 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(2nd edition of 1975 map. W part of C Sumatra, cut by Sumatra Fault zone and with Kerinci Volcano (3800m). Most of area underlain by Permian 'Barisan Fm' phyllites and metagreywacke with slaty cleavage and chert, with limestone intercalations with fusulinid foraminifera (Schwagerina). Intruded by Jurassic, Cretaceous and Miocene granites. Along NE part of Barisan Mts 1100m thick non-metamorphic Permian Palepat Fm, volcanoclastics, mainly composed of andesitic lavas and tuffs, with less basalt and rhyolite, and with shales and thin limestones with brachiopods and fusulinids (and famous E Permian 'Jambi Flora'), all overlying large (Jurassic??) granite body. Tabir Fm conglomeratic sandstones with Ostrea and reworked Paleozoic andesitic clast assigned to Jurassic (But is Late Permian; Crow et al. 2008). Jurassic Siguntur Fm with limestone member with stromatoporoids. Cretaceous Siulak Fm clastics and andesitic-dacitic tuffs with limestone member with Loftusia and hydrocoralline fossils. Unconformably overlain by Oligocene- Miocene sediments of northern S Sumatra (Jambi) basin.)

Rudyawan, A., E. Septama, I. Gunawan, B. Rama & Y. Festian (2021)- Sumatera basement rocks; outcrop Analogs for the porosity and permeability for naturally fractured reservoir. EAGE Asia Pacific Virtual Geoscience Week, April 2021, Session 5.Fractured Basement, p. 1-4.
(online at: https://www.researchgate.net/publication/352216436_Sumatera_Basement_Rocks_Outcrop_Analogs_for_the_Porosity_and_Permeability_for_Naturally_Fractured_Reservoir)
(Brief discussion of theory fractured basement rocks. No specifics on Sumatra occurrences)

Rueb, J. (1915)- De Mangani gang. Jaarboek 1914-1915 van de Mijnbouwkundige Vereeniging te Delft, p. 229-244.
(online at: http://lib.tudelft.nl/mscans/mscans1844)
(also online at: https://resolver.kb.nl/resolve?urn=MMAD01:000055001:pdf)
('The Mangani vein'. Discussion of silver-gold mineralization at Mangani mine in the Barisan Range of West Sumatra. N-S trending vein associated with andesite dike, in steeply NNE-dipping (Pretertiary?) metasediments (based on J.W.H. Adam report). Exploited by 'Mijnbouwmaatschappij Aequator')

Ruliansatri, V., W. Triananda, L. Sutrisno, F. Beekman & J.D. van Wees (2022)- Present-day 3D lithospheric-scale thermal characterization of Sumatra, Indonesia, and its correlation to the regional tectonic. Proc. 46th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA22-G-79, p. 1-16.
(Regional, lithospheric scale thermal model of Sumatra region, and relations to tectonic setting. NW-SE striking high-T anomaly in Triassic suture zone 'Accretionary Wedge' between East Malaka and Sibumasu blocks is due

high radiogenic heat production of young granite and thin lithosphere. Influence of granite on high T anomaly can also be seen in West Sumatra Block. Woyla Block,which is originated as oceanic island-arc, relatively colder than adjacent tectonic blocks, due to low radiogenic heat production of basaltic rock. Etc. (maps show no present-day coastlines, making it hard to locate model results; JTvG))

Rutten, L.M.R. (1927)- Sumatra, Chapters 24-31. In: L.M.R. Rutten (1927) Voordrachten over de geologie van Nederlandsch Indie, Wolters, Groningen, p. 343-497.
(online at: https://resolver.kb.nl/resolve?urn=MMKB02:000119126:pdf)
(1927 review of geology of Sumatra, in Rutten's classic book of lecture series)

Ruttner, F. (1935)- Kieselgur und andere lakustrische Sedimente im Tobagebiet. Ein Beitrag zur Geschichte des Tobasees in Nordsumatra. Archiv Hydrobiologie, Suppl. vol. 13, Tropische Binnengewasser 5, p. 399-461.
('Diatomite and other lacustrine sediments in the Toba area; a contribution to the history of Lake Toba in North Sumatra'. Results of e German Limnological Expedition of 1929. Quaternary lake sediments and diatoms in Lake Toba area up to 1360m elevation, i.e. 500m above current lake level (See also Van der Marel 1947, Verstappen 1993))

Ryberg, T., U. Muksin & K. Bauer (2016)- Ambient seismic noise tomography reveals a hidden caldera and its relation to the Tarutung pull-apart basin at the Sumatran Fault Zone, Indonesia. J. Volcanology Geothermal Research 321, p. 73-84.
(Tomography velocity model shows strong velocity decrease off Great Sumatran Fault Zone, at NE margin of the young Tarutung pull-apart basin, coinciding with caldera-like morphological feature interpreted as hidden volcanic caldera)

Saefudin, I., S. Permanadewi, T. Hardjono & S.D. Graha (1991)- Penarikhan jekak belah batuan granitik di daerah Tangse, Aceh. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 1, 1, p. 3-6.
('Fission track ages of granite rocks in the Tangse area, Aceh'. Fisssion track dating of granite- granodiorite samples gives Late Miocene ages, from 5.8-10.2 Ma. Previous K-Ar ages 42 Ma (E Eocene))

Saefudin, I. (2000)- Kecepatan pangangkatan dan pendinginan pluton granit Bukit Garba, Baturaja, Sumatera Selatan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 10, 101, p. 10-15.
('Rate of removal and cooling of the Bukit Garba granite pluton, Baturaja, South Sumatra'. Fission track dating of zircon from Garba Mts granite gave ages of 84.3 ± 4.1 Ma and 79.5 ± 3.5 Ma; apatite FT ages ~63.5- 34 Ma. K-Ar dating of biotite 113 and 116 Ma. Uplift rate of Garba granite body 0.03-0.04 mm/yr, possibly caused by tectonic activities at 116-80 Ma and 60-30 Ma)

Sagara, M. G. & I.G.B E. Sucipta (2016)- Anatexis of migmatitic amphibole orthogneiss in Jundeng migmatite, Lampung. Proc. 14th Regional Conference Geology and Mineral Resources of SE Asia (GEOSEA XIV) and 45th Annual Conv. Indonesian Association Geologists (IAGI) (GIC 2016), Bandung, p. 326-335.
(online at: https://www.researchgate.net/publication/368607280_Anatexis_of_migmatitic_amphibole_orthogneiss_in_Jundeng_Migmatite_Lampung)
(Petrography of migmatitic amphibole orthogneiss in S part of Jundeng migmatite, C Lampung.Considered as part of Gunung Kasih Complex, West Sumatra Block)

Saing, S. et al. (2015)- Magmatic hydrothermal system at the southeastern Martabe high-sulfidation epithermal deposit, North Sumatra, Indonesia. Proc. 5th Asia Africa Mineral Resources Conference, Quezon City, p. 15-20.

Saing, S., R. Takahashi & A. Imai (2016)- Fluid inclusion and stable isotope study at the southeastern Martabe deposit: Purnama, Barani and Horas ore bodies, North Sumatra, Indonesia. Resource Geology 66, 2, p. 127-148.
(online at: https://onlinelibrary.wiley.com/doi/epdf/10.1111/rge.12093
(Martabe Au-Ag deposit in N Sumatra is high sulfidation epithermal deposit, hosted by Neogene sandstone, siltstone, volcanic breccia, and andesite to basaltic andesite of Angkola Fm. Deposit consists of six ore bodies, controlled by N-S and NW-SE trending faults. Barani and Horas ore bodies SE of Purnama ore body)

Salisbury, M.J. (2012)- Convergent margin magmatism in the Central Andes and its near antipodes in Western Indonesia: spatiotemporal and geochemical considerations. Ph.D. Thesis, Oregon State University, p. 1-131.
(online at: http://ir.library.oregonstate.edu/..)
(Incl. chapter on marine tephra deposits in deep sea sediment cores from Sunda trench near Sumatra, which reveal evidence for seven large (minimum volume 0.6-6.3 km^3), previously undocumented, explosive eruptions in region over last ~110,000 years, presumably from mainland Sumatra. Composition varies with age:rhyolitic Group 3 tephras oldest (~30 – 110 ka), and Group 1 and 2 andesites-rhyodacites within last 14 ka. (see also paper below))

Salisbury, M.J., J.R. Patton, A.J.R. Kent, C. Goldfinger, Y. Djadjadihardja & U. Hanifa (2012)- Deep-sea ash layers reveal evidence for large, late Pleistocene and Holocene explosive activity from Sumatra, Indonesia. J. Volcanology Geothermal Research 231-232, p. 61-71.
(Tephra ash layers in deep-sea sediment cores from Sunda trench area off Sumatra reveal evidence for five previously undocumented, large explosive eruptions over last ~31,000 years, presumably from Sumatra)

Salman, R., E.O. Lindsey, L. Feng, K. Bradley, S. Wei, T. Wang, M.R. Daryono & E.M. Hill (2020)- Structural controls on rupture extent of recent Sumatran Fault Zone earthquakes, Indonesia. J. of Geophysical Research: Solid Earth 125, e2019JB01810, p. 1-19.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/full/10.1029/2019JB018101)
(Geodetically derived coseismic slip models for four M w ~6 strike-slip earthquakes that struck mainland Sumatra between 2007 and 2016.)

Sandberg, C.G.S. (1913)- Bijdragen tot de kennis van de geologische gesteldheid van de residentie Benkoelen (Sumatra) en van de propylitiseering en mineraliseering van jong-vulkanische gesteenten. Handelingen XIV Nederlandsch Natuur- Geneeskundig Congres, Delft 1913, Kleinenburg, Haarlem, p. 524-537.
('Contributions to the knowledge of the geological conditions of the Residency Bengkulu (Sumatra) and of the propylitization and mineralization of young-volcanic rocks'. Bengkulu province of W Sumatra contains granite, gneiss and other crystalline schists, partly covered by young volcanics, with associated propylitization of rocks and gold mineralization)

Sandberg, C.G.S. (1913)- De Redjang-Lebong goudmijn (Residentie Benkoelen, Zuid Sumatra). Populair-wetenschappelijke verhandeling. Tjeenk Willink, Haarlem, p. 1-40.
(online at: https://resolver.kb.nl/resolve?urn=MMKB18A:024646000:pdf)
('The Rejang lebong gold mine (Bengkulu Residency, South Sumatra, a popular-scientific review'. Privately published brochure for shareholders on geology and management of Sumatra gold mine)

Santoso, D., M.E. Suparka, S. Sudarman & S. Suari (1995)- The geothermal fields in central part of the Sumatra fault Zone as derived from geophysical data. Proc. World Geothermal Congress, 4, p. 1363-1366.
(online at: www.geothermal-energy.org/pdf/IGAstandard/WGC/1995/2-Santoso.pdf)
(Geothermal systems in Central Part of Great Sumatra Fault Zone are graben-type geothermal systems, closely related to Quaternary volcanism)

Santoso & U.M. Lumbanbatu (2007)- Morfogenesis daerah Danau kaldera Maninjau, Sumatera Barat. Jurnal Sumber Daya Geologi (JSDG) 17, 2, p. 105-115.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/282/253)
('Morphogenesis of the Laka Maninjau caldera, West Sumatra'. Two volcanic centers in Maninjau Lake)

Santoso, W.T. (2020)- Influence of inherited basement structures to the development of a sedimentary basin: The Ombilin Basin, Sumatra, Indonesia. Master Thesis Report, University of Utrecht, p. 1-47. *(online at: https://studenttheses.uu.nl/bitstream/handle/20.500.12932/36992/Final%20Report_Thesis_WT%20Santoso_6206492.pdf)*
(Literature review and structural history interpretation from remote sensing and seismic data of intra-montane Ombilin pull-apart basin in Barisan Range, West S,matra)

Saragih, R.D. & K.S. Brotopuspito (2018)- Delineation of the Sumatra Fault in the Central Part of West Sumatra based on gravity method. Journal of Physics: Conference Series 1011, 012024, p. 1-5.
(online at: http://iopscience.iop.org/article/10.1088/1742-6596/1011/1/012024/pdf)

Sasajima, S, Y. Otofuji, K. Hirooka, Suparka, Suwijanto & F. Hehuwat (1978)- Paleomagnetic studies on Sumatra Island: on the possibility of Sumatra being part of Gondwanaland. In: M. Kono (ed.) Rock magnetism and Paleogeophysics, Japan, 5, p. 104-110. *(online at: http://peach.center.ous.ac.jp/rprep/Rock%20Magnetism%20and%20Paleogeophysics%20vol5%201978.pdf)*
(Summary of paleomagnetic work. Samples from 53 sites across Sumatra, ranging in age from Permian-Pleistocene. Triassic data believed to be reliable, and show paleogeographic position of Sumatra at 38°S and 100°E, suggesting Sumatra area was part of Gondwanaland (N India) in Triassic. Between Triassic and E Tertiary Sumatra rotated 62° CW, presumably during breakup from Gondwanaland or during N-ward drift)

Sasmita, D., P.D. Afifah & M. Zelandi (2017)- Geology and paleogeography reconstruction of Mengkarang Formation and Tantan Granite: implication to the availability of Pra-Tertiary coal, study case Bedeng Rejo, Merangin Regency Jambi. Proc. Joint Conventions HAGI- IAGI- IAFMI-IATMI (JCM 2017), p 1-5.
(online at: https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_Geology-and-Paleogeography-Reconstruction.pdf)
(Brief discussion of Permian Mengkareng Fm in Merangin, W Sumatra, with thin coal layers)

Sato, K. (1991)- K-Ar ages of granitoids in Central Sumatra, Indonesia. Bull. Geological Survey of Japan 42, p. 111-181.
(online at: www.gsj.jp/Pub/Bull/vol_42/42-03_01.pdf)
(K-Ar ages of 3 granitoid plutons in Barisan Mts, C Sumatra. Tourmaline-bearing biotite granite N of Sijunjung dated at 247 Ma, which may tie to E Triassic granites of East Belt of Malay Peninsula. Two Late Cretaceous-Paleocene granodiorite-tonalites near Sumatran Fault zone: Lassi pluton E of Solok (56 Ma) and Padangpanjang pluton S of Bukittinggi (64 Ma). Petrography different from Late Cretaceous Hatapang pluton in N Sumatra (with tin-tungsten mineralization and 78-81 Ma age))

Satyana, A.H., R. Hutagalung & U. Latifah (2013)- Supererupsi Toba 74,000 years ago: catastrophe geology and mass extinction. Proc. Joint Convention 38th Indonesian Association Geophysicists (HAGI) - 42nd Indonesian Association Geologists (IAGI), Medan 2013, p. 1-12.
('The Toba super-eruption 74,000 years ago: geological catastrophe and mass extinction')

Schmidt, C. (1901)- Observations geologiques a Sumatra et a Borneo. Bull. Societe Geologique France IV, 1, p. 260-267.
('Geological observations on Sumatra and Borneo'. Summary description of Sumatra and Borneo geology, with cross sections through Bangka and S Sumatra)

Schouten, C. (1928)- Mineragrafisch onderzoek van goudertsen van Lebong Bahroe en Tandaiberg (Mijnbouwmaatschappij Simau, Sumatra). Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Mijnbouwkundige Serie 2, 4, p. 161-233.
(Minerographic study of gold ores from Lebong Baru and Tandaiberg (Mining company Simau, Sumatra)'. Miscroscopic study of gold, silver and copper minerals from hydrothermal veins associated with andesites from Lebong Baru and Lebong Tandai, complex, NE of Bengkulu, C Sumatra)

Schurmann, H.M.E. (1929)- Ofiolieten en abyssieten in Noord Sumatra. De Mijningenieur 10, 11, p. 235-237.
('Ophiolites and abyssal rocks in North Sumatra'. In Barisan Mts area between Tangse and Geumpang, Central Aceh, serpentinites and gabbro can be followed over >25km. Associated with deep water red siliceous shales and radiolarites, also limestones with possible Lovcenipora, suggesting Late Triassic age (younger?). Possibly similar to rocks from Pahang area, Malay Peninsula (= Woyla Group; JTvG))

Schurmann, H.M.E. (1930)- Geologische notities uit de Batak landen, Noord Sumatra. De Mijningenieur 11, 10, p. 197-200.

('Geological notes from the Batak territories, North Sumatra'. Paleogene outcrops in several areas. Pre-Eocene rocks in Wilhelmina mountains)

Schwartz, M.O. & Surjono (1990)- Sungai Isahan- a new primary tin occurrence in Sumatra. Bull. Geological Society Malaysia 26, p. 181-188.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1990013.pdf)
(New primary tin occurrence at Sg Isahan, near S termination of Bengkalis Trough at Tigapuluh Mts, C Sumatra. Cassiterite mineralization in hydrothermally altered fine-grained muscovite granite. K/Ar radiometric age (193, 197 Ma= earliest Jurassic). Tectonic position suggests correlation with Main Range of Peninsular Malaysia (230-200 Ma))

Setiawan, I. (2017)- Geology and REE geochemistry in granitoids at western part of North Sumatra, Indonesia. Dr. Engineering Thesis Akita University, Fukuoka, Japan p. 1-208.
(online at: https://air.repo.nii.ac.jp/?action=repository_uri&item_id=3061&file_id...2)
(Geological, geochemical and isotopic study on granitoids at Sibolga, Panyabungan, Muarasipongi and Kotanopan, western N Sumatra. Metaluminous and I-type granitoids of Sibolga produced by Paleo-Tethys subduction under amalgamated W Sumatra- E Malaya- Indochina blocks in E Permian, followed possibly by tectonic translation which resulted in peraluminous, ilmenite-series and A-type granitoids in Sibuluhan Sihaporas, Sibolga Julu, Sarudik and Tarutung. Peraluminous, ilmenite-series and S-type granitoids at Panyabungan, and I-type granitoids from Muara Sipongi and Kotanopan formed due to E Triassic- E Jurassic subduction of Meso-Tethys beneath amalgamated W Sumatra and Sibumasu blocks)

Setiawan, I. (2019)- Petrochemistry and behavior of REE in the weathered crusts of granitoids at Sibolga, Indonesia. Joint Convention HAGI-IAGI-ISFMI-IATMI, Yogyakarta 2019, p. 1-5.
(online at: https://www.researchgate.net/publication/339526220_Petrochemistry_and_behavior_of_REE_in_the_weathered_crusts_of_granitoids_at_Sibolga_Indonesia)
(Sibolga area in NW Sumatra with large granitic batholits of E Permian-Cretaceous ages. Weathered crusts 5-12m thick. Enrichment of REE caused by crystallization of allanite, monazite, apatite and titanite

Setiawan, I. (2021)- The sequential REE (Rare Earth Elements) extraction of weathered crusts of granitoids from Sibolga, Indonesia. Int. Seminar on Mineral and Coal Technology, Bandung 2021, IOP Conference Series: Earth and Environmental Science 882, 012020, p. 1-11.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/882/1/012020/pdf)
(Monazite recovered from placer deposits at Bangka-Belitung is highest potential REE source)

Setiawan, I., R. Takahashi & A. Imai (2017)- Petrochemistry of granitoids in Sibolga and its surrounding areas, North Sumatra, Indonesia. Resource Geology 67, 3, p. 254-278.
(online at: https://onlinelibrary.wiley.com/doi/epdf/10.1111/rge.12132)
(Granitoids in Sibolga area, N Sumatra, with characteristics of A- and I-type ilmenite series. REE enriched in syenites from Sibolga Julu, Sarudik, Tarutung and Sibuluhan Sihaporas: highly-differentiated granitoids formed within plate settings. In contrast, ΣREE content of hornblende-bearing granitoids in volcanic arc settings low)

Setiawan, I., R. Takahashi, M. Yamamoto & A. Imai (2016)- Geochemistry and Sr-Nd Isotopic characteristics of granitoids in the western part of North Sumatra, Indonesia. Proc. 6th Asia Africa Mineral Resources Conference (AAMRC), Akita University, p. 1-6. *(online at: https://www.researchgate.net/profile/Iwan-Setiawan-30/publication/326439017_Geochemistry_and_Sr-Nd_isotopic_characteristics_of_granitoids_in_the_western_part_of_North_Sumatra Etc)*

Setijadji, L.D. (2009)- Overview of the metallogeny of Sumatera. Indonesian Soc. Economic Geologists (MGEI) Bull. 1, p. 1-10.

Shell Mijnbouw (1978)- Geological map of the South Sumatra coal province, 1:250,000.
(Unpublished, but frequently quoted geologic map of S Sumatra)

Sidarto & S. Andi Mangga (2001)- Struktur geologi daerah Tanjungkarang dan sekitarnya, Sumatera dan hubungannya dengan terjadinya mineralisasi di Gunung Ranggal. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 11, 118, p. 2-18.
('The geological structure of the Tanjung Karang area and surroundings, area, Sumatra and their relation to the mineralization at Mt Ranggal'. Area at SE tip of Sumatra with several NW-SE right-lateral faul zones. Pretertiary rocks amalgamation of 4 terranes. M Miocene mineralization at G. Ranggal controlled by diorite/rhyolite intrusions at stepover of Branti and Panjang dextral faults)

Sieh, K. & D. Natawidjaja (2000)- Neotectonics of the Sumatran fault, Indonesia. J. of Geophysical Research: Solid Earth 105, B12, p. 28295-28326.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2000JB900120)
1900km long Sumatran Fault accommodates much of right-lateral component of oblique convergence between Eurasian- Indian/ Australian plates. Fault zone highly segmented: 19 subaerial segments identified. Proximity of Sumatra fault zone and volcanic arc suggestive of relationship, possibly following zone of lithosphere weakened by magmatism. However, most trench-parallel strike-slip faults in oblique subduction settings worldwide not coincident with their volcanic arc, so Sumatra fault location through arc may be coincidence)

Sieh, K., D.H. Natawidjaja, A.J. Meltzner, C.C. Shen, H. Cheng, K.S. Li et al. (2008)- Earthquake supercycles inferred from sea-level changes recorded in the corals of West Sumatra. Science 322, p. 1674-1678.
(manuscript online at: https://dr.ntu.edu.sg/server/api/core/bitstreams/b5a1b2c6-342d-489d-9767-4a9bbb44ae8f/content)
(Records of relative sea-level change extracted from corals of Mentawaiimply that this 700-kilometer-long section of the Sunda megathrust generated broadly similar sequences of great earthquakes about every two centuries for at least the past 700 years)

Sihombing, D.J.P.. D.G. Harbowo, B. Priadi, & L. Ardianto (2021)- Chemostratigraphy of Paleozoic carbonate in Natar, South Lampung, Indonesia. Proc. Joint Convention HAGI, IAGI, IAFMI, IATMI, Bandung, p. 1-4.
(online at: https://scholar.google.com/scholar?q=+intitle:%27Chemostratigraphy%20of%20Paleozoic%20Carbonate%20in%20Natar,%20South%20Lampung,%20Indonesia%27)
(Presumably Paleozoic-age contact-metamorphic? marble in Gunungkasih Fm in Natar area, Lampung, southernmost Sumatra. Chemostratigraphy suggests 'massive paleozoic coral reef facies that formed in the margin of warm-shallow marine" (N.B.: no apparent independent age control; many questions here- JTvG)

Sihombing, E.H., B. Safitri & B.M. Amboro (2021)- The stratigraphy of Pre-Tertiary economic basement in South Jambi B Block, South Sumatra Basin. Proc. 45th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA21-G-271, p. 1-23.
(online at: https://www.researchgate.net/publication/359315340_The_Stratigraphy_of_PreTertiary_Economic_Basement_in_South_Jambi_B_Block_South_Sumatra_Basin)
(Lithologies of Pre-Tertiary basement in S Jambi B Block fractured meta-clastics, igneous intrusions and meta-carbonate rocks (marble). K-Ar dating at BUN-1 gave late E Cretaceous age (105 Ma; Albian) (since when is it possible to use K-Ar dating on carbonates?; JTvG))

Silitonga, B.E. (2023)- Tectonic structures of Northern Sumatra region based on seismic tomography of P and S wave velocity. Eksplorium 44, 1, p. 1-12.
(online at: https://ejournal.brin.go.id/eksplorium/article/view/8157/6254)
(Tomograms across N Sumatra from seismic velocity models and earthquake hypocenter parameters from 5003 earthquakes in 2012-2020)

Silitonga, P.H. & D. Kastowo (1975)- Geologic map of the Solok Quadrangle (0815), Sumatra, 1:250,000. Geological Research Development Centre (GRDC), Bandung. (also 2nd edition, 1995)
(see also 2nd Ed., 1995. NE part of map is SW part of C Sumatra Basin, with unconformably onlapping Miocene sediments over widespread Permo-Carboniferous Kuantan Fm phyllites, quartzites, limestones, overlain by Triassic? metasediments of Tuhur Fm, intruded by Triassic granites. Singkarak crater lake in W. (Small outcrops

of E Miocene limestones in Barisan Mts front W of Petai probably Pre-Tertiary basement; JTvG pers. observation in 1986))

Silvestri, A. (1925)- Sur quelques foraminiferes et pseudoforaminiferes de Sumatra. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 8 (Gedenkboek Verbeek, memorial volume), p. 449-458.
(online at: https://books.google.com/books?id=Yy0RAAAAIAAJ&pg)
('On some foraminifera and pseudoforaminifera from Sumatra'. No. 9 of A. Tobler's series Beitrage zur Geologie und Palaontologie von Sumatra. Foraminifera from Late Jurassic or Early Cretaceous limestones from Sungi Tuo (Korinci, Jambi) with Choffatella cyclamminoides n.sp. (= Pseudocyclammina; Yabe and Hanzawa, 1926) and Gumai Mts Saling series with Lacazina (= Loftusia). Tobler (Eclogae 19xx) proposed to rename)

Silvestri, A. (1932)- Revisione di foraminiferi preterziarii del Sud-Ouest di Sumatra. Rivista Italiana Paleontologia Stratigrafia 38, p. 75-107.
('Revision of Pre-Tertiary foraminifera from SW Sumatra'. Late Jurassic-Early Cretaceous foraminifera from SW Sumatra described earlier by Silvestri (1925) as Choffatella should be assigned to Pseudocyclammina Yabe and Hanzawa 1926, while Lacazina lamellifera is a Loftusia (New species Loftusia bemmeleni, reclassified by Yabe (1946) as Paracyclammina bemmeleni (Silvestri))

Simanjuntak, A., U. Muksin, Y. Asnawi, S. Rizal & S. Wei (2022)- Recent seismicity and slab gap beneath Toba Caldera (Sumatra) revealed using hypocenter relocation methodology. Int. J. of Geomate 23, 99, p. 82-89.
(online at: https://geomatejournal.com/geomate/article/view/3623/3001)
(Seismicity below Lake Toba caldera suggests slab gap in Sumatra subduction zone that may represent slab tear with gap at > 100 km depth, and indicating shallower dip to NW of Toba. Possible slab tear with slab gap can be found along Investigator Fracture Zone, a rheologically weak structure which is subducted below Toba caldera at oblique angle of ~65˚.)

Simanjuntak, T.O., T. Budhitrina, Surono, S. Gafoer & T.C. Amin (1994)- Geological map of the Muara Bungo Quadrangle (0914), Sumatera, 1: 250,000. Geological Research Development Centre (GRDC), Bandung.
(Most of map sheet is northern S Sumatra (Jambi) Basin, with folded Tertiary sediments with oil-gas fields. Pretertiary outcrops in N (southern Tigapuluh Mts) and S (Duabelas Mts), both cored by Permo-Carboniferous Tigapuluh Gp metamorphics and intruded by relatively small 'Jurassic' granites (but K-Ar dates of 180 and 159 Ma may be reset ages of older granites; Pulunggono & Cameron 1984))

Sirait, H.C.N. & V. Dewinta (2023)- Petrology and mineralogy of metamorphic rocks in the Pringsewu District, Lampung Province, Indonesia. J. Geoscience Engineering Environment Technology (JGEET) 8, 3, p. 203-211.
(online at: https://journal.uir.ac.id/index.php/JGEET/article/view/11347/5602)
(Metamorphic rocks in Pringsewu District, Lampung (location not clear from map). Part of Paleozoic(??) Gunung Kasih Complex. E part of study area muscovite-epidote schist and greenschist; W part quartzite and biotite-epidote schist (greenschist to epidote-amphibolite facies). NW-SE foliation direction. Likely protoliths pelitic rock, mafic rock and quartz-feldspathic sandstone. Abundance of quartz, K-feldspar, etc., suggest source from microcontinent. Metamorphism caused by collision between intra-oceanic Woyla Plate and West Sumatra microcontinent in M Cretaceous time?)

Siringoringo, L.P., B. Sapiie, A. Rudyawan & I G.B.E. Sucipta (2023)- Petrogenesis of the Sukadana Basalt based on petrology and whole rock geochemistry, Lampung, Indonesia: geodynamic significances. Open Geosciences 15, 20220544, p. 1-19.
(online at: https://www.degruyter.com/document/doi/10.1515/geo-2022-0544/pdf)
(Quaternary Sukadana flood basalts in Lampung, S Sumatra, show Ocean Island Basalt (OIB) characteristics. Here linked to slab roll-back and back-arc extension)

Siringoringo, L.P., B. Sapiie, A. Rudyawan & I G.B.E. Sucipta (2024)- Origin of high heat flow in the back-arc basins of Sumatra: An opportunity for geothermal energy development. Energy Geoscience 5, 3, 10028, p. 1-16.
(online at: https://www.sciencedirect.com/science/article/pii/S2666759224000040)

(Back-arc basins of Sumatra exhibit highest heat flow worldwide. Origin of the high heat flow in N, C and S Sumatra basins probably severe Eocene- E Miocene extensional deformation through large pull-apart and slab rollback mechanism. Resulted in thinning of continental crust (27-32 km), multiple normal faults and high-very high heat flow (in C Sumatra 90-270 m/Wm2))

Siringoringo, L.P., B. Sapiie, A. Rudyawan & I.G.B.E. Sucipta (2024)- The distribution of vesicular structures in Sukadana Basalt, East Lampung, Indonesia, and its significance for the geological structure interpretation. Proc. Int. Conf. Geological Engineering and Geosciences, Yogyakarta 2023, IOP Conference Series: Earth and Environmental Science 1373, p. 012043, p. 1-7.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1373/1/012043/pdf)
(Small, meduim and large vesicular structures ('fossil gas bubbles') in 13 samples from the anomalous Quaternary Sukadana flood basalts in Lampung, S Sumatra)

Siringoringo, L.P., B. Sapiie, A. Rudyawan & I.G.B.E. Sucipta (2025)- Slab tear beneath the Sunda Strait. Island Arc 34, 1, e70031, p.
(Earthquake hypocenter data (1906-2025) around Sunda Strait reveals significant differences in slab depth between Sumatra and Java, supporting slab tearing hypothesis. Differences arise from variations in age and density of subducting Indian Ocean crust, causing sharp contrasts in slab dip angles. High heat flow in E and NE Sunda Strait indicates mantle upwelling due to vertical and horizontal slab tearing, respectively. Supported by presence of Sukadana Basalt (OIB-like) in E Lampung and normal faults in Sunda Strait, along E Lampung and W Java coasts, shifts in volcanic arc distribution, etc.)

Siringoringo, L.P. & C.S. Sipayung (2023)- The potential of Sukadana Basalt Province as a new geothermal resources in the back arc of Sumatra: a new insight from petrology and geochemistry. Indonesian J. of Energy 6, 1, p. 60-71.
(online at: https://ije-pyc.org/index.php/IJE/article/download/150/67)
(High heat flow in Quaternary Sukadana Basalt Province may have potential as source of geothermal energy in Lampung province (but heatflow not shown as particularly high on regional map of Fig. 5; JTvG))

Siringoringo, L.P., Z. Situmeang & N. Meka (2025)- Central Sumatra Basin: The first sedimentary basin for geothermal energy development in Indonesia? Rudarsko-geolosko-naftni Zbornik (Mining-Geology-Petroleum Engineering Bulletin), Zagreb, 40, 1, p. 1-12.
(online at: https://hrcak.srce.hr/en/file/474084)
(Current geothermal energy exploration and exploitation in Indonesia focused on Quaternary volcanic arc. (plants at Sibayak and Sarulla (N Sumatra) and Salak and Kamojang (W Java). C Sumatra Basin has unusually high heat flow (and thin crust of 27 km) and possible potential for geothermal exploitation)

Situmorang, B. & B. Yulihanto (2007)- Formation of pull-apart basin along transcurrent fault: lesson from Sumatera. In: Geologi Indonesia: dinamika dan produknya, Geological Research Development Centre (GRDC), Bandung, Special Publ. 33, 1, p. 29-48.
(Two prominent NW-SE transcurrent fault zones in Sumatra: (1) Sumatra FZ parallel to axis of Barisan Mountains; (2) Mentawai FZ along E slope of fore-arc ridge. N of Nias. MFZ and SFZ are linked by Batee Fault. Transtensional basins in back-arc (N, C, S Sumatra, Ombilin) and fore-arc (Singkel, Pini in NW, Bose, Sipora grabens in Mentawai area and Pagarjati, Kedurang in Bengkulu to SE).

Smith, V.C., N.J.G. Pearce, N.E. Matthews, J.A. Westgate, M.D. Petraglia, M. Haslam, C.S. Lane et al. (2011)- Geochemical fingerprinting of the widespread Toba tephra using biotite compositions. Quaternary International 246, 1, p. 97-104.
(online at: www.researchgate.net/publication/232814565_Geochemical_fingerprinting_the_widesprea Etc.)
(Three major tuff eruptions at Toba caldera, N Sumatra: 790 ka (Older Toba Tuff), 500 ka (Middle Toba Tuff), and 74 ka (Younger Toba Tuff). Ash dispersed from India to Malaysia to Indonesia. Composition of biotite can be used to fingerprint deposits of Younger Toba Tuff, which has lower FeO/MgO than older eruptions)

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Soeria-Atmaja, R., R. Maury, H. Bougault, J. Joron, H. Bellon & D. Hasanunddin (1986)- Presence de tholeiites d'arriere- arc Quaternaires en Indonesie: Les basaltes de Sukadana (Sud de Sumatra). Reunion des Sciences de la Terre 11, Clermont-Ferrand 1986, p. . *(Abstract only)*
('Presence of Quaternary back-arc tholeites in Indonesia: the Sukadana basalts (South Sumatra')

Soeria-Atmadja, R. & D. Noeradi (2005)- Distribution of Early Tertiary volcanic rocks in South Sumatra and West Java. The Island Arc 14, 4, p. 679-686.
(Three phases of Tertiary- Quaternary volcanism (1) M-L Eocene (43-33 Ma) flows of island arc tholeiites; (2) tholeiitic pillow basalt at beginning of Late Miocene (11 Ma); (3) Pliocene-Quaternary medium-K calc-alkaline magmatism. Paleogene volcanic rocks wider distribution than recognized. Early investigators assumed continuation from S Sumatra- Java to S Kalimantan, but E Tertiary volcanics can be traced from Java S coast East as far as Flores)

Spaulding, M.B. (1899)- De erts-afzettingen bij Salida, afdeeling Painan, Gouvernement Sumatra's Westkust. Den Haag, p. 1-20.
('The ore deposits near Salida, Painan District'. Old, small, West Sumatra gold diggings by natives and VOC (Dutch East Indies Company). Later attempts at resurrection of gold-silver mining by R.D. Verbeek in late 1800s and NV Mijnbouw-Maatschappij Salida in 1910-1933)

Stankiewicz, J., T. Ryberg, C. Haberland, Fauzi & D. Natawidjaja (2010)- Lake Toba volcano magma chamber imaged by ambient seismic noise tomography. Geophysical Research Letters 37, L17306, p. 1-5.
(Ambient noise tomography used to image low-velocity body representing magma chamber under Quaternary Lake Toba caldera. Chamber complex 3-D geometry, with at least two separate magma sub-chambers. Deep low velocity body below 7 km depth SW of lake possibly another magma chamber. Sumatra Fault marks velocity contrast, but only down to 5 km)

Stegmann, H. (1909)- Die jungen Ergussgesteine der Bataklander (Sumatra). Neues Jahrbuch Mineralogie Geologie Palaontologie, Beilage Band 27, p. 399-459.
('The young volcanic rocks of the Batak Lands (Sumatra'. Petrographic descriptions of samples collected by W. Volz from Lake Toba area. From Greifswald University Inaugural-Dissertation)

Stehn, C.E. (1939)- De nieuwe dieptekaart van het Toba-meer (Noord-Sumatra) van Drost & Bekkering. De Ingenieur in Nederlandsch-Indie (IV) 6, 9, p. IV.121- IV.126.
(online at: https://resolver.kb.nl/resolve?urn=MMKB21:042454000:pdf)
('The new depth map of Lake Toba (North Sumatra) of Drost & Bekkering'. Depth soundings along series of traverses in Lake Toba in 1936-1939. Deepest measured depth 445m)

Stephenson, B., S.A. Ghazali & H. Widjaja (1982)- Regional Geochemical Atlas Series of Indonesia, 1. Northern Sumatra. Direktorat Sumber Daya Mineral, Bandung, p. .

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(online at: www.pnas.org/content/109/46/18684.full.pdf)
(Toba supereruption in N Sumatra largest Quaternary terrestrial volcanic event, with ash and sulfate aerosol deposits in both hemispheres. Astronomically calibrated 40Ar/39Ar age of 73.88 ± 0.32 ka for sanidine crystals from up to 5m thick Toba ash deposits in Lenggong Valley, Malaysia, 6 km from archeological site with stone artifacts buried by ash. If made by Homo sapiens, age indicates modern humans reached SE Asia by ~74 ka.

Timing of eruption tied to peak in sulfate concentration in Greenland ice cores in middle of cold interval between Dansgaard-Oeschger events 20 and 19. Peak followed by ~10 °C drop in Greenland surface temperature over ~150 yr, revealing possible climatic impact of eruption)

Subandrio, A.S. (1993)- Zur Petrologie, Geochemie und Uranmineralization des Granitkomplexes von Sibolga in Nord Sumatra, Indonesien. Thesis (Diplom Arbeit), RWTH Aachen, Germany, p. 1-148. *(Unpublished)*
('On the petrology, geochemistry and uranium mineralization of the Sibolga granite complex in North Sumatra')

Subandrio, A.S. (1997)- Uranium and Molybdenum mineralization associated with A-type Sibolga granitoid, North Sumatra Indonesia, Proc. Mineral Exploration Technology in Indonesia, Directorat Technology Mineral Research Development (BPPT), p.
(Late Permian- Triassic granite with Mo enrichment)

Subandrio, A.S. (2006)- The possibility Archean- Proterozoic sedimentary rocks in Indonesian island arc related to controversial discovery of banded iron formation (BIF) in Tanggumas, Lampung. Proc. 35th Annual Conv. Indonesian Association Geologists (IAGI), Pekanbaru, p. 1-20.
(online at: https://www.iagi.or.id/web/digital/15/2006_IAGI_Pekan-Baru_The-Possibility-Archean.pdf)
(Banded Iron ore Formation deposits generally associated with old craton or shield of Archaen- Proterozoic age. First discovery of thin 'BIF-like' outcrops in Tanggamus area of Lampung, SE Sumatra, presumably in Permian magmatic arc deposits. Characterized by intercalation of laminations meta-quartzite and iron oxide. Two different kinds of iron formation recognized)

Subandrio, A.S. (2007)- Indonesian Banded Iron Formation (BIF): a controversial in age and tectonic setting of BIF formation in Tanggamus area- Lampung, South Sumatra. Proc. Joint Convention 32nd HAGI, 36th IAGI and 29th IATMI, Bali 2007, JCB2007-024, p. 1-12. *(online at: https://www.iagi.or.id/web/digital/28/2007_IAGI-Bali_Indonesian-Banded-Iron-Formation-(BIF).pdf)*
(Banded Iron Formation mineralization in Tanggamus area, Lampung, presumably associated with Permian-Cretaceous magmatism. Classified on Algoma type iron formation, rel. small, and associated with submarine rift hydrothermalism. Oldest rock units in S Sumatra Permian (286-248 Ma), much younger than classic Precambrian BIF deposits elsewhere. Tanggamus associated with active subduction zone)

Subandrio, A.S. (2009)- Mineralization associated with Pre-Tertiary magmatism of Western Belt Sumatra. Geologi Ekonomi Indonesia (MGEI) 1, p. 37-57.
(online at: www.academia.edu/30800801/MINERALIZATION_ASSOCIATED_WITH_PRE_TERTI Etc.)
(Three recently discovered styles of mineralization associated with Pre-Tertiary rocks exposed in Barisan Range: (1) minor U-Mo-Cu-Pb mineralization in Permo-Carboniferous Sibolga Granitoid Complex, NW Sumatra, (2) massive Pb-Zn sulfides in Permo-Carboniferous sedimentary sequence in Dairi district, N Sumatra and (3) Banded Iron Formation occurrences at Subullussallam, Aceh and Tanggamus, S Sumatra)

Subandrio, A.S. (2012)- Evolusi magmatik granitoid Tipe-A da metalogenesis bijih Molibdenum dan Uranium di kompleks granitoid Sibolga- Sumatra Utara. Doct. Thesis Padjadjaran University (UNPAD), Bandung, p. 1-230. *(Unpublished)*
('Magmatic evolution and metallogenesis of molybdenum and uranium ore in the Sibolga Type A granitoid complex, North Sumatra'. Late Paleozoic- E Mesozoic granites in SE Asia, incl. Bangka and Belitung islands marked generally by S-type granitoid emplacement with regional tin mineralization. Sibolga Granitoid Complex of N Sumatra shows different, A-type granitoid. Biotite granites most common. Sibolga granitoid intruded into Kluet Fm. K/Ar ages of ~219 Ma and 211 Ma by Rb/Sr on biotite (Late Triassic). A-type granitoid of Sibolga probably associated with anorogenic or rift related environment. Molybdenum anomalies imply magmas derived by partial melting of Late-Paleozoic lower-crustal rocks)

Subandrio, A.S., R. Gatzweiler & G. Friedrich (2007)- Relationship between magnetite- ilmenite series and porphyry copper-tin metallogenic province of Sumatra Island- with special aspects of Sibolga and Bangka granitoid complex. Proc. Joint Convention 32nd HAGI, 36th IAGI and 29th IATMI, Bali 2007, JCB2007-027, p.

147-155. *(online at: https://www.iagi.or.id/web/digital/28/2007_IAGI-Bali_Relationship-Between-Magnetite-Ilmenite.pdf)*
(Sibolga granitoid plutons in area of 50x50 km along W coast of N Sumatra, intruded into Kluet Fm. Radiometric ages 257±24 Ma (K/Ar, biotite; late Permian) and 217.4±4.4 Ma (Rb/Sr, biotite; Triassic). Mainly A-type biotite granites. Most Sibolga igneous rocks in Magnetite-Series, different from SE-Asia/ Bangka tin granites, which fall in I & S-type, Ilmenite-Series)

Subandrio, A.S. & R. Soeria-Atmadja (1995)- Petrologic and geochemical aspects of Uranium distribution in the Sibolga granitoid complex, North Sumatra, Indonesia.Proc. 8th Regional Congress Geology Mineral Energy Resources of SE Asia (GEOSEA '95), Manila, p. 1-19.

Subandrio, A.S., A. Sudradjat, M.F. Rosana & I. Syafri (2010)- Uranium mineralisation hosted by albite-rich granitoid rocks of Sibolga- North Sumatra. Proc. 39th Annual Conv. Indonesian Association Geologists (IAGI), Lombok, PIT-IAGI-2010-266, p. 1-15.
(online at: https://www.iagi.or.id/web/digital/12/2010_IAGI_Lombok_Uranium-Mineralisation-Hosted.pdf)
(On uranium mineralisation in albite-rich granitoids of Permo-Carboniferous crystalline- metasedimentary Tapanuli Group)

Subandrio, A.S. & M.E. Suparka (1994)- Petrology and geochemistry of Sibolga A-type granitoid, North Sumatra, Indonesia. Proc. 23rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 1, p. 334-354.
(online at: https://www.iagi.or.id/web/digital/62/29.pdf)
(Triassic Sibolga granitoid plutons along W coast of Sumatra, intruded into Permo-Carboniferous metasediments of Kluet Fm. Sibolga grnitoid K-Ar age 257 =/- 24 Ma (latest Permian?) and 217 +/- 4 Ma (Late Triassic) by Rb/Sr on biotite) A-type granitoid. Geochemistry transitional between late and non-orogenic)

Subandrio, A.S. & K.N. Tabri (2006)- Indonesian Banded Iron Formation (BIF): a new controversial discovery of BIF deposit associated with island arc system in Tanggamus Area- Lampung, South Sumatra. Jurnal Geoaplika 1, 1, p. 55-70.
(online at: http://fosi.iagi.or.id/bsarchives/geoaplika_55_70_2006.pdf)
(Banded Iron Formation deposits generally associated with sedimentary or meta-sedimentary rift basins in Archaean- Precambrian cratons. Late Paleozoic 'BIF-like' meta-sedimentary rocks outcrop at Tanggamus, Lampung, over narrow, >50 km belt along depositional strike, slightly parallel to main direction of Sumatra)

Subandrio, A.S., K. Zaw, C.K. Lai & A. Salam (2013)- New discoveries in the mineralization associated with Pre-Tertiary magmatism in the Sumatra Western Belt, Indonesia. Proc. 10th Annual Meeting Asia Oceania Geosciences Soc. (AOGS), Brisbane, 1p. *(Abstract only)*
(On Sumatra 3 types of mineralization associated with Pre-Tertiary rocks, widely exposed in Barisan Range: (1) U-Mo-Cu-Pb mineralization in Permo-Triassic Sibolga Granitoid Complex of Sumatra; a composite pluton with geochemical affinities to magnetite series, within-plate granitoids and Cu-Mo porphyry host intrusive (2) Massive Pb-Zn sulfides in Permo-Carboniferous sediments in Dairi district, N Sumatra; (3) Banded Iron Formation at Subullussallam, Aceh and Tanggamus, S Sumatra, characterized by alternating silicate and magnetite-hematite layers. Affected by regional metamorphism and possibly of Paleozoic to E Mesozoic age)

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(online at: https://ejournal.brin.go.id/eksplorium/article/view/8120/6230)
('Evaluation of the uranium deposition system in sedimentary rocks of the Sibolga Formation, Central Tapanuli'. Uranium occurrence in Sibolga, NW Sumatra, hosted in fluvial sedimentary deposits of Oligocene- E Miocene Sibolga Fm, directly overlying Triassic granite (see also Koesoemadinata & Sastrawiharjo, 1988))

Sukarna, D., S. Andi Mangga & N. Suwarna (2000)- Batuan granitan Jura-Kapur Sumatra bagian selatan: ciri geokimika dan kaitannya dengan evolusi tektonika. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 10, 100, p. 15-26.

('Jurassic- Cretaceous granitic rocks of South Sumatra and their relationship to the tectonic evolution'. Granitoid rocks of Jurassic- E Cretaceous age (170-110 Ma) at W side of S Sumatra include, from NW to SE: Sulitair granitoid (200-180 and 150-140 Ma), Bungo batholith near Muara Bungo (169-129 Ma), Garba plutonics (117-115 and 86-82 Ma) and Sulan plutonics (Lampung; 113-111 Ma). I-type granites- diorites, formed in magmatic arc. Relatively wide range of ages)

Sulandari, B., A. Suteja, H. Hadibroto, B. Setyanta & A. Garniwa (2023)- Deliniasi struktur Sesar Lampung-Panjang dan identifikasi potensi sumberdaya alam berdasarkan anomali magnet daerah Bandar Lampung. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 24, 4. p. 195-203.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/721)
('Delineation of the Lampung-Panjang Fault structure and identification of natural resource potential based on magnetic anomalies in the Bandar Lampung area')

Sumotarto, U. (1985)- Tambang emas rakyat di Kabupaten Rejang Lebong-Bengkulu. Proc. 14th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 233-251.
(https://www.iagi.or.id/web/digital/40/PIT_IAGI_1985_paper21.pdf)
('Native people's gold mines in the Rejang Lebong- Bengkulu district')

Sumotarto, U., I.H. Sunaryo & Setiawan (2020)- Ore mineral exploration At Sungai Paguh Area, West Sumatra. Int. J. Scientific Technology Research 9, 3, p. 2072-2076.
(online at: https://www.ijstr.org/final-print/mar2020/Ore-Mineral-Exploration-At-Sungai-Paguh-Area-West-Sumatra.pdf)
(About mineral exploration in Sungai Pagu area, S Solok Regency, West Sumatra)

Sun, J. & T.C. Pan (1995)- Seismic characteristics of Sumatra and its relevance to Peninsular Malaysia and Singapore. J. Southeast Asian Earth Sciences 12, 1-2, p. 105-111.
(Earthquake risking; little or no geology)

Suparka (1983)- Posisi tektonik batuan kegunungapian Musala, Sibolga, Sumatra Utara. Proc. 12th Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, p. 233-242.
(online at: https://www.iagi.or.id/web/digital/37/PIT-1983-Paper-23.pdf)
('Tectonic position of the Musala volcanic rocks, Sibolga, N Sumatra'. Musala volcanic rocks in coastal area of Sibolga consists of basalt and andesite. Similar rocks common along W coast of Sumatra. Also gabbro intrusive rocks, diorite and micro-granite. Intrusive rocks and volcanics of Eocene-Oligocene to Miocene age and consists of calc-alkaline, high-K calc-alkaline and shoshonite of island arc/ continental margin type)

Suparka, S. (1984)- Posisi tektonik batuan kegunungapian Musala, Sibolga, Sumatra Utara. J. RISET Geologi dan Pertambangan (LIPI) 5, 2, p. 37-50.
(online at: http://pustaka.geotek.lipi.go.id/wp-content/uploads/2016/02/Riset-Vol.5-No.2-2.pdf)
('Tectonic position of the Musala volcanic rocks, Sibolga, North Sumatra'. Musala and adjacent islands, just offshore NW Sumatra, with Eocene- Oligocene-Miocene basalt-andesite, similar to rocks along W coast of Sumatra. Radiometric ages 43 ±3 Ma and 17.2 ± 5Ma. Calkalkaline, high K calkalkaline and shoshonitic types, typical of island arc/ continental margin volcanism. Probably formed closer to trench than usual, result of trench-ridge triple junction displacement)

Suparka (1995)- Tectonic development of Sibolga fore arc, North Sumatra. Doct. Thesis, Institut Teknologi Bandung ITB), p. *(Unpublished)*

Suparka, S. & J. Sopaheluwakan (1984)- Stratigrafi dan struktur geologi formasi Indarung, Sumatra Barat. Lembaga Geologi dan Pertambangan Nasional (LIPI), Bandung, p. 1-24.
('Stratigraphy and geological structure of the Indarung Formation, W Sumatra'. Late Mesozoic Indarung Limestone near Padang)

Suparka, S. & Sukendar Asikin (1981)- Pemikiran perkembangan tektonik Pra-Tersier di Sumatra Bagian Tengah. J. RISET Geologi dan Pertambangan (LIPI) 4, 1, p. 1-13.
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('Thoughts on the tectonic development of the Pre-Tertiary of Central Sumatra'. Late Paleozoic- Triassic clastic sedimentation. E-M Permian andesitic volcanics not believed to be result of subduction, but of melting of continental crust in relatively shallow basin during breakup of Pangea continent. End Triassic characterized by granitic intrusions, folding, metamorphism and erosion. Later sedimentation in shallow environments. Includes M Jurassic 'Gumai Melange', reversal of direction subduction at end Mesozoic, etc.)

Suparman, A., A. Asseggaf & A. Haryo S. (1991)- Garba Mtn.- South Sumatra. Indonesian Petroleum Association (IPA), Fieldtrip guidebook, p. 1-40.
(Fieldtrip guidebook with brief descriptions of geologic localities in and around Garba Mountains)

Supendi; S., S. Widiyantoro, N. Rawlinson, A. Wibowo, P. Priyobudi, K.H. Palgunadi, A.D. Nugraha et al. (2022)- Analysis of the 2021 Semangko Bay earthquake sequence in Southern Sumatra, Indonesia, using broadband seismic network data. Seismological Research Letters 93, 3, p. 1373-1381.
(Relocation of 254 July 2021 earthquakes beneath Semangko Bay in southernmost Sumatra, tied to rupture of several antithetic faults with similar strike to W Semangko fault. Faults appear to be part of small graben system located beneath Semangko Bay, which was likely activated by ongoing extension in Sunda Strait)

Suprapto, S.J. (2008)- Geokimia regional Pulau Sumatera: conto endapan sungai aktif fraksi -80 Mesh. Buletin Sumber Daya Geologi 3, 3, p. 2-13.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/519)
('Regional geochemistry of Sumatra Island: active stream sediment samples of -80 mesh fraction'. Distributions of 15 metal elements (Ag, As, Co, Cr, Cu, Fe, K, Li, Mn, Ni, Pb, Sn, W, Mo, Zn) in stream sediments samples across Sumatra (summary of Stephenson et al, 1982 and Muchsin et al. 1997 reports?))

Surjono & S. Ichihara (1984)- The tin-tungsten occurrences in the Hatapang area, North Sumatra, Indonesia. Report Int. Symposium on the geology of tin deposits, Nanning, China, 1984, ESCAP Regional Mineral Resources Development Centre, p. 87. *(Abstract only)*

Surono, N. Suwarna & S. Andi-Mangga (1999)- Batulumpur kerakalan pada Formasi Mentulu, Pegunungan Tigapuluh, Sumatera. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 9, 98, p. 2-7.
('Pebbly mudstone of the Mentulu Formation, Tigapuluh Mountains, Sumatra'. Permo- Carboniferous pebbly mudstone is dominant rock in Mentulu Fm near Tigapuluh Mts. Pebbles are slate, quartzite, quartz, mica schist, silicified rock and granite. Matrix rock alternating sandstone-siltstone-shale. Deposited in glacial conditions. Paleolatitude 41°S)

Susanto, A. & E. Suparka (2012)- Hydrothermal alteration and mineralization of porphyry-skarn deposits in the Geunteut area, Nanggroe Aceh Darussalam, Indonesia. Bull. Geological Society Malaysia 58, p. 15-21.
(online at: www.gsm.org.my/products/702001-100356-PDF.pdf)
(Geunteut area 55 km S of Banda Aceh, NW Sumatra, with porphyry-skarn deposits related to M Miocene Geunteut granodiorite (14.3 Ma), intruded into Late Jurassic- E Cretaceous Woyla terrane Bentaro volcanics and Lamno Limestones. Five hydrothermal alteration zones (biotite-orthoclase-actinolite, epidote-chlorite-actinolite, garnet clinopyroxene-tremolite, quartz-sericite and chlorite-calcite-clinoptilolite), suggesting formation temperatures between 120-360°C. Porphyry-skarn deposits two episodes of mineralization: early hypogene mineralization (magnetite, ilmenite, chalcopyrite, pyrite) and late supergene enrichment)

Sutanto (1997)- Evolution temporelle du magmatisme d'arc insulaire: geochronologie, petrologie et geochimie des magmatismes mesozoiques et cenozoiques de Sumatra (Indonesie). Doct. Thesis, Universite de Bretagne Occidentale, Brest, p. 1-212. *(Unpublished)*
('Evolution through time of island arc magmatism: petrology and geochemistry of Mesozoic and Cenozoic magmas of Sumatra (Indonesia)'. 175 new K-Ar ages. Eight episodes of volcanism-magmatism identified on Sumatra: (1) Triassic- E Jurassic (215-180 Ma) and (2) Late Jurassic (~165-150 Ma) intruded into Permo-

Carboniferous packages in center of island. (3) Significant volcano-plutonic arc in Early Cretaceous (Valanginien-Aptian), (4) (5) Late Cretaceous (Albian- Campanian), (6) Paleocene- Lower Eocene, (7) M-U Eocene; (8) Oligocene- E Miocene and Late Miocene- Recent)

Sutanto (2005)- Palaeogene volcanic activities in Sumatera. Majalah Geologi Indonesia (IAGI) 20, p. 51-60.

Sutanto (2005)- Distribusi, mineralogi, dan komposisi kimia granitoid di Sumatra. Jurnal Wahana Teknik (UPN) 7, 1, p. 1-14.
(online at: http://eprints.upnyk.ac.id/12470/1/Granit%20Sumatra.pdf)
('Distribution, mineralogy and chemical composition of granitoids in Sumatra'. Granitoids that cut Permo-Carboniferous rocks are E of Semangko fault system, plutons that cut Jurassic-Cretaceous are W of Semangko fault and youngest plutons cut Tertiary rocks are in Semangko fault system)

Sutanto, R. Soeria Atmadja, R.C. Maury & H. Bellon (1998)- Origin of high-K Paleogene volcanics from the Natal region, Sumatera; a response to subducted fracture zone. Proc. 27th Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 3 (Geodin., Magmat. Volkanologi), p. 37-43.
(Incl. K/Ar radiometric ages of basalt dikes and lava from Woyla Group at Aceh ~50-58 Ma and basalts- andesites from Natal ~37- 63 Ma)

Sutopo, B. (2013)- The Martabe Au-Ag high sulfidation epithermal deposits, Sumatra: implications for ore genesis and exploration. Ph.D. Thesis University of Tasmania, p. 1-332.
(online at: http://eprints.utas.edu.au/17607/2/Whole-Sutopo-_thesis.pdf)
(Study of largest recent gold discovery on NW coast of Sumatra SE of Sibolga. Contains four high-sulfidation epithermal gold-silver deposits (Purnama, Baskara, Kejora and Gerhana) and one low-sulfidation epithermal gold-silver deposit (Pelangi). Located in Sunda magmatic arc within and adjacent to Late Tertiary porphyritic dacite and andesite dome and diatreme complex near splays of Sumatra Fault System. Magmatic/ hydrothermal system active from 3.8-2.1 Ma)

Sutopo, B., M.L. Jones & B.K. Levet (2003)- The Martabe gold discovery: a high-sulphidation epithermal gold-silver deposit, North Sumatra, Indonesia. Proc. New Generation Gold conference (NewGenGold 2003), Case histories of discovery, Perth 2003, Gold Mining J., p. 147-158.
(Rel. recent epithermal high-sulphidation gold discovery in NW Sumatra, now Newmont-operated largest gold producer in Sumatra)

Sutopo, B., B.K. Levet & B.J. Gemmel (2007)- Characteristics of sub-microscopic gold and trace element geochemistry of enargite/luzonite in the Martabe high sulfidation epithermal deposits, North Sumatra, Indonesia. In:C.J. Andrew et al. (eds.), Digging Deeper, Proc. 9th Biennial Meeting Society for Geology Applied to Mineral Deposits (SGA), Dublin 2007, p. 773-776.

Suwarna, N. (2000)- Tataan geologi Sumatra bagian selatan. In: N. Suwarna et al. (eds.) Evolusi tektonik Pratersier Sumatera bagian Selatan, Geological Research Development Centre (GRDC), Bandung, Special Publ., p. 15-28.
('Data on the geology of S Sumatra')

Suwarna, N. (2006)- Permian Mengkarang coal facies and environment, based on organic petrology study. Jurnal Geologi Indonesia (Indonesian J. on Geoscience, IJOG) 1, 1, p. 1-8.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/3)
(Analysis of E-M Permian Mengkarang coal from Mengkarang-Merangin, Bangko area, C Sumatra. Mengkarang coal measures up to 1000m (??) thick, with Cathaysian flora, brachiopods and fusulinids, and intruded by Triassic granite. Dominant maceral vitrinite, less inertinite. Coals formed in wet zone of mire (limnic-telmatic to telmatic wet forest))

Suwarna, N., S. Andi Mangga, N. Surono, T.O. Simundjuntak & H. Panggabean (eds.) (2000)- Evolusi tektonik Pra-Tersier Sumatera bagian selatan. Pusat Penelitian dan Pengembangan Geologi, Bandung, p.

('The Pre-Tertiary tectonic evolution of the southern part of Sumatra')

Suwarna, N., T. Buditrishna, S. Santosa & S. Andi Mangga (1994)- Geologic map of Rengat Quadrangle (0915), Sumatra, 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(Most of map sheet is S part of C Sumatra basin, with Lirik Trend/ Japura Anticline. In S N part of Tigapuluh Mts, dominated by Permo-Carboniferous meta-sediments and meta-tuffs of Tigapuluh Group, intruded by Late Triassic- E Jurassic Akar and other granites. Unconformably overlain by Oligo-Miocene of Kelasa, Lakat, Tualang, Gumai and Air Benakat Fms.)

Suwarna, N. & H. Hermianto (2010)- Mesozoic sediment characteristics in the Asai- Rawas region of the Southern Sumatra. Proc. IGCP 507 Project Symposium Paleoclimates in Asia during the Cretaceous, Yogyakarta 2010, 2p. *(Abstract only)*
(Jurassic-Cretaceous of Asai- Garba Terrane in S Sumatra (= Woyla or W Sumatra Terrane?; JTvG) two facies domains: shallow marine Asai (M Jurassic), Mersip (Late J) and Peneta (Late J- early K) Fms and deep marine facies Rawas Fm (Late J- Early K). All thermally mature. Paleomagnetic work suggests paleolatitudes of 30°-32°S and counterclockwise rotation)

Suwarna, N., Suharsono, Amiruddin & Hermanto (1998)- Geological map of the Bangko Quadrangle, Sumatera (Quad. 0913), 1:250,000. Geological Research Development Centre (GRDC), Bandung.

Suwarna, N., Suharsono, S. Gafoer, T.C. Amin, Kusnama & B. Hermanto (1992)- Geologic map of the Sarolangun Quadrangle (0913), Sumatera, 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(Geologic map of NW side of S Sumatra (Jambi) Basin with folded Mio-Pliocene sediments and adjacent Barisan Mountains W of Tembesi River. Oldest rocks in NW corner W of Bangko with E Permian Mengkareng Fm clastics with minor limestone and coal (and 'Jambi Flora'; JTvG), associated with Permian Palepat Fm andesitic volcanics, intruded(?) by Arai Granite. Permian complex juxtaposed along NW-SE trending thrust fault zone with 'Woyla Group' of Jurassic Asai Fm and Late Jurassic-Cretaceous Peneta Fm clastics (with limestones with Cladocoropsis miriabilis = Late Jurassic hydrozoan; JTvG). Rawas Fm intruded by several Late? Cretaceous Arai biotite and hornblende granite bodies)

Suwarna, N., Suharsono & K. Sutisna (1999)- Stratigraphy, sedimentology and provenance analysis of the Jurassic-Cretaceous Asai-Rawas Group, Southern Sumatera. In: H. Darman & F.H. Sidi (eds.) Tectonics and sedimentation of Indonesia, FOSI-IAGI-ITB Regional Seminar to commemorate 50th anniversary of Van Bemmelen's Geology of Indonesia, Bandung 1999, p. 36-39.
(Thick (>2000m?), deformed Jurassic Cretaceous sediments at E flank of Barisan Range, at S Sumatra (Jambi) Basin margin, intruded by Cretaceous Arai- Angai granite. M-L Jurassic Asai Fm marine 'flysch-type' meta-sandstones and phyllite with minor limestone, rel. quartz rich, of continental provenance. Overlying Late Jurassic- E Cretaceous more variable, of recycled orogen and arc provenance. Paleomagnetic study suggests paleolatitude of 32°S. To N in tectonic? contact with Permian Mengkareng Gp)

Suwarna, N. & Suminto (1999)- Sedimentology and hydrocarbon potential of the Permian Mengkarang Formation, Southern Sumatera. Proc. Southeast Asian Coal Geology Conference, Bandung, p.

Suwarna, N., Surono, S.A. Mangga, Suyoko, Sumito, A. Achdan, H. Wahyono, N. Suryono, T.O. Simundjuntak & T. Suwarti (2000)- Mintak Kuantan- Duabelas. In: Suwarna et al. (eds.) Evolusi tektonic Pra-Tersier Sumatera bagian Selatan, Geological Research Development Centre (GRDC), Bandung, Special Publ., p. 47-81.

Suwarti, T., S. Andi Mangga & Amiruddin (1985)- Ciri-ciri batuan granitoid daerah Tanjungbintang Lampung Selatan. Proc. 14th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 141-148.
('Characteristics of granitoids in the Tanjungbintang area, South Lampung', S Sumatra')

Suyoko (1996)- Penelitian sedimentologi dan paleontologi formasi Mengkarang di daerah Dusunbaru, Kabupaten Bangko, Jambi. In: Evolusi tektonik Pratertier Sumatera bagian selatan. Proyek kajian dan informasi geologi tematik Pusat Penelitian dan Pengembangan Geologi, p. 1-32.
('Sedimentology and paleontology of Mengkareng Fm in the Dusunbaru area, Bangko District, Jambi'. Incl. Early Permian brachiopods interpreted to signify Sakmarian age)

Syarif, M.N., M.R. Pahlevi & A.S. Annas (2015)- Basement reservoir play concept and its potential in Western Indonesia. Proc. 39th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p.
(Brief review of concept of basement hydrocarbon reservoirs, with examples from Sumatra)

Syafrie, I., E.T. Yuningsih & H. Matsueda (2015)- Geochemistry study of granitoid basement rock in Jambi Sub basin, South Sumatera, Indonesia, based on JSB-3, JSB-4 and JSB-6 wells data. In: ICG 2015, 2nd Int. Conf. and 1st Joint Conf. Faculty of Geology Universitas Padjaran and University of Malaysia Sabah, p. 305-311.
(online at: http://seminar.ftgeologi.unpad.ac.id/wp-content/uploads/2016/02/Geochemistry-study-of-Granitoid-Basement-Rock-in-Jambi-Sub-Basin.pdf)
(Mesozoic? granitoid basement in Jambi sub basin is intermediate-acid, calc-alkaline, medium- high K, metalluminous (subduction at active continental margin). Granitoid basement rock of JSB-4 and JSB-6 shows magnetite series and I type (late orogenic). Mesozoic granitoids probably extension of Thailand and Burma granite province (see also Yuningsih 2006))

Syahputra, R., T.H.W. Kristyanto, O.A. Prasojo, F.M.H. Sihombing, Supriyanto, A.D. Prasetyo et al. (2018)- Paleozoic-Mesozoic volcanic evidence based on petrographic analysis in Mengkarang Area, Jambi Province, Indonesia. Proc. 3rd Int. Symposium on Current Progress in Mathematics and Sciences (ISCPMS2017), Depok 2017, AIP Conference Proceedings 2023, 020180, p. 1-5.
(online at: https://aip.scitation.org/doi/pdf/10.1063/1.5064177)
(Petrography of Permian-Jurassic igneous, volcaniclastic and sedimentary rocks, incl.vitric welded tuff, etc. in Mengkareng Geopark)

Tan Sin Hok (1933)- Notiz uber das Basalskelett von "*Verbeekina*". Wetenschappelijke Mededeelingen Dienst Mijnbouw Nederlandsch-Indie 25, p. 57-65.
('Note on the basal skeleton of Verbeekina'. Permian 'verbeeki' fusulinids collected by Verbeek 1876 from Guguk Bulat, Padang Highlands, W Sumatra, thought to lack 'parachomata' (which distinguishes it from Doliolina), so new genus Verbeekina was created by Von Staff (1909). However, new material collected by Musper from Guguk Bulat type locality near Lake Singkarak shows this feature in later stages, so technically 'verbeeki' belongs in Doliolina (N.B.: despite this, the name Verbeekina still commonly used across 'Tethyan belt'; see also Thompson, 1936; JTvG))

Tan Sin Hok (1933)- Uber *Leptodus* (*Lyttonia* auctorum) cf. *tenuis* (Waagen) vom Padanger Oberland (Mittel Sumatra). Wetenschappelijke Mededeelingen Dienst Mijnbouw Nederlandsch-Indie 25, p. 66-70.
(Permian brachiopod Leptodus collected by Musper from Padang Highlands, C Sumatra, confirms presence of rocks of younger Permian age in Sumatra (Other Leptodus occurrences in Indonesia only on Timor; also in Central Belt of Malay Peninsula' Campi et al. 2002))

Tasrif, A. (1985)- Kompleks melange di daerah Siguntur, Sumatera Utara. J. RISET Geologi dan Pertambangan (LIPI) 6, 1, p. 1-6.
(online at: http://pustaka.geotek.lipi.go.id/wp-content/uploads/2016/02/Riset-Vol.6-No.1-2-3-2.pdf)
('Melange complex in the Siguntur area, North Sumatra'. Siguntur melange composed of blocks of various sizes, including slate, phyllite, mica schist, greywacke, chert and basalt in metasediment and silt-clay matrix)

Taufani, L., I. Fardiansyah, R.C. Rohmana, I. Anindita, P.D. Wardaya, V.I. Rossa et al. (2023)- Understanding reservoir architecture and heterogeneity of tide- dominated estuary system: insight from Digital Outcrop Model (DOM) of Permian deposit in the North Sumatra Basin. Proc. Joint Convention IAGI-IAFMI-HAGI-IATMI-PERHAPI, Pangkalpinang 2023, p.

(online at: https://www.researchgate.net/publication/375491408_Understanding_Reservoir_Architecture_and_Heterogeneity_of_Tide-_Dominated_Estuary_System_Insight_from_Digital_Outcrop_Model_DOM_of_ Etc.)
(Digital outcrop model of well-exposed 600m long outcrop of Permian clastic Alas Fm at Kutabuluh, N Sumatra. Interpreted as tide-dominated estuary system)

Taverne, N.J.M. (1924)- Bijdrage tot de geologie van de Gajo -Lesten en aangrenzende gebieden. Jaarboek Mijnwezen Nederlandsch Oost-Indie, 50 (1921), Verhandelingen 1, p. 162-186.
('Contribution to the geology of the Gajo-Lesten and adjacent regions', Aceh, N Sumatra. Pretertiary includes widespread 'Graywacke Group', of unbedded fine-grained rocks with 1-10 cm diameter rounded pebbles (now known as Carboniferous- E Permian glaciomarine Bohorok Fm?; JTvG). Associated with dense, unfossiliferous dark grey Pretertiary limestone ridge of Gunung Missigit (believed to be equivalent of Late Carboniferous-Permian limestone further SE in Upper Langkat, as described in Bucking (1904); age may well be post-glacial Permian ?; JTvG). Basal Tertiary is mica-quartz-sandstone/conglomerate, locally possibly associated with Nummulites Limestone (no details; likely E Oligocene N fichteli?; JTvG). Taverne text followed by petrographic descriptions by W.F. Gisolf, p. 187-268: granitites, gabbro porphyrite, andesite, basalt, dark limestones, bituminous limestones, dolomites, sandstones, greywackes, contact-metamorphic quartzite, marble, hornfels, etc.)

Teguh, F. & Agus H.P. (2011)- Jabung block basement- their characteristics and their economic potential. Proc. 36th HAGI and 40th IAGI Annual Conv., Makassar, JCM2011-002, p. 1-10.
(online at: https://www.iagi.or.id/web/digital/10/2011_IAGI_Makassar_Jabung-Block-Basement.pdf)
(On hydrocarbon potential of fractured Pre-Tertiary basement rocks in Jambi sub-basin, S Sumatra. Assumed to be part of 'Malacca Microplate', with SW part of block possibly Mutus Assemblage. With E Jurassic granite (K/Ar age ~180 Ma) in middle and W of block, limestone in N and S (post-Mutus Kluang Lst?), and low-grade metamorphics)

Terpstra, H. (1932)- The joint systems in the vicinity of the Salida Mine (West coast of Sumatra). Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 35, p. 891-897.
(online at: https://dwc.knaw.nl/DL/publications/PU00016298.pdf)
(Four groups of orientation of Tertiary quartz veins in Salida mine area: N30°E, N40°W, N10°E, N90°E.Work carried out on behalf of the Barisan Mining Company)

Tesch, P. (1916)- Permische trilobieten van Atjeh. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap Ser. 2, 33, p. 610-611.
('Permian trilobites from Aceh'. Two species of trilobite casts in dark red, tuffaceous marly rock near Kaloe (Tamiang), associated with corals, crinoids, brachiopods and gastropods. Previously reported by Klein 1916 and initially thought to be of Devonian age. Species Neoproetus indicus Tesch and Phillipsia (Pseudophillipsia) aff. sumatrensis Roemer very similar those described from Permian in Timor by Tesch (published 1923) (Klein 1916 trilobite locality probably from same formation as Bt. Karang Putih limestones outcrop mapped by Cameron et al. (1981) in Langsa Quadrangle as MPkl-Kaloi Limestone Fm))

Thamrin, M., Siswoyo & Prayitno (1981)- Heat flow in the Tertiary basin of North Sumatra. Proc. 17th Session Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Bangkok 1980, 58, Paper 25, p. 394-408.
(online at: https://repository.unescap.org/items/7e5623b0-bcfc-4f92-96d3-0d07128db168)
(Heat flow in N Sumatra Basin determined from 113 wells in 70 oilfields in N Sumatra. Average temperature gradient 4.78 ±0.78 °C/100m. Heat flow 2.39 ±0.44 HFU, lower than in C Sumatra (3.27 ± 0.93 HFU) and in S Sumatra (2.58±0.21 HFU), possibly due to thicker Tertiary strata in N Sumatra Basin)

Thamrin, M., Siswoyo, S. Sandjojo, Prayitno & S. Indra (1980)- Heat flow in the Tertiary basin of South Sumatra, Indonesia. Proc. 16th Session Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Bandung 1979, p. 250-271.
(Heat flow of S Sumatra basin determined from 358 wells in 54 oil fields. Average heatflow 2.58 Mcal/cm sec. Center of basin rel. cool with <3 HFU, NE and SW flanks >3 HFU)

'T Hoen, C.W.A. (1931)- Mededeeling over een vondst van diamanten in de Siaboe Rivier, ten zuiden van Bangkinang (Midden-Sumatra). De Mijningenieur 12, 10, p. 176-178.
('Communication on a discovery of diamonds in the Siabu River, S of Bangkinang (C Sumatra)'. About 150 small diamonds found during exploration for tin ore, SW of Pakanbaru. Bedrock is Tertiary clay-shales and granite. Diamonds were found in parts of kaksa that was richest in tin ore)

Thompson, M.L. (1936)- The fusulinid genus *Verbeekina*. Journal of Paleontology 10, 3, p. 193-201.
(Review of fusulinid form genus Verbeekina, which includes 5 species and 2 varieties. Description of Verbeekina verbeeki (Geinitz) from Bukit Besi, Padang Highlands, W. Sumatra)

Thompson, M.L. (1936)- Lower Permian fusulinids from Sumatra. Journal of Paleontology 10, 7, p. 587-592.
(Two new species of Early Permian fusulinids, Schwagerina rutschi and Pseudoschwagerina meranginensis, from dark grey, ~100' thick 'Productus limestone' from Telok Gedang, C Sumatra (Merangin, Jambi). Interpreted age Early Permian. Overlain by Soengi Garing plant beds with famous 'Jambi Flora', studied by Jongmans & Gothan, etc., P. meranginensis looks like fusulinids of the Schwagerina princeps group. See also Ueno et al. (2006) and Ueno in Crippa et al. 2014))

Tien, Nguyen D. (1986)- Foraminifera and algae from the Permian of Guguk Bulat and Silungkang, Sumatra. In: H. Fontaine (ed.) The Permian of Southeast Asia, Appendix 3, United Nations CCOP, Technical Bulletin 18, p. 138-147.
(online at: https://repository.unescap.org/items/312125a5-1653-453e-97d7-3adb1899913d)
(Illustrations of foraminifera from two Permian limestone localities from Padang Highlands, C Sumatra. Guguk Bulat reefal limestone with corals and diverse fusulinids (Colania, Pseudodoliolina, Sumatrina, Schwagerina, Verbeekina), small benthic foram assemblages (incl. Hemigordius) and algae (incl. Mizzia, Permocalculus). Fauna from this locality first described by Lange (1925). Silungkang locality with common Tubiphytes)

Tien, Nguyen D. (1989)- Lower Permian foraminifera. In: H. Fontaine & S. Gafoer (eds.) The Pre-Tertiary fossils of Sumatra and their environments, CCOP, Technical Papers 19, Bangkok, p. 71-93.
(Rel. rich Lower Permian foram assemblages of fusulinids, smaller benthic forams (incl. Hemigordius)and algae (incl. Permocalculus) from W Jambi province. Mesumai River localities with fusulinids Boultonia willsi, B. cheni, Schubertella kingi, Fusulinella cf. utahensis, Schwagerina sp., Pseudoschwagerina cf. meranginensis, Rugosofusulina rutschi and Parafusulina n. spp., suggesting Late Asselian age (near locality of famous 'Jambi flora; see also Ueno et al. 2006 who restudied Batu Impi locality and prefers Artinskian- Kungurian age; JTvG))

Tien, Nguyen D. (1989)- Middle Permian foraminifera. In: H. Fontaine & S. Gafoer (eds.) The Pre-Tertiary fossils of Sumatra and their environments, CCOP, Technical Papers 19, Bangkok, p. 113-148.
(Review of M Permian foraminifera from four areas on Sumatra, incl. rich basal Murghabian fusulinid assemblage with Neoschwagerina cf. simplex, Cancellina, Neofusulinella, etc., at Bukit Pendopo outcrop, S Sumatra. At Guguk Bulat fusulinids Verbeekina verbeeki, Colania douvillei, Pseudodoliolina, Pseudofusilina padangensis, Sumatrina annae, etc. and algae Mizzia velebitana, Permocalculus spp.)

Tiltman, C.J. (1987)- The geological evolution of the North Sumatra Basin, Indonesia, and its hydrocarbon occurrences. North Sumatra Basin Project, Lemigas/ University of London/ British Geological Survey, Unpublished report, p. 1-111.

Tiltman, C.J. (1990)- A structural model for North Sumatra. Lemigas Scientific Contribution Petroleum Science Technology 13, 1, Special Issue, p. 24-44.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/1137/923)
(Geological evolution of N Sumatra controlled by strike slip tectonics trough most of Tertiary. Extensional and transtensional regimes during Paleogene opened rift basins between major wrench faults. Extensional faults inverted by phase of post- M Miocene compression and transpression. Plio-Pleistocene strike slip faulting caused major dextral wrench faulting along NW-SE and N-S fault trends. Structural blocks root down to depths of ~10

km and are bounded by listric faults that shallow out to basal decollement at this depth. Deformation at decollement horizon corresponds to brittle/ductile transition in upper crust)

Tissot van Patot, A. (1920)- Aanteekeningen uit de Bataklanden. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 5, 2, p. 37-52.
('Notes from the Batak Lands'. Notes on volcanoes between Lake Toba and W coast of N Sumatra, by topographic surveyor ATvP. Most of Batak high plain covered by ~600m thick liparite deposits. Report of rock types of mountains in area between Lake Toba and Indian Ocean. With petrographic descriptions by B.G. Escher)

Tjia, H.D. (1970)- Nature of displacements along the Semangko fault zone, Sumatra. J. Tropical Geography, Singapore, 30, p. 63-67.
(One of first papers to recognize Central Sumatra fault zone as major left-lateral wrench fault)

Tjia, H.D. (1976)- Radiometric ages of ignimbrites of Toba, Sumatra. Warta Geologi 2, 2, p. 33-34.
(online at: https://gsmpubl.files.wordpress.com/2014/09/ngsm1976002.pdf)
(At least four ignimbrite banks, intercalated with less competent volcanic beds, present in Lake Toba area, with total thickness of ignimbrites ~500m. Radiometric age of (youngest?) ignimbrite 72 ± 12 ka, biotite from oldest level 1.9 ±0.4 Ma))

Tjia, H.D. (1977)- Late Cenozoic clockwise rotation of Sumatra- comments. Earth Planetary Science Letters 34, p. 450-451.
(Critique of Ninkovich (1976) paper. Oldest Toba Tuffs in N Sumatra dated at 1.9 ± 0.4 Ma, older than 70 ka obtained by Ninkovich (is still younger than E Miocene onset of volcanism in S Sumatra, therefore does not change by much the Ninkovich (1976) argument for older onset of volcanism in S; JTvG)

Tjia, H.D. (1977)- Tectonic depressions along the transcurrent Sumatra fault zone. Geologi Indonesia 4, 1, p. 13-27.
(Depressions along Sumatra fault zone tied to dextral strike slip movement. About 25 km horizontal displacement since Late Miocene. Offset of Jurassic outcrops suggest total displacement may be 180 km. Fault zone at least 18 segments, mainly en echelon arrangement)

Tjia, H.D. (1989)- Tectonic history of the Bentong- Bengkalis suture. Geologi Indonesia 12, 1 (Prof. Dr. J.A. Katili 60 years Special Volume), p. 89-111.
(Bentong suture in Peninsular Malaysia continues into Bengkalis depression of Sumatra until it abuts against Tigapuluh Mts. Suture separates Gondwana terrane in W from Cathaysian terrane in E)

Tjia, H.D. & K. Kusnaeny (1976)- An Early Quaternary age of an ignimbrite layer, Lake Toba, Sumatra. Sains Malaysiana 5, 1, p. 67-70.
(K-Ar date of biotite in ignimbrite collected at lake level at Tuktuk Siadong, Samosir Peninsula, Toba, dated the as 1.9 ± 0.4 Ma)

Tjia, H.D. & M. Posavec (1972)- The Sumatra fault zone between Padangoenjang and Muaralabuh. Sains Malaysiana 1, 1, p. 77-105.
(Study of complex fault displacements along right-lateral Sumatra Fault zone. Jurassic-Triassic outcrops suggest dextral offset between 190-270 km)

Tobler, A. (1904)- Einige Notizen zur Geologie von Sudsumatra. Verhandlungen Naturforschenden Gesellschaft Basel 15, 3, p. 272-292.
(online at: https://www.biodiversitylibrary.org/item/100720#page/282/mode/1up)
('Some notes on the geology of South Sumatra'. Early, brief review of S Sumatra geology-stratigraphy (S part of Palembang basin and Barisan Range). With small map)

Tobler, A. (1906)- Topographische und geologische Beschreibung der Petroleumgebiete bei Moeara Enim (Sud-Sumatra). Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2) 23, 2, p. 199-315.

('Topographic and geologic descriptions of the petroleum areas near Muara Enim, S Sumatra'. Extensive report on geology of southern part of S Sumatra basin. With geologic maps, cross-sections, etc.)

Tobler, A. (1906)- Zur Geologie von Sumatra. Petermanns Geographische Mitteilungen 52, p. 88-91.
('On the geology of Sumatra'. Brief review of papers on pioneering geological investigations of Sumatra by Prof. W. Volz from Breslau: Volz (1899; on 1897-1898 travels E coast and Batak lands) and Volz (1904; 1899-1901 travels to Padang Highlands). Reports presence of Precambrian metamorphics, Upper Carboniferous (should be Permian) fusulinid limestones, unconformably (and associated with basic volcanics) overlain by Upper Triassic clastics with Daonella. Post-Triassic folding followed by Jurassic-Cretaceous hiatus and deposition of Tertiary clastics, limestone, coal and ?Pleistocene- Recent volcanics)

Tobler, A. (1907)- Uber das Vorkommen von Kreide- und Carbonschichten in Sudwest-Djambi (Sumatra). Centralblatt Mineralogie Geologie Palaontologie 16, p. 484-489.
('On the occurrence of Cretaceous and Carboniferous beds in SW Jambi, Sumatra'. Preliminary note on Tobler's Sumatra surveys. Batu Kapur locality on Limoen river steeply dipping dark limestones and claystones with Lower Cretaceous Hoplites ammonites, possibly underlain by Carboniferous and unconformably overlain by Miocene U Palembang beds. Similar Cretaceous outcrops with ammonites near Poboengo village. (Macrofossils described by Baumberger (1925). In Merangin River area Permian limestones with fusulinids))

Tobler, A. (1908)- Mededeeling over de eerste ontdekking van jurassische gesteenten (leigesteenten met belemnitiden en pentacrinitiden) in Boven-Djambi (Sumatra). Verslag Mijnwezen, 1e kwartaal 1908, p. 18- .
('Note on the first discovery of Jurassic rocks (shales with belemnitids and pentacrinids) in Upper Jambi (Sumatra)')

Tobler, A. (1912)- Voorlopige mededeeling over de geologie der Residentie Djambi. Jaarboek Mijnwezen Nederlandsch Oost-Indie 39 (1910), Verhandelingen, p. 1-29.
('Provisional note on the geology of the Jambi Residency'. Brief overview of Tobler's Jambi fieldwork; subsequently reported in greater detail by Tobler (1918, 1922). First paper to suggest nappe structures in West Sumatra, elaborated in more detail in 1917 (fusulinid limestone reported from Muara Labu in Korinci not Permian fusulinids but Jurassic-Cretaceous Loftusia; Kugler 1921))

Tobler, A. (1913)- Korte beschrijving der petroleumterreinen gelegen in het Zuidoostelijk deel der Residentie Djambi (Sumatra). Jaarboek Mijnwezen Nederlandsch Oost-Indie 40 (1911), Verhandelingen, p. 12-39 + 20 maps.
(Text online at: https://www.delpher.nl/nl/boeken/view?identifier=MMUBL07:000002076:00001) (no maps)
('Brief description of the petroleum terrains in the SE part of the Residency Jambi'. With one overview map and 19 detail maps of anticlinal structures, incl. Djelapang, Sekamis, Ibul, Temino, Kenali-Assam, etc.)

Tobler, A. (1914)- Geologie van het Goemai gebergte (Res. Palembang, Zuid Sumatra). Jaarboek Mijnwezen Nederlandsch Oost-Indie 41 (1912), Verhandelingen, p. 6-49.
('Geology of the Gumai Mountains, Palembang Residency, S Sumatra'. Old, but excellent description of geology of Gumai Mountains at SW margin of S Sumatra basin. With oil seep at Sungei Boesoek at SW end of Gumai anticline))

Tobler, A. (1917)- Uber Deckenbau im Gebiet von Djambi. Verhandlungen Naturforschenden Gesellschaft Basel 28, 2, p. 123-147.
(online at: https://www.zobodat.at/pdf/Verh-natforsch-Ges-Basel_28_1917_1123-1147.pdf)
('On the nappe structures in the Jambi area, Sumatra'. Classic paper on presence of large nappe structures in Pre-Tertiary of Sumatra, with relatively little deformed 'Hoch-Barisan' and 'Vor-Barisan' (Permian volcanics and sediments) thrusted over autochthonous 'Schiefer-Barisan' (isoclinally folded Lower Jurassic- Lower Cretaceous flysch-type metasediments). Interpretation accepted by Zwierzycki 1930, Van Bemmelen 1949, etc., but challenged by subsequent authors (Klompe et al. 1957, Katili 1970, etc. With descriptions of Paleozoic-Mesozoic geology of 'Schist-Barisan', Duabelas and Tigapluh Mts, Vorbarisan ('Pre-Barisan';incl. Merangin Permian; with Permian limestones) and 'High-Barisan'. With map and cross-section)

Tobler, A. (1922)- Djambi verslag. Uitkomsten van het geologisch- mijnbouwkundig onderzoek in de residentie Djambi 1906-1912. Jaarboek Mijnwezen Nederlandsch-Indie 48 (1919), Verhandelingen III, p. 1-585. *(+ Atlas volume)*
(Text online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB21:040833000:00034)
(Plates 5-9 online at: www.delpher.nl/nl/boeken/....)
('Djambi Report. Results of the geological-mining survey in the Jambi Residency'. Extensive final report on Tobler's survey of Jambi province, including parts of the Barisan, Pre-Barisan and 'Schiefer Barisan' Mts., Duabelas Mts, Tigapuluh Mts and sedimentary basins in-between. Petroleum geology previously described in Tobler (1918). Cross-sections show large thrust sheets of 'normal' Permian- Mesozoic sediments over highly folded metamorphic Mesozoic and older rocks ('Schieferbarisan'). Permian limestones in Jambi and Padang Highlands with fusulinid foraminifera and associated with volcanics ('Diabase-formation'). Upper Miocene coals autochthonous and widespread, but thinner (~3-4m) than in Muara Enim area in S Sumatra basin, and thinning in N direction. With 1:200,000 scale geologic map on 4 sheets)

Tobler, A. (1923)- Unsere palaeontologische Kenntniss von Sumatra. Eclogae Geologicae Helvetiae 18, 2, p. 313-342.
(online at: https://www.e-periodica.ch/cntmng?pid=egh-001%3A1923%3A18%3A%3A756)
('Our paleontological knowledge of Sumatra'. Thorough review of Carboniferous- Neogene fossil localities across Sumatra, as known in 1923. With one mapof principal fossil localities)

Tobler, A. (1925)- Mesozoikum und Tertiar des Gumaigebirges. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 8 (Gedenkboek Verbeek, memorial volume), p. 521-535.
(online at: https://books.google.com/books?id=Yy0RAAAAIAAJ&pg)
('Mesozoic and Tertiary of the Gumai Mts', S Sumatra. No. 10 of A. Tobler's series Beitrage zur Geologie und Palaontologie von Sumatra. Anticlinorium with core of Pre-Tertiary metamorphics, tuffs, diabase and ?Triassic and U Cretaceous limestones. Unconformably overlain by ?Eocene quartz sandstones with fossil wood. Miocene Gumai marine shales, locally with reefal limestone (Baturaja Fm) at base; much thicker in East (1500m) than in West (300m). Capped by Mio-Pliocene Palembang Beds)

Toh, E.C. (1979)- Rio Tinto's placer gold work in Sumatera. In: A. Prijono, C. Long and R. Sweatman (eds.) The Indonesian mining industry, its present and future, Proc. First Indonesian Mining Symposium, Jakarta 1977, Indonesian Mining Assoc., Jakarta, p. 356-386.
(On gold placer exploration in drainage basins of major E-flowing rivers of C Sumatra, Rawas-Tembesi, Batang Hari and Indragiri- Singingi. No commercially viable gold deposits found)

Tornquist, A. (1901)- Ueber mesozoische Stromotoporiden. Sitzungsberichte Konigl. Preussische Akademie Wissenschaften Berlin 47, p. 1-9.
('On Mesozoic stromatoporids'. Includes description of Neostroma sumatrensis n.gen., n.sp. from float in Sekoendoer Besar River, tributary of the Besirtan in Langkat, E Sumatra (=Actinacis sumatrensis; Late Cretaceous))

Traverso, S. (1896)- Rocce vulcaniche e metamorfiche dell'altepiano di Toba nell'Isola di Sumatra. Annali Museo Civico Storia Naturale di Genova (2) 16, p. 303-326.
(Volcanic and metamorphic rocks from the Toba highlands on Sumatra island'. Descriptions of rocks collected by Modigliani)

Truscott, S.J. (1911)- Bericht uber das Kinandam Riff Padang'sche Bovenlanden West Sumatra. p. (*Unpublished?; 'Report on the Kinandam ore deposit' Gold-silver vein near the old Salida mine, West Sumatra, exploited by the Kinandam-Sumatra Mijnbouw Maatschappij (Kinandam-Sumatra Mining Company))*

Truscott, S.J. (1912)- Gold and silver in Sumatra. The Mining Magazine 6, 5, p. 355-364.
(online at: www.archive.org/details/miningmagazine06londuoft)
(Brief review of gold mining activities and geology of Sumatra prior to 1912)

Ubaghs, J.G.H. (1941)- The geology of Benkoelen and the oil possibilities. Indonesia Geol. Survey, Bandung, Open File Report A41-2, p. 1-35. *(Unpublished geological survey report)*

Ubaghs, J.G.H. (1941)- De geologie van de Lampongsche districten. Indonesia Geol. Survey, Bandung, Open File Report, p. 1-24. *(Unpublished survey report)*
('The geology of the Lampung districts')

Ueno, K., S. Nishikawa, I.M.van Waveren, M. Booi, F. Hasibuan, Suyoko, E.P.A. Iskandar, P.L. de Boer et al. (2007)- Early Permian fusuline faunas from Jambi, Sumatra, Indonesia: faunal characteristics and palaeobiogeographic implications. 16th Interbational Congress Carboniferous and Permian, Nanjing, J. of Stratigraphy (China) 31, Supplement 1, p. 138-139. *(Abstract only)*
(online at: https://www.researchgate.net/publication/292446887_Early_Permian_fusuline_faunas_from_Jambi_Sumatra_Indonesia_faunal_characteristics_and_paleobiogeographic_implications)
(Fusulinids in Telok Gadang limestone bed at base of Mengkarang Fm (below E Permian 'Jambi flora'). Samples collected in 2004 contain Pseudoschwagerina meranginensis, Pseudofusulina rutschi, and others. Comparison with N Afghanistan study by Leven (1971) suggest Sakmarian age (i.e. younger than Late Asselian age proposed by Vachard, 1989). Younger 21m-thick, dark gray, fusulinid limestone in Palepat Fm at Batu Impi (18 km W of Bangko) with Minojapanella, Toriyamaia, Praeskinnerella, Chalaroschwagerina, Paraschwagerina, etc., indicating Yakhtashian or Bolorian (= ~Artinskian- Kungurian) age, most probably Yakhtashian due to absence of Brevaxina and Misellina. W Sumatra Block of Tethyan affinty))

Ueno, K., S. Nishikawa, I.M.van Waveren, F. Hasibuan, Suyoko, P.L. de Boer, D.S. Chaney et al. (2006)- Early Permian fusuline faunas of the Mengkarang and Palepat Formations in the West Sumatra Block, Indonesia: their faunal characteristics, age and geotectonic implications. Proc. 2nd International Symposium Geological anatomy of East and South Asia, paleogeography and paleoenvironment in Eastern Tethys (IGCP 516), Quezon City, p. 98-102. *(Extended Abstract)*
(Rel. high diversity E Permian fusulinid assemblages in Bangko area of Jambi (W Sumatra Block), associated with famous 'Jambi flora'. Mengkarang Fm ~360m thick paralic clastics with intercalations of shallow marine limestone and thin coal seams. In lower part ~5m thick dark grey limestone at Telok Gedang on Merangin River, ~17 km SW of Bangko with Pseudoschwagerina and Pseudofusulina? suggesting Asselian age (N.B.: same genera as E coast of Peninsular Thailand= Sibumasu; Ingavat-Helmcke 1993?). Overlying Palepat Fm >200m arc volcanics with limestone interbeds with fusulinids (first described by Thompson 1938, Tien 1989). Restudy of Batu Impi locality shows Minojapanella, Schubertella, Toriyamaia, Praeskinnerella, Chalaroschwagerina? and Paraschwagerina?, suggesting Artinskian- Kungurian age and Cathaysian/ Tethyan paleobiogeographic affinity (similar to E Malay Peninsula Terengganu Lst fauna described by Fontaine et al. 1998?; also similar age as basal Ratburi Lst in Sibumasu Block of Thailand?; JTvG))

Umbgrove, J.H.F. (1926)- Neogene en Pleistoceene koralen van Sumatra. Wetenschappelijke Mededeelingen Dienst Mijnbouw Nederlandsch-Indie 4, 32, p. 25-55.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB24:079042000:00001)
('Neogene and Pleistocene corals from Sumatra'. Descriptions of Miocene-Pleistocene corals from N Aceh, collected by 'Dienst van den Mijnbouw' and from other N Sumatra localities collected by A. Tobler)

Umbgrove, J.H.F. (1928)- Een *Zaphrentis* van Kota Tengah (Padangsche Bovenlanden). Jaarboek Mijnwezen Nederlandsch-Indie 56 (1927), Verhandelingen 1, p. 246-247.
('A Zaphrentis from Kota Tengah (Padang Highlands)'. Carboniferous or Permian solitary corals Zaphrentis and Caninia? from limestone collected by Zwierzycki near Kota Tengah, Lisun-Kwantan-Lalo Mts., W Sumatra)

Umbgrove, J.H.F. (1929)- *Lepidocyclina transiens*, spec. nov. van Sumatra. Wetenschappelijke Mededeelingen Dienst Mijnbouw Nederlandsch-Indie, Bandung, 9, p. 109-113.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB24:079043000:00003)

(New species of Lepidocyclina from marly limestone in Ayer Laje, a few km S of Baturaja, S Palembang, S Sumatra. Samples collected by J. Nash and F. Musper. Embryon advanced nephrolepidine to trybliolepidine. Probably Upper Tf, Middle-Late Miocene age)

Umbgrove, J.H.F. (1931)- The Sibajak volcano (N.E. Sumatra). Zeitschrift fur Vulkanologie 13, p. 237-244.
(Brief description of crater area of Sibajak volcano, N Sumatra, 1 km in diameter. Crater walls mainly thick lava flows. Sibayak may have formed within remnants of 8 km wide caldera)

Umri, N.H. & Indrawardana (2014)- Basement reservoir opportunity in Central Sumatra Basin. Proc. 38th Annual Conv., Indonesian Petroleum Association (IPA), Jakarta, IPA14-G-057, p. 1-20.
(Pre-Tertiary Basement play underexplored in C Sumatra Basin, despite success at Beruk NE field. C Sumatra basin underlain by metasedimentary rocks of Permo-Carboniferous age in Kuala and Mergui Terranes in W and Triassic Jurassic Mutus terrane argillite and Paleozoic Malacca Terrane quartzite/ granite in E of C Sumatra Basin)

Utama, H.W., Sutarto, A.Widagdo & E. Wahyudi (2023)- Paleovolcanic Karing reconstruction in the Merangin Jambi UNESCO Global Geopark territory based on petrological and geochemical approach. J. Online of Physics (JOP) 9, 1, 66-79.
(online at: https://online-journal.unja.ac.id/jop/article/view/28588/16633)
((E Permian) lava and pyroclastic sequences in Karing River on Merangin Jambi UNESCO Global Geopark territory. Four lava sequences of olivine-bearing basalt rocks with 40%-50% Si content. Calk-alkaline basalt series, probably stratovolcano (age, 304-297 Ma; latest Carboniferous- earliest Permian, from zircon in basalt xenoliths and pyroclastics; Van Waveren (2018) data?) from oceanic subduction under continental margin)

Untung, M., N. Buyung, E. Kertapati, Undang & C.R. Allen (1985)- Rupture along the Great Sumatran fault, Indonesia, during the earthquakes of 1926 and 1943. Bull. Seismological Society of America 75, 1, p. 313-317.
(1943 earthquake at least 2-3 m lateral displacement along 60 km segment)

Utoyo, H. (1996)- Pentarikhan K-Ar daerah Bukit Kayumambang, Pegunungan Tigapuluh, Riau. In: Sampurno et al. (eds.) Pros. Seminar Nasional Geoteknologi III, Puslitbang Geoteknologi (LIPI), Bandung, p. 601-610.
(online at: http://pustaka.geotek.lipi.go.id/index.php/2016/04/07/prosiding-1996/)
('K-Ar analyses from the Bukit Kayumambang Hill, Tigapuluh Mountains, Riau'. Kayumambang Hill granite with K-Ar age of ~124 ± 5 Ma (E Aptian), Mentulu Fm phyllite (contact-metamorphic?) ~116 ±2 Ma)

Vachard, D. (1989)- Microfossils and microfacies of the Lower Carboniferous limestones. In: H. Fontaine & S. Gafoer (eds.) The Pre-Tertiary fossils of Sumatra and their environments, CCOP, Technical Papers 19, p. 31-40.
(Rel. rich Lower Carboniferous foraminifera assemblage from C Sumatra limestones. At least 3 biozones)

Vachard, D. (1989)- A rich algal microflora from the Lower Permian of Jambi Province. In: H. Fontaine & S. Gafoer (eds.) The Pre-Tertiary fossils of Sumatra and their environments, CCOP, Technical Papers 19, p. 59-69.
(Microfauna of grainstone sample from Mengkareng Fm of Pulau Apat, W of Bangko, Jambi (same general area, but ~10km N of 'Jambi Flora' localities). Limestone rich in algae (incl. Tubiphytes, Mizzia velebitana, Permocalculus, etc.), oncolites, foraminifera (incl. fusulinids Boultonia willsi, Darvasites, Mesoschubertella giraudi, Schubertella kingi, Rugofusulina, etc.) and small volcanic clasts. Warm climate assemblage and probably Late Asselian age. Calcareous algae strong Tethyan affinities)

Vachard, D. (1989)- Triassic micro-organisms from the Sibaganding Limestone. In: H. Fontaine & S. Gafoer (eds.) The Pre-Tertiary fossils of Sumatra and their environments, CCOP, Technical Papers 19, p. 179-189.
(Illustrations of U Ladinian- Lower Carnian algae (Thaumotoporella parvovesiculifera, Globochaete) and rich foraminifera fauna (lituolids, Endothyra, Duotaxis, Aulotortus) from reefal limestones with corals, oncoliths, etc., off Lake Toba. Resembles microfauna from Kodiang Lst of NW Malay Peninsula and Namyua Gp in E Burma, but different from U Triassic of Seram)

Vacquier, V. & P.T. Taylor (1966)- Geothermal and magnetic survey off the coast of Sumatra. 1. Presentation of data. Bull. Earthquake Research Institute (Tokyo University) 44, p. 531-540.
(online at: http://repository.dl.itc.u-tokyo.ac.jp/dspace/bitstream/2261/12265/1/ji0442007.pdf)
(Band of high heat flow in front of deep sea trench off Sumatra. Magnetic anomalies trend mostly E-W; do not follow curve of Indonesian island arc)

Van Beek, C.G.G. (1982)- Een geomorfologische bodemkundige studie van het Gunung Leuser Nationale Park, Noord Sumatra, Indonesia. Ph.D. Thesis, University of Utrecht, p. 1-187.
(online at: https://edepot.wur.nl/480283)
('A geomorphological and pedological study of the Gunung Leuser National Park, North Sumatra'. NW of Lake Toba. Area with earlier work by Volz (1912), Van Bemmelen (1930), etc. Gunung Leuser >3400m high, and not a volcano, but part of uplifted Barisan range, with rocks composed of Carboniferous-Permian meta sediments and E Mesozoic-E Tertiary sediments. Traces of Pleistocene glacial deposits in highest parts of area, above 3100m. Barisan Ranges cut by Central Graben. Youngest cover Toba ignimbrites)

Van Bemmelen, J.M. (1890)- Uber die Ursachen der Fruchtbarkeit des Urwaldbodens in Deli (Sumatra) und Java fur die Tabakscultur, und der Abnahme dieser Fruchtbarkeit. Die Landwirtschaftlichen Versuchsstationen, Berlin, 37, p. 374-408.
(online at: https://edepot.wur.nl/211140)
('On the causes of the fertility of the jungle soils in Deli (Sumatra) and Java for the tobacco culture and the decrease in fertility'. Early chemical analyses of soil samples from tobacco-growing area of Deli, E Sumatra, by Jakob Maarten van Bemmelen (1830-1911), grandfather of geologist R.W. van Bemmelen and Professor of Inorganic Chemistry and soil scientist at University of Leiden. He attributed fertility of thick humus layer of virgin forest soil and unique composition of the weathered volcanic silica)

Van Bemmelen, R.W. (1930)- The origin of Lake Toba. Proc. 4th Pacific Science Congress, Java 1929, IIA, p. 115-124.
(Lake Toba in N Sumatra largest lake in Indonesia, 87x 31 km. Formed as large collapse crater, in which younger acidic volcanoes developed)

Van Bemmelen, R.W. (1931)- Het Boekit Mapas- Pematang Semoet vulkanisme (Zuid-Sumatra). Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 9, p. 57-76.
('The Bukit Mapas- Pematang Semut volcanism (South Sumatra)'. Different types of volcanism in two nearby young volcanic centers in S Sumatra: Bukit Mapas basic andesite and basalt flows, Pg. Semoet acid tuffs)

Van Bemmelen, R.W. (1931)- Is de Hoeloebeloe een vulkaan? De Mijningenieur 12, p. 30-32.
('Is the Hoeloebeloe a volcano?' High plain with many volcanic features NW of Kota Agung in Lampung possible a caldera or volcano-tectonic depression (see also Hartmann, 1936))

Van Bemmelen, R.W. (1932)- Geologische waarnemingen in de Gajo landen (N-Sumatra). Jaarboek Mijnwezen Nederlandsch-Indie 59 (1930), Verhandelingen 3, p. 71-94.
('Geological observations in the Gajo lands (North Sumatra). Geological survey in conjunction with road building project in Aceh, in N Sumatra sector of Barisan Mts (area also described by Volz, 1912). Common thick, isoclinally folded, mainly S-dipping, dynamometamorphic Pretertiary rocks, including 'Phyllite Group (with intercalations of Jurassic? limestones with demosponge Myriopora and coral Montlivaultia; also some serpentinite and basalt), overlain by Late Mesozoic 'Greywacke Group' (with phyllite, granite detritus). Unconformably overlain by Paleogene clastics in irregular basins among Barisan Range, with 3 members, from top to bottom: Black marine claystone, Mica-sandstone (metamorphic and igneous detritus) and quartz-sandstone (with limestone intercalations with reticulate Nummulites = E Oligocene). Some Neogene sediments at margin of eastern coastal plain, including E Miocene (Te5) reefal limestones)

Van Bemmelen, R.W. (1932)- Geologische kaart van Sumatra 1:200,000. Toelichting bij Blad 10 (Batoeradja). Dienst Mijnbouw Nederlandsch-Indie, Bandung, p. 1-45.
(map online at: https://digitalcollections.universiteitleiden.nl/view/item/817612)

('Geologic map of Sumatra 1:200k; Sheet 10- Baturaja'. Unfossiliferous Pretertiary in Garba Mountains composed of (Mesozoic) Lower Garba Fm volcanics, meta-sediments and granite and Upper Garba Fm deep marine radiolarian-bearing sediments (= Woyla terrane?; JTvG). Overlain by Tertiary 'Old Andesites', then Baturaja Fm coaly sediments, overlain by up to 300m thick E Miocene limestone with Spiroclypeus, Eulepidina and Miogypsina (upper Te), well exposed around Garba Mountains and Baturaja town. Overlain by 500m Telisa Fm, 600m Lower Palembang Fm, etc.)

Van Bemmelen, R.W. (1933)- Geologische kaart van Sumatra 1:200,000. Toelichting bij Blad 6 (Kroei). Dienst Mijnbouw Nederlandsch-Indie, Bandung, p. 1-61.
(map online at: https://digitalcollections.universiteitleiden.nl/view/item/816147)
('Geologic map of Sumatra 1:200k, Sheet 6- Krui'. SW Sumatra map sheet, mainly Barisan Range Quaternary volcanics with Danau Ranau lake in NW. With small window of ?Cretaceous metamorphics overlain by Miocene Baturaja limestone and Telisa shale (Sapatuhu Ridge in NW))

Van Bemmelen, R.W. (1934)- De tektonische structuur van Zuid-Sumatra (in verband met de aardbeving van 25 Juni 1933). Natuurkundig Tijdschrift voor Nederlandsch-Indie 94, 1, p. 7-14.
(online at: https://resolver.kb.nl/resolve?urn=MMTEY01:179531004:pdf)
('The tectonic structure of South Sumatra, in connection with the earthquake of 25 June 1933'. Earthquake, which killed 550 people, related to Semangko/Great Sumatra fault zone. With block diagram)

Van Bemmelen, R.W. (1939)- The volcano-tectonic origin of Lake Toba (North Sumatra). De Ingenieur in Nederlandsch-Indie (IV) 6, 9, p. IV.126- IV.140.
(Another review on the origin of Lake Toba caldera)

Van Bemmelen, R.W. (1949)- Sumatra. In: The geology of Indonesia, Government Printing Office, Nijhoff, The Hague, 1, p. 659-707.
(Classic review of pre-Independence geological knowledge of Sumatra)

Van Bemmelen, R.W. & P. Esenwein (1932)- De liparitische eruptie van den bazaltischen Tanggamoes-vulkaan. Wetenschappelijke Mededeelingen Dienst Mijnbouw Nederlandsch-Indie 22, p. 33-62.
(online at: https://resolver.kb.nl/resolve?urn=MMKB24:079040000:pdf)
('The liparitic eruption of the basaltic Tanggamus volcano', S Sumatra. Tanggamus on Semangka Bay, S Sumatra, first example in Indonesia of basaltic volcano with eruption of light-colored, acid, 'plagio-liparite' magma with well-developed quartz phenocrysts)

Van Bemmelen, R.W. & J. Zwierzycki (1936)- Het Paleogeen van Sumatra. De Ingenieur in Nederlandsch-Indie (IV) 3, 9, p. IV.160- IV.161.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1936-09.pdf)
('The Paleogene of Sumatra'. Critical discussion of Sumatra chapter of Badings (1936) compilation of Paleogene deposits of Indonesia)

Van der Haas, J. (1935)- N.V. Sumatra's Goudmijn gevestigd te 's Gravenhage. p. 1-25.
(online at: https://resolver.kb.nl/resolve?urn=MMKB31:040962000:pdf)
('N.V. Sumatra's goldmine, company based in The Hague'. Promotional brochure, seeking investors for gold exploration/ exploitation in 'Boelangsi'and 'Boelangsi I' concessions in the 'area of 1300 gold mines', an area with common remnants of old native 'Hindu-era' gold diggings, in tributaries of the Batang Hari River in Padang Highlands of W Sumatra (N.B. (1) the old native diggings were probably not from 'Hindu' times, but younger Minangkabau diggings from 1700s and before (see also Marsdem 1872); (2) a similar company brochure was issued in 1930; (3) despite years of relentless efforts by Van der Haas from before 1930 until 1942, even suggesting this area may be the gold-rich Land of Ophir of King Salomon in the Old Testament, the Boelangsi gold concessions never reached exploitation stage; JTvG) (see also Boomgaart 1941, 1947)

Van der Kaars, S., M.A.J. Williams, F. Bassinot, F. Guichard & E. Moreno (2011)- The influence of the 73 ka Toba super-eruption on the ecosystems of northern Sumatra as recorded in marine core BAR94-25. Quaternary International 258, p. 45-53.
(online at: www.academia.edu/es/24539198/The_influence_of_the_73_ka_Toba_super_eruption_on Etc.)
(Palynology of marine core off N tip of Sumatra suggests 73 ka Toba super-eruption had devastating effect on pine forests of N Sumatra. Evidence for impact on regional climatic conditions remains inconclusive)

Van der Marel, H.W. (1941)- Onderzoek omtrent het voorkomen van de mineralen orthiet en zirkoon in de liparietgronden van Sumatra's Oostkust. De Ingenieur in Nederlandsch-Indie (IV) 8, 4, p. IV.33- IV.38.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1941-04.pdf)
('Investigation of the occurrence of the minerals orthite and zircon in the liparite areas of Sumatra's E coast'. Quaternary acid volcanic liparite tuffs of Sumatra East coast, probably of Lake Toba origin, always contain minerals orthite and zircon)

Van der Marel, H.W. (1947)- Diatomeenaardeafzettingen in de omgeving van het Tobameer. De Ingenieur, 1947, 48, p. 1-7.
('Diatomaceous deposits in the surroundings of Lake Toba'. Extended, Dutch version of Van der Marel (1947))

Van der Marel, H.W. (1947)- Diatomaceous deposits at Lake Toba. J. Sedimentary Petrology 17, 3, p. 129-134.
(Description of Early Quaternary fresh-water diatomaceous deposits around Toba caldera lake, N Sumatra, Now at 150m above lake level and formed when lake level was up to 450m above present lake level. Layers up to 75-100 cm thick. Some diatomites mainly composed of mainly of Synedra rumpens, others mainly Denticula spp., Melosira, Cyclotella, Pinnularia, etc.)

Van der Marel, H.W. (1948)- Het Tobameer. Geologie en Mijnbouw 10, 4, p. 80-89.
(online at: https://drive.google.com/file/d/1e3QPgTZ5dRXvcgv-zmst58gsCiuaXzTe/view)
('Lake Toba' . Review of Late Paleozoic- Quaternary geology of Lake Toba area, with focus on Quaternary Toba liparitic tuffs and diatomaceous earth deposits)

Van der Marel, H.W. (1948)- Volcanic glass, allanite and zircon as characteristic minerals of the Toba rhyolite at Sumatra's East coast. J. Sedimentary Petrology 18, p. 24-29.
(Widespread young rhyolitic tuff from Toba eruption characterized by common volcanic glass, allanite and zircon)

Van der Vlerk, I.M. & J.H.L. Wennekers (1929)- Einige foraminiferenfuhrende Kalksteine aus Sud-Palembang (Sumatra). Eclogae Geologicae Helvetiae 22, 2, p. 166-172.
(online at: https://www.e-periodica.ch/digbib/view?pid=egh-001:1929:22#204)
('Some foraminifera-bearing limestones from South Palembang (S Sumatra)'. Larger foraminifera from Early Miocene (lower Tf) Baturaja Fm limestones between Batu Raja and Muara Dua, with Lepidocyclina (N.) spp., Lepidocyclina (Eulepidina), Spiroclypeus spp., Miogypsina dehaarti)

Van Dijk, P. (1860)- Inleiding tot de geologie van Sumatra's Westkust. Natuurkundig Tijdschrift voor Nederlandsch-Indie, Batavia, 22, p. 145-180.
(online at: www.biodiversitylibrary.org/item/48386#page/168/mode/1up)
('Introduction to the geology of Sumatra's West coast')

Van Eek, D. (1937)- Foraminifera from the Telisa and Lower Palembang beds of South Sumatra. De Ingenieur in Nederlandsch-Indie (IV) 4, 4, p. IV.47- IV.55.
(E-M Miocene Lepidocyclinids and Miogypsina from 4 localities on Gedongratoe map of Lampong Districts, collected by Van Tuijn. Telisa Fm E-M Miocene (Te5- Tf2) assemblages A (with Lepidocyclina (N) besaiensis n.sp., Miogypsina borneensis) and B (with Miogypsina indonesiensis, Miogypsina borneensis, Lepidocyclina (T.) martini). Lower Palembang Fm localities C and D M Miocene zone Tf3(?) with Miogypsina indonesiensis and Lepidocyclina pilifera. Little or no stratigraphic info)

Van Es, L.J.C. (1930)- Over eenige nieuwe vondsten van graniet en Trias in the Beneden-Rokan en Midden-Siak streken en hare beteekenis voor de tektoniek van Midden Oost-Sumatra. De Mijningenieur 8, p. 164-167.
('On some new discoveries of granite and Triassic in the Lower Rokan and middle Siak regions, and their significance for the tectonics of C Sumatra'. Low hills of Pre-Tertiary granite and quartz sandstone at both sides of Lower Rokan River, E Central Sumatra, represent southern continuation of geology of Belitung- Bangka and W Malay Peninsula)

Van Leeuwen, T.M. (2014)- A brief history of mineral exploration and mining in Sumatra. In: I. Basuki & A.Z. Dahlius (eds.) Sundaland Resources, Proc. Annual Conv. Indonesian Soc. Economic Geologists (MGEI), Palembang, p. 35-57.
(online at: www.academia.edu/18354156/Brief_history_of_mineral_exploration_and_mining_in_Sumatra)
(Review of gold-silver mining activity in Sumatra from the 1669 re-opening of ancient silver-rich Salido gold mine in W Sumatra by the Dutch East Indies Company (VOC), to recent new developments of small-medium size epithermal Au-Ag deposits. During Dutch colonial era, 16 Au-Ag deposits were exploited, mostly for short periods, with only Lebong Donok and Lebong Tandai mines profitable. Majority of porphyry Cu-Au, epithermal Au-Ag and sediment-hosted Au deposits are associated with Sumatra Fault Zone and volcanic arc. Time of young gold-silver mineralizations probably mainly Pliocene)

Van Leeuwen, T.M. (2022)- Mineral exploration and mining in Sumatra, Indonesia- a historical overview. SEG Discovery (Society of Economic Geologists) 129, p. 21-29.
(online at: https://www.academia.edu/75954205/Mineral_exploration_and_mining_in_Sumatra_indonesia_A_historical_overview)
(Review of mining activity in Sumatra from prehistoric times until now. Between 1899-1940, 14 gold mines were developed, most short-lived and uneconomic. Since 1967 several peaks in exploration discovered several previously unknown mineralization types, including porphyry Cu, high-sulfidation Au, sediment-hosted Au, and sediment-hosted Pb-Zn. Activity during modern area included reopening of old Dutch Lebong Tandai mine, development of four new gold discoveries (including giant Martabe district) and exploitation of several small Fe skarn deposits known since Dutch time. By world standards Sumatra remains underexplored)

Van Leeuwen, T.M., R.P. Taylor & J. Hutagalung (1987)- The geology of the Tangse porphyry copper-molybdenum prospect, Aceh, Indonesia. Economic Geology 82, 1, p. 27-42.
(Copper-molybdenum deposit at Tangse, Aceh, N Sumatra, hosted by multiphase quartz diorite intrusions, termed Tangse stock, emplaced along segment of transcurrent Sumatera fault system. Intrusive rocks belong to normal K calc-alkaline suite. Low initial strontium isotope ratios prohibit significant involvement of sialic crustal component in magma genesis. M-L Miocene K-Ar ages for intrusion-cooling (13.1 Ma) and hydrothermal alteration-mineralization (9.0 Ma). Three intrusive phases, older porphyries forming bulk of Tangse stock)

Van Lier, R.J. (1915)- De edelmetaalafzettingen in Benkoelen. Technisch Studenten Tijdschrift, Delft, 6, 5, p. 85-90.
(online at: http://lib.tudelft.nl/mscans/mscans1851)
(also in Jaarboek 1914-1915 van de Mijnbouwkundige Vereeniging te Delft, p. 245-257; online at: https://resolver.kb.nl/resolve?urn=MMAD01:000055001:pdf)
('The precious metal deposits in Bengkulu'. Mainly summary of Hovig (1912) paper on gold in Lebong area. With 3 maps:Lebong area, Lebong Simpang and Tambang Sawah)

Van Lier, R.J. (1915)- De Ombilin kolenmijnen ter Sumatra's Westkust. De Indische Mercuur, 26 March 1915, p. 305-329.
(Reprinted in Jaarboek 1914-1915 van de Mijnbouwkundige Vereeniging te Delft, p. 305-329; online at: https://resolver.kb.nl/resolve?urn=MMAD01:000055001:pdf)
('The Ombilin coal mines at Sumatra's West coast'. Overview of Sawahlunto coal mining operations. Thick coal bedsof Oeloe Ajer discovered by W.H. de Greve in 1868. Geological study by Verbeek (1875) still the most current. Rail line to Emmahaven port near Padang 155 km long, designed by Ir. J.L. Cluysenaer in 1884, with construction starting under J.W. Ijzerman in 1887 and completed in 1894. First mine development in Soengei Doerian coal field in 1892, with first construction of future Sawahlunto town (population 10,000 by 1915). SD

coal field three main seams: A (2-3m thick), B (1-2m) and C (6-12m), separated by 15-20m sand- and claystones. Miners mainly Javanese contract laborers, after early tests with Straits Chinese contractors failed, and also convicted criminals as forced laborers (3000 in 1913). Coal production in 1904 207 ktonnes, in 1913 411 kt.Most coal used as fuel for steamships)

Van Lohuizen, H.J. (1924)- Verslag over het onderzoek van het Landschap Langkat (Oostkust van Sumatra). Jaarboek Mijnwezen Nederlandsch Oost-Indie, 50 (1921), Verhandelingen 1, p. 56-94.
('Report on the survey of the Langkat region, East coast of Sumatra'. Early geological survey of part of N Sumatra basin in Aceh, the 'petroleum terrane Langkat', around Pangkalan Brandan- Binjai. With two 1:100,000 geologic maps, showing Telaga Said and other surface anticlines, oil seeps, etc. Pretertiary rocks at basin margin are probably Permo-Carboniferous-age clastic sediments and limestones with crinoids, generally steeply dipping to NE. Pretertiary unconformably overlain by thick, Tertiary sediments in NW-SE folds with steeper W flanks. Quaternary liparite tuffs)

Van Raalten, C.H. (1932)- Geologische kaart van Sumatra 1:200,000. Toelichting bij Blad 7 (Bintoehan). Dienst Mijnbouw Nederlandsch-Indie, Bandung, p. 1-34.
(map online at: https://digitalcollections.universiteitleiden.nl/view/item/816842)
('Geologic map of Sumatra 1:200,000, sheet 7 Bintuhan'. Oldest rocks 'Old Andesites', overlain by Miocene marine Telisa Fm. Upper Telisa Fm with M Miocene (Tf) Katacycloclypeus annulatus and Lepidocyclina radiata. Overlain by U Palembang Fm acid tuffs. Includes presence of river terraces up to 40 m altitude along A. Loeas river)

Van Schelle, C.J. (1876)- Sumatra's Westkust. Verslag No. 7. Over het voorkomen van looderts aan de rivier Talang, distrikt Alahan Panjang, Sumatra Westkust. Jaarboek Mijnwezen Nederlandsch Oost-Indie 5 (1876), 1, p. 15-33.
('On the occurrence of lead ore along Sungei Talang (Talang River), Alahan Panjang district, Sumatra West coast'. First report on geology of S part of Padang Highlands, with pockets of galena in fractures in limestone. Formerly gold mining area, with primary gold mainly near contacts of quartz veins and slaty rocks. With 1:5000 map)

Van Steenis, C.G.G.J. (1938)- Exploratie in de Gajo Landen (Algemeene resultaten van de 1937 Losir Expeditie). Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap, Ser. 2, 55, 5, p. 728-801.
('Exploration in the Gajo Lands; general results of the 1937 Losir expedition' Mainly botanic expedition to Losir Mountain area in Barisan Range, N Sumatra)

Van Tongeren, W. (1935)- Chemische analyses van gesteenten van Poeloe Berhala. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 38, 6, p. 634-639.
(online at: https://dwc.knaw.nl/DL/publications/PU00016744.pdf)
('Chemical analyses of rocks from Poeloe Berhala', Malacca Straits. Rocks collected by Druif: granite, gneiss (very high quartz), aplite-pegmatite and lime-silica hornfels. No tin detected)

Van Tongeren, W. (1936)- Mineralogical and chemical composition of the syenite-granite from Boekit Batoe near Palembang, Sumatra, Neth. East Indies. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 39, 5, p. 670-673.
(online at: https://dwc.knaw.nl/DL/publications/PU00016908.pdf)
(Bukit Batu hill 60 km E of Palembang. Ridge 50 km long, 15 km wide in E Sumatra coastal swamp, and is E-ward continuation of Palembang anticline. Mainly composed of Late Miocene Lower Palembang Fm claystones. Highest hills formed by syenite, quartz-syenitic and granitic rocks, comparable in composition to other 'tin granites' and rel. rich in Rare Earth Elements. Batholithic rocks outcrop ~5 km^2 (Gasparon & Varne 1995: = Jurassic? quartz syenite))

Van Tuijn, J. (1931)- Geologische kaart van Sumatra 1:200.000. Toelichting bij blad 4 (Soekadana). Dienst Mijnbouw Nederlandsch-Indie, Bandung, p. 1-20.
(map online at: https://digitalcollections.universiteitleiden.nl/view/item/815466)

('Geological map of Sumatra 1:200,000, 4 (Sukadana sheet)'. Crystalline schists massif in W, with gneiss and quartz-mica schist. Overlain by young acid tuffs and Quaternary fluvial deposits. Large olivine-bearing Sukadana plateau basalt complex in SE of map sheet (ages around 1.0 Ma; Gasparon 2005))

Van Tuijn, J. (1934)- Geologische kaart van Sumatra 1:200.000. Toelichting bij blad 8 (Menggala). Dienst Mijnbouw Nederlandsch-Indie, Bandung, p. 1-24.
(map online at: https://digitalcollections.universiteitleiden.nl/view/item/812709)
('Geological map of Sumatra 1: 200,000, 8 (Menggala Sheet)'. Coastal area of SE Sumatra, much of it coastal swamp. Slightly folded Late Miocene-Pliocene Middle Palembang lignite-bearing tuffaceous sandstones and lignite-free Upper Palembang Fm)

Van Tuijn, J. (1937)- Geologische kaart van Sumatra 1:200.000. Toelichting bij blad 9 (Gedongratoe). Dienst Mijnbouw Nederlandsch-Indie, Bandung, p. 1-37.
(map online at: https://digitalcollections.universiteitleiden.nl/view/item/813284)
('Geological map of Sumatra 1: 200,000, 9 (Gedongratu Sheet)'. Map sheet in SE Sumatra on Lampung Plateau, between sheet 8 (Menggala) in E and 10 (Baturaja) in W. Most outcrops are of Upper Palembang Fm. Oldest rocks are 'Old Andesites', overlain by marine Telisa Fm sediments with Miogypsina borneensis and M. indonesiensis (Younger than E Miocene Baturaja Limestone fauna). Lower Palembang Fm also with Miogypsina indonesiensis)

Van Tuijn, J. (1937)- Geologische kaart van Sumatra 1:200.000. Toelichting bij blad 13 (Wiralaga). Dienst Mijnbouw Nederlandsch-Indie, Bandung, p. 1-28.
(map online at: https://digitalcollections.universiteitleiden.nl/view/item/814599)
(Geological map of Sumatra, Wiralaga sheet SE of Palembang. Mainly coastal plain, with low hills up to 25m elevation, composed of weakly folded, unfossiliferous (M-Late Miocene?) 'Middle Palembang Fm' tuffaceous deposits and lignites, surrounded by swamps area with near-recent sediments)

Van Valkenburg, S. (1922)- Geomorphologische beschouwingen over de Padangsche Bovenlanden. Jaarboek Topographischen dienst 1921, Batavia, p. 1-30.
('Geomorphologic observations on the Padang Highlands'. Geomorphologic description of W Sumatra highlands. Most of area underlain by folded Late Paleozoic- Mesozoic clastic sediments and limestones, intruded by Pretertiary granites and intruded/ overlain by Quaternary volcanics)

Van Waveren, I.M. (2019)- A morphometric analysis of *Tobleria bicuspis*, a *Voltziales* seed cone from the Early Permian Jambi palaeoflora, Sumatra (Indonesia). PhytoKeys 119, p. 67-95.
(online at: https://phytokeys.pensoft.net/article/29555/)
(Tobleria bicuspis Jongmans and Gothan is coniferophyte seed cone from E Permian Jambi flora, W Sumatra. Tobleria regarded as having a voltzian Voltziales affinity, but ~16-26 Myr older than other such cones (e.g. Euramerican Lebowskia))

Van Waveren, I.M., M. Booi, M.J. Crow, F. Hasibuan, J.H.A. van Konijnenburg-van Cittert, A.P. Perdono & S.K. Donovan (2018)- Depositional settings and changing composition of the Jambi palaeoflora within the Mengkarang Formation (Sumatra, Indonesia). Geological Journal 53, 6, p. 2969-2990. *(online at: https://www.researchgate.net/profile/Isabel-Van-Waveren/publication/323792733_Depositional_sett Etc.)*
(Merangin River section in W Sumatra exposes Lower Permian (late Asselian) Mengkarang Fm. Section ~400m thick, composed of 8 fining-upward of volcanic tuffs and volcaniclastic sedimentary rocks, incl. pyroclastic flows, overlain by their reworked alluvial products. Base of section marine, with common brachiopods. Zircon dating indicates duration of ~630,000 years (296.77 ± 0.04 near base to 296.14 ± 0.09 Ma near top). Change in paleobotanical composition from dominated by Cordaites, ferns or club mosses, to seed fern-dominant. Similar paleofloral trends observed in other areas of Paleotethys)

Van Waveren, I.M., M. Booi, J.H.A. van Konijnenburg van Cittert (2006)- Paleogeographic and ecologic aspects of the Early Permian flora of Sumatra (Indonesia). In: Galtier Conference, A life of ferns and gymnosperms, Montpellier April 2006, p. 29.

(E Permian Jambi paleoflora is tropical wet flora, best matched to S Cathaysian floras, in accordance with reconstructions that place W Sumatra Terrane in contact with Indochina and S Cathaysia blocks)

Van Waveren, I.M., M. Booi, J.H.A. Van Konijnenburg-Van Cittert & M.J. Crow (2021)- Climate-driven palaeofloral fluctuations on a volcanic slope from the low latitudes of the Palaeotethys (early Permian, West Sumatra). Palaeogeogr. Palaeoclim. Palaeoecology 579, 3, 110602, p. 1-16.
(online at: www.researchgate.net/publication/360561953_Climate-driven_palaeofloral_fluct Etc.)
(E Permian climate-driven paleofloral fluctuations in cyclical volcanoclastics of Mengkarang Fm in Merangin section isotopically dated between ~296-297 Ma (Asselian; deposits of E Permian Karing Volcanic center. Eight parasequences, suggesting 100 kyr short eccentricity cycles)

Van Waveren, I.M., M. Booi, J.H.A. van Konijnenburg van Cittert, M.J. Crow & S.K. Donovan (2019)- Climate-driven biodiversity fluctuations on a volcanic slope from the low latitudes of the Paleotethys (early Permian, West Sumatra). 6th Int. Congress Agora Paleobotanica, Lille 2019, 1p. *(Abstract only)*
(Asselian Mengkarang Fm in Merangin section, W Sumatra, series of volcanic accretion wedges at foot of volcanic slope. Palaeoflora varies from tropical wet taxa (Cordaites and ferns) to mesic-xeric (seedferns). Paleofloral transition across 14 consecutive lahars shows gradual increase in ratios of gymnosperms (Macralethopteris hallei, Sphenopteris sp., Dicranophyllum molle, Tobleria bicuspis and gigantopterids). Highest ratio of gymnosperms interpreted as reflecting glacial maximum)

Van Waveren, I.M., F. Hasibuan, Suyoko, Makmur, P.L. de Boer, D. Chaney, K. Ueno, M. Booi et al. (2005)- Taphonomy, paleoecology and paleobotany and sedimentology of the Mengkarang Formation (Early Permian, Jambi, Sumatra, Indonesia). In: S.G. Lucas & K.E. Zeigler (eds.) The non-marine Permian, New Mexico Museum Natural History and Science, Bull. 30, p. 333-341.
(Mengkarang Fm W of Bangko is 360m thick Asselian-Sakmarian regressive sequence with 'Jambi Flora'. Floodplain deposits of meandering system follow marine and deltaic deposits. Bottom of section intrusive Triassic or Jurassic granite. Braided river deposits in upper part, followed by alluvial fan conglomerates. Both delta and braided river systems hold tree trunks and tree roots. Jambi Flora is North Cathaysian flora)

Van Waveren, I.M., E.A.P. Iskandar, M. Booi & J.H.A. van Konijnenburg-van Cittert (2007)- Composition and palaeogeographic position of the Early Permian Jambi flora from Sumatra. Scripta Geologica 135, p. 1-28.
(Online at: www.repository.naturalis.nl/document/144475)
(E Permian Jambi flora from Mengkareng Fm on W Sumatra Block first described by Posthumus (1927) and Jongmans & Gothan (1935). Revision of flora results in fewer taxa (60; 18 of which 'endemic'). Brachiopods and fusulinids indicate E Permian age (Asselian-Sakmarian?). Five groups of Pecopteris-type ferns. Paleogoniopteris and Gothanopteris considered to be primitive 'Cathaysian' gigantopterids. Posthumus (1927) reported presence of Walchia conifer, but this is Lepidodendrales. Comparisons with E Asian Permian floras of Cathaysian realm indicate Jambi paleoflora greatest similarity with (M Permian) Lower Shihhotse beds in N China, a relatively xeric Cathaysian flora, possibly indicative of relatively high latitude in S Hemisphere)

Vazquez, J.A. & M.R. Reid (2004)- Probing the accumulation history of the voluminous Toba magma. Science 305, 5686, p. 991-994.
(Age and compositional zonation in allanite crystals from Youngest Toba Tuff retain record of 150,000 years of magma storage and evolution. Subvolcanic magma relatively homogeneous for ~110,000 years. In 35,000 years before eruption diversity of melts increased as system grew in size before erupting 75,000 years ago)

Veldkamp, J. (1957)- Mechanism of shallow and intermediate earthquakes in Sumatra. Verhandelingen Kon. Nederlands Geologisch Mijnbouwkundig Genootschap, Geologische Serie 18 (Gedenkboek Vening Meinesz), p. 295-303.
(Mechanism of shallow earthquakes in Sumatra region points to widely variable stress systems)

Verbeek, R.D.M. (1875)- De fossielen in de kolenkalksteen van Sumatra's westkust. Jaarboek Mijnwezen Nederlandsch Oost-Indie 4 (1875), 2, p. 186-189.

('The fossils of the coal-limestone of Sumatra's west coast'. Kolenkalk ('coal-limestone') is Dutch term for Carboniferous limestone that underlies coal measures in NW Europe (and happen to similar to Permian limestones from Sumatra). Fusulinid limestones from Padang Highlands with brachiopods (Productus semireticulatus, Euomphalus, Spirifer, Streptorhynchus), trilobites (Phillipsia) and crinoids. No illustrations. (Fossils initially believed to be of Carboniferous age, but later shown to be of E-M Permian age;Verbeek's fusulinids described by Geinitz (1876) and Roemer 1880, 1881); JTvG))

Verbeek, R.D.M. (1875)- On the geology of Central Sumatra. Geological Magazine, new ser., decade 2, 11, p. 477-486.
(Introduction to series of papers by Gunther, Rupert Jones, Woodward and Brady on Sumatra fossils collected by Verbeek in 1873-1874 in Padang Highlands of W Sumatra and Nias island. Oldest rocks in Padang Highlands are granites, overlain by Carboniferous or Permian with clay slate in lower part and fusulinid limestone in upper part, intruded by quartz porphyries. Unconformably overlain by Tertiary sedments with basal breccias and marl-slates with Eocene fish and plant fossils (highly variable in thickness), overlain by sandstones with clays and coals, (300-500m; with Ombilin coalfield), then marls (500m) and limestones rich in Orbitoides (120m= Oligocene Eulepidina; JTvG). Finally middle-late Tertiary trachytic and andesitic volcanic series. With small map and two cross-sections)

Verbeek, R.D.M. (1876)- Geologische beschrijving van het Siboemboem Gebergte. Jaarboek Mijnwezen Nederlandsch Oost-Indie 5 (1876), 2, p. 51-79.
('Sumatra's West coast- Report 6. Geologic description of the Sibumbum Mountains')

Verbeek, R.D.M. (1877)- The geology of Sumatra. Geological Magazine 4, 10, p. 443-444.
(Brief follow-up of Verbeek (1875), mainly description of colored geological panorama of Ombilin coal complex. Panorama shows three coal mines (Parambahan, Sigalut and Sungei Durian) in Eocene clastics formation, Carboniferous-Permian limestones with Fusulina verbeeki, quartz porphyry of Mount Toenkar, etc.)

Verbeek, R.D.M. (1877)- Geologische beschrijving van de landstreek tussen Siboga en Sipirok, Residentie Tapanoeli, Sumatra's Westkust. Jaarboek Mijnwezen Nederlandsch Oost-Indie 6 (1877), 1, p. 21-37.
('Geologic description of the area between Siboga and Sipirok, Residency Tapanuli, W Sumatra')

Verbeek, R.D.M. (1877)- Yzererts bij den Goenoeng Bessie, in de nabijheid van Fort van der Capellen. Jaarboek Mijnwezen Nederlandsch Oost-Indie 6 (1877), 1, p. 39-44.
('Sumatra's West coast- Report 11. Iron ore near Gunung Besi, near Bukittingi'. Iron ore in contact zone of limestones with granite in the proximity of Batusangkar, Tanah Datar)

Verbeek, R.D.M. (1877)- Voorlopig verslag over een geologische verkenningstocht door Bengkoelen en Palembang in 1876. Jaarboek Mijnwezen Nederlandsch Oost-Indie 6 (1877), 2, p. 111-135.
('Preliminary report on a geological reconnaissance trip through Bengkulu and Palembang in 1876')

Verbeek, R.D.M. (1878)- Voorlopig verslag over een geologische verkenningstocht door de Lampongse Districten en een deel van Palembang in 1877. Jaarboek Mijnwezen Nederlandsch Oost-Indie 7 (1878), 1, p. 185-200.
('Preliminary report on a geological reconnaissance trip through Bengkulu and Palembang in 1876')

Verbeek, R.D.M. (1880)- Geologische Notizen uber die Inseln des Niederlandisch-Indischen Archipels im Allgemeinen, und uber die fossilfuhrenden Schichten Sumatra's im Besonderen. Palaeontographica, Supplement 3, 8-9, p. 7-28.
(online at: http://olivirv.myspecies.info/sites/olivirv.myspecies.info/files/Palaeontographica%20-%20Cassel%20_%20Theodor%20Fischer.pdf)
('Geologic notes on the islands of the Netherland-Indies Archipelago in general and on the fossiliferous beds of Sumatra in particular'. Part 1 of 2)

Verbeek, R.D. (1880)- De zilver- en goudmijnen van de Salida op Sumatra's Westkust. Algemeen Dagblad van Nederlandsch Indie, 16, 19 and 20 March 1880, Batavia, p. 1-20.
(online at: https://books.google.com/books/about/De_Zilver_en_Goudmijnen_van_Salida_op_Su.h....)
('The silver and gold mines of the Salida on Sumatra's west coast'. Reprint from March 1880 newspaper. Gold mined at Salida mined since 1660's. Recommendation by R.D. Verbeek (not R.D.M. Verbeek to re-open Salida mines (which eventually happened in 1917; HvG))

Verbeek, R.D.M. (1881)- Geologische aanteekeningen over de eilanden van de Nederlandsch-Indischen Archipel in het algemeen en over de fossielhoudende lagen van Sumatra in het bijzonder. Verhandelingen Koninklijke Akademie van Wetenschappen, Amsterdam, Afd. Natuurkunde, 21, p. 1-27.
(online at: https://books.googleusercontent.com/books/content?req=AKW5Qac1oTX3uM Etc.)
('Geologic notes on the islands of the Netherland-Indies Archipelago and on the fossiliferous beds of Sumatra in particular'. Dutch version of Verbeek (1880). Brief review of Verbeeks earlier works in Borneo and Sumatra and literature review, describing Late Paleozoic (fusulinid limestones), Eocene and Miocene fossil localities. With cross-section and rock descriptions of Padang Highlands, S Sumatra, Nias, SE Kalimantan and W Java)

Verbeek, R.D.M. (1881)- Topographische en geologische beschrijving van Zuid-Sumatra, bevattende de Residentien Bengkoelen, Palembang en Lamponsche Districten. Jaarboek Mijnwezen Nederlandsch Oost-Indie 10 (1881), 1, Verhandelingen, p. 3-215.
(maps online at: https://digitalcollections.universiteitleiden.nl/view/item/57095)
('Topographic and geological description of South Sumatra, containing the districts Bengkulu, Palembang and Lampong Districts'. Early description of geology of South Sumatra, including Krakatoa before 1883 eruption)

Verbeek, R.D.M. (1882)- Geologische Notizen uber die Inseln des Niederlandisch-Indischen Archipels im Allgemeinen, und uber die fossilfuhrenden Schichten Sumatra's im Besonderen. Palaeontographica, Supplement 3, 10-11, p. 3-16.
('Geologic notes on the islands of the Netherland-Indies Archipelago in general and on the fossiliferous beds of Sumatra in particular'. Part 2 of 2)

Verbeek, R.D.M. (1883)- Topographische en geologische beschrijving van een gedeelte van Sumatra's Westkust. Landsdrukkerij, Batavia, p. 1-674 + Atlas.
(Text online at: http://books.google.com/books/...)
(Maps online at: https://digitalcollections.universiteitleiden.nl/view/item/56306)
('Topographic and geological description of a part of Sumatra's West coast'. With atlas with 19 maps, 7 cross sections, etc.)

Verbeek, R.D.M. (1914)- Die Lagerungsverhaltnisse der Trias-Schichten im Padangsche Hochlande. Palaeontographica, Supplement IV, p. 199-202.
('Stratigraphic relations of the Triassic beds in the Padang Highlands', W Sumatra. Discussion of probable Late Triassic age of dark claystones, sandstones and thin platy limestones E and NE of Lake Singkarak. Wanner noted similarities of this 'Padang fauna' with Upper Norian Nucula marl of Misool. Faunas subsequently described as Carnian by Krumbeck (1914). Triassic unconformably overlain by Eocene sands-conglomerates)

Verstappen, H.Th. (1955)- Geomorphic notes on Kerintji (Central Sumatra). Indonesian J. Natural Science 3, p. 166-177.
(Brief geomorphologic description of Kerinci valley, a longitudinal graben along Great Sumatran fault zone (Sungeipenuh area). At SW end evidence of former crater lake, with several terrace levels in tuff deposits)

Verstappen, H.Th. (1961)- Some 'volcano-tectonic' depressions of Sumatra: their origin and mode of development. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, B64, 3, p. 428-443.
(Lakes Kerinci, Singkarak and Toba represent volcanic features formed in pre-existing graben structures, not volcano-tectonic collapse features as proposed by Van Bemmelen)

Verstappen, H.Th. (1973)- A geomorphological reconnaissance of Sumatra and adjacent islands. Wolters-Noordhoff, Groningen, p. 1-182.
(Relief of Sumatra Barisan mountain range strongly influenced by fault movements accompanied by volcanism, especially along Median Graben or Semangko fault zone which extends over length of island. Etc.)

Verstappen, H.Th. (1975)- The effect of Quaternary tectonics and climates on erosion and sedimentation in Sumatra. Proc. 4th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 49-53.
(Drier climate in glacial times reduced vegetation from rainforest to tree-savannah with more physical weathering. During interglacials tropical-humid climate, dense rainforests, more confined river systems and more chemical weathering)

Veth, P.J. (1881)- Midden-Sumatra. Reizen en onderzoekingen der Sumatra-expeditie, uitgerust door het Aardrijkskundig Genootschap, 1877-1879. Brill, Leiden, 4 vols.
(Vol. 2, without plates, online at: http://bhl.ala.org.au/bibliography/46719/summary)
('Central Sumatra- travels and investigations of the Sumatra-expedition by the Geographical Society'. Voluminous report of early geographic expedition to C Sumatra; but with minimal geological observations)

Vinassa de Regny, P. (1925)- Sur l'age des calcaires du Barissan et des Monts Gumai a Sumatra. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 8 (Gedenkboek Verbeek, memorial volume), p. 405-414.
(online at: https://books.google.com/books?id=Yy0RAAAAIAAJ&pg)
('On the age of the limestones of the Barisan and Gumai Mountains in Sumatra'. No. 8 of A. Tobler's series Beitrage zur Geologie und Palaontologie von Sumatra. Mesozoic limestones collected by Tobler in Barisan Mts, Jambi and Gumai Mts, S Sumatra. Part of Gumai Mts limestones determined as Triassic based on Lovcenipora (but Musper (1934) found good Orbitolina indicating E-M Cretaceous age; JTvG))

Volz, Walter (1901)- Bericht uber die geologische Untersuchungen Koninklijke Nederlandsche Petroleum Maatschappij in Residentschaft Palembang Jahres 1900 nach Berichten herren Doktoren Volz, Muhlberg, Fuchs, Tobler und Erb. Kon. Nederlandsche Petroleum Maatschappij (KNPM) Report, p. *(Unpublished)*
('Report on the geological investigations of the 'Royal Dutch Petroleum Company' in the Palembang Residency in the year 1900, from reports by Drs Volz, Muhlberg, Fuchs, Tobler and Erb'. About the early petroleum geological investigations for KNPM (Royal Dutch') in S Sumatra, by mainly Swiss geologists. Author Walter Volz is Swiss Royal Dutch geologist/zoologist, not to be confused with German explorer Wilhelm Volz, below)

Volz, W. (1899)- Beitrage zur geologischen Kenntnis von Nord-Sumatra. Zeitschrift Deutschen Geologischen Gesellschaft, Berlin, 51, p. 1-61.
(online at: https://www.biodiversitylibrary.org/item/148115#page/15/mode/1up)
(also as Thesis Breslau University, 1899) (with Appendix by L. Milch on petrography of volcanic and igneous rocks of the Batak Highlands)
('Contributions to the geological knowledge of North Sumatra'. Extensive review by German private explorer Wilhelm Volz. Oldest rocks rel. widespread schist- quartzite formation, intruded by pre-Late Carboniferous granites. Unconformably overlain by grey, massive 'Upper Carboniferous' fossiliferous limestones (with brachiopods, fusulinids) and shales (now generally viewed as mainly Permian; JTvG), cut by slightly younger diabase. Overlain by 600-800m thick, folded marine U Triassic near Lake Toba with molluscs Daonella (Carnian D. cassiana, D. styriaca, D sumatrensis n.sp.) and Halobia (H. battakensis, H. mengalemensis, H. kwaluana n.sp.). Overlain with hiatus by Eocene with coals, and younger rocks .Incl. Batak Highlands and Lake Toba)

Volz, W. (1901)- Die Anordnung der Vulkane auf Sumatra. Jahresberichte Schlesische Gesellschaft Vaterlandische Cultur, Breslau, 79, Abt. II. Naturwissenschaften, p. 6-10.
('The arrangement of volcanoes on Sumatra'. Brief note on Paleogene- Recent volcanism on Sumatra. Sumatra 12 active volcanoes (about 1/4th of total). Volcanoes aligned in long, narrow, NW-SE zone, along W flank of Barisan Mountains, mainly associated with fault zone(s). No figures)

Volz, W. (1904)- Zur Geologie von Sumatra. Beobachtungen und Studien. Geologische Palaeontologische Abhandlungen, Jena, N.F. 6, 2, 112, p. 87-194.
(online at: http://openlibrary.org/works/OL1123202W/Zur_geologie_von_Sumatra)
('On the geology of Sumatra; observations and studies'. Early description of geology, Paleozoic-Tertiary stratigraphy, Ombilin coal field, young volcanoes, etc., of W Sumatra Padang Highlands)

Volz, W. (1904)- Zur Geologie von Sumatra. Beobachtungen und Studien, Anhang II, Einige neue Foraminiferen und Korallen sowie Hydrokorallen aus dem Obercarbon Sumatras. Geologische Palaeontologische Abhandlungen, Jena, N.F. 6, 2, 112, p. 177-194.
(Appendix II in Volz (1904): 'Some new foraminifera and corals as well as hydrocorals from the Upper Carboniferous of Sumatra'. Descriptions of Permian fossils from limestones of Padang Highlands, incl. smaller foraminifera Bigenerina spp. and new fusulinid foram genus/species Sumatrina annae from Bukit Bessi, NE of Lake Singkarak. Also new colonial coral species Lonsdaleia frechi and L. fennemai and stromatoporid Myriopora)

Volz, W. (1907)- Die Battak-Lander in Zentral Sumatra. Zeitschrift Gesellschaft Erdkunde Berlin 1907, p. 662-693.
('The Batak lands in Central Sumatra'. Mainly early geographic descriptions with limited geology)

Volz, W. (1907)- Vorlaufiger Bericht uber eine Forschungsreise zur Untersuchung des Gebirgsbaus und der Vulkane von Sumatra in den Jahren 1904-1906. Sitzungsberichte Kon. Preussischen Akademie Wissenschaften, Phys.-Math. Classe, 6, p. 127-140.
('Preliminary report on a research trip to investigate the mountain building and volcanoes of Sumatra in the years 1904-1906'. Early discussion of main geological provinces of Sumatra. North Sumatra characterized by rel. common Paleozoic rocks, considerable uplift of (Tertiary?) sedimentary rocks up to 2500m, and rel. rare volcanoes. No maps or figures)

Volz, W. (1908)- Kartographische Ergebnisse meiner Reisen durch die Karo- und Pakpak-Bataklander (Nord-Sumatra). Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 25, p. 1345-1382.
('Cartographic results of my travels through the Karo- and Pakpak-Batak Lands (North Sumatra)')

Volz, W. (1909)- Jungpliozanes Trockenklima in Sumatra und die Landverbindung mit dem asiatischen Kontinent. Gaea 1909, 7-8, p. 1-16.
('Late Pliocene dry climate of Sumatra and the land connection with the Asian continent)

Volz, W. (1909)- Die geomorphologische Stellung Sumatras. Geographische Zeitschrift 151, p. 1-12.
('The geomorphological position of Sumatra'. Brief review of geology of Sumatra. With 5 regional cross-sections NW of Lake Toba area))

Volz, W. (1909)- Nord Sumatra. Bericht uber eine im Auftrage der Humboldt-stiftung der Koniglich Preussischen Akademie der Wissenschaften zu Berlin in den Jahren 1904-1906 ausgefuhrte Forschungsreise, Band 1, Die Bataklander. Dietrich Reimer, Berlin, p. 1-385.
(online at: http://openlibrary.org/books/OL22888050M/Nord-Sumatra)
('North Sumatra. Report on a research trip in 1904-1906 commisioned by the Royal Prussian Academy of Sciences in Berlin, vol. 1, The Batak lands'. First of two books by German geographer Wilhelm Volz, traveling 6000km on foot, describing geography, geology and people of North Sumatra. First to document that N Sumatra rocks are dominated by metamorphic rocks, folded Paleozoic sediments, granites and 'old Tertiary' volcanics)

Volz, W. (1912)- Nord Sumatra. Bericht uber eine im Auftrage der Humboldt-stiftung der Koniglich Preussischen Akademie der Wissenschaften zu Berlin in den Jahren 1904-1906 ausgefuhrte Forschungsreise, Band II, Die Gajolander. Dietrich Reimer, Berlin, p. 1-428.
(online at: http://archive.org/details/nordsumatraberic01volzuoft)

('North Sumatra. Report on a research trip in 1904-1906 commisioned by the Royal Prussian Academy of Sciences in Berlin, vol. 2, The Gajo lands'. Second of two books by German geographer Volz, describing geography, geology and people of Aceh, N Sumatra)

Volz, W. (1913)- Oberer Jura in West-Sumatra. Centralblatt Mineralogie Geologie Palaontologie 24, p. 753-758.
(online at: https://babel.hathitrust.org/cgi/pt?id=uc1.b4291846;view=1up;seq=779)
('Upper Jurassic in West Sumatra'. Stromotoparoid Myriopora verbeeki from limestones in Padang Highlands (SE of Merapi volcano) looks identical to Stromatopora japonica Yabe from U Jurassic Torinosu Lst in Japan (Yabe 1914 does not agree; re-assigned to demosponge Myoporina by Hudson 1956))

Volz, W. (1914)- Sud-China und Nord-Sumatra. Zur Charakterisierung des Zerrungs-Phanomens in Sudostasien. Mitteilungen Ferdinand von Richthofen-Tages 1913, Dietrich Reimer, Berlin, p. 29-54.
(Old paper on structural geology of Sumatra and comparison with South China)

Von der Marck, W. (1876)- Fossile Fische von Sumatra. Palaeontographica 22, 7, p. 405-414.
(online at: http://archive.org/details/palaeontographic22cass)
('Fossil fish from Sumatra'. First paper on fresh water fish fossils from bituminous shale in Ombilin Basin, W Sumatra, collected by Verbeek. Four new species, incl. Sardinioides amblyostoma, Brachyspondylus indicus, Protosyngnathus sumatrensis, etc. (fauna described in more detail by Sanders (1934). (vdM assigned fish U Cretaceous age, others to Oligocene (e.g. Bartram & Nugrahaningsih, 1990), but Eocene age of lacustrine shale now more commonly accepted?; JTvG))

Von der Marck, W. (1878)- Fossile Fische von Sumatra. Jaarboek Mijnwezen Nederlandsch Oost-Indie 7 (1878), 1, p. 138-155.
('Fossil fish from Sumatra'. Reprint of Von der Marck (1876))

Von Schwartzenberg, T. (1989)- The Air Laya coal deposit- South Sumatra. Braunkohle 38, p. 307-315.

Von Steiger, H. (1922)- Resultaten van geologisch-mijnbouwkundige verkenningen in een gedeelte van Midden Sumatra. Jaarboek Mijnwezen Nederlandsch Oost-Indie 49 (1920), Verhandelingen 1, p. 87-200.
('Results of geological-mining reconnaissance of Central Sumatra'. Geological reconnaissance in upper reaches of Kampar, Siak and Rokan Rivers. With 4 sheets of 1:200,000 scale map and cross-sections)

Vozenin-Serra, C. (1980)- Sur une nouvelle Dipterocarpacee du Tertiaire de Sumatra: *Shoreoxylon rangatense* n. sp. Comptes Rendus 105th Conf. National des Societes Savantes, Caen, Sciences, p. 225-231.
('On a new dipterocarp from the Tertiary of Sumatra: Shoreoxylon rangatense n. sp.'. Description of new fossil wood species, collected S of Peranap, W of Rengat, C Sumatra (= Tigapuluh Mts))

Vozenin-Serra, C. (1985)- Bois homoxyles du Permien inferieur de Sumatra: implications paleogeographiques. Actes 110th Congres National des Societes Savantes, Sect. Sciences, 5, p. 55-63.
('Homoxyle' wood from the Lower Permian of Sumatra: paleogeographic implications'. 'Jambi Flora' woods include Dadoxylon roviengense Vozenin and D. saxonium. Both lack growth rings, suggesting tropical or subtropical regime)

Vozenin-Serra, C. (1986)- Two gymnospermous woods from the Lower Permian of Jambi, Sumatra. In: H. Fontaine (ed.) The Permian of Southeast Asia, CCOP, Technical Bulletin 18, Bangkok, p. 168-171.
(online at: https://repository.unescap.org/items/312125a5-1653-453e-97d7-3adb1899913d)
(Lower Permian fossil wood abundant at Telok Gedang, left bank of Merangin River. Tropical species assigned to Dadoxylon, not related to Gondwanan woods)

Vozenin-Serra, C. (1989)- Lower Permian continental flora of Sumatra. In: H. Fontaine & S. Gafoer (eds.) The Pre-Tertiary fossils of Sumatra and their environments. United Nations ESCAP, CCOP, Technical Publication 19, Bangkok, p. 53-57.

(Mainly summary of Jongmans and Gothan (1925) work. Famous Lower Permian Jambi flora probably Upper Asselian, possibly Sakmarian age and corresponds to oldest stage and southernmost occurrence of Cathaysian flora. Cordaites and coniferous wood fragments show no annual growth rings)

Wajzer, M.R. (1986)- Geology and tectonic evolution of the Woyla Group, Natal Area, N. Sumatra. Ph.D. Thesis University of London, p. 1-802. *(Unpublished)*
(Woyla Group of NW Sumatra is Mesozoic accretionary complex, built up of pelagic and terrigenous sediments, together with fragments of island arc and oceanic material, that were accreted against Mesozoic Sumatran continental margin. Complex later subsided, to form part of basement of Tertiary forearc basin. Sumatran Fault System caused major disruption in Woyla Group)

Wajzer, M.R., A.J. Barber, S. Hidayat & Suharsono (1991)- Accretion, collision and strike-slip faulting: the Woyla Group as a key to the tectonic evolution of North Sumatra. J. Southeast Asian Earth Sciences 6, p. 447-461.
(Woyla Group re-interpreted as part of accretionary complex formed from ocean floor materials of Triassic- E Cretaceous age, incorporating collided seamounts, plateaux and volcanic arc fragments accumulated during subduction of major ocean (Tethys III), prior to India's collision with Asia. Time of accretion mid-Cretaceous. Langsat volcanics at W end dated as Late Oligocene, demonstrating they are unrelated to rest of complex and emplaced along strike-slip faults prior to M Miocene)

Wang, X., X. Liu, D. Zhao, Bo Liu, Q. Qiao, L. Zhao & X. Wang (2022)- Oceanic plate subduction and continental extrusion in Sumatra:insight from S-wave anisotropic tomography. Earth Planetary Science Letters 580, 117388, p. 1-12.
(online at: https://www.sciencedirect.com/science/article/pii/S0012821X22000243)
(Depth-varying shear-wave azimuthal anisotropy occurs in Sumatra subduction zone. Anisotropy in overriding Eurasian plate beneath Sumatra mostly related to Cenozoic continental extrusion in SE Asia. Anisotropy in mantle wedge and subducting slab beneath Sumatra mainly caused by oceanic plate subduction)

Wang, Y., Y. Gao, C.K. Morley, E.G. Seagren, X. Qian, J.M. Rimando, P. Zhang & Y. Wang (2023)- Pleistocene accelerated exhumation within the Sumatran Fault: implications for Late Cenozoic evolution of Sumatra (Indonesia). Geophysical Research Letters 50, 2, e2022GL100028, p. 1-11.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2022GL100028)
(The 1,900-km-long Sumatran fault accommodates much of oblique plate motion between Indo-Australian and Sunda plates. Low-T apatite and zircon (U-Th)/He thermochronology along fault zone suggests accelerated exhumation within fault zone since ∼2 Ma. Barisan Mountains may have uplifted in late Miocene- E Pliocene. Fault systems in forearc region inferred to be linked to Andaman Sea and Sunda Strait and accommodated early plate convergence, then relocated strike-slip component of deformation to Sumatran fault at ∼2 Ma)

Wardhani, R., E. Wiwik & A. Idrus (2017)- Granitoid petrology, geochemistry and occurrences of hydrothermal mineralization in Mehanggin area, Muaradua district, South Sumatra Province, Indonesia. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, p. 1-4.
(Lower Cretaceous(?) granitoid in Garba Mts near Mehanggin, Muaradua area, S Sumatra, classified as S-type, high-K, calk-alkaline (island arc or active continental margin))

Weller, O., D. Lange, F. Tilmann, D. Natawidjaja, A. Rietbrock, R. Collings & L. Gregory (2012)- The structure of the Sumatran Fault revealed by local seismicity. Geophysical Research Letters 39, 1, L01306, p. 1-7.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/2011GL050440/epdf)
(Combination of Sunda megathrust (subductiion plate boundary) and strike-slip Sumatran Fault example of slip-partitioning. Superimposed on Sumatra Fault are geometrical irregularities that disrupt local strain field. Seismic evidence for duplex system between two main fault branches in C Sumatra)

Westaway, R., S. Mishra, S. Deo & D.R. Bridgland (2011)- Methods for determination of the age of Pleistocene tephra, derived from eruption of Toba, in central India. J. Earth System Science 120, 3, p. 503-530.
(online at: www.ias.ac.in/article/fulltext/jess/120/03/0503-0530)

(Tephra from Pleistocene eruption of 'supervolcano' Toba, N Sumatra, occurs at many localities in India. Discrimination between products of eruption A (~75ka) and eruption D (~790 ka) of Toba is difficult. Average Ar-Ar apparent age for samples from eruption D is 799 ± 24 ka)

Westerveld, J. (1931)- Geologische kaart van Sumatra 1:200 000. Toelichting bij Blad 5 (Kotaboemi). Dienst Mijnbouw Nederlandsch-Indie, Bandung, p. 1-28.
(map online at: https://digitalcollections.universiteitleiden.nl/view/item/813245)
(Kotabumi map sheet, S Sumatra. Map sheet in Barisan Mountains, almost all volcanic rocks)

Westerveld, J. (1933)- Geologische kaart van Sumatra 1:200 000. Toelichting bij Blad 3 (Bengkoenat). Dienst Mijnbouw Nederlandsch-Indie, Bandung, p. 1-44.
(map online at: https://digitalcollections.universiteitleiden.nl/view/item/813291)
(Bengkunat map sheet, SW coastal area of Sumatra. Oldest rocks are 'Old Andesite' volcanics (Oligocene-E Miocene ?). Overlain by 700m or more folded 'Old Neogene' interbedded claystones, tuffs, thin coal lenses and limestones with Eulepidina and Miogypsina (=Te5, basal Miocene Baturaja equivalent; JTvG). 'Young Neogene' rel. undeformed and with common molluscs. Also large granite intrusion and young volcanics)

Westerveld, J. (1941)- De tektonische bouw van Zuid Sumatra. Handelingen 28e Nederlandsch Natuur- en Geneeskundig Congres, Utrecht, Afdeling 4, p. 264-267.
('The tectonic structure of South Sumatra')

Westerveld, J. (1941)- Three geological sections across South Sumatra. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 44, 9, p. 1131-1139.
(online at: https://dwc.knaw.nl/DL/publications/PU00017672.pdf)
(Three SW-NE coast-to-coast regional geological cross-sections across S Sumatra)

Westerveld, J. (1942)- Welded rhyolithic tuffs or 'ignimbrites' in the Pasoemah region, West Palembang, South Sumatra. Leidsche Geologische Mededelingen 13, 1, p. 202-217.
(online at: www.repository.naturalis.nl/document/549396)
(In Pasumah region of Barisan Range in S Sumatra widespread young welded tuffs ('ignimbrites'; >50m thick over >800 km^2), overlain by andesitic tuffs and agglomerates from young volcanoes (Dempo, Semendo Highland, Isau-Isau)

Westerveld, J. (1947)- On the origin of the acid volcanic rocks around Lake Toba, North Sumatra. A further contribution to the knowledge of welded rhyolite-tuffs deposited along the Sumatran longitudinal fault-trough system. Verhandelingen Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, Sectie 2, 43, 1, p. 1-52.
(online at: https://dwc.knaw.nl/DL/publications/PU00011879.pdf)
(Overview of geology of Lake Toba region, N Sumatra, particularly young rhyolitic volcanic tuffs)

Westerveld, J. (1952)- Quaternary volcanism on Sumatra. Geological Society of America (GSA) Bull. 63, p. 561-594.
(Extensive sheets of acid pumice tuffs in initial stages of Sumatra Quaternary volcanism, followed by cones of andesitic volcanism)

Westerveld, J. (1953)- Eruptions of acid pumice tuffs and related phenomena along the Great Sumatran fault-trough system. Proc. 7th Pacific Science Congress, New Zealand 1949, 2, Geology, p. 411-438.
(Similar to Westerveld, 1952)

Westerveld, J. & W. Uytenbogaardt (1948)- Eenige mineragrafische notities betreffende het erts van de mijn Salida, S.W.K. Verhandelingen Nederlands Geologisch Mijnbouwkundig Genootschap, Mijnbouwkundige Serie 4, p. 59-69.

('Some mineragraphic notes on the ore of the Salida mine, Sumatra's West Coast'. Descriptions of ore minerals in Salida gold-silver mine in Painan District, 80 km from Padang. Initially exploited by Dutch East Indies Company between 1669-1735. Last exploitation period 1914-1928. Ore veins in E Miocene andesitic volcanics)

Westgate, J.A., N.J.G. Pearce, E. Gatti & H. Achyuthan (2014)- Distinction between the Youngest Toba Tuff and Oldest Toba Tuff from northern Sumatra based on the area density of spontaneous fission tracks in their glass shards. Quaternary Research 82, 2, p. 388-393.
(online at: www.researchgate.net/publication/264892474_Distinction_between_the_Youngest_Toba_Tuff_and_Oldest_Toba_Tuff_from_northern_Sumatra_based_on_the_area_density_of_spontaneous_fission_ Etc.)
(Area density of spontaneous fission tracks in glass shards of Toba tephra is reliable way to distinguish between the Youngest Toba Tuff and Oldest Toba Tuff)

Westgate, J.A., N.J.G. Pearce, W.T. Perkins, S.J. Preece, C.A. Chesner & R.F. Muhammad (2013)- Tephrochronology of the Toba tuffs: four primary glass populations define the 75-ka Youngest Toba Tuff, northern Sumatra, Indonesia. J. Quaternary Science 28, 8, p. 772-776.
(online at: www.researchgate.net/publication/259539718_Tephrochronology_of_the_Toba_tuffs_Fouri Etc.)
(Four primary glass populations in Youngest Toba Tuff, which was deposited during supereruption in N Sumatra at 75 ka. Multiple glass populations easily distinguish YTT from homogeneous glass population of Middle Toba Tuff (~500 ka), as represented by basal vitrophyre, and of Oldest Toba Tuff (~800 ka))

Westgate, J.A., P.A.R. Shane, N.J.G. Pearce, W.T. Perkins, R. Korisettar, C.A. Chesner et al. (1998)- All Toba tephra occurrences across peninsular India belong to the 75,000 yr BP eruption. Quaternary Research 50, p. 107-112
(online at: www.academia.edu/1879878/All_Toba_tephra_occurrences_across_peninsular_India_belong_to_the_75_000_yr_BP_eruption)

Wheeler, R.S. (1999)- Alteration and epithermal zeolite-bearing quartz vein mineralisation at the Way Linggo Au-Ag deposit, southwest Sumatra, Indonesia. M.Sc. Thesis, University of Auckland, p. *(Unpublished)*

Wheeler, R.S., P.R.L. Brown & K.A. Rodgers (2001)- Iron-rich and iron-poor prehnites from the Way Linggo epithermal Au-Ag deposit, southwest Sumatra, and the Heber geothermal field, California. Mineralogical Magazine 65, 3, p. 397-406.
(online at: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.1026.3514&rep=rep1&type=pdf)
(WayLinggo low sulphidation epithermal deposit of S Sumatra series of zeolite-bearing quartz veins emplaced along NW-NNW trending subsidiarystructures of Sumatra Fault Zone, in Miocene andesitic- dacitic pyroclastic rocks, intruded by porphyritic dacitic stock and minor andesite dykes. Prehnites formed below 220°C)

Whitten, A.J., S.J. Damanik, J. Anwar & N. Hisyam (1987)- The ecology of Sumatra. Gadjah Mada University Press, Yogyakarta, p. 1-583. *(also in 'The Ecology of Indonesia' Series, 1, Periplus Editions (HK), 2000, 478p.)*

Wichmann, C.E.A. (1904)- Triasschichten (?) von der Ostgrenze der Residentzschaft Tapanuli auf Sumatra. Zeitschrift Deutschen Geologischen Gesellschaft, Berlin, 56, Briefliche Mitteilungen, p. 61-62.
(online at: https://www.biodiversitylibrary.org/item/150453#page/587/mode/1up)
('Triassic beds at the eastern boundary of the Residency Tapanuli on Sumatra'. Brief note on possible occurrence of Triassic sediments based on reports of marls with possible Monotis salinaria mollusc fossils by S. Traverso from 1838/ 1896)

Wichmann, C.E.A. (1904)- Uber die Vulkane von Nord-Sumatra. Zeitschrift Deutschen Geologischen Gesellschaft, Berlin, 56, 3, p. 227-239.
(online at: https://www.biodiversitylibrary.org/item/150453#page/255/mode/1up)
('On the volcanoes of North Sumatra'. Brief review of young volcanoes and activity from Batak Highlands in NW to SE. No maps)

Widi, B.N. & Sukaesih (2016)- Mineralisasi besi tipe skarn di daerah Bukit Gadang Lange, Desa Tarung Tarung, Kecamatan Rao, Kabupaten Pasaman, Provinsi Sumatera Barat. Buletin Sumber Daya Geologi 11, 3, p. 144-156.
(online at: http://buletinsdg.geologi.esdm.go.id/index.php/bsdg/issue/archive)
('Skarn-type iron mineralization in Bukit Gadang Lange, Tarung Tarung Village, Rao Sub-district, Pasaman District, West Sumatra'. Magnetite-hematite associated with garnet in contact zone between Tertiary granodiorite intrusion and Permian Silungkang Fm marble/limestone at Bukit Gadang Lange, Barisan Mts.)

Widiarto, F.X. (1991)- Some aspects of organic petroleum and organic geochemistry of the Sangkarewang Formation, Ombilin Basin, West Sumatra, Indonesia. Masters Thesis, University of Newcastle upon Tyne, p.
(Geochemistry of Eocene lacustrine 'oil shales' of Ombilin basin)

Widiatama, A.J. & R.N. Hendrawan (2022)- Reintepretasi genesa pembentukan granitoid Lampung berumur Kapur-Paleogen dan implikasi tektoniknya. Jurnal Geocelebes 6, 2, p. 135-144.
(online at: https://journal.unhas.ac.id/index.php/geocelebes/article/view/19633/8784)
('Reinterpretation of Lampung Cretaceous-Paleogene granitoids genesis and its tectonic implications'. Granitoids in Tanjung Bintang, Branti, Padean, and Tarahan areas in Lampung formed in three different tectono-stratigraphic settings: (1) Late Jurassic-E Cretaceous subduction-related granitoids (granitoid-tonalite, cross-cutting metamorphic rocks), (2) Cretaceous collision-delamination (slab break-off) granitoids (migmatite-leucogranite), and (3) Paleocene post-orogenic granitoids (microgranite associated with basalt, diabase, and andesite) (all tied to Mesotethys subduction/closure and Woyla terrane collision)

Widiatama, A.J., L.D. Santy, R.N.F.A. Nahar, R.N. Hendrawan, H.C. Natalia, E.V. Ogara & D.A.V. Christi (2024)- First evidence Jurassic-Cretaceous radiolaria in Menanga Formation, Lampung, Sumatra, Indonesia. Proc. 4th Int. Conference on Engineering, Technology, and Innovative Researches (ICETIR), Purwokerto 2022, MATEC Web of Conferences 402, 03007, p. 1-6.
(online at: https://www.matec-conferences.org/articles/matecconf/pdf/2024/14/matecconf_icetir24_03007.pdf)
(Occurrences of Tethyan radiolaria at two sites in Menanga Fm in Lampung, S-most Sumatra. Genera identified: Tetraditryma., Paronaella., Pantanellium., Holocryptocanium, Napora, Archaeocenosphaera, Sethocapsa and Orbiculiforma, suggesting Jurassic- Cretaceous age (previous record of larger foram Orbitolina suggested Early- Mid Cretaceous agee for Managa Fm; JTvG). Interpreted as part of low latitude Mesotethys deposit and part of Woyla volcanic arc terrane that collided with West Sumatra terrane in Late Cretaceous.

Widiatama, A.J., L.D. Santy, R.N.F.A. Nahar, R.N. Hendrawan, H.C. Natalia, E.V. Ogara & D.A.V. Christi (2024)- Menanga Formation as volcanic submarine fan deposit of Woyla Arc in Sumatra, Indonesia. Proc. 4th Int. Conference on Engineering, Technology, and Innovative Researches (ICETIR), Purwokerto 2022, MATEC Web of Conferences 402, 03008, p. 1-5.
(online at: https://www.matec-conferences.org/articles/matecconf/pdf/2024/14/matecconf_icetir24_03008.pdf)
(On Menanga Fm of Woyla Terrane in Lampung, as part of Cretaceous volcanic arc assemblage. Turbiditic facies of lithic greywackes, red mudstones and radiolarian chert interpreted as parts of submarine fan complex, derived from Woyla volcanic arc)

Widiyantoro, S., P. Supendi, N. Rawlinson, M.R. Daryono & S. Rosalia (2024)- A note on the seismicity of Sumatra, western Sunda Arc, Indonesia, in relation to the potential for back-arc thrusting. Nature Scientific Reports 14, 13115, p. 1-10.
(online at: https://www.nature.com/articles/s41598-024-64076-7)
(Back-arc thrusting, like Flores back-arc thrust and Kendeng-Baribis thrust zones across Java, not extensively developed in Sumatra. This may be caused by oblique subduction direction beneath Sumatran forearc and stress release across Great Sumatra Fault Zone. However, seismicity data show dipping seismogenic zone, in opposite direction to NNE subduction, in several parts of Sumatra back-arc region)

Wikarno, D.A.D. Suyatna & S. Sukardi (1988)- Granitoids of Sumatra and the tin islands. In: C.S. Hutchison (ed.) Geology of tin deposits in Asia and the Pacific, Selected papers from International Symposium Geology of tin deposits, Nanning, China, 1984, Springer Verlag, Berlin, p. 571-589.
(online at https://repository.unescap.org/items/f0e6c175-01e9-4218-9d43-94ae4ec4573e)

(Review of Sumatra granitoids (see also Cobbing in Barber et al. 2005). Granitoids common along axis of Sumatra island along Great Fault Zone, also in other parts like Tin Islands. Consist of plutons and batholiths up to several 100km length. Most granite bodies elongated in NW-SE direction parallel to length of island. Ages of many granites Late Triassic, also Permian and Cretaceous ages. Most tin fields associated with Ilmenite series/S-type granite. K-Ar ages Bangka- Belitung granites mainly ~210-220 Ma))

Wilcox, R.E., T.P. Harding & D.R. Seeley (1973)- Basic wrench tectonics. American Assoc. Petroleum Geol. (AAPG) Bull. 57, 1, p. 74-96.
(Includes example of Great Sumatran (Barisan) right lateral strike slip fault zone. Interpreted backarc anticlines as associated en-echelon folds (but deemed unrelated by Mount and Suppe, 1992))

Williamson A. & G.J. Fleming (1995)- Miwah prospect high sulphidation Au-Cu mineralisation, northern Sumatra, Indonesia. In: J.L. Mauk & J.D. St George (eds.) Proc. PACRIM Congress 1995, Auckland, Australasian Institute of Mining and Metallurgy (AusIMM), Carlton, Publ. 9, p. 637-642.
(Miwah prospect within Pliocene volcanic rocks between NW trending segment of Sumatra Fault, and N-trending Samalanga-Sipopok Fault to E)

Wing Easton, N. (1889)- Geologisch onderzoek van den omtrek der Brandewijnsbaai. Jaarboek Mijnwezen Nederlandsch Oost-Indie 18 (1889), Wetenschappelijk Gedeelte, Verhandelingen, p. 5-23.
('Geological investigations around Emmahaven/ Padang Bay', W Sumatra, Early map of coastal area S of Padang, destined to become the Emmahaven coal terminal at end of rail line from Ombilin coal mines. Mainly andesite and quartz schist)

Wing Easton, N. (1894)- Het voorkomen van Bismuth op het schiereiland Samosir (Toba-Meer). Jaarboek Mijnwezen Nederlandsch Oost-Indie 23 (1894), Technisch Administratief Gedeelte, p. 84-93.
('The occurrence of bismuth on Samosir Peninsula (Lake Toba)'. Small round spheres up to 125 grams of native bismuth in tuffaceous sandstone formation. Periodically exploited by local Batak population for manufacturing bullets. Possibly related to melting of older material during formation of older liparite deposit)

Wing Easton, N. (1894)- Een geologische verkenning in de Toba-landen. Jaarboek Mijnwezen Nederlandsch Oost-Indie 23 (1894), Wetenschappelijk Gedeelte, p. 99-164.
('A geological reconnaissance in the Toba lands', First geological description of geology of Lake Toba area, N Sumatra (?). Widespread young, very acid volcanics ('quartz-trachyte'); no young andesitic volcanism. At S side of lake also old slates with some quartzite, Carboniferous? shales and dolomitic limestones, etc.)

Wing Easton, N. (1895)- Eenige nadere opmerkingen aangaande de geologie van het Toba-Meer en omgeving. Jaarboek Mijnwezen Nederlandsch Oost-Indie 24 (1895), Wetenschappelijk Gedeelte, p. 149-157.
('Additional comments on the geology of Lake Toba and surroundings', N Sumatra. Follow-up of Wing Easton (1994 report on area. Notices lithological similaries between ?Mesozoic slates, quartzites of Lake Tobe region with those from western Kalimantan. Suggests Lake Toba is not a collapsed crater, but a collapsed fault block (commonly accepted to be a volcanic caldera; JTvG))

Wing Easton, N. (1896)- Der Toba-See, Ein Beitrag zur Geologie von Nord-Sumatra. Zeitschrift Deutschen Geologischen Gesellschaft, Berlin, 48, 3, p. 435-467.
(online at: https://www.biodiversitylibrary.org/item/177217#page/447/mode/1up)
('Lake Toba, a contribution to the geology of North Sumatra'. Early geologic description of Lake Toba area, N Sumatra (German summary of Dutch-language papers by Wing Easton 1894, 1895))

Wing Easton, N. (1912)- “Redjang-Lebong": een kritisch-mijnbouwkundige studie. Vereeniging ter behartiging der belangen van houders van aandeelen in de N.V. Mijnbouw maatschappij "Redjang Lebong”, Amsterdam, p. 1-32.
(‘A critical mining study of Rejang Lebong’. Unpublished brochure with discussion of silver-gold mine in West Sumatra, for Organization protecting interests of shareholders of Redjang Lebong mining company, Sumatra)

Wing Easton, N. (1926)- Die wichtigsten Edelmetall-Lagerstatten Sumatras. Archiv Lagerstattenforschung (Preussischen Geologischen Landesanstalt, Berlin) 35, p. 1-53.
(online at: https://books.google.com/books Etc.)
('The most important precious metal deposits of Sumatra'. Overview of principal gold-silver occurrences of W Sumatra: Lebong Donok, Lebong Sulit (Kataun), Lebok Tandai (Simau), Karang Suluh, Lebok Husin (Kandis), Tambang Sawah, Gedang Ilir, Lebok Simpang, Sungei Pagu (Puding), Tambang Salida, Mangani, Roemput, Pait, Belimbing)

Wing Easton, N. (1936)- Een nog onbekende oude publicatie over de Salida Mijn. De Ingenieur in Nederlandsch-Indie (IV) 3, 4, p. IV.74- IV.77.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1936-04.pdf)
('An as yet unknown publication on the Salida mine'. Report and translation of brief 1686 report by Hermannus Nicolaas Grimm, written in Latin, on gold-rich samples from the Salida mine in Sumatra, operated by Dutch East Indies Company in late 1600's)

Wong, H., I. Taylor, M. Purwanto & H. Setyawan (2011)- Geology and discovery history of the Miwah gold deposit, Aceh, Sumatra, Indonesia. Proc. NewGenGold 2011 Conference, Case histories of discovery, Perth, p. 191-199.
(Miwah high sulphidation epithermal gold system in Aceh)

Wong, H.F., R., M. Razali Che Kob et al. (2011)- North Sumatra- Mergui Basin case study. CCOP EPPM Project 1Workshop 4 meeting, Workshop on Seismic Stratigraphy and Petroleum play concepts, Chiangmai, Thailand, 2011, p. 1-24. *(Presentation only)*
(online at: http://www.ccop.or.th/eppm/projects/28/docs/4_Malaysia_P1W4.pdf)
(Petronas presentation on geology and wells in Malacca Straits part of N Sumatra- Mergui basin. Wells Singga Besar 1 and Langgun Timur 1 (Sun Malaysia Petroleum, 1989) bottomed in fractured dolomitic limestone with gas shows (elsewhere called Melaka or Tampur Carbonate, and here portrayed as part of Pretertiary basement)

Xu, C., Y. Wang, X. Qian, Y. Zhang & X. Yu (2020)- Geochronological and geochemical characteristics of Early Silurian S-type granitic gneiss in Takengon area of Northern Sumatra and its tectonic implications. Earth Science-J. China University of Geosciences 45, 6, p. 2077-2090. *(in Chinese with English Abstract)*
(online at: https://www.researchgate.net/publication/343053789_sumendaladaobeibuTakengonz Etc.)
(E Paleozoic granitic gneisses from East Sumatra Terrane (should be Sibumasu?; JTvG), with 206Pb/238U mean age of 442 ± 5 Ma (E Silurian), representing crystalline age. Geochemical results indicate Takengon granitic gneisses originated from partial melting of meta-sediments during evolution of Proto-Tethyan Ocean)

Xu, C., Y. Wang, X. Qian, X. Yu & S. Murtadha (2024)- Late Jurassic Tethyan igneous records in North Sumatra: Geochronological and geochemical constraints. Geological Society of America (GSA) Bull. 136, 7-8, p. 3188–3206.
(Jurassic igneous rocks on Sumatra important for Mesotethyan evolution and regional correlation in SE Asia. New zircon U-Pb-Hf geochronological, isotopic, geochemical data suggest newly identified Glebruk dolerite and andesite in N. Sumatra formed in Late Jurassic (150-146 Ma), and belong to calc-alkaline arc-like volcanic rocks, derived from depleted mantle wedge metasomatized by slab-derived melts. Glebruk volcanics formed in continental arc setting in response to Late Jurassic N-ward subduction of Woyla Ocean beneath W Sumatra. Suggest Mesotethys subduction could extend from S Qiangtang through W Yunnan to N Sumatra (Woyla Ocean may be extension of Mesotethys))

Xu, J.H., Z. Zhang, C. Wu, Q. Shu, C. Zheng, X. Li & Z. Jin (2019)- Mineralogy, fluid inclusions, and S-Pb isotope geochemistry study of the Tuboh Pb-Zn-Ag polymetallic deposit, Lubuklinggau, Sumatra, Indonesia. Ore Geology Reviews 112, 103032, p. 1-16.
(Tuboh skarn-type Pb-Zn-Ag polymetallic deposit in Musi Rawas, Lubuklinggau, SW Sumatra, at contact of Woyla Nappe and Sundaland Arc. Related to collision of Woyla Nappe and subduction of Indo-Australian Plate. Ore bodies at contact of E Eocene (~52 Ma) Jangkat quartz monzonite intrusion into Jurassic- Lower Cretaceous

Rawas Fm limestone. Metallogenic age Eocene. Four mineralization stages. Nearby intrusives Muaramangkulan quartz diorite (~84 Ma), Raja granite (~54 Ma) and Pulaukidak quartz monzonite (~52 Ma)

Yabe, H. (1946)- On some fossils from the Saling Limestone of the Goemai Mts., Palembang, Sumatra- I. Proc. of the Japan Academy 22, 6, p. 200-203.
(online at: https://www.jstage.jst.go.jp/article/pjab1945/22/5-7/22_5-7_200/_pdf)
(1943 examination in Bandung of thin sections of Saling Lst (in ?Cretaceous-age Saling volcanic series of Gumai Mts) show common so-called Lovcenipora timorica clavata Vinassa, which is same as Cladocoropsis mirabilis from U Jurassic Torinosu Lst of SW Japan. Also stromatoporoid Myriophorella. Saling series older than nearby mid-Cretaceous Lingsing series quartz sst, shale and Orbitolina limestone (relative age of formations appear to be reverse of that suggested by Musper) (= part of 'Woyla Group' Jurassic-E Cretaceous volcanic arc terrane?; JTvG))

Yabe, H. (1946)- On some fossils from the Saling Limestone of the Goemai Mts., Palembang, Sumatra- II. Proc. of the Japan Academy 22, 8, p. 259-264.
(online at: https://www.jstage.jst.go.jp/article/pjab1945/22/8-11/22_8-11_259/_pdf/-char/en)
(Loftusia bemmeleni Silvestri from Saling Lst, S Sumatra, more likely Pseudocyclammina. 'Corals' described from here as Lovcenipora vinassai same as Late Jurassic hydrozoan Cladocoropsis miriabilis from Japan)

Yancey, T.E. & S.A. Alif (1977)- Upper Mesozoic strata near Padang, West Sumatra. Bull. Geological Society Malaysia 8, p. 61-74.
(online at: https://gsm.org.my/wp-content/uploads/gsm_file_2/702001-101331-PDF.pdf)
(U Jurassic- Lw Cretaceous Indarung Fm limestones and clastics exposed near Indarung, few km E of Padang. Massive carbonates ~200m thick, with stromatoporoids Actostroma and Lovcenipora near base and bedded cherts (Ngalau Mb) near top. Indarung Fm used to determine ~200km of offset along Sumatra fault zone. (N.B.: cherts subsequently dated as Aalenian, basal M Jurassic, by McCarthy et al. 2001 (part of Woyla Terranes; Barber 2000) (NB: Lovcenipora reported here probably Late Jurassic Cladocoropsis, also in Gumai Mts; JTvG))

Yokoyama, T. & A. Dharma (1982)- Magnetostratigraphy of the Toba Tuffs in Sumatra, Indonesia. In: Workshop Palaeomagnetic Research in Southeast and East Asia, Committee for Co-Ordination of Joint Prospecting for Mineral Resources in Asian Offshore Areas (CCOP), Kuala Lumpur 1982, TP 13, p. 201-213.

Yokoyama, T., A. Dharma & P. Hehanussa (1989)- Radiometric ages and paleomagnetism of the Sigura-Gura Formation, upper part of the 'Toba Tuffs' in Sumatra, Indonesia. Palaeogeogr. Palaeoclim. Palaeoecology 72, p. 161-175.
(K-Ar and fission-track dating of Sigura-Gura Fm (upper part of Toba Tuffs. K-Ar age: 0.96 Ma, fission-track ages 1.11 Ma, 0.87 and 0.86 Ma. (4) Paleomagnetic polarity of Sigura-gura Fm is reversed. Fission-track ages of Younger Toba Tuffs 0.62 Ma)

Yokoyama, T. & P.E. Hehanussa (1981)- The age of "Old Toba Tuff" and some problems on the geohistory of Lake Toba, Sumatra, Indonesia. In: Palaeolimnology of Lake Biwa, Japan, Pleistocene (Kyoto), 9, p. 117-186.
(Lake Toba area three tephra chronology units: (1) Pre-Toba welded tuffs (Tuk-tuk dacite; >1.9-2.0 Ma), (2) Toba deposits (1.3 Ma- 30.000 years BP), and (3) Post-Toba Deposits (<30.000 years BP))

Yokoyama, T., S. Nishimura, E. Abe, Y. Otofuji, T. Ikeda, S. Suparka & A. Dharma (1980)- Volcano-, magneto- and chronostratigraphy and the geologic structure of Danau Toba, Sumatra, Indonesia. In: S. Nishimura (ed.) Physical geology of Indonesian island arcs, Kyoto University, p. 122-143.

Young, R.D. & S. Johari (1978)- The Tangse copper-molybdenum prospect, Indonesia. In: P. Nutalaya (ed.) Proc. 3rd Regional Conference Geology and Mineral Resources of SE Asia (GEOSEA III), Bangkok 1978, p. 377-386.
(see also Van Leeuwen et al. 1987, on Rio Tinto follow-up work at Tangse)

Yu, X.Q., Qian, X., Lu, X.H., Xu, C., Zhang, Y.Z., Gan, C.S. & Y.J. Wang (2021)- Zircon U-Pb geochronology of Late Triassic granites from Sibolga area in Western Sumatra and its Tethyan tectonic implications. Earth Science 46, 8, p. 2873-2886. *(in Chinese with English abstract)*
(online at: http://www.earth-science.net/en/article/doi/10.3799/dqkx.2021.039)
(Zircon U-Pb ages for granites from Sibolga area W Sumatra suggest crystallization ages of ~215 Ma ~206 Ma and 214 Ma, indicating Late Triassic magmatism W Sumatra., similar to West Province granite., possibly formed in back-arc rift setting in response to the initial subduction of Mesotethys Ocean during Late Triassic)

Yu, X.Q., X. Qian, Y.Z. Zhang, C. Xu. & Y.J. Wang (2021)- Geochemical characteristics of the Panti Early Eocene S-type granites in Central Sumatra and its Neotethyan tectonic implications. Geotectonica et Metallogenia 45, 3, p. 570-585. *(in Chinese with English abstract)*
(Granite from Panti area in C Sumatra with zircon U-Pb age of ~55.5 Ma. Characterized by high SiO2 (77-78%). high alkali, etc., interpreted as highly differentiated S-type granite. Originated from partial melting of ancient metapelitic rocks. Panti granite can be compared with contemporaneous granites of Tengliang and Dongyingjiang in W Yunnan, indicating Neo-Tethys tectonic magma belt extends S to C Sumatra)

Yu, X.Q., Y. Zhang, X. Qian, A.A. Ghani, T.C. Sheldrick, C. Xu & Y. Wang (2023)- Southward continuation and slab rollback of the Neotethyan arc-back-arc system: Insights from Eocene mafic intrusions from North Sumatra, SE Asia. Geological Society of America (GSA) Bull. 135, 11-12, p. 3083-3101. *(online at: https://www.researchgate.net/publication/369157613_Southward_continuation_and_slab_rollback_of_the_Neotethyan_arc-back-arc_system_Insights_from_Eocene_mafic_intrusions_from_North_Sumatra_SE_Asia)*
(Zircon U-Pb dating and geochemistry of two groups of Eocene (50-48 Ma) mafic intrusions from Tangse, N Sumatra. Diabase and gabbro-diorites produced by melting of depleted mantle wedge metasomatized by slab fluids. Provides evidence for southern continuation of Neotethyan igneous belt, where slab rollback triggered melting and upwelling in arc- back arc system from S Tibet to SE Asia)

Yu, Y., X. L. Huang, Y.M. Lai, J. Li, Y.G. Xu, S.L. Chung, I. Setiawan & F. Yang (2023)- Different B-Mo isotopic fractionation processes controlled by redox conditions in the subduction zone. Chemical Geology 636, 121646, p. 1-12.
(Geochemical and B-Mo-Sr-Nd-Hf-Pb isotopic data for Sumatra Continental Arc Basalts (Seulawah Agam, Toba, Sibual Buali, Talamau and Ranau volcanoes along Sumatran fault) and Back-arc basalts (Rajabasa) to investigate relationships between oxygen fugacity and B-Mo isotopic fractionation during subduction. e Sumatran BAB samples similar Mo isotopic compositions but much lighter B isotopes than CABs)

Yulihanto, B., B. Situmorang, A. Nurdjajadi & B. Sain (1995)- Structural analysis of the onshore Bengkulu basin and its implications for future hydrocarbon exploration activity. Proc. 24th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 85-96.

Yuningsih, E.T. (2006)- Mineralogi granitoid Bukit Pagias, Cekungan Ombilin, Sumatera Barat. Bull. Scientific Contribution (UNPAD) 4, 1, p. 67-77.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8116/3692)
('Mineralogy of the Bukit Pagias granitoid, Ombilin Basin, West Sumatra'. Petrography of (Jurassic?) granite)

Yuningsih, E.T. (2006)- Analisis kimia batuan basemen granitoid de sub cekungan Jambi, Sumatera Selatan berdasarkan data dari sumur JSB-3, JSB-4 and JSB-6. Bull. Scientific Contribution (UNPAD) 4, 2, p. 106-117.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8120/3696)
('Chemical analysis of granitoid basement rock of the Jambi sub basin, South Sumatra, based on data from wells JSB-3, JSB-4 and JSB-6'. Pre-Tertiary granitoid basement rocks in wells JSB-3 (~1990m) intermediate-acid magma, calc-alkaline, medium-high K, metalluminous (subduction at active continental margin). Granitoids at JSB-4 (2654m) and JSB-6 (2342m) magnetite series and I type, probably extension of Thailand- Burma granite province)

Zen, M.T. (1970)- Origin of Lake Singkarak in the Padang Highlands (Central Sumatra). Proceedings Institut Teknologi Bandung (ITB) 5, 1, p. 1-8.

(online at: http://journals.itb.ac.id/index.php/jmfs/article/view/9736/3711)
Lake Singkarak in Padang Highlands previously interpreted as volcanic caldera, but Singkarak Trough is fault-bounded depression, and part of Sumatra Rift zone, stretching for 1650km from Sumatra's N tip to Semangko valley in SE, and already identified by Westerveld (1952), Katili (1967), etc.)

Zen, M.T. (1971)- Structural origin of Lake Singkarak in Central Sumatra. Bulletin of Volcanology (Bulletin Volcanologique) 35, 2, p. 453-461.
(Lake Singkarak neither volcanic ruin nor volcano-tectonic depression, but part of 1650 km graben zone along Sumatra's Semangko Fault zone. Lake results from damming process by volcanic material produced by Marapi-Singgalang-Tandikat volcanoes in N and from Talang volcano in S)

Zen, M.T. (1972)- The origin of several pyroclastic plateaux in the Padang Highlands (Central Sumatra). Proceedings Institut Teknologi Bandung (ITB) 6, 3, p. 81-88.
(online at: https://journals.itb.ac.id/index.php/jmfs/article/view/9725)
(Several pyroclastic plateaux in Padang Highlands. Westerveld (1952) suggested rhyolitic volcanics are from sheet- like fissure eruptions/ ignimbrites. However, pyroclastic, plateau of Bukit Tinggi may be airborne tuffs from giant eruption of Maninjau volcano before caldera formation (exposure neither layered nor welded))

Zen, M.T. (1983)- Krakatau and the tectonic importance of Sunda Strait. Buletin Jurusan Geologi (ITB), 12, p. 9-22.

Zen, M.T. (1989)- Seismicity of the Sumatra fault zones. In: B. Situmorang (ed.) Proc. 6th Regional Conference Geology mineral hydrocarbon Resources of SE Asia (GEOSEA VI), Jakarta 1987, IAGI, p. 197-205.
(online at: https://www.iagi.or.id/web/digital/45/PIT-IAGI-1987-Paper-13.pdf)
(Earthquakes in W Sumatra either shallow and related to oblique subduction of Indian-Australian plate, or related to right-lateral Sumatra Fault)

Zhang, H., P. Hu, L. Cao, A. Tampubolon, A. Liu & X. Cheng (2017)- A-type granite of granite complex in Sarudik area, Sumatra: zircon U-Pb ages and its tectonic implication. China Mining Magazine 26, 11, p. 171-178.
(in Chinese)
(online at: http://www.chinaminingmagazine.com/en/article/id/2f16ba6a-a9f6-4f5b-ad1f-36f5cb8eff17)
(Biotite monzogranite from large Sibolga granite in Sarudik area (near Sibolga) with zircon U-Pb age of 225.3±0.8 Ma (Norian; Late Triassic). A1-type granite in study area associated with local extension and thinning in M-L Triassic)

Zhang, H., P. Hu, L. Cao, A. Tampubolon, A. Liu, X. Cheng, M. Zhan, L. Pan, Y. Dai & B. Pan (2020)- Geochemical characteristics and Sr-Nd-Hf isotope compositions of Late Triassic post-collisional A-type granites in Sarudik, SW Sumatra, Indonesia. Island Arc 29, 1, e12357, p.
(Late Triassic Sarudik post-collisional A-type granite in SW Sumatra. Zircon dating of biotite monzogranite concordia age of 223Ma (Norian). Granites weakly peralumious, high-K calc-alkaline granites, with features of A-type granites, sourced from Mesoproterozoic continental crust, in post-collisional environment. Late Triassic A-type granites related to post-collisional extension induced by crustal thickening, gravitational collapse, and asthenosphere upwelling following collision between Sibumasu and E Malaya Block)

Zhang, X., S.L. Chung, Y.M. Lai, A.A. Ghani, S. Murtadha, H.Y. Lee & C.C. Hsu (2018)- Detrital zircons dismember Sibumasu in East Gondwana. J. of Geophysical Research: Solid Earth 123, 7, p. 6098-6110.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2018JB015780)
(Detrital zircon isotopic data from Sumatra. Scarcity of E Neoproterozoic (~970 Ma) zircons in W Sumatra (from Triassic and younger rocks), suggests no direct connection between W Sumatra and Cathaysia. Detrital zircons from E Sumatra (Permian Bohorok Fm) with age profiles similar to Lhasa, W Burma and W Australia. Zircon age patterns from Sibusima (= Sibumasu without E Sumatra) resemble S Qiangtang and Tethyan and High Himalaya terranes, most likely derived from N India. Requires disaggregation of Sibumasu, with E Sumatra and West Burma occupying position outboard Lhasa along NW Australian margin and Sibusima on N Greater Indian

margin (NB: important observation: Precambrian- Paleozoic zircon age profiles of supposed East and West Sumatra 'blocks' very similar and possibly single tectonic block?; JTvG))

Zulkarnain, I. (2007)- Variasi geokimia batuan volkanik daerah Bengkulu di sabuk pegunungan Bukit Barisan, Sumatera dan implikasi tektoniknya, Jurnal Teknologi Mineral (ITB) 14, 2, p. 89-102.
('Geochemical variation of volcanic rocks in the Bengkulu area in the Barisan mountain belt and tectonic implications'. Bengkulu volcanics derived from two sources. Magma "one" in E area indicates young (<30 Ma) and hot subducted slab involved in subduction, producing adakite-like volcanics. Geochemical character reflects backarc-side of volcanic arc)

Zulkarnain, I. (2007)- Geochemical character of Hulusimpang Formation volcanics around Kota Agung area, and their genetic implication. Jurnal Teknologi Mineral (ITB) 14, 3, p. 156-167.
(Hulusimpang Fm Oligocene- E Miocene volcanics mainly in S Sumatera Bengkulu and Lampung Provinces and associated with gold mineralization. Around Kota Agung bimodal medium-K calc-alkaline magmas of basalt and dacite. Absence of andesitic rocks indicates change from basaltic to dacitic caused by contamination processes instead of fractional crystallization or magmatic differentiation. REE diagrams suggest Hulusimpang Fm rocks derived from same magma source, similar to backarc 'magma one' of Bengkulu; Zulkarnain 2007)

Zulkarnain, I. (2008)- Petrogenesis batuan vulkanik daerah tambang emas Lebong Tandai, Provinsi Bengkulu, berdasarkan karakter geokimianya. Jurnal Geologi Indonesia 3, 2, p. 57-73.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/220)
('Petrogenesis of volcanic rocks in the Lebong Tandai gold mine, Bengkulu Province, based on geochemical character'. Lebong Tandai gold mine in N Bengkulu exploited since Dutch time. Hulusimpang Fm volcanics dominated by andesites with minor dacite and basalt, transitional between calc-alkaline and tholeiite. Derived from adakitic source. Magma activity since >30 Ma in back-arc environment. Gold mineralization correspond with observation from Phillippines that adakitic rocks contain higher gold concentration than calc-alkaline rocks)

Zulkarnain, I. (2009)- Geochemical signature of Mesozoic volcanic and granitic rocks in Madina Regency area, North Sumatra, Indonesia, and its tectonic implication. Jurnal Geologi Indonesia 4, 2, p. 117-131.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/246)
(Permian-Triassic basalts, Triassic-Jurassic granitic rocks, and Miocene andesite from Madina Regency area, W Sumatra Block. Three different geological settings proposed for W Sumatra Permian Plutonic-Volcanic Belt (1) island-arc, (2) subduction related continental margin arc and (3) continental break-up. Permian-Triassic Silungkang Fm basalts from Kotanopan and Muara Sipongi in Madina Regency low-K rocks of tholeiitic affinities, indicative of volcanism in back-arc marginal basin tectonic setting. Mesozoic granitic rocks and Miocene andesite reflect active continental margin)

Zulkarnain, I. (2011)- Geochemical evidence of island-arc origin for Sumatra Island; a new perspective based on volcanic rocks in Lampung Province, Indonesia. Jurnal Geologi Indonesia 6, 4, p. 213-225.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/317)
(Volcanic rock chemistry from (young?) Lampung volcanics suggests volcanics from West are from island-arc fragment and East part belongs to Eurasia continental margin. Collision zone between Sumatra island-arc fragments with Eurasia continental margin probably located along Sumatra Fault System)

Zulkarnain, I. (2012)- New geochemical data of island-arc origin for Sumatera: the Bengkulu case. J. RISET Geologi dan Pertambangan (LIPI) 22, 1, p. 11-23.
(online at: www.geotek.lipi.go.id/riset/index.php/jurnal/article/viewFile/45/5)
(Sumatra generally viewed as margin of Eurasia continental plate, where Indian oceanic plate is subducting beneath continental material. Subduction system produced magmatic rocks on Sumatera since Cretaceous. Chemical analyses of volcanic rocks from Bengkulu Province show island-arc signature in W and Active Continental Margin signatures in E, similar to results from Lampung area by Zulkarnain (2011). Sumatra continental margin probably ends along E side of Sumatera Fault Zone (ages of volcanic rocks not clearly described; JTvG))

Zulkarnain, I. (2014)- Geochemical evidence of island-arc origin in volcanic rocks of Central Sumatra. J. RISET Geologi dan Pertambangan (LIPI) 24, 1, p. 23-41.
(online at: http://jrisetgeotam.com/index.php/jrisgeotam/article/view/79/pdf_20)
(Geochemical signatures of trace elements in Pliocene- Recent volcanics in Painan and Muara Labuh in W Central Sumatra confirmed pattern of two volcanic belts (separated by Sumatra Fault Zone?): (1) island-arc tectonic environment in W (Painan; not part of continental margin of Eurasia) and (2) island-arc and continental tectonic environments in E (Solok; more common acidic rocks), similar to pattern found before in Lampung and Bengkulu areas of S Sumatra. Also evidence for third tectonic environment, reflecting back-arc tectonic setting)

Zulkarnain, I. (2016)- Sumatra is not a homogeneous segment of Gondwana derived continental blocks: a new sight based on geochemical signatures of Pasaman Volcanic in West Sumatra. J. RISET Geologi dan Pertambangan (LIPI) 26, 1, p. 1-13.
(online at: http://jrisetgeotam.com/index.php/jrisgeotam/article/view/271/pdf_84)
(Geochemical signatures of Miocene? Pasaman calk-alkaline volcanics from near Lubuk Sikaping in W Sumatra shows rocks derived from two different tectonic settings: active continental margin (10) and oceanic arc (5). Supports previous results in Lampung, Bengkulu and C Sumatra (but not clearly tied to geographic distribution/ terranes?; JTvG))

Zulkarnain, I., S. Indarto, Sudarsono & I. Setiawan (2005)- Geochemical signatures of volcanic rocks related to gold mineralization; a case of volcanic rocks in Pasaman area, West Sumatera, Indonesia. J. RISET Geologi dan Pertambangan (LIPI) 15, 1, p. 27-40.
(online at: https://jrisetgeotam.brin.go.id/index.php/jrisgeotam/article/download/186/218)
(Gold deposits always associated with volcanics, but not all volcanics gold-bearing. Gold-bearing volcanics can be characterized with trace elements (<10 ppm Ytrium, depleted HREE, etc.. Reviewo f Pasaman area W flank of Barisan Range), incl. Simpang and Lubuk Sikaping areas)

Zwierzycki, J. (1915)- Voorlopig onderzoek van fossielen afkomstig van eenige vindplaatsen op Sumatra, A. Kroe, B. Lipai bij Bangkinang. Jaarboek Mijnwezen Nederlandsch Oost-Indie 42 (1913), Verhandelingen 2, p. 101-129.
('Preliminary investigation of fossils from some localities on Sumatra. A. Kroe, B. Lipai near Bangkinang'. Brief report on Tertiary macrofossils from near Kroe, Bengkulu (Late? Miocene crustaceans, gastropods, bivalves, corals) and Lipai, Sumatra West coast (Pliocene gastropods, bivalves, corals). No illustrations)

Zwierzycki, J. (1918)- Geologische beschrijving van het eiland Poeloe We, onderafdeeling We der afdeeling Groot Atjeh. Jaarboek Mijnwezen Nederlandsch Oost-Indie 48 (1916), Verhandelingen 2, p. 1-10.
('Geological description of the island Pulau We, Greater Aceh'. Island off NW tip of Sumatra, composed of young andesitic volcanics only)

Zwierzycki, J. (1920)- Toba-Lake, a touristical and geological sketch. Sluyters Monthly- East Indian Magazine, Batavia, 1, 6, p. 130- .

Zwierzycki, J. (1922)- Geologische overzichtskaart van den Nederlandsch Oost Indischen Archipel, schaal 1: 1000,000- Toelichting bij blad 1 (Noord Sumatra). Jaarboek Mijnwezen Nederlandsch Oost-Indie 48 (1919), Verhandelingen 1, p. 11-71.
(map online at: https://digitalcollections.universiteitleiden.nl/view/item/813689)
(Text online at: https://resolver.kb.nl/resolve?urn=MMKB31:031540000:pdf)
('Geological overview map of the Netherlands Indies Archipelago, scale 1:1 million- Explanatory notes of Sheet 1 (North Sumatra)'. Part of series of 1: 1 million countrywide geological overview maps (series never completed; JTvG). Oldest rocks Permo-Carboniferous limestones (some with Permian fusulinids), associated with dark phyllites, also 'diabase' extrusives and contactmetamorphic rocks. Serpentinite complex near Tangse. Late Triassic marine sediments with Halobia. Early Tertiary with basal unconformity, overlain by basal conglomerates and mica-quartz sandstones, some with thin coal beds. With Eocene (more likely E Oligocene; JTvG) Nummulites limestone near Kaloee/Simpang Kiri, etc.)

Zwierzycki, J. (1922)- Geologische overzichtskaart van den Nederlandsch Oost Indischen Archipel, schaal 1: 1000,000- Toelichting bij blad VII (Tapanoeli, Sumatra's Oostkust, Sumatra's westkust). Jaarboek Mijnwezen Nederlandsch Oost-Indie 48 (1919), Verhandelingen 1, p. 72-192.
(Text online at: https://resolver.kb.nl/resolve?urn=MMKB31:031542000:pdf)
(Map online at: https://digitalcollections.universiteitleiden.nl/view/item/2016121
('Geological overview map of the Netherlands Indies Archipelago, scale 1:1 million- Explanatory notes of Sheet VII: Tapanuli, Sumatra's East coast, Sumatra's West coast'. Half of map sheet thick Permo-Carboniferous meta-sediments with limestone interbeds. Permo-Carboniferous-Jurassic marine sediments unconformably overlain by Tertiary with basal conglomerates. Etc.))

Zwierzycki, J. (with W.J. Twiss) (1922)- Verslag over een geologische verkenning van het Jong-Tertiaire gebied van Noordwest Atjeh in de onderafdeeling Groot-Atjeh (Terrrein "Atjeh III"). Jaarboek Mijnwezen Nederlandsch Oost-Indie 48 (1919), Verhandelingen 1, p. 230-249.
('Report on a geological reconnaissance of the Late Tertiary area of NW Aceh'. Permo-Carboniferous and Jurassic unconformably overlain by Paleogene sands and Neogene clastics and limestones. With 1:100,000 scale map)

Zwierzycki, J. (1930)- Geologische overzichtskaart van den Nederlandsch Oost Indischen Archipel, schaal 1: 1000,000- Toelichting bij blad VIII (Midden Sumatra, Bangka en de Riauw eilanden). Jaarboek Mijnwezen Nederlandsch Oost-Indie 58 (1929), Verhandelingen 1, p. 73-157.
(Map online at: https://digitalcollections.universiteitleiden.nl/view/item/814947
('Toelichting' text online at: https://resolver.kb.nl/resolve?urn=MMKB31:041766000:pdf))
('Geological overview map of the Netherlands Indies Archipelago, scale 1:1 million- VIII, Central Sumatra, Banka and Riau islands'. With review of C Sumatra geology and classic SW-NE cross-section. Incl. observation that volcanic facies of Permo-Carboniferous (which contains E Permian 'Jambi Flora' and brachiopod-fusulinid limestones and interpreted as part of nappe thrust sheet) contains granite pebbles and common granitic quartz detritus and transgressed over older granite basement (this may contradict more recent interpretations of a West Sumatra Permian oceanic volcanic arc system (e.g. M. Crow et al.)

Zwierzycki, J. (1931)- Geologische kaart van Sumatra 1:200.000. Toelichting bij blad 1 (Teloekbetoeng). Dienst Mijnbouw Nederlandsch-Indie, p. 1-30.
(map online at: https://digitalcollections.universiteitleiden.nl/view/item/813667)
('Geological Map of Sumatra, 1:200,000, sheet 1- Telukbetung'. Map sheet SE tip of Sumatra. Crystalline schists, presumably pre-Carboniferous, intruded by granites, presumably Pre-Cretaceous, locally overlain by folded Cretaceous clastics with mid-Cretaceous Orbitolina in adjacent map sheet. Tertiary- Quaternary rocks exclusively volcanics)

Zwierzycki, J. (1932)- Geologische kaart van Sumatera, schaal 1:200 000. Toelichting bij Blad 2 (Kotaagoeng). Dienst Mijnbouw Nederlandsch-Indie, p. 1-30.
('Geological Map of Sumatra, 1:200,000, sheet 2- Kota Agung'. Map sheet S tip of Sumatra. Isoclinally folded crystalline schists in NE, presumably pre-Carboniferous, locally overlain by folded marine Cretaceous shales (strike NW-SE), sandstone, radiolarian cherts and limestone with mid-Cretaceous Orbitolina. Mid Tertiary 'Old Andesites' and older formations overlain by transgressive Neogene clastics and reefal limestones)

Zwierzycki, J. (1933)- Kopalnia zlota i srebra Redjang Lebong na Sumatrze. Przeglad Gorniczo-hutinizy 25, Katowice, p. 189-208.
('The gold- and silver mine Redjang Lebong in Sumatra'. In Polish, in journal of Polish mine-and metallurgical engineers. See also Zwierzycki (1936))

Zwierzycki, J. (1935)- Die Ergebnisse der palaobotanischen Djambi-Expedition 1925. 1. Die geologischen Ergebnisse. Jaarboek Mijnwezen Nederlandsch-Indie 59 (1930), Verhandelingen 2, p. 1-70.
('The results of the paleobotanical Jambi expedition 1925, 1. The geological results'. Companion paper of Jongmans and Gothan 1935 on 'Jambi flora'. Expedition to sample E Permian'Pecopteris flora' plant fossils West of Bangko, Jambi Province, C Sumatra. Two large granite massifs: Nalo- Airbatoe (older than U Carboniferous;

part of large nappe) and Nagan (intruded in isoclinally folded Triassic-Jurassic slates). Paleozoic Vorbarisan thrusted over Mesozoic, probably from E. Plant fossils in >1750m thick volcanics-rich series of Karing Beds (dacite tuffs, etc.), with five thin limestone beds, all with similar fusulinid forams (related to Fusulina alpina Schellwien according to Gerth) and two main plant horizons. Karing Beds overlain by coarse volcanoclastics (see also Van Waveren et al. 2007, Crippa et al. 2014))

Zwierzycki, J. (1936)- De geologie van de goudertsafzetting Redjang Lebong en de kansen van verdere exploratie. In: M. Muller, J. Kuntz & J. Zwierzycki, Rapporten betreffende geologische onderzoekingen in opdracht van de Directie der Mijnbouw Maatschappij Redjang-Lebong, Batavia, p. 37-58.
('The geology of the gold-ore deposit Rejang Lebong and potential of further exploration'. Geologic setting of Rejang Lebong gold-silver mine. Mildly deformed E Miocene marine Telisa Fm Globigerina marls-claystones intruded by three dacite bodies (Donok, Bunut, Gambut), followed by basic augite-andesite intrusives. Breccias and gold mineralization associated with Donok dacite and major Lebong fault zone, which also caused Lebong Depression. Zeolite group mineral truscottite found only in Rejang Lebong area. Ore deposits nearly depleted and mine expected to be closed within months)

Zwierzycki, J. & O. Posthumus (1926)- De paleobotanische Djambi-expeditie (1925). Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 43, 2, p. 203-216.
('The paleo-botanic Jambi expedition (1925)'. First report of expedition to famous Jambi Early Permian flora localities on the Merangin River, ~75km W of Sarolangun, C Sumatra (initially discovered by Tobler). (Mainly travel- logistics report; for more extensive geologic report see Zwierzycki 1935))

II.2. Sumatra - Cenozoic Basins, Stratigraphy, Hydrocarbons, Coal

Abdullah, M. & C.F. Jordan (1987)- The geology of the Arun Field Miocene reef complex. Proc. 16th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 65-96.
(Arun gas field 1971 discovery in N Sumatra. Area 18.5 x 5 km. Lower- Middle Miocene carbonate buildup on Arun High with 1080' of gas column)

Abdullah, M. & C.F. Jordan (1988)- The geology of the Arun field Miocene reef complex. Proc. Offshore South East Asia Conference, Singapore 1988, SEAPEX Proceedings 8, p. 203-220.
(Similar to paper above)

Abdurrahman, M., W. Bae & S. Kim (2015)- CO_2 sources and future EOR prospects in Sumatra island-Indonesia. In: World Congress on Advances in Civil Environmental and Materials Research (ACEM15), Incheon, Korea, 2015, p. 1-7.
(online at: http://www.i-asem.org/publication_conf/asem15/1.ISEM15/2t/T4B.3.MS502_1757F1.pdf)
(Study of potential CO2-EOR prospects using CO_2 injection in oil fields of Sumatra)

Abdurrahim, M.B., F. Anggara, E. Handini, A. Fahrialam, A.A. Patria (2025)- Microfacies and paleomire reconstruction of Korinci Formation coal, Peranap, Central Sumatra Basin. Proc. 4th Int. Conf. Geological Engineering and Geosciences (ICGOES 2024), Yogyakarta, IOP Conference Series: Earth and Environmental Science 1517, 012044, p. 1-24.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1517/1/012044/pdf)
(Coal petrography of low grade coals in Late Miocene Korinci Fm in C Sumatra basin at Peranap. Coal seams formed in ombrogenous and topogenous paleomires in dry forest swamp. Low sulfur; no influence of sea water)

Achiat, R., J. Guttormsen & R. Waworuntu (2009)- Complex geomodeling: Dayung Field a fractured Pre-Tertiary reservoir in the Southern Sumatra Basin, Indonesia. Proc. 33rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA09-G-148, p. 1-15.
(Dayung Field 1991 fractured basement gas field on W flank of C Palembang sub-Basin (Corridor Block), S Sumatera. Mainly Permian meta-carbonate (Leko Fm), intruded by Jurassic (175-205 Ma) granitic complex. Sourced from onlapping Paleogene sediments)

Adhiperdana, B.G. (2010)- A preliminary account of the framework grain composition and provenance of Lower Tertiary sandstone outcropped in the Ombilin Basin, Central Sumatra. Bull. Scientific Contribution (UNPAD) 8, 3, p. 141-157.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8252/3800)

Adi, P.C., A.S. Ningrum & A. Darmawan (2017)- Exploration potential of Late Upper Miocene limestone reservoir in Muara Enim Deep, South Palembang Sub-Basin field. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, p. 1-4.
(https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_Exploration-Potential-of-Late.pdf
(Discussion of shifting of Baturaja limestone buildup development towards SE margin of Muara Enim Deep/ Kuang High during Early Miocene (age not Upper Miocene as suggested in title; see also Pannetier 1994; JTvG))

Adibrata, B.W.H., Y. Hirosiadi, E. Septama & A. Rachmanto (2004)- From non-economic into producing field, a case study in Ketaling Barat field, Indonesia. Proc. 33rd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, p. 166-171.
(https://www.iagi.or.id/web/digital/16/2004_IAGI_Bandung_From-Non-Economic-Into-Producing.pdf)
(Ketaling Barat oil field 5 km E of Jambi discovered in 1959 by NIAM in E Miocene Baturaja carbonate, but low flow rates and high water cut, so deemed uneconomic. Reappraised in 2001 by well KTB 4, flowing 3600 BOPD)

Aditya, M., N. Akmal & A.H. Shamlan (2020)- Geochemistry evaluation and oil to source rock correlation of Lhokseumawe area, North Sumatra Basin. Proc. Digital Technical Conference 2020, Indonesian Petroleum Association (IPA), IPA20-G-204, p. 1-12.
(Geochem study suggests M Miocene Lower Baong oils sourced by Lower Baong source facies of marine origin)

Adji, E.F., F. Asrul, M.A. Arham & B. Wisnubroto (2014)- Reservoir modeling of carbonate on Fika Field: the c hallenge to capture the complexity of rock and oil types. Indonesian J. on Geoscience (IJOG) 1, 2, p. 83-97.
(online at: http://ijog.bgl.esdm.go.id/index.php/IJOG/article/view/181/178)
(Reservoir model of Medco 'Fika field' (not real name?) in S Sumatra. Field with 38 wells in E Miocene Baturaja Fm carbonate platform. Thin oil column below gas gap)

Adlan, F. (2006)- Potensi hidrokarbon prospek dalam pada lapangan-lapangan tua di sub-cekungan Palembang bagian Selatan. Proc. 35th Annual Conv. Indonesian Association Geologists (IAGI), Pekanbaru 2006, p. 1-7.
('Hydrocarbon prospects in old fields in S part of Palembang sub-basin'. Ten old oil fields on Pendopo-Limau anticlinorium with 1340 MMBO oil and 3 TCF gas in place. Additional prospects remaining in this trend)

Adlan, Q., B.M. Hartono, H.D. Nugraha, A. Herlambang, W. AlGharbi & E. Sabra (2025)- Constraining self-sourcing stratigraphic plays in North Sumatra: Integration of basin-petroleum system and stratigraphic forward modeling. Marine and Petroleum Geology 182, 107661, p. 1-19.
(Basin modeling and geochemical evidence suggest Miocene sediments in N Sumatra basin are potential hydrocarbon source rocks, with immediate lateral migration access to stratigraphic traps. In NSB multiple source rocks with similar organic matter, generating oils with similar marine signature in three oil families: M Miocene Baong oil (marine calcareous shale, Peutu/Belumai-equivalent source), Glagah-older oil (terrestrial fluvio-deltaic shale, E Miocene Bampo Fm source), and Late Miocene Keutapang-reservoir oil (marine shale, lower Baong-shale source.)

Adlan, Q., C.M. John, R.A. Fadhillah & W.M. AlGharbi (2025)- Stratigraphic controls on Middle Miocene sequence in the Eastern North Sumatra Basin: a forward modeling approach. SSRN depository, p. *(in press?)*
(preprint online at: https://ssrn.com/abstract=5149310 or http://dx.doi.org/10.2139/ssrn.5149310)

Afifah, P.D. & B. Setiawan (2019)- Middle Miocene black shale of Airbenakat Formation in Berau areas, Jambi: are they potential as a source rock. J. Geoscience Engineering Environment Technology (JGEET) 4, 2, p. 128-134.
(online at: https://journal.uir.ac.id/index.php/JGEET/article/view/1774/1844)
(Geochem of M Miocene black shale from Air Benakat Fm. suggests no hydrocarbon source potential and immature)

Agus, A. Subandrio, S. Widada, Feriyanto, S. Rakimi & Wibisono (2005)- Carbonate development on the "TN" field in the Lematang Trough, South Sumatra basin. Proc. 13th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 1-13.
(TN 1997 gas discovery in Baturaja Fm carbonate buildup on local high in Lematang Trough at ~12,000' depth, and tested 30.7 MMSCFD from 250' gross interval. Reef complex elongated, NNE-SSE trending, area 18.8 km^2 and relief ~600'. Carbonate porosity average 6.8-9.6%, moldic/ vuggy and intercrystalline, microfracture type porosity in several areas with permeability between 0.32-1.7 mD)

Agusetiawan, G., R. Nugraha, D. Hernadi, E. Rukmono & D. Husnil (2008)- Beruk Field reservoir in Central Sumatra Basin, Indonesia. 3rd EAGE St.Petersburg Int. Conference and Exhibition on Geosciences, 2008, p.

Agustin, M. V., S. Husein, Akmaluddin, A. Darmawan & T.A. Pribadi (2019)- Subsidence history of South Palembang sub-basin: Paleogene intra-uplift detected, multi-tectonic subsidence signature, and its implication. Proc. 43rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA19-G-569, p. 1-15.
(More than one tectonic subsidence event during Paleogene rifting of S Palembang Sub-basin: (1) first during formation of Lahat Fm (subsidence rate 0.12 mm/yr, duration 6.1 My) with rift basin tectonic subsidence signature; (2) second during formation of lower to middle Talangakar Fm (subsidence rate 1.05 mm/yr, duration of 1.6 My) with strike-slip basin tectonic subsidence signature. Events separated by intra-uplift in Late Oligocene)

Agustin, M.V., M.I. Novian, A. Darmawan & T. Agung (2017)- Sekuen stratigrafi sub-cekungan Palembang Selatan berdasarkan data pemboran pada sumur 'SSB'. Kabupaten Musi Waras, Provinsi Sumatera Selatan. Proc.

Seminar Nasional Kebumian 10, Dept. Teknik Geologi, Universitas Gadjah Mada (UGM), Yogyakarta, PSP-12, p. 921-934.
(online at: https://repository.ugm.ac.id/274230/1/PSP-12.pdf)
('Sequence stratigraphy of the South Palembang sub-basin stratigraphy based on drilling data of well 'SSB', Musi Waras District, South Sumatra Province'. Four sequences identified in Talang Akar- Air Benakat Fms interval (Early Miocene) in unspecified well 'SSB' in Pertamina block, S Sumatra)

Aimar, A., K.W. Nugroho, K.B. Catim, B.F. Harry & H. Suryanto (2016)- Parit Minyak Field Kisaran Block PSC: strategic approaches to develop a geologically complex, low permeability and remotefield in the Central Sumatera Basin. Proc. 40th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA16-4-E, p. 1-14.
(On development of Parit Minyak field in Barumun sub-basin in NW part of onshore C Sumatera Basin. Oil discovered by Chevron in 2006 in low-permeability sands of fluvial-lacustrine Pematang Fm rift section)

Akuanbantin, H. & D. Ardiputra (1976)- Geology of East Benakat oil field, South Sumatra. Proc. 5th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 59-68.
(East Benakat first drilled in 1930, tested minor oil in Talang Akar Fm in NW-SE trending anticline. Renewewed interest and development decision after Pertamina drilled E Benakat 3 in 1973)

Alamsyah, M.N., T. Fitrianto, S. Sukmono & S. Winardhi (2023)- A preliminary analysis of natural CO_2-saturated gas sands distribution in the Gemah Field-Jabung Block, South Sumatra Basin, Indonesia, by using simple seismic attributes. The Leading Edge 42, 11, p. 726-788.
(CO_2-saturated gas in Lower Talang Akar Fm sandstone reservoirs in Jabung Block of S Sumatra Basin affects development plans of Gemah Field. Sum of Negative Amplitude attribute shows linear relationship with sand thickness and CO_2 saturation)

Alamsyah, M.N., B.W. Handono & A. Syafriya (2016)- 3D seismic reservoir characterization and delineation in carbonate reservoir. AAPG/SEG Int. Conf. Exhibition, Melbourne 2015, Search and Discovery Article 41760, p. 1-14.
(online at: www.searchanddiscovery.com/documents/2016/41760alamsyah/ndx_alamsyah.pdf)
(Seismic reservoir delineation in E Miocene Baturaja carbonate in 2004 West Betara gas field discovery, N part of S Sumatra basin (Jambi))

Alamsyah, M.N., S. Marmosuwito, W. Sutjiningsih, L.P. Marpaung & S. Sukmono (2008)- Seismic reservoir characterization of Indonesia's Southwest Betara Field. The Leading Edge 27, 12, p. 1598-1607. *(online at: https://www.researchgate.net/publication/249868100_Seismic_reservoir_characterization_of_Indonesia's_Southwest_Betara_Field)*
(SW Betara Field 2005 PetroChina discovery in Talang Akar Fm A-Sand in Jabung Block, S Sumatra)

Alamsyah, M.N., A. Wasono Aji, Sihman M., B. Wisnu H. et al. (2006)- Reservoir characterization study to determine thin sand reservoirs using AVO Inversion and spectral decomposition analysis, 3D onshore seismic data of Ripah Field. Proc. Jakarta 2006 International Geoscience Conference Exhib., Indonesian Petroleum Association (IPA), 06-RC-04, p. 1-6.
(Identification of Late Oligocene Talang Akar Fm NNE trending deltaic channel sands in 2000 Ripah field, Jabung Basin, S Sumatra)

Alaydrus, J., S. Nurida & H. Mohede (2018)- Optimizing well placement strategy in a giant fractured basement gas reservoir through integrated subsurface analysis. A case study of the Suban Field. Proc. 42nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA18-110-G, p. 1-23.
(Suban gas field in Corridor Block, S Sumatra, world-class fractured reservoir with commingled production from fractured Tertiary (carbonate and sandstone) and Carboniferous- Cretaceous igneous and meta-sedimentary basement rocks. Fractures flow hydrocarbon down to 250-450m TVD below top basement. New wells to be placed: (a) high on fractured structure; (b) close to faults; (c) where brittle reservoir facies exist)

Alexander, W.L. & M.R. Nellia (1993)- 3D Seismic facies analysis of a reefal buildup: NSO' A' Field, offshore North Sumatra. Proc. 22nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 137-168.
(NSO-A1 1972 gas discovery in M Miocene reefal carbonates. Three facies identified on 3D seismic and wells: reef, near-reef, inter-reef. Near-reef and inter-reef areas better reservoir properties than reef core. Reef facies with zones of vuggy porosity correlatable to lost circulation. Dolomite only in reef facies)

Alfian & P. Manik (1993)- Penyebaran dan proses pembentukkan CO_2 serta kaitannya dengan nilai kekonomian prospek di Cekungan Sumatera Utara. Proc. 22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 803-813.
(online at: https://www.iagi.or.id/web/digital/53/22nd-Volume-2-(6-9-Des-1993)-199-209.pdf)
('Distribution and process of CO_2 formation and its relation with the economic value of prospects in the North Sumatera Basin'. Gases in wells from the N Sumatra basin locally high in CO2 (1-80%). CO_2 probably originated from thermal breakdown of carbonate rocks, both in Pretertiary basement and Eocene(?) Tampur Fm dolomites). With map of CO_2 % distribution)

Alford, M.E., L.L. Cargile & M.B. Siagan (1975)- Development of the Arun gas field. Proc. 4th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 173-187.
(Mobil Oil-Pertamina Arun gas field in Aceh, N Sumatra, discovered in 1971 in E-M Mioceen reefal carbonate buildup, 18.5 km long, 5.0 km wide. Production began in 1975. Produced gas almost 15% CO_2).

Almon, W.R. & W.C. Dawson (2000)- Paleosols as top seals for nonmarine petroleum systems, Central Sumatra Basin, Indonesia. AAPG International Conference Bali 2000, American Assoc. Petroleum Geol. (AAPG) Bull. 84, 9 (*Abstract*)
(Paleosols in nonmarine- marginal marine facies in C Sumatra Basin densely compacted, cemented, partially recrystallized clay matrix. Porosity 1.5 -9.7%, perm. 0.2 -0.007 md. Paleosols good seals capable of retaining columns up to 4600' oil and 5900' gas, varying with API gravity, T, and fluid density. Sealing capacity correlates with clay content and position in soil zone. Hydrocarbons can leak across paleosol horizons along faults or where breached by fluvial-tidal channels. Thick paleosol at 25.5 Ma sequence boundary appears to focus migration toward E margin of basin)

Ambarwati, W.L., R. Idris & E. Nurjadi, (2017)- Whole rock geochemistry for provenance discrimination of lower Baong interval, North Sumatra basin. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI, Malang 2017, p. 1-14.
(online at: https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_Whole-Rock-Geochemistry.pdf)
*(Petrography and whole rock geochemistry analysis of M Miocene Lower Baong Fm in 7 N Sumatra basin wells show clastic source frmo Malacca Platform, not Barisan Mountains)_*

Amlan, M.H., W. Winderasta, A. Susianto, R. Kurniawan & M.Z. Arifin (2019)- The top seal capacity of regional Telisa Shale and intraformational seals in Central Sumatra Basin. AAPG Technical Symposium, Bogor 2019, 5p.
(online at: https://www.researchgate.net/publication/335602284_The_Top_Seal_Capacity_of_Regional_Telisa_Shale_and_Intraformational_Seals_in_Central_Sumatra_Basin)
(Widespread E-M Miocene marine shales of Telisa Fm in prolific C Sumatra Basin cap giant oil-gas accumulations with 300'-600' hydrocarbon columns. Intra-formational seal horizons in deeper Bekasap Fm cap hydrocarbon accumulations with up to 500' columns)

Amier, R.I. (1991)- Coals, source rocks and hydrocarbons in the South Palembang sub-basin, south Sumatra, Indonesia. M.Sc. Thesis University of Wollongong, p. 1-161.
(online at: http://ro.uow.edu.au/theses/2828)
(S Palembang Sub-basin in S part of S Sumatra Basin, with coals in Muara Enim, Talang Akar and Lahat Fms. Main workable coal measures in Muara Enim Fm. Vitrinite reflectance data indicate onset of oil generation below 1500 m. Crude oils high pristane-phytane ratios and with bicadinane-type resin and oleanane, indicating land-derived organic matter. Biomarkers and thermal maturity suggest Talang Akar Fm most likely oil source)

Amijaya, D.H. (2005)- Paleoenvironmental, paleoecological and thermal metamorphism implications on the organic petrography and organic geochemistry of Tertiary Tanjung Enim coal, South Sumatra Basin, Indonesia. Ph.D. Thesis Rheinisch-Westfalischen Technischen Hochschule, Aachen, p. 1-170.
(online at: http://darwin.bth.rwth-aachen.de/opus/volltexte/2005/1266/pdf/Amijaya_Donatus.pdf)
(Organic petrography and organic geochemistry study of Miocene Muara Enim Fm coals in Tanjung Enim area, South Sumatra. Low rank coals (VR 0.35-0.46%), locally thermally metamorphosed to meta-anthracite (VR up to 5.2%))

Amijaya, H. (2006)- Reappraisal of kerogen typing on low rank coal from South Sumatra basin, Indonesia. Proc. 35th Annual Conv. Indonesian Association Geologists (IAGI), Pekanbaru 2006, PITIAGI2006-011, p. 1-6.
(online at: https://www.iagi.or.id/web/digital/15/2006_IAGI_Pekan-Baru_Reappraisal-of-Kerogen-Typing.pdf)
(Low rank coals from Tanjung Enim area, S Sumatra, mean huminite reflectance 0.35-0.46%. Dominated by huminite (34-95%), less liptinite (4- 61%) and inertinite (0.2-44%). Lowest Hydrogen Index (HI) values of 171 mg HC/g TOC; sample with high liptinite HI of 507 mg HC/g TOC. Kerogen type mainly type III)

Amijaya, H. & R. Littke (2005)- Microfacies and depositional environment of Tertiary Tanjung Enim low rank coal, South Sumatra Basin, Indonesia. Int. J. Coal Geology 61, p. 197-221.
(online at: https://www.academia.edu/5210675/Microfacies_and_depositional_environment_of_Tertiary_Tanjung_Enim_low_rank_coal_South_Sumatra_Basin_Indonesia)
(Tanjung Enim area, South Sumatra, low rank M-L Miocene coals of Muara Enim Fm. Sequence of maceral assemblages represents change of topogenous to ombrogenous peat and development of a raised peat bog)

Amijaya, H. & R. Littke (2006)- Properties of thermally metamorphosed coal from Tanjung Enim area, South Sumatra Basin, Indonesia with special reference to the coalification path of macerals. Int. J. Coal Geology 66, p. 271-295.
(Tanjung Enim Tertiary age coals thermally metamorphosed by heat from andesitic intrusion. Original coal rank subbituminous- high volatile bituminous, thermally metamorphosed coals medium volatile bituminous- meta-anthracite. Contact metamorphism T= 700-750°C in most metamorphosed coal)

Amijaya, H., J. Schwarzbauer & R. Littke (2006)- Organic geochemistry of the Lower Suban coal seam, South Sumatra Basin, Indonesia: palaeoecological and thermal metamorphism implications. Organic Geochemistry 37, p. 261-279.

Amin, T.C. & S. Gafoer (1986)- Hubungan antara Cekungan Bengkulu dengan Sumatera Selatan pada awal Tersier. Proc. 14th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta 1985, p. 49-60.
(online at: https://www.iagi.or.id/web/digital/40/PIT_IAGI_1985_paper6.pdf)
('Relationship between the Bengkulu Basin and S Sumatra in the Tertiary'. Sea connection between S Sumatra and Bengkulu basins located N of Manna, and cut off in M Miocene by uplifting Barisan Range)

Amir, V., R. Achdiat, M. Meirita & J. Guttormsen (2011)- Facies architecture and depositional relationship of Baturaja carbonates in Letang, Rawa, and Tengah fields, Corridor Block, South Sumatra. Proc. 35th Annual Conv. Indonesian Petroleum Association, IPA11-G-090, p. 1-14.
(Letang, Rawa and Tengah eqarly 1990's gas discoveries in Corridor Block E Miocene Baturaja Fm carbonate buildups. Two main carbonate facies, muddy platform facies and coral-algal reefal buildup facies. Build-up facies commonly developed above paleo-highs. Most porosity secondary vuggy and mouldic in leached coral-algal framework. Carbonate platforms separated by deep NW-SE intra-platform channels. Karstification effect related episodes predominantly developed in upper interval)

Amlan, M.H, Hendar S.M., Yarmanto & I.A. Muswar (2006)- Influence of strike-slip fault in structural deformation of Asih and Asih North fields, Central Sumatra basin. Proc. 35th Annual Conv. Indonesian Association Geologists (IAGI), Pekanbaru, PITIAGI2006-048, p. 1-10.
(online at: https://www.iagi.or.id/web/digital/15/2006_IAGI_Pekan-Baru_-Influence-Of-Strike.pdf)

(Asih and Asih North two structural oil fields along N-S strike slip fault, about 30 km from Minas Field. Remapping of Bekasap and Menggala Fm with 3D seismic. Left-stepping en echelon folds and faults represent flower structure formed by NNW-SSE movement along older weak zone or 'suture' after SW-NE compression)

Amlan, M.H., W. Winderasta, A. Susianto, M.Z. Kurniawan & M.Z. Arifin (2019)- The top seal capacity of regional Telisa Shale and intraformational seals in Central Sumatra Basin. AAPG Asia Pacific Technical Symposium, The art of hydrocarbon prediction: managing uncertainties, Bogor 2019, p. *(Abstract only)*
(online at: www.searchanddiscovery.com/abstracts/html/2019/jakarta-90354/abstracts/2019.AP.Bogor .032.html)
(Regional E Miocene Telisa shale in C Sumatra basin has capacity to seal giant accumulations from 0.5 BBO to 9 BBO, corresponding to hydrocarbon column of 200'- 550'. Fields tend to have single common oil water contact, despite multiple sand reservoirs. Other intraformational top seals present with column height potential up to 300'. Sealing capacity of Paleogene non marine seals in Pematang Fm 1750' of oil column)

Anderson, B.L., J. Bon & H.E. Wahono (1993)- Reassessment of the Miocene stratigraphy, paleogeography and petroleum geochemistry of the Langsa Block in the offshore North Sumatra Basin. Proc. 22nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 169-189.
(Langsa Block Miocene series of multicycles related to tectonic phases. Each multicycle several cycles: 4 in B, 5 in C. Multicycle A not penetrated, but interpreted on seismic. Paleogeographic reconstructions basis for interpretation of source rock distribution. Two source rock types: (1) algal, probably lacustrine (initial A-Multicycle) and (2) mixed marine algal/terrestrial (later A-Multicycle). Younger source rocks (B and C-Multicycles) also identified but no oils typed to these. Oil generation started at beginning of Miocene in deepest grabens and still continues on graben margin. Gas generation started in Late Miocene in most basinal areas)

Andriyani, D. C., S. Winardi & S.S. Surjono (2023)- Petrophysical study and rock type determination of siliciclastic reservoir: case study Sand of Bekasap Formation, AF Field, Central Sumatra Basin, Indonesia. J. Applied Geology UGM) 7, 2, p. 122-138.
(online at: https://jurnal.ugm.ac.id/jag/article/view/83471/36238)

Anggara, F., D.H. Amijaya, A. Harijoko, T.N. Tambaria, A.A. Sahri & Z.A.N. Asa (2018)- Rare Earth Element and Yttrium content of coal in the Banko coalfield, South Sumatra Basin, Indonesia: contributions from tonstein layers. Int. J. Coal Geology 196, p. 159-172.
(Banko coalfield in Muara Enim Fm near Tanjung Enim in S Sumatra with tonsteins of volcanic origin. Highest REY concentration in sample below silicic tuffaceous mudstone (tonstein) layer)

Anggarini, K.S. & D.S. Djohor (2014)- Studi karakteristik batubara sebagai batuan waduk dan batuan induk pada sistem gas metana batubara di daerah Kabupaten Muara Enim, Propinsi Sumatera Selatan. Bul. Ilmiah Mineral dan Energi (MINDAGI; Trisakti) 7, 1, p. 85-97.
('Study of the characteristics of coal as reservoir and source rock in the coal methane gas system in the area of Muara Enim, S Sumatra'. Study of coal quality, maturity and coalbed methane potential of four main seams in Miocene Muara Enim Fm in Rambutan area)

Anggayana, K., T. Indriati, Syafrizal & Y.B. Adian (1998)- Kandungan abu dan sulfur batubara Air Laya Tanjung Enim yang berasal dari type highmoor pada lingkungan Pengendapan Payau. Jurnal Teknologi Mineral (ITB) 5, 3, p.
(Air Laya Coal, Tanjung Enim, S Sumatra, formed in ombrogenic moor, while Muara Enim coaly formation was deposited in brackish environment. Depositional environment reflected in sulfur content of roof and underlying sediments. Air Laya A-1 and A-2 seams sulfur <1% and ash contents increases from upper to lower part (~1 to 4%). B-1 seam sulfur <1%, ash contents are 4 2-9.9%. Sulfur in B-2 and C seams post- depositional pyrite as cavity fill and framboidal forms)

Anggayana, K., A.H. Widayat & S. Widodo (2014)- Depositional environment of the Sangkarewang oil shale, Ombilin Basin, Indonesia. J. Engineering Technological Sciences (ITB) 46, 4, p. 420-435.
(online at: http://journals.itb.ac.id/index.php/jets/article/view/354/549)

(Organic matter in samples from 56m long core of E Oligocene lacustrine Sangkarewang oil shale abundant lamalginite (30%) and minor vitrinite and resinite, suggesting aquatic depositional environment with minor terrestrial influence. Organic matter dominated by pristane, phytane, and n-alkanes. Oil shale likely deposited in anoxic lake environment as suggested by framboidal pyrite (6%) and total organic matter of ~4.9%.)

Anggoro, S., I. Arif, Y. Iswanto, W.F. Mallett & B. Subiyanto (2009)- Finding by-passed oil in a mature field by reprocessing and reinterpreting existing 3D seismic; a case study of Petapahan Field, Sumatera, Indonesia. Proc. 33rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA09-G-177, p.
(Petapahan Field 1971 discovery in C Sumatera Basin, with peak production over 48,000 BOPD in 1973. Re-opening sand intervals that had been closed and infill drilling raised production from 3100 to 4900 BOPD)

Angraini, B. & T. Yonathan S (2011)- Sequence stratigraphy and facies analysis of Muara Enim Formation, to predict prospecting areas in TAC Pertamina- Pilona Petro Tanjung Lontar. Proc. 35th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA11-G-157, p. 1-11.
(On Late Miocene fluvio-deltaic Muara Enim Fm, SW part of South Palembang Basin. Barisan Mts main clastic sediment source for M Miocene Air Benakat Fm and younger sediments; Sunda Craton is main clastic source for E Miocene Gumai Fm and older rocks)

Anonymous (1919)- De Lematang kolenvelden (met nadere beschrijving van het Boekit-Asem kolenveld). Verslagen Mededeelingen Indische delfstoffen en hare toepassingen, Dienst Mijnwezen in Nederlandsch Oost-Indie, 10, p. 1-30.
(online at: https://resolver.kb.nl/resolve?urn=MMKB24:078902000:pdf)
('The Lematang coal fields (with more detailed description of the Bukit Asam coal field)'. Most likely author Tromp. Early publication describing low grade M-L Miocene Middle Palembang Fm coals, improved to higher grades around young andesite intrusions. Mining of Bukit Asam coal started in 1916, by Netherlands Indies government. Four main coals/ coal intervals, from old to young: Merapi (8-10m), Petai (5-8m), Soeban (7-10m) and Mangoes (14-22m), interbedded with tuff, sandstones and claystones)

Aprilian, S., K. Kurnely & K. Novian (2003)- Rejuvenation of matured oil fields in South Sumatra, Indonesia. In: SPE Asia Pacific Oil and Gas Conference Exhib. (APOGCE), Jakarta 2003, p. 1-6.
(Pertamina operates 55 mature oil fields in S Sumatra in 2 areas, Pendopo and Prabumulih. Rejuvenation projects resulted in 45.6 MMBO of additional oil reserves in 12 fields)

Ardhie, M.N. (2022)- Reservoir characterizations of Pre-Tertiary Basement fracture and its implication to the production behavior. A case study of Pase Field North Sumatra Basin Indonesia. Proc. 46th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA22-G-89, p. 1-20
(Pase field in Pase Block, onshore N Sumatra Basin, 30 km SE of Arun. 1983 gas discovery in Tertiary sediment and pre-Tertiary metagreywacke basement, both fractured. Producing since 1998.

Argakoesoemah, R.M.I. & D.A. Firmansyah (2011)- Half-day visit to Solok-Sawahlunto area, Ombilin Basin: a short observation on non-marine depositional sequences. Berita Sedimentologi 20, p. 12-17.
(online at: www.iagi.or.id/fosi/files/2011/01/BS20-Sumatra1.pdf)
(Outcrop photos of Eocene- Oligocene fluvial clastics of Ombilin Basin)

Argakoesoemah, R.M.I. & A. Kamal (2004)- Ancient Talang Akar deepwater sediments in South Sumatra Basin: a new exploration play. In: R.A. Noble et al. (eds.) Proc. Int. Conf. Deepwater and frontier exploration in Asia & Australasia, Jakarta, Indonesian Petroleum Association (IPA), Jakarta, p. 251-267. *(online at: www.researchgate.net/publication/272170416_Ancient_Talang_Akar_deepwater_sediments_in_South_ Etc.)*
(Two potential areas of Talang Akar Fm deepwater play in S Sumatra: C Palembang Sub-basin in W, and Benakat Gully in E. Expected reservoir sandstone wide range of rock properties and compositions. Tuffaceous content in C Palembang sub-basin may be derived from volcaniclastics in Musi Platform and Mambang High. Source rocks mature- overmature Lemat and Talang Akar Fm shales. Sources entered oil window in middle E Miocene and began generating gas in M Miocene. Trap mainly stratigraphic with Late Miocene- Plio-Pleistocene structures. Intraformational deep marine shales provide vertical seal)

Argakoesoemah, R.M.I., M. Rahardja, S. Winardhi, R. Tarigan, T.F. Maksum & A. Aimar (2005)- Telisa shallow marine sandstone as an emerging exploration target in Palembang High, South Sumatra Basin. Proc. 30th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, IPA05-G-156, p. 101-120. *(online at: www.academia.edu/11996312/Telisa_Shallow_Marine_Sandstone_as_an_Emerging_Exploration_Tar Etc.)*
(Lowstand sands in Telisa shale Fm in S Sumatra basin potential hydrocarbon target, but generally poor reservoir quality)

Arham, M.A., Y. Akbar, E.F. Adji & R. Oentoe (2012)- Calcareous siltstone as new hydrocarbon potential on Musi Platform, South Sumatra Basin Proc. 37th Annual Conv. Indonesian Association Geophysicists (HAGI), Palembang, PIT HAGI2012-196, p. 1-5.
(E Miocene calcareous siltstone in Lower Telisa Fm above Baturaja Fm provides additional potential for oil and gas in Seka and Geka fields, Musi Platform, S Sumatra Basin)

Arham, M.A., A. Juniarti & E.F. Adji (2010)- Effect of carbonate facies changes on hydrocarbon accumulation and distribution in "F" Field, South Sumatra. Proc. 39th Annual Conv. Indonesian Association Geologists (IAGI), Lombok, PIT-IAGI-2010-283, p. 1-10.
(online at: https://www.iagi.or.id/web/digital/12/2010_IAGI_Lombok_Effect-of-Carbonate-Facies.pdf)
(Baturaja Limestone reservoir characterization model of Medco 'F' Field, 3 km E of Soka field, S Sumatra Extension Block. Two kinds of reservoir type: reefal facies and platform facies. Ten oil producing wells, with average production of ~400 BOD. Some wells tight reservoirs)

Ariani, S., A.Y. Sihombing, I.M. Gunawan, A. Setiawan, P. Adam & A. Tarmusi (2010)- Facies and sandstone distribution pattern of “M” sandstone reservoir in Air Benakat Formation, Sungai Gelam Field, Jambi Subbasin. Proc. 34th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA10-G-167, p. 1-12.
(M Miocene reservoir sand in lower Air Benakat Fm in Sungei Gelam field interpreted as tidal deposits)

Arisandy, M., W.B. Nasifi, D. Iriansyah, R. Kahar & F.H. Korah (2024)- Unveiling the architectural elements of deepwater potential play in the Southern Andaman Sea, Offshore North Sumatra Basin. Proc. 48th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA24-G-391, p. 1495-1508.
(On largely unexplored deepwater area of North Sumatra Basin, focused on gas discovery in deep marine Miocene Baong Fm play (Jambu Aye Utara-1 (JAU-1) well, drilled by Inpex Aceh in 1986))

Ariyanto, P. & F. Kusdiantoro (2014)- Secondary hydrocarbon migration and entrapment evaluation in Lematang Area, South Sumatra. Proc. 38th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA14-G-337, p. 1-17p.

Ariyanto, P. & I.Y. Syarifuddin (2018)- New insights into the structural devlopment of the Block A area, North Sumatra basin: constraints from subsidence analysis and palinspatic reconstruction. Proc. 42nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA18-587-G, p. 1-22.
(Southern N Sumatra basin in E-M Miocene not just post-rift subsidence, but flexural basin (foredeep) in front of Barisan Mts thrust front after ~16-14 Ma)

Arnold, C.W. (1992)- A classical reservoir study of the Petani Field- approach to analyzing an older complex reservoir. Proc. 21st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 487-515.
(Caltex Petani field reservoir study)

Aryanto, N.C.D. (2015)- Penentuan sistem petroleum di subcekungan Palembang Selatan dan Utara, Cekungan Sumatra Selatan berdasarkan analisis geokimia dan pemodelan cekungan. Ph.D. Dissertation Institut Teknologi Bandung (ITB), p. 1- . *(Unpublished)*
('Determination of the petroleum system in S and N Palembang subbasins, South Sumatra Basin, based on geochemistry analysis and basin modeling')

Ascaria, A., D.R. Herrero, R. Mesquita, A. Kajatmo, V.O. Maria, W. Hidayat et al. (2019)- Extended carbonate play revealed by high quality new 3D data, deep water offshore North Sumatra Basin. Proc. SE Asia Petroleum Exploration Society (SEAPEX) Exploration Conference 2019, Singapore, p. 1-8.
(online at: https://www.seapex.org/wp-content/uploads/Abstract/SEC%202019%20Abstracts%20-%20Session%206%20-%20Indonesia%20Revisited%201%20-%20Sumatra.pdf
(Four exploration play types identified in Andaman III block with new 3D seismic:(1, Late Eocene-Oligocene Tampur carbonate (Rencong prospect); (2) Oligocene clastics; (3), E-M Miocene carbonate and (4) Mio-Pliocene clastics in thrust. Main play in block is Late Eocene-Oligocene carbonate build-ups on basement highs surrounded by marine shale)

Asmina, A., E. Sutriyono & E.W.D. Hastuti (2017)- Gas content appraisal of shallow coal seams in the South Palembang Basin of South Sumatra. Int. J. of Geomate 12, 33, p. 45-52.
(online at: www.geomatejournal.com/sites/default/files/articles/45-52-2519-Edy-May%202017-33-g1.pdf)
(Gas content of Late Miocene low-rank coal seams in S Palembang basin from well log and core analysis varies from 4.1-5.3 m3/t, increasing with deeper burial. Total estimated gas-in-place ~3,019 MMm3. Onset of biogenic gas generation may be before Plio-Pleistocene inversion)

Aswan, M. Abdurrachman, B.S. Fitriana, M.F. Mustofa, W.D. Santoso, A. Rudyawan, W.D. Rahayu et al. (2017)- Paleoenvironmental study of Miocene sediments from JTB-1 and NRM-1 wells, in West Ogan Komering Block, Meraksa Area, South Sumatra Basin. In: 2nd Int. Conf. Transdisciplinary research on environmental problems in Southeast Asia (TREPSEA), Bandung 2016, IOP Conference Series: Earth and Environmental Science, 71, 012033, p. 1-9.
(Comparison of E-M Miocene marine paleoenvironments in two wells in West Ogan Komering Block, SE part of S Sumatra basin, based on benthic foraminifera)

Aswan, S. Graha, D. Suryadi, T. Wiguna & S.I. Qivayanti (2016)- Oligocene cyclic sedimentation deduced from taphonomic analysis of molluscs in lacustrine deposits of the Pematang Group, Pesada Well, Central Sumatra Basin. J. Mathematical Fundamental Sciences (ITB) 48, 1, p. 66-81.
(online at: http://journals.itb.ac.id/index.php/jmfs/article/view/471/1155)
(Taphonomic analysis of gastropods used to interpret cyclicity in lacustrine Brown Shale. Four types of shell concentrations: (1) early transgressive deposits erosion surface at base, with abraded and broken shells; (2,3) late and maximum transgressive deposits with rel. common complete shells in life position; (3) early regressive deposits alternating shell-rich and shell-poor layers. Seven sedimentary cycles in Pesada well)

Aswan, Y. Rizal & A.K.A. Pradana (2009)- Stratal architecture of Pematang Group, Central Sumatra Basin, based on molluscan taphonomic study: case study in Kiliranjao Area. Majalah Geologi Indonesia (IAGI) 24, 3, p. 141-151.
(Eo-Oligocene lacustrine shales with freshwater molluscs Paludina, Brotia and Thiara in SW part of C Sumatra basin)

Atmadibrata, R. (1988)- Top of abnormal pressure zone prediction in the Arun gas field, North Sumatra. Proc. 17th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 1-12.
(online at: https://www.iagi.or.id/web/digital/46/17th-volume-(-12-15-Des-1988-)-4-15.pdf)
(Area around 1971 Arun discovery in N Sumatra basin with overpressure between ~4000 and 8000', in M-U Miocene Baong and Lower Keutupang Fms)

Atmadibrata, R.M.R., D. Muslim, R.F. Hirnawan & Abdurrokhim (2019)- Characteristics of Arun carbonate reservoir and its implication to optimize the most potential gas resource zone in Arun gas field, Aceh, Indonesia. Indonesian J. on Geoscience (IJOG) 6, 2, p. 209-222.
(online at: http://ijog.bgl.esdm.go.id/index.php/IJOG/article/view/579/287)

Atmosudiro, H.W. (1977)- Huff & puff stimulation, Duri Field. Proc. 6th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 143-155.

(Shallow giant Duri field in C Sumatra 1941 discovery. 516 wells drilled and 270 MBO produced by 1976. Steam injection used to increase viscous oil recovery)

Azam, A., A.H. Patria K, P. Dikdya W. & A. Kurniawan P. (2025)- Karakteristik batuan induk dan pemodelan Cekungan di Lapangan North Aman, Cekungan Sumatra Tengah. Lembaran Publikasi Minyak dan Gas Bumi (Lemigas) 59, 1, p. 9-19.
(online at: https://journal.lemigas.esdm.go.id/index.php/LPMGB/article/view/1791/1367)
('Source rock characteristics and basin modeling in the North Aman Field, Central Sumatra Basin')

Aziz, A. & L.H. Bolt (1984)- Occurrence and detection of abnormal pressures from geological and drilling data, North Sumatra Basin. Proc. 13th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 195-220.
(On abnormal pressures in Pertamina-Mobil 'B' Block in N Sumatra Basin. Along Arun-Lhok Sukon High and adjacent deeps, overpressure in U-M Miocene Lower Keutapang and Baong formation between 4000-8000' subsea. Overpressure related to rapid sediment deposition)

Bachri, S. & S. Andi Mangga (2000)- Sejarah deformasi Kompleks Ampera, Tanjungkarang. Jurnal Geologi dan Sumberdaya Mineral (JGSM) (GRDC) 10, 106, p. 25-32.
('Deformation history of the Ampera Complex, Tanjungkarang'. Paleozoic? metasediments of Ampera Complex off Lampung Bay in SE part of S Sumatra (= Lampung Schist of Van Bemmelen, 1949, Gunung Kasih Complex of Amin), subjected to several deformation phases: (1) F1 isoclinal folding with intense metamorphism; (2) open folding with weak metamorphism and (3) weak deformation producing cleavage, possibly also folding. Followed by M Cretaceous gabbro and diorite intrusives (Sulan granodiorite age 113-111Ma))

Bachri, S., U. Sukanta, S. Gafoer, D.S. Nas, Kusmana, Suminto, K. Hasan & E.H. Nugroho (2002)- Stratigrafi batuan sedimen Paleogen sub-cekungan Kiliranjao, Sumatra Barat. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 12, 128, p. 24-32.
('Stratigraphy of Paleogene sedimentary rocks of the Kiliiranjo subbasin, W Sumatra'. Mainly Oligocene?, ~200m thick clastics section of fluvial, swamp and lacustrine facies at Barisan Mts front, WSW of Rengat, in SW corner of C Sumatra Basin. Lower 70m mainly floodplain mudstone, middle 41m thin coals, mudstone and freshwater limestone with gastropods. Upper 98m lacustrine mudstone, some may be categorized as oil shale)

Bachri, S., E. Susanto, D.S. Nas & W. Gunawan (2002)- Endapan danau Eosen di cekungan Ombilin, Sumatra Barat: suatu studi sedimentologi dan stratigrafi formasi yang mengandung serpih minyak. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 12, 127, p. 15-24.
('Eocene lake deposits of the Ombilin Basin, W Sumatra: sedimentological- stratigraphic study of the oil source rock'. Eocene Sangkarewang Fm E of Lake Singkarak in Barisan Mts >430m thick, deposited in fluvial and lacustrine environment. Eocene age from pollen Florschuetzia trilobata, Palmaepollenites kutchensis and Verrucatosporites usmensis. Repeated fining- and thinning-upward cycles of sandstones-shales. Upper part of formation dominated by up to 100's of m thick lacustrine 'papery shale')

Bachtiar, A., M. Rozalli, F.I. Barus, K. Simanjuntak, H. Gultaf, I. Ansari & H.R. Melsa (2011)- Tectonics and sedimentation of Sihapas and Telisa formations based on outcrop study in Gunung Tua area, Central Sumatra Basin, Indonesia. Proc. Joint 36th HAGI and 40th IAGI Annual Conv., Makassar, JCM2011-449, p. 1-10.
(online at: https://www.iagi.or.id/web/digital/10/2011_IAGI_Makassar_Tectonics-and-Sedimentation.pdf)
(Outcrops along road from Gunung Tua to Padangsidempuan, N Sumatra, include Permian metamorphics and steeply dipping fusulinid limestone (Kuantan Fm, Mergui microcontinent), Sihapas and Telisa Fms. Provenance for synrift Sihapas Fm is Barisan area. Development of structure controlled by strike slip faulting)

Bahesti, F. (2011)- Palinspatic 2D seismic restoration: simple method for reconstructing inverted structure and basin history, a case study in Langkat Area, North Sumatra Basin. Berita Sedimentologi 20, p. 22-25.
(online at: www.iagi.or.id/fosi/bs20-sumatra.html. Restoration of seismic cross-section of Langkat area. Oligocene rifting followed by Miocene quiescence and Plio-Pleistocene 'Barisan' inversion. Detachment depth calculated at ~5000ms in time, extension factor 0.2, compression 0.63)

Bahesti, F. (2017)- Paleozoic- Mesozoic and Eocene outcrops in the North Sumatra Basin and their implication to new exploration play concept. Berita Sedimentologi (FOSI- IAGI) 37, p. 14-22.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/93/64)
(Review of potential Paleozoic- Paleogene deep plays in N Sumatra:Peusangan Group (Permian-Triassic), Woyla Group (Jurassic-Cretaceous), and Eocene- Early Oligocene Tampur carbonate/dolomite. Eocene Tampur Fm may be both source and reservoir rock)

Bahesti, F., E.A. Subroto, N.A. Manaf & W. Sadirsan (2011)- Integrated basin analysis and geomechanics study of Lower Baong Shale for preliminary shale gas prospectivity in the North Sumatra Basin. Proc. 38th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA14-G-014, p. 1-18.
(E-M Miocene Lower Baong Fm hydrocarbon source rock in N Sumatra basin Study deemed to have sweet spots with shale gas potential)

Bahesti, F., Taufiqurrahman & A. Prima K. (2011)- Pemodelan struktur shale diapir Formasi Baong derdasakan data seismik, singapan dan oil seepage di onshore Cekungan Sumatera Utara. Proc. 36th HAGI and 40th IAGI Annual Conv., Makassar, JCM2011-029, p. 1-10.
(online at: https://www.iagi.or.id/web/digital/10/2011_IAGI_Makassar_Pemodelan-Struktur-Shale.pdf)
('Modeling of Baong Fm shale diapir structures and oil seepage in onshore N Sumatra basin')

Bahesti, F., Taufiqurrahman R., A. Prima K., F. Nuri & M. Wahyudin (2013)- Shale diapir tectonic evolution of the Baong Formation as a potential hydrocarbon seal in the North Sumatra Basin. Proc. 37th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA13-G-178, p. 1-9.

Bahesti, F., M. Wahyudin & Y. Hirosiadi (2015)- Mesozoic and Eocene Tampur hydrocarbon exploration potential in the North Sumatra Basin: new evidence from seismic, well and outcrops. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI, Balikpapan, JCB2015-089, p. 1-10.
(online at: https://www.iagi.or.id/web/digital/3/2015_IAGI_Balikpapan_Mesozoic-and-Eocene.pdf)
(Tampur Fm recrystallized limestones and dolomites believed to be part of widespread Eocene carbonate/ dolomite platform covering pre-rift sediments in N Sumatra Basin, and part of Sibumasu Terrane. New 75 m thick mature, lagoonal? mudstone source rock with TOC 0.8-2.1% in Tampur Fm in Benggala-1 well, which penetrated 200m of Tampur Fm. Kerogen mixed oxic terrestrial plant facies and algal marine. Pre-Tertiary Batumilmil Fm. Limestone at Gua Batukatak with K-Ar age of 241 ± 7 Ma (E-M Triassic). Good secondary porosity and permeability in Tampur dolomite (NB: No biostrat data to support Eocene age of Tampur Fm?; JTvG))

Bahtiar, A. & N.S. Ningrum (2012)- Petrographic characteristics and depositional environment of coal seams D (Merapi) and E (Keladi), Muara Enim Formation, South Sumatera Basin. Indonesian Mining J. 15, 1, p. 1-13.
(online at: http://jurnal.tekmira.esdm.go.id/index.php/imj/article/view/470/335)
(Coal seams D and E of M Miocene lower Muara Enim Fm in Air Laya coal mines with dominant macerals vitrinite and inertinite. Sub-bituminous- high volatile bituminous rank. Deposited in upper delta plain environment with ombrotrophic peat type)

Banukarso, M., L.D. Meckel, N. Citrajaya & S. Raharjo (2013)- An inverted syn-rift play in the offshore North Sumatra Basin. Proc. 37th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA13-G-176, p. 1-17.
(Several of N-S trending Eo-Oligocene Paleogene half-graben in offshore N Sumatra Basin display M Miocene and younger inversion structures. Create potential hydrocarbon traps in syn-rift clastics)

Barianto, D.H., F. Anggara, S. Husein, T.A. Pribadi & M. Ahmad (2017)- The advancement of Paleogene stratigraphy of South Sumatra Basin in Gumai Mountains. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, p. 1-5.
(online at: www.researchgate.net/publication/320826699_The_Advancement_of_Paleogene_Stratigrap Etc.)
(Stratigraphy of volcanics-rich Paleogene in Gumai Mts area, S Sumatra, overlying Jurassic- Cretaceous volcanic arc basement complex. Kikim Tuffs and quartz-rich Lemat/ Lahat Fms sandstones. No age control)

Barliana, A. (2002)- Oil and gas discoveries in the Baturaja carbonate play, Corridor Block, South Sumatra Basin. Indonesian Petroleum Association (IPA), News Letter, October 2002, p. 12-16.

Barliana, A., G. Burgon & C.A. Caughey (1999)- Changing perceptions of a carbonate gas reservoir: Alur Siwah Field, Aceh Timur, Sumatra. Proc. 27th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA99-G-160, p. 1-18.
(1972 Alur Siwah discovery looked like substantial gas accumulation. First few wells gas column >110m in E Miocene Peutu Lst build up. OGIP estimated at 727 BCFG. Later wells found poor reservoir quality and OGIP estimates plummeted to 195 BCFG. Subsequent 3D seismic and infill drilling indicates OGIP of 717 BCFG. Alur Siwah 8 well also tested 6.8 MMSCF gas/day from dolomite of underlying Tampur Fm (below the GWC established in the Peutu Fm limestone)

Barliana, A., T. Wahyudi & M. Chamberlain (1993)- Stratigraphy of outcropping Miocene deposits, Aceh Timur: implications for hydrocarbon exploration. Proc. 22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 814-831.
(N Sumatra Block A exposures of E-dipping late E Miocene Peutu Limestone, 30-75m thick, in foothills of Barisan Mts, forming N-S ridge over 25 km. Clean skeletal limestones formerly called 'Orbitoid Limestone' rich in larger foraminifera (Lepidocyclina) and argillaceous limestones interbedded with shale. Overlain by 2000-3000m thick M-U Miocene Baong Shale (formerly called 'Grensklei'). Regional uplift of Barisan Mts resulted in up to ~500m thick turbidite sands of M Baong (N13) and also younger Fms, derived from West)

Baroek, M.P., T.L. Heidrick & K.D. Kelsch (1999)- Linked tectonics, a powerful new paradigm for deciphering the structural evolution of the Menggala North Field. In: SPE Asia Pacific Oil and Gas Conference, Jakarta 1999, p. 1-26.
(Structural analysis of 3D seismic dataset of N Menggala field, C Sumatra, unraveling deformation patterns over past 30 Ma. Anticlinal trap formed by inversion of S Balam half-graben along N-S-trending S Balam Border Fault. Three episodes of deformation: (F1) Eo-Oligocene (45-28 Ma) transtensional rift formation, linked to SE-directed extrusion of Asia; (F2) Late Oligocene- E Miocene (~28-21 Ma) wrench tectonics, right-lateral transpression and transtension; (F3) Late Pliocene (3.8 Ma) - Recent compression)

Bartram, K.M. & L. Nugrahaningsih (1990)- A palynological study of the Sawahlunto Formation, Ombilin Basin, West Sumatra. Lemigas Scientific Contribution Petroleum Science Technology 13, 1, p. 123-136.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/1134/920
(50 spore-pollen species identied from coal-bearing Sawahlunto Fm in Ombilin Basin in W Sumatra. Correlations with stratigraphic ranges known from Borneo suggest Oligocene age rather than commonly assumed Eocene age. However, in the text authors stated that most of the index taxa identified have ranges which start in Late Eocene, and earlier unpublished Japanese work on the Ombilin coal formation (JICA, 1981) had identified Eocene Proxapertites operculatus, which signifies an Eocene or older age. Palynomorphs mainly from freshwater ferns and palms; very rare mangroves only near top of formation)

Basuki, P. & S.Z. Pane (1976)- The hydrocarbon prospects of the Baturaja Formation in South Sumatra. Proc. 5th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 109-131.

Basundara, A.H., A. Mardianza, H. Purba, R.A. Tampubolon, S.A. Diria, D.R. Haryanto, H. Darman & J. Trivanty (2018)- A new insight of hydrocarbon potential in stratigraphic trap in the Keutupang Formation, North Sumatra Basin. Proc. 42nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA18-590-G, p. 1-20.
(On potential for hydrocarbons in stratigraphic traps in Late Miocene Lower Keutapang Fm sandstones from seismic amplitudes, and flat spots)

Behaki, W.A., A. Sukapradja, R. Siregar, S. Djaelani, B. Sjafwan & R. Wisnu Y. (2012)- 3D pore pressure prediction model in Bentu Block- Central Sumatra Basin. Proc. 36th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA12-G-104, p. 1-13.

(Several wells in Bentu and Korinci Baru PSC blocks experienced blow-outs in overpressured M-L Miocene Binio Fm sands: Baru-1 (1951), Baru-2 (1967), Korinci-1 (1983) and Segat-1 (1965). Overpressure thought to be caused by disequilibrium compaction and exacerbated by recent uplift and erosion)

Benigno, A.Y. (2011)- Tektonostratigrafi dan pola sedimentasi endapan "syn-rift", area Karangmakur, sub cekungan Jambi. Proc. Joint 36th HAGI and 40th IAGI Annual Conv., Makassar, JCM2011-003, p. 1-35.
('Tectonostratigraphy and sedimentation patterns of 'syn-rift' deposits, Karangmakur area, Jambi sub-basin'. Descriptions of Oligocene- basal Miocene half-graben in N part of S Sumatra Basin, with four cycles of fluvial and deltaic syn-rift deposits (Lahat- Talang Akar Fms). With good seismic and well log examples and seismic attribute maps suggesting multiple deltaic systems, sourced fromW- NW)

Bernheimer, F.L. (1986)- Central Sumatra seismic stratigraphy exploration model. In: Seismic Stratigraphy I, Proc. Joint ASCOPE/ CCOP Workshop I, Jakarta 1986, United Nations ESCAP, CCOP, Technical Publication 17, p. 89-114.

Bianchi, N., E. Barres, R.M.I. Argakoesoemah, C. Syafri & A. Kamal (2007)- Managing uncertainties of petroleum system components in basin modelling studies: an example from South Sumatra Basin, Indonesia. Proc. 31st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 1-16.

Bishop, M.G. (2000)- South Sumatra Basin Province, Indonesia: The Lahat/ Talang Akar Cenozoic total petroleum system. U.S. Geological Survey (USGS) Open File Report 99-50S, p. 1-22.
(online at: http://pubs.usgs.gov/of/1999/ofr-99-0050/OF99-50S/index.html)
(Petroleum resource assessment S Sumatra Basin)

Blow, W.H. & F.T. Banner (1966)- The morphology, taxonomy and biostratigraphy of *Globorotalia barisanensis* LeRoy, *Globorotalia fohsi* Cushman and Ellisor and related taxa. Micropaleontology 12, 3, p. 286-302.
(Taxonomy of planktonic foraminifera around E-M Miocene boundary, particularly evolution of Gr. peripheroacuta- Gr. praefohsi- Gr. fohsi lineage (described earlier as Globorotalia barisanensis by LeRoy, 1939 from Lower Palembang Fm of Kassikan section, Barisan mountain front, C Sumatra))

Boettger, O. (1880)- Die Conchylien der unteren Tertiarschichten (Die Conchylien der Untereocanschichten von Westsumatra; Die Conchylien des sumatranischen Krebsmergels; Die Conchylien des sumatranischen Orbitoidenkalks; Die Conchylien der unteren Miocaenschichten vom Flusse Kamoemoe, Residentschaft Benkoelen in Sud-Sumatra). In: R.D.M. Verbeek et al., Die Tertiarformationen von Sumatra und ihre Tierreste I, Palaeontographica Supplement 3, 8-9, p. 29-120.
('The molluscs of the Lower Tertiary beds (The bivalves of the Lower Eocene beds of Sumatra, The bivalves of the Sumatran crab marls; the bivalves of the Sumatran orbitoid limestone; the bivalves of the Lower Miocene beds of Kamoemoe River, etc.).' Series of chapters on Eocene- Miocene molluscs from various localities of Sumatra, collected by Verbeek N.B. One mollusc assemblage from Loerah Tambang inerpreted here as Early Eocene proved to be of Late Triassic age; Krumbeck (1914); JTvG))

Boettger, O. (1880)- Die fossilen Mollusken von Batoe Radja am Fluss Ogan. In: R.D.M. Verbeek et al., Die Tertiarformationen von Sumatra und ihre Tierreste I, Palaeontographica Supplement 3, 8-9, p. 92-98.
('The fossil molluscs from Batu Raja on the Ogan River' (Type locality of Baturaja Limestone in S Sumatra))

Boettger, O. (1881)- A. Die Conchylien der Untereocanschichten von Westsumatra (Etage I). Jaarboek Mijnwezen Nederlandsch Oost-Indie 10 (1881), 2, p. 49-91.
('The molluscs of the Lower Eocene beds of West Sumatra'. Reprint of 1880 Paleontographica paper. Molluscs collected by Verbeek from Bukit Kandung and Lurah Tambang in beds Boettger believed to be Lower Eocene age, but proved to be of Late Triassic age (corrected and fauna re-described by Krumbeck 1914). With bivalve molluscs Hemicardium myophoria, Lucina, Cardita globiformis, Pholadomya verbeeki, Trigonia dubia, Pinna blanfordi, Pecten verbeeki, etc.)

Boettger, O. (1881)- B. Die Conchylien des Sumatrischen Krebsmergels (Etage III). Jaarboek Mijnwezen Nederlandsch Oost-Indie 10 (1881), 2, p. 91- 114.
('The molluscs of the Sumatra crustacean marl'. Reprint of 1880 Palaeontographica paper. Molluscs collected by Verbeek. Assigned Eocene age)

Boettger, O. (1881)- C. Die Conchylien des sumatranischen Orbitoidenkalks (Etage IV). Jaarboek Mijnwezen Nederlandsch Oost-Indie 10 (1881), 2, p. 114-175.
('The molluscs of the Sumatran orbitoid limestone'. Reprint of 1880 Paleontographica paper. Molluscs collected by Verbeek)

Boettger, O. (1881)- D. Die Conchylien der unteren Miocanschichten vom Flusse Kamoemoe, Residentschaft Benkoelen in Sud-Sumatra. Jaarboek Mijnwezen Nederlandsch Oost-Indie 10 (1881), 2, p. 176-210.
('The molluscs of the Lower Miocene beds of the Kamoemoe River, Bengkulu Residency in South Sumatra'. Reprint of 1880 Paleontographica paper. Molluscs collected by Verbeek)

Boettger, O. (1882)- Die Conchylien der Obereocaen-Schichten von Suliki; Die Conchylien der oberen Tertiarschichten Sumatras. In: R.D.M.Verbeek, O. Boettger & K. von Fritsch, Die Tertiarformationen von Sumatra und ihre Tierreste II, Palaeontographica, Supplement 3, 10-11, p. 17-151.
(online at: http://olivirv.myspecies.info/sites/olivirv.myspecies.info/files/Palaeontographica%20-%20Cassel%20_%20Theodor%20Fischer.pdf)
(Additional short paper on Eocene- Miocene molluscs from Sumatra, collected by Verbeek)

Boettger, O. (1883)- Orbitoidenkalk von Sumatras Westkuste. Palaeontographica Supplement 3, 10-11, p. 19-34.
('Orbitoidal foram limestone from the West coast of Sumatra')

Bolt, L.H., M. Soepardi & D. Suherman (1984)- Drilling of Arun Gas Field. J. Petroleum Technology 36, 5, p. 771-778.
(Arun gas field discovered in late 1971 in thick Arun limestone reef. Summary of drilling history. Problems of high temperatures, high-pressured Baong shales and saltwater sands above lower-pressured Arun limestone. Gas contains 13.75% CO_2 and 0.005- 0.01% H2S)

Boyd, J.D. & S.G. Peacock (1986)- Sedimentological analysis of a Miocene deltaic system: Air Benakat and Muara Enim Formations, Central Merangin Block, South Sumatra. Proc. 15th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 245-258.
(Outcrop study of Miocene regressive Air Benakat-Muara Enim Fm transition in Merangin Block, S Sumatra suggests deposition in humid tropical deltaic system).

Brackman, W., K. Spaargaren, J.P.C.M. van Dongen, P.A. Couperus & F. Bakker (1984)- Origin and structure of the fossil resin from an Indonesian Miocene coal. Geochimica Cosmochimica Acta 48, 12, p. 2483-2487.
(Fossil resin from Miocene coal of Bukit Asam region, S Sumatra, formed from sesqui- and tri-terpenes from trees of Dipterocarp family)

Brady, H.B. (1875)- On some fossil foraminifera from the West-coast district, Sumatra. Geological Magazine 2, p. 532-539.
(online at: https://www.biodiversitylibrary.org/page/32504573#page/574/mode/1up)
(Description of foraminifera collected by Verbeek 1873-1874. Including (Eocene) Nummulites and 'Orbitoides' (= Discocyclina) from Nias island and Ombilin Basin (however later deemed to be Oligocene Lepidoclina (Eulepidina) verbeeki n.sp. by Newton and Holland, 1899). Also first description of Paleozoic foraminifera in Indonesia: U Carboniferous or Permian fusulinids named Fusulina princeps (= Verbeekina verbeeki (Geinitz) from Guguk Bulat, near NE corner of Lake Singkarak, in Padang Highlands)

Brady, H.B. (1878)- On some fossil foraminifera from the West-coast district, Sumatra. Jaarboek Mijnwezen Nederlandsch Oost-Indie 7 (1878), 1, p. 157-169.
(Repint of Brady (1875) paper above. Author's name erroneously printed as H.B. Bary))

Brahmanthya, G.R., B. Syam, B.D. Safitri, M.N. Alamsyah, S. Husein & E. Widianto (2017)- Implication of tectonic inversion for the existence of hydrocarbons in fractured basement reservoirs: a case study from Jabung Block, South Sumatra Basin, Indonesia. Proc. 41st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA17-177-G, p. 1-17.
(online at: https://www.researchgate.net/profile/Salahuddin-Husein/publication/317591490_Implication_of_Tectonic_Inversion_for_the_Existence_of_Hydrocarbon Etc.)
(In Jambi sub-basin NE Betara 1 well fractures in basement open and orientated WSW-ENE and good hydrocarbon reservoir (affected by both extensional and inversion tectonics). In NE Betara 2 closed fractures with NNE-SSW orientation)

Buck, S.P. & T.H. McCulloh (1994)- Bampo-Peutu(!) Petroleum System, North Sumatra, Indonesia. In: L.B. Magoon & W.G. Dow (eds.) The Petroleum System- from source to trap, American Assoc. Petroleum Geol. (AAPG), Memoir 60, p. 625-637.
(Petroleum system in N Sumatra basin discovered reserves 15 TCF of gas and 1.0 Bbbl of condensate and natural gas liquids. Oligocene Bampo Fm principal source of hydrocarbons Miocene Peutu Fm potential secondary source. Timing of peak migration 12-4 Ma. Trapping efficiency of 3.6% calculated for entire system Much higher trapping efficiency (40-70% range) characterizes Arun gas field)

Budiharto, R. (1978)- Predicting source, direction of migration and accumulation of hydrocarbons within the Central and South Sumatra Basin. Geologi Indonesia (J. Indonesian Association Geologists (IAGI)) 5, 2, p. 39-47.

Budiman, A. & Hendarsyah (2007)- Reservoir geology of fractured basement in Suban Barat-1 well, South Sumatra- Indonesia. Coord. Comm. Geosciences Programmes in SE Asia (CCOP), Seminar on fractured reservoir exploration & production, Hanoi 2007, p. *(Abstract only?)*

Budiman, A., A. Priyono, A. Samodra, F. Mu'in & M. Latuconsina (2011)- Fractures related fault analysis for basement reservoir identification in Pangea Block, South Sumatra Basin. Proc. 36th HAGI and 40th IAGI Annual Conv., Makassar, JCM2011-124, p. 1-15.
(online at: https://www.iagi.or.id/web/digital/10/2011_IAGI_Makassar_Fractures-Related-Fault.pdf)
(Structural modeling and seismic attribute analysis used to predict presence of fractures in basement rocks in S Sumatra. Main orientations of open fractures NNE-SSW and NE-SW, formed during Late Eocene extension)

Budiman, A., A. Priyono, A. Samodra, F. Mu'in & M. Latuconsina (2012)- Integrated structural modeling and seismic attributes analysis for fractured Basement reservoir identification in Pangea Block, South Sumatera Basin, Indonesia. Proc. Int. Petroleum Technical Conference (IPTC), Bangkok 2012, 15222, p. 1-10.
(online at: https://www.researchgate.net/publication/286599377_Integrated_Structural_Modeling_Seism Etc.)
(Basement fracture mapping from seismic attributes in SE margin of Palembang sub-basin, S Sumatra)

Budiono (1988)- Anomalous gas- water contact study, Arun field, onshore North Sumatra. Proc. 17th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 49-72.
(Apparent S-ward tilt of gas-water contact in Miocene carbonate reservoir of Arun Field. May be related to differences in diagenetic rock properties, but studies not conclusive)

Budiyono & A. Maylana (2007)- Further development of the Kenali Asam field. Proc. Joint Convention 32nd HAGI, 36th IAGI and 29th IATMI, Bali, p. 1675-1679.
(Kenali Asam field in Jambi sub-basin, S Sumatra, 1929 NIAM discovery on NNW-SSE anticline, 282 wells)

Budiyono, B., B. Denk, Suprihatin & M. Yunus (1993)- Geological contribution to the enhanced oil recovery project at Kenali Asam Field. Proc. 22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 937-949.

(Kenali Asam field 7 km SW of Jambi biggest field in Jambi sub-basin, discovered by NIAM in 1931. NNW-SSE trending anticline with 245 wells, 16 hydrocarbon-productive zones (mainly oil, one gas zone), in sandstones of Miocene Air Benakat and Gumai Fms. Waterflood injection since 1992)

Bunn, G., Chanh Cao Minh, J. Roestenburg & M. Wittmann (1989)- Indonesia's Jene Field; a reservoir simulation case study. Oilfield Review (Schlumberger) 1, 2, p. 4-14.
(online at: www.slb.com/~/media/Files/resources/oilfield_review/ors89/jul89/1_jene_field.pdf)
(Jene field produced from E Miocene Batu Raja Fm reefal buildup since 1986. Reef growth in several shoaling-upward cycles terminating in subaerial exposures, with each cycle producing buildups a few km long and elongated NW-SE parallel to paleo shoreline). Rapid pressure decline necessitated reservoir modeling and water injection program))

Buntoro, A., C. Prasetyadi, R.A. Wibowo & A.M. Suranto (2020)- Shale hydrocarbon development based on drill cuttings & TOC analysis: case study of Brownshale drill cuttings of Well BS-03, Pematang Formation, Bengkalis Trough, Central Sumatra Basin. Open J. Yangtze Oil and Gas 5, 3, p. 86-101.
(online at: https://www.scirp.org/pdf/ojogas_2020051316160371.pdf)
(On unconventional hydrocarbon potential of Paleogene lacustrine Brown Shale in middle Pematang Fm in varous rifts of C Sumatra Basin)

Buntoro, A., C. Prasetyadi, R.A. Wibowo & A.M. Suranto (2021)- Geomechanical analysis from well log for brown shale hydrocarbon development in the Bengkalis Trough, Central Sumatra Basin, Indonesia. Geosystem Engineering 24, 5-6, p. 256-264.
(Fracability analysis of Paleogene Brown Shale in wells in Bengkalis Trough, C Sumatra Basin)

Buntoro, A., B. Rahmad, D. Asmorowati, A.H. Lukmana, E.F. Fattah & E. Anuraga (2022)- Overpressure mechanism prediction based on well log and mineralogy analysis from drill cuttings of well NSE-001 in the North Sumatra Basin area, Indonesia. J. Petroleum Exploration Production Technology 12, p. 2801-2815.
(online at: https://link.springer.com/content/pdf/10.1007/s13202-022-01482-5.pdf)
(Wireline log data of well NSE-001 in N Sumatra basin show two overpressure mechanisms: loading and unloading. Rapid sedimentation in Baong Fm main factor in generation of overpressure zone)

Bunyamin, A., T.K. Usman, B. Sutedjo, M. Latuconsina & M.F. Ma'ruf (2006)- Distribusi reservoir lapangan S Blok Japura (Lirik) pada sekuan M. Proc. 35th Annual Conv. Indonesian Association Geologists (IAGI), Pekanbaru 2006, PITIAGI2006-040, p. 1-8.
(On reservoir distribution in 'M sequence' (main Lirik Sand) of the 'S field', Japura Block, Lirik Trend, C Sumatra. Of limited use due to lack of detail and disguised location names)

Burckhardt, R. (1906)- Uber die sechs in den untern und mittlern Palembangschichten gefundenen Selachierzahne. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2), 23, 2, p. 241-243.
('About the six Selachier teeth found in the Lower and Middle Palembang Beds'. Appendix 5 in Tobler (1906) paper on Muara Enim area. Brief note on Middle-Late Miocene shark teeth collected by Tobler, provisionally assigned to genera Carcharias, Lamna and Oxyrhina)

Burnaman, M.D., R.B. Helm & C.R. Beeman (1985)- Discovery of the Cunda Gas field, Bee Block, North Sumatra: an integrated geologic/seismic case history. Proc. 14th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 453-495.
(Cunda field 1984 gas discovery NW of Arun, N Sumatra, in Lower Miocene Peutu (Arun) limestone. Cunda-A2a discovery well encountered 336' of gas bearing limestone)

Butarbutar, E.F., K.A. Lubis, A.F. Salam, Y. Herdiana & P. Suseno (2024)- Unlocking the diagenetic evolution and distribution of a carbonate province and its implications for development strategy: A case study of the Prabumenang gas field, South Sumatra Basin. Proc.Annual Conv. Indonesian Association Geophysicists (HAGI), Padang 2024, p 1-6.
(online at: https://library.hagi.or.id/wp-content/uploads/2025/01/PITHAGI2024-214.pdf)

(Prabumenang Field (1969) in Pakugajah-Kuang Complex of S Sumatra Basin with total gas in place 105 BCF in Baturaja Fm limestone. Carbonate diagenesis important for reservoir quality (no rock details))

Butterworth, P.J. (1995)- Lowstands and highstands in the lacustrine brown shale of Central Sumatra: field examples from the Teso block. Proc. 24th Annual Conv. Indonesian Petroleum Association (IPA), 2, p. 577.
(Abstract only; for full paper see Carnell, Butterworth et al. (1998))
(Two distinct lacustrine basin-fill sequences in Pematang Fm brown shale in exposures at Karbindo Coal Mine in Kiliran Basin, Teso area, C Sumatra. In Sumai Basin at Bukit Susah, lacustrine brown shale punctuated by pebbly fluvial sandstones and sharply defined palaeosols, indicating rapid lake level fall and subsequent rise. Five clearly definable "lowstand" sequences have been identified)

Cahyaningsih, C., A.L. Ritonga, S. Aldila & Zulhikmah (2018)- Lithofacies and depositional analysis environment of West section Kolok Nan Tuo village, Sawahlunto City, West of Sumatera. J. Geoscience Engineering Environment Technology (JGEET) 3, 2, p. 128-133.
(online at: https://journal.uir.ac.id/index.php/JGEET/article/view/340/1049)
(Reporting presence of crystalline limestone, conglomerate, sandstone, claystone. (for more detail on the subject see papers by R. Verbeek in the 1870s- JTvG))

Cai, S., Y. Tang, X. Zhang & G. Hong (2014)- Fine description of delta front sand body in Miocene Intra-Gumai Formation of J Block in the Southern Sumatra Basin. J. Oil and Gas Technology (China) 2014, 12, p. 47-50.
(Eocene to Miocene strata in J Block of S Sumatra Basin divided into six sequences. Intra-Gumai Fm deltaic sands in highstand systems tract of SQ4. In the highstand system tract of SQ4. Etc.)

Cameron, N.R. (1983)- The stratigraphy of the Sihapas Formation in the North West of the Central Sumatra Basin. Proc. 12th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 43-65.
(Sihapas Fm mainly product of Duri-Bekasap delta system from river draining into NE part of basin from Sundaland. Second and thicker Barisan-derived depocenter in W of basin, related to rapid uplift and erosion of basement rocks W of Toru-Asik wrench fault, ahead of rising magma that initiated E Miocene volcanic arc. Five units recognised)

Cameron, N.R., J.A. Aspden, N.S. Suwarna & Suharsono (1981)- The geology of the Ombilin Basin, Singkarak Block, West Sumatra. Unpublished report, P. T. Caltex Pacific Indonesia, Rumbai, p.

Candra, A. (2013)- Potential evaluation of Coalbed Methane based on the grade and quantity of coal in the Mangus Seam, Muaraenim Formation, Nibung Region, South Sumatra Basin. Proc. 37th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA13-SG-051, p. 1-8.
(Mangus coal seam of Miocene Muaraenim Fm in S Sumatra is 13.6m thick, categorized as subbituminous class A-B, and low coalbed methane production potential)

Carrillat, A., D. Bora, A. Dubois, F. Kusdiantoro, S. Yudho, E. Wibowo, M. Musri, J.C. Tobing et al. (2013)- Integrated regional interpretation and new insight on petroleum system of South Sumatra Basin, Indonesia. SPE Asia Pacific Oil and Gas Conference Exhib. (APOGCE), Jakarta 2013, SPE 165848, p. 737-744.
(online at: https://www.researchgate.net/publication/266666598_Integrated_Regional_Interpretation_and_New_Insight_on_Petroleum_System_of_South_Sumatra_Basin_Indonesia)
(Medco/Schlumberger review of S Sumatra Basin, an inverted basin with Late Eocene- Oligocene extension to Late Miocene- Pliocene compression. Rifting until ~23 Ma with main depocenters in Benakat Gully, Limau Graben, Central Palembang and Lematang Depression, followed by sag phase until 14.6 Ma. Compressive event from 5 Ma to present day. Shortening mainly expressed by inversion and fault reactivation rather than thrusting. Hydrocarbon expulsion varying from ~10-15 Ma from Lemat and Talangakar Fms., and 5 Ma from Telisa Fm. Baturaja Fm. reservoirs near depressions were charged, but charge risk away from kitchen areas. Most hydrocarbon accumulated between sedimentation of Lower Palembang Fm to inversion time (10-5 Ma); subsequent inversion likely re-migrated hydrocarbon in some Talangakar and Baturaja reservoirs)

Carnell, A., C. Atkinson & P. Butterworth (2013)- A field trip to the syn-rift petroleum system of Central Sumatera. Berita Sedimentologi 27, p. 18-20.
(online at: www.iagi.or.id/fosi/files/2013/08/BS27-Sumatera_Final.pdf)
(Fieldtrip to C Sumatra Ombilin Basin. Karbindo Coal Mine with exposure of Eocene coal and Brown Shale is exposed, Harau canyon with outcrops of syn-rift fluvial sandstones, etc.)

Carnell, A.J.H., P.J. Butterworth, B. Hamid, A.R.L. Livsey, J. Barton & C. Bates (1998)- The Brown Shale of Central Sumatra: a detailed appraisal of a shallow lacustrine source rock. Proc. 26th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 51-70.
(Outcrop study in Karbindo coal mine, Kiliran sub-basin, W Sumatra. From base up: 25 m thick paleosol, 18m black vitreous coal (gas prone source rock), in upper part with brown algal rich coal and freshwater carbonates, interpreted as ephemeral lake deposits. Overlain by 90m Brown Shale facies assemblage of seasonally laminated paper shales, grey shales, red weathering shales, turbidites and gastropod coquinas. Brown Shale excellent algal-rich, oil prone source rock (TOC 2.5- 8.9%, HI up to 743). Interpretation is shallow lake deposition, different from previous deep lacustrine basin interpretations)

Caughey, C., T.C. Cavanagh, J.N.J. Dyer, A. Kohar, H. Lestarini, R.A. Lorentz et al. (eds.) (1994)- Seismic atlas of Indonesian Oil & Gas Fields, vol. 1, The North Sumatra Basin, Geological setting. Indonesian Petroleum Association (IPA), Jakarta, p. 1-6.
(Tertiary sedimentation began with widespread accumulation of limestone and dolomite in Eocene (?) Tampur Fm. Several wells tested gas from vuggy porosity in this unit. Tampur seismically indistinguishable from pre-Tertiary rock. In Oligocene, large N-S trending graben blocks formed by back-arc transtensional faulting)

Caughey, C.A. & S. Sofyan (eds.) (1994)- Geology of the petroliferous North Sumatra Basin. Indonesian Petroleum Association (IPA), Post Convention Field Trip, October 1994, p. 1-129.

Caughey, C.A. & T. Wahyudi (1993)- Gas reservoirs in the Lower Miocene Peutu Formation, Aceh Timur, Sumatra. Proc. 22nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 191-218.
(Peutu Fm outcrops along Barisan Mts foothills vary from thin planktonic shaly beds to 75 m thick skeletal carbonates. Units dip E beneath coastal plain where gas-bearing carbonate buildups reach 300-500 m. Vuggy porosity in foram grainstones and coral boundstones. Platform facies thinner (50m), tight limestone, sandstone, and shale. Widespread gas-prone reservoirs in Peutu Lst. Exploration success depends on (1) field size: presence of buildups critical for commercial accumulations and (2) gas composition: Peutu reservoirs contain H2S (generally manageable) and CO_2 (6- 82%). CO_2 from thermal decomposition of carbonates, highest where Peutu deeply buried and unconformably on Tampur dolomite or pre-Tertiary basement)

Chacko, S. (1989)- Porosity identification using amplitude variations with offset: examples from South Sumatra. Geophysics (SEG) 54, 8, p. 942-951.
(AVO seismic modeling used to distinguish between porous and tight facies in E Miocene Baturaja Limestone)

Chalik, M., B. Pujasmadi, M. Fauzi & M. Bazed (2004)- Sumpal Field, South Sumatra- case history of the delineation and production of a fractured basement reservoir. In: R.A. Noble et al. (eds.) Proc. Int. Conf. Deepwater and frontier exploration in Asia & Australasia, Jakarta, Indonesian Petroleum Association (IPA), p. 199-224.
(1994 Corridor Block Sumpal Field dry gas discovery in thin Oligocene sandstones and pre-Tertiary fractured granites and metasedimentary rocks. Structure NW-SE trending anticline with fault to NE. Hydrocarbons generated from Lemat and Talang Akar shales. Brief overview of Pre-Tertiary stratigraphy of S Sumatra.)

Christ, H. (1906)- Uber ein Farnkraut der Obern Palembangschichten von Soengi Tjaban (Sud-Sumatra). In: A. Tobler, Topographische und geologische Beschreibung der Petroleumgebiete bei Moeara Enim (Sud-Sumatra), Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (KNAG) 23, p. 314-315.
(Brief communication on presence of well-preserved leaves of fern plant fossil Meniscium proliferum from Late Miocene-Pliocene Upper Palembang Fm tuffs at Sungi Tjaban in Minyak Itam oilfield. No figures)

Christensen, A.N., C. Jones, L.B. Kocijan, H. Booth, S. Rouxel & B. Kunjan (2018)- Airborne gravity gradiometer survey over the Pelarang Anticline, onshore Kutai Basin, Indonesia. Proc. Australian Exploration Geoscience Conf. (AEGC 2018), Sydney, p. 1-6. *(Extended Abstract)*
(online at: www.publish.csiro.au/ex/pdf/ASEG2018abT7_3B)
(Pelarang Anticline part of NNE-SSW-trending Samarinda Anticlinorium in detached fold-thrust belt of onshore Kutai basin. Detachment fold, ~30km long, with steeply dipping flanks. Airborne gravity shows anticline associated with strong positive gravity anomaly, possibly from ~2000m high, high-pressured shale core. Two commercial hydrocarbon accumulations, Sambutan and Mutiara)

Clark, S., J. Teasdale, A. Jervis & D. Rudd (2021)- Regional tectonics and structural framework of offshore Aceh's Andaman Sub-Basin, Northern Sumatra, Indonesia. Proc. 45th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA21-G-30, p. 1042-1055.
(Offshore Aceh's Andaman Sub-Basin complex Late Eocene-Recent evolution. Basement is Sibumasu Terrane and its Mogok Belt western margin. Two rifting phases within Late Eocene- E Oligocene (~40-31 Ma). Significant inversion events at 30 Ma and 23 Ma, in response to dextral transpression associated with rotational extrusion of Indochina and Sundaland. Rapid subsidence after 30Ma inversion. Onset of dextral strike slip between W Burma Terrane along Saigang FZ at ~26Ma, causing transtension in Andaman Sub-basin that terminated at 23Ma. E Miocene NE-SW compression. At 12Ma M Miocene Unconformity, caused by Pacific Plate derived compression in E Indonesia. Inversion at ~5Ma and toe thrusts developed along S margin due to uplift of Barisan mountains. With 8 regional paleogeographic maps)

Clure, J. (1991)- Spreading centers and their effect on oil generation in the Sunda Region. Proc. 20th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 37-49.
(High-T spreading center subducted beneath Sumatra, making cool area warmer. Indian Ocean crustal thickness thickens away from spreading centers, affecting Sunda Craton thermal regimes as spreading centers collided with craton. Wharton Ridge paleo-spreading center collided with Sumatran subduction zone and created ridge/trench triple junction. Collision of Sunda Craton and W Sumatran spreading center results in parts of trench with thinner crust and certain locations to be hotter. Outer arc basins usually considered non-prospective due to low thermal gradients caused by extra thickness of crust, but areas where spreading center collides will only be slightly greater than one plate thick and warmer, increasing petroleum potential)

Clure, J. (2005)- Fuel resources: oil and gas. In: A.J. Barber, M.J. Crow & J.S. Milsom (eds.) Sumatra- geology, resources and tectonic evolution, Geological Society, London, Memoir 31, p. 131-141.

Clure, J. & N. Fiptiani (2002)- Hydrocarbon exploration in the Merang Triangle, South Sumatra Basin. Proc. 28th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 803-824.
(Merang Triangle, S of Jambi, limited exploration. Talang Akar Fm production in Gelam Field in Baturaja carbonates and further stratigraphic potential highlighted. Plio-Pleistocene Sembilang High structural uplift resulted in erosion of thousands of feet. Uplift associated with regional tilt to SE, causing possible re-migration. Recent faulting broke up carbonate complex and off-reef platform facies now structurally higher than original reef crest, which resulted in earlier drilling missing build-up)

Collins, J.F. & R. Barton (1994)- Arun gas field and LNG plant. In: C.A. Caughey & S. Sofyan (eds.)geology of the petroliferous North Sumatra Basin. Indonesian Petroleum Association (IPA), Post-Convention Field Trip 1994, p. 63-83.
(Arun gas field located 225 km N of Medan and 5 km from the N coast of Sumatra. Discovered in 1971 by Mobil's Arun-A1 well, which found condensate-rich gas in Early MioceneN-S trending reefal carbonate buildup, ~18.5x 5 km in size. Net pay thickness >305m, porosity av. 16%. Ultimate recoverable reserves 14.1 TCF gas and >700 MMBL condensate estimated)

Collins, J.F., A.S. Kristanto, J. Bon & C.A. Caughey (1996)- Sequence stratigraphic framework of Oligocene and Miocene carbonates, North Sumatra Basin, Indonesia. Proc. 25th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 267-279.

(N Sumatra Basin Late Eocene - E Miocene early rift, E Miocene N6- N8 sag. Rifting produced N-S trending subsidence with coarse clastics (Bruksah Fm) in rifts prior to P22, followed by widespread marine shales (Bampo Fm) from P22 to N4. Foraminiferal mounds accumulated on ramps and crests of some rifts, with transgressions in P22 and N4. Marine Belumai Fm late rift (N4-N6) sands from craton filled grabens. Unconformity developed above early syn-rift sediments. Sag-phase subsidence accompanied by carbonate deposition (Peutu Fm) associated with flooding events at N7 and N8. On S structures transgressive platforms (N7) overlain by coral reefs or equivalent deep-water carbonates (N8). On craton, carbonate mounds and buildups overlie thick marine sandstones. Between these areas deep-water limestones and marls. p. 272: Pre-rift 'Tampur' limestones more likely to be Pretertiary in age than suggested Eocene age)

Courteney, S., P. Cockcroft, R. Lorentz & R. Miller (eds.) (1990)- Introduction. Indonesia Oil and Gas Fields Atlas, 1, North Sumatra and Natuna, Indonesian Petroleum Association (IPA), Jakarta, p. 1-11, A1-A3.
(Overview of N Sumatra oil-gas fields. First discovery by Zijlker in 1885 at Telaga Said (cum. production 8.4 MMBO). Additional oil discoveries at Darat (1899), Perlak (1900), Serang Jaya (1926), Pulau Panjang (1928), Rantau (1929), Gebang (1936) and Palu Tabuhan (1937), all producing from Miocene Keutapang and Baong sands. Rantau field produced >200 MMB oil, over half of production from Keutapang- Baong play. Additional small oil fields developed in 1960's- 70's by Asamera and Pertarnina, all smaller than Rantau or Perlak. Arun giant gas field in E Miocene carbonate discovered in 1968)

Courteney, S., P. Cockcroft, R. Lorentz, R. Miller et al. (eds.) (1990)- Introduction. Indonesia Oil and Gas Fields Atlas, 3, South Sumatra, Indonesian Petroleum Association (IPA), Jakarta, p. 1-9, A1-A2

Courteney, S., P. Cockcroft, R. Lorentz, R. Miller et al. (eds.) (1991)- Introduction. Indonesia, Oil and Gas Fields Atlas, 2, Central Sumatra, Indonesian Petroleum Association (IPA), Jakarta, p. 1-15, A1-A4.
(Elegant review of exploratin and production history of the Central Sumatra Basin since the 1920s, mainly by NKPM (Nederlandsche Koloniale Petroleum Maatschappij; later Stanvac) and NPPM (Nederlandsche Pacific Petroleum Maatschappij; later Caltex))

Crawley, M. & D. Ginger (1998)- Depth prediction ahead of the bit: a case study from the Singa-1 discovery well, South Sumatra: Proc. 26th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 251-264.
(Singa-1 Batu Raja Fm carbonate buildup prospect in Lematang PSC, S Palembang sub-basin at 3026 ms (~12,000'), >3000' deeper than previously drilled Batu Raja targets. Pre-drill depth estimates from seismic stacking velocities not accurate enough for picking casing points, so look-ahead VSP and SWD (seismic-while-drilling) employed during drilling to predict top reservoir)

Crostella, A. (1983)- Malacca Strait wrench fault controlled Lalang and Mengkapan oil fields. Proc. SE Asia Petroleum Exploration Society (SEAPEX) 6, p. 24-34.
(Two oil fields discovered in 1980-1981 in anticlinal structures along same N-trending left-lateral wrench fault, reservoired in Early Miocene Sihapas Group sandstones)

Dahlan, Y.I., F. Utama, D. Yudhatama, Y. Yunus & E.M.I. Kusumah (2017)- New perspectives in regaining additional hydrocarbon from near-field prospects. A study case: Irin cluster. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, p. 1-4.
(On Irin cluster of small E Miocene Baturaja Lst buildup prospects on Musi Platform, S Sumatra basin. Irin 1 (2013) gas-bearing with 400' of limestone reservoir with up to 28% porosity. Baturaja carbonates six stages of development: oldest in SM-1 well in W part, youngest stage in SE part of Musi platform)

Dahlan, Y.I. & Y. Yunus (2016)- Future exploration in Musi area, South Sumatra: looking for new oil in an old area. Proc. IPA 2016 Technical Symposium, Indonesia exploration: where from- where to, Indonesian Petroleum Association (IPA), Jakarta, 30-TS-16, p. 1-9.
(S Sumatra mature basin, with >300 producing oil-gas fields and only very small prospects remaining. In Musi Platform paleohigh area clusters of small E Miocene Baturaja Limestone prospects still offer potential)

Darmadi, Y., A. Harahap, R. Achdiat, M. Ginanjar & J. Hughes (2013)- Reservoir characterization of fractured basement using seismic attributes, Dayung Field case study, South Sumatra, Indonesia. Proc. 37th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA13-G-155, p. 1-12.
(3D seismic mapping of fault and fracture network in Dayung Field, Corridor Block, S Sumatra, which produced gas since 1998 from fractured and weathered Pre-Tertiary basement. Basement lithologies Permian carbonate, intruded by Jurassic granites)

Darmawan, A. & I.F. Sjamsuddin (2012)- Benakat Gulley sebagai sebuah half graben (synrift system) dan implikasinya terhadap play eksplorasi. Proc. 41st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2012-E-09, p.
(online at: https://www.iagi.or.id/web/digital/9/2012_IAGI_Yogyakarta_Benakat-Gulley-sebuah-Half.pdf0
('Benakat Gulley as a half-graben (synrift system) and its implications for exploration play'. Benakat Gulley is NW-trending Paleogene half graben, with faulted W margin and flexure margin in E. Rift structural and stratigraphic plays proven in old fields (Kampung Minyak, Suban Jeriji, Batu Keras). W of half graben fault are carbonate and fractured basement plays. Within depocenter are sandstone lenses in Plio-Pleistocene inversion structures, on E side include onlapping Talang Akar Fm onto basement and platform and reefal carbonate)

Darmono, F.X. (1994)- Geological aspects of horizontal wells in Petani Field, Central Sumatra. Proc. 23rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 2, p. 1160-1183.
(online at: https://www.iagi.or.id/web/digital/54/52.pdf)
(Petani field 1964 discovery in NW-SE trending anticline W of Duri in C Sumatra basin. Produced >293 MBO from earliest Miocene Sihapas Fm 'Menggala 3900' sand'. Start of horizontal drilling program in top of sand)

Darwis, A, S.E. Saputra & Drianto S. (2007)- Exploring in mature basins in Sumatra (Sumatera) Island, Indonesia: a historical review to challenge new idea. Abstract AAPG Annual Convention, Long Beach 2007, p. 1-3.
(Abstract only) (online at: https://www.searchanddiscovery.com/documents/2007/07114darwis/images/darwis)
(Sumatra first discovery in 1885 (Telaga Said). By 1924, most oil-gas fields in surface anticlines has been discovered. N Sumatra Basin has discovered 5352 MMBOE from 62 fields (mainly gas); Central Sumatra Basin 30,143 MMBOE from 199 fields and S Sumatra Basin 12,112 MMBO from 189 fields. Still active exploration area, particularly S Sumatra. Three producing ('back-arc') basins, 3 non-producing (fore-arc) basins. Current and future exploration in deeper plays)

Daryono, S.K. (2024)- Provenance analysis from Lemat Formation in Lubuk Lawas and Lubuk Bernai areas, Jambi Subbasin, Jambi Province. J. Earth and Marine Technology (JEMT) 5, 1, p. 101-110.
(online at: https://ejurnal.itats.ac.id/jemt/article/view/7242/4438)
(UPN study of Oligocene Lemat Fm clastics in Tigapuluh Mts outcrops, N Jambi Subbasin. Sandstones generally poorly sorted, angular, classified as lithic arkose, arkosic, felspathic litharenite, etc., suggesting tectonic setting within recycled orogenic zone. Paleocurrent directions from SW and SE, in fluvial environment)

Daryono, S.K., Afrilita & Idarwati (2024)- Deposition environment interpretation of Lemat Formation in the West Tanjung Jabung, Jambi Province. J. Earth and Marine Technology (JEMT) 4, 2, p. 240-254.
(online at: https://ejurnal.itats.ac.id/jemt/article/view/5626/4021)
(Paleogene Lemat Fm at Bukit Tigapuluh National Park, S Sumatra (Jambi) Basin, in braided river-fluvial facies)

Daryono, S.K. & Idarwati (2024)- Provenance and petrographic analysis of Paleogene sandstones in the Bukit Tigapuluh area, Jambi Subbasin, Indonesia. J. Earth and Marine Technology (JEMT) 4, 2, p. 301-314.
(online at: https://ejurnal.itats.ac.id/jemt/article/view/5627/4044)
(Provenance of Paleogene Lemat Fm sandstone in Lubuk Lawas and Lubuk Bernai sections of Tigapuluh Mountains area, Jambi, S Sumatra. Sandstones primarily in lithic arkose group, sourced from from recycled orogenic zone. Paleocurrent analysis suggests transport from SW and SE)

Daryono, S.K. & Idarwati (2024)- Comprehensive facies analysis and depositional environments of the Kikim Formation, Garba Mountain, South Palembang Subbasin, Indonesia. J. Earth and Marine Technology (JEMT) 4, 2, p. 315-328.

(online at: https://ejurnal.itats.ac.id/jemt/article/view/5628/4045)
(Paleogene Kikim Fm in Garba Mts characterized by braided river gravel and sandstone deposits)

Daryono, S.K., C. Prasetyadi, E.T. Paripurno, Sutanto & A.Z. Faozi (2024)- Palynostratigraphy and paleoenvironment of Bukit Tigapuluh area in the Jambi Subbasin from Oligocene to Miocene. J. Geoscience and Environment Protection 12, 9, p. 113-151.
(online at: https://www.scirp.org/pdf/gep2024129_72172201.pdf)
(UPN study of Oligocene-Miocene sections in Tigapuluh Mts, Jambi Subbasin, record warm-humid equatorial vegetation, near beginning of E Java- Eurasia microcontinent collision. Non-marine clastics followed by marine transgressive deposits. Three palynozones identified:Meyeripollis naharkotensis (Oligocene), Florschuetzia trilobata (Early Miocene) and Florschuetzia meridionalis (Middle Miocene). Highly diverse angiosperm pollen in all palynozones reflect rich inland and nearshore tropical flora under a strong seasonal rainfall regime. Climate remained warm and increasingly humid towards end of Miocene)

Daryono, S.K., C. Prasetyadi, E.T. Paripurno, Sutanto & A.Z. Faozi (2022)- Facies and architectural analysis of Paleogene fluvial deposits of the measured section of Rambangnia and Air Napalan Rivers in the Palembang Sub-basin. J. Earth and Marine Technology (JEMT) 3, 1, 24-33.
(online at: https://ejurnal.itats.ac.id/jemt/article/view/3606/2585)
(UPN study of fluvial deposits of Kikim Fm in Garba Hills, South Ogan Komering Ulu Regency S Sumatra))

Daryono, S.K., Sutanto, C. Prasetyadi & E.T. Paripurno (2022)- Architecture elements of the Lemat Formation of the Lubuk Bernai Region, Batang Asam District, Tanjung Jabung Barat Regency, Jambi Province. J. Earth and Marine Technology (JEMT) 3, 1, p. 1-10.
(online at: https://ejurnal.itats.ac.id/jemt/article/view/3396/2583)
(Paleogene Lemat Fm (Lahat Group) in Lubuk Bernai section, S Sumatra, in fluvial facies)

Daulay, B. & H. Nursarya (1996)- Petrografi batubara: aplikasinya terhadap lingkungan pengendapan di daerah Bengkulu. Proc. 25th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 531-541.
('Coal petrography: its application towards depositional environments in the Bengkulu area')

Daulay, B. & B. Santoso (2008)- Characteristics of selected Sumateran Tertiary coals regarding their petrographic analysis. Indonesian Mining J. 11, 1, p. 1-18.
(online at: http://jurnal.tekmira.esdm.go.id/index.php/imj/article/view/599/461)
(Type and rank variation of Ombilin and Bukit Asam Tertiary coals assessed in 170 samples. Coals dominated by vitrinite, common liptinite and rare inertinite and mineral matter. Ombilin coals not affected by contact alteration vitrinite reflectances 0.53-0.83%, Bukit Asam coals not affected by contact alteration 0.30-0.57%. Higher vitrinite reflectance of some coals result of the local igneous intrusions in both areas (also in 36th Annual Conv. IAGI, 2007, p. 464-470))

Davies, P.R. (1984)- Tertiary structural evolution and related hydrocarbon occurrences, North Sumatra Basin. Proc. 13th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 19-49.
(N Sumatra along trailing edge of counterclockwise (CCW) rotating 'Sunda Microplate' in Tertiary. Eocene-Lower Oligocene high-angle convergence between Sunda and Indian-Australian Plates generated N-propagating, dextral, overstepping wrench faults along W edge of microplate. Late Oligocene CCW rotation of Sunda Microplate result of rifting in Thai and Malay basins. N Sumatra basin developed in Late Oligocene- E Miocene as horst and graben structures between reactivated dextral wrench faults along W edge of microplate. E-M Miocene uplift reactivated earlier rifted structures of N Sumatra basin, causing widespread erosion, followed by subsidence and first marine deposits. Second phase of Sunda CCW rotation in late M Miocene, continuing to present day, caused by emplacement of oceanic crust in Andaman Sea. Renewed convergence since late M Miocene at less acute angle, causing compression, inception of subduction complex along W edge Sumatra, uplift of Barisan Mountains, and regressive sedimentation across N Sumatra basin. Evolution of N, C and S Sumatran basins essentially identical)

Davis, R.C., W.O. Ardjakusumah & I.S. Soemantri (1998)- Kinetic modeling of the Pematang-Sihapas(!) petroleum system, Malacca Strait PSC, Central Sumatra. Proc. 26th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 35-50.
(Principal and probably only source rock for Malacca PSC oil is Paleogene Pematang Group lacustrine Brown Shale Mb., mature in Bengkalis Graben. Modeling indicates discovery farthest from Bengkalis kitchen likely sourced by long distance migration (~25 km), as local sub-basin (Rangsang Trough) is immature. Other sub-basin (Padang Trough) highly mature due to very high geothermal gradient. Heating event responsible for petroleum expulsion extremely recent in C Sumatra Basin)

Dawson, W.C., W.R. Almon, J.B. Sangree & CALTEX Sequence Stratigraphy Team (2005)- Petroleum system and Miocene sequence stratigraphy: Central Sumatra Basin, Indonesia. In: P. Post et al. (eds.) Petroleum systems of divergent continental margin basins, Proc. 25th Annual Bob F. Perkins Research Conference, Gulf Coast Section SEPM (GCSSEPM) Foundation. p. 987-1015.
(C Sumatra basin most prolific petroleum system in SE Asia. Oil sourced from Pematang Gp lacustrine Brown Shale in basal rift sequence, migrated vertically until thick paleosol horizon (25.5 Ma SB), then migrated to E margin of basin charging giant Minas and Duri fields. Erosional truncation (incised valley development) of paleosols and faults provided windows for migration into overlying Miocene Sihapas Gp sandstone reservoirs. Incision common at 25.5, 22, 21, and 17.5 Ma sequence boundaries. Oil accumulated preferentially in basal transgressive sandstones. ~80% of recoverable oil in lower 21 Ma sequence (Bekasap Fm estuarine sst). Marine sandstones in 16.5 and 15.5Ma sequences, but fine-grained and low permeability. Regional top seal for Sihapas reservoirs is Telisa Gp shales of maximum Miocene transgression. Small oil accumulations in underlying Pematang Gp alluvial-fluvial- lacustrine sandstones poor reservoir and sealed by paleosols)

Dawson, W.C. & T.H. Tankersley (1997)- Incised valley sandstone reservoirs: Kotabatak Field, Central Sumatra basin, Indonesia- case example. In: K.W. Shanley & B.F. Perkins (eds.) Shallow marine and non-marine reservoirs, Proc. 18th Annual Bob F. Perkins Research Conference, Gulf Coast Section SEPM (GCSSEPM) Foundation, Houston, p. 81-91.

De Beaufort, L.F. (1925)- Het voorkomen van een osteoglosside visch in het Tertiair van Sumatra. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 8 (Gedenkboek Verbeek, memorial volume), p. 49-52.
('The occurrence of an osteoglossid fish in the Tertiary of Sumatra'. Discussion of Eocene fresh water bone- fish in C Sumatra, collected by Verbeek and Tobler. Fauna described in more detail by Sanders 1934)

De Bruijn Kops, G.F. (1853)- Tocht naar de Reteh Rivier ter onderzoeking van steenkolenlagen. Natuurkundig Tijdschrift voor Nederlandsch-Indie 4, p. 611-626.
('Trip to the Reteh River to investigate coal beds'. Mainly travel log of trip in 1849 to Reteh River (between Jambi and Indragiri rivers), Sumatra E coast, where, after 5 days sailing from Kota Baru, up to 4' thick coals exposed in river bank)

De Choudens-Sanchez, V. & S. Danudjaja (2013)- Impact of depositional facies on the spatial distribution of reservoir quality in the Batu Raja carbonates of the Corridor Block, South Sumatra. Proc. 37th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA13-G-105, p. 1-12.
(Porosity in E Miocene Batu Raja Fm carbonates of S Sumatra primarily controlled by facies-related primary porosity, locally enhanced by enhanced by secondary porosity, developed in phreatic environment as result of periodic sub aerial exposure. Batu Raja carbonates in study area developed in three major isolated platforms)

De Coster, G.L. (1974)- The geology of the Central and South Sumatra basins. Proc. 3rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 77-110.
(Overview of C and S Sumatra Tertiary basins structure, stratigraphy, paleogeography by Stanvac geologist)

De Greve, W.H. (1871)- Het Ombilin-kolenveld in de Padangsche Bovenlanden en het transportstelsel op Sumatra's Westkust. Landsdrukkerij, Batavia, p. 1-155. *(Expanded Edition, printed in Batavia, 1907)*
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMUBL07:000002091:00005)

('The Ombilin coalfield in the Padang Highlands and the transportation system of the Sumatra West coast'. Summary of 1870 report by mining engineer de Greve, who is credited with discovery of Ombilin coalfield near Sawahlunto, with additional documents, with W.A. Henny. Recommends railway to East coast of Sumatra)

Deibert, D.H. (1961)- Geophysical exploration in Sumatra. Contributions Department of Geology, Institute of Technology Bandung (ITB) 43, p. 1-9.
(Brief Caltex paper on C Sumatra seismic acquisition)

Den Berger, L.G. (1923)- Fossile houtsoorten uit het Tertiair van Zuid-Sumatra. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 7, 2, p. 143-148.
('Fossil wood species from the Tertiary of South Sumatra'. Brief comments on identifications of Krausel (1922))

De Smet, M.E.M. & A.J. Barber (2005)- Tertiary stratigraphy. In: A.J. Barber, M.J. Crow & J.S. Milsom (eds.) Sumatra- geology, resources and tectonic evolution, Geological Society, London, Memoir 31, chapter 7, p. 86-97.
(During Late Cretaceous all of Sumatran basement exposed to erosion. In Eocene parts covered by shallow seas with platform carbonates. Widespread Late Eocene- E Oligocene rift basins, separated by mainly N-S trending horsts, coinciding with collision of India with S margin of Asian continent. Latest Oligocene onset of regional sediment source areas and broad depositional areas, sourced from N later also from Barisan Mts. From M Miocene onwards uplift of Barisan Mts and forearc island areas, coinciding with early inversion of basin sediments and onset of activity of Sumatran Fault System)

Direzza, A., S.S. Surjono & E. Widianto (2011)- Analisis stratigrafi seismik endapan syn-rift area Lembak, cekungan Sumatera Selatan: preliminary study for underexplored area. Proc. Joint 36th HAGI and 40th IAGI Annual Conv., Makassar, JCM2011-190, p. 1-8.
('Seismic stratigraphic analysis of syn-rift deposits in the Lembak area, South Sumatra basin'. Alluvial-fluvial-lacustrine facies interpreted from seismic in half-graben in SE part S Sumatra basin)

Djamaoeddin, A. (2003)- Sedimentology, sequence stratigraphy and reservoir geology of Bangko and upper Menggala (lower Miocene) sandstones, Petani Field, Central Sumatra Basin, Indonesia. M.Sc. Thesis University of Colorado, p. 1-226. *(Unpublished)*
(Study of sequence stratigraphy and facies distribution of E Miocene Bangko and U Menggala Fms in Petani field, C Sumatra. Nine lithofacies. Four facies associations interpreted from facies analysis of cores (1) tidal estuarine channel, (2) tidal estuarine bar, (3) tidal flat and (4) shallow marine shelf or prodelta. Deposited within overall transgressive tide-dominated estuarine system. Third-order sequence boundaries at bases of Menggala 3860' and Bangko 3680' sands)

Djamil, H. (1988)- Reservoir description of the Arun limestone in the Arun OBS-2 (A64) well. Proc. 17th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 87-97.
(Giant Arun gas field discovered in 1971, in N coast of Aceh. Reservoir Miocene NNW-SSE trending reefal limestone buildup in Arun/ Cunda High, 18.5 x 5km in size, thickness up to 1200'. 12 subunits, with best porosity (av. 17.6%) and permeability (av. 75mD) in lagoonal Unit 6 and reefal Unit 8. Reef thickest and most reefal facies in South (windward side?))

Du, Naizheng (1988)- On some silicified woods from the Quaternary of Indonesia. Proc. Koninklijke Nederlandse Akademie van Wetenschappen B 91, p. 339-361.
(Two specimens of silicified wood from Quaternary of S Sumatra identified as being similar to modern plants Shorea negrosensis (Dipterocarpaceae) and Lagerstroemia colletti (Lythraceae) and named as new species Shoreoxylon sumatraense and Lagerstroemioxylon benkoelense)

Dufour, J. (1957)- On regional migration and alteration of petroleum in South Sumatra. Geologie en Mijnbouw 19, 5, p. 172-181.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0NkY0QU1ZX3NIT2s/view)

(Well-developed E Miocene basinal shale facies most likely source rock in S Sumatra Basin. Two oil groups: (1) paraffin base; restricted to Lower Miocene sandstone at E margin of basin, bordering Sundaland; (2) light paraffin base oil, mainly in younger Neogene in center of basin. Difference in composition related to migration in different periods)

Dwipaningtyas, A.S. Jenie, A.R. Sigit & M.S. Khubbi (2025)- Unveiling the Talang Akar GRM sedimentary facies to define reservoir distribution in North Musi, South Sumatra Basin. Int. J. Geology and Earth Sciences (IJGES) 11, 1, p. 1-6.
(online at: https://new.ijges.com/2025/IJGES-V11N1-1.pdf)
(Recent oil-gas discovery in Lower Talang Akar Grid Sand Member (GRM) in Musi Rawas region, S Sumatra)

Dwiyanti, R., J. Prosser & R. Sosrohadisewoyo (2001)- Integrated lithofacies characterization within carbonates of the Baturaja Formation, Soka Field, using borehole image data and conventional cores. Proc. 28th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 643-663.
(Soka oil field recent Medco discovery in central part of Musi Platform, S Sumatra, an area known for gas production from E Miocene Baturaja Fm limestone buildups. Soka 1 170' of gas column. Field on S rim of NE-SW trending Pre-Tertiary high (Bungur High), composed of metavolcanics. Within limestone reservoir several upward shoaling successions; highly variable reservoir quality)

Edwards, T. (2000)- Life in old oil fields: Arahan-Banjarsi Fields, South Sumatra. SEAPEX Press, Singapore, 3, 5, p. 12-17.

Ekaninggarani, F. & K. Aprianto (2011)- Define clastic stratigraphic play on 2D seismic data with field analogy and geological concept. Proc. Joint. 36th HAGI and 40th IAGI Annual Conv., Makassar, JCM2011-154, p. 1-11.
(On stratigraphic plays in S Sumatra basin. Ibul Field in Talangakar Fm distributary channel sand is proven stratigraphic trap with reserves of 25 MMBOE. Kalidua area N of Ibul Field may have similar traps potential)

England, T.D.J., G. Hollomon, W. Ramadan, C. Tiranda, J. Sykora & G. Begg (2015)- Drilling the unconventional giant in the Sumatran Deep. Proc. SE Asia Petroleum Exploration Society (SEAPEX) Conference 2015, Singapore, 3.3, p. 1-4. *(Extended Abstract + Presentation)*
(Significant tight oil and gas potential in Eocene-Oligocene syn-rift source rocks in petroleum basins of Sumatra)

Erdi, A., A. Setiawan, I. Zulmi, A.R. Inabuy, R.H.A, Zahra, E. Edwin et al. (2025)- Middle-Late Miocene tidal-related deposits of the Binio Formation: the sedimentary and stratigraphic records during inversion of the Central Sumatra Basin, Indonesia. Rudarsko-geolosko-naftni Zbornik (Mining-Geology-Petroleum Engineering Bulletin), Zagreb, 40, 1, p. 123-143.
(online at: https://hrcak.srce.hr/file/474076)
(On NW-trending tidal sand body in M-L Miocene Binio Fm in wells SE of Pakanbaru in C Sumatra basin)

Eubank, R.T. & A.C. Makki (1981)- Structural geology of the Central Sumatra back-arc basin. Proc. 10th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 153-194.
(Key paper on C Sumatra back-arc basin and hydrocarbons by Caltex. Newly described type of fold, Sunda fold. Basin with very high T gradient of 3.38°F/ 100'. Kerumutan Line separates Pre-Tertiary oceanic Mutus Assemblage of deep water chert, clastics and thin limestones and basalts in SW (possibly equivalent to M-L Triassic Kuala Fm of Malay Peninsula) from quartzitic continental crust in NE. Greywacke terrane SW of Mutus (Bohorok Fm). Seven wells in coastal plain with M Miocene basalt/ gabbro intrusives (~17-12 Ma))

Everwijn, R. (1860)- Onderzoek naar kolen in de Residentie Palembang. Natuurkundig Tijdschrift voor Nederlandsch-Indie 21, p. 81-88.
('Investigation into coals in the residence Palembang'. Early 'Mijnwezen' survey of Miocene coal near Bali Bukit and Lematang River near Lahat, S Sumatra. Deemed to be poor quality lignite, less valuable than Borneo coals. Also mention of oil seeps S of Bali-Bukit)

Everwijn, R. (1867)- Verslag van een onderzoekingsreis in het rijk van Siak. Natuurkundig Tijdschrift voor Nederlandsch-Indie 29, p. 289-358. *(also in Jaarboek Mijnwezen Nederl. Oost Indie 1874, 1, p. 83-155)*
(online at: www.biodiversitylibrary.org/item/48369#page/823/mode/1up)
('Report on a reconnaissance trip in the state of Siak', Sumatra. Mainly travel history of journey into Siak River area of Central Sumatra basin, upstream of Pakanbaru. Incl. mention of small native tin mining operations near Kotah-renah, along Pingier and Lauw creeks and tributaries. Tin associated with granite outcrops)

Everwijn, R. (1873)- Onderzoek van Sumatra kolen en vergelijking van deze met andere koolsoorten. Jaarboek Mijnwezen Nederlandsch Oost-Indie 2 (1873), 1, p. 203-219.
('Investigation of Sumatra coals and comparison with other coal types')

Everwijn, R. (1876)- Het voorkomen van aardolie in het rijkje Perlak. Sumatra's Oost. Jaarboek Mijnwezen Nederlandsch Oost-Indie 5 (1876), 1, p. 186-187.
('The occurrence of oil in Perlak, Sumatra East coast'. Brief report on oil seep, with continuous gas bubbles one hour from Rantau Panjang, E coast of Aceh, N Sumatra, from which locals collect ~146 liters/ day and used for lamp oil. (Decades later this became the site of Royal Dutch Petroleum Company's large Perlak oil field discovery in 1900; JTvG)

Everwijn, R. (1876)- Over nieuwe vindplaatsen van kolen in de Assistent-Residentie Bengkoelen. Jaarboek Mijnwezen Nederlandsch Oost-Indie 5 (1876), 2, p. 223-241.
('On new localities of coal in the Bengkulu Assistent-Residency', W Sumatra)

Everwijn, R. (1879)- Onderzoek naar kolen in de Residentie Palembang. Jaarboek Mijnwezen Nederlandsch Oost-Indie 8 (1879), 2, p. 163-171.
('Investigation into coals in the residence Palembang', S Sumatra. Reprint of Everwijn (1860))

Fahmi, M. (2010)- Sequence stratigraphy of shallow-water deposits in the Sihapas Group, Northwest Central Sumatra Basin. AAPG Hedberg Conference, Jakarta 2009, Search and Discovery Article 50254, p. 1-6.
(online at: www.searchanddiscovery.com/documents/2010/50254fahmi/ndx_fahmi.pdf)
(Extended Abstract. Five transgressive-regressive sequences identified in shallow-water Sihapas Fm in NW part of C Sumatra Basin. Depositional environments from fluvial to offshore marine/shelf. SW-ward prograding sandy delta front/shoreface-belts)

Fakhruddin, R., I.S. Gumilar & T. Ramli (2020)- Marine influence during deposition of the Kiliranjao Brown Shale, Central Sumatra, from palynology point of view. Proc. Life and Environmental Sciences Academics Forum, Depok 2019, IOP Conference Series: Earth and Environmental Science 538, 1, 012005, p. 1-8.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/538/1/012005/pdf)
(Eocene-Oligocene rift deposits with Kiliranjao Brown Shale in C Sumatra deposited in lacustrine environment. Two palynozones:M-L Eocene Proxapertites operculatus and Oligocene Meyeripollis naharkotensis Zone. Marine flooding surfaces, shown by peaks of mangrove pollen, carbonate mineral content and framboidal pyrite, used to delineate section into five parasequences)

Fardiansyah, I., A. Wiyono & A.F. Talib (2021)- The massive fluvial channel system in the Balam Graben: new insight and future expectation from Menggala Formation in the northern Rokan Block, Central Sumatera Basin. IAGI Journal 1, 2, p. 71-79.
(online at: https://journal.iagi.or.id/index.php/IAGIJ/article/view/34/305)
(Earliest Miocene Lower Menggala Fm in N Rokan Block with large fluvial channel system deposited parallel to Paleogene border fault remnants, during early post-rift phase (22-25 Ma). N-S trending fluvial channel belt 4-5 km wide, thick multi stacking fluvial sequence in N, gradually changing into river mouth sediment in S)

Fardiansyah, I., E. Finaldhi, S. Graha, M.I.S. Harris & A. Susianto (2017)- Early Miocene paleogeography of Central Sumatra Basin: impact on reservoir quality and distribution of the Upper Sihapas Group, Rokan Block. Proc. 41st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA17-577-G, p. 1-19.

(Updated E Miocene (17.5-22 Ma) depositional models of Bekasap and Bangko, Duri, Lower Telisa Fms in C Sumatra Basin. U Sihapas Gp deposited during marine transgression. Sediment source mainly Malayan Shield to NE, resulting in NE to SW depositional trend. Two major feeder systems controlled sedimentation in C Sumatra Basin, resulting in two major deltas in M-U Early Miocene (best reservoir quality))

Farizi, H., D.H. Prabowo, M.Y. Abdulfatah & A. Palupi (2021)- Telisa sand characterization and prospects in Langgak Field. Proc. HAGI-IAGI-IAFMI-IATMI Joint Convention Bandung (JCB) 2021, p. 395-405.
(online at: https://www.iagi.or.id/web/digital/52/JCB-2021-Paper-68-telisa.pdf)
(Langgak Field in Mountain Front Kuantan Area, C Sumatra, discovered in 1975 by Caltex and has been producing oil since 1979 from Sihapas Sand (Bekasap Fm). Thin (~20') but widespread overlying Telisa Fm sand also oil-saturated, but produced oil only after fracturing)

Fathan, H.U., S.M. Tarigan, E. Sutriyono & A. Tarigan (2017)- The Neogene depositional history of Lemau and Bintunan Formations in Bengkulu Basin. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, p. 1-5.
(online at: https://geosriwijaya.com/wp-content/uploads/2017/11/Fathan-et-al-2016-The-Neogene-Depositional-History-of-Lemau-and-Bintunan-Formations-in-Bengkulu-Basin.pdf
(Facies study of Miocene- Pliocene clastic deposits in N Bengkulu Basin, tied to N-S Paleocene graben systems)

Fatimah (2009)- Mineralogy and organic petrology of oil shales in the Sangkarewang Formation, Ombilin Basin, West Sumatra, Indonesia. Masters Thesis University of New South Wales, p. 1-150.
(online at: https://unsworks.unsw.edu.au/bitstreams/593c8f8e-291f-4100-80ea-ac66ed89b635/download)
(Oil shale deposits in Paleocene-Eocene Sangkarewang Fm of Ombilin Basin)

Fatimah (2016)- Studi awal potensi batubara Muaraenim untuk dikonversi menjadi bahan bakar cair berdasarkan karakter batubara. Buletin Sumber Daya Geologi 11, 3, p. 158-172.
(online at: http://buletinsdg.geologi.esdm.go.id/index.php/bsdg/issue/archive)
('Preliminary study of Muaraenim coal liquefaction potential based on coal characteristics'. Muara Enim coal of S Sumatra good potential to be converted into liquid fuel)

Fatimah & C.R. Ward (2009)- Mineralogy and organic petrology of oil shales in the Sangkarewang Formation, Ombilin Basin, West Sumatra, Indonesia. Int. J. Coal Geology 77, 3, p. 424-435.
(Significant oil shale deposits in Late Eocene- E Oligocene lacustrine shales of Sangkarewang Fm, intercalated with thin laminated calcareous sandstones. Organic matter in oil shales dominated by liptinite, particularly alginate (mainly lamalginite) and sporinite. Dominance of lamalginite in liptinite suggests material is lamosite. Vitrinite reflectance 0.37- 0.55%, lower than overlying Sawahlunto Fm coal (0.68%). Algal abundance associated with carbonate deposition)

Fennema, R. (1885)- Verslag van het onderzoek van het kolenterrein rondom den Boekit Soenoer, in de Ommelanden van Bengkoelen. Jaarboek Mijnwezen Nederlandsch Oost-Indie 14 (1885), Technisch Administratief Gedeelte, p. 5-66.
('Report on the coal terrains around Bukit Sunur in the Bengkulu region'. Early evaluation of Miocene coal deposits in Bukit Sunur area, ENE of Bengkulu town, W Sumatra. With 1:20,000 geologic map and 2 geologic cross-sections. Oldest rocks in area andesites and rhyolites, overlain by Miocene deposits largely derived from these volcanics and with many outcrops of up to 4.5m thick coal seams. Also post-Miocene andesite intrusives and sills (e.g. Bukit Kandis). Coal seams mainly in E part of area. Mining of coal here deemed uneconomic)

Fennema, R. (1890) Rapport omtrent het voorkomen van petroleum in Beneden-Langkat, Oostkust van Sumatra. en de omstandigheden waaronder eene eventueele exploitatie zal moeten plaats hebben. Jaarboek Mijnwezen Nederlandsch Oost-Indie, 1890, Technisch Administratief Gedeelte 2, p. 10-91.
('Report on the occurrence of petroleum in Lower Langkat, East coast of Sumatra, and the conditions required for potential exploitation'. Bureau of Mines ('Mijnwezen') survey and drilling assistance in 1886 at Telaga Said and Telaga Toenggal, at request of entrepreneur A.J. Zijlker. Fennema recognized that the oil accumulation was in an anticlinal structure. The successful pioneering drilling led to founding of the 'Koninklijke Maatschappij tot

exploitatie van petroleum-bronnen in Nederlands Indie' in 1890 in Amsterdam, which later merged with Britisch company Shell Transport and Trading to become 'Royal Dutch/ Shell')

Ferdyanto, G., E. Sunardi & Ismawan (2003)- Analysis of sequence stratigraphy, Lemat Formation to Gumai Formation, GN Field, South Sumatra Basin. Proc. 29th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 1-13.
(Basic paper; few specifics; no field location, not real field name ?)

Feriyanto, F. Kamil, Y. Kusnandar & Y. Yanto (2005)- Successful identification of thin carbonate on paleo-basement high: special case in Palembang High, South Sumatra Basin. Proc. 30th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 91-100.
(On seismic recognition of thin Baturaja Fm buildups on Palembang High, S Sumatra)

Finaldhi, E., I. Fardiansyah, E.H. Sihombing, R. Waren, F. Fitris, H. Semimbar, S. Graha, A.F. Talib & W.R. Paksi (2016)- Reservoir potential of axial fluvial delta vs alluvial fan delta in syn-rift lacustrine: a modern study in Lake Singkarak, Sumatra. Proc. 40th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA16-176-G, p. 1-22.
(Modern day Lake Singkarak Sumpur axial fluvial delta and Malalo alluvial fan delta systems analog for Paleogene syn-rift lacustrine reservoir rocks in W Indonesian basins)

Finger, K.L. & W.S. Drugg (1992)- Microfossils as indicators of deltaic subenvironments, Minas Field, Central Sumatra. Proc. 21st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 225-237.
(Depositional environments of E Miocene Bekasap Fm interpreted as fluvial delta plain to distal delta front or prodelta. Biotic distributions controlled primarily by salinity and pH gradients. Association of large coastal foraminifera with minute deeper water forms implies shoreward transport of latter and supports concept of tide-dominated Bekasap delta)

Fiqih, F.M., Abdurrokhim & B. Muljana (2024)- Paleogene deposits distribution of the Kampar Block, Central Sumatra Basin. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 25, 1, p. 9-18.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/809)
(Eo-Oligocene fluvial-alluvial synrift deposits (Kelesa-Pematang Fms) are principal hydrocarbon source rocks in C Sumatra basins. Outcrop study in Tigapuluh Mountains and map of Paleogene rift sub-basins)

Firmansyah, A., Wandono & M. Ramdhan (2022)- Tectonic pattern imaging of Southern Sumatra region using Double Difference Seismic Tomography. Eksplorium 43, 1, p. 29-40.
(online at: https://ejournal.brin.go.id/eksplorium/article/view/8135/6242)
(Seismic tomography study of S Sumatra. Seismic activity in area driven by Sumatran subduction zone, Mentawai fault and segments of Sumatran Fault. Relocated hypocenters and velocity models from BMKG earthquake catalog 2012-2020. Tomograms image thermal zone under Dempo and Patah volcanoes at 30-50 km depth. Slab dehydration observed in several forearc high zones. Subducted slab of Indo-Australian plate observed. Granitic basement positive anomaly beneath Anak Krakatau detected until 10 km)

Firmansyah, D.A., A. Rifai, S. Yudho, A. Kamal & R.M.I. Argakoesoemah (2007)- Exploring shallow prospects in Iliran Basement High, South Sumatra Basin. Proc. 31st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA07-G-141, p. 1-10.
(Hydrocarbon exploration in Iliran High region since early 1900s, when heavy oil was produced from shallow wells around asphalt, oil and gas seeps. Down flank discoveries W Iliran and S Tabuan in 1980s. Iliran High remained high since Late Oligocene and focal point for hydrocarbon migration since Late Miocene. Plio-Pleistocene tectonics resulted in tilting to SW. Three exploration plays: crest-structure, down-flank, and fractured basement. Prospects all <2500', and seal highest risk)

Fitria, Haris, A. & Rinaldo. (2025)- Characterization of subsurface structure using gravity data inversion in the Ombilin Basin, West Sumatra. Jurnal Penelitian Pendidikan IPA (JPPIPA) 11, 8, p. 593-600.
(online at: https://jppipa.unram.ac.id/index.php/jppipa/article/view/11762/8146)

(Gravity inversion over Ombilin Basin in W Sumatra show low-density zones in C and SW parts of basin that appear to correspond well with known basin geometry and Cenozoic sediment thickness)

Fitriana, B.S., M.F. Mustofa & H.J. Sutrisno (2017)- BDA-1 well: fractured play discovery in the southern part of South Sumatra Basin. Proc. 41st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA17-358-G, p. 1-12.
(Bandar Agung (BDA) -1 exploration well drilled in 2014 in W of Ogan Komering block, S Palembang sub-basin, S Sumatra Basin, tested thermogenic gas (3.4 MMSCFD) and condensate (73.3 BCPD of 54.7^{o} API) from fractured basement. Well penetrated >100m of fractured basalt with minor granodiorite and marble, underlain by ~25m of non-fractured phyllite. Basement part of Mutus Assemblage)

Fitriana, B.S., B. Sapiie & A. Rudyawan (2023)- Deskripsi lithologi batuan dasar dan hubungannya dengan karakteristik reservoir rekahan alami de Blok Ogan Komering, Cekungan Sumatra Selatan, Indonesia. Bulletin of Geology (ITB) 7, 3, p. 1314-1321.
(online at: https://buletingeologi.com/index.php/buletin-geologi/issue/view/20/PR73-3)
('Description of bedrock lithology and its relationship to natural fracture reservoir characteristics in the Ogan Komering Block, South Sumatra Basin, Indonesia'. On oil and gas in Pretertiary basement in Ogan Komering Block, S Sumatra, first proven in BDA-1 well in 1992. Pre-Tertiary basement consists of granodiorite, diorite, marble, andesite, shale, phyllite and schist. K-Ar dating in andesite suggest ages between 61-131 Ma (Cretaceous). Igneous rocks hydrothermally altered. Good natural fracture development, especially in granodiorite, diorite, marble and quartzite lithologies)

Fitriana, B.S., S.H. Wibowo, R. N. Ardianto, D. Pramudito, I. K. Barus & M.W. Airlangga (2022)- Revealing stratigraphic trap development in Abab Field, South Sumatra. Proc. 51st Annual Convention Indonesian Association Geologists (IAGI), Makassar, South Sulawesi, 78, p. 1-8.
(online at: https://www.iagi.or.id/web/digital/71/PITIAGI-22-P-Abs-072.pdf)
(Discussion of stratigraphic trap potential in the 1932 former Stanvac Abab field discovery in S Sumatra (Late Oligocene- earliest MioceneNE-SW trending fluvial- shallow marine Talang Akar Fm sandstones, pinching out against structural high in NW))

Fitrianto, T., C.M.R. Tuhar, M.N. Alamsyah, H.N. Saputra & I N. Suta (2021)- Understanding the fractures connectivity control in NEB Field, South Sumatra basin: from seismic to geomechanics and its implication for further fractured Basement exploration. Proc. 45th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA21-G-85, p. 1-13.
(Fractured Basement drilled in 2013, 2015, in NE Betara Field, Jabung Block, S Sumatra. NEB 1 and NEB 2 wells penetrated ~2500'-3000' of granite. More faults developed in SW part of NEB Field, with faults showing en-echelon fault geometries, typical of strike-slip fault movement)

Fitrianto, T., H.N. Saputra, B. Syam & A.H. Purwanto (2012)- The origin, distribution and prediction of CO_2 in South Sumatra, a case study: Jabung Block and surrounding area. Proc. 36th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA12-G-025, p. 1-10.
(Several gas discoveries in S Sumatra Jabung, South Jambi and Corridor Blocks contain 40-90% CO_2 or more. Carbon isotopes in Jabung area suggest origin of CO_2 mainly from inorganic mantle degassing, with minor contribution from thermal breakdown of kerogen and carbonate)

Fletcher, G. & Yarmanto (1993)- Post-Convention fieldtrip 1993- Ombilin Basin, West Sumatra. Indonesian Petroleum Association (IPA), Fieldtrip guidebook, Jakarta, p. 1-71.
(Outcrop geology of Tertiary intra-montane Ombilin Basin in Barisan Mountains of W Sumatra)

Ford, C. (1985)- Tales from the files: an historical perspective of oil exploration in Sumatra. Proc. 14th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 401-403.

Fuse, A., K. Tsukada, W. Kato, H. Honda, A. Sulaeman, S. Troyer, L. Wamsteeker, M. Abdullah, R.C. Davies & P. Lunt (1996)- Hydrocarbon kitchen and migration assessment of North Aceh Offshore Basin, North Sumatra,

Indonesia from views of sequence stratigraphy and organic geochemistry. Proc. 25th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 15-28.
(Hydrocarbon generation and migration pathways evaluated for the deep-water N Aceh Offshore Basin. Best source-rock is the transgressive marine Bampo mudstone (P21 to N4), which is primarily gas-prone. Migration pathway map defined three migration fairways from the North Lho Sukon Deep to its peripheries)

Gael, B.T., E.S. Putro, A. Masykur & L.J. Lederhos (1994)- Reservoir management in the Duri steamflood. Proc. SPE/DOE Improved Oil Recovery Symposium, Tulsa, OK, 1994. SPE/DOE 27764, OnePetro, p. 305-320.

Galih, L.N., I. Haryanto, Y. Firmansyah & Y.T. Wibowo (2019)- Potensi shale gas di sub-cekungan Dalaman Tamiang dan Langkat, Sumatera Utara. Padjadjaran Geoscience J. 3, 3, p. 163-167.
(online at: http://journal.unpad.ac.id/geoscience/article/view/23176/11355)
('Shale gas potential in the Tamiang Deep and Langkat sub-basins, North Sumatra')

Galushkin, Y.I. & A. Mardianza (2014)- Change in the degree of catagenesis and hydrocarbon generation in the sedimentary rocks of the South Sumatra Basin, Indonesia. Geochemistry Int. 52, 8, p. 643-653.
(Oligocene- Recent 2D burial and thermal history modeling of Limau Graben wells Pandan 81, Petanang 1, Tepus 1,2, Gambir 1, Lembak 8. Suggests significant cooling of basement for last 15-20 Ma and significant heating of basin lithosphere in last 2-5 Ma. Talang Akar Fm oil-generating, probably except for upper horizons in shallowest portions of graben (Lembak 8). Oil generation peaked in last 5-10 Ma)

Gandapradana, M.T., K. Meninta & S.M. Gomaa (2014)- Shale in Telisa Formation, Central Sumatera Basin as a prospective shale gas resource based on geochemical data analysis. In: Second EAGE/SPE/AAPG Shale Gas Workshop in the Middle East, Dubai, p. 1-4. *(Extended Abstract)*
(E-M Miocene Telisa Fm in C Sumatra basin 400-870' thck, TOC range 3.1- 14.8%, considered to be area with good-excellent gas generation potential. Organic matter categorized as oil/gas prone-type II kerogen, dominated by alginite and liptinite)

Gani, R.M.G. & Y. Firmansyah (2017)- Analisis skema pengendapan Formasi Pematang di sub-cekungan Aman Utara, cekungan Sumatera Tengah sebagai batuan induk. Bull. Scientific Contribution (UNPAD) 15, 1, p. 9-15.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/11773/pdf)
('Analysis of the deposition of the Pematang Formation in the North Aman sub-basin, Central Sumatra basin as the source rock'. Brown Shale Fm and Lower Red Bed Formation of Pematang Gp good source rock potential)

Ginger, D. & K. Fielding (2005)- The petroleum systems and future potential of the South Sumatra basin. Proc. 30th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 67-89.
(S Sumatra Basin mixed terrigenous, volcaniclastic and carbonate fill. Five main plays: Pre-Tertiary fractured basement, Oligocene-E Miocene (Lower Talang Akar Fm) fluvio-deltaic sandstones, E Miocene (Batu Raja Fm) carbonates and E Miocene (Gumai Fm) and M Miocene (Air Benakat Fm) shallow marine sandstones. Oligocene-E Miocene age lacustrine and deltaic source rocks. Pinch-out of Oligocene and Miocene regional seals limit prospectivity on E side of basin. Cumulative oil production >2 BBO, original gas reserves 22 TCF, with <6 TCF produced. Undiscovered 6-10 TCF of gas and 0.2- 0.5 MMB oil in proven plays)

Gluyas J. & N. Oxtoby (1995)- Diagenesis: a short (2 million year) story- Miocene sandstones of Central Sumatra, Indonesia. Journal of Sedimentary Research A65, p. 513-521.
(Cementation of Miocene Sihapas Fm sands different in two adjacent oilfields: shallow Melibur Field (300 m) uncemented, deeper Kurau Field (1430 m) has common quartz and illite cement, reducing porosity from 30 to 20%. Cementation believed to have taken place in last 2 My. Conclusion disputed by Wilkinson et al. 1998)

Gough, A. (2015)- Understanding the poorly-exposed Lahat and Lemat Formations of the South Sumatran Basin using an outcrop analogue study. Proc. Asia Petroleum Geoscience Conference and Exhibition (APGCE 2015), Kuala Lumpur, 25827, p. 1-5. *(Extended Abstract)*
(Cutler Group of Paradox Basin, USA, can be used as analogue to poorly exposed Eocene- Oligocene Lahat and Lemat Fms of S Sumatra. No data on Sumatra formations)

Graha, S., A. Susianto & R. Olyuza (2024)- Rokan's Cenozoic fossil assemblage in conventional cores, cuttings and sidewall cores: species distribution and geological application. Proc. 48th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA24-SS-04, p. 1-9.
(Brief discussison of the use of micropaleontology in E-M Miocene of C Sumatra Rokan Block (16,000 wells). Few specifics)

Gramberg, J.S.G. (1865)- Over aardolie van Palembang. Natuurkundig Tijdschrift voor Nederlandsch-Indie 28, 6, 3, p. 467-471.
('On petroleum of Palembang'. First description by ship surgeon Gramberg from Palembang of three oil seeps near Karang Raja along Lematang river, S of Muara Enim, S Sumatra (no maps))

Gramberg, J.S.G. (1869)- De petroleum-bronnen van Palembang. De Economist 18, 1, p. 1-16.
('The petroleum seeps of Palembang'. Popular review of oil- gas seeps near Karang Radja, Muara Enim, in Lematang Ilir area of Palembang Residency, emanating from coal-bearing sediments. With recommendations for exploitation. No map)

Graves, R.R. & A.A. Weegar (1973)- Geology of the Arun Gas Field, North Sumatra. Proc. 2nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 23-51.
(Arun gas-condensate field 225 km NW of Medan in large N-S trending, E-M Miocene reefal carbonate buildup. Depth to crest ~9400' subsea. Arun Limestone thickness ~200' offreef to maximum 1100-1200' at buildup.)

Gsell, R. (1930)- Geologische Untersuchungen in der Umgebung von Batoeradja. BPM Report, p. *(Unpublished)*
('Geological investigations in the Baruraja region', S Sumatra)

Gumert, W.R., V. Gratero & F. Fanani (2003)- The Central Sumatra airborne gravity and magnetic survey; an example of the usefulness of an aerogravity survey and the application of geologically constrained gravity interpretation. Proc. 32nd Annual Conv. Indonesian Association Geologists (IAGI) and 28th Annual Conv. HAGI, Jakarta, p. 1-13.
(Results of airborne gravity- magnetic survey and modeling over Kondur Petroleum Malacca Strait Block. Study confirms N-S and NW-SE oriented Tertiary basins, connected by major strike slip faults. Basins bound by normal faults, small rift basins with small inversions in central parts)

Gunther, A. (1876)- Contributions to our knowledge of the fish-fauna of the Tertiary deposits of the Highlands of Padang, Sumatra. Geological Magazine, Decade 2, 3, p. 433-440.
(First description of Eocene-Oligocene fresh-water fish fauna of Ombilin Basin, Padang Highlands. Collected by Verbeek in 1874. Nine genera, including new species Auliscops sumatranus, Pseudeutropius verbeekii, Bagarius gigas, etc. With 5 plates. See also Von der Marck 1876, Rutimeyer 1880, Sanders 1934, Musper 1935)

Gunther, A. (1878)- Contributions to our knowledge of the fish-fauna of the Tertiary deposits of the Highlands of Padang, Sumatra. Jaarboek Mijnwezen Nederlandsch Oost-Indie 7 (1878), 1, p. 171-184.
(Reprint of Gunther (1876))

Guntur, A., S. Hastuti, B. Situmorang & B. Yulihanto (1993)- Studi fasies dan batuan asal formasi Sawahtambang cekungan Ombilin, Sumatra Barat. Proc. 22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 1028-1043.
('Study of facies and source rocks of the Sawahtambang Fm, Ombilin Basin, W Sumatra'. Late Oligocene Sawahtambang Fm lithics rich, of 'Recycled Orogen'-type provenance)

Guntur, A., R.S. Himawan & B. Situmorang (1992)- Pembentukan dan evolusi terban Paleogen Talawi Cekungan Ombilin, Sumatera Barat. Proc. 21st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2, p. 565-584.

('The formation and evolution of the Paleogene Talawi Graben, Ombilin Basin, West Sumatra'. Formation of Talawi graben in W Ombilin basin controlled by dextral strike-slip of NW-SE Sitangkai and Silungkang faults. Strike-slip system active since Cretaceous)

Gusti, U.K. & B.K. Susilo (2019)- Facies and architectural element analysis of braided fluvial succession: The Tertiary Sawah tambang Sandstone, Sawahlunto, Indonesia. Proc. 1st Workshop on Environmental Science, Society and Technology, Medan 2018, Journal of Physics: Conference Series 1363, 012035, p. 1-5.
(online at: https://iopscience.iop.org/article/10.1088/1742-6596/1363/1/012035/pdf)
(More theory than substance: "Sawahtambang Fm records deposition within a fluvial braided river system accumulated in intramontane basin deposited during the post-rift phase in Neogene" (means Eocene?; JTvG))

Gutomo, A. & M.B. Satyawan (1995)- Development concept of Rantau Field based on 3-D seismic data. Proc. 24th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 583. *(Abstract only)*
(Mature Pertamina Rantau field (originally discovered by BPM in 1929) NW-SE trending anticline in Tamiang Deep, N Sumatra. 53 productive layers between 200-1400m depth in deltaic sands of Seureula and Keutapang Fms. 550 wells drilled. Remaining reserves based on 3D seismic study estimated 324 MMBO)

Guttormsen, J. (2010)- Naturally fractured basement reservoirs: using South Sumatra to characterize the challenges of exploring and exploiting fracture basement reservoirs. Proc. 34th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA10-G-183, p. 1-15.
(Data from S Sumatra fracture basement reservoirs of Suban, Sumpal, and Dayung gas fields. Fractured reservoirs include granite, Permian meta-limestone (Leko), quartzites and pelitic rocks (phyllites and schists). In S Sumatra metasediments dominant reservoir lithology, but better test rates in granites and meta-carbonates)

Guttormsen, J., R. Achiat, R. Indrawan & R. Waworuntu (2009)- Phyllitic fractured reservoirs of Southern Sumatra. Proc. 33rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA09-G-149, p. 257-272.
(Major accumulations of hydrocarbons in fractured metasedimentary reservoirs in S Sumatra Basin. Basement composed of Permian- Cretaceous sediments, intruded by felsic magmas)

Haanstra, U. & E. Spiker (1932)- Uber jungneogene Molluskenfaunen aus den Residenzen Benkoelen und Palembang, S.W. Sumatra. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 35, 10, p. 1313-1324.
(online at: https://dwc.knaw.nl/DL/publications/PU00016359.pdf)
('On Late Neogene mollusc faunas from the Bengkulu and Palembang Residencies, SW Sumatra'. Molluscs from Bengkulu area collected by J. Erb in 1902 along coast between Bengkulu and Krue (72 species, 36% Recent, suggesting Late Neogene age), and from Lower Palembang Fm at Talang Akar anticline N of Talang Abab, Palembang Province (50 species, 26% Recent, suggesting Miocene age))

Habrianta, L., G. Matthew, F. Fakhrurozi, D. Auliansyah & I.P. Andhika (2018)- A semi-regional play analysis of the Ombilin basin to understand the tectono-stratigrapic framework and identification of potential exploration opportunities. Proc. 42nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA18-482-G, p. 1-22.
(Review of Ombilin intermontane rift basin (half-graben) in W Sumatra)

Hada, F.S, M., M. Rizki A. Rahmat, C. Wibowo, D.H. Amijaya & A.A. Aspari (2015)- Parasequence concepts, problems and solutions in CBM exploration using seismic data case study: Muara Enim Formation, South Sumatra Basin. Proc. 39th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA15-G-099, p. 1-10.
(Seismic study of coal distribution in Late Miocene- Pliocene Muara Enim Fm in Suban Block of C Palembang Basin, S Sumatra. Six coal seams identified in five zones (parasequences). Thickest seam named D1 is 17.2 m thick. Overall upward-increase in sand-shale ratio)

Hadi, T. & B. Simbolon (1976)- The carbonate rocks of the Batu Raja Formation in its type locality, Batu Raja, South Sumatra. Proc. Carbonate Seminar, Jakarta 1976, Indonesian Petroleum Association (IPA), Special Volume, p. 67-78.

(Baturaja Fm in Baturaja area of S Sumatra bedded limestones in lower, massive limestones in upper part. Texture of limestones varies from boundstone to wackestone and wacke-packstone, suggesting depositional environments from open shoal reef, fore reef, transition to open basin to open littoral back reef)

Hadiana, M. (2014)- Mekanisme rifting Paleogen Cekungan Sumatra Tengah. Ph.D. Thesis Institut Teknologi Bandung (ITB), p.
('Paleogene rifting mechanism of the Central Sumatra Basin'. C Sumatra Basin Paleogene rifting result of dextral strike slip, mainly controlled by pre-existing basement faults. Modeling suggest synrift extension of 7.5% at end of Lower Red Bed Fm deposition, 13% for Brown Shale Fm and 15% for Upper Red Bed Fm)

Hadimuljono, J.S. & N. Firdaus (2021)- Determination of biodegradation zone in Central Sumatra Basin. Scientific Contributions Oil and Gas (SCOG), Lemigas, 44, 1, p. 55-63.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/490/266)
(Heavy oil mostly formed through biodegradation by bacteria. In C Sumatra Basin predominant bacteria is Burkholderia multivorans (also known as Pseudomonas cepacia), which has maximum viable temperature of ~60° C, corresponding to lower depth of biodegradation around 555m)

Hadiyanto (1992)- Organic petrology and geochemistry of the Tertiary formations at Meulaboh area, West Aceh Basin, Sumatera, Indonesia. Ph.D. Thesis, University of Wollongong, Australia, p. 1-219.
(online at: http://ro.uow.edu.au/theses/1397/)
(Onshore Meulaboh forearc basin with thick succession of Oligocene-Pliocene coal-bearing sediments. Coal and clastic rocks potential source rocks but mostly immature and have not produced significant liquid hydrocarbons. Late Oligocene- E Miocene Tangla Fm shales and M Miocene Kueh Fm best source rocks. Oligocene coal and possibly Miocene coal good hydrocarbon generation potential. Onshore vitrinite reflectance gradients greater than offshore, so oil window predicted to be shallower onshore)

Hahn, L. (1981)- The Tertiary deposits of West Central Sumatra. Geologisches Jahrbuch B47, p. 41-53.
(W Central Sumatra (Ombilin basin area) Tertiary composed of Oligocene Breccia-marl formation, Oligo-Miocene Quartz sst Fm and Mio-Pliocene Telisa and Palembang Fms. Bituminous marl at base Breccia-Marl Fm with abundant freshwater fish fauna)

Hakim, F., C. Elders & B. September (2006)- Dextral shear induced inversion of the North Sumatra basin, Indonesia.Proc. Jakarta 2006 International Geoscience Conference Exhib., Indonesian Petroleum Association (IPA), Jakarta06-PG-22, p. 1-6.
(Extended Abstract. N Sumatra N-S trending basin formed during Late Oligocene- E Miocene rifting. Second extension phase affected Late Miocene and Pliocene, coincident with Pliocene folding. Topaz Anticline growth began in Late Miocene. Main phase of fold activity Late Pliocene to Early Pleistocene).

Hakim, F., M. Gunarto, M. Sompie & S. Raharjo (2014)- Bireun High Complex, a rejuvenated carbonate province in offshore North Sumatra Basin. Proc. 38th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA14-G-177, p. 1-15.
(Bireun High is N-S trending horst block in Lhokseumawe Block, offshore N Sumatra Basin (formerly called Peusangan High, Western High, etc.). Presence of E Miocene Peutu Fm carbonates initially proven by Mobil Peusangan wells and more recently by Tately 2012 exploration well Jayarani JR-1 (with 3' of gas pay in 150' thick tight carbonate reservoir, rich in planktonic foraminifera suggestive of deeper water facies))

Hakim, F., A. Idrus & I. Sanjaya (2013)- Ore and alteration mineralogy of Muara Bungo gold prospect, Jambi Province: implication for deposit genesis. Proc. Joint Convention 38th Indonesian Association Geophysicists (HAGI) - 42nd Indonesian Association Geologists (IAGI), Medan 2013, p. 1-4.
(online at: https://www.iagi.or.id/web/digital/8/2013_IAGI_Medan_Ore-and-Alteration-Mineralogy.pdf)
(Common artisanal and small-scale gold mining in Pelepat area, Muara Bungo Rgency, Jambi). Gold source typical of porphyry Cu-Au deposit, in area of altered diorite and andesite. Ages?)

Hakim, M.R., M. Faris & M. Yordan Y.N. (2007)- Hydrocarbon play in North Sumatera basin and sequence stratigraphy application on Keutapang reservoir formation based on well logs data. Proc. 31st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA07-SG-006, p. 1-11.

Hallberg, P.L., A.Martinez Cortizas, A. Hapsari, H. Rifai, S. Eisele, C. Bouvet de Maisonneuve & R. Smittenberg (2021)- Intense warming on highland Sumatra during the mid-Holocene sea-level highstand. Proc. 30th Int. Meeting on Organic Geochemistry (IMOG), Montpellier 2021, 2p. *(Extended Abstract)*
(online at: https://www.earthdoc.org/content/papers/10.3997/2214-4609.202134207)
(12,200-year climate record from peatland in western Indo-Pacific Warm Pool region, at 1500m altitude in highland Sumatra. Branched glycerol dialkyl glycerol tetraethers, stable isotopes, etc., augmented by pollen and geochemical analysis, used here to reconstruct past T and precipitation. Younger Dryas and E Holocene still cold. Around 8 ka BP climate started to warm and T 3˚C warmer and more humid than today around 5 ka BP. This was followed by abrupt shift to colder T and greater influence of El Nino after 3ka BP)

Hambali, H. & P. Dolan (1990)- Melibur Field: an integrated approach to reservoir development. Proc. 19th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 141-154.

Hamdani, A.H. (1989)- Regional structural setting and stratigraphy of the Ombilin Basin. In: T. Thanasuthipitak & P. Ounchanum (eds.) Proc. Int. Symposium on Intermontane basins: geology and resources, Chiang Mai, p. 399-408.

Handayani, R.S.W., D. Setiawan & T. Afandi (2008)- Reservoir characterization of thin oil columns to improve development drilling in a carbonate reservoir: case study of Gunung Kembang Field. Proc. 32nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA08-E-160, p. 1-15.
(Medco Gunung Kembang field in anticlinal structure in E Miocene Baturaja platform carbonate on Musi Platform, S Sumatra. Oil column 40', gas cap 120' thick. Cumulative oil production since 1988: 3.8 MMBO)

Harding, T.P. (1983)- Structural inversion at Rambutan oil field, South Sumatra Basin. In: A.W. Bally (ed.) Seismic expression of structural styles: a picture and work atlas, AAPG Studies Geol. 15, 3, p. 13-18.
(Rambutan oil field shows structural inversion of graben into anticlinal structure)

Hardjono & C.M. Atkinson (1990)- Coal resources in Central Sumatra. Directorate Mineral Res., Bandung, Special Publ. 30, p. 1-13.

Haris, A. (2020)- Integrated geological and geophysical approach to reservoir modeling: case study of Jambi Sub-basin, Sumatra, Indonesia. J. Geological Society India 95, 2, p. 197-204.
(Reservoir model of 3-20m thick sandstone reservoir in Miocene Air Benakat Fm at depth range 1300-1500m in Jambi Basin, S Sumatra. Reservoir considered NE-SW oriented submarine fan channel)

Haris, A., H.A. Almunawwar, A. Riyanto & A. Bachtiar (2017)- Shale hydrocarbon potential of Brown Shale, Central Sumatera basin based on seismic and well data analysis. Proc. Southeast Asian Conference on Geophysics, Bali 2016, IOP Conference Series: Earth and Environmental Science 62, 012018, p. 1-6.
(online at: http://iopscience.iop.org/article/10.1088/1755-1315/62/1/012018/pdf)

Haris, A., A. Hutagulung & A. Riyanto (2018)- Geochemical and petrophysical assessment of Telisa Shale gas reservoir: a case study from South Sumatra Basin, Indonesia. Int. J. of GEOMATE (Japan) 15, 52, p. 199-205.
(online at: https://geomatejournal.com/geomate/article/view/796)
(Assessment to identify the sweet spot of shale gas reservoir in Telisa Fm in S Sumatra Basin. Organic richness of Telisa shale ranging from fair to good)

Haris, A., N. Nastria, D. Soebandrio & A. Riyanto (2017)- Shale gas characterization based on geochemical and geophysical analysis: case study of Brown shale, Pematang formation, Central Sumatra Basin. Proc. Int. Symposium Current Progress in Mathematics and Sciences 2016 (ISCPMS 2016), Depok, AIP Conference Proceedings 1862, 030167, p. 1-4. *(Extended Abstract)*

(online at: http://aip.scitation.org/doi/pdf/10.1063/1.4991271)
(Eocene M Pematang Brown Shale TOC from 0.15-2.71%, classified as poor-very good. Maturity level: vitrinite reflectance Ro = 0.58)

Haris, A., B. Seno, A. Riyanto & A. Bachtiar (2017)- Integrated approach for characterizing unconventional reservoir shale hydrocarbon: case study of North Sumatra Basin. In: Southeast Asian Conference on Geophysics, Bali 2016, IOP Conference Series: Earth and Environmental Science 62, 012023, p. 1-6.
(online at: http://iopscience.iop.org/article/10.1088/1755-1315/62/1/012023/pdf)
(On geochemical, rock mechanic and geophysics to characterize and map unconventional reservoir shale hydrocarbon potential in Baong field. Fair to very good gas potential of Baong Fm shale, with Kerogen Type II, at depth of 1500m)

Haris; A., R. Yustiawan; A. Riyanto & R. Ramadian (2017)- Mapping lacustrine syn-rift reservoir distribution using spectral attributes: A case study of the Pematang Brown shale Central Sumatra Basin. Proc. 2nd Int. Symposium on Current Progress in Mathematics and Sciences, Depok 2016, AIP Conference Proceedings 1862, 0301741, p. 1-5. *(online at: https://pubs.aip.org/aip/acp/article/1862/1/030174/649653/Mapping-lacustrine-syn-rift-reservoir-distribution)*
(Pematang Fm lacustrine Brown Shale syn-rift deposit) also has some thin sandstone potential reservoir beds)

Harris, M. (2014)- The Kambuna Field, offshore North Sumatra (Part 1). SEAPEX Press 17, 4, p. 78-95.
(Review of 1985 Kambuna gas-condensate discovery in N Malacca Strait and its long history of ownership changes. Trap anticlinal drape structure over basement high, reservoir E Miocene Belumai Fm dolomitic sandstones)

Harris, M. (2015)- The Kambuna Field, offshore North Sumatra (Part 2). SEAPEX Press 18, 1, p. 48-66.
(Continuation of Part 1. Development drilling in 2008. 2P reserves revised upward in 2008 to 29.2 MMboe (119 Bscf sales gas, 9.9 Mbc), then downgraded in 2010/2011 to proven EUR 37 Bscfg and 2.7 MMbc)

Harsa, A.E. (1978)- Some of the factors which influence oil occurrence in the South and Central Sumatra basins. In: Wiryosujono & A. Sudradjat (eds.) Proc. 2nd Regional Conference Geology and Mineral Resources of SE Asia (GEOSEA), Jakarta 1975, Indonesian Association Geologists (IAGI), p. 151-163.
(online at: https://www.iagi.or.id/web/digital/32/PIT-IAGI-1975-Paper-15.pdf)
(70% of Indonesian oil production came from S and C Sumatra basins, mainly from Late Oligocene- E Miocene Talang Akar/ Sihapas sandstones. Most oils sourced from Paleogene rift basins and trapped in structures formed during Plio-Pleistocene orogeny, other traps drape over paleotopographic highs)

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(Kuang area one of most stable parts of S Sumatra Basin. Three local unconformities: (1) vadose zone on top Baturaja Fm, (2) turbidite sediments during sea level drop when Gumai Fm was deposited; (3) local unconformity within Air Benakat Fm)

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('Basin evaluation with restoration methods in relation to hydrocarbon accumulations in the Kuang High, S Sumatra'. Cross-section restoration of Plio-Pleistocene compressional structures S of Prabumulih show several

major anticlines (e.g. Tanjung Miring) are inversion structures of Paleogene rifts, and present-day lows are pre-Pliocene highs (e.g. 'Kuang High'). With Talang Akar Fm source-maturation maps)

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('Report of mining-geological survey in the region of Tambang Sawah in the years 1924-1927'. Investigation of gold-silver prospects in Bengkulu region, but no new prospective localities found. Area with ?Mesozoic granites, overlain by M-U Miocene shales and sands, Late Miocene or Pliocene volcanic breccias with some coal and younger andesite-liparite volcanics. With 1:20,000 geologic map)

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(Eocene Kelesa Fm shallow lacustrine oil shale in outcrops in Kubur Panjang, Riau, of C Sumatra basin with organic matter dominated by higher terrestrial plant material and with high nC_{27}-nC_{31} alkanes derived from lacustrine algae (Botryococcus brauni). Still immature in study area, as not expelled hydrocarbons yet (see also Hermiyanto et al. 2019))

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(Minas field 35 km N of Pekanbaru, Sumatra is largest known oil field in SE Asia. Discovered in late 1944. Field is a broad low anticline, with productive area of 57,100 acres and 425' oil column. Main reservoirs in Miocene Sihapas Group. Five major sand units. Cumulative oil production >2 billion bbl)

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(Tanjung Laban 1982 discovery in Late Oligocene Talang Akar Fm sandstones in WNW-ESE trending structural closure)

Hashimoto, K. (1941)- Geology of Atjeh (Sumatra) oil field. J. Japanese Association for Petroleum Technology 9, 3, p. 289-305. *(in Japanese)*
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(online at: http://ijog.bgl.esdm.go.id/index.php/IJOG/article/view/651)
(Tangkil and Rajabasa subduction-zone volcanoes at SE tip of Sumatra. Early stage (>4.3 Ma) effusives of Tangkil dacitic to rhyolitic (67-71% SiO_2), later (~4.3 Ma) rocks basalt to basaltic andesite (~52% SiO_2). Lavas of Rajabasa younger (0.3-0.1 Ma) with compositions from basalt to andesite (51-62% SiO_2). Three magma end members: Mg-rich- medium-K basalt, low-Mg- medium-K basalt, and high-K andesitic)

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(online at: http://i-lib.ugm.ac.id/jurnal/detail.php?dataId=7607)
('Tectonic control on the development of the Ombilin Tertiary economic basin, West Sumatra'. Ombilin intermontane basin in Barisan Mts is pull-apart basin due to dextral movement of Silungkang and Takung Faults since Paleocene, 60 km long and 30 km wide. Two subbasins: Talawi and Sinamar. Five tectonic phases)

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('On fossil plants from Sumatra'. Description of 13 species of plants from 'Eocene' (of Oligocene?; JTvG) marls near coalfields of Ombilin Basin, Padang Highlands, collected by Verbeek in 1874. Believed to be of Miocene age by Heer. Associated with marls with Eocene (Oligocene?) fish fauna described by Rutimeyer 1874, Sanders 1934, etc.)

Heer, O. (1879)- Beitrage zur fossilen Flora von Sumatra. Neue Denkschriften Schweizerischen Naturforschenden Gesellschaft Naturwissenschaften 28, 1, p. 3-22.
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('Contributions to the fossil flora of Sumatra'. Descriptions of 32 Eocene-Oligocene fossil plant species collected by Verbeek in Ombilin coal region of W Sumatra. Incl. Ficus, Daphnophyllum, Dipterocarpus, etc.)

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(Coastal Plains in E C Sumatra Basin 15 oil fields. Three structural episodes: (F1) Eo-Oligocene rifting along N-NNE striking basement faults and reactivation of WNW-trending basement arches; (F2) E Miocene sag, regional dextral wrenching; (F3) M Miocene-Recent WSW-directed compression along older NNW-striking wrench faults and transtension along N-NNE-striking elements)

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(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1047/1/012010/pdf)
(E-M Miocene marine Gumai Fm shales in Baturaja area, S Sumatra. Not much new?)

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(Analysis of fractured Miocene carbonate and Pre-Tertiary crystalline basement reservoirs of Suban gas field, S Sumatra. Structures composite of Paleogene extensional elements, modified by Neogene contraction. Faults along W flank of field show classic oblique-compressional geometry. Reservoir potential most enhanced in areas of field that are in strike-slip stress style and lower in areas of thrust-fault stress)

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(Age of Gumai Fm in C Palembang sub-basin study area N5-N8 (E Miocene) and formed in marine environment)

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(Gas in S part N Sumatra Basin in Keutapang, Mid-Baong Sandstone (MBS), and Belumai Fms. Usually gas with oil or condensate; Wampu Field gas without associated liquids. Gases two groups: Rantau in N with condensate, Aru-Langkat in S from non-associated sapropelic organic matter. Bampo Fm black shales reached gas generation phase and possible gas source. Traps formed in Plio-Pleistocene and may still be filling)

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('Investigation of an oil sample from the Lematang-Ilir District of the Palembang Residency, provided by Mr. Streiff'. Analysis of S Sumatra oil from seep near the Lematang River (no locality details) (Similar samples discussed by Gramberg (1865))

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(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/246/226)
(Analysis of Eocene coal from Keruh Fm in small intra-montane basin at SW side of C Sumatra basin)

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(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/499/426)
('Organic geochemistry of the Eocene hydrocarbon shale in Central Sumatra'. Eocene shales in three areas, described as Kasiro (S Sumatra, Musi Rawas and Sarolangun), Sinamar (Jambi) and Kelesa Formations (C Sumatra, Rengat). Shale of C Sumatra Basin different from shale of S Sumatra Basin (higher vitrinite and liptinite). Shale of Kasiro Fm with type I and II kerogen; Sinamar and Kelesa Fm type I, II and III kerogen. Shale from three formations potential for oil and gas, with different characteristics)

Hermiyanto, H.M. & H. Panggabean (2006)- Karakteristik dan diagenesis beberapa percontoh batuan *oil shale* Formasi Kasiro terpilih, di Jambi dan Sumatera Selatan berdasarkan *Scanning Electron Microscope* (SEM). Jurnal Sumber Daya Geologi (JSDG) 16, 6 (156), p. 349-358.
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(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/223/213)
('Characteristics of oil shale in the Bukit Susah District, Riau'. Kelesa Fm at Bukit Susah in SW part of C Sumatra basin with ~28m of lacustrine oil shale horizons. Dominant macerals alginite, resinite, sporinite, etc. Vitrinite reflectance 0.27- 0.43% (immature). Palynology suggests M-L Eocene age)

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(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/30)
(Geochemistry of Eocene-Oligocene lacustrine Kelesa Shale in Kuburan Panjang area in SW part of C Sumatra Basin. TOC 1.2- 7.2%, excellent source rock)

Hermiyanto Zajulu, M.H. & T. Ramli (2019)- The effect of change in water level on the abundance of liptinite and vitrinite macerals in Upper Kelesa Formation shale in Kuburan Panjang, Riau. Proc. 2nd Int. Conf. Life and Applied Sciences for Sustainable Rural Development, Purwokerto 2019, IOP Conference Series: Earth and Environmental Science 406, 012026, p. 1-27.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/406/1/012026/pdf)
(Eocene-Oligocene Kelesa Fm in Kuburan Panjang area of Sumai sub-Basin, C Sumatra Basin shows enrichment of organic material from bottom to top. Fluctuations in pristane/phytane ratio and liptinite content reflect oxydation levels, tied to higher and lower llacustrine water levels)

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(CBM potential of Late Miocene- Pliocene Muara Enim Fm ~15km NW of Muara Lakitan, S Sumatra basin. Seven coal seams in ~130m interval)

Hermiyanto Zajulu, M.H., E.A. Subroto & V. Susanto (2019)- Characterization of oil shale in the Indragiri Hulu Regency, Indonesia, based on organic geochemistry and petrography. Proc. 10th Int. Conf. Petroleum Geochemistry and Exploration in the Afro-Asian Region, Guangzhou 2019, IOP Conference Series: Earth and Environmental Science 360, 012008, p. 1-7.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/360/1/012008/pdf)
(Good to excellent quality Eocene-Oligocene Kelesa Fm oil shale in Kuburan Panjang anticline in Indragiri Hulu, Riau, C Sumatra. Rundle type lamosite in sediments mainly originated from Pediastrum organisms, indicating lacustrine paleoenvironment. Telalginite interpreted to derive from Botryococcus braunii)

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('Provenance and sandstone diagenesis of the Talang Akar Fm in the area of Merlung, Jambi sub-basin'. Merlung area small basin of W Jambi subbasin, SE of Tigapuluh Mts. Oligocene Talang Akar Fm of recycled orogen provenance, former depth of burial 3000-5000m)

Heryanto, R. (2005)- Hubungan antara reflektan vitrinit, diagenesis, dan kematangan hidrokarbon, batuan pembawa hidrokarbon Formasi Lakat di Lereng Timur laut Pegunungan Tigapuluh. Jurnal Sumber Daya Geologi (JSDG) 15, 1 (148), p. 111-123.
('Relation between vitrinite reflectance, diagenesis and hydrocarbon maturation, Lakat Fm at Lereng Timur, Tigapuluh Mts'. Oligocene Lakat Fm transgressive marine sequence at NE side Tigapuluh Mts (S part of C Sumatra Basin), with immature algal vitrinite (VR 0.29-0.38%), reflecting burial to 1500m depth)

Heryanto, R. (2006)- Diagenesis, coalification, and hydrocarbon generation of the Keruh Formation in Kuantan-Singingi Area, Central Sumatera, Indonesia. Jurnal Sumber Daya Geologi (JSDG) 16, 1 (151), p. 3-15.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/349)
(Source potential of Eo-Oligocene Keruh Fm at SW margin C Sumatra basin, 10km NW of Petai (correlates to Pematang and Kelesa Fms). Late Eocene age based on pollen Florschuetzia trilobata, Palmaepollenites kutchensis, Cicatricosisporites dorogensis and Verrucatosporites usmensis. Coal in middle Keruh Fm, composed of vitrinite (54-94%), inertinite (<1.8%) and exinite (<8.8%). Vitrinite reflectance 0.3- 0.56%, suggesting depth of burial 2000-3000m, and paleo-temperature of 65°- 95°C)

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(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/363)
('Characteristics of the Seblat Formation in the South Bengkulu area'. E-M Miocene Seblat Fm oldest sediments in outcrop in Bengkulu Basin, SW Sumatra. Arkosic sands, with volcanic arc and 'recycled orogen' provenance, possibly from Pretertiary of Gumai-Garba Mts. Diagenesis suggests burial to 2-3 km. Limestone interbed with Lepidocyclina, Miogypsina)

Heryanto, R. (2006)- Perbandingan karakteristik lingkungan pengendapan, batuan sumber, dan diagenesis Formasi Lakat di lereng timur laut dengan Formasi Talangakar di tenggara Pegunungan Tigapuluh, Jambi. Jurnal Geologi Indonesia 1, 4, p. 173-184.
('Comparative characteristics of the depositional environment, source rocks and diagenesis of the Lakat Formation at the NE side with Talangakar Formation at the SE side of the Tigapuluh Mts area, Jambi'. Sedimentology of Oligocene Lakat (C Sumatra Basin) and Talang Akar Fm (Jambi Basin). Lakat Fm carbonaceous mudstone contains pollen Meyeripollis naharkotensis (M-L Oligocene), Ancrostichum aureum, Magnastriatites howardi and Lycodium. Diagenesis of Talangakar Fm higher than Lakat Fm (immature))

Heryanto, R. (2007)- Batuan sumber batupasir formasi Lemau di cekungan Bengkulu. In: Geologi Indonesia: dinamika dan produknya, Geological Research Development Centre (GRDC), Bandung, Special Publ. 33, 2, p. 167-179.
('Source rocks of Limau Fm sandstone in the Bengkulu Basin'. M-L Miocene Lemau Fm alternating claystone and sandstone with coal seams. Sandstone feldspatic litharenite and litharenite, grains dominated by rock fragments and quartz with minor feldspar. Provenance 'magmatic arc' and recycled orogen', probably from Pre-Tertiary Gumai zone)

Heryanto, R. (2007)- Diagenesis batupasir Formasi Lemau di Cekungan Bengkulu dan potensinya sebagai batuan reservoar hidrokarbon. Mineral dan Energi 5, p. 58-70.
(Diagenesis of Limau Fm sands in the Bengkulu Basin, and potential as hydrocarbon reservoir rock')

Heryanto, R. (2007)- Hubungan antara diagenesis, reflektan vitrinit, dan kematangan batuan pembawa hidrokarbon batuan sedimen Miosen di Cekungan Bengkulu. Jurnal Geologi Indonesia 2, 2, p. 99-111.
(online at: http://ijog.bgl.esdm.go.id/index.php/IJOG/article/view/32/32)
('Relations between diagenesis, vitrinite reflectance and maturity for hydrocarbons of Miocene sediments of the Bengkulu basin'. M-L Miocene Lemau Fm sandstones, shales and conglomerates, with coal seams in upper part. Source rock maturation late immature- early mature (vitrinite reflectance of coal 0.76- 0.94%), indicating burial to ~2500m)

Heryanto, R. (2007)- Kemungkinan keterdapatan hidrokarbon di Cekungan Bengkulu. Jurnal Geologi Indonesia 2, 3, p. 119-131.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/196)
('Hydrocarbon potential of the Bengkulu basin'. Presence of hydrocarbons in Bengkulu Basin suggested by oil seeps. Source rock may be carbonaceous clays of Seblat and Lemau Fms. Possible reservoir rocks Seblat and Lemau Fm sandstones and Seblat Fm limestones. Possible claystone seals in Seblat and Lemau Fms)

Heryanto, R. & H. Hermiyanto (2006)- Potensi batuan sumber (source rock) hidrokarbon di Pegunungan Tigapuluh, Sumatera Tengah. Jurnal Geologi Indonesia 1, 1, p. 37-48.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/163)
('Hydrocarbon source rock potential in the Tigapuluh Mts, C Sumatra'. Source rocks S of C Sumatra Basin margin fine grained clastics in Late Eocene Kelesa and Oligocene Lakat Fms. Kelesa Fm TOC 2.3-9.6%, Lakat Fm TOC 0.7-3.5%, Thermal maturation of Kelesa Fm late immature- early mature, kerogen types I and II, Lakat Fm late immature, kerogen types I, II, and III)

Heryanto, R. & H. Panggabean (2006)- The Tertiary source rock potential of the Bengkulu Basin. Proc. Jakarta 2006 International Geoscience Conference Exhib., Indonesian Petroleum Association (IPA), Jakarta, 06-PG-26, p. 1-4.
(Bengkulu forearc basin in SW Sumatra intiated in Eocene-Oligocene with deposition of Lahat equivalent Fm, unconformably overlain by Oligo Miocene Hulusimpang Fm volcanics, E-M Miocene Seblat Fm siliciclastics and carbonates, M-L Miocene Lemau Fm, etc. Geochemical analysis of outcrop, well samples and oil seeps identified organic matter of terrestrial origin. Best potential source rocks in Lemau Fm, although these are immature and oil seeps were derived from a mature source rock)

Heryanto, R., N. Suwarna & H. Panggabean (2001)- The Lakat Formation in the Northeastern flank of the Tigapuluh Mountains and its possibilities as a source rock. Proc. 30th Annual Conv. Indonesian Association Geologists (IAGI) and 10th GEOSEA Regional Congress, Yogyakarta, p.

Heryanto, R., N. Suwarna & H. Panggabean (2004)- Hydrocarbon source rock potential of the Eocene- Oligocene Keruh Formation in the Southwestern margin of the Central Sumatra basin. Jurnal Sumber Daya Geologi (JSDG) 14, 3 (147), p. 118-133.
(Eo-Oligocene lacustrine shale of Keruh Fm exposed in Kuantan-Singingi area at SW margin of C Sumatra basin. Equivalent of Pematang Fm in other parts of C Sumatra basin and Kelesa Fm of Tigapuluh Mts. Excellent oil

source potential. Late Eocene palynolomorphs, incl. Palmaepollenites kutchensis, Florschuetzia trilobata, Meyeripollis naharkotensis, etc. Vitrinite refectance 0.23-0.66%)

Heryanto, R. & Suyoko (2007)- Karakteristik batubara di Cekungan Bengkulu. Jurnal Geologi Indonesia 2, 4, p. 247-259.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/42)
('Characteristics of coal in the Bengkulu Basin'. M-Upper Miocene Lemau Fm coal seams in Ketaun area 1-2m thick, in Bengkulu area 1-3.5m, in Seluma area up to 4.5m. Vitrinite reflectance generally 0.4 to 0.5%, but up to 1.12% near andesitic sill intrusions. Deposited in delta plain environments)

Hestu S.N., Joan C.T., F. Asrul, E. Wijayati, S. Pujiastuti & T. Iswachyono (2010)- Tight carbonate platform: a new opportunity reservoir in Musi Platform a case study of Naya F4 well. Proc. 39th Conv. Indonesian Association Geologists (IAGI), Lombok, PIT-IAGI-2010-172, p. 1-7.
(On oil-bearing, but tight(Miocene?) platform carbonate in 2008 Naya F4 well at NE flank of 'Naya field' buildup, SW Sumatra basin (probably not real field name; map looks like Soka field; JTvG))

Hickman, R.G., P.F. Dobson, M. van Gerven, B.D. Sagala & R.P. Gunderson (2004)- Tectonic and stratigraphic evolution of the Sarulla graben geothermal area, North Sumatra, Indonesia. J. Asian Earth Sciences 23, p. 435-448.
(Sarulla graben Plio-Pleistocene basin along Sumatra fault, where fault coincides with volcanic arc. Offset of 0.27 Ma rhyodacite dome by strand of Sumatra fault indicates ~9 mm/y slip, lower than previous estimates of ~25-30 mm/y for Holocene slip on Sumatra fault determined from stream offsets. Discrepancy may be due to (1) difference between Holocene and late Quaternary rates and (2) additional slip on other faults. Sarulla area volcanic centers: Sibualbuali stratovolcano (~0.7- 0.3 Ma), Hopong caldera (~1.5 Ma), and Namora-I-Langit dacitic dome field (0.8- 0.1 Ma). These generated majority of tuffs and tuffaceous sediments of Sarulla graben. Geothermal systems linked to faults and volcanoes)

Hidayatillah, A.S., R.A. Tampubolon, T. Ozza, M.T. Arifin, R.M.A. Prasetio, T.A. Furqan & H. Darman (2017)- North Sumatra Basin: a new perspective in tectonic settings and Paleogene sedimentation. Proc. 41st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA17-719-G, p. 1-18.
(Mainly literature, etc. compilation of N Sumatra basin)

Hinton, L.B., W.S. Atmadja & P.S. Suwito (1987)- Peusangan C1 reef interpretation with top reef transparent to seismic. Proc. 16th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 339-362.
(Peusangan-XF structure, offshore N Sumatra, ~70 km NW of Arun gas field, is carbonate buildup of E-M Miocene Peutu Fm on paleotopographic Western High. C1 well with ~670' limestone, High amplitude seismic reflector previously interpreted as top carbonate buildup corresponds to lower, tight limestone interval, while top of upper ~400' of porous limestone produces only very weak seismic reflection (largely transparent))

Hirschi, H. (1916)- Kontaktmetamorphe Tertiarkohlen in Sud-Sumatra, sudlich Muara Enim, Residenz Palembang. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 33, p. 569-577.
('Contact-metamorphic Tertiary coals in S Sumatra, S of Muara Enim, Palembang Residency'. As already described by Tobler (1906) Miocene Middle Palembang Fm lignites altered into high- grade coal by young andesite intrusions at several localities, including Bukit Asam, Bukit Gendi and Ayer Milang. M Palembang coals associated with common tuffs with quartz crystals, typically unfossiliferous except for plants)

Hoehn, M.H., I. Arif, C. Welch, F.H. Sidi, D. Rubyanto, R. van Eykenhof et al. (2005)- Combined geostatistical inversion and simultaneous AVA inversion: extending the life of a mature area, Kotabatak Field, Central Sumatra Basin, Indonesia. Proc. 30th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 25-38.
(Kotabatak Field in C Sumatra 1952 discovery; produced >250 MMBO since 1971. Dense well control, but still surprises with reservoir distribution in Bekasap Fm sands. Inversion helped map reservoirs)

Holis, Z., D.A. Firmansyah, W. Romodhon, M.K. Kamaludin & S. Damayanti (2014)- Structural evolution and its implication to heavy oil potential in Iliran High, South Sumatera Basin, Western Indonesia. In: 76th EAGE Conference & Exhibition 2014, Amsterdam, Tu G104 06, p. 1-5. *(Extended Abstract)*
(Iliran High in S Sumatra is young uplift along Late Miocene-Pleistocene NW-SE trending strike slip fault. Uplift caused biodegradation of early light oil accumulations, changing it to heavy oils)

Holis, Z., B. Sapiie, I.N. Suta, M.K. Utama & M. Hadiana (2010)- Fault characteristic and palinspastic reconstructions of the Jabung Field, South Sumatera Basin. Proc. 39th Annual Conv. Indonesian Association Geologists (IAGI), Lombok, PIT-IAGI-2010-066, p. 1-20. *(online at: https://www.iagi.or.id/web/digital/12/2010_IAGI_Lombok_Fault-Characteristic-and-Palinspatic.pdf)*
(Reconstruction of faults around Jabung Field, Jambi Basin, N flank S Sumatra Basin. Area dominated by NW-SE and NE-SW trending basement structures. S Sumatra Basin formed as pull-apart basin related to NW-SE trending dextral strike-slip faults. Early extensional faults formed syn-rift deposits, followed by inversion structures and cross-cut by latter extensional structurs, all formed during continuous strike-slip deformation. since Paleogene. Maximum extension in NW-SE direction and shortening in NNE-SSW direction)

Holleman, W. (1931)- Beschrijving van de afbouwmethode voor ontginning der 8m dikke C-laag der Ombilin steenkolenmijnen. De Mijningenieur 12, 8, p. 126-146.
('Description of the mining method for exploitation of the 8m thick C layer of the Ombilin coal mines')

Hong, K.C., R.L. Schmidt & A.A. Reed (1990)- Steamflood potential of light oil in deltaic deposits of Central Sumatra. Proc. 19th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 155-178.
(Channel sands attractive steamflood target because fining-up bedding character places lower permeabilities at top, which retard steam gravity override and result in good vertical sweep. Bar sands, with coarsening-up character accentuates steam gravity override, and not attractive. With Sihapas Gp paleogeography map)

Hooze, J.A. (1892)- Verslag over de inrichting en het materieel eener kolenmijn te Sawah Loento, ter ontginning van het Soengaei Doerianveld der Oembilienkolen op Sumatra. s'-Gravenhage, p. 1-77.
('Report on the design and equipment for the exploitation of the Sungai Durian field of the Ombilin coals on Sumatra'. Three coal beds in Eocene that can be mined over >4km, with thicknesses of 2m (upper), 2m (middle) and 6-7m (lower seam). Reserves sufficient for a century of production)

Hopper, R.H. (1976)- The discovery of Indonesia's Minas oilfield. In: Oil- lifestream of progress, Brochure reprinted from 'Oil - lifestream of progress', Caltex Petroleum Corporation, p. 1-11.
(Caltex Minas field, N of Pekanbaru, C Sumatra, largest oil field in Indonesia. Minas 1 discovery well drilled in September 1944 by Japanese occupation army (wellsite geologist Toru Oki; the only oil exploration well drilled during the Japanese occupation) on site selected and prepared by Caltex in 1942. Large domal structure identified by shallow corehole drilling and seismic. Waxy low-sulfur crude, producing since 1952)

Houpt, J.R. & C.C. Kersting (1978)- Arun Reef, 'B' Block, North Sumatra. Proc. Indonesian Petroleum Association (IPA) Carbonate Seminar, Jakarta 1976, p. 42-60.
(Description of large Arun gas-condensate field in large reefal buildup of late Early- early M Miocene (Lower Tf) carbonate, N Sumatra. Area of reef complex 6 x 20 km, NNW-SSE trending, thickness up to 1200'. Entire reef complex recrystallized and diagenetically altered. Porosity mainly moldic and vugular)

Hovig, P. (1917)- De beteekenis der Zuid-Sumatrasche antiklinalen. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 2, 5, p. 233-242.
(online at: https://ia601301.us.archive.org/1/items/verhandelingenva2191geol/verhandelingenva2191geol.pdf)
('The significance of the South Sumatra anticlines'. Early discussion of relation between types of anticlines and oil occurrences in Jambi and Palembang sub-basins)

Howells, C.G. (1997)- Tertiary sedimentology and stratigraphy of the Ombilin intramontane basin, West Sumatra. Ph.D. Thesis University of London, p. *(Unpublished)*

Howells, C.G. (1997)- Tertiary response to oblique subduction and indentation in Sumatra, Indonesia - new ideas for hydrocarbon exploration. In: A.J. Fraser, S.J. Matthews & R.W. Murphy (eds.) Petroleum Geology of Southeast Asia. Geological Society, London, Special Publ. 126, p. 365-374.
(Sumatra Tertiary basins evolution related to oblique subduction and indentation from Indo-Australian and Eurasian plates collision. Rift-sag geometry with plate-margin parallel sag basins over N-S-oriented grabens. Grabens control lacustrine source-rock distribution. Ombilin Basin three-fold evolution. Eocene sedimentation controlled by normal faults, not strike-slip, suggesting genetic relationship with N-S-oriented early Tertiary of N, C and S Sumatra Basins not local pull-apart related to Sumatra Fault Zone. Oligocene sedimentation dominated by fluvial deposition at time of active volcanism and strike-slip faulting, indicating modification of initial basin style by strike slip along Sumatra Fault Zone. E Miocene dominated by marine deposits and thermal subsidence. Uplift to present intramontane setting and differentiation from C and S Sumatra Basins in M Miocene or later. Similar genetic origin to C and S Sumatra Basins is suggested)

Hudya, F.D., A. Aimar, T. Afandi, D. Setiawan & R.S.W. Handayani (2008)- Recovery optimization strategy for thin oil column reservoir with large gas cap: case study of Gunung Kembang Field. Proc. SPE Asia Pacific Oil and Gas Conference, Perth 2008, p. 1-7.
(Exploitation of thin (25'-40') oil rim below thick gas cap in Gunung Kembang field challenging. Horizontal oil wells in upper oil rim near gas oil contact best strategy for depletion of oil rim. Oil recovery expected to rise to ~8% while gas is being delivered)

Humphreys, B., S.J. Kemp, G.K. Lott, Bermanto, D.A. Dharmayanti & I. Samsori (1994)- Origin of grain-coating chlorite by smectite transformation: an example from Miocene sandstones, North Sumatra back-arc basin, Indonesia. Clay Minerals 29, 4, p. 681-692.
(Grain-coating chlorite cements common in late M and U Miocene sandstones of Keutapang Fm, derived from granitic, metasedimentary and extrusive volcanic lithologies at W flanks of N Sumatra back-arc basin. Cements originated as smectite-rich cement rims whose initial precipitation was related to breakdown of volcanic detritus in sediments after burial, facilitated by high geothermal gradient in back-arc basin)

Humphreys, B., C.J. Matchette-Downes & R.J. Morley (1991)- Geological reconnaissance of the Ombilin Basin, Central Sumatra, Indonesia. Unpublished Report, Lemigas, Jakarta, p. 1-79.

Husein, S. (2018)- Oroclinal wrench tectonics of Paleogene back-arc rifting in Western Indonesia. Proc. 47th Annual Convention Indonesian Association Geologists (IAGI), Pekanbaru 2018, p. 1-4.
(online at: www.researchgate.net/publication/328703887_Oroclinal_Wrench_Tectonics_of_Paleogene Etc.)
(Paleogene rifting of sedimentary basins across W Indonesia synchronous in M Eocene. Pre-existing basement structures played important role in dictating 'back-arc' basin formation. Regional gravity map shows major curvilinear basement structural grains over Sunda Shelf ('Sunda Oroclines'), presumed to reflect Paleozoic-Mesozoic sutures and magmatic arcs. Sunda Oroclines restrain distribution of back-arc basins, and their wrench tectonics influenced basin fill and basin evolution)

Husein, S., D.H. Barianto, M.I. Novian, Akmaluddin, M.R. Wicaksono & Hendarsyah (2018)- Fluviovolcanic sedimentation of Kikim- Lahat Formation: understanding Paleogene stratigraphy of South Sumatra Basin. Proc. FOSI-IAS-SEPM Regional Seminar, Yogyakarta, Poster Presentation, p. 1-6.
(Eo-Oligocene Kikim-Lahat Fms exposed in Garba and Gumai Mts, overlain by Late Oligocene Talangakar Fm. Four Paleogene lithostratigraphic units, deposited in braided streams- deltaic environments in lower slope of volcanic islands, with more distal facies on slope of Gumai Volcano. E-M Eocene andesites and sandstones-shales interbeds of Kikim Fm, with K-Ar age of andesites ~52 Ma. Late Eocene member quartz sandstones and conglomerates known as Cawang Mb. Early Oligocene in Garba Mts andesitic lavas and pyroclastics and tuffaceous sandstones and polymictic conglomerates in Gumai Mts (Lahat Fm))

Husein, S., D.H. Barianto, M.I. Novian, A.F. Putra, R. Saputra, M.A. Rusdiyantara & W. Nugroho (2018)- Perspektif baru dalam evolusi Cekungan Ombilin Sumatera Barat. Proc. 11th Seminar Nasional Kebumian, Universitas Gadjah Mada, Yogyakarta 2018, p. 1-6.
(online at: www.researchgate.net/publication/328703985_Perspektif_Baru_dalam_Evolusi_Cekungan_O Etc.)

('New perspectives on the evolution of the Ombilin Basin, West Sumatra')

Hutapea, O.M. (1976)- Depositional environments and their control of oil accumulation in the Abab field, South Sumatra. J. Indonesian Association Geologists (IAGI) 3, 1, p. 37-43.

Hutapea, O.M. (1978)- Pengembangan lapangan Benakat: suatu perangkap stratigrafi. Geologi Indonesia (J. Indonesian Association Geologists (IAGI) 5, 1, p. 45-57.
('Development of the Benakat field; some stratigraphic traps'. S Sumatra)

Hutapea, O.M. (1981)- Pewatasan lapisan waduk Formasi Tualang, di Merbau, Riau. Proc. 10th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, p. 222-229.
(online at: https://www.iagi.or.id/web/digital/34/PIT-IAGI-1981-Vol-1-Paper-20.pdf)
('Traps in the Tualang Fm at Merbau, Riau'. E Miocene 'J-sand' clastics in Merbau field, C Sumatra))

Hutapea, O.M. (1981)- The prolific Talang Akar Formation in Raja Field South Sumatra. Proc. 10th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 251-267.
(S Sumatra Raja field 1940 discovery in Late Oligocene- E Miocene deltaic- shallow marine Talang Akar Sst)

Hutapea, O. (1998)- The Semoga- Kaji discoveries: large stratigraphic Batu Raja oil fields in South Sumatra. Proc. 26th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 313-326.
(Semoga, Kaji and Sembada first E Miocene Baturaja carbonates discoveries on Palembang High and with stratigraphic trapping components. In Rimau Block only Talang Akar Fm had been productive. Good quality reef-related carbonate reservoir. Hydrocarbons from Talang Akar and Lemat Fm lacustrine shales, trapped by combination structural- stratigraphic controls, after initial migration into paleo-traps, then remigrating into present traps. Telisa shales acts as top seal, facies change of Baturaja carbonates acts as lateral seal)

Hutapea, O. (2002)- What makes Kaji-Semoga field so big? In: F.H. Sidi & A. Setiawan (eds.) Proc. Giant field and new exploration concepts seminar, Indonesian Association Geologists (IAGI), Jakarta 2002, p. 1-5.
(Extended Abstract. Small 1996 discoveries in E Miocene Baturaja Fm limestones at Semoga 1, Kaji 1 and Sembada 1 wells proved to be part of single large oil pool with recoverable reserves of ~200 MMBO. Oil below structural spill points, demonstrating stratigraphic control on hydrocarbon accumulation)

Hwang, R.J., T. Heidrick, B. Mertani, Qivayanti & M. Li (2000)- Correlation and migration studies of North Central Sumatra oils. Organic Geochemistry 33, 12, p. 1361-1379.
(Tertiary lacustrine shale, Brown Shale, long recognized as main source rock for C Sumatra basin oils. Biomarker and carbon isotopic data from producing fields indicate oils quite similar geochemically. Five genetic groups distinguished based on abundance of algal marker botryococcane, relative to pristane and C29 n-paraffin, which can be tied to subtle differences in source facies. With map of kitchens and migration routes)

Ibrahim, M.I. & D. Widhiyatna (2017)- Karakteristik rekahan batubara pada eksplorasi Gas Metana Batubara di Cekungan Ombilin, Provinsi Sumatera Barat. Buletin Sumber Daya Geologi 12, 1, p. 39-53.
(online at: http://buletinsdg.geologi.esdm.go.id/index.php/bsdg/issue/archive)
('Characteristic of coal fractures for Coalbed Methane gas exploration in the Ombilin Basin, W Sumatra'. Cleat distribution in five Eocene coal seams in 451m deep CBM well. Deeper coal seam lower permeability)

Idenburg, A.G.A. (1937)- Systematische grondkaarteering van Zuid Sumatra. Doct. Thesis, Landbouwhogeschool Wageningen, p. 1-168.
(online at: https://edepot.wur.nl/173449)
('Systematic soil mapping of South Sumatra'. With 1:500,000 map by Szemian and Idenburg)

Indah, M.S., M. Natsir, F. Suwidiyanto, Suwarto, F. Bahesti & D. Kadar (2017)- Paleoenvironment dan evaluasi lateral distribusi perangkap stratigrafi reservoir batupasir Baoung dan batupasir Belumai pada korelasi fosil absolut integrasi 2D seismik regional, Cekungan Sumatera Utara. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, p. 1-4.

('Paleoenvironment and evaluation of lateral distribution of stratigraphic traps of Baong and Belumai sandstone reservoirs by fossil correlation integrated with regional 2D seismic, North Sumatra Basin'. Bio- sequence stratigraphic correlation study of M Miocene sandstones in N Sumatra basin)

Indarto, S., Sudaryanto & E. Soebowo (1994)- Kualitas batubara ditinjau dari kondisi geologi dan analisis proksimat di wilayah Bengkulu, Sumatra. Proc. 23rd Annual Conv. Indonesian Association Geologists (IAGI), 2, p. 1076-1085.
(online at: https://www.iagi.or.id/web/digital/54/43.pdf)
('Coal quality reviewed from geological conditions and proximity analysis in the Bengkulu region, Sumatra'. Rel. common Miocene coal deposits in Bengkulu area, with thickness of 0.25- 8.5m. Sebayar and Napal Putih fields subbituminous grade. Basalt-andesite intrusions increased grade of surrounding coals at Bukit Kandis and Air Kemumu (Bukit Sunur) deposits to High volatile bituminous C)

Indranadi, V.B., L. Sitohang & Wibisono (2011)- Unconformity-bounded stratigraphic units of the Central Sumatra basin: implication for basin history and petroleum system in Bengkalis Trough. Proc. Joint 36th HAGI and 40th IAGI Annual Conv., Makassar, JCM2011-442, p. 1-17.
(Three main unconformity bounded units in Late Eocene- Pliocene of C Sumatra: (1) Kelesa Synthem: Late Eocene-Oligocene synrift sequence, equivalent to Lower Red Beds, Brown Shale, Upper Red Beds; (2) Sihapas Synthem: Late Oligocene- M Miocene post-rift, equivalent with Lakat, Tualang and Telisa Fms. Terminated by structural inversion of Binio Event in M Miocene and Barisan Mts uplift at 13 Ma; (3) Petani Synthem: M Miocene- Recent inverted basin sequence, equivalent to Binio and Korinci Fms. Binio Event local unconformity. Minas Event is youngest deformation in Plio-Pleistocene (~5 Ma))

Iqbal, M., N. Suwarna, I. Syafri & Winantris (2014)- Eo-Oligocene oil shales of the Talawi, Lubuktaruk, and Kiliranjao Areas, West Sumatra: are they potential source rocks? Indonesian J. on Geoscience (IJOG) 1, 3, p. 135-149.
(online at: http://ijog.bgl.esdm.go.id/index.php/IJOG/article/view/198/182)
(Ombilin and Kiliranjao basins of W Sumatra with Eo-Oligocene lacustrine-brackish oil shales in sediments of Sangkarewang and Kiliran Fms, overlain by Sawahlunto coal measures. Kiliran Fm with freshwater molluscs Paludina, Brotia, and Thiara and Botryococcus algae. TOC 1.1- 8.1%. Maceral composition of oil shales dominated by exinite group, mainly Pediastrum-lamalginite with less Botryococcus-telalginite, liptodetrinite, sporinite, cutinite, resinite and bituminite)

Irwansyah, G. Rahmat, I. Prayitno & A. Badai (2019)- Biostratigraphy review of the Talang Akar and Gumai Formations in the North Jambi sub basin. Scientific Contributions Oil and Gas (SCOG), Lemigas, 42, 3, p. 103-110. (?)
(Biostratigraph of Talang Akar and Gumai Fms in outcrop section along Tiga Puluh Mountains, N Jambi Sub Basin. Talang Akar Fm witin foram zone N4 (with Globigerinoides primordius and palynolomorph Meyeripollis naharkotensis). Gumai Fm zone N8)

Irzon, R. & S. Maryanto (2016)- Geokimia batugamping Formasi Gumai dan Formasi Baturaja di wilayah Muaradua, Ogan Komring Ulu Selatan, Provinsi Sumatera Selatan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 17, 3, p. 125-138.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/11/4)
('Geochemistry of limestones from the Gumai and Baturaja Formations in the Muaradua area, south Ogan Komering Ulu, South Sumatra')

Irzon, R., S. Maryanto, I. Syafri, Kurnia, H.H. Jazuli & P. Hartanto (2022)- Wackestones and grainstones geochemistry from Baturaja Formation, South Sumatra Province, Indonesia: origin and depositional Environment. Sains Malaysiana 51, 4, p. 1005-1015.
(online at: https://www.ukm.my/jsm/pdf_files/SM-PDF-51-4-2022/5.pdf)
(Geochemical analyses of E Miocene Baturaja Limestone in S Sumatra)

Iskandar, E. (1994)- Thermometamorphose im Bukit Asam Kohlenrevier, Sudsumatra, Indonesien. Inaugural-Dissertation, Universitat Koln, p. 1-120.
('Thermal metamorphism in the Bukit Asam coal deposit, S Sumatra'. Thermal influence on Miocene coal seams up to few 100m away from E Pleistocene igneous intrusion. Coal rank increases from 0.4 Rm% (sub-bituminous) in uninfluenced area to 2.5 Rm% (semi-anthracite/anthracite) near contact))

Iswachyono, T., M.. Arham & J.C.L. Tobing (2024)- Reservoir characterization of Baturaja Formation- Soka Field. Proc. 48th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 2005 *(Abstract Only)*
(Soka Field in Musi Platform area of S Sumatra Basin. E Miocene Baturaja limestone reservoir consistst of 7 lithofacies. No further details)

Jacobs, S.T. (1986)- Bentayan Field: unique method of heavy oil production, South Sumatra. Proc. 15th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 65-76.
(S Sumatra Corridor Block Bentayan Field discovered by BPM in 1932 in Talang Akar Sst. Undeveloped until 1985 due to unfavorable, heavy crude properties (22° API, pour point 115°F). Downhole blending with low pour point crude allows production of refinery ready product)

Jackson, A. (1961)- Oil exploration- a brief review with illustrations from South Sumatra. Contributions Department of Geology, Institute of Technology Bandung 40, p. 1-9.
(Brief Shell paper on S Sumatra oil exploration)

Janele, P.T., T.H. Tankersley, G.H. Schmit, B.C. Wibowo, A. Rahardja H. & W.C. Dawson (2000)- Stochastic modeling at Kotabatak Field, Central Sumatra Basin. Proc. 27th Annual Conv. Indonesian Petroleum Association (IPA), p. 1-19.
(Kotabatak oil field modeling. NE-SW trending estuarine channels in Bekasap Fm reservoirs)

Jannah, S.M. & E.W.D. Hastuti (2022)- Karakteristik batupasir dan provenance Formasi Peneta daerah Tambang Tinggi dan sekitarnya, Kabupaten Sarolangun, Jambi. J. Penelitian Sains Teknologi 13, 1, p. 9-19.
(online at: https://www.researchgate.net/publication/361838933_Karakteristik_Batupasir_dan_Provenance_Formasi_Peneta_Daerah_Tambang_Tinggi_dan_Sekitarnya_Kabupaten_Sarolangun_Jambi)
('Characteristics and prvovenance of Peneta Fm sandstone in Tambang Tinggi and surrounding area, Sarolangun Regency, Jambi'. Cretaceous Peneta Fm in Desa Tambang Tinggi in S Sumatra Basin, formed in forearc setting during subduction of Woyla Arc fragment with West Sumatra Block. Sandstones lithic arkose, lithic arenite and argillaceous sandstones. Peneta Fm sand provenance Recycled Orogen (magmatic-aArc origin).(associated Peneta Fm limestones with Late Jurassic- E Cretaceous Cladocoropsis miriabilis (Suwarna et al. 1992 and older papers; JTvG))

Jenkins, O.P. (1930)- Test-pit exploration in Coastal Plain of Sumatra. American Assoc. Petroleum Geol. (AAPG) Bull. 14, 11, p. 1439-1444.
(Mapping of structures in Late Tertiary shales-sandstones of SE Sumatra required digging of systematically located pits below lateritic weathering surface (a standard practice for anticline mapping by petroleum companies before the invention of seismic reflection methods; JTvG). Very little geology)

Jenkins, S.D., Hendar S.M. & E. J. Kodl (1994)- Integrated analysis of Petani gas sands in selected fields, Central Sumatra. Proc. 23rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 373-385.
(Seismic anomalies used to identify M-L Miocene Petani gas sands and allow areal mapping beyond the areas of well control. Anomalies integrated with structure maps, sand isopach maps, facies maps and log gas indications enable quick evaluation of small, shallow gas plays)

Johansen, S.J. & A. Djamaoeddin (2003)- Sequence stratigraphy of Bangko Field, Sihapas Group (Miocene), Central Sumatra Basin, Indonesia. AAPG Annual Convention, Salt Lake City, AAPG Search and Discovery Article 90013, 1p. *(Abstract only)*

Johansen, S. & H. Semimbar (2010)- Sand-rich tide-dominated deltaic systems of the Lower Miocene, Central Sumatran Basin, Indonesia. AAPG Hedberg Conference, Jakarta 2009, Extended Abstract, p. 1-8.
(online at: www.searchanddiscovery.net/documents/2010/50255johansen/ndx_johansen.pdf)
(C Sumatran Basin >100 oil-gas fields, mainly in E Miocene Sihapas Group sand-rich, tide-dominated deltaic systems and updip fluvial equivalents. Preserved depositional systems tracts extend from updip fluvio-tidal channels into delta-front inclined tidal-marine sands and muds, then into delta front deposits interbedded with marine mudstones, sandy foram grainstones and cross-bedded glauconitic sands. Overall trend transgressive and capped by marine shales)

Jordan, C.F. & M. Abdullah (1988)- Lithofacies analysis of the Arun reservoir, North Sumatra. In: A.J. Lomando & P.M. Harris (eds.) Giant oil and gas fields, a core workshop, Soc. Econ. Paleont. Mineral. (SEPM) Core Workshop 12, p. 89-117.
(Arun gas-condensate field in N Sumatra, producing from 1100' thick E-M Miocene reefal carbonate buildup. Four facies associated with patch reef complexes. All facies in communication through microporous limestone. Diagenetic reactions creating porosity far outweigh depositional controls on porosity distribution)

Jordan, C.F. & M. Abdullah (1992)- Arun Field- Indonesia North Sumatra Basin. AAPG Treatise Petroleum Geology, Stratigraphic Traps III, p. 1-39.
(Arun largest gas field in N Sumatra basin, with initial dry gas in place of >16 TCF. Reservoir E-M Miocene reefal buildup limestone)

Julianto, R. T. Reza, L. Habrianta, R. Hidayat,F. Fakhrurozi & M. Rafida (2018)- Multi mineral petrophysics and reservoir modelling of Sawahtambang Formation in Sinamar Field, Ombilin Basin. Proc. Symposium IATMI, Padang 2018, 140, p. 1685-1700.
(online at: https://journal.iatmi.or.id/index.php/ojs/article/download/139/139)
(Log analysis of 1983 Sinamar1well (small undeveloped gas field, with two additional wells?) in Ombilin basin. Nine potential reservoir zone in fluvial Sawahtambang Fm. Reservoir thikness 51'-142', porosity 6.1-8.5 %)

Julikah, G. Rahmat & M.B. Wiranatanegara (2021)- Subsurface geological evaluation of the Central Sumatra Basin in relation to the presence of heavy oil. Scientific Contributions Oil and Gas (SCOG) (Lemigas) 44, 1, p. 65-81.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/491/267)
(Review of geological setting of heavy oil occurrences in Miocene clastic reservoirs of C Sumatra basin)

Julikah, G. Rahmat, A.B. Wicaksono & J. Anwari (2020)- Shale plays characterization of the Talang Akar Formation in the Jambi Sub-Basin, South Sumatra Basin. Scientific Contributions Oil and Gas (SCOG) (Lemigas) 43, 3, p. 99-114.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/517/pdf)
(Shales in Late Oligocene-E Miocene Talang Akar Fm in Jambi basin proven mature petroleum source rocks, and here evaluation for potential unconventional hydrocarbon play. Jambi shales less brittle than shale plays in North America)

Julikah, Sriwijaya, J.S. Hadimuljono, R. Ginanjar, A.B. Wicaksono, Jakson A. & M. Syaifudin (2016)- Shale oil and shale gas potential of Talang Akar and Lemat/ Lahat Formations in the Jambi sub-basin. Proc. IPA 2016 Technical Symposium, Indonesia exploration: where from- where to, Indonesian Petroleum Association (IPA), Jakarta, 20-TS-16, p. 1-19.
(On unconventional oil and gas potential of Late Eocene- E Miocene shales of Jambi Basin, S Sumatra)

Julikah, Sriwidjaya, Jonathan S. & Panuju (2015)- Hydrocarbon shale potential in Talang Akar and Lahat Formations on South and Central Palembang sub basin. Scientific Contributions Oil and Gas (SCOG), Lemigas, Jakarta, 38, 3, p. 213-223.
(online at: http://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/549)
(S Sumatra basin with potential of shale hydrocarbons in Talang Akar and Lemat/Lahat Fms. Generally early maturity of oil (Ro = 0.6%) at ~2000m depth, oil formation (Ro 0.7-0.9%) between 2200 -3100m and formation

of gas (Ro values 0.9-1.2%) at 3100-3500m. P50 assessment of non-conventional oil-gas resources up to 4200 MMBOE)

Kadar, D., R. Preece & J.C. Phelps (2008)- Neogene planktonic foraminiferal biostratigraphy of Central Sumatra Basin, Indonesia. In: Sumatra stratigraphy workshop, Duri (Riau) 2005, Indonesian Association Geologists (IAGI), p. 5-51.
(Well-documented study of six Late Oligocene- M Miocene planktonic foram zones in C Sumatra subsurface. Early M Miocene hiatus in Minas and other fields, called Duri event, spans zone N10)

Kalan, T., R.J. Maxwell & J.H. Calvett (1984)- Ramba and Tanjung Laban oil discoveries, Corridor Block, South Sumatra. Proc. 13th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 365-384.
(Two oil discoveries in E Miocene Baturaja Limestone reservoirs. Ramba 1 with 57m reefal limestone, average porosity 19%, Tanjung Laban 1 has 63m limestone, 18m oil pay)

Kamal, A. (2000)- Hydrocarbon potential in the Pasemah Block, a frontier area in South Sumatra. Proc. 27th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 49-63.
(Pasemeh (Pasumah) Block is small intra-montane basin near Pageralam in Barisan Mts, behind Gumai Mts. Miocene stratigraphy with Talang Akar quartz sandstones and Baturaja Lst suggests it was western extension of S Sumatra basin. Surface oil and gas seeps and thermogenic hydrocarbons (incl. high-CO_2 gas) in first exploration well Ruas-1 suggest working petroleum system in Muara Dua area in SE of block. Quality of seismic data poor, due to presence of young near-surface volcanics (ignimbrite))

Kamal, A., R.M.I. Argakoesoemah & Solichin (2008)- A proposed basin-scale lithostratigraphy for South Sumatra Basin. In: Sumatra stratigraphy workshop, Duri (Riau) 2005, Indonesian Association Geologists (IAGI), p. 85-97.
(Description of Eocene- Pliocene stratigraphy of S Sumatra basin)

Kamila, B., Y. Shaylendra, A.H.P. Kesumajana, A. Nugraha & A. Akbar (2021)- Understanding source rock expulsion at the edge of Jambi sub-basin: Comparison between Ketaling Deep, Gelam Deep and Merang Deep. Proc. HAGI-IAGI-IAFMI-IATMI Joint Convention Bandung (JCB) 2021, p. 424-423.
(online at: https://www.iagi.or.id/web/digital/52/JCB-2021-Paper-71-Geochem.pdf)
(Wide variation in timing of onset of hydrocarbon generation from Talang Akar Fm source in Jambi Basin depocenters. Earliest hydrocarbon expulsion in Ketaling Deep, at 22 Ma, in Gelam Graben at 18 Ma, in Merang Graben at 15 Ma)

Kamili, Z.A., J. Kingston, Z. Achmad, A. Wahab, S. Sosromihardjo & C.U. Crausaz (1976)- Contribution to the Pre-Baong stratigraphy of North Sumatra. Proc. 5th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 91-108.
(Review of Early Tertiary wells stratigraphy in N Sumatra Basin. Oldest Tertiary (unconformably) over Pretertiary basement is Parapat Fm (quartz-mica sandstones and conglomerates of Dutch-era authors), with E Oligocene Nummulites fichteli. Overlain by Bampo Fm claystones with Late Oligocene and E Miocene planktonic foraminifera and bathyal benthic foraminifera. Etc.)

Kamili, Z.A. & A.M. Naim (1973)- Stratigraphy of Lower and Middle Miocene sediments in North Sumatra Basin. Proc. 2nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 53-72.
(Discussion of stratigraphy and facies of E Miocene of NE Sumatra basin)

Kasim, S.A. & J. Armstrong (2015)- Oil-oil correlation of the South Sumatra Basin reservoirs. J. Petroleum Gas Engineering 6, 5, p. 54-61.
(online at: www.academicjournals.org/journal/JPGE/article-full-text-pdf/E2428FD53192)
(4 groups of oil in S Sumatra Basin: (1) marine/lacustrine (low pristane/phytane), (2) terrestrially derived (high pristane/phytane ratio), (3) lacustrine oils with bimodal distribution of n-alkanes and (4) biodegraded oils. Oils distributed randomly and sourced from terrestrial TalangAkar and lacustrine Lemat/Lahat formations)

Katz, B.J. (1995)- Stratigraphic and lateral variations of source rock attributes of the Pematang Formation, Central Sumatra. Bull. Geological Society Malaysia 37, p. 13-31.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1995a02.pdf)
(Pematang Fm of Central S basin primary or only source for 10+ billion barrels of recoverable oil. Lacustrine unit, restricted to Paleogene half-grabens. Stratigraphic controls on organic facies within Pematang. Increase in level of organic enrichment and oil-proneness toward top of unit)

Katz, B.J. & W.C. Dawson (1997)- Pematang-Sihapas petroleum system of Central Sumatra. In: J.V.C. Howes & R.A. Noble (eds.) Proc. Conf. Petroleum Systems of SE Asia and Australasia, Indonesian Petroleum Association (IPA), p. 685-698.
(Lacustrine Pematang Group Brown Shale Fm generated 60 GB oil. E Miocene Sihapas sandstones principal reservoirs. Giant fields (Minas, Duri) principally along E margins of sub-basins. Smaller fields with Pematang nonmarine reservoirs in deeper troughs. Pematang Group in series of grabens, with basal fluvial/alluvial unit (Lower Red Bed), medial lacustrine unit (Brown Shale), upper fluvial/alluvial unit (Upper Red Bed). Pematang disconformably overlain by Menggala Fm with quartzose- subarkosic sandstones with average porosity >20% and permeability of 1500 mD. Many oil fields associated with paleohighs, drag folds, and post mid-Miocene inversion. Hydrocarbon generation initiated in Miocene and continues currently in parts of basin)

Katz, B.J., W.C. Dawson, C. Atallah, B. Gunardi et al. (1998)- Anatomy of a lacustrine source- the Brown Shale of Central Sumatra, Indonesia. AAPG Annual Convention, Salt Lake City 1998 *(Abstract)*
(Brown Shale Fm of Pematang Group lacustrine source rock, with oil-prone facies in more rapidly subsiding sub-basins and more distal settings. Oil-prone facies in upper portion of sequence. Multiple oil sub-families, reflecting environmental variations (water depth, salinity, etc.) and relative proportion of allochthonous organic matter. Oil sub-families geographically restricted, and associated with distinct sub-basin)

Katz, B.J. & B. Mertani (1989)- Central Sumatra- a geochemical paradox. Proc. 18th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 403-425.
(Geochemical data from C Sumatra crude oils (Incl. biomarker, C-isotopic composition), suggest 4 distinct crude oil families, each with distinct source. However, source rock data indicate only one effective oil source rock:Paleogene Pematang Brown Shale. Facies variations hin Brown Shale may explain observed differences)

Keats, W. (1981)- Cainozoic sedimentation in Sumatra north of 3°N. Proc. Second Symposium Integrated geological survey of northern Sumatra, Laporan Simposium Direktorat Sumber Daya Mineral, Direct. Min. Res., Bandung, 3A, p. 87-101.
(Cenozoic stratigraphy of N and E parts of N Sumatra well established, from oil and gas exploration activities. Modified formation names proposed. Depositional model postulates presence off NW of Sumatra, of a chain of non-volcanic outer arc islands between 35/32 Ma- 18/17 Ma, similar to present Nias-Mentawai islands. E-M Miocene uplift of Asahan Arch and volcanism, mid-Miocene orogeny linked to initial opening of Andaman Sea, Late Miocene- Quaternary volcanism, and latest Plio-Pleistocene orogenic pulse)

Keil, K.F.G. (1931)- Over het ontstaan van karakteristieke kalk concreties in de Telisa-lagen aan den oostrand van het Goemai-gebergte. De Mijningenieur 12, p. 193-198.
('On the origin of characteristic calcareous concretions in the Telisa beds at the E margin of the Gumai Mountains'. Septarian nodules in E Miocene marine Telisa Fm, S Sumatra, formed by physical-chemical processes)

Kelley, P.A., B. Mertani & H.H. Williams (1995)- Brown Shale Formation: Paleogene lacustrine source rocks of Central Sumatra. In: B.J. Katz (ed.) Petroleum source rocks, Springer-Verlag, Berlin, p. 283-308.
(Review of geochemistry of M-L Eocene? organic-rich lacustrine Brown Shale Fm of Paleogene Pematang Gp. Brown Shale with fresh-water gastropods and algae. Hydrocarbon generation and expulsion from Brown Shale and Coal Zone Fms in Balam, Aman and Kiri Troughs began at ~10 Ma, followed by wet gas and condensate at ~5 Ma (earlier in Rangau and deeper Aman Troughs). Asymmetry of rift troughs drives dominant lateral migration of oil-gas towards gentle hinge margin. Minor vertical migration related to faults and fractures)

Kersting, C.G. (1975)- Stratigraphy, biostratigraphy, paleontology and paleogeography, North Sumatra basin. Unpublished Mobil Oil Report, p. *(Unpublished, but relatively widely referenced oil company report)*

Kesumajana, A.H.P. (2009)- Pengaruh mekanisme pembentukan Cekungan tersier terhadap sejarah temperatur dan pembentukan hidrokarbon di Cekungan Sumatra Selatan. Doktoral Dissertation Institut Teknologi Bandung (ITB), p. 1- . *(Unpublished)*
('The influence of the formation mechanism of a Tertiary Basin and temperature history and the formation of hydrocarbons in the South Sumatra Basin'. S Sumatra basin categorized as hot basin, with average of heat flow value of 108 mWm-2. Start of rifting phase in Late Oligocene (30-25 Ma) re-activating three patterns of old basement faults. Thermal modeling along 3 sections. Thermal model and gravity models indicate Moho depth at 15.6 - 19.5 km (thin crust). Heat flow increased at 15-5 Ma, with average of 117 mW/m2, corresponding with onset of Bukit Barisan volcanic activity. Early mature oil generation reached at 25.2 Ma, end of gas generation at 16 Ma. Top Oil window at 1433m depth)

Kesumajana, A.H.P., D. Noeradi, B. Sapiie & A. Priono (2010)- The role of hydrocarbon maturation modeling, a case study: South Sumatra Basin. Proc. 34th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA10-G-147, p. 1-4.
(Summary of thermal modeling study in S Sumatra basin from hydrocarbon maturity data. Five phases: (1) increase in heat flow during rift phase (30.5- 25 Ma), (2) decrease during sag phase (25- 20 Ma), (3) increase again due to magmatic activity (20- 10 Ma), (4) decline after cessation of magmatism (10- 1.6 Ma) and (5) final increase with final magmatic activity (1.6- 0 Ma).

Khiram, S.U., A.B. Samudra & A. Budianto (2013)- Biogenic gas exploration in Karangringin area, South Sumatra Basin, Indonesia. Proc. Joint Convention 38th Indonesian Association Geophysicists (HAGI) - 42nd Indonesian Association Geologists (IAGI), Medan, JCM2013-0196, p. 1-5.
(online at: https://www.iagi.or.id/web/digital/8/2013_IAGI_Medan_Biogenic-Gas-Exploration.pdf)
(Karangringin area with shallow gas occurrences in Late Miocene Muara Enim Fm in wells Sagu 1, Siarak 1, etc. Main gas reservoir 7-30' thick sand layer at 935-1310' below sea level. Carbon isotopic composition of gas (δ13C) 60.38‰ for methane and for C2 -32.28 and -35.13‰, suggesting biogenic origin)

Khiram, S.U., A.B. Samudra & A. Budianto (2014)- Biogenic gas exploration in Karangringin Area, South Sumatra Basin, Indonesia. Majalah Geologi Indonesia (IAGI) 29, 1, p. 85-99.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/841)
(Same as Khiram et al. 2013)

Kingston, J. (1978)- Oil and gas generation, migration and accumulation in the North Sumatra Basin. Proc. 7th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 75-104.
(Early geochemical study of hydrocarbon generation-migration of N Sumatra Basin. Adequate source rock believed to be confined to deeper basinal areas at level of Lower Miocene shales (today most models assume Eocene lacustrine and Oligocene coaly sources). Same paper as Kingston (1978) below)

KIGAM (Korea Institute of Geoscience and Mineral Resources) (2013)- Explanation for the Fohorem Quadrangle, Covalima District, Democratic Republic of Timor-Leste: Project Publication of the Korean International Cooperation Agency and the Secretary of State for Natural Resources of Timor-Leste, p. p. 1–140.

Kingston, J. (1978)- Oil and gas generation, migration and accumulation in the North Sumatra Basin. Proc. SE Asia Petroleum Exploration Society (SEAPEX) Conference 4, Singapore 1977/78, p. 158-182.
(N Sumatra Tertiary source rocks are deep in basin and older than lower Middle Miocene; same as Kingston (1978))

Kirby, G.A., R.J. Morley, B. Humphreys, C.J. Matchette-Downes, M.J. Sarginson, G.K. Lott et al. (1993)- A re-evaluation of the regional geology and hydrocarbon prospectivity of the onshore central North Sumatra basin. Proc. 21st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 243-264.

(BGS/ LEMIGAS study of onshore central N Sumatra Basin. Results indicate possibility of hydrocarbons in stratigraphic traps and closures in Miocene sediments and Paleogene half-grabens which are believed to have been source kitchens. Marine mudstones poor source potential for gas only. Source rocks probably lacustrine, very mature, located in Paleogene half grabens. Oil generation began at ~11 Ma in deepest of half-grabens)

Kirby, G.A., B. Situmorang & B. Setiardja (1989)- Seismic stratigraphy of the Baong and Keutapang Formations, North Sumatra Basin. Proc. 18th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 289-301.
(Seismic stratigraphy of M-L Miocene sandstones in Pertamina Unit I area, N Sumatra. Dominantly deltaic sequences of Keutapang Fm in S and marine Upper Baong Shale to N. Three phases of delta progradation. Clastic source directions mainly from SSW and SW, from rising Barisan Mountains. Besitang River Sst in NE from continental source in East)

Kjellgren, G.M. & H. Sugiharto (1989)- Oil geochemistry: a clue to the hydrocarbon history and prospectivity of the southeastern North Sumatra Basin, Indonesia. Proc. 18th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 363-384.
(Oils from onshore and offshore N Sumatra basin two separate phases. Oldest severely biodegraded and probably expelled from syn-rift E Oligocene Bampo Fm. Widespread post-rift Late Oligocene- M Miocene Lower Baong/Belumai Fm is source for second and final oil phase)

Kob, M.R.C. (2012)- Play type in the cross border North Sumatra- Mergui Basin. Workshop EPPM-CCOP EPPM P1W6: North Sumatra- Mergui Basin case study: risking of petroleum plays and prospects, Sabah 2012, Presentation, p. 1-44.
(online at: http://www.ccop.or.th/eppm/projects/41/docs/Razali_N%20Sumatra-Mergui%20Play.pdf)
(Results of Petronas work in offshore North Sumatra- Mergui (Malaysia- Thailand) Basin cross border area. Incl. mentions of gas shows in basal Tampur/ Melaka carbonates in of Sun Oil wells Singa Besar 1 and Langgun Timur 1)

Koesoemadinata, R.P. & T. Matasak (1981)- Stratigraphy and sedimentation: Ombilin Basin, Central Sumatra (West Sumatra Province). Proc. 10th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 217-249.
(online at: https://www.researchgate.net/publication/285223541_Tectono-stratigraphic_framework_of_Tertiary_coal_deposits_of_Indonesia_Southeast_Asia_Coal_Geology_Conference)
(Ombilin basin asymmetric intermontane basin, folded in E part. Carboniferous Limestones (Kuantan Fm), Permian volcanics (Silungkang Fm) and Triassic sediments, intruded by granites. Paleocene Sangkarewang Fm lacustrine shales with fish fossils, interfingering with Brani Fm alluvial fan conglomerates. In NW these units overlain by probably Eocene coal bearing Sawahlunto Fm. Paleogene ~2600m thick, overlain by Ombilin Fm marine clay-marls (Lower Miocene), unconformably overlain by Ranau Fm Quaternary tuffs)

Koning, T. (1985)- Petroleum geology of the Ombilin intermontane basin, West Sumatra. Proc. 14th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 117-137.
(Sinamar No. 1 first oil exploration well in Tertiary intermontane basin in Indonesia. Ombilin Basin rel. small (~1500 km^2), but up to 4600m of M Eocene -E Miocene sediments with significant depositional hiatuses. Massive debris flows and extensive alluvial fan deposits on basin margins and large Eocene lake in center. Uplift and erosion since M Miocene reduced Ombilin Basin to present area. Located in Sumatra magmatic arc, but temperature gradients cooler than Sumatra back-arc basins. Eocene lacustrine shales and Oligocene marine shales likely source rocks for hydrocarbons tested in Sinamar 1 and oil seeps along basin margins)

Koning, T. (1992)- Oil production from Pre-Tertiary basement rocks in Indonesia: examples from Sumatra and Kalimantan. AAPG Annual Convention Calgary 1992 *(Abstract)*
(Beruk NE (1976) field in C Sumatra produces from pre-Tertiary basement. Beruk NE 1 tested 1680 BOD and ~2 MBO produced from metaquartzites, weathered argillites and granite. Radiometric ages E Permian- E Cretaceous. Unusual production problems due to reservoir variability, four separate oil-water contacts, and possible unrecognized water-bearing fracture systems. Tanjung field in Barito basin, S Kalimantan (1938), produced 21 MBO from Pre-Tertiary volcanics, pyroclastics and metamorphosed sandstones and claystones, locally weathered and fractured. Both fields faulted anticlines, and oil source rocks adjacent Tertiary shales)

Koning, T. (2025)- Oil exploration in the Ring of Fire- Indonesia's Sinamar-1 discovery. AAPG Explorer 46, 11 p. 45-51.
(History of the 1984 drilling of Sinamar-1, the first exploration well drilled in the Paleogene intermontane Ombilin Basin in West Sumatra, in the volcanic arc of W Indonesia. Tested gas-condensate (with 40% CO_2). One reserves estimate is 245 BCF gas; deemed non-commercial (South Sinamar 1 drilled by Apache in 1994))

Koning, T. & K. Aulia (2000)- Exploration in the Ombilin intermontane basin, West Sumatra. AAPG International Conference Bali 2000. *(Abstract only)*
(Caltex 1984 Sinamar-1 first well in intermontane Ombilin Basin in Barisan Mts., with noncommercial oil and gas. Apache 1994 South Sinamar-1 was 1140m dry hole. Despite small area (1500 km^2), up to 4600m of Tertiary sediments. Basin initially Early Tertiary intermontane trough with debris flows and alluvial fans on margins and Eocene lake in center. Uplift-erosion since M Miocene reduced original basin extent. Although in present-day magmatic arc and partially covered by volcanics, T gradients lower than Sumatra back-arc basins. Eocene lacustrine shales likely source for hydrocarbons in Sinamar-1 and two oil seeps along basin margin)

Koning, T., N. Cameron & J. Clure (2021)- Undiscovered potential in the Basement- Exploring in Sumatra for oil and gas in naturally fractured and weathered basement reservoirs. GEOExPro 18, 1, p. 26-29.
(online at: https://www.geoexpro.com/wp-content/uploads/2022/11/Geoscience-Magazine-GEO-ExPro-Vol.-18-No.-1.pdf)
(Major gas discovery by Repsol in February 2019 in basement rocks of Kali Berau Dalam (KBD) 2X well, encountered >2 TCF recoverable gas, suggesting further hydrocarbon potential)

Koning, T., N. Cameron & J. Clure (2021)- Undiscovered potential in the Basement: Exploring in Sumatra for oil and gas in naturally fractured and weathered basement reservoirs. Berita Sedimentologi 47, 2, p. 67-79.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/320/291)
(Same as above paper. Review of status of exploration for oil and gas in naturally fractured and weathered basement in Sumatra, and status of oil and gas production from Sumatra's basement fields)

Koning, T. & F.X. Darmono (1984)- The geology of the Beruk Northeast Field, Central Sumatra; oil production from Pre-Tertiary basement rocks. Proc. 13th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 385-406.
(Beruk NE oil field in C Sumatra discovered in 1976. Tested 1680 BOPD from Pre-Tertiary fractured metaquartzites, weathered argillites, and weathered granite. Radiometric ages mainly Jurassic- E Cretaceous. Bohorok Fm pebbly mudstone in nearby Cucut 1 well contains E-M Carboniferous flora and granitic clast with Rb-Sr age of 348±10 Ma (Visean, E Carboniferous))

Korah, F.H., H.I. Darmawan, W.B. Nasifi, R. Kahar & S.R. Ramli (2024)- Oligocene Parapat play and the rejuvenation of North Sumatra Basin exploration in Offshore Andaman. Proc. 48th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA24-G-228, p. 1131-1139.
(Re-evaluation of Parapat play in Andaman Sea area of N Sumatra basin (fluvial-marine clastics of Oligocene early syn-rift phase. E Oligocene alluvial to fluvial sands deposited in grabens, from N Sumatra to Andaman and Mergui (~400km long, 150km wide). Late Oligocene marine incursion deposited Bampo marine shale, etc.. Parapat play proven across onshore N Sumatra basin))

Koswara, R., N. Suwarna & I. Syafri (2014)- Karakteristik dan lingkungan pengendapan batubara Formasi Muaraenim berdasarkan petrologi organik di daerah Darmo, Lawang Kidul, Sumatra Selatan. Majalah Geologi Indonesia 29, 3, p. 161-182.
('Characteristics and depositional environment of Muaraenim Formation coal based on organic petrology at Darmo area, Lawang Kidul, South Sumatra'. Petrography of Late Miocene Muara Enim Fm coal in Banko Tenga coalfield, S Sumatra basin. Mainly vitrinite, followed by inertinite and exinite. Vitrinite reflectance ~0.40-0.45% (sub-bituminous B-C rank). Depositional environment lower delta plain)

Krausel, R. (1922)- Fossile Holzer aus dem Tertiar von Sud-Sumatra. Beitrage Geol. Palaontologie Sumatra 4, Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 5, 5, p. 231-287.
('Fossil wood from the Tertiary of South Sumatra'. No. 4 of A. Tobler's series Beitrage zur Geologie und Palaontologie von Sumatra. Descriptions of Miocene silicified woods collected by Tobler. Up to 10m long silicified tree trunks in tuffaceous Upper Miocene Lower Palembang Fm. Some name changes suggested afterwards by Den Berger (1923))

Krausel, R. (1929)- Fossile Pflanzen aus dem Tertiar von Sud-Sumatra. Beitrage Geol. Palaontologie Sumatra 11, Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 9, 1, p. 1-44.
('Fossil plants from the Tertiary of South Sumatra'. Description of plants collected by Tobler from M and U Palembang Fms. Late Miocene S Sumatra forests not much different from present-day. No locality maps, stratigraphy)

Kristian, J., A.B. Samudra, O.A. Prayoga & R.A. Tampubolon (2019)- Sedimentological characteristic of Talang Akar Formation on Jambi sub-basin and its implication to tectonic setting, South Sumatra Basin. Scientific Contributions Oil and Gas (SCOG), Lemigas, 42, 2, p. 67-74. (?)
(online at: http://journal.lemigas.esdm.go.id/ojs/index.php/SCOG/article/view/322)

Kurnely, K., B. Tamtono, S. Aprilian & I. Doria (2003)- A preliminary study of development of Coalbed Methane (CBM) in South Sumatra. Proc. SPE Asia Pacific Oil and Gas Conference, Jakarta 2003, p. 1-6.
(South Sumatra onshore basin assesed potential Coal Bed Methane gas 120 TCF. Not much detail)

Kurniawan, R., A. Nazamzi, D.V. Kusuma & D. Morgan (2015)- Promising small structure discoveries in mature basins: a case study in the South Aman Trough, Central Sumatra Basin. Proc. 39th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA15-G-056, p. 1-15.
(Recent discoveries in poorly explored Oligocene Pematang Gp sandstone reservoirs in small structures within main depocenter area of S Aman Trough, C Sumatra Basin).

Kusdiantoro, F., D.H. Amijaya & J. Setyowiyoto (2018)- Basin modeling for genesis and migration pattern determination of oil and gas in Musi and surrounding area, South Sumatra Basin. Proc. 42nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA18-69-G, p. 1-12.
(Petroleum system modeling suggests expulsion in Benakat subbasin started at 13 Ma while in Pigi subbasin it started from 9.5 Ma. Four migration patterns in Musi High, three charged from Benakat and one charged from Pigi subbasin. Saung Naga subbasin on Musi Platform still immature until present day)

Kusnama (2002)- The significance of sedimentary rocks of the Bengkulu Basin in the development of the fore arc basin, Sumatra. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 12, 128, p. 2-13.
(Bengkulu Basin of SW Sumatra up to 3000m thick Tertiary section. Oldest exposed unit E-M Miocene marine turbiditic clastics)

Kusnama (2004)- Tertiary succession of the Gedongharta Region and its relation to the tectonics of South Sumatra. Geological Research Development Centre (GRDC), Bandung, Special Publ. 31, p. 14-23.

Kusnama, S. Andi Mangga & D. Sukarna (1993)- Tertiary stratigraphy and tectonic evolution of southern Sumatra. In: G.H. Teh (ed.) Proc. Symposium on the Tectonic framework and energy resources of the western margin of the Pacific Basin, Kuala Lumpur 1992, Bull. Geological Society Malaysia 33, p. 143-152.
(online at: https://gsm.org.my/articles/702001-101016/

Kusnama, K. & H. Panggabean. (2009)- Karakteristik batubara dan batuan sedimen pembawanya, Formasi Talangakar, di daerah Lampung Tengah. Indonesian J. on Geoscience (IJOG) (Jurnal Geologi Indonesia) 4, 2, p. 133-144.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/75/75)

('Characteristics of coal and its encasing sedimentary rock, Talangakar Formation, in the Central Lampung area'. On coal bearing outcrops in S-most part of S Sumatra basin in Lampung Tengah, in contact with S-most Barisan Range. Conglomerates and quartz sst in lower part; shale, claystone, siltstone and coal in upper part. Believed to be part of Late Oligocene - E Miocene Talangakar Fm. Overlain by E-M Miocene limestone and intruded by M-L Miocene granodiorite. Coal high-low volatile bituminuous)

Kusumahbrata, Y. & N. Suwarna (2003)- Characteristics of the Keruh Formation oil shale: its implication to oil shale resource assessment. Proc. Kolokium Energi dan Sumber Daya Mineral 2003, Puslitbang Teknologi Mineral dan Batubara, Bandung, p. 353-377.
(Eo-Oligocene organic shale in Keruh Fm along Keruh River, NW of Petai, Riau Province, SW margin of C Sumatra Basin)

Laing, J.E. & B.P. Atmodipurwo (1992)- The Dalam Sandstone deeper EOR potential in the Duri Field, Sumatra, Indonesia. Proc. 21st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 1, p. 91-112.
(Duri field in C Sumatra ~7 billion barrels oil-in-place, mostly heavy oil and only 7.5% recoverable by primary production methods. Caltex steam injection project since 1985. Evaluation of E Miocene Dalam Sst deltaic/ tidal flat reservoir interval in Bekasap Fm, Sihapas Gp)

Laing, J.E., B.P. Atmodipurow & A. Rauf (1995)- Structural evolution of the Pematang reservoirs, Kelabu Jingga Gas Fields, Sumatra. In: G.H. Teh (ed.) Southeast Asian Basins: oil and gas for the 21st century, Proc. AAPG-GSM Int. Conference 1994, Bull. Geological Society Malaysia 37, p. 55-75.
(online at: http://www.gsm.org.my/products/702001-100962-PDF.pdf)
(Kelabu and Jingga gas fields in Kiri Trough, C Sumatra Basin, producing from Eo-Oligocene fluvial- lacustrine Pematang Gp. Deposition in transtensional pull-apart grabens and shallow extensional rifts during regional tectonism associated with major plate reorganization in Pacific and Indian Oceans. Syngenetic listric faults and associated 'rollover' folds formed during rifting. Neogene, oblique convergence of Indian Ocean plate resulted in regional dextral-wrenching event in C Sumatra Basin, overprinting older extensional faulting)

Lambrecht, K. (1931)- *Protoplotus beauforti* n.g. n.sp., ein Schlangenhalsvogel aus dem Tertiar von W. Sumatra. Wetenschappelijke Mededeelingen Dienst Mijnbouw Nederlandsch-Indie 17, p. 15-24.
(Long-necked bird skeleton from ?Eocene fish-rich lacustrine clays in Ombilin basin, collected by Musper in 1927. Oldest known member of Anhingidae water-bird family. With common gastroliths (= stomach stones))

Larasati, D., E.A. Subroto, H.N. Saputra & B. Syam (2013)- Source rock distribution at Jabung Block, Jambi sub-basin, South Sumatra Basin, based on well correlation. Proc. Joint Convention 38th Indonesian Association Geophysicists (HAGI) - 42nd Indonesian Association Geologists (IAGI), Medan, JCM2013-0147, p. 1-10.
(online at: https://www.iagi.or.id/web/digital/8/2013_IAGI_Medan_Source-Rock-Distribution.pdf)
(Source rock geochemistry on samples from wells NE Betara 1 and 5, N Geragai 2, Ripah 1 and 2.Best source potential in Late Oligocene Lower Talang Akar Fm)

Larasati, D., E.A. Subroto, H.N. Saputra & B. Syam (2013)- - Geochemical characterization and oil-source rock correlation in Jabung Block, Jambi Sub-Basin, South Sumatra Basin. Proc. Joint Convention 38th Indonesian Association Geophysicists (HAGI) - 42nd Indonesian Association Geologists (IAGI), Medan, JCM2013-0148, p. 1-12.
(Upper and Lower Talang Akar Fms in Jabung Block (Jambi sub-basin) have oil-gas source rock potential with fair-very good organic material, reached oil maturity stage and with good geochemical correlation with oils. Rocks and oil samples contain mixture of algae and land plants, deposited in suboxic environments)

Lazuardi, H., N.S. Irsani, J. Setyowiyoto, B. Prasetyo & D. Triamindo (2021)- Burial history, hydrocarbon generation, and migration in the Upper Paleogene to Neogene: petroleum system of the offshore North Sumatra Basin: insights from 1D and 2D basin modeling. Proc. 45th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA21-SG-270, p. 1-11.

Leach, P.E. & S.K. Kartono (1990)- Pematang Bow Field, Central Sumatra: a case study of 3-D seismic as an effective reservoir management tool. Proc. 19th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 209-224.

Lee, R.A. (1982)- Petroleum geology of the Malacca Strait contract area (Central Sumatra Basin). Proc. 11th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 243-263.

Lelono, E.B. (2004)- Palynological events of the Talang Akar Formation in the on-shore area of the South Sumatra Basin. Lemigas Scientific Contributions 27, 2, p. 10-18.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/1049/838)
(Documentation of palynomorph distributions in Late Oligocene- earliest Miocene in Talang Akar Fm in three unnamed wells in S Sumatra basin. Mainly reflecting fluvial and deltaic paleenvironments?)

Lelono, E.B. (2004)- The Paleogene sediment in South Sumatera- where has it gone. Lemigas Scientific Contributions 27, 3, p. 29-37.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/1056)
(Review of Lemigas biostratigraphic studies of Talang Akar Fm in wells in S Sumatra. Only one well with Late Oligocene paleo taxa; Paleogene absent in others? Rifting possibly occurred later in South Sumatra than in Central Sumatra basin?)

Lelono, E.B. (2009)- Pollen record of Early/ Middle Miocene boundary in the South Sumatra Basin. Lemigas Scientific Contributions 32, 2, p. 71-81.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/836)
(Early- Middle Miocene boundary (= boundaries of foram zones N8/ N9 and calcareous nannoplankton zones NN4/ NN5) in S Sumatra characterized by lowering of sea level (decrease in foraminiferal and calcareous nannoplankton assemblages) and climate change from wet during zone N8 to seasonal/dry climate around N8/ N9 boundary. Gradual changes to wetter climate through zone N9)

Lelono, E.B., C.A. Setyaningsih & L. Nugrahaningsih (2014)- Paleogene palynology of the Central Sumatera Basin. Scientific Contributions Oil and Gas (SCOG), Lemigas, Jakarta, 37, 2, p. 105-116.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/632)
(Pollen assemblage of Paleogene Pematang Fm sediments in C Sumatra Basin less rich than in C Java, SE Kalimantan and S Sulawesi. Occurrences of spore Cicatricosisporites dorogensis and pollen Palmaepollenites kutchensis and Meyeripollis naharkotensis suggest most likely Oligocene age for Brown Shale and Upper Red Beds. Surprising absence of lacustrine fresh water algae Pediastrum and Botriococcus)

LEMIGAS and British Geological Survey (1993)- The North Sumatra Basin- Hydrocarbon potential of the PERTAMINA UEP-I area. 2 vols. *(Unpublished)*

LeRoy, L.W. (1939)- Some small foraminifera, ostracoda and otoliths from the Neogene ("Miocene") of the Rokan-Tapanoeli area, Central Sumatra. Natuurkundig Tijdschrift voor Nederlandsch-Indie 99, 6, p. 215-296.
(online at: https://resolver.kb.nl/resolve?urn=MMTEY01:179533004:pdf)
(*Descriptions of 95 species of Miocene marine small benthic foraminifera and six species of ostracoda from Telisa and Palembang formations along eastern front of Barisan mountains in C Sumatra basin)*

LeRoy, L.W. (1941)- Small foraminifera from the Late Tertiary of the Netherlands East Indies. 2. Small foraminifera from the Late Tertiary of Siberoet Island, off the West coast of Sumatra. Quarterly Colorado School of Mines 36, 1, p. 63-105.
(128 species of smaller Late Tertiary foraminifera mainly from W coast of Siberut, collected by NPPM geologists. Deep marine microfaunas, comparable to faunas from E Kalimantan)

LeRoy, L.W. (1944)- Miocene foraminifera from Sumatra and Java, Netherlands East Indies. 1. Miocene foraminifera of Central Sumatra, Netherlands East Indies. Quarterly Colorado School of Mines 39, 3, p. 1-69.

(Descriptions of 183 species of Miocene small benthic foraminifera from Telisa and L-M Palembang formations along E front of Barisan mountains. Little or no stratigraphic or locations information)

LeRoy, L.W. (1952)- *Orbulina universa* d'Orbigny in Central Sumatra. Journal of Paleontology 26, 4, p. 576-584.
(Lowest occurrence of planktonic foram Orbulina within Telisa Fm of C Sumatra is good basal Middle Miocene marker horizon. With chart of foraminifera distribution in Telisa- M Palembang formations in Kasikan section, Barisan mountain front)

Li, M., X. Kong, G. Hong, G. Hu, H. Zhu, Z. Bai & Y. Ma (2019)- New play discoveries in the South Sumatra Basin, Indonesia- Exploration case study in CNPC Jabung Block. Proc. 10th Int. Conf. Petroleum Geochemistry and Exploration in the Afro-Asian Region, Guangzhou 2019, IOP Conference Series: Earth and Environmental Science 360, 012021, p. 1-6.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/360/1/012021/pdf)
(Main hydrocarbon discoveries in Jabung block, Jambi, N part of S Sumatra basin, concentrated in Late Oligocene Talang Akar play, deposited in late rift period. In recent years new discoveries in stratigraphic traps in Basement play and in Miocene Batu Raja limestone and Gumai marine clastics play)

Liew Kit Kong (1995)- Structural patterns within the Tertiary basement of the Strait of Malacca. Bull. Geological Society Malaysia 38, p. 109-126.
(online at: www.gsm.org.my/products/702001-100921-PDF.pdf)
(Basement of Strait of Malacca slopes gently to SW. With N-trending grabens in Malaysian waters, continuing into Sumatra, with depths of 900- 4000m. Four groups of grabens: (1) Bengkalis Trough related, (2) Pematang-Balam Trough related, (3) Asahan Arch-Kepulauan Aruah Nose related and (4) Tamiang-Yang Besar High related grabens. Grabens initiated in E Oligocene by right lateral shearing in NW-SE direction)

Lin, Y.N., K. Sieh & J. Stock (2010)- Submarine landslides along the Malacca Strait- Mergui Basin shelf margin: insights from sequence-stratigraphic analysis. J. of Geophysical Research: Solid Earth 115, B12102, p. 1-13.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2009JB007050)
(Seismic profiles over Pleistocene shelf margin of Malacca Strait-Mergui Basin NE of N Sumatra show three sediment packages interpreted as submarine landslides, aged 20-30 ka, 342-364 ka and 435-480 ka. Events occurred near times of sea-level lowstands, implying that high sediment influx during glacial periods is essential for basin-margin submarine landsliding)

Liro, L.M., W.C. Dawson & Yarmanto (1977)- Alluvial fan/ fan delta sequence stratigraphy in a structurally segmented rift basin: Sidingin Field, North Aman Trough, Central Sumatra Basin, Indonesia. In: K.W. Shanley & B.F. Perkins (eds.) Shallow marine and non-marine reservoirs, Proc. 18th Annual Bob F. Perkins Research Conference, Gulf Coast Section SEPM, Houston 1997, p. 171-181.
(Sidingin Field 1989 discovery at N end Aman Trough, C Sumatra. Reservoir rocks fluvial sands, interpreted to be part of alluvial fan- fan delta complex)

Lismawaty, K. Simanjuntak & A. Bachtiar (2010)- Studi provenance batupasir Formasi Sihapas daerah Gunung Tua- Sumatera Utara. Proc. 39th Annual Conv. Indonesian Association Geologists (IAGI), Lombok, PIT-IAGI-2010-083, p. 1-15.
(online at: https://www.iagi.or.id/web/digital/12/2010_IAGI_Lombok_Studi-Provenance-Batupasir.pdf)
('Provenance study of Sihapas Fm sandstone, Gunung Tua area, North Sumatra'. Sihapas Fm outcrop provenance study. Quartz and lithics dominant ('recycled orogen'))

Livsey, A.R. (2020)- Petroleum systems analysis of the Tungkal PSC area, South Sumatra- A means of adding new life to a mature area. Proc. Digital Technical Conf. 2020, Indonesian Petroleum Association (IPA), IPA20-G-399, p. 1-23.
(Review and petroleum systm modeling of Tungkal PSC area, at S side of Tigapuluh Mts, S Sumatra. Long exploration history since 1940s, with many operators. Main field Mengoepeh (Asamera, 1997). Three principal

hydrocarbon generating kitchens identified: lacustrine oils in SE, Mengoepeh oils from lacustrine in S, etc. Typical S Sumatra stratigraphy, but no well-developed Baturaja Limestone in this part of Jambi sub-basin)

Livsey, A. & D. Nurhaydin (2021)- Using spatial analysis of hydrocarbon compositions to better understand the petroleum systems of the South Sumatra Basin, Indonesia. Proc. 45th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA21-G-125, p. 1-22.
(Database of >100 oils and 40 gases from S Sumatra basin revealed wider variation in geochemical character than previously thought, with numerous fluvio-deltaic and lacustrine types. Seven main oil families, with several sub-groups. Three main oil groups, derived from: (1) lacustrine claystones of early syn-rift Eocene- Oligocene Lahat/Lemat Fms; (2) shallow lacustrine claystones and coals of late syn-rift Late Oligocene Lower Talang Akar Fm; (3) fluviodeltaic coals and carbonaceous claystones of the early post-rift sag Upper Talang Akar Fm)

Longley, I.M., R. Barraclough, M.A. Bridden & S. Brown (1990)- Pematang lacustrine petroleum source rocks from the Malacca Strait PSC, Central Sumatra, Indonesia. Proc. 19th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 279-299.
(online at: https://www.researchgate.net/publication/269275463_Pematang_Lacustrine_Petroleum_Source_Rocks_from_the_Malacca_Strait_PSC_Central_Sumatra_Indonesia)
(Wells on margins of Bengkalis Trough encountered Eocene-Oligocene Pematang Group lacustrine mudstones ('Brown Shale') in shallow, immature sub-basin. Oil-source correlation suggests similar lacustrine sediments in Bengkalis Trough main source of oil in area. Relative 'deep' and 'shallow' lake and marginal lake sediments encountered, with characteristic palyno- and organo- facies. Anomalous low velocity and density of Brown Shale causes distinct seismic response, which can be used to map distribution of source rock)

Longley, I.M., S. Pramada, S.E. Sunjaya, B. Lubiantara, P. Ventris & F. Rizki (2025)- The remaining hydrocarbon potential of the Central Sumatra Basin. Proc. SE Asia Petroleum Exploration Society (SEAPEX) Conference, SEC 2025, Singapore, 53p. *(Abstract + Presentation)*
(Production in C Sumatra Basin peaked in 1970 at 1 MMOPD, now dropped to ~200 MBOPD. Example of quantitative play-based evaluation methodology to highgrade plays and prospects. Still remaining potential in 5 existing plays + 2 new plays)

Longley, I.M, S. Pramada, S.E. Sunjaya, P. Ventris & F. Rizki (2025)- The remaining hydrocarbon potential of the Central Sumatra Basin, Indonesia- An example of modern quantitative play-based evaluation in a mature exploration area and why such an evaluation changes perceptions and increases the likelihood of increased future exploration activity. Proc. 49th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA25-G-108, p. 1-25.
(Similar to paper above. Plays assessment of C Sumatra Basin highlighted overlooked areas in traditional plays. New play types include lacustrine turbidites and deltaic sands in stratigraphic traps in Brown Shale Fm source, subthrust traps against basement, etc.)

Longman, M.W., R.J. Maxwell, A.D.M. Mason & L.R. Beddoes (1987)- Characteristics of a Miocene intrabank channel in Batu Raja Limestone, Ramba field, South Sumatra, Indonesia. American Assoc. Petroleum Geol. (AAPG) Bull. 71, p. 1261-1273.
(Ramba Field produces from Lower Miocene reefal limestone buildup. Channel facies between buildups rel. tight and may act as lateral seal)

Longman, M.W., C.T. Siemers & T. Siwindono (1992)- Characteristics of low-relief carbonate mudbank reservoir rocks, Baturaja Formation (Lower Miocene), Air Serdang and Mandala Fields, South Sumatra Basin, Indonesia. In: Carbonate rocks and reservoirs of Indonesia, a core workshop, Indonesian Petroleum Association (IPA), p. 9.1-9.11.
(Air Serdang and Mandala fields reservoirs skeletal packstones in Lower Miocene Baturaja Fm at ~1500m. Reservoir rocks common fragments of branching corals with molluscs, and benthonic foraminifers in micritic and locally quite porous matrix, deposited in carbonate mudbanks draped over basement paleohigh during E Miocene marine transgression. Low-relief channels separate carbonate mudbanks)

Lott, G.K. & Sundoro (1990)- The sedimentology of hydrocarbon reservoir rocks in Indonesia, a case study from the North Sumatra Basin. Lemigas Scientific Contribution Petroleum Science Technology 13, 1, p. 1-23.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/1126)
(Marine glauconitic sandstones of Besitang River Sand Member with spectacular chlorite cements. Dominant framework grains monocrystalline quartz, feldspars and igneous and metasedimentary lithic fragments)

Lu, X.G., X.W. Zhang, B.W. Sincock, B.W. Handono & F.A.Mayanullah (2005)- Integrated approach for improving development of a mature field. Proc. SPE Asia Pacific Oil and Gas Conference Exhib. (APOGCE), Jakarta, SPE 92895, p. 1-15.
(Makmur Field in Jabung Block, S Sumatra, is faulted anticline with mutliple M Miocene Air Benakat and Gumai reservoirs in distributary mouth bar, delta front sheet, and sub-aqueous channel sands. Producing since 1998, peak production in 2001. Integrated reservoir characterization and modeling and effective reservoir management implemented to slow production decline)

Lubis, P.R.A. & T. Ramli (2021)- Kerangka sekuen stratigrafi sedimen Oligo-Miosen di daerah Sarolangun, Cekungan Sumatra Selatan. Lembaran Publikasi Minyak dan Gas Bumi (Lemigas) 55, 2, p. 103-113.
(online at: https://journal.lemigas.esdm.go.id/index.php/LPMGB/article/view/608)
('Sequence stratigraphic framework of Oligo-Miocene sedimentary in the Sarolangun area, South Sumatra Basin'. Data from 7 unnamed wells in Talang Akar- Gumai Fms show four sequences)

Lunt, P. (2019)- Partitioned transtensional Cenozoic stratigraphic development of North Sumatra. Marine and Petroleum Geology 106, p. 1-16.
(North Sumatra basin developed in dynamic transtensional tectonic setting, not in back-arc setting. New definitions of formation terms based on sequence stratigraphic model (NS10 to NS50 Megasequences). Stratigraphic position and extent of source rock for Arun, NSO A, NSO J and S Lho Sukon gas -condensate fields still not known)

MacGillavry, H.J. (1941)- The stratigraphy of the Baturadja region, Residency Palembang. Geological Survey Indonesia, Bandung, Unpublished Report, p.
(Probably a 1930s Stanvac internal report, translated in Bandung during Japanese occupation))

MacGregor, D.S. & A.S. MacKenzie (1986)- Quantification of oil generation and migration in the Malacca Strait region Central Sumatra. Proc. 15th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 3053-320.
(Oils in fields of Hudbay Malacca Strait PSC believed to be sourced mainly from intraformational coals in Sihapas Fm. Significant oil expulsion starts at ~125°-130° C with most expulsion at ~130-140°C)

Madon, M.B. & M.B. Ahmad (1999)- Basins in the Straits of Melaka. In: The petroleum geology and resources of Malaysia, Chapter 10, Petronas, Kuala Lumpur, p. 235-250.
(online at: https://www.researchgate.net/profile/Mazlan-Madon/publication/304132568_Chapter_10_ Straits_of_ Melaka/links/ 5767850208aedbc345f5fe96/Chapter-10-Straits-of-Melaka.pdf
Malacca Straits underlain by NE margins of North and Central Sumatra basin, with up to 4000m of Tertiary sediments in N-S trending series of highs and Oligocene- Miocene rift basins. Pretertiary basement with gas shows in fractured limestones in Singa Besar 1 well, believed to be equivalent of Eocene Tampur Limestone in N Sumatra basin 'Melaka Limestone' (but evidence of Middle Permian age in Fontaine et al., 1992; JTvG). No petroleum discoveries, but underexplored. Main risks valid traps and maturity of source rocks in grabens)

Maliki, M.A. & S. Soenarwi (1991)- South Lho Sukon-D1 discovery, North Sumatra. Proc. 20th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 235-254.

Manaf, N.A. & N. Mujahidin (1993)- Evaluasi migrasi hidrokarbon di sub cekungan Jambi berdasar pemelajaran biomarker dan sejarah tektoniknya. Proc. 22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 736-746.

('Evaluation of hydrocarbon migration in the Jambi sub-basin, based on biomarker learnings and tectonic history'. N part of S Sumatra basin. Positive correlation between Talang Akar Fm source rocks and oils in Air Benakat Fm)

Mandre, D. (2000)- Coal geology of the Bengkulu Block. Proc. Southeast Coal Geology Conference, Directorate General of Geology and Mineral Res. Indonesia, Bandung, p.

Mangold, K.M., Erlina & E.B. Hamzah (1992)- Critical aspects of 3-D seismic surveys for field development in Central Sumatra. Proc. 21st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 257-286.

Mangunkusumo, R.I. (1982)- Infill drilling in old fields. In: SPE Offshore South East Asia Conference, Singapore 1982, p. 1-16.
(On infill drilling program by Stanvac in Raja and Abab old oil fields, onshore S Sumatra, to identify and recover remaining oil not drained by existing wells. Original development on 80-acre spacing did not define all hydrocarbon bearing zones nor establish all drainage points in complex Talang Akar sandstone reservoirs)

Manik, P. & Soedaldjo (1984)- Prediction of abnormal pressure based on seismic data. A case study of exploratory well drilling in Pertamina UEP I and UEP II work areas. Proc. 13th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 507-532.

Mann, P. (2012)- Comparison of structural styles and giant hydrocarbon occurrences within four active strike-slip regions: California, Southern Caribbean, Sumatra, and East China. In: D. Gao (ed.) Tectonics and sedimentation: implications for petroleum systems, American Assoc. Petroleum Geol. (AAPG), Memoir 100, p. 43-94.
(Includes chapter on Sumatra and Gulf of Thailand, Malay and Natuna basins. Sumatra strike-slip system is trench-linked strike-slip fault accommodating strike-slip component of oblique subduction zone, which probably nucleated on weak zones in crust formed by heated and thinned crust of volcanic arc)

Manuyama, J.M.B., Nazirman & Haryoto (2004)- Characterization of reservoir carbonate and hydrocarbon potential Baturaja Formation on Nova structure, South Sumatra. Proc. 33rd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, p. 172-180.
(Nova field in Baturaja Limestone in SW part S Sumatra basin discovered in 1998. 31 wells drilled, but 8 wells unsuccessful and 3 wells with poor flow, all due to poor reservoir quality. High porosites in reefal buildup, rel. low in platform facies)

Maranu, R., I. Syarifuddin, E. Adhitiawan, N. Nurul, Miftahurochman, F. Baskaraputra et al. (2013)- Diagenesis severely modified reservoir characteristics: A unique carbonate reservoir from Alur Siwah Field, Indonesia. AAPG Annual Convention Exhib., Pittsburgh 2013, Search and Discovery Article 20203, p. 1-24.
(online at: https://www.searchanddiscovery.com/pdfz/documents/2013/20203maranu/ndx_maranu.pdf.html)
(Alur Siwah Field in onshore Block A, N Sumatra, ~45 km SE of Arun. Discovered in 1972 by Asamera Oil. Main reservoir E Miocene Peutu Fm limestone, at ~2900 m subsea, also underlying Eocene Tampur Fm dolomite. Porosity-permeabiliy affected by likely multiple sub-aerial exposure events)

Maridhona, H., Gumelar, M. Ricardo & Miftahurochman (2014)- New gas discovery in the Early Miocene carbonate, North Sumatra Basin, Indonesia Proc. 38th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA14-G-077, p. 1-10.
(MDC-1 exploration well in onshore N Sumatra Block A discovered gas in late 2012 in E Miocene carbonate. Well ~25 MMCF gas/day)

Marpaung, L.P., B.J. Katz & M.H. Amlan (2010)- Brown shale characterization in Kiri Trough, Central Sumatra Basin. Proc. 39th Annual Conv. Indonesian Association Geologists (IAGI), Lombok, PIT-IAGI-2010-058, p. 1-12.
(online at: https://www.iagi.or.id/web/digital/12/2010_IAGI_Lombok_Brown-Shale-Characterization.pdf)

(C Sumatra basin prolific hydrocarbons, with most oil sourced from Oligocene lacustrine shales-coal of Brown Shale Fm. Brown Shale in Kiri Trough TOC 0.7-13% for shales, mainly type III kerogen from higher plant material (pristane/phytane ratio >3). Kiri Trough Brown Shale deposited in more paludal setting than lacustrine Brown Shale of other troughs in C Sumatra. This facies of Brown Shale typically generates gas)

Marpaung, L.P., K.A. Maryunani, I.N. Suta & C. Irawan (2007)- Quantitative biostratigraphy of Jabung Block, South Sumatra Basin: a probablilistic approach for biozonation and correlation. Proc. 31st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 317-331.
(Probabilistic analysis of Oligocene- lower Middle Miocene in ten S Sumatra wells enabled higher precision of correlation and biozonation. Palynology, foram and nannofossil micropaleontology gave 52 biostrat events, 11 of which proved reliable. An eight-biozone scheme is proposed).

Marpaung, L.P., D.H. Mulyono, A.H. Satyana & E.A. Subroto (2005)- Oil family characterization of Jabung area, Jambi sub-basin. Proc. Joint 34th Annual Conv. Indonesian Association Geologists (IAGI), 30th Indonesian Association Geophysicists (HAGI), Surabaya, JCS2005-G087, p. 164-172.
(Oils of Jabung area mainly sourced from higher terrestrial-land plants. Shales and coals of Talang Akar are main source rocks of oils)

Marpaung, L.P., I.N. Suta & A.H. Satyana (2006)- Gumai shales of Jabung area: potential source rocks in Jambi sub-basin and their contributions to the new petroleum system. Proc. 35th Annual Conv. Indonesian Association Geologists (IAGI), Pekanbaru 2006, PITIAGI2006-013, p. 1-12.
(online at: https://www.iagi.or.id/web/digital/15/2006_IAGI_Pekan-Baru_Gumai-Shales-Of-Jabung.pdf)
(E-M Miocene marine Gumai shales in Jambi Basin, C Sumatra, generally low TOC, dominated by Type II and III kerogen and thermally immature to early mature. However, some oils in Jabung area show close correlation to Gumai shales, suggesting that shales id generate oils)

Marpaung, L.P., I.N. Suta, A.H. Satyana & J.A. Paju (2008)- Gas geochemistry of Betara Complex, Jabung Area, South Sumatra Basin: genetic characterization and habitat of natural gases. Proc. 37th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 569-580.
(online at: https://www.iagi.or.id/web/digital/14/2008_IAGI_Bandung_Gas-Geochemistry-Of-Betara.pdf)
(Jabung area in Jambi sub-basin, N part of S Sumatra Basin, with oil and gas production since 1997 after 1995 discoveries of N Geragai and Makmur Fields, 1997 NE Betara and subsequent discoveries. Gas geochemistry shows wet thermogenic gases. Locally high CO_2 gas in Lower Talang Akar Fm from thermal destruction of carbonate. Sources and reservoirs of gas encompass almost whole of Oligocene to Miocene sediments)

Martadinata, A.H. (1982)- Batupasir Beta endapatan "point bar" di ladang Dewa, Sumatera Selatan. Proc. 11th Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 81-93.
(online at: https://www.iagi.or.id/web/digital/35/PIT-IAGI-1982-Paper-8.pdf)
('Beta sandstone point bar deposits in the Dewa field, South Sumatra'. Dewa field in S Sumatra with 41 wells since 1971. Oil from upper Talang Akar Fm, mainly from Beta sand (76%), a NE-SW trending channel system)

Martadinata, A.H. (1999)- Gas potential of the Musi Platform, South Sumatra. In: C.A. Caughey & J.V.C. Howes (eds.) Proc. Conference Gas habitats of SE Asia and Australasia, Jakarta 1998, Indonesian Petroleum Association (IPA), p. 145-151
(First field on Musi Platform in 1939 (BPM Kikim-1) discovered gas in Baturaja limestone, the main producing reservoir on platform. Over next 60 years, 20 additional wells discovered hydrocarbons: only two were oil; remainder found gas. Five types of carbonate build-up in Baturaja Fm. Exspan 1997 Soka-1 on flank of Bungur basement high substantial gas in Baturaja reefal limestone)

Martadinata, A.H. & J.H. Wright (1984)- Development of Ibul stratigraphic play, South Sumatra Basin, by integration of geologic and seismic data. Proc. 13th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 51-62.

Martin, K. (1881)- Jungtertiare Ablagerungen im Padangschen Hochlande auf Sumatra, nach der Sammlung Horner's. Sammlungen Geologischen Reichs-Museums Leiden, E.J. Brill, Ser. 1, 1, p. 84-101.
(online at: www.repository.naturalis.nl/document/552440)
('Young Tertairy deposits in the Padang Highlands on Sumatra, from the collection of Horner'. Probably Miocene-age from Tanjung Ampalo, Padang Highlands, W Sumatra. 19 mollusc species, mainly bivalves)

Martin, K. (1882)- Jungtertiare Ablagerungen im Padangschen Hochlande auf Sumatra, nach der Sammlung Horner's. Jaarboek Mijnwezen Nederlandsch Oost-Indie 11 (1882), Wetenschappelijk Gedeelte, p. 157-179.
(Same paper as Martin (1881) above)

Martin, K. (1928)- Mollusken aus dem Neogen von Atjeh in Sumatra. Wetenschappelijke Mededeelingen Dienst Mijnbouw Nederlandsch-Indie 10, p. 1-36.
(Descriptions of Neogene molluscs from Aceh, N Sumatra, collected by 'Dienst Mijnwezen'. Indo-Pacific fauna)

Martin, K. (1928)- Concerning the Tertiary of Atcheen. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 31, 3, p. 300.
(online at: https://dwc.knaw.nl/DL/publications/PU00015579.pdf)
(One-page communication summarizing work on molluscs from ~3000m thick Pliocene deposits of N Aceh. Department of Mines collected >6000 molluscs, belonging to 347 different species. Typical Indo-Pacific fauna)

Martin, K. (1929)- Ein neues Argonautiden Geschlecht von Sumatra. Leidsche Geologische Mededelingen 3, p. 221-226.
(online at: www.repository.naturalis.nl/document/549561)
('A new Argonautid genus from Sumatra'. New nautiloid shell, described as Kapal batavus, from clay nodule 500m below top of Lower Palembang Beds of Pangadang, 25 km W of Sekayu, S Sumatra. Associated Lepidocyclina (Trybliolepidina) rutteni suggest M-L Miocene age)

Ma'ruf, M.F., A. Arsyad, G. Crouzet, S. Handoko & F. Langitan (1996)- Improved reservoir geology model using seismic 3D and well data, a case study, Rantau Field, Indonesia. In: SPE Asia Pacific Oil and Gas Conference, Adelaide 1996, p. 1-12.
(Reservoir geology model for part of Rantau oil field, N Sumatra. Discovered by BPM in 1929, 550 oil wells and recoverable reserves ~300 MMBO, most if which has been produced)

Maryanto, S. (2001)- Stratigrafi cekungan Tersier Bengkulu: kaitannya dengan keterdapatan batubara. Geological Research Development Centre (GRDC), Bandung, Special Publ. 26, p. 53-71.
('Stratigraphy of the Bengkulu Basin and links with coal'. Late Miocene- Pliocene Simpangaur Fm important coal formation. Coalification due to Pliocene (~3.5 Ma) dacite intrusions. Coal seams 30 cm- 7m thick)

Maryanto, S. (2002)- Stratigrafi formasi pembawa batubara Paleogen di Linggapura, Padangratu, Lampung. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 12, 126, p. 37-67.
('Stratigraphy of the Paleogene lower coal formation in Linggapura, Padangratu, Lampung', S Sumatra'. ~510m thick series of Oligocene- E Miocene Talangakar Fm fluvial clastics with coal at Penandingan River near Padangratu. Overlying Cretaceous granite and overlain by marine Miocene Baturaja Fm)

Maryanto, S. (2005)- Sedimentology batuan karbonat Tersier, Formasi Baturaja, di lintasan Air Napalan, Baturaja, Sumatra Selatan. Jurnal Sumber Daya Geologi (JSDG) 15, 1 (148), p. 83-101.
('Sedimentology of Tertiary Baturaja Fm carbonate at the Air Napalan section, S Sumatra'. 220m thick section of E Miocene Baturaja Fm at Napalan River, NNE of Muaradua. Restricted carbonate platform at W side of S Sumatra basin. Lagoonal facies grading upward into reeal buildup)

Maryanto, S. (2007)- Petrografi dan proses diagenesis batugamping Baturaja di lintasan Air Saka, OKU Selatan, Sumatra Selatan. Jurnal Sumber Daya Geologi (JSDG) 17, 1 (157), p. 13-31.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/276/247)

('Petrography and diagenetic processes of the Baturaja Fm limestone at the Air Saka section, S Sumatra'. E Miocene Baturaja Fm 247m thick in Air Saka section. Several diagenetic processes)

Maryanto, S. (2008)- Hubungan antar komponen mikrofasies lereng terumbu dan cekungan lokal terumbu belakang batugamping bioklastika Formasi Baturaja di daerah sekitar Muaradua, Sumatera Selatan. Jurnal Sumber Daya Geologi (JSDG) 18, 2, p. 107-120.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/242/221)
('The relationship between the components of the reef slope and local basin microfacies of bioclastic limestones of the Baturaja Formation in the area around Muaradua, S Sumatra')

Maryanto, S. (2010)- Hubungan antar komponen mikrofasies lereng terumbu dan cekungan lokal belakang terumbu pada batugamping bioklastika Formasi Baturaja di daerah sekitar Muaradua, Sumatera Selatan. Bull. Scientific Contribution (UNPAD) 8, 1, p. 1-14.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8240/3788)
(Same paper as Maryanto (2008) on microfacies of E Miocene Baturaja Lst in Muaradua area, S Sumatra)

Maryanto, S. (2014)- Limestone microfacies of Baturaja Formation along Air Rambangnia Traverse, South OKU, South Sumatra. Indonesian J. on Geoscience (IJOG) 1, 1, p. 21-34.
(online at: http://ijog.bgl.esdm.go.id/index.php/IJOG/article/view/173/173)
(~160m thick Late Oligocene- E Miocene reefal Baturaja Lst outcrop section NE of Muaradua, Garba Mts, S Sumatra, overlying Kikim Fm volcanic breccia and sandstone. With 4 facies types)

Maryanto, S. (2014)- Mikrofasies dan diagenesis batugamping Formasi Baturaja di lintasan Air Kiti, Oku, Sumatra Selatan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 15, 2, p. 89-103.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/65)
('Microfacies and diagenesis of limestone of the Baturaja Fm in the Air Kiti section, Oku, South Sumatra'. Various reefal facies in ~150m thick limestone of E Miocene Baturaja Fm limestone in river section ~25km S of Baturaja town)

Matasak, T. & R. Kendarsi (1980)- Geologi endapan batubara di Bukit Asam, Sumatra Selatan. Buletin Departemen Teknik Geologi Institut Teknologi Bandung (ITB) 1, p. 11-33.
('Geology of coal deposits at Bukit Asam, S Sumatra')

Matchette-Downes, C.J., A.E. Fallick, Karmajaya & S. Rowland (1994)- A maturity and paleoenvironmental assessment of condensates and oils from the North Sumatra Basin, Indonesia. In: A.C. Scott & A.J. Fleet (eds.) Coal and coal-bearing strata as oil-prone source rocks?, Geological Society, London, Special Publ. 77, p. 139-148.
(Five light oils-condensates from wells in N Sumatra Basin. Source facies dominantly lacustrine with subordinate ombrogenous raised peat bog paleoenvironments. Oils and condensates mature to extremely mature. Some oils mixtures of different maturities and discrete terrestrial sources)

Maulana, E., A. Sudarsana & S. Situmeang (1999)- Characterization of a fluvial oil reservoir in the Lemat Sandstone (Oligocene), Puyuh Field, South Sumatra Basin. Proc. 27th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 83-104.
(Puyuh Field produces oil from thick Lemat Sst in four-way dip closure. Basal Lemat deposits reddish brown shale unconformably over pre-Tertiary metasediment and volcanics. Reservoir sands thin updip and shale out before reaching Bertak and Kubu. Nested fluvial channels in N-S trending depocenter on W flank of field. Updip pinchout of deeper sand forms separate stratigraphic trap. High net-to-gross (50-80%) and excellent reservoir quality (av. perm. 300 md, 19% porosity). Sands mainly quartz with some lithics and feldspar. Clay content 8-15%. Oil lacustrine origin, 28° API gravity and requires blending with lighter oil for transportation)

Mayasari, E.D., D.H. Amijaya & Akmaluddin (2025)- Paleoenvironment reconstruction based on pollen fossils of upper Muara Enim Formation in Tanjung Agung area, South Sumatra Basin, Indonesia. Proc. 4th Int. Conf.

Geological Engineering and Geosciences (ICGOES 2024), Yogyakarta, IOP Conference Series: Earth and Environmental Science 1517, 012002, p. 1-17.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1517/1/012002/pdf)
(Pollen analysis of Late Miocene coal-rich upper Muara Enim Fm in Tanjung Agung area in S Sumatra. Most common species Polypodium vulgare (fern), followed by Archontophoenix cunninghamiana (angiosperm) and Lycopodiella cernua (moss). Also Canarium indicum, Morus microphylla, Archontophoenix cunninghamiana (palm), Tectaria brachiata, Pteris deflexa, Asplenium nidus, etc. Tropical rainforest paleoenvironment)

Mazied, M., S. Amin & C. Irawan (2008)- Source investigation of oils discovered in the West Kampar Block, Central Sumatra Basin. Proc. 32nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA08-G-119, p. 1-12
(W Kampar Block in C Sumatra basin between Barisan Range and Chevron PSC acreage. Oils from unnamed wells in S of block sourced mainly from algal-amorphous kerogen from shallow lacustrine environment. Oils in N derived from mainly terrestrial kerogen deposited in swamp environment. Southern oils correlate to 25-75m thick excellent source rocks of Pematang sequence that partially outcrops along basin margin)

Mazumder, S., I.B. Sosrowidjojo & A. Ficarra (2010)- The Late Miocene Coalbed Methane system in the South Sumatra Basin of Indonesia. In: SPE Asia Pacific Oil and Gas Conference, Brisbane 2010, SPE 133488, p. 1-29.
(Review of S Sumatra coalbed methane (CBM) potential. Basin ranked high, but well testing still in early stages. Coal seams in Late Miocene Muara Enim Fm >3500 ft of paralic clastics, with 10-15 thick coal seams. Coals thickest and most numerous in SW half of basin (Lematang Depression, C Palembang sub-basin). Coals eroded over anticlines. Coals sub-bituminous rank (VRr = 0.35-0.46%) and composed of huminite (34-95%), liptinite (4-23%) and inertinite (0.2- 44%). Moisture content 4-21%)

McArthur, A.C. & R.G. Helm (1982)- Miocene carbonate buildups, offshore North Sumatra. Proc. 11th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 127-146.
(Seismic mapping revealed >70 E-M Miocene Belumai Fm carbonate buildups in Mobil North Sumatra offshore area (NSO). Four oil and four gas discoveries from 12 wildcats. First gas discovery NSB-A1 in 1972. Most buildups are pinnacle-like reefs, with up to 1100' of relief and 3000 acres of areal closure, located on basement highs. Gas up to 1.5% H2S and 31% C02. High gravity, low pour point oil in NSB-L1 well)

Meckel, L.D. (2013)- Exploring a 19th century basin in the 21st century: seeing the North Sumatra Basin with new eyes. AAPG International Conference Exhib., Singapore 2012, Search and Discovery Article 10464, 65p.
(Abstract + Presentation)
(online at: www.searchanddiscovery.com/documents/2013/10464meckel/ndx_meckel.pdf)
(Argues that 'mature' North Sumatra Basin still has significant hydrocarbon exploration potential)

Meckel, L.D. (2013)- Late syn-rift turbidite systems in the North Sumatra Basin. Berita Sedimentologi 27, p. 15-17.
(online at: www.iagi.or.id/fosi/files/2013/08/BS27-Sumatera_Final.pdf)
(Offshore N Sumatra Basin gas play in Miocene Bampo Fm turbidite systems)

Meckel, L., M. Gidding, M. Banukarso, D. Sim, A. Setoputri, A. Abimanyu, M. Sompie, N. Citajaya & M. Gunarto (2012)- Hydrocarbon systems of the offshore North Sumatra Basin, Indonesia. Proc. 36th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA12-G-012, p. 1-11.
(Offshore North Sumatra Basin considered under-explored, with 130 offshore exploration wells drilled through 2011. At least 5 plays, syn-rift Oligocene clastics (Parapat Fmn), Oligocene-Miocene carbonate build-ups (Tampur and Peutu Fms) and Miocene-Pliocene turbidites (Bampo, Baong, Keutapang, and Seurula Fms))

Mertosono, S. (1975)- Geology of Pungut and Tandun oil fields, Central Sumatra Basin. Proc. 5th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 156-179.
(Pungut and Tandun oil fields in Riau Province, C Sumatra, ~65 km NW of Pekanbaru, with oil in structural closures in Lower Miocene sandstone reservoirs. Fields different structural styles and may be separated by right-lateral fault. Broken-up by complex system of faults, creating blocks with different oil-water contacts)

Mertosono, S. & G.A.S. Nayoan (1974)- The Tertiary basinal area of Central Sumatra. Proc. 3rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 63-76.

Miftah, A. & D. Hernadi (1993)- Tinjauan geologi pada perencanaan EOR dalam upaya meningkatkan perolehan minyak sekunder di struktur Kuala Simpang Barat, Lapangan Rantau. Proc. 22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 781-792.
('Geological review for EOR planning in an effort to increase secondary oil recovery in the Kuala Simpang Barat structure, Rantau Field'. On secondary oil recovery in M-L Miocene clastics in Rantau field, N Sumatra. With facies map of Lower Keutupang Sst)

Mijnwezen personnel (W.F.F. Oppenoorth, J. Zwierzycki, G.A. Hogenraad et al.) (1918)- Verslag over het onderzoek der Tertiaire petroleumterreinen in de onderafdeelingen Bireuen, Lho Seumawe en in een gedeelte van Lho Soekon, ter Noordkust van Atjeh (Terrein 'Atjeh I'). Jaarboek Mijnwezen Nederlandsch Oost-Indie 46 (1917), Verhandelingen 1, p. 208-275.
('Report on investigation of the Tertiary petroleum terranes in the sub-districts Bireuen, Llho Seumawe and part of Lho Soekon, N coast of Aceh (Aceh I)', N Sumatra. Overview of stratigraphy, descriptions and maps of 19 anticlinal structures, oil seeps, etc. from 1913-1917 mapping program. (Map XIV suggests likely principal authors W.F.F. Oppenoorth, J. Zwierzycki and G.A. Hogenraad; JTvG. Pretertiary composed of basement schists, also mostly unfossiliferous dark grey limestones, locally with Paleozoic fusulinid foraminifera. Unconformably overlain by E Tertiary unfossiliferous mica-quartz breccias and mica-quartz sandstones (the latter locally with thin lens of limestone with Nummulites (later identified as E Oligocene N. fichteli?; JTvG). Overlain by black claystones, marine but very few fossils (= Bampo Fm of later authors?; JTvG). Etc.,))

Mitchel, R.G., B. Subiyanto & I. Arif (2006)- High-density 3D seismic for better reservoir development in CSB, Sumatra. Proc. 35th Annual Conv. Indonesian Association Geologists (IAGI), Pekanbaru 2006, PITIAGI2006-047, p.

Moestopo H.S., E. Jacobs, H. Nur, M. Reinhold, Y. Pramudyo & K. Purwanto (2007)- Utilize geosteering in horizontal wells to maximize value in mature fields, Central Sumatra, Indonesia. In: Soc. Petroleum Engineers (SPE) Asia Pacific Oil and Gas Conference Exhib., Jakarta, p. 1-11.
(Horizontal wells drilled by Chevron in C Sumatra Basin, mainly in Bekasap and Menggala sandstone reservoirs of 1960's Petani and Bekasap oil fields)

Mohede, H., K.M. Malick & G. Tyberoe (2014)- Suban- South Sumatra giant fractured gas reservoir development challenges. Proc. 38th Annual Conv. Indonesian Petroleum Association, Jakarta, IPA14-E-324, p. 1-11.
(ConocoPhillips paper on Suban gas field, discovered in 1998 in Corridor Block, with commingled production since 2003 from Batu Raja, Durian Mabok, Talang Akar, and Fractured Basement formations)

Mohr, E.C.J. (1919)- Een en ander betreffende de geologie en agrogeologie van Sumatra's Oostkust. Mededeelingen Deli Proefstation, 2, ser. 2, Medan, p. 1-13.
('Essay on the geology and agrogeology of Sumatra's East-Coast'. Brief discussion of area between Lake Toba and Sumatra's East coast (area of large tobacco platations), largely based on Klein (1916, 1917) and paleogeography essay by L.J.C. van Es Jr (1918). No figures)

Morley, R.J. (1982)- A palaeoecological interpretation of a 10,000 year pollen record from Danau Padang, Central Sumatra, Indonesia. J. of Biogeography 9, 2, p. 151-190.
(Detailed palyology of Holocene in 17m of core from Kerinci valley SE of Padang (part of 1976 University of Hull Ph.D. thesis). Two major vegetation changes: (1) beginning sometime prior to 4000 BP, comprising expansion of regrowth vegetation both on dry-land areas and on swamp, (2) prior to 8000 BP)

Morton, A.C., B. Humphreys, D.A. Dharmayanti & Sundoro (1994)- Palaeogeographic implications of the heavy mineral distribution in Miocene sandstones of the North Sumatra Basin. J. Southeast Asian Earth Sciences 10, 3-4, p. 177-190.

(Heavy minerals record changes in provenance in N Sumatra Basin. E Miocene Belumai Mb (Peutu Fm) sandstones derived from granitic terrain in E or SE. Uplift of Barisan Mts in early M Miocene led to introduction of sand from W or SW (Keutapang Fm), from metamorphosed pelitic rocks intruded by granites. Contemporaneous intermediate- acidic volcanic rocks also involved. Chrome spinel abundant in Lower Keutapang but rare in Upper Keutapang Mb, indicating ultramafic rocks important component of Barisan Mountain source in M Miocene, but insignificant by Late Miocene)

Moss, S.J. & A. Carter (1996)- Thermal histories of Tertiary sediments in western Central Sumatra, Indonesia. J. Southeast Asian Earth Sciences 14, 5, p. 351-371.
(AFT and OM data suggest Tertiary sediments exposed in Ombilin Basin have low-medium thermal maturities (Ro-average 0.39–0.50%). This suggests outcrops studied were not part of main Paleogene-Neogene graben system of Central Sumatra that was subsequently inverted, but likely represent marginal, rift shoulder sedimentation)

Moss, S.J. & C.G. Howells (1996)- An anomalously large liquefaction structure, Oligocene, Ombilin Basin, West Sumatra, Indonesia. J. Southeast Asian Earth Sciences 14, 1-2, p. 71-78.

Moulds, P.J. (1989)- Development of the Bengkalis Depression, Central Sumatra and its subsequent deformation-a model for other Sumatra grabens? Proc. 18th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 217-245.
(Bengkalis Depression N-S trending Paleogene graben complex, composed of chain of interconnected lozenge-shaped depressions with several side grabens. Formed by extension, with complexities related to basement inhomogeneities. Neogene-Recent compression caused uplift, erosion and destruction of graben and its fill, progressively from S. Compression and tectonic overprinting of earlier extension produced major basement block uplift, normal fault rejuvenation and strike-slip faulting. Interplay of lines of basement weakness with structural grain and compression have produced variety of features: en echelon folds, chains of anticlines and Sunda Folds)

Mount, V. & J. Suppe (1992)- Present-day stress orientations adjacent to active strike-slip faults: California and Sumatra. J. of Geophysical Research: Solid Earth 97, B8, p. 11995-12013.
(Present-day stress directions from well bore breakouts near crustal-scale strike-slip faults (San Andreas in California and Great Sumatran fault in Sumatra) indicate maximum horizontal stress direction (SH) at high angle (70°-90°) to both faults. Young deformation from C and S Sumatra, as determined from borehole breakouts in Stanvac wells, is compressional, indicating decoupling of strike-slip and compressional components of deformation within broadly transpressive zones)

Mucharam, L., W. Nugroho & K. Wibisono (2012)- Improve oil recovery for heavy oil by chemical treatment implementation as an alternative, case study Bentayan Field. In: SPE EOR Conference at Oil and Gas West Asia, Muscat, Oman, Soc. Petroleum Engineers (SPE), 1, SPE 154763, p. 570-576.
(Bentayan field in NE part of S Sumatra basin discovered in 1932. Heavy, paraffinic oil in U Talang Akar Fm fluvial sandstones. Oil gravity of 17°API and viscosity of 82.2 cp at reservoir temperature lead to low recovery factor (14%). Chemical treatment implemented to reduce viscosity of oil)

Muchlis & C. Elders (2020)- Structural style of the North Sumatra basin, offshore Aceh. Proc. The 9th AIC 2019 on Sciences & Engineering, IOP Conference Series: Materials Science Engineering 796, 012038, p. 1-6.
(online at: https://iopscience.iop.org/article/10.1088/1757-899X/796/1/012038/pdf)
(North Sumatra Basin offshore Aceh. Dominant structures extensional, N-S orientation. Nothing new?)

Muhartanto, A. & E. Iskandar (2006)- Penentuan peta sebaran potensi GMB (sweet spot area) di daerah Bukit Asam, Sumatra Selatan. Bul. Ilmiah Mineral dan Energi (MINDAGI; Trisakti) 10, 1, p. 27-54.
(online at: www.journal.trisakti.ac.id/index.php/MINDAGI/article/view/115/110)
('Determination of potential coalbed methane sweet spot areas in the area of Bukit Asam, South Sumatra'. Determination sweet spot areas, based on: (1) depth range of economic coal bed methane (250- 1000 m); (2) thick coal layers (>5m); and (3) vitrinite reflectance between 0.3- 0.4%. CBM can be economically explored with minimum thickness of 86m)

Mujito, S. Hadipandoyo & J.B. Rachmat (1990)- Middle Baong Sandstone turbidite play, North Sumatra Basin, Indonesia. In: CCOP/WRGA Play modelling exercise 1989-1990, United Nations ESCAP, CCOP, Technical Publication 23, p. 17-38.
(Description and hydrocarbon assessment of M-L Miocene Middle Baong Sst deepwater sand play, N Sumatra)

Mujito, S. Hadipandoyo & T.H. Sunarsono (1990)- Hydrocarbon resources assesment in the North Sumatra Basin. United Nations CCOP, Technical Bulletin 21, p. 97-116.
(Lemigas assessment of undiscovered oil and gas in four plays in N Sumatra basin. Keutapang Wedge Top Play ranked highest, with undiscovered oil ranging from 0.37- 504 MMBO)

Mujito, S. Hadipandoyo & T.H. Sunarsono (1990)- Hydrocarbon resources assesment in the North Sumatra Basin. Lemigas Scientific Contribution Petroleum Science Technology 13, 1, Special Issue, p. 68-86.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/1129/915)
(same as Mujito et al. 1990, above)

Mukherjee, A.N. (1935)- Ein Beitrag zur Kenntnis der pliocanen Braunkohle des Tandjoeng Kohlenfeldes Palembang, Sud-Sumatra. Dissertation Sachsischen Bergakademie Freiburg, p. 1-30.
('A contribution to the knowledge of the Pliocene lignites of the Tanjung coalfield, Palembang, S Sumatra'. Early Pliocene Middle Palembang Fm lignites at Bukit Asam locally altered into coal- anthracite by heat from andesite intrusion. Coals composed of wood (incl. palm), cork, amber, leaves and cuticles, fungi, pyite. Good thin section photos)

Muksin, N., D. Yusmen, R. Waren, A. Werdaya & D. Djuhaeni (2012)- Regional depositional environment model of Muara Enim Formation and its significant implication for CBM prospectivity in South Sumatra Basin, Indonesia. AAPG Int. Conv. Exhib., Singapore 2012, Search and Discovery Article 80272, p. 1-9.
(online at: www.searchanddiscovery.com/documents/2012/80272muksin/ndx_muksin.pdf)
(Late Miocene Muara Enim Fm of S Sumatra widespread coals, deposited on tide dominated coastal plain. With CBM potental)

Mulhadiono (1976)- Depositional study of the Lower Keutupang sandstone in the Aru area, North Sumatra. Proc. 5th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 115-132.
(U Miocene Lower Keutupang sands in coastal and shallow marine facies. Sourced from SE (Barisan Mts))

Mulhadiono & S. Asikin (1989)- The pull-apart basin offshore Bengkulu promises attractive exploration ventures. In: B. Situmorang (ed.) Proc. 6th Regional Conference Geology mineral and hydrocarbon Resources of SE Asia (GEOSEA VI), Jakarta 1987, IAGI, p. 271-289.
(online at: https://www.iagi.or.id/web/digital/45/PIT-IAGI-1987-Paper-18.pdf)
(Bengkulu offshore forearc basin Oligo-Miocene pull-apart feature that may be attractive for exploration. Nine wells by Marathon and Aminoil, mostly away from kitchen areas. Oil and gas shows in wells, and seeps around Bengkulu town. Early and Late or M Miocene carbonates. Oligocene volcanics 'basement'. Traditionally thought to be 'cold' basin, but wells suggest normal T gradients?)

Mulhadiono, P. Hartoyo & P.A. Soedaljo (1978)- The Middle Baong Sandstone Unit as one of the most productive units in the Aru area, North Sumatra. Proc. 7th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 107-132.
(M Miocene (N13-N14) sandstone in middle part of Baong Fm oil-bearing at Tabuhan Barat, Telaga Said, Darat oil Fields, and also at new Besitang discovery)

Mulhadiono, R.P. Koesoemadinata & Rusnandar (1982)- Besitang River sand as the first turbidite reservoir in Indonesia. Proc. 11th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 265-298.
(Productive M Miocene (zone N14) Besitang River sands in M Baong Fm, Aru area, N Sumatra, are turbidites within marine shale sequence. Fluid properties and production performance encourage further potential in structural and stratigraphic traps)

Mulhadiono & Marinoadi (1977)- Notes on hydrocarbon trapping mechanism in the Aru area, North Sumatra. Proc. 6th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 95-115.
(N Sumatra Lower Baong and Pre-Baong are best source rocks. Vertical migration important in trapping of hydrocarbon in Aru area)

Mulhadiono & J.A. Sutomo (1984)- Determination of economic basement of rock formation in exploring the Langkat-Medan area, North Sumatra Basin. Proc. 13th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 75-108.
(In N Sumatra basin favourable reservoirs in E Miocene Belumai Fm, but Pre-Belumai rocks, especially "Basal Sandstone" strongly affected by diagnesis, have very low porosity, and should be considered "economic basement". 'Basal Sandstone' belongs to Permo-Triassic-Jurassic Kualu Fm)

Mulyana, B. (2005)- Tektonostratigrafi Cekungan Ombilin Sumatera Barat. Bull. Scientific Contribution (UNPAD) 3, 2, p. 92-102.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/7455/3416) (without figures)
('Tectonostratigraphy of the Ombilin basin, West Sumatra'. Ombilin Basin intramontane basin in Barisan Mts. Basement two parts: Mergui terrane (with Permian Silungkang Fm limestone) and Woyla terrane. Early Paleogene Ombilin Basin rifting in transtensional setting along Sitangkai and Silungkang faults)

Mulyana, B. & R.M.G. Gani (2015)- Litostratigrafi Cekungan Ombilin dalam kerangka tectono-sedimentation rift basin. Bull. Scientific Contribution (UNPAD) 13, 2, p. 93-99.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8393/3903)
('Lithostratigraphy of the Ombilin Basin in a framework of tectono sedimentation in rift basin'. Paleo-Eocene Brani and Sangkarewang Fms and Oligocene Sawahlunto and Sawahtambang Fms deposited in terrestrial to transition zone during syn-rift phase. E-M Miocene Ombilin and Late Miocene Ranau Fms, dominated by volcanic deposits, formed in post-rift phase with marine influence)

Mundt, P.A. (1983)- Miocene reefs, offshore North Sumatra. Proc. SE Asia Petroleum Exploration Society (SEAPEX) 6, p. 1-9.
(Mobil exploration and appraisal program for Miocene pinnacle reefs in NSB area off N Sumatra. Up to 70 reefs mapped in area of 1800 km^2 on Malacca Shelf. Twelve wells resulted in 8 discoveries. Gas reserves 2 TCF in four fields. Gas contains 1-15% H2S and 28-31% CO_2)

Murphy, J. (1993)- The sedimentology of the Early Miocene, Lower Sihapas Sandstone reservoirs in the Kurau Field, Malacca Strait PSC, Central Sumatra Basin, Indonesia. In: C.D. Atkinson et al. (eds.) Clastic rocks and reservoirs of Indonesia: a core workshop, Indonesian Petroleum Association (IPA), p. 37-57.
(Well MSBG-1 Early Miocene Lower Sihapas fluviodeltaic sands. Cored complete single parasequence exhibiting a 110' thick progradational cycle from delta front through tidal flat to distributary channel deposits capped by channel abandonment facies. Sediments deposited in tide- dominated delta, with repeated stacking of reservoir units. This is discovery well of Kurau Field with >150 MBO in place)

Murray, A.M. (2019)- Redescription of *Barbus megacephalus* Gunther, 1876 and *Thynnichthys amblyostoma* von der Marck, 1876 (Cypriniformes: Cyprinidae) from probable Eocene deposits of Southeast Asia, and an assessment of their taxonomic positions. J. Systematic Palaeontology 17, 17, p. 1213-1235.
(Two fossil ray-finned cyprinid fishes from Eocene of Ombilin Basin, Sumatra, first described in 1876 as new species in extant genera. (Barbus megacephalus Gunther and Thynnichthys amblyostoma von der Marck) re-described and placed in new genus (Sundabarbus megacephalus, Padangia amblyostoma))

Murray, A.M. (2020)- Early Cenozoic Cyprinoids (Ostariophysi: Cypriniformes: Cyprinidae and Danionidae) from Sumatra, Indonesia. J. Vertebrate Paleontology 40, 1, e1762627, p. 1-24.
(None of the Eocene fossil fishes from Sangkarewang Fm of Ombilin Basin in C Sumatra (an occurrence known for >150 years), considered to be congeneric with any modern fishes. New collections from paper shales representing deeper water in paleolake than that previously sampled, composed predominantly of cyprinoid

fishes, with new taxa Sangkarewangia sumatranus, gen. et sp. nov., and Hadromos sandersae, gen. et sp. nov. Previously described Puntius bussyi moved to Pauciuncus, gen. nov.)

Murray, A.M., Y. Zaim, Y. Rizal, Y. Aswan, G.F. Gunnel & R.L. Ciochon (2015)- A fossil gourami (Teleostei, Anabantoidei) from probable Eocene deposits of the Ombilin Basin, Sumatra, Indonesia. J. Vertebrate Paleontology 35, 2, e906444, p. 1-11.
(New fish fossil material from freshwater deposits of Eocene(?) Sangkarewang Fm, Datarmasiang-Tanahsirah Main Quarry, Talawi, Ombilin Basin, W Sumatra. Includes new small anabantoid fish, here named Ombilinichthys yamini n.gen., n.sp. Closely related to Osphronemus)

Murray, A.M. (2022)- Re-description and phylogenetic relationships of †*Protosyngnathus sumatrensis* (Teleostei: Syngnathoidei), a freshwater pipefish from the Eocene of Sumatra, Indonesia. J. Systematic Palaeontology 20, 1, p. 1-16.
(Protosyngnathus sumatrensis first described almost 150 years ago from Eocene lacustrine deposits of Sangkarawang Fm of C Sumatra. New study allows it to be placed with extant families Syngnathidae (pipefishes and seahorses) and Solenostomidae (ghost seahorses). Most of these fishes are marine inhabitants; here it has adapted to freshwater environment)

Musgrove, F.W. & A.C. Sunaryo (1998)- Compression or strike slip along the North Sumatra mountain front: controls on fracture permeability. Proc. 26th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 1-15.
(Production rates at Pase A field controlled by tectonically induced fractures in tight limestone reservoir. Area may have had transpressive deformation associated with oblique plate collision nearby. Much support for dominantly compressional tectonic model, little evidence for strike slip after reservoir was deposited)

Musper, K.A.F.R. (1935)- Die fischfuhrende Breccien- und Mergelschieferabteilung des Tertiars der Padanger Hochlande (Mittel-Sumatra). Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 11, 2, p. 145-188.
('The fish-bearing breccia and marl-shale series of the Padang Highlands (C Sumatra)'. Detailed description of 1927-1928 work in area containing Paleogene lacustrine marly shales with famous fresh-water fish fossils near Talawi village on Ombilin River. 'Fish kills' probably caused by lake inversion, causing temporary lack of oxygen)

Musper, K.A.F.R. (1936)- Einige Bemerkungen zur fossilen Fischfauna von Padang (Sumatra). De Ingenieur in Nederlandsch-Indie (IV) 3, 4, p. IV.70- IV.74.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1936-04.pdf)
('Some remarks on the fossil fish fauna from Padang (Sumatra)'. Critique of Sanders (1934) monograph of 'Eocene' fresh or brackish water fish fauna. Includes discussion on assumed Eocene age of the fish-bearing marls (no hard evidence))

Musper, K.A.F.R. (1938)- Fundorte und stratigraphisches Lager neuer Aufsammlungen Tertiarer Landpflanzen- besonders Kiezelholzreste auf Sumatra und Java. De Ingenieur in Nederlandsch-Indie (IV) 5, 12, p. IV.169-IV.181.
(Localities and stratigraphic position of new collections of Tertiary land plants- particularly silicified wood remains on Sumatra and Java'. 2020 samples of Tertiary plants and wood from C Sumatra (Padang Highlands, Indragiri), S Sumatra (SW of Palembang) and W Java)

Musper, K.A.F.R. (1939)- Kritische Betrachtungen uber Herkunft und genaueres Alter der aus dem Tertiar Niederlandisch-Indiens beschriebenen Holzer. Natuurkundig Tijdschrift voor Nederlandsch-Indie 99, 1, p. 1-21.
(online at: https://resolver.kb.nl/resolve?urn=MMTEY01:179533004:pdf)
('Critical notes on the origin and precise ages of Tertiary wood fossils described from Netherlands Indies'. On locations (S Sumatra, Java) and ages (mainly Miocene) of 30 petrified wood species)

Musu, J.T., B. Widarsono, A. Ruswandi, H. Sutantog & H. Purba (2015)- Determination of shale gas potential of North Sumatra Basin: an integration of geology, geochemistry, petrophysics and geophysics analysis. Scientific Contributions Oil and Gas (SCOG), Lemigas, Jakarta, 38, 3, p. 193-212.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/946)
(In N Sumatra basin potential for unconventional shale play, with gas sweet spots in Bampo, Belumai and Baong Fms. Total shale gas resource estimated at 48.4 TCF gas)

Muthasyabiha, S. R., A. Prayoga, R. Setyawan, B. Syam & Y. Fahrudi (2020)- Oil to source rock correlation using biomarker data through pattern matching and fingerprinting analysis in "Kitkat" Field, Jabung Block, South Sumatra Basin. Proc. Digital Technical Conference 2020, Indonesian Petroleum Association (IPA), IPA20-SG251, p.

Nabasir, A., Andriyani S., Hendar S.M., Haruji M.P. & Subagio (1999)- Integrated study of the Telisa shaly sand in the Bangko Field, Central Sumatera Basin. Proc. 28th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 2, p. 59-77.
(online at: https://www.iagi.or.id/web/digital/65/5.pdf)
(E Miocene Telisa Fm shale in Bangko Field contains minor shaly sand oil reservoir. Typically thinly laminated, low permeability. Productivity can be improved by hydraulic fracturing)

Nainggolan, T.B., D. Kusnida, E. Mirnanda, I. Setiadi, E.H. Nugroho & Subagio (2024)- Delineating subbasins of sedimentary rock structure beneath eastern Central Sumatra Basin based on gravity model, seismic profiles, and well-log data: A case study. The Leading Edge 43, 3, p. 138-200.
(Central Sumatra Basin comprises several subbasins. New delineation of 13 subbasins beneath E part of CSB, using integrated gravity, seismic profiles and well-log data)

Napitupulu, H. & W.S. Sadirsan (2000)- The origin of light oil and condensates in the Musi Block- South Sumatra Basin. AAPG Annual Convention, New Orleans 2000, p. *(Abstract only)*
(S Sumatra Basin oil, biomarker, carbon isotope analyses show hydrocarbons mainly from Talang Akar- Lahat Fms terrestrial source rock. Light oil and condensate formed by evaporative fractionation. Oil formed and trapped in lower formation, then light fraction migrated into overlying limestone reservoir. This process responsible for hydrocarbons in Musi and Klingi fields, located in basement high area 20 km W of kitchen)

Napitupulu, V., M. Jannah, M. Silaen & H. Darman (2020)- Hydrocarbon columns of oil and gas fields in the South Sumatra Basin. Berita Sedimentologi 46, p. 51-60.
(online at: https://www.iagi.or.id/fosi/berita-sedimentologi-no-46-is-now-online.html)
(Discussion of with hydrocarbon column height data in 60 oil-gas fields in South Sumatra)

Nasution, F. & S. Nalendra (2017)- Characterization of coal quality based on ash content from M2 coal-seam group, Muara Enim Formation, South Sumatra Basin. J. Geoscience Engineering Environment Technology (JGEET) 2, 3, p. 203-209.
(Discussion of M-L Miocene coals of M2 horizon (Petai, Suban and Mangus coals) in Muara Enim Fm of Bukit Kendi coalfield, S Sumatra. Average ash content of Seam C 6%, Seam B 5%, and Seam A2 3.8%)

Natasia, N., I. Syafri, M.K. Alfadli & K. Arfiansyah (2016)- Stratigraphy seismic and sedimentation development of Middle Baong Sand, Aru Field, North Sumatera Basin. J. Geoscience Engineering Environment Technology (JGEET) 1, 1, p. 51-58.
(online at: http://journal.uir.ac.id/index.php/JGEET/article/view/7/299)
(Three sequences in M Miocene Baong deep marine sands in N Sumatra basin. Clastic deposits interpreted to come from S-SW, from Barisan Mts that started uplift at this time)

Natasia, N., I. Syafri, M.K. Alfadli & K. Arfiansyah (2017)- Analisis fasies reservoir A Formasi Menggala di lapangan Barumun Tengah, Cekungan Sumatra Tengah. Bull. Scientific Contribution (UNPAD) 15, 2, p. 139-149.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/13387/pdf)

('Facies analysis of the Menggala Formation A reservoir in the Central Barumun field, Central Sumatra Basin'. Tidal flat and lagoonal facies in E Miocene sandstones in BT-1 and BT-3 wells in NW-most part of Central Sumatra basin (Tonga PSC?))

Natsir, M., T. Nasiruddin & N. Hasani (2010)- Rejuvenation of Niru: an integrated subsurface re-interpretation. Proc. 34th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA10-G-103, p. 1-8.
(S Sumatra Niru field 1949 BPM discovery on flank Limau anticlinorium. Peak production of 6000 BOPD reached in 1958. 2006 step-out drilling found additional reservoir on flank, significantly increasing production)

Nayoan, G.A.S., D. Arpandi & M. Sumawa (1984)- Geological notes on hydrocarbon occurrences in the carbonate rocks of the Belumai Formation, North Sumatra, Indonesia. In: The hydrocarbon occurrence in carbonate rocks, Proc. Joint ASCOPE/CCOP workshop, Surabaya 1982, ASCOPE, Jakarta, p. 383-405.

Nazar, M.A.A. & J. Setyowiyoto (2013)- The sand-rich tide dominated delta model of Bangko Formation in "AB" area using high-resolution sequence stratigraphy and ichnofacies analysis. J. Teknik Geologi (UGM) 1, 2, p. 1-14.
(online at: lib.geologi.ugm.ac.id/ojs/index.php/geo/article/download/34/31)
(Model for E Miocene Bangko Fm deltaic deposition from logs and core of 134 wells in "DR" field (= probably Duri; JTvG), C Sumatra basin. Tide-dominated delta, with main sediment source from Sundaland in NE. With ichnofacies model)

Nelson, H.F., M. Abdullah, C.F. Jordan & A.J. Jenik (1982)- Petrography of the Arun gas field, Aceh Province, Indonesia. In: Joint ASCOPE/CCOP Workshop on hydrocarbon occurrences in carbonates, Surabaya 1982, p. 1-38.

Ngoroyemoto, T.F.K., J. Setyowiyoto & D.H. Barianto (2021)- Evaluating the implications of lineaments on petroleum fields: South Sumatra, Indonesia. J. Applied Geology (UGM) 6, 2, p. 77-85.
(online at: https://jurnal.ugm.ac.id/jag/article/view/58161/32946)
(Satellite imagery study))

Nicholson, R.A. & S. Soekapradja (1990)- Organic geochemical studies in the North Sumatra Basin. Lemigas Scientific Contribution Petroleum Science Technology 13, 1, p. 45-67.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/1128/914)
(Any one of several Tertiary sediment formations in N Sumatra basin may be responsible for sourcing of hydrocarbon reserves)

Ningrum, N.S. & B. Santoso (2009)- Petrographic study on genesis of selected inertinite-rich coals from the Jambi subbasin. Indonesian Mining J. 12, 3, p. 111-117.
(online at: http://jurnal.tekmira.esdm.go.id/index.php/imj/article/view/553/415)
(Coals of fluvio-deltaic Late Oligocene Talangakar Fm in Jambi Subbasin both rich in vitrinite (56-77%) and inertinite (17-36%). Vitrinite content associated with bright lithotype deposited in wet-swampy area; inertinite associated with dull lithotype from dry-swampy area. Vitrinite reflectance 0.45-0.47% (subbituminous). Low-medium sulphur (most Sumatra coals <5% inertinite and >80% vitrinite))

Noeradi, D., Djuhaeni & B. Simanjuntak (2005)- Rift play in Ombilin Basin outcrop, West Sumatera. Proc. 30th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 39-52.
(Ombilin Basin Eo-Oligocene half-graben in Barisan Mts. Two wells drilled in 1983 (Sinamar-1, TD 3020m) and 1994 (S Sinamar 1), both on inversion structures and with hydrocarbon shows in cuttings. Sangkarewang Fm lake and alluvial fan of Late Eocene age; Sawahlunto Fm coal-bearing bed = Oligocene)Abundant Paleogene reservoir potential, but reservoir quality questionable)

Norman, T., M. Willuweit, D. Hernadi & E. Rukmono (2006)- Example of applied stochastic modeling in a mature field, a case study in Zamrud Field, Central Sumatra, Indonesia. In: 68th EAGE Annual Conference Exh., Vienna, P342, p. 1-5. *(Extended Abstract)*

(3D model of E Miocene clastic reservoirs in Zamrud field 90 km E of Pekanbaru, in SE part of C Sumatra Basin. Discovered in 1975, production began in 1982)

Nugraha, G.S., E. Sunardi, I. Haryanto, B.G. Adhiperdana, R. Fakhruddin, R. Fitriany & D. Gunarsih (2023)- Facies analysis, biostratigraphy, and provenance of the late Neogene Seulimeum Formation, Northwest Aceh basin, Sumatra (Indonesia). Heliyon 9, 9, e20032, p. 1-16.
(online at: https://www.cell.com/heliyon/fulltext/S2405-8440(23)07240-7)
(Seulimeum Fm in NW Aceh Basin bathyal submarine fan depositional environments. New foraminiferal data suggest Late Miocene- E Pleistocene age (zones N17- N21). Arc-orogen provenance (mainly from Mesozoic Woyla Group))

Nugraha, R., B. Abrar & D. Hernadi (2007)- Pemodelan geologi untuk pengembangan lapangan Beruk North, Blok Coastal plains, Pekanbaru. Proc. Simp. Nas. IATMI, UPN 'Veteran', Yogyakarta 2007, TS-02, p. 1-11.
(online at: http://elib.iatmi.or.id/uploads/IATMI_2007-TS-02_Reza_Satria_Nugraha,_BOB_PT.pdf)
(3-D geological model of 1985 North Beruk Field, Coastal Plains Block, Central Sumatra)

Nugroho, D., A. Rudyawan & H.A. Putra (2023)- Insight on identifying low resistivity pay zones for sandstone reservoir in South Sumatra and Sanga Sanga Block. Bulletin of Geology (ITB) 7, 1, p. 1090-1103.
(online at: https://buletingeologi.com/index.php/buletin-geologi/issue/view/18/PR71-3)
(On petrophysical analysis of Low-Resistivity Pay Zones in Miocene siliciclastic reservoirs)

Nugroho, I.D.R., K.A. Lubis, Y. Herdiana, J. Saputra & E.F. Butarbutar (2024)- The new potential of fractured Basement reservoir identification with integrated seismic attributes analysis and structural modeling in Ogan Komering Block, South Sumatra. Proc. 48th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA24-G-222, p. 1121-1130.
(The Bandar Agung basement high in Ogan-Komering Block at S boundary of S Sumatra Basin with trapped hydrocarbon demonstrated by BDA-1 well (2014) which flowed 3.4 mmscf/d gas from fractured granite in basement. ASD-1 well (1988) flowed 1890 BOPD from 23m interval of igneous diorite. 23m of Seismic attribute analysis used for fracture mapping)

Nugroho, S.B., Y. Hartono & R.N. Ardianto (2010)- Integrated geology, geophysics and petrophysics data to describe lateral and vertical reservoir heterogeneity to optimize field development plan Limau Field, South Sumatra Basin, Indonesia. Proc. SPE Int. Oil and Gas Conference Exhibition in China, Beijing 2010, p. 1-22.
(Integrated 3D model of E Miocene Talang Akar Fm sandstone reservoirs of Limau oil field, Prabumulih, S Sumatra Basin, discovered by BPM in 1951 and still producing. Original oil in place 823 MMBO, cumulative production 265.4 MMBO)

Nugroho, S.B. & U.B. Santoso (1999)- Using the resistivity and GR log to guide slimhole drilling on 415 m horizontal section of 3 to 5 m thick oil rim between gas cap and water zone within the Baturaja Limestone; an example from Musi-28 Well, Prabumulih, South Sumatera. Proc. 28th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 2, p. 147-158.
(online at: https://www.iagi.or.id/web/digital/65/10.pdf)
(East Musi gas field in Baturaja Limestone in S Sumatra basin, has 70-80m thick gas cap, underlain by 3-5m oil rim. 415m horizontal well in oil rim tested 780 BOPD)

Nukman, M. & I. Moeck (2013)- Structural controls on a geothermal system in the Tarutung Basin, north Central Sumatra. J. Asian Earth Sciences 74, p. 86-96.
(Fault pattern in Tarutung Basin generated by compressional stress at high angle to right-lateral Sumatra Fault system. NW-SE striking normal faults possibly related negative flower structures and NNW-SSE to NNE-SSW oriented dilative Riedel shears are preferential fluid pathways. ENE-WSW striking faults act as barriers)

Nur'aini, S., S. Martodjojo, F.W. Musgrove & J. Bon (2000)- Deep-water basin floor fans of the Lower Baong Formation, a new exploration objective, offshore North Sumatera. Proc. 27th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 177-184

(Good quality M Miocene sands penetrated on Malaka Shelf in Transgressive System Tract (TST) sheet sands, and will only be trapped structurally. Thick deep-water basin floor fans interpreted past shelf-slope break potential large stratigraphic traps. Prospective stratigraphic traps ideally located next to Lho Sukon Deep kitchen, which sourced most of N Sumatra gas. Primary risk is updip seal of stratigraphic traps)

Nur'aini, S., S. Martodjojo, F.W. Musgrove & J. Bon (2001)- Revisiting the Middle Baong sand: basin floor fan or slope fan in origin? Berita Sedimentologi 15, p. 6-9.
(Late M Miocene (N11-N12, NN5) Middle Baong Sand interpreted as basin floor fan. First turbiditic reservoir in Indonesia)

Nurhasan, A., A.B. Samudra, Z. Azzaino, M. Zaki & M. Fajar (2021)- The characterization of stratigraphic play in the Middle Baong sand for hydrocarbon prospecting in offshore North Sumatera Basin. Proc. 45th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA21-G-138, p. 1-8.
(Stratigraphic trap potential in M-L Miocene Middle Baong Sand. MBS provenances from both Bukit Barisan in SW and Malacca Terrain in NW)

Nur Hasjim, Panuju, Buskamal & Purwatinah (1994)- Biostratigrafi dan korelasi zonasi nannoplankton terhadap zonasi foraminifera besar, Cekungan Sumatera Selatan. Proc. Diskusi Ilmiah VIII, PPPTMGB Lemigas, p. 1-8.
('Biostratigraphy and correlation of the nannoplankton zonation to the larger foraminifera zonation in the South Sumatra Basin')

Nurida, S., I.Y. Syukri & L. Andria (2019)- Improving stratigraphic and structural interpretation of Suban 3D through advanced reprocessing. Proc. 43rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA19-G-238, p. 1-14.
(2018 ConocoPhillips 3D seismic reprocessing over Suban field, S Sumatra. With Top Pre-Tertiary basement depth structure map illustrating series of NW-SE trending, SSW dipping reverse faults)

Nuryadin, H., F. Kamil, A. Kamal & R.M.I. Argakoesoemah (2006)- A challenge and future potential of basal clastic play in Paleo-Basement high, Musi Platform, South Sumatra Basin. Proc. Jakarta 2006 International Geoscience Conference Exhib., Indonesian Petroleum Association (IPA), Jakarta, 06-PG-23, p. 1-5.
(Musi Platform traditional objective Baturaja carbonates. Most exploration wells drilled basement. Some have thin Basal Clastics unit, possibly equivalent to U Talang Akar Fm. Hydrocarbon potential of basal clastic play shown by tests in Soka F-2, Kembar-1 and Fariz-3. Reservoir quality variable. Play mostly combination stratigraphy- structure)

Oei, C.C., N.N. Ilmi & E. Sunardi (2020)- Karakteristik geokimia batuan induk Formasi Sangkarewang dan Sawahtambang, Cekungan Ombilin. Padjadjaran Geoscience J. 4, 3, p. 252-260.
(online at: https://jurnal.unpad.ac.id/geoscience/article/view/29109/13891)
'Geochemical characteritics of source rocks of the Sangkarewang dan Sawahtambang Formations, Ombilin Basin'. Outcrop samples from Sawahlunto etc. area in Ombilin Basin, W Sumatra, show Late Paleocene(?) Sangkarewang Fm with TOC up to 26%, mainly oil-prone Type II kerogen, with Ro 0.3 - 0.5% (immature- early mature). Oligocene Sawahtambang Fm low TOC, mainly type IV kerogen)

Oetary N., R. Waren, E. Finaldhi, M.I.S. Haris & D. Nugroho (2016)- Reservoir prospectivity of synrift lacustrine system in Central Sumatra Basin. Proc. 40th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA16-394-SG, p. 1-12.
(Seismic facies and well log study of lacustrine- fan delta facies of U Pematang Fm in N Aman Trough)

Oksuanandi, R., Y.F. Yeni, I.M. Gunawan, R. Bramantyo, C.K.L. Nainggolan & A.A. Raihan (2015)- Facies distribution and reservoir characterization of the 2060'SD, Bekasap Formation, Sabak Field, Central Sumatra Basin. Proc. 39th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA15-G-197, p. 1-13.
(Sands in E Miocene Bekasap Fm in Sabak Field NE-SW trending tide-dominated estuarine channel deposits)

Omura, I. (1942)- Oil fields in Sumatra. J. Mining Institute of Japan 58, 685, p. 304-308. *(in Japanese)*

(online at: https://www.jstage.jst.go.jp/article/shigentosozai1885/58/685/58_685_304/_pdf/-char/en)
(Brief review of oil fields in North and South Sumatra)

Oostingh, C.H. (1941)- Over de Tertiaire molluskenfauna van Palembang. De Ingenieur in Nederlandsch-Indie (IV) 8, 3, p. IV.21- IV.29.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1941-03.pdf)
('On the Tertiary mollusc fauna from Palembang'. Three faunasof bivalves and gastropods distinguished: Lower Telisa (21 species), basal Lower Palembang and typical Lower Palembang (52 species))

O'Shea, N.E., A. Bettis, Y. Zaim, Y. Rizal, A. Aswan, G.F. Gunnell, J.P. Zonneveld, R.L. Ciochon (2015)- Paleoenvironmental conditions in the late Paleogene, Sumatra, Indonesia. J. Asian Earth Sciences 111, p. 384-394.
(Open pit mine in Ombilin basin, Barisan Mts, C Sumatra, with stratified paleosol sequence in latest Eocene or E Oligocene, providing record of paleoenvironmental conditions in fluvial-estuarine setting. Tropical, highly productive lowland forest)

Oppenoorth, W.F. (1918)- Foraminiferen van de Noordkust van Atjeh. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 2, p. 249-258.
('Foraminifera from the North coast of Aceh'. At several localities limestone at base of Neogene, rich in Lepidocyclina (Nephrolepidina) spp., also Miogypsina, Cycloclypeus. Associated Lepidocyclina (Eulepidina) may be Trybliolepidina. Interbedded with marls with Orbulina universa (Age assumed to be E Miocene/ Aquitanian, looks more like Middle Miocene; JTvG))

Panggabean, H. (2005)- Characterization of micro-cleats on coal seams of the Muaraenin Formation using Scanning Electron Microscope (SEM). Indonesian Mining J. 8, 2, p. 23-39.
(see also Permana and Panggabean 2011)

Panggabean, H. & R. Heryanto (2009)- An appraisal for the petroleum source rocks on oil seep and rock samples of the Tertiary Seblat and Lemau Formations, Bengkulu Basin. Jurnal Geologi Indonesia 4, 1, p. 43-55.
(online at: www.bgl.esdm.go.id/dmdocuments/jurnal20090105.pdf)
(Bengkulu Basin Eocene-Oligocene fore-arc basin. Oldest 'Lahat-equivalent' formation unconformably overlain by Oligocene-Miocene Hulusimpang Fm volcanic rocks, then by siliciclastics and minor carbonates of E-M Miocene Seblat Fm. Geochemistry of selected outcrop samples and Padangcapo village oil seep indicates potential source rocks may occurr in Lahat- equivalent Seblat and Lemau Fms)

Panggabean, H., S.A. Mangga & I.S. Suwardi (2007)- Atlas cekungan sedimen Indonesia- Cekungan Sumatera Selatan. Pusat Survei Geologi, Bandung, p. 1-128.
('Atlas of sedimentary basins of Indonesia- South Sumatra Basin')

Panggabean, H. & L.D. Santy (2012)- Sejarah penimbunan cekungan Sumatera Selatan dan implikasinya terhadap waktu generasi hidrokarbon. Jurnal Sumber Daya Geologi (JSDG) 22, 4, p. 225-235.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/122/116)
('Burial history of the South Sumatra basins and its implications for the time of hydrocarbon generation'. S Sumatra Basin four subbasins, Jambi and C, N and S Palembang sub-basins. Eocene- Quaternary sediment fill 2100-3500m thick, with maximum burial depths 2900- 5200 m. Lowest depth oil generation of Lahat Fm 1560m in C Palembang Subbasin, while deepest in Talangakar Fm 2700m in Jambi Subbasin and 2800m in S Palembang Subbasin. Timing of hydrocarbon generation 20.3 Ma (E Miocene) to 3.4 Ma (Pliocene))

Panguriseng, M.J., E. Nurjadi, W.S. Sadirsan, B.W.H. Adibrata & D. Priambodo (2011)- Determination of turbidite "lobe" distribution and geometry in Middle Baong sand, North Sumatra Basin: artificial neural network approach of multi-attribute analysis. Proc. Joint 36th HAGI and 40th IAGI Annual Conv., Makassar, JCM2011-389, p. 1-12.
(online at: https://www.iagi.or.id/web/digital/10/2011_IAGI_Makassar_Determination-of-Turbidite.pdf)

(In Indonesian. M Miocene Middle Baong Sand prolific reservoir in N Sumatra Basin. Deep marine sand, with lateral discontinuity major issue. Artificial Neural Network method of seismic multi-attribute analysis used for reservoir characterization and geometry analysis)

Panjaitan, H., I. Fardiansyah, A. Alvita, M.A. Ikhsani, H.O. Megadewi & I. Ramadhan (2024)- Telisa reservoir charcteristics and its development strategies in the northern Rokan Block, Central Sumatera Basin.. Proc. 53rd Annual Conv. Indonesian Association Geologists (IAGI), Balikpapan 2024, 89, p. 1-11.
(online at: https://www.iagi.or.id/web/digital/79/169---TELISA-RESERVOIR-CHARACTERISTICS-AND-ITS-DEVELOPMENT-STRATEGIES-IN-THE-NORTHERN-ROKAN-BLOCK,-CENTRAL-SUMATERA Etc.)
(Telisa Fm in C Sumatra Basin known as petroleum-sealing thick shale succession, but in parts of Rokan Block it contains productive but low-quality E-M Miocene marine sand reservoirs, requiring hydraulic fracturing)

Panjaitan, S. (2006)- Struktur dan geometri cekungan oil shale di daerah Taluk, Riau, berdasarkan metode gaya berat. Jurnal Sumber Daya Geologi (JSDG) 16, 2 (152), p. 75-93.
('Structure and geometry of the oil shale basin in the area of Taluk, Riau, based on the gravity method')

Pannetier, W. (1994)- Diachronism of drowning event on Baturaja limestone in the Tertiary Palembang sub-basin, South Sumatra, Indonesia. J. Southeast Asian Earth Sciences 10, 3-4, p. 143-157.
(Oligocene-E Miocene transgression in Lahat and Talang Akar formations from W to E. Deposition of Baturaja carbonate (earliest Miocene; ~N4-N5) on tectonic uplifts interpreted as lowstand system tract. Drowning of carbonate platform by Gumai shales in later E Miocene diachronous. Carbonate drowning coincides with renewed volcanic and tectonic activities and cooling)

Paramita, D. & R. Santoso (2011)- Sequence stratigraphy and facies distribution analyses to define reservoir lateral distribution in Meruap Field, Jambi. Proc. 35th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA11-G-154, p. 1-12.
(Meruap Field in Jambi Sub-basin, discovered in 1974. Main oil reservoir is sand of M Miocene Air Benakat Fm. Total oil produced 10.3 MMBO. Sequence stratigraphy study suggests five sequence boundaries. Sands deposited in deposited in tide- dominated delta, with three depositional facies: tidal channel, tidal sand bar, and tidal sand flat, with depositional trend oriented SW-NE)

Pasaribu, D., B. Sapiie & I. Gunawan (2025)- Structure evolution and palinspastic analysis of the Gurami-Tamiang Area, North Sumatra Basin, Indonesia. Scientific Contributions Oil and Gas (SCOG), Lemigas, Jakarta, 48, 3, p. 342-365.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/1806/1496)
(N-S trending half-grabens in Gurami-Tamiang area offshore N Sumatra bounded by E-dipping faults originating from negative flower structures at depth. Part of a wrench fault system that includes (1) Khlong-Marui Fault, (2) Lokop-Kutacane Fault and (3) Sumatra Fault. Three phases of basin evolution: (1) Extensional (45- 32 Ma), (2) Transitional (32 - 22 Ma) and (3) Contractional phase(22 Ma– present))

Pathak, P., Y. Fidra, A. Yan, H. Avida, Z. Kahar, M. Agnew & D. Hidayat (2004)- The Arun gas field in Indonesia: resource management of a mature field. In: SPE Asia Pacific Oil and Gas Conference, Integrated modelling for asset management, Kuala Lumpur 2004, SPE 87042, p. 1-22.
(History of giant Arun gas-condensate field in Aceh, N Sumatra. Discovered in 1971, producing since 1977. Reservoir NNW-SSE trending elongate E-M Miocene limestone reef buildup, with av. thickness 495' (max. 1000'), porosity 16.1%. Initial in-place gas 16.8 TCF gas, 840 MB Condensate, ultimate gas recovery expected 94%.

Patra, D.H., D. Noeradi & E.A. Subroto (2012)- Tectonic evolution at Musi High and its influence to Gumai formation as an active source rock at Sopa Field, South Sumatera Basin. Extended abstract AAPG International Conference Exhib, Milan, 2011, AAPG Search and Discovery Article 20125, p. 1-16.
(online at: https://www.searchanddiscovery.com/pdfz/documents/2012/20125patra/ndx_patra.pdf.html)
(Shale from Eo-Oligocene Lahat and Talang Akar Fms widely accepted as source rocks in Palembang sub-basin of S Sumatra. Sopa Field on Musi Platform paleohigh, where Lahat and Talang Akar Fms not well developed and closest paleo-deep >20 km away. E Miocene Gumai Fm may be regional seal and active source rock)

Patria, A.A. & F. Anggara (2022)- Microfacies and depositional environment of the Eocene Sawahlunto coal, Ombilin Basin, Indonesia. Iraqi Geological J. 55, 1E, p. 128-146.
(online at: https://igj-iraq.org/igj/index.php/igj/article/view/782)
(Ombilin Basin one of largest coal-producing basins in Indonesia, but no comprehensive study of relationship between petrographic characteristics and coal properties. Ombilin coal dominated by vitrinite (46-72%), liptinite (15-43%), inertinite (15-26 %) and mineral matter (0.36-11.4.%; mostly pyrite). Five groups distinguished. Vertical successions and maceral abundances reflect evolution from topogenous mire to ombrogenous mire. Coal derived from degraded woody plant tissues and some aquatic or herbaceous plants. Depositional environment wet forest swamp, transition from limnic to limno-telmatic environment)

Patria, A.A. & F. Anggara (2022)- Petrological, mineralogical, and geochemical compositions of coal in the Ombilin Basin, West Sumatra, Indonesia. Int. J. Coal Geology 262, 104099, p. 1-17.
(Petrological, mineralogical, and geochemical compositions of four Eocene coal seams in Ombilin Basin. High-volatile bituminous C coals with vitrinite reflectance values of 0.58-0.66%. Vitrinite dominant maceral (61%), followed by liptinite (25%), and inertinite (13.8%). Minerals observed in coal samples pyrite, quartz and clay. Both syngenetic and epigenetic pyrite present. Inorganic components derived from Cretaceous basement granitoid rocks and andesite intrusions)

Permana, A.A., R. Pratama, Z. Firmansyah, F. Afrinas & A. Fauzia (2020)- Sub-thrust exploration plays as upside potential in South Sumatra Basin, Indonesia. CSPG-CSEG GeoConvention 2020, p. 1-5.
(online at: https://geoconvention.com/wp-content/uploads/abstracts/2020/57672-sub-thrust-exploration-plays-as-upside-potential-i.pdf)
(Review of JRK Field (= Jirak oil field?), 1929 discovery, 305 wells, on Gunung Kemala anticlinorium)

Permana, A.K. (2008)- Coal characteristics of Sarolangun- Pauh region: implication for coalbed methane potential. Jurnal Sumber Daya Geologi (JSDG) 18, 6, p. 351-360.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/255/235)
(Muara Enim Fm coal in Sarolangun- Pauh region, Jambi Provice, S Sumatra, prospective for CBM. Coal mainly vitrinite with rare inertinite, minor exinite and mineral matter. Open microcleats dominate over closed microcleats. Coalbed methane content expected to be low- moderate)

Permana, A.K. (2015)- Geochemical evaluation and pore type characterization of the carbonaceous rich facies, Brown Shale Formation, Central Sumatra Basin. In: Hydrocarbons in the Tropics, Proc. 32nd Annual Meeting Society for Organic Petrology, Yogyakarta 2015, p. 106-107 *(Abstract)*
(Carbon-rich facies of the Brown Shale Fm of Paleogene Pematang Gp in C Sumatra Basin with 2-32% TOC, mainly vitrinite, good, potentially mature gas prone source rocks, as well as unconventional shale gas reservoir)

Permana, A.K. (2015)- Shale hydrocarbons characterization: a case study of shales from the Brown Shale and Telisa Formation, Central Sumatera Basin, Indonesia. Presentation CCOP-KIGAM Unconventional Oil and Gas Project, Gyeongju City, Korea, p. 1-52.
(online at: http://www.ccop.or.th/uc/data/41/docs/Indonesia-Shale%20Gas-KIGAM.pdf)
(Review of oil-gas shale potential of Eocene Brown Shale Fm and Miocene Telisa Fm in C Sumatra Basin. Shale gas potential mainly in deeply buried sediments in sub basins)

Permana, A.K. & Y. Iskandar (2020)- Geochemical evaluation and pore type characterization of carbonaceous rich facies in Brown Shale Formation, Central Sumatra Basin. Indonesian J. on Geoscience (IJOG) 7, 2, p. 122-133.
(online at: http://ijog.bgl.esdm.go.id/index.php/IJOG/article/view/359/306)
(Brown Shale Fm of Pematang Group three lithofacies: (1) algal rich, (2) mixed algal-carbonaceous and (3) carbonaceous rich. Carbonaceous source rocks mainly vitrinite with minor inertinite and liptinite. Good to excellent source rock potential: high TOC, mainly Type III kerogen type, gas prone)

Permana, A.K. & H. Panggabean (2011)- Depositional environment of the Sarolangun coals, South Sumatra basin. Jurnal Sumber Daya Geologi (JSDG) 21, 4, p. 225-235.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/149/145)
(Late Miocene Muara Enim Fm in Sarolangun area, W part of S Sumatra Basin, with relatively thin (<1.5m) coal beds. Coal mainly vitrinite (telovitrinite and detrovitrinite), with rare inertinite and minor liptinite and mineral matter. Palynological studies show abundant pollen from mangroves that grew in fresh water environment (Palmaepollenites kutchensis, Florschuetzia trilobata, Acrostichum aureum, Verrucatosporites usmensis). Coal deposition in upper delta plain and fluvial environments (wet forest swamp))

Permana, A.K. & H. Panggabean (2011)- Cleat characteristics in Tertiary coal of the Muaraenim Formation, Bangko area, South Sumatra Basin: implications for coalbed gas potential. Jurnal Sumber Daya Geologi (JSDG) 21, 5, p. 265-274.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/153/150)
(Sub-bituminous coal seams in Miocene Muara Enim Fm from Bangko area, 25 km SE of Tanjung Enim, S Sumatra, with well-developed cleat system. Coal dominated by vitrinite (72-89%), with minor inertinite (3.6%), liptinite (1.8-3.8%) and mineral matter (2.4-14.4%). Vitrinite reflectivity 0.44%)

Permana, A., R. Pratama & S. Husein (2019)- New play of Pre-Talang Akar carbonate limestone in South Sumatra Basin for future deep target exploration. Proc. 2nd EAGE Conference on Reservoir Geoscience, European Association of Geoscientists & Engineers, Hanoi 2019, p. 1-3.
(In S Sumatra, wells in DW, GK, BL, and BN oil fields suggest presence of interbedded hard massive limestone with clean quartz sand, volcanic tuff and shale in Eo-Oligocene Lahat zone. With oil shows in well GK-82. Potential new deep play in South Sumatra Basin)

Permana, B.R., R.R. Achdiat & R. Tasrianto (2021)- Detailed lithological study leads to new insights about the Pre-Tertiary and Tertiary reservoirs in the Suban gas field, South Sumatra Basin, Indonesia. Proc. 45th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA21-G-91, p. 1-29. *(online at: https://www.academia.edu/51148711/Detailed_Lithological_Study_Leads_to_New_Insights_about_the_Pre_Tertiary_and_Tertiary_Reservoirs_in_the_Suban_Gas_Field_South_Sumatra_Basin_Indonesia)*
(1972 Suban gas field in Corridor Block in basement consisting of Permian metasediments, intruded by Jurassic andesite and Cretaceous granodiorite and gabbro. Two third of Suban basement area dominated by granodiorite. Overlain by E Oligocene-age 'Paleo-BRF' (Durian Mabok) carbonate reservoir (Sr-isotope age 32 Ma). Also'Main Baturaja Fm' reefal carbonate with Sr ages of 23-27 Ma))

Permana, B.R., Y. Darmadi, I. Rahmawan & T. Siagian (2018)- Revealing hydrocarbon potential in a tight sand reservoir: a case study of the Baturaja sands in Sumpal Field, South Sumatra basin. Proc. 42nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA18-318-G, p. 1-21. *(online at: www.academia.edu/40453683/REVEALING_HYDROCARBON_POTENTIAL_IN_A_TIGHT_SAND Etc.)*
(Sumpal Field is large gas field in Corridor block, currently producing from fractured pre-Tertiary crystalline basement rocks. E Miocene silty sandstone (Baturaja Fm/ Lower Telisa equivalent) present in many wells and contains light oil. Thickness 7-18m, but low permeability and requires fracking)

Permana, B.R., Y. Darmadi, I.B. Sinaga, D. Kusmawan & A. Saripudin (2016)- The origin of oil in the Telisa Formation, Suban Baru Field, and the next exploration path. Proc. IPA 2016 Technical Symposium, Indonesia exploration: where from- where to, Indonesian Petroleum Association (IPA), Jakarta, 23-TS-16, p. 1-17.
(online at: www.academia.edu/29790066/THE_ORIGIN_OF_OIL_IN_THE_TELISA_FORMATION_SU Etc.)
(Oil discovered in Suban 3 and Suban Baru wells in sandstones in marine upper Telisa Fm (late E Miocene) in Suban Baru Field, Corridor Block of C Palembang sub-basin of S Sumatra. Variable reservoir quality. Oils sourced from mixed terrestrial-marine facies, probably from source rock below Telisa Fm, although Telisa Fm may be mature in deeper parts of S Sumatra Basin)

Permana, B.R., Y. Darmadi, S. Yusim, I. Rahmawan & M. Firdaus (2023)- Integration of core analysis, logs, seismic and dynamic data in defining fracture reservoir: case study Suban Field, South Sumatra. Proc. 47th

Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA23-G-02, p. 1-17. *(online at: https://www.researchgate.net/profile/Budi-Permana-3/publication/372689625_INTEGRATION_OF Etc.)*
(Suban Field in Corridor Block, S Sumatra, proven giant gas field in fractured Pretertiary reservoir (initially drilled in Suban 2 in 1998). Basement includes Permian metasediment (248 Ma), Jurassic Andesite (180 Ma), Cretaceous Granodiorite (139 Ma) and Cretaceous micro gabbro (110 Ma))

Permana, B.R., A. Faisal & A.A. Gantyno (2022)- Geochemical analysis in Supat Field, South Sumatra revealed different oil characteristics from the same source rock. Proc. 46th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA22-G-51, p. 1-15.
(Supat Field is 1984 oil discovery in Corridor Block in S Sumatra Basin, with two main oil-bearing reservoirs, (1) Talang Akar Fm sandstones and (2) transgressive 'K-limestone' (see e.g. Syukri et al. 2018). Reservoirs not in pressure communication and have different oil geochemistry (high wax in TAF, high asphaltene in K horizon))

Pertamina BPPKA (M. Abdullah et al.) (1996)- Petroleum geology of Indonesian basins, I: North Sumatra Basin. Petroleum geology of Indonesian basins: principles, methods, and application, Jakarta, p. 1-.

Pertamina BPPKA (B. Mertani et al.) (1996)- Petroleum geology of Indonesian basins, II: Central Sumatra Basin. Petroleum geology of Indonesian basins: principles, methods, and application, Jakarta, p. 157-192.

Pertamina BPPKA (C. Caughey et al.) (1996)- Petroleum geology of Indonesian basins, X: South Sumatra Basin. Petroleum geology of Indonesian basins: principles, methods, and application, Jakarta, p. 1-

Peter, C.K. & Z. Achmad (1976)- The petrography and depositional environment of Belumai Formation Limestone in the Bohorok area, North Sumatra. Proc. Int. Carbonate Seminar, Jakarta 1976, Indonesian Petroleum Association (IPA), Special Volume, p. 61-66.
(E Miocene Belumai Fm Limestone Mb shallow open marine shelf conglomerates and limestones accumulated on local topographic high, overlain by deeper shelf limestones. No reefal facies limestones seen in area)

Pethe, S. (2013)- Subsurface analysis of Sundaland basins: source rocks, structural trends and the distribution of oil fields. M.Sc. Thesis Ball State University, Indiana, p. 1-79.
(online at: http://cardinalscholar.bsu.edu/handle/123456789/197811)
(Test of 'W. Ade Rule', stating that "95% of all commercial oil fields in the Sumatra region occur within 17 km of seismically mappable structural grabens in the producing basins". Graben mapping suggests in S Sumatra Basin 78% of oil fields located within 17 km margin from grabens. For Sunda/Asri basin number is 100%, for Ardjuna basin 92%)

Poerwanto, J.H., C.F. Sugembong, J.M. Bagzis & A.D. Martinez (1995)- Application of hydraulic fracturing technologies to the shallow Telisa Formation. SPE Asia Pacific Oil and Gas Conferece., Kuala Lumpur 1995, p. 277-284.
(On fracturing treatments in shallow (600'), high permeability (10-100 mD) laminated sandstone reservoir in E Miocene Telisa Fm, South Balam Field, 50 km NW of Duri, C Sumatra)

Pradana, A.K.A., Aswan & Y. Rizal (2008)- Sequence architecture interpretation of Brown Shale (Pematang Group) lacustrine deposit based on mollusk taphonomic analysis in Kiliranjao, West Sumatra. Proc. 37th Annual Convention Indonesian Association Geologists (IAGI), Bandung, p. 410-427. *(online at: https://www.iagi.or.id/web/digital/14/2008_IAGI_Bandung_Sequence-Architecture-Interpretation.pdf)*
(Study of molluscs in 80 m long section through Paleogene lacustrine Brown Shale of Pematang Fm (C Sumatra Basin Eo-Oligocene rift-fill), exposed at Karbindo Coal Mine, 5km from Kiliranjao)

Pradana, A.Y., M. Imron, I. Kuswinda & B. Sapiie (2013)- Sealing and non-sealing faults of North Prospect area in Jambi Merang Block, Jambi sub Basin- South Sumatera. Proc. Joint Convention 38th Indonesian Association Geophysicists (HAGI) - 42nd Indonesian Association Geologists (IAGI), Medan, JCM2013-0048, p. 1-21.

(Fault Seal analysis in Jambi Merang Block, in N part of Jambi sub basin. Most faults do not have significant throw and are generally sealing faults. With well correlations and seismic lines across wells E Ketaling 1, Muara Sabak 1 and Merang 1)

Pradana, A.Y., Y. Indriyanto, A.W. Johanes & A.M. Adiwiarta (2017)- Facies, diagenesis, and depositional setting of carbonate build-up in the Merang High, Jambi sub-basin, Indonesia. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, p. 1-6.
(online at: https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_Facies,-Diagenesis,-and-Depositional.pdf)
(Miocene Baturaja Fm carbonate reservoir in Sungai Kenawang and Pulau Gading fields of Jambi Basin (reefal buildups on NE-SW trending Merang and Ketaling Highs. Diagenesic environments meteoric vadose, meteoric phreatic and mixing-early burial. Carbonates show backstepping pattern))

Pramudito, D., B.S. Fitriana, R. Abdillah, I.K. Barus, R.N. Ardianto & F. Nuraeni (2022)- Redefining facies architecture of Upper Talangakar Formation and integrating with near field structural to unlocking potential hydrocarbon in Raja Area, South Sumatra Basin. Proc. 51st Annual Convention Indonesian Association Geologists (IAGI), Makassar, South Sulawesi, p. 1-9.
(online at: https://www.iagi.or.id/web/digital/71/PITIAGI-22-P-Abs-082.pdf)
(Raja oil field 85km NW of Palembang. Rather general discussion of Talang Akar Fm fluvial reservoirs. Do not mention this was a Stanvac (1940) well and oil discovery; see also Hutapea, 1981))

Pramudito, D., D. Nugroho & M. Abdurrachman (2021)- Reservoir characterization and compartment in postrift deposited Upper Talangakar Formation, Belut Field, South Sumatra Basin. Bulletin of Geology 5, 2, p. 638-651.
(online at: https://buletingeologi.com/index.php/buletin-geologi/article/view/106/48)
(Facies distribution in E Miocene fluvio-deltaic Upper Talang Akar Fm retrogradational clastics in Belut field)

Pramudyo, Y.B., S.M. Hendar, H. Nur, M.R. Reinhold & G.W. Jacobs (2007)- An integrated study of low permeability reservoir in the Bekasap Field, Central Sumatra Basin, Indonesia. In: Soc. Petroleum Engineers (SPE) Asia Pacific Oil and Gas Conf. Exhibition, Jakarta, p. 1-5.
(On study of E Miocene Bekasap and Menggala Fms sandstones in mature Bekasap field (1955; 107 producing wells). Model delineates trends of estuarine, sand ridge and margin facies that reflect paleogeography. Thirty one horizontal wells drilled in field, predicted to improve ultimate recovery from 14% to 28%)

Pranata, B., M. Ramdhan, M. Hanif, M.I. Sulaiman, M.P. Maulana, Wandono, S. Widiyantoro et al. (2023)- Seismic imaging beneath Sumatra Island and its surroundings, Indonesia, from local-regional P-wave earthquake tomography. Rudarsko-geolosko-naftni Zbornik (Mining-Geology-Petroleum Engineering Bulletin), Zagreb, 38, 3, p. 119-132.
(online at: https://hrcak.srce.hr/file/443597)
(Seismic P-wave tomography model and cross sections, mainly of Sumatra forearc)

Pranyoto, U., B. Setiardja & E. Sjahbuddin (1990)- Pembentukan, migrasi dan terperangkapnya hidrokarbon di daerah Rantau, Aru dan Langkat-Medan, Cekungan Sumatra Utara. Proc. 19th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 175-200.
('Formation, migration and trapping of hydrocarbons in the Rantau- Aru and Langkat-Medan areas, N Sumatra basin'. Mapping of source horizons (Baong, Belumai Fm), maturation and kitchen areas in N Sumatra basin)

Praptono, S.H., R. Dwiputro, I.M. Longley & R.W. Ward (1991)- Kurau: an example of the low-relief structural play in the Malacca Strait PSC, Sumatra, Indonesia. Proc. 20th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 299-318.
(Kurau field two separate low relief anticlinal structures on E margin of Bengkalis Trough. Traps formed by drape over structures formed in Late Oligocene. These structures, cored by basement and Pematang Group rocks, remained largely unaffected by Late Miocene- Pliocene tectonism. This later tectonism produced many high-relief structures which were focus for early exploration. Stacked oil pools, with >150 MMBO in-place, largest in PSC. Discovered late in exploration history of area due to relatively subtle nature of trap)

Prasetyo, H., E. Suparka & D. Noeradi Darussalam (2009)- Characterization of low-permeability reservoir rock using petrography and depositional studies- case study: optimizing production from low-permeability Bekasap sandstones in Central Sumatra, Indonesia. AAPG International Conference Exhibition, Rio de Janeiro 2009, Search and Discovery Article 40513, p. 1-13. *(Extended Abstract)*
(E Miocene Bekasap Fm sandstone reservoirs in C Sumatra basin deposited in estuarine, tide-dominated delta system. Overall fining-upward: lower part m- grained, conglomeratic, cross-bedded and massive sandstones, with permeability up to 1900 mD, upper part f-vf-grained, bioturbated sandstone with permeability from 10's-200 mD. In general, reservoir quality more controlled by depositional environment than diagenetic processes. At depth both permeability and porosity reductions significantly controlled by cementation)

Pratiwi, F.I., V.B. Indranadi & B. Toha (2011)- Sequence stratigraphy for facies modeling of Upper Lakat and Tualang Formation: implication for Late Oligocene to Early Miocene paleogeography of southern Bengkalis Trough. Proc. Joint 36th HAGI and 40th IAGI Annual Conv., Makassar, JCM2011-225, p. 1-12.
(online at: https://www.iagi.or.id/web/digital/10/2011_IAGI_Makassar_Sequence-Stratigraphy-for-Facies.pdf)
(Sequence stratigraphy of Late Oligocene-E Miocene fluvial- tidal channel reservoir intervals in field 'X' (= probably Stanvac Kayuara field?; JTvG), at S end Bengkalis Trough, C Sumatra Basin. Sands quartz-rich and derived from N-NE part of Bengkalis, from Malacca Terrane basement high)

Prayitno, B., M. Riva, A. Suryadi, H. Kausarian & F. Rozi (2019)- Analysis of stratigraphy and sedimentation dynamics of coal, Sawahlunto Formation, Ombilin Basin. Int. J. of GEOMATE (Japan) 17, 63, p. 255-262.
(online at: https://geomatejournal.com/geomate/article/download/2524/2137/3103)
(Brief review of coal near Air Dingon village)

Prayitno, B. & S. Susilo (2018)- Geology of Tanjung Medan, Rokan IV Koto, Rokan Hulu District, Riau Province. J. Geoscience Engineering Environment Technology (JGEET) 3, 2, p. 122-127.
(online at: https://journal.uir.ac.id/index.php/JGEET/article/view/1597/1050)
(Geology of area in NE Sumatra with Permian-Carboniferous slates, Permian-Triassic granite intrusion, overlain by Eocene Sandstone unit)

Premonowati (2011)- Outcrops conservation of Tanjung Baru or Lower Talang Akar Formation, Baturaja city of Palembang area- South Sumatra Basin: how important? Berita Sedimentologi 20, p. 7-11.
(online at: www.iagi.or.id/fosi/bs20-sumatra.html)
Proposal to conserve quarry in Late Oligocene or basal Miocene fluvial conglomeratic quartz sst of Gritsand Mb of Lower Talang Akar Fm E of Baturaja, with proposal to rename into Tanjung Baru Fm. With overview of outcrop stratigraphy of this part of S Sumatra basin)

Primadi, I. (2013)- Economic vs fractured basement: a case study from North Sumatra Basin. Berita Sedimentologi (FOSI-IAGI) 27, p. 21-25.
(online at: www.iagi.or.id/fosi/files/2013/08/BS27-Sumatera_Final.pdf)
(North Sumatra 'Basement' may include fractured carbonates with hydrocarbon reservoir potential. Carbonates (dolomites and fractured limestones at base of Cenozoic clastic rift section often assigned to Eocene Tampur Formation (but faunas on which this age is based have never been documented. Analogous limestone in Malacca Straits contains Permian foraminifera; JTvG))

Priwastono, D., A. Kohar, J. Layundra & D. Wanengpati (2005)- The seismic characteristics of the Langsa "L" carbonate build-up, the first offshore oil production in Nanggroe Aceh Darussalam Province. Proc. 30th Annual Conv. Indonesian Petroleum Association, IPA05-G-171, p. 1-10.
(L oil field discovered in 1980 by Mobil in Malacca Straits. Reservoir Early Miocene Malacca Fm carbonate buildup with av. porosities 6.4- 10.7%)

Priyanto, B., Y. Kambu, K. Nugrahanto, M. Soeryowibowo & S.T. Sampurno (2024)- Emerging exploration plays in the North Sumatra petroleum basin: constraints and opportunities. Proc. 48th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA24-G-262, p. 1168-1184.

(Study of N Sumatra petroleum and remaining potential. Recent Timpan-1 gas well significant proof of concept of Oligocene Parapat play. More detailed mapping and stratigraphic correlation should be conducted to unlock potential of Oligocene carbonate and 'Eocene' Tampur Fm fractured dolomites in Malacca shelf)

Pujasmadi, B., H. Alley & Shofiyuddin (2002)- Suban gas field, South Sumatra- example of a fractured basement reservoir. In: F.H. Sidi & A. Setiawan (eds.) Proc. Seminar Giant field and new exploration concepts, Indonesian Association Geologists (IAGI), Jakarta 2002, p. 25-44.
(Suban gas field 1998 discovery 165km WNW of Palembang. >1000m gas column between 1800-3300m, straddling E Miocene Baturaja Fm reefal limestone (33% of reserves), Oligocene Talang Akar Fm sandstones and Eocene- Oligocene Lemat Fm conglomerates (19%) and fractured basement composed of M Jurassic andesites, E Cretaceous granitoids and Permo-Carboniferous marine metasediments (48% of reserves))

Pujobroto, A. (1997)- Organic petrology and geochemistry of Bukit Asam coal, South Sumatra, Indonesia, Ph.D. Thesis, School of Geosciences, University of Wollongong, p. 1-397.
(online at: http://ro.uow.edu.au/cgi/viewcontent.cgi?article=2975&context=theses)
(Petrography and organic properties of M-L Miocene Palembang Fm coal at Bukit Asam, S Sumatra Basin. Bukit Asam coal dominated by vitrinite (88-91%) with minor liptinite (4.2- 5.0%), inertinite (4.1-5.5%) and mineral matter (mainly clay, quartz and minor pyrite. Vitrinite mainly detrovitrinite with significant telovitrinite and minor gelinite. Coal rank from sub-bituminous (Rv 0.35-0.5%) to semi-anthracite (Rv max. 2%) near andesitic igneous intrusions)

Pujobroto, A. & C. Hutton (2000)- Influence of andesitic intrusions on Bukit Asam coal, South Sumatra Basin Indonesia. Proc. Southeast Coal Geology Conference, Directorate General of Geology and Mineral Resources of Indonesia, Bandung, p. 81-84.

Pulunggono, A. (1969)- Basement configuration in the South Palembang basinal area: its signficance to depositional conditions and oil-trappping. In: Fourth ECAFE Symposium Development of petroleum resources Asia and Far East, Canberra 1969, p. 1-16.

Pulunggono, A. (1986)- Tertiary structural features related to extensional and compressive tectonics in the Palembang Basin, South Sumatra. Proc.15th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 187-213.
(Tertiary basin history. Extensional phase in Late Oligocene- E Miocene, coinciding with standstill of Indian oceanic plate subduction below Sundaland. Oblique compression of N-ward converging Indian Ocean plate solely accomodated by NW-SE trending proto-Barisan by lateral movements. The early M Miocene onset of compression connected to renewed subduction. Diastrophism in Palembang Basin mainly confined to narrow N-S zone with highest heatflow and most oil-gas fields)

Pulunggono, A., C.I. Abdullah, D. Noeradi, E. Suparka, Djuhaeni & L. Samuel (1999)- Sumatran megashears; Their crucial role in (Tertiary) sedimentary basin development. In: H. Darman & F.H. Sidi (eds.) Tectonics and sedimentation of Indonesia, FOSI-IAGI-ITB Regional Seminar to commemorate 50th anniversary of Van Bemmelen's Geology of Indonesia, Bandung 1999, p. 29-34.
(N-S, WNW-ESE and NW-SE major faults dominate basinal framework of Sumatra basins. N-S and WNW-ESE trending major faults 'old megashears' linked to Mesozoic basement configuration. Late Eocene NW-SE extension probably under rollback conditions of subducting Indian Ocean plate. M-L Miocene and younger inversion/compression NNE-SSW directed.)

Pulunggono, A., A. Haryo S. & C.G. Kosuma (1992)- Pre-Tertiary and Tertiary fault systems as a framework of the South Sumatra Basin; a study of SAR-maps. Proc. 21st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 339-360. *(online at: https://www.academia.edu/36819001/PRE_TERTIARY_AND_TERTIARY_FAULT_SYSTEMS_AS_A_FRAMEWORK_OF_THE_SOUTH_SUMATRA_BASIN_A_STUDY_OF_SAR_MAPS*
((S Sumatra dominant fault trends WNW-ESE, N-S, NW-SE and ± N30°E. Distribution of Jurassic and Cretaceous granites important to explain geological evolution of Sundaland. Paleogene initiation of S Sumatra

back-arc basin by way of subsiding 'block-areas' along WNW-ESE (Lematang) and N-S trending strike-slip faults of Pre-Tertiary origin, rejuvenated as normal faults. Neogene compressive tectonics marked S Sumatran back-arc basin development a.o. inducing inversion along WNW-ESE faults. NW-SE (Barisan or Semangko) trend offsets WNW-ESE trend and active strike-slip fault zone at crestal parts of Barisan Mountain Range)

Purnama, A.B., S. Salinita, Sudirman, Y.A. Sendjaja & B. Muljana (2018)- Penentuan lingkungan pengendapan lapisan batubara D, Formasi Muara Enim, Blok Suban Burung, Cekungan Sumatera Selatan. J. Teknologi Mineral dan Batubara 14, 1, p. 1-18.
(online at: http://jurnal.tekmira.esdm.go.id/index.php/minerba/article/view/182/533)
('Interpretation of depositional environment of coal seam D, Muara Enim Formation, Suban Burung Block, South Sumatera Basin'. M-L Miocene coal seam D of Muara Enim Fm dominated by vitrinite (~71%), inertinite (17.6%), liptinite (5.9%) and 6.4% mineral matter. Vitrinite reflectance Rvmax 0.25-0.38%, corresponding to lignite-subbituminous rank. Deposited in a limnic depositional environment)

Purwaningsih, M.E.M., B. Mujihardi, L. Prasetya, W.A. Suseno & Y. Sutadiwirya (2006)- Structural evolution of the Jambi Sub-Basin: a rotated strike-slip mechanism. Proc. Jakarta 2006 International Geoscience Conference Exhib., Indonesian Petroleum Assoc (IPA)., Jakarta06-OT-60, p. 1-6. *(Extended Abstract)*
(Structural evolution of Jambi sub-basin three orders. Jambi sub-basin block rotation of 45° clockwise relative to Great Sumatra strike slip fault)

Purwanti, Y., A. Bachtiar & A. Balfas (2003)- Petrophysics and organic geochemistry of basement section in Malacca Strait area. Proc. 32nd Annual Convention IAGI and 28th Annual Conv. HAGI, Jakarta, p. 1-6.
(Basement in N-S trending Bengkalis Trough in Malacca Strait mainly meta-sediments and limestone in N, quartzite and mudstone in S. Hydrocarbon shows in some parts. TOC of basement shales from 0.11- 1.43%, Ro from 1.1- 4.3% (overmature). N area more mature than S. Tectonic uplift of block 2300' to 3850')

Puspoputro, B. (1984)- Tinjauan atas hasil penyelidikan transiel di daerah kerja Pertamina. Proc. 12th Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, p. 127-134.
(online at: https://www.iagi.or.id/web/digital/37/PIT-1983-Paper-12.pdf)
('An overview of results of a transect study of Pertamina exploration blocks'. Brief paper on prospects in Sumatra, Java, Irian Jaya and transient electromagnetic studies)

Pustantra, F.Y., Sardjito & Y. Surtiati (2017)- Stratigraphic trap exploration on Paleogene deposit in Puspa area, East Jambi. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 295, p. 1-8.
(online at: https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_Stratigraphic-Trap-Exoloration-On-Paleogene-Deposit.pdf)
(On potential for stratigraphic traps in Paleogene rift section of Puspa area in NE part of NE-SW trending Tempino-Kenali Asam Deep/ rift, NE Jambi Basin. Pertamina paper. Six sequences in M Eocene- Late Oligocene rift fill. Main subvision:(1) early synrift (P10-P17; fluvial- lacustrine, with Proxapertites operculatus pollen) and (2) late synrift (P17-N4; Oligocene, fluvio-deltaic). Sediment source from NE)

Putra, A.F., C.I. Abdullah & D. Noeradi (2021)- Ombilin Basin as inverted oblique rift in Barisan Mountains, Sumatra: considerations on subsidence mechanisms and fault development. IAGI Journal 1, 2, p. 89-102.
(online at: https://journal.iagi.or.id/index.php/IAGIJ/article/view/32/307)
(Ombilin Basin is a NW-SE inverted oblique rift, currently part of Barisan Mountains in western Central Sumatra Fault-controlled subsidence in M Eocene- Late Oligocene, followed by local Late Oligocene uplift, E Miocene-Late Pliocene thermal subsidence and terminated by Late Pliocene-Recent uplift. Seismic line across Sinamar Anticline shows inverted rift or positive flower structure.)

Putra, D.D. (1999)- Analysis of the possible reserve in Eq. Baturaja Limestone by applying the Bungin Batu geological model; a case study on the West of East Ketaling Structure, Jambi. Proc. 28th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 2, p. 99-113.
(online at: https://www.iagi.or.id/web/digital/65/7.pdf)

(Discussion of oil distribution in Bungin Batu (1997 discovery) and Ketaling (1960) fields in E Miocene Baturaja limestone formation in Jambi sub-basin of S Sumatra basin)

Putra, M.D.A., S. Husein & Mulihadi (2024)- Sequence stratigraphy and depositional environment of the 'Perahu' Sand, Bekasap Formation, 'DAP' Field, Central Sumatera Basin. Proc. Int. Conference Geological Engineering and Geosciences, Yogyakarta 2023, IOP Conference Series: Earth and Environmental Science 1373, p. 012051, p. 1-16.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1373/1/012051/pdf)
(Sequence stratigraphy study of E Miocene (~22-21 Ma) Bekasap Fm Perahu Sand in 'DAP Field' (real name North Duri Area field?). Depositional cycles in tide-dominated estuarine or delta depositional facies setting, with basin direction to SW)

Putrohari, R.D. (1992)- MSDC-1: a gas discovery in the Malacca Strait PSC, Sumatra, Indonesia. Proc. 21st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 201-223.
(MSDC-1 gas well on E margin of Bengkalis Trough, in pre-Sihapas objective. Structure Upper Oligocene inversion anticline. DC structure low relief hydrocarbon column exceeds mapped structural closure. Proposed geological model shows trapping mechanism partly stratigraphically controlled)

Raguwanti, R., A. Sukotjo & B.W.H. Adibrata (2005)- Innovative approach using geostatistical inversion for carbonate reservoir characterization in Sopa Field, South Sumatra, Indonesia. Proc. 30th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 61-66.
(Geostatistical inversion of thin carbonate reservoir of Baturaja Fm in Sopa Field, South Sumatra)

Rahmad, B., A. Buntoro, S.U. Choiriah, I.P. Haty, Y. Rizkianto, S.U. Pratomo & G.Y. Putra (2025)- Coal as a petroleum source rock Brown Shale coal zone based on macerals and geochemistry analysis, Kiliranjau, Sijunjung Regency, West Sumatera, Indonesia. Iraqi Geological J. 58, 1C, p. 1-14.
(online at: https://www.igj-iraq.org/igj/index.php/igj/article/view/2133/2182)
(Kiliranjao Sub Basin, in Central Sumatra Basin, borders Ombilin Basin to W. With former coal mine area of PT Karbindo Abesyapradh. Paleogene Lower Brown Shale contains 8m thick coal bed, believed to have originated in reed swamp environment. Coal flanked by thin recrystallized lacustrine? limestones. Brown Shale disposal piles underwent self-combustion (oil shale). Coal mainly vitrinite (75-85%) and inertinite (3-9%). Pollen biostratigraphic analysis of lower Brown Shale and coal suggests M Eocene age (with Proxapertites operculatus); Upper Brown shale Late Eocene age with Crassoretitriletes vanraadshooveni, Margocolporites tsukadai, etc . Tmax for Kiliranjau coal 419 -430°C (=immature))

Rahman, H.A., M.I.K.A. Aminuddin, R. Puspita & M.P. Novendra (2024)- Determination of depositional environment and coal rank of Seam C Sawahlunto Formation, Ombilin Basin, West Sumatera, Indonesia. Proc. MAMIP 2023, Pulau Pinang, Malaysia, Journal of Physics: Conference Series 2907, 012017, p. 1-7.
(online at: https://iopscience.iop.org/article/10.1088/1742-6596/2907/1/012017/pdf)
(Coal-rich Sawahlunto Fm in Ombilin Basin, with three main coal seams, A, B and C. Seam C coal macerals mainly vitrinite (~80%) and inertinite (~20%). From limno-telmatic depositional environment. Vitrinite reflectance 0.45%-0.51% (sub-bituminous). Calorific values ~15,000 btu/lb. Highly volatile bituminous coal)

Rahmat, G. (2017)- Quantitative biostratigraphy at Air Benakat Formation and sequence stratigraphy analysis in Tempino Field Jambi Subbasin. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, p. 1-9.
(online at: https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_Quantitative-Biostratigraphy-at-Air-Benakat.pdf)
(Air Benakat Fm at Tempino Field, Jambi Basin, ~500m thick. Age from late E- M Miocene (NN4-NN6 or N7-N11?; ~18-12 Ma?). Four sequences)

Rahmat, G., Julikah, A. Kholiq & Sriwijaya (2016)- Paleogeography maps based on sequence stratigraphy analysis in Jambi sub-basin and implication to shale hydrocarbon play distributions. Proc. 14th Regional

Conference Geology and Mineral Resources of SE Asia (GEOSEA XIV) and 45th Annual Conv. Indonesian Association Geologists (IAGI) (GIC 2016), Bandung, p. 614-634.
(Jambi subbasin nine sequences from E Eocene- M Miocene. Paleogeography maps for sequences 1-4 (Lemat-Gumai Fms. Based on richness, maturation, facies and amount of shale highest shale hydrocarbon potential in Sequence 3 (U Talang Akar- lower Baturaja Fm (also as p. 706-726 in same volume))

Rahmat, J. & S. Oemar (1998)- Exploration opportunities in the Bengkulu frontier basin, West Sumatra, offshore Indonesia. In: J.L. Rau (ed.) Proc. 33rd Session Co-ord. Comm. Coastal Offshore Geoscience Programmes E and SE Asia (CCOP), Shanghai 1996, 2, Technical Reports, p. 114-127.
(Hydrocarbon potential potential of Bengkulu fore-arc basin proven by presence of Oligocene or E Miocene brown shales with good TOC, onshore oil seeps and offshore oil shows in wells. Potential reservoirs Baturaja and Parigi Fm equivalent carbonate buildups and E Miocene Talang Akar Fm equivalent sandstones. Temperature gradients in wells 2.8- 4.0 °C/ 100m)

Rajagukguk, Y.M. & S. Nalendra (2018)- Macerals analysis seam M2 Muaraenim Formation: implication toward coal facies and coal rank in Kendi Hill, South Sumatra. J. Geoscience Engineering Environment Technology (JGEET) 3, 2, p. 94-102.
(online at: http://journal.uir.ac.id/index.php/JGEET/article/view/670/1041)
(Kendi Hill composed of andesite that intruded Late Miocene- Pliocene Muaraenim Fm in Pleistocene. M2 coal seams 0.45-14 m thick, dominated by vitrinite, then liptinite, inertinite and pyrite (1.6-6.6 %). Vitrinite reflectance 0.37-0.48% (higher in N, near intrusion). Macerals suggest coal deposition in limnic (lower delta plain) to wet forest swamp (upper delta plain))

Ramadhan, A., A.B. Samudra, Jaenudin, E.P. Lestari, J. Saputro, Sugiono et al. (2018)- Strike-slip fault deformation and is control in hydrocarbon trapping in Ketaling Area, Jambi Subbasin, Indonesia. Proc. 41st HAGI Annual Conv. Exhib. 2016, IOP Conference Series: Earth and Environmental Science 132, 012025, p. 1-6.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/132/1/012025/pdf)
(Ketaling area in NE part of Jambi basin. Transtensional system formed local horsts-grabens (kitchen areas). Transpressional system in M Miocene- Pliocene created NW-SE folds and reactived NE-SW faults, creating traps and fractured reservoirs in basement)

Ramadhan Ginting, M.I.R. (2021)- Studi karakteristik thermal oil shale Kiliran, Sub-cekungan Sumatera Tengah, untuk mendukung prospek pengolahannya. Thesis Sarjana Teknik, Institut Teknologi Bandung, p.
(online at: https://digilib.itb.ac.id/gdl/view/54476)
('Study of the characteristics of Kiliran thermal oil shale, Central Sumatra Sub-basin, to support its processing prospects')

Ramdhan, A.M., A. Ardjuna, A. Syafriya, L.M. Hutasoit & N.R. Goulty (2018)- Pore pressure regime in the South Sumatra Basin, Indonesia. Proc. 80th EAGE (European Association of Geoscientists & Engineers) Conference and Exhibition, Copenhagen, p. 1-5.
(In S Sumatra Basin, where basement is shallow, pore pressure is hydrostatic throughout Palaeogene–Neogene sediment section. In deeper parts of basin, two overpressure zones: low–medium overpressure at intermediate depths and deep zone of high overpressure. Disequilibrium compaction mechanism of overpressure generation in upper part of zone of low–medium overpressure. Steep pressure ramp into zone of deep, high overpressure, at threshold depths for gas generation, which is principally responsible for deep high overpressures)

Ramli, T., M.H. Hermiyanto Z. & A.S. Wibowo (2019)- Shale gas sweet spot potential of Tungkal Graben, Jambi sub-basin, South Sumatera Basin. Scientific Contributions Oil and Gas SCOG), Lemigas, 42, 3, p. 109-114.
(online at: http://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/397/pdf)
(Outcrop study of Talang Akar Fm at S Tigapuluh Mts and subsurface data analysis)

Raras, H.R., S. Husein, M.I. Novian & R. Hidayat (2018)- Analisis fasies fluvial pada Formasi Kikim Anggota cawang di Jalur Sungai Menghalus, Sumatra Selatan. Proc. 10th Seminar Nas. Kebumian, Yogyakarta, p. 765-778.

(online at: https://repository.ugm.ac.id/274210/1/OSP-06.pdf)
('Analysis of fluvial facies analysis in the Kikim Fm Cawang Member in the Menghalus River section, South Sumatra'. 500m thick section of Kikim Fm fluvial deposits with 11 facies associations)

Rashid, H., I.B. Sosrowidjojo & F.X. Widiarto (1998)- Musi Platform and Palembang High: a new look at the petroleum system. Proc. 26th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 265-276.
(Musi Platform and Palembang High in S Sumatra important exploration targets. Source rocks Lahat/ Lemat Fm Paleogene lacustrine shales and fluvio-deltaic to marginal marine Talang Akar shales- coals. Three oil groups: marine, lacustrine, deltaic. Palembang High oils fluvial-deltaic, probably mix of two oils from S and N Palembang High. Marine carbonate oil in condensate from Pre-Tertiary Basement fracture in Musi Platform)

Ratiwi, A.P. & Akmaluddin (2017)- Biostratigrafi nannofossil gampingan pada sumur 'SSB' sub-cekungan Palembang Selatan, Cekungan Sumatera Selatan. Proc. Seminar Nasional Kebumian 10, Dept. Teknik Geologi, Universitas Gadjah Mada (UGM), Yogyakarta, PSP-01, p. 793-805.
('Calcareous nannofossil biostratigraphy of well 'SSB', South Palembang sub-basin, S Sumatra'. Nannofossils study of (unspecified) well, from Lahat to Air Benakat Formations. Five zones, from Sphenolithus ciperoensis (NP 25) to Reticulofenestra minuta (NN5). Age of Lahat Fm NP25-NN1 (25.2-24.3 Ma), Talang Akar Fm NN1-early NN2 (24.3-23.9 Ma), Baturaja Fm NN2-NN4 (23.9-17.6 Ma), Gumai Fm NN4-early NN5 (17.6-14.9 Ma), and Air Benakat Fm NN5 (14.9-14.8 Ma) or younger. Age of Lahat Fm younger than generally assumed Eocene (see also Agustin et al. 2017 for sequence strat interpretation of same well)

Reaves, C.M. (1996)- Variations in sour gas concentrations in the NSB 'A' Field, Offshore North Sumatra. Proc. 25th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 453-464.
(NSB 'A' field gas H2S content <0.5% to >5%. CO2 also variable. Variations in sour gas concentrations controlled by production of gas from formation water)

Reaves, C.M. & A. Sulaeman (1994)- Empirical models for predicting CO_2 concentrations in North Sumatra. Proc. 23rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 33-43.
(Up to 95% CO_2 in N Sumatra gases, primarily from inorganic sources. Empirical models developed which utilize reservoir lithology, temperature and pressure to calculate CO_2 concentrations. Principal mechanism controlling CO_2 in clastic reservoirs is interaction of silicate transformations and carbonate dissolution. Carbonate reservoirs exposed to significant up dip fluid flow will possess CO_2 concentrations representative of base or entry point of regional flow system)

Redfern, J. (1998)- The deep gas potential of the Batu Raja Formation in South Sumatra. a case history: the Singa gas discovery. Warta Geologi (Newsletter Geological Society Malaysia) 24, 6, p. 309. *(Abstract only)*.
(Singa 1 gas discovery in E Miocene Baturaja Limestone in Lematang Trough at ~12,000' depth with 258' gross gas reservoir interval)

Redfern, J., P. Ebdale & S. Oesman (1998)- The deep gas potential of the Batu Raja Formation in South Sumatra. A case history: the Singa gas discovery. Proc. Offshore South East Asia Conference Exhibition (OSEA98), Singapore, SEAPEX, p. 123. *(Abstract only)*
(Singa 1 (1997) well tested Batu Raja reefal limestone buildup, deep in Lematang Trough (~12,000'), ~3000' deeper than any wells previously drilled in area. Tested gas at 30.7 MMSCFD from 258' gross interval)

Reksalegora, S.W. & P. Riadini (2013)- Critical parameters in basin modeling of Bungamas PSC, South Sumatra Basin. Proc. 37th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA13-G-109, p. 1-15.
(Bungamas PSC in SW margin of the S Sumatra Basin (W edge of S Palembang Sub-basin). Plio-Pleistocene compression resulted in formation of WNW-ESE trending folds Hydrocarbon generation model shows hydrocarbons in Bungamas PSC were generated mostly from kitchen in E half of block from Talang Akar and Gumai source rocks. Source rock started expelling hydrocarbon since M Miocene)

Renaud, G.P.A. (1885)- Onderzoek naar steenkolen ter westkust van Atjeh. Jaarboek Mijnwezen Nederlandsch-Indie 14 (1885), Wetenschappelijk Gedeelte, p. 131-157.

('Investigation of coal at the West coast of Aceh'. Brief survey of coal deposits near Taloq Penjupian in area of Tampat Tuan mountain, at rugged W coast of Aceh, N Sumatra. Claystone with two up to 60cm thick coal beds, dipping 35° and steeper. Associated with dense recrystallized limestones without clear fossils. Coals not deemed suitable for commercial exploitation. With 1:10,000 scale map)

Renaud, G.P.A. (1890)- Verslag van een onderzoek naar petroleum in Langkat. Jaarboek Mijnwezen Nederlandsch-Indie 19 (1890), Technisch Administratief Gedeelte 2, p. 1-9.
('Report of an investigation of petroleum in Langkat', N Sumatra. Brief report bt Chief of Mijnwezen G.P.A. Renaud, on geological reconnaisance and drilling campaign on Lepan petroleum concession of A.J. Zijlker in North Sumatra, accompanying more detailed report by R. Fennema (1890) in same volume. Multiple oil seeps confirmed. Seven shallow wells drilled by Mijnwezen, some producing crude oil)

Reynald, M.A., J. Jennings, C. Gravestock & T. Jewell (2024)- New exploration play concepts in the North Sumatra Basin, Indonesia: subsurface insights from around Timpan-1. Proc. AAPG International Conference Exhibition (ICE), Muscat, Oman 2024, p. 1-9. *(Extended Abstract)*
(online at: https://www.searchanddiscovery.com/abstracts/pdf/2025/91209ice/abstracts/ndx_reynald.pdf)
(Review of recent oil-gas exploration in deepwater offshore N Sumatra Basin (deepwater Andaman II Block). Play opening Timpan-1 (2022) well with 119m gas column in Late Oligocene deepwater sandstones. Rencong 1 well (2022) targeted (misattributed?-JTvG) Late Eocene- Early Oligocene reefal carbonates on footwall highs in Andaman III block, but dry hole.)

Riadhy, S., A. Ascaria, D. Martono, A. Sukotjo et al. (2000)- Carbonate play concept in Sopa and surrounding areas: an alternative model for hydrocarbon occurrence, Musi Platform, South Sumatra Basin. Proc. 27th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 145-157.
(Reefal facies in carbonate plays usually good reservoir, but in Musi Platform Sopa carbonate complex platform and reefal facies relatively tight with mainly isolated biomoldic porosity without fractures. In contrast, prograding carbonate clastic facies 15-25% chalky porosity and 300-2000 mD permeability)

Riadhy, S. & A. Gutomo (1993)- Notes: "Basal Sandstone", existence and hydrocarbon potential in the North Sumatra Basin, a case study in Batang Sarangan, Langkat and Gebang Areas. Proc. 22nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 265-284.
(Prospectivity of Eocene-Oligocene 'Basal Sandstone' alluvial and fluvial deposits in lows. Two kinds: syn-rift (Batang Sarangan Type) and post-rift deposits (Langkat-Gebang Type)).

Riadhy, S., C. Ismi & S. Iriani (1998)- North Sumatra's Middle Miocene reservoir prediction and characterization using sequence stratigraphy, 2D seismic inversion and 3D seismic data. Proc. 26th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 239-250.
(Lower and Middle Baong sandstones M Miocene age. Lower Baong sourced from Malacca Platform in N, interpreted as highstand- shelf margin-system tract, prograding S. Shift in sediment supply to S (Barisan) and drop of sea level drop resulted in deposition of M Baong lowstand unit in S of area. Differences of two sand members clearly defined from seismic model, sand provenance and well correlation. Prograding shelf margin is less attractive exploration target due to thinner sand thickness in poor quality reservoirs. Lowstand produced medium thickness, good quality sand reservoirs)

Riadhy, S., Medianto B.S. & S. Fajari (1996)- Aplikasi stratigrafi sekuen pada Formasi Belumai- Peutau- Aru-Langkat, Cekungan Sumatra Utara. Proc. 25th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 275-293.
('Application of sequence stratigraphy on the Belumai- Peutau- Aru- Langkat Fms, N Sumatra basin')

Riadhy, S. & A. Sulaeman (1995)- The Baong reservoir distribution prediction using sequence stratigraphy analysis: a regional study in North Sumatra Basin. Proc. 24th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 581. *(Abstract only)*
(M Miocene Baong Fm with lower Baong shale (zones N8-N11 in age, overlain by M Miocene (N11) sandstone viewed as lowstand sand sourced mainly from Malacca Platform with minor contributions from Asahan Arch.

Second package of sandstones, sourced from Malacca platform and prograded from that direction, interpreted as highstand to shelf margin systems tract. Shift in sediment supply from N (Malacca) to S (Barisan) during M Miocene zone N13, suggesting emergence of landmass to S. Prograding highstand sands following flooding event in zone N13, but less attractive exploration target due to poor quality and rel. thin sands)

Rich, P.V. & H.R. Marino-Hadiwardoyo (1977)- *Protoplotus beauforti*: the world's oldest member of the bird family Anhingidae. Geosurvey Newsletter 9, Direktorat Geologi, Bandung, p. .
(On fossil tropical water bird of darter family, originally described by Lambert (1931) from Eocene lacustrine deposits of Ombilin Basin)

Richmond, W.C., H. Dwidjojuwono, A. Tastari & B. Toha (2002)- Reservoir compartmentalization: an integrated evaluation of supermature Minas oil field, Central Sumatra. Proc. 28th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 137-156.
(Minas oil field produced >4 BBO since early 1950's. NW-SE trending anticline. Main producing reservoirs, originally thought to be regionally continuous fluvial/deltaic sands, commonly compartmentalized due to complex stratigraphic-structural setting, with post-depositional diagenesis. Detailed depositional framework built using 1430 wells. Sequence stratigraphic framework of E Miocene Bekasap Fm reservoir 11 regionally correlatable flooding surfaces and five sequence boundaries in overall regressive-transgressive package)

Robinson, K.M. & A. Kamal (1988)- Hydrocarbon generation, migration and entrapment in the Kampar Block, Central Sumatra. Proc. 17th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 211-256.
(Kampar Block 3 oil types. Majority of oils in fields along Merbau and Lirik Trends plus Pekan and Binio Fields, sourced from deep lacustrine, non-marine algal Kelesa shales. Panduk and N Merbau probably sourced from lake edge, mainly terrestrial/minor algal Kelesa shales. Parum Field probably sourced from Kelesa or, Lakat coals and coaly shales. Generation of oils over narrow maturity range of Ro = 0.55- 0.64%. Lacustrine Kelesa shale source rock in deepest parts of S Bengkalis half graben. Lateral extent mapped by paleogeography of pre-29 mybp sequence. Source rock mature and in main to late phase of oil generation. Onset of major oil generation in Plio-Pleistocene, probably due to increase in heat flow. Distribution of oil fields fault controlled. Migration distance small (2-10 km). Quantification of oil charge to prospects/Fields along Lirik and Merbau Trends indicate Kelesa source can easily account for oil found in Block to date)

Rodriguez Maiz, N.D. (2012)- Source rock facies characterization from organic geochemistry in the Central Sumatra Basin, Indonesia. M.Sc Thesis University of Oklahoma, Norman, p. 1-93.
(online at: https://shareok.org/server/api/core/bitstreams/2d90d2d2-f5ee-4dd6-8b67-79b10504842c/content)
(Geochemical composition of 32 oil samples in C Sumatra Basin from Aman, Balam, Tanjung Medan, Kiri and Bengkalis Troughs. Oils derived from Eocene-Oligocene lacustrine Brown Shale Fm. Molecular and carbon isotopic composition reveal five source rock facies: (1) deep lacustrine; (2) shallow lacustrine; (3) saline lacustrine; (4) coal; (5) mixed coal/ lacustrine shale. Deep stratified lakes developed in Aman and Bengkalis Troughs. Oils in Kiri graben mainly from shallow lacustrine facies, oils S of Aman and Kiri grabens more saline lacustrine facies. Oils from coal and mixed coal/lacustrine shale facies restricted to N part of C Sumatra Basin. Oils in Aman Trough suggest paleoproductivity and paleoclimatic changes during source rock deposition, possibly associated with Eocene-Oligocene paleoclimatic transition)

Rodriguez, N.D. & R.P. Philp (2012)- Productivity and paleoclimatic controls on source rock character in the Aman Trough, north central Sumatra, Indonesia. Organic Geochemistry 45, p. 18-28.
(C Sumatra Basin oil sourced from Brown Shale Fm of Pematang Gp. Oils in Aman Trough variable molecular and isotopic compositions, reflecting lateral facies variations in source rock. Source rock deposited in fresh to brackish water stratified lake with CO_2 limiting conditions. Isotopic data indicate changes in paleoclimatic conditions, possibly associated with Eocene-Oligocene paleoclimatic transition)

Rodriguez, N.D. & R.P. Philp (2015)- Source rock facies distribution predicted from oil geochemistry in the Central Sumatra Basin, Indonesia. American Assoc. Petroleum Geol. (AAPG) Bull. 99, 11, p. 2005-2022.
(Composition of n-alkanes in 30 oil samples from C Sumatra Basin analyzed to determine facies variations in Eo-Oligocene Brown Shale Fm source rocks. Biomarkers indicate algal and terrigenous organic matter, primarily

under oxic or sub-oxic depositional conditions. Five source facies: deep lacustrine (dominant in Aman and Bengkalis Troughs), shallow lacustrine and lacustrine saline (S Aman and Kiri Troughs) to coal and mixed coal and lacustrine shale (N part of basin, in Tanjung Medan and N of Balam grabens))

Roezin, S. (1974)- The discovery and development of Petapahan oil field, Central Sumatra. Proc. 3rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 111-127.
(Petapahan 1971 oil discovery 60 km W of Pekanbaru in Lower Miocene Sihapas Group sandstone reservoirs. Young NW-SE trending anticline)

Romodhon, W., Luqman, E. Nadeak, D.J. Ramos, S. Radiansyah, S. Mulyani & A. Zakiyuddin (2014)- Heavy oil resource assessment through static models: a case study of TB-TL structure, Iliran High, South Sumatra, Indonesia. Proc. 38th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA14-G-212, p. 1-19.
(Shallow heavy oil accumulations on Iliran High/ Palembang High in two formations: Lower Telisa Fm (?; depth 50-200') and Talangakar Fm (175-400') (in well-known area of surface oil seeps; not much geologic detail, no resource estimates; see also Firmansyah et al. 2007).

Rory, R. (1990)- Geology of the South Lho Sukon 'A' Field, North Sumatra, Indonesia. Proc. 19th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 1-40.
(South Lho Sukon 'A' 1972 gas discovery,~35 km SE of Arun. Reservoir E-M Miocene Peutu Fm reefal buildup, overlain by M Miocene Baong shales. Overlying rocks mildly folded and faulted during Barisan orogeny in Plio-Pleistocene. As in the large Arun gas field, reservoir limestones deposited in reef, near-reef and "lagoonal" environments in E- M Miocene. Average porosity 8-15%)

Rozalli, M., A. Putra, A. Bachtiar, P.A. Suandhi, W. Utomo & A. Budiman (2012)- New insights into the petroleum geology of the Mountain Front area, Central Sumatra Basin. Proc. 36th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA12-G-178, p. 1-15.
(Mountain front area on S margin of Central Sumatra Basin no proven petroleum system)

Rozeboom, J.J. (1961)- Paleontologic methods of correlation in Central Sumatra. Contributions Department of Geology, Institute of Technology Bandung (ITB) 46, p. 199-209.
(Brief paper by Caltex-Sumatra micropaleontologist, discussing Central Sumatra basin Tertiary stratigraphy, biozonations and regional and local correlations using foraminifera. Distinct faunal change at top of Telisa Fm is just above the base of the Orbulina zone (= global base Middle Miocene; see also LeRoy 1948, 1952 JTvG). Lower Palembang Fm contains Globorotalia barisanensis. Lower-Middle Palembang Fm transition coincides with gradual disappearance of planktonics. Multiple horizons of (rel. rare) E-M Miocene larger foraminifera in Telisa Fm (Tf1 zone) and LowerPalembang Fm (Tf2-3 zones). Etc.)

Rudd, R.A., S. Tulot & D. Siahaan (2013)- Rejuvenating play based exploration concept in South Sumatra Basin. Proc. 37th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA13-G-068, p. 1-14.
(S Sumatra Basin reserves ~23% of total conventional hydrocarbon reserves in Indonesia. Produced ~2500 MMB Oil and 9.5 Tcf of gas. Three major plays U Oligocene- Lw Miocene Talang Akar fluvio-deltaic clastics, Lower Miocene Batu Raja carbonates and Pre-Tertiary Basement plays (70% of total reserves).Underexplored minor plays: Eocene Lahat syn-rift clastics, Miocene Gumai shallow marine clastics and Late Miocene Air Benakat transitional to marine clastics)

Rusli, B., M.A. Arham, E. Wijayanti & A. Ridlo (2010)- Acceleration of thin oil rim development of Fariz Field. Proc. 34th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA10-E-029, p. 1-7.
(Small S Sumatra Fariz Field 2004 Medco discovery 3 km E of Soka. with 250' gas cap, surrounded by 80' oil rim in Baturaja limestone and Talang Akar Fm conglomerate)

Rustanto, B. & E. Artono (1991)- Sekuen pengendapan dan ”systems tracts” Formasi Belumai daerah Aru-Langkat, cekungan Sumatra Utara. Proc. 20th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 237-260.
(online at: https://www.iagi.or.id/web/digital/49/20th-(10-12-Des-1991)-17.pdf)

('Sequence stratigraphy of the Belumai Fm in the Aru-Langkat area, N Sumatra basin'. E Miocene (N5-N8) Belumai Fm around Medan with 3 depositional sequences and 8 systems tracts. With interpretations for wells A1, C1, E1, F1, G5, J1, L-A1, M1A, P-A1, R-1A, well-log cross-sections and paleogeographic maps)

Rutimeyer, L. (1874)- Bemerkungen zu den fossilen Fischen aus Sumatra. Abhandlungen Schweizerischen Palaontologischen Gesellschaft 1, p. 20-26. *(online at: https://ia601306.us.archive.org/34/items/abhandlungenders1187schw/abhandlungenders1187schw.pdf)*
('Remarks on fossil fishes from Sumatra'. Description of fish fossils from Eocene lacustrine deposits of Ombilin Basin, collected by Verbeek in 1874. Three species, including Smerdis (herring family). (In same volume with Heer 1874 paper on associated plants; Fish fauna re-sampled by F. Musper and re-studied by M. Brongersma-Sanders, 1934)

Ryacudu, R. (2005)- Studi endapan syn-rift Paleogen di cekungan Sumatra Selatan. Doct. Thesis, Dept. Geological Engineering, Institut Teknologi Bandung (ITB), p. *(Unpublished)*
('Study of Paleogene syn-rift deposits in the South Sumatra basin')

Ryacudu, R. (2008)- Neogene tinjauan stratigrafi Paleogen Cekungan Sumatra Selatan. In: Sumatra stratigraphy workshop, Duri (Riau) 2005, Indonesian Association Geologists (IAGI), p. 99-114.
(Stratigraphic nomenclature of Paleogene in S Sumatra basin. Classified as pre-rift (Pre-Tertiary and Kikim Fm), syn-rift (Benakat and Lemat Fms of Lahat Group) and post-rift (Tanjungbaru and Talang Akar Fms.)

Ryacudu, R., R. Djaafar & A. Gutomo (1992)- Wrench faulting and its implication for hydrocarbon accumulation in the Kuala Simpang Area- North Sumatra Basin. Proc. 21st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 93-116.
(On effect of Neogene wrench faulting to hydrocarbon accumulation in Kuala Simpang area, N Sumatra basin)

Ryacudu, R. & E. Sjahbudin (1994)- Tampur Formation, the forgotten objective in North Sumatra basin ? Proc. 21st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 160-179.
(Tampur Fm Late Eocene shelf carbonate on Tampur Platform. W margin of shelf marked by N-S Lokop-Kutacane Fault zone. E of fault zone, reefal buildups on shelf edge. Dolomitisation may have resulted in reservoir rocks. Formed on basin highs, adjacent to shale-rich troughs. Shales mature since Miocene. Significant gas from Tampur Fm under Peutu carbonates at Alur Siwah, Peulalu and from beneath Malacca Limestone Mb reefs offshore. Strong gas shows also in Sembilan-A1 well in Aru onshore area (NB: Tampur Fm carbonates at base of Malaysian Malacca Straits well of M-L Permian age; Fontaine et al. 1992; JTvG)

Safrizal, H., S.P. Kauripan & I. Buldani (2019)- New paradigm for producing hydrocarbon potential from basement reservoir at Jabung Block, South Sumatra Basin. Proc. 43rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA19-G-464, p. 1-11.
(Conventional wisdom requires fracturing for oil-gas production from basement reservoirs, but weathered basement, away from fault zones, may also be productive. With example from Jabung Block, S Sumatra)

Safrizal, R. (2000)- Thermal history of the South Palembang Sub-basin. Ph.D. Thesis University of Tulsa, p. 1-309.
(Slowing of convergence rate in E Tertiary created S Sumatra back-arc basin. Increasing convergence rates between Indo-Australian plate and Sunda microplate since M Miocene created basin inversion with strike-slip component and increased heat flow over past 5 My. S Sumatra basin average heatflow of ~2.6 HFU (5.3°C/100m) higher than global average (1.5 HFU) and higher than W Pacific back-arc basins. Increasing heatflow in short period suggested by Apatite Fission Track Annealing and vitrinite reflectance data)

Sagita, R., Q.S. Chandra, M. Chalik, R. Achdiat, R. Waworntu & J. Guttormsen (2008)- Reservoir characterization of complex basement- Dayung. Proc. 32nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA08-G-208, p. 1-12.
(Dayung Field 1991 gas discovery in Corridor Block, S Sumatra, with 11 wells drilled, and with >600 m gas column in fractured Lower Tertiary and basement reservoirs. Basement is Permian Leko Limestone intruded by

Jurassic (~170- 205 Ma Ar ages) granitic complex. Also influenced by violent hydrothermal event intruding granite and dated at 17 Ma)

Saifuddin, F., M. Soeryowibowo, I.N. Suta & B. Chandra. (2001)- Acoustic impedence as a tool to identify reservoir targets: a case study of the NE Betara-11 horizontal well, Jabung Block, South Sumatra. Proc. 28th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 135-152.
(NE Betara field is largest field in Devon Jabung Block, S Sumatra, with oil and gas in Lower Talang Akar Fm sandstones, deposited in fluvial- estuarine environment. Reservoir distribution varies across field. Acoustic impedance from 3D seismic effective tool for identifying reservoir targets)

Saito, K., S. Tono & Z.A. Kamili (1985)- Sand body correlation in deltaic setting, East Ketaling Field. Proc. 14th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 499-515.
(Correlation of deltaic sand bodies in M Miocene Air Benakat Fm of E Ketaling field, Jambi Basin, S Sumatra)

Samudra, A.B.S., J. Jaenudin, Y.A.M. Mizani & Y.S. Surtiati (2014)- Strike-slip fault system characterization and its implication to hydrocarbon entrapment in the Puja High, South Sumatra. In: 76th EAGE Conference & Exhibition, Amsterdam 2014, p.
(Puja-1 gas-condensate well drilled by Pertamina in 2009 on local high in Tempino-Kenali Asam Deep, Jambi subbasin, S Sumatra Basin, Indonesia. Structure controlled by SE and NW dipping normal faults, developed in transtensional rift setting and affecting synrift clastic sedimentation)

Samudra, A.B.S., S. Sugiri & M.W. Wahyudin (2014)- Fractured basement characterization and its relation to production zone potential in Southern Sumatra Basin, Indonesia. In: EAGE 6th Int. Conference and Exhibition- Geosciences, Saint Petersburg 2014, Tu BC 06, p. 1-5. *(Extended Abstract) (online at: www.researchgate.net/publication/337183139_Fractured_Basement_Characterization_and_Its_Relation_to_Production_Zone_Potential_in_Southern_Sumatra_Basin_Indonesia)*
(AXL-1 in S Sumatra Basin tested 320 BOPD oil in 2009 in Pre-Tertiary quartzite. Oil and gas 204 m below top Pretertiary basement, associated with faults of dominant NE-SW strike)

Samudra, A.B.S., E.P.Lestari, A. Ramadhan, J. Saputro, S. Umar & F. Bahesti (2015)- The Middle Miocene sill-dike intrusive rocks in Tempino area- a new potential exploration play in Sumatra, Indonesia. In: 77th EAGE Conference & Exhibition, Madrid 2015, p. 1-4.
(online at: https://www.researchgate.net/publication/337183191_The_Middle_Miocene_Sill-Dike_Intrusive_Rocks_in_Tempino_Area_A_New_Potential_Exploration_Play_in_Sumatra_Indonesia)
(Sills-dikes in lower part of Tempino field (NIAM, 1928) in Jambi sub-basin, K/Ar dated as 11.2-16.2 Ma (M Miocene). NE-SW trending and intruded into Lower Gumai shale, causing brittle fracturing that acts as reservoir for gas)

Sanders, M. (1934)- Die fossilen Fische der Alttertiaren Susswasser Ablagerungen aus Mittel-Sumatra. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 11, 1, p. 1-144. *(also Proefschrift (Doctoral Thesis) University of Amsterdam, 1934, 142p.)*
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:038210000:00021)
('The fossil fishes from Early Tertiary fresh water deposits from Central Sumatra'. Description of well-preserved Eocene fresh-water fish fossils from bituminous marly shales from S. Sipang, Ombilin basin, Padang Highlands. First discovered by Verbeek in 1874, with additional collections by F. Musper in 1927. Includes 7 species of cyprinid fish, mainly extant species. With Musperia n.gen. Associated with plant fossils described by Heer(1874) and water bird Protoplotus described by Lambrecht (1931) (author later known as Margaretha Brongersma-Sanders))

Santoso, B. & B. Daulay (2005)- Vitrinite reflectance variation of Ombilin coal according to its petrographic analysis. Indonesian Mining J. 8, 1, p. 9-20.
(online at: http://jurnal.tekmira.esdm.go.id/index.php/imj/article/view/207/123)
(Ombilin coals from W Sumatra dominated by vitrinite and rare exinite, inertinite and mineral matter. Coals thermally affected igneous intrusions with vitrinite reflectances 3.4- 4.7% (anthracite); thermally unaffected coal

0.55- 0.77% (sub-bituminous to high volatile bituminous). Thermally affected coals higher apparent vitrinite, as exinite cannot be distinguished from vitrinite here)

Santoso, B. & B. Daulay (2006)- Coalification trend in South Sumatera basin. Indonesian Mining J. 9, 3, p. 9-21.
(online at: http://jurnal.tekmira.esdm.go.id/index.php/imj/article/view/637/498 (old, bad link?))
(online at: https://www.academia.edu/69919672/Coalification_Trend_in_South_Sumatera_Basin)
(Bukit Asam coals in S Sumatera Basin influenced by intrusions of andesite bodies and stratigraphic aspect. Thermally affected coals have vitrinite reflectances Ro 0.69% (high volatile bituminous) to 2.60% (anthracite). Coals not affected by intrusions have Ro values between 0.30% (brown coal) and 0.53% (sub-bituminous))

Santoso, B. & B. Daulay (2007)- Comparative petrography of Ombilin and Bayah coals related to their origin. Indonesian Mining J. 10, 3, p. 1-12.
(online at: http://jurnal.tekmira.esdm.go.id/index.php/imj/article/view/608/470)
(Comparison of Eocene coals of Ombilin (W Sumatra) and Bayah (SW Java). Bayah with higher mineral matter; Ombilin higher vitrinite and liptinite contents, higher vitrinite reflectance and rank (sub-bituminous to anthracite). Thermally unaffected coals from both coalfields <90 % vitrinite. Variable vitrinite reflectances, due to igneous intrusions)

Santoso, D., W.G.A. Kadir & S. Alawiyah (2000)- Delineation of reservoir boundary using AVO analysis. Exploration Geophysics (J. Australian Soc. Exploration Geophysicists) 31, 2, p. 409-412.
(N Sumatra Basin M Miocene Keutapang Fm sandstones- shale deposited in coastal environment, 500-1300 m thick. Top of porous sandstone reservoir zone is AVO anomaly, so can be used for delineation of reservoir)

Santoso, D., S. Sukmono & H. Setyadi (1994)- The characteristics of Neogene sediments and structure in Siberuang area (Central Sumatra Indonesia) based on gravity data. Bull. Geological Society Malaysia 37, p. 471-478.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1995a32.pdf)
(Neogene sediments in outcrop of Kampar Kanan intramontane basin of Barisan Mts foothills near Siberuang area, C Sumatra, consists of Sihapas (N4?-N7), Telisa (N7-N10) and Petani (N13-N19) Fms)

Santoso, W.D., R. Adiarsa, Y. Akbar, D. Pramuditho & M. Taslim (2022)- A new discovery in the Limau Graben trend: Air Benakat Formation shallow gas. Proc. 46th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA-22-G-28, p.
(Thin gas-bearing M-L MioceneAir Benakat Fm sand (1-4m) in Limau Trend of S Sumatra Basin)

Santy, L.B. (2001)- Structural evolution of the North Bengkalis Trough, Malacca Straits, Central Sumatra Basin and its implication in creating traps for hydrocarbon accumulation. Proc. 28th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 739-747.
(N Bengkalis Trough in Malacca Straits PSC. Exploration targets footwall traps of Padang Fault. Structural reconstruction shows four periods: (1) extension (Pematang time, Eocene-Oligocene?), creating N-S trending half graben in which Pematang Brown Shale source rock was deposited; (2) First compression (Menggala-Sihapas time, U Oligocene -E Miocene) NW- SE dextral strike-slip fault zone. Structural growth continued until Lower Sihapas time (3) Tectonic quiescence (Telisa time, E-M Miocene); (4) Second compression (M Miocene-Pliocene)

Saputra, H.N. & B. Sapiie (2005)- Analogue study of basement fractured reservoirs in Kotopanjang Area, Central Sumatra. Proc. 30th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 53-60.

Sapiie, B., D. Aprianyah, E.Y. Tureno & N.A. Manaf (2017)- A new approach in exploring a basement-fractured reservoir in the Sumatra back-arc basin. Proc. 41st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA17-260-G, p. 1-13.
(Review of 3D fracture modeling in Pretertiary basement rocks of Sumatra, incl. outcrop fracture study in Ombilin Basin)

Sapiie, B., B.K. Gunawan, S. Susilo,S. Salsabila & V.M. Rusli (2024)- New insight of South Sumatra Basin exploration potential. Proc. 48th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA24-G-356, p. 1408-1423.
(S Sumatra Basin Cenozoic pull-apart basin, producing oil-gas since late 1800s. More than 817 exploration wells. Three main subbasins: Jambi, C Palembang and S Palembang. These three main subbasins comprise numerous small subbasins, essential in their contribution to hydrocarbon accumulation. Two exploration plays underexplored: basin-center and fractured basement reservoir. Also >50 stranded discoveries with >0.7 BBOE)

Sapiie, B., E.Y. Tureno, D. Afriansyah & O. Iskandar (2015)- Characteristic of Pre-Tertiary Basement fractured reservoir in Sumatra Basins. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI, Balikpapan 2015, p. 1-4.
(online at: https://www.iagi.or.id/web/digital/3/2015_IAGI_Balikpapan_Characteristic-of-Pre-Tertiary.pdf)
(Rock types and Pretertiary basement fractures reservoir in Suban Field, S Sumatra Basin.Three main orientations, NW-SE, N-S and NE-SW). Most intense fractures in older rocks (i.e. Permian vs. Cretaceous)

Sapiie, B., F. Yulian, J. Chandra, A.H. Satyana, D. Dharmayanti, A.H. Rustam & I. Deighton (2015)- Geology and tectonic evolution of fore-arc basins: implications of future hydrocarbon potential in the Western Indonesia. Proc. 39th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA15-G-177, p. 1-14.
(Fore-arc basins in Indonesia mostly underexplored. Mainly discussion of Sumatra -Bengkulu sub-basin, with Eocene- Oligocene pull-apart basin formation, Late Miocene- Recent minor compression, etc.)

Sardjito, E.F., Djumlati & S. Hansen (1991)- Hydrocarbon prospect of Pre Tertiary basement in Kuang Area, South Sumatra. Proc. 20th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 255-277.
(Kuang area ~40 km S of Prabumulih, well known oil and gas producing area. Hydrocarbons structurally trapped in Baturaja and Talang Akar Fms. ASD-1 well proved hydrocarbons also in Pre-Tertiary fractured granodiorite and quartzite basement)

Sarjono, S. & Sardjito (1989)- Hydrocarbon source rock identification in the South Palembang Sub-basin. Proc. 18th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 424-467.
(In S Palembang sub-basin Oligocene syn-rift Lahat Fm contains mature source rocks, thought to generate gas in Gunung Kemala area. Talangakar and Baturaja Fms contain mature source rocks rich in Type I and II sapropel kerogen. E Miocene Gumai Fm with mature humic Type III kerogen. Air Benakat and Muara Enim Fms are immature. First migration of hydrocarbons in Palembang sub-Basin in M Miocene, at end of Gumai Fm time. Early trapped hydrocarbons were redistributed into new traps after Plio-Pleistocene orogeny)

Sartono, S. & H. Murwanto (1990)- Kompleks melange di Sumatera Selatan, Indonesia. Proc. 17th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta 1988, p. 65. *(Abstract only)*
('Melange complex in S Sumatra'. Late Cretaceous chaotic melange rock complexes in S Sumatra, with phyllite matrix and schist and gneiss blocs. No details)

Sartono, S. & R. Sinuraya (1985)- Kelompok Tapanuli di Sumatra Utara. Proc. 14th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 193-204.
('The Tapanuli Group of North Sumatra'. Alas, Kluet and Bohorok members of Carboniferous- E Permian Tapanuli Group are gravitational slumps (olistostromes), deposited in suture zone)

Sasmita, D., F.N. Kalidasa, M.H. Al-Amin & M. Zelandi (2019)- The comparation of Talangakar Formation's provenance characteristics in Jambi Subbasin and South Palembang Subbasin, South Sumatra Indonesia. Proc. 43rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA19-SG-85, p. 1-9.
(Basal Miocene Talang Akar Fm sandstone in Jambi Subbasin of S Sumatra shows quartzose Recycled provenance, with granite fragments, monocrystalline quartz, plagioclase, suggesting source from granitic basement in N area of basin. Talangakar Fm in S Palembang subbasin sourced from Transitional Arc setting (diabase, diorite and volcanic lithics, very little quartz, common feldspar and plagioclase, while pyroxene and mafic minerals have also been observed)

Satrio, B. & Soejanto (1994)- Asih Field discovery: detailed structural reevalution along a wrench fault system in the Central Sumatra Basin, an exploration opportunity in a mature area. Proc. 23rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 2, p. 1039-1049.
(Asih 1 well (1993) oil discovery in 17 zones in Sihapas Gp and Pematang Fm sandstones at SE side of Aman Trough, C Sumatra basin, NW of Minas field. In low relief fault structure along N-S right-lateral wrench fault)

Sayentika, Syafruddin & B. Sapiie (2003)- Eocene-Middle Miocene structural reconstruction of the Duri Anticline, Central Sumatra Basin, Indonesia. Proc. 29th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 1-11.
(At least four structural events in C Sumatra Basin: Pre-Tertiary basement development, Eocene-Oligocene rifting, M Miocene strike-slip and M Miocene-Recent compression. Duri Anticline reconstruction using flattened seismic lines)

Schenk, C.J., T.R. Klett, M.E. Tennyson, T.J. Mercier, M.E. Brownfield, J.K. Pitman et al. (2016)- Assessment of Coalbed Gas resources of the Central and South Sumatra Basin Provinces, Indonesia. U.S. Geological Survey, Fact Sheet 2016-3089, 2p.
(online at: https://pubs.usgs.gov/fs/2016/3089/fs20163089.pdf)
(Undiscovered total coalbed gas resource of C and S Sumatra basins is most likely 20 TCF of gas (8 in C, 12 in S Sumatra; F95-F5 range 4.8- 42 TCF). Measurements indicated coals undersaturated with gas. Presence of liptinite led to hydrogen indices as high as 300 mg/g, suggesting coals may be able to produce liquids)

Schultz, R.A., K.A. Soofi, P.H. Hennings, X. Tong & D.T. Sandwell (2014)- Using InSAR to detect active deformation associated with faults in Suban Field, South Sumatra Basin, Indonesia. The Leading Edge 33, 8, p. 882-888.
(Suban field in S Sumatra with fractured carbonate/crystalline basement gas reservoir. Reservoir-scale right-oblique reverse faults and folds trapped hydrocarbons Satellite data show areas of active localized subsidence and horizontal movements above main right-oblique fault zone in SW part of Suban field)

Schurmann, H.M.E. (1922)- Over de Neogene synclinaal van Zuid Sumatra en het ontstaan van bruinkool. De Mijningenieur 3, 5, p. 67-70 and De Mijningenieur 3, 6, p. 77-81.
(online at: https://babel.hathitrust.org/cgi/pt?id=coo.31924081565537;view=1up;seq=283)
('On the Neogene syncline of South Sumatra and the development of lignites'. In S Sumatra basin (Jambi-Palembang) thicker Late Miocene- Pliocene (M Palembang Fm ~650m thick with 90m coal in 11 horizons) coals than in W Java or C and N Sumatra. Sumatra coals viewed as swamp formations, deposited in areas similar to present-day Palembang, Barito and Mahakam swamp region. Some coals and associated tuffs (e.g. liparitic Mangus Tuff) can be recognized over several 1000 km^2))

Schurmann, H.M.E. (1923)- Uber die Neogene Geosynclinale von Sud-Sumatra und das Erstehen der Braunkohle. Geologische Rundschau 14, 3, p. 239-252.
(online at: https://www.digizeitschriften.de/dms/img/?PID=GDZPPN000458651)
('On the Neogene syncline of S Sumatra and the development of lignite'. German presentation summary of 1922 Dutch paper. Does not believe in presence of nappes in Indonesia (Sumatra, Timor, Seram))

Sefein, K.J., T.X. Nguyen & R.P. Philp (2017)- Organic geochemical and paleoenvironmental characterization of the Brown Shale Formation, Kiliran sub-basin, Central Sumatra Basin, Indonesia. Organic Geochemistry 112, p. 137-157.
(Geochemical analysis of Late Eocene?- E Oligocene syn-rift lacustrine Brown Shale Fm of Pematang Group sampled in Karbindo coal mine in Kiliran graben on W side of C Sumatra basin. Organic matter primarily from lacustrine organisms with minor terrestrial plant input. 4-Methylsterane concentrations and n-alkane distributions indicate non-marine dinoflagellates and Botryococcus braunii likely significant parts of local biosphere)

Setiadi, D.J., Hendarmawan, E. Sunardi, E.A. Sentani & J. Hutabarat (2017)- Miocene planktonic foraminiferal biozonation for South Sumatra Basin, Indonesia. J. Geological Sciences Applied Geology (UNPAD) 2, 3, p. 89-99.
(online at: http://jurnal.unpad.ac.id/gsag/article/view/15615/7344)
(General discussion of standard planktonic foram zonation (nothing on how applied to S Sumatra; JTvG))

Setiadi, I., B. Setyanta & B.S. Widijono (2010)- Delineasi cekungan sedimen Sumatra Selatan berdasarkan analisis data. Jurnal Sumber Daya Geologi (JSDG) 20, 2, p. 93-106.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/322)
(Delineation of 10 sub-basins in S Sumatra basin, using gravity data. 2D modeling suggests basement in S Sumatra is metamorphic rock)

Setiawan, A., S. Rakimi, R. Wisnu Y., R. Siregar, M.R. Anwar, Hendarman & A. Sodli (2013)- Fractured Basement plays in Southern Bentu Block, Central Sumatera. Proc. 37th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA13-G-047, p. 1-13.
(On potential of fractured basement play in S Bentu area, C Sumatra basin. Part of Mutus basement terrane)

Setiawan, A., R. Siregar, D. Arief, S. Rakimi, A. Sodli, R. Wisnu Y & Hendarman (2014)- Integration of seismic attribute and sedimentation concept for paleogeographic and sand distribution modeling in Seng-Segat Field, Bentu Block, Central Sumatra Basin. Proc. 38th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA14-G-205, p. 1-14.
(Seng-Segat Field in Bentu area Block in S Bengkalis Trough, C Sumatra. Bentu area known for biogenic gas production from Late Miocene- E Pliocene Binio Fm. Sand distribution maps for B-5 and B-6 primary gas reservoirs in Seng-Segat Field area (600-2500' depth), deposited in transitional coastal environment)

Setiawan, H., P.S. Widiantoro, Hendarman & M. Primaryanta (2012)- Success story with low resistivity sand in an exploration block, western edge of Central Sumatran Basin. Proc. 36th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA12-G-095, p. 1-8.
(Three exploration wells at W edge C Sumatra Basin tested 3000 BOPD of 44°API oil in E Miocene Lower Sihapas Fm sandstones. Low resistivity (6-8 Ohm m). Resistivity of Sihapas oil sands lower than older U Pematang water sands, probably result of clay minerals in dispersed and laminated shale)

Setiawan, H., S. Yusmananto, I.M. Gunawan & Hendarman (2013)- Sedimentology and diagenesis of estuarine deposits Sihapas Formation, Western Central Sumatran Basin, Indonesia. Proc. 37th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA13-G-027, p. 1-11.

Setiawan, H.L., Suliantara & Widarsono (2021)- Relationship between tectonic evolutions and presence of heavy oil in the Central Sumatra Basin. Scientific Contributions Oil and Gas (SCOG), Lemigas, 44, 1, p. 21-37.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/492/268)
(Heavy oil (gravity <25° API) in C Sumatra Basin formed as result of biodegradation and water washing (hydrodynamic process within oil reservoir). Generally occur as result of tectonic uplift of oil-bearing reservoir after it filled with hydrocarbons. Heavy oil reservoir depths in basin generally <300-400 m)

Setyaningsih, C.A. (2013)- Palynological study of Pematang Formation of Aman Trough, Central Sumatra Basin. Scientific Contribution Oil and Gas (SCOG), Lemigas, 36, 3, p. 131-144.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/769/556)
(Study of >3000' thick Pematang Fm rift fill in two unidentified wells in N-C Aman Trough, C Sumatra basin. Top Oligocene identified by last occurrence of Meyeripollis naharkotensis. Eocene age is defined by occurrence of Florschuetzia trilobata with last occurrence of Cicatricosisporites eocenicus. Alluvial fan and lacustrine facies in lower part, delta plain in Late Oligocene upper part. Mangrove taxa present throughout studied sections, while lacustrine freshwater algae Pediastrum and Bosedinia not found in area (but may occur in deeper section). Age range rel. broad: within M Eocene- Late Oligocene "not older than Proxapertites operculatus- not younger than Meyeripollis naharkotensis". Figures hard to read))

Setyaningsih, C.A., E.B. Lelono & Firdaus (2015)- Palynological study of the Jambi sub-basin, South Sumatra. Scientific Contributions Oil and Gas (SCOG), Lemigas, 38, 1, p. 1-12.
(online at: http://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/534)
(Outcrop samples from Talang Akar and younger formations at Merangin River, Muara Jernih and Mengupeh areas show E-M Miocene ages. Top M Miocene age identified by pollen Florschuetzia levipoli and F. meridionalis, whilst base of E Miocene marked by appearance of nannoplankton Sphenolithus compactus)

Setyawan, R., E.A. Subroto, B. Sapiie, R. Condronegoro & B. Syam (2020)- Geochemical and geomechanical study on Gumai and Talangakar Formation to determine potential of shale gas in Jambi Sub-Basin, South Sumatra Basin. J. Geoscience Engineering Environment Technology (JGEET) 5, 2, p. 86-93.
(online at: https://journal.uir.ac.id/index.php/JGEET/article/view/4191/2518)
(Jambi Basin high potential for oil-gas play)

Setyobudi, E.B. (1982)- Batupasir Binio; lapisan pengandung gas dangkal di lapangan minyak Merbau (Riau). Proc. 11th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 145-154.
('Binio sandstone, a shallow gas reservoir in the Merbau oil field'. M-L Miocene gas sands above Telisa Fm in C Sumatra basin)

Setyobudi, E.B. & Solichin (1996)- Study of oil migration and remigration in the Southern Kampar Block, Central Sumatra. Proc. 25th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 1-14.
(Small Paleogene Binio sub-graben between Lirik and Binio Fields likely source kitchen for Binio, Pekan and Lirik Trend Fields. Sub-graben part of larger Bengkalis Trough. Major oil generation between ~10-8 Ma, when Binio-Lirik Trend structures not yet formed. Hydrocarbons filled nearby paleo-structures, until Plio-Pleistocene inversion tectonics caused spillage to present-day traps. Remaining exploration potential in subtle folds in migration and remigration pathways)

Setyobudi, P.T., W.H. Bambang, A. Banu, W.N. Krisputranto, N. Hadi & B. Sudaryo (2011)- Karakteristik dan sebaran lateral reservoir batuan dasar granitis dari data sumur pemboran dan seismik 3-D pada lapangan PT, subcekungan Jambi, Cekungan Sumatra Selatan. Majalah Geologi Indonesia (IAGI) 26, 2, p. 113-130.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/767)
('Characteristics and lateral distribution of granitic Basement reservoir from well and 3-D seismic data, in PT Field, Jambi sub-basin, S Sumatra Basin'. Fractured and weathered granite of Late Eocene(?) age have hydrocarbon reservoir potential. Core porosities 11.8% - 20.7%, permeability 1.2- 46 mD. Best oil DST in fractured granite in PTD-2 well is 1044 BPOD, best oil/ gas DST's in PT-2 928 BPOD and 0.712 MMCFGPD. Granite wash lower neutron porosity (16-18 npu), flowing oil at 23.8 BOD at WPT-2)

Setyobudi, P.T. & B.W. Handono (2012)- Petrografi dan karakteristik reservoir granit Eosen pada sub-cekungan Jambi, cekungan Sumatra Selatan. Proc. 41st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2012-E-14, p. 1-5.
(Petrography and characteristics of Eocene granite reservoir (34.30 ± 0.9 Ma) in Jambi Basin (N part of S Sumatra basin). Main minerals quartz 21-32%, K-feldspar 18- 41% and plagioclase 0-19%, biotite 0-6%, etc. Dissolution and fracture porosity 1.2-19% and horizontal permeability 0.001-122 mD)

Setyowiyoto, J. (1998)- Sedimentology of the Lower Sihapas Formation identified on conventional core data, Bengkalis Trough. Proc. 27th Annual Conv. Indonesian Association Geologists (IAGI), 2 (Sedimentology Paleontology Stratigraphy), Yogyakarta, p. 146-158.
(Core from U Oligocene- Lower Miocene Lower Sihapas Fm in MSA wells, Bengkalis Trough, Malacca Straits/C Sumatra. Six shallow marine and shoreline lithofacies)

Shaw, J.H., S.C. Hook & E.P. Sitohanh (1997)- Extensional fault-bend folding and synrift deposition: an example from the Central Sumatra Basin, Indonesia. American Assoc. Petroleum Geol. (AAPG) Bull. 81, 3, p. 367-379.
(Geometry and structural history of Paleogene half-grabens in C Sumatra)

Siemers, C.T. & R.A. Lorentz (1992)- Sedimentological/petrological analysis of reservoir units within the fluvial/estuarine/marine depositional complex of the Talang Akar Formation (Oligocene), Bentayan Field, South Sumatra, Indonesia. AAPG International Conference, Sydney 1992, Search and Discovery Article 91015. *(Abstract only)*
(Bantayan field NW trending anticlinal structure on NE flank of S Sumatra basin.1932 discovery in upper Talang Akar sandstones. Up to 12 potentially productive sandstone units. Six main fluvial- shallow marine reservoir intervals, of variable quality. Stacked fluvial channel braidplain deposits are only ones with good reservoir potential; channel-fills tend to merge into well-connected braidplain type reservoir system)

Sijabat, H., T. Usman, Aliftama, H. Indrajaya, D. Susanti, M. Wahyudin & Sugiri (2016)- Petroleum geochemistry of Pre-Tertiary sediment, North Sumatra Basin. Proc. 14th Regional Conference Geology and Mineral Resources of SE Asia (GEOSEA XIV) and 45th Annual Conv. Indonesian Association Geologists (IAGI) (GIC 2016), Bandung, p. 439-442.
(Geochemistry of five outcrop samples of shale near Kutacane, along Alas River, Aceh. With Jurassic- Cretaceous nannoplankton, but mapped as Paleozoic on Medan geologic map). TOC 0.29-0.57%, vitrinite reflectance 2.1-2.4% (overmature), gas prone source)

Sinaga, I.B., D. Kusmawan & T.J. Keller (2018)- The role of core data in defining fractured reservoirs in Corridor Block, South Sumatera, Indonesia. Proc. Indonesian Petroleum Association Core Workshop, Jakarta 2018, p. 1-22.

Siregar, B.S.A., Y.A. Nagarani, S.H. Sinaga & K.P. Laya (2008)- Paleogeographic and paleoenvironment reconstruction of Tertiary Leman coal-bearing formation, Bengkulu Basin. Proc. 37th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 399-409. *(online at: https://www.iagi.or.id/web/digital/14/2008_IAGI_Bandung_Palaeogeographic-and-Palaeoenironment.pdf)*
M Miocene coal-bearing Lemau Fm in Bengkulu Fore-Arc Basin. Lower Lemau Fm sapropelic coals (durite dominated) forming lenses and thin beds in massive claystone. Upper Lemau Fm humic coals with thicker seams (>2m and significant lateral extent; dominated by vitrites and klarites; marshes on coastal plain). Paleogeographic reconstruction shows rapid shoreline progradation)

Sitinjak, T.Y., R.A. Tampubolon, A. Pratama, W.P. Nusantara, A. Muis & H. Setiani (2020)- A new insight of Talang Akar Formation in the Ridho Field, North Palembang Sub-basin, Indonesia: an integrated approach. Berita Sedimentologi 45, p. 19-38.
(online at: https://www.iagi.or.id/fosi/files/2020/05/FOSI_BeritaSedimentologi_BS45-May_2020.pdf)
(Talang Akar Fm in Ridho field (discovered in 2009) in N Palembang Basin characterized by fining-up sequences of sandstones and shales overlain by coal layer. Underlying Lemat Fm blocky m-c conglomeratic sandstones. Presence of pollen Meyeripollis naharkotensis and Florschuetzia trilobata in TAF suggest Late Oligocene age. Increase of marine influence towards top TAF)

Sitompul, N., Rudiyanto, A. Wirawan & Y. Zaim (1992)- Effects of sea level drops during Late Early Miocene to the reservoirs in South Palembang sub Basin, South Sumatra, Indonesia. Proc. 21st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 309-324.
(Late E Miocene sea level drops form sequence boundaries in late N6 and late N7. SB in Late N6 in Lower Talang Akar Fm, forming thick sand bodies which could be reservoirs. Late N7 sea level drop produced secondary porosity for carbonate reservoirs)

Situmeang & P.R. Davies (1986)- A geochemical study of Asamera's Block 'A' Production Sharing Contract, North Sumatra Basin. Proc. 15th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 321-340.
(N Sumatra Block "A" with 11 commercial oil fields, which produced over 100 MBO, and one non-commercial gas field at Alur Siwah. In E part of block kerogen characterized by abundant land-derived organic material, while marine sapropelic organic matter increases to W, suggesting influx of land- derived organic matter from eastern land mass in area of Malacca Straits. Oils from Keutapang and Seureula Fm reservoirs of six different fields typically non-waxy, paraffinic, with 49-59°API gravities. Oils have common origin, probably fine grained marine sediments of M-L Miocene Baong Fm)

Situmeang, S.P., C.W. Zeliff & R.A. Lorents (1992)- Characterization of low relief carbonate banks, Baturaja Formation, Ramba A and B pools, South Sumatra, Indonesia. In: C.T. Siemers et al. (eds.) Carbonate rocks and reservoirs of Indonesia: a core workshop. Indonesian Petroleum Association (IPA), Jakarta, p. 8.1-8.10.
(Ramba Field produced 60 MBO oi1 1982-1992 from A and B pools, separated by paleochannel. Best reservoir rocks coral-rich packstones- wackestones, with 16-18% porosity)

Situmorang, B. & B. Yulihanto (1985)- The role of strike slip faulting in structural development of the North Sumatra Basin. Proc. 14th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 21-38.
(N Sumatra Basin development controlled by strike slip faulting. Several major N-S trending strike slip faults mainly with dextral movements formed in present back-arc region and arranged in en echelon pattern. Since then and until M Miocene, basin characterized by normal faulting. This episode corresponds to change in Indian Ocean spreading direction from N-S in E Paleogene to NE-SW. Convergence highly oblique in Late Miocene, producing compressive deformation and uplift. Compressional structures continuously affected sedimentary cover in Plio-Pleistocene due to strike slip faulting along Sumatran Fault system)

Situmorang, B., B. Yulihanto, A. Guntur, R. Himawan & G.J. Jacob (1991)- Structural development of the Ombilin basin, West Sumatra. Proc. 20st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 1-15.
(Ombilin Basin in W Sumatra Paleogene transtensional intermontane basin located along Sumatra Fault System. Graben filled by Late Eocene-Oligocene alluvial/ lacustrine Brani/Sangkarewang Fms (one palynology sample suggesting Late Eocene age), unconformably overlain by Oligocene coal-rich fluvio-deltaic Sawahlunto Fm and (deltaic?) Sawahtambang Fms. Marine transgression of Ombilin Fm started in latest Oligocene-earliest Miocene. Final structural event was E Miocene transtensional phase, forming fourth graben SE of earlier depocentres. Etc.)

Situmorang, B., B. Yulihanto, S. Sofyan, J.F. Collins, R. Barton et al. (1994)- Geology of the petroliferous North Sumatra Basin. Indonesian Petroleum Association (IPA), Fieldtrip guidebook, Post Convention Field Trip, October 1994, p. 1-127.
(Guidebook of 4-day fieldtrip to outcrops and oilfields of N Sumatra, traverse across NE Aceh, Arun gas field and Lake Toba area)

Sjahbuddin, E. & R. Djaafar (1993)- Hydrocarbon source rock characteristics and the implications for hydrocarbon maturation in the North Sumatra Basin. Proc. 22nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 509-532.
(Crude oils from Rantau, Aru and Langkat-Medan blocks very light condensates from source in reducing environment. Some difference in level of maturity)

Skeels, D.D. & G.W. Cooper (1985)- North Sumatra, including centenary visit to Telaga Said Field. Post Convention Fieldtrip, Indonesian Petroleum Association (IPA), Fieldtrip guidebook, p. 1-10, 27-108.

Smit Sibinga, G.L. (1932)- The Tertiary virgations on Java and Sumatra, their relation and origin. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 35, 4, p. 584-593.
(online at: https://dwc.knaw.nl/DL/publications/PU00016261.pdf
(On young anticlinal trends of Sumatra and Java. On Sumatra remarkable divergence of Barisan fold axes to E and disappearing under Neogene basins, causing narrowing of Barisan Mts from N to S. Similar trend on Java, but less pronounced)

Smit Sibinga, G.L. (1949)- Pleistocene eustasy and glacial chronology in Java and Sumatra. Verhandelingen Kon. Nederlands Geologisch Mijnbouwkundig Genootschap (KNGMG), Geologische Serie 15, p. 1-31.
(On the effect of Pleistocene sea level fluctuations on shorelines on Java, river terraces on Sumatra, etc.)

Smit Sibinga, G.L. (1951)- On the origin and age of the peneplain of Palembang (Sumatra). Geologie en Mijnbouw 13, 1, p. 1-11.

(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0N1JjaTJKSVFYSW8/view)
(On drainage system, fluvial terraces, etc., in SE Sumatra. High fluvial terrace tied to eustatic sea level rise during last interglacial ingression)

Smit Sibinga, G.L. (1952)- Interference of glacial eustasy with crustal movements and rhytmic sedimentation in Java and Sumatra. Geologie en Mijnbouw 14, 6, p. 220-226.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0S2czQkxZN3B5cE0/view)
(Review of Smit Sibinga earlier work after critique of Rutten (1952))

Soebandrio S., D. (1985)- Penggunaan data perconto batu inti untuk membantu penafsiran lingkungan pengendapan. Proc. 14th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 149-167.
('The use of core sampling data to help interpret depositional environments'. Core description of deltaic deposits in Tabuan- South Tabuan fields wells, S Sumatra basin)

Soeparjadi, R.A. (1982)- Geology of the Arun gas field. In: Offshore South East Asia Conference, Singapore 1982, Proc. Southeast Asia Petroleum Exploration Society (SEAPEX) 6, p. 1163-1171.
(Same as Soeparjadi (1983) paper below)

Soeparjadi, R.A. (1983)- Geology of the Arun Gas Field. J. Petroleum Technology 35, 6, p. 1163-1172.
(Arun gas field discovered in 1971 in Mobil Bee Block in Aceh, N Sumatra, W of Lho Sukon, 225 km NW of Medan. Condensate-rich gas in E-M Miocene reefal carbonates, locally >305m thick. Carbonates on large N-S trending paleotopographic high. Trap mainly stratigraphic, porous reef facies capped by M-U Miocene Lower Baong Fm shales. Structure size ~18.5x 5.0 km. Abnormally high P (7100 psig= 49 MPa) and T (178° C) at 10,000'. Pay thickness averages ~152m. In place reserves 16.2 TCF)

Soeryowibowo, M., T.L. Heidrick & E.G. Frost (1999)- Structural development of the Eo-Oligocene Tapung half-graben, Central Sumatra, Indonesia. Proc. 27th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 127-143.
(Tapung half-graben of C Sumatra 25 km x 8 km. SW of giant Minas Field and viewed as S terminus of N-S-trending Aman rift system. En echelon array of NNW-SSE striking border faults. Detachment of border fault <6.5 km, consistent with thickness of syn-depositional section (max. 1500 m) and β factor <12%. Development of Tapung half-graben similar to other C Sumatra half-grabens, with oblique extension commencing in Late Eocene and ceasing by Late Oligocene)

Somantri, M. (2000)- Distribution of gamma-ray values and sulphur contents in relation with depositional environment of the coals in Bayunglencir coal area, South Sumatera. Proc. 29th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 155-176.

Sosromihardjo, S.P.C. (1988)- Structural analysis of the North Sumatra Basin- with emphasis on Synthetic Aperture Radar data. Proc. 17th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 187-209.

Sosrowidjojo, I.B. (1996)- Bicadinanes and related compounds as maturity indicators for oils and sediments. Organic Geochemistry 24, p. 43-55.
(S Sumatra oils abundant oleananes, high pristane/phytane ratio, bicadinanes and other terpenoids of higher-plant origin. Abundance of biomarkers of terrestrial origin suggest deltaic or nearshore source rock facies)

Sosrowidjojo, I.B. (2006)- Coalbed methane potential in the South Palembang Basin. Proc. Jakarta 2006 International Geoscience Conference Exhib., Indonesian Petroleum Association (IPA), 06-CH-05, p. 1-5.

Sosrowidjojo, I.B. (2007)- Ongoing Coalbed Methane (CBM) development in the South Sumatra Basin. Lemigas Scientific Contributions 29, 3, p. 15-24.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/1028)
(On Lemigas CBM test drilling in Late Miocene Muaraenim Fm coals in S Sumatra basin. Estimated in-place gas volume ~183 TCF in South Sumatra area)

Sosrowidjojo, I.B. (2013)- Coal geochemistry of the unconventional Muara Enim coalbed reservoir, South Sumatra Basin: a case study from the Rambutan field. Indonesian Mining J. 16, 2, p. 71-78.
(online at: http://jurnal.tekmira.esdm.go.id/index.php/imj/article/view/425/290)
(Muaraenim coalbeds in Rambutan Field, S Sumatra, high vitrinitic coal (up to 83% huminite), making it target for CBM development. High sub-bituminous rank (Ro<0.5%), high moisture content (up to 21%). Minerals <5%, mostly iron sulfide. Cleat fillings dominated by kaolinite. Rambutan wells 3 main coal seams with thickness ~9-14m, between depths ~480-950m, Ro 0.3- <0.5%. Apparent high degree of undersaturation)

Sosrowidjojo, I.B., R. Alexander & R.I. Kagi (1994)- The biomarker composition of some crude oils from Sumatra. Organic Geochemistry 21, p. 303-312.
(Crude oils from N, C and S Sumatra basins analysed for biomarkers. Three types: (1) N Sumatra marine carbonate depositional setting (2) C Sumatra waxy crudes from brackish- lacustrine, and (3) light oil from N Sumatra and two oils from S Sumatra from deltaic/ nearshore depositional setting)

Sosrowidjojo, I.B & F.X. Widiarto (1997)- Temuan baru minyak bumi marin karbonat di Cekungan Sumatera Selatan: suatu kajian awal eksplorasi minyak bumi di sistem karbonat. Proc. 26th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, Hydrocarbons, p. 50-57.
(online at: https://www.iagi.or.id/web/digital/64/5.pdf)
('New findings of marine carbonate oil in the South Sumatran Basin: an initial assessment of petroleum exploration in carbonate systems'. Condensate sample from BK-1 well, Bungur High, Musi Platform, strong resemblance to oils generated from marine carbonate source rock, incl. 30 norhopanes biomarker)

Sosrowidjojo, I.B. & A. Saghafi (2009)- Development of the first coal seam gas exploration program in Indonesia: reservoir properties of the Muaraenim Formation, South Sumatra. Int. J. Coal Geology 79, p. 145-156.
(Late Miocene Muaraenim Fm thick, low rank coals (lignite to sub-bituminous) in twelve named horizons. Believed most prospective for CBM production in Indonesia. Five exploration wells in Rambutan Gas field to ~1000m depth. Five major coal seams between 450-1000 m. Coals vitrinite-rich (>75%). Gas contents in samples up to 5.8m3/t, mainly methane (CH_4 80-93%, CO_2 6 -19%). Gas released into production well richer in CH_4 (94-98%). Suitable gas recovery parameters for three of five coal seams with total thickness of >30 m)

Sosrowidjojo, I.B., B. Setiardja, Zakaria, P.G. Kralert, R. Alexander & R.I. Kagi (1994)- A new geochemical method for assessing the maturity of petroleum: application to the South Sumatra Basin. Proc. 23rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 439-455.
(Assessing maturity of petroleum and source rocks using vitrinite reflectance and conventional biomarker data can be problematic when source rocks subjected to rapid heating and contain abundant land plant remains or when crude oil has been biodegraded. New maturity indicator based upon reactions of cadalene proposed)

Spruyt, J.M. (1956)- Subdivision and nomenclature of the Tertiary sediments of the Djambi-Palembang area. Pertamina Report EP-27168 and EP-27168B *(Unpublished)*.
(Unpublished but relatively widely quoted, classic BPM-Shell (1956) stratigraphy report, which is still the basis for Tertiary formations nomenclature of South Sumatra basins)

Stephenson, B., S.A. Ghazali & H. Widjaja (1982)- Regional geochemical atlas series, 1. Northern Sumatera. Overseas Division, Institute of Geological Sciences (IGS, UK) and Directorate of Mineral Resources, Bandung, p. 1-80. *(Unpublished)*

Streiff, A. (1877)- Over petroleum van de afdeeling Lematang Ilir, Res. Palembang. Natuurkundig Tijdschrift voor Nederlandsch-Indie 37, p. 238-240.
('On petroleum of the Lematang Ilir department, Palembang residency'. Brief, early description of two S Sumatra oil seeps (Minyak Linggi) in area subsequently explored by 'Muara Enim Petroleum Co', which later became part of Royal Dutch/ Shell)

Suandhi, P.A., M. Rozalli, W. Utomo, A. Budiman & A. Bachtiar (2012)- Paleogene sediment character of Mountain Front Central Sumatera Basin. Proc. 41st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2012-SS-30, p. 1-9. *(online at: https://www.iagi.or.id/web/digital/9/2012_IAGI_Yogyakarta_Paleogene-Sediment-Character-of-Mountain.pdf) Paleogene sediments of Barisan Mountain Front of C Sumatra Basin 240-900m thick fluvial-deltaic syn-rift sediments and ranging in age from M Eocene- Late Oligocene. Volcanism in area suggested by volcanic material as lithic material and bentonite layers)*

Suandhi, P.A., M. Rozalli, W. Utomo, A. Budiman & A. Bachtiar (2013)- Paleogene sediment character of Mountain Front Central Sumatra Basin. Jurnal Geologi Indonesia 8, 3, p. 143-149.
(online at: http://ijog.bgl.esdm.go.id/index.php/IJOG/article/view/164/164)
(Same paper as Suandhi et al. (2012) above)

Subastedjo, M.T. & Sukarsono (1983)- Penyelidikan geologi untuk perencanaan tambang batubara dengan contoh kasus perencanaan tambang batubara Muara Tiga, Bukit Asam Sumatra Selatan. Proc. 12th Annual Conv. Indonesian Association Geologists (IAGI), p. 209-213.
('Geological investigation for coal mine planning, with example of Muara Tiga mine, Bukit Asam, S Sumatra')

Subiyanto (2003)- Pola penyebaran kualitas batubara dan rencana pemboran eksplorasi di daerah Bukit Kendi, Tanjung Enim, Sumatera Selatan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 13, 140, p. 30-60.
('Pattern of coal quality distrubution and exploration drilling plan in the Bukit Kendi area, Tanjung Enim, South Sumatra'. Muara Enim Fm Late Miocene- Pliocene coal in Bukut Kendi area, 12 km S of Bukit Asam coal mines. Folded in NW-SE anticlines. Coal rank increased by basaltic andesite intrusions)

Subiyanto & H. Panggabean (2003)- Batuan terobosan dan pengaruhnya terhadap pematang batubara di daerah Bukit Kendi, Tanjung Enim, Sumatra Selatan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 13, 134, p. 18-50.
('Intrusive rocks and their influence on coal seams in the Bukit Kendi area, Tanjung Enim, S Sumatra'. Mining concession 12 km S of Bukit Asam with coal seams A, B, C and Gantung 1-12 in Late Miocene- Pliocene Muara Enim Fm. Coal-bearing formation intruded by sill of basaltic pyroxene andesite of ~1000°C.)

Subiyanto & H. Panggabean (2004)- Karakteristik pematangan dan peningkatan mutu batubara di daerah Bukit Asam, Muara Enim, Sumatera selatan. Jurnal Sumber Daya Geologi (JSDG) 14, 1, 1, p. 37-54.
(On the enhancement of Muara Enim Fm coal quality by igneous intrusions in Bukit Asam area, S Sumatra)

Subiyantoro, G. (1998)- The application of sequence stratigraphy as a guidance for reactivating observation well to be producer well in Minas field, PT Caltex Pacific Indonesia. Proc. 27th Annual Conv. Indonesian Association Geologists (IAGI), 2 (Sedimentology Paleontology Stratigraphy), Yogyakarta, p. 91-105.
(Sequence stratigraphic interpretations and correlatios in reservoir interval of Minas Field, C Sumatra)

Subroto, E.A., R. Alexander, U. Pranyoto & R.I. Kagi (1992)- The use of 30-norhopanes series, a. novel carbonate biomarker in source rock to crude oil correlation in the North Sumatra Basin, Indonesia. Proc. 21st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 145-163.
(N Sumatra oils two groups: shaly and coaly, with distinct biomarker distributions. 30-norhopanes carbonate biomarkers proposed recently. Three types of source rocks in N Sumatra Basin: shale, carbonaceous shale and calcareous shale. Recognition of three source types can only be observed using hopane distribution. Crude oil of coaly shale type not found during this study)

Sudarsana, A. & E. Maulana (2000)- Factors affecting productivity in a shallow shoreface sandstone reservoir: a case study from the Rebonjaro Field, South Sumatra Basin. Proc. 29th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 55-69.
(Oil productivity of very shallow A sand near top of M Miocene Lower Palembang Fm in 1929 field is better in cross-bedded facies than in bioturbated facies)

Sudewo, B., A.R Suhendan & S. Chacko (1987)- Physical properties of carbonate reservoirs in South Sumatra. Proc. 16th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 363-383.
(Early Miocene Baturaja Lst in S Sumatra Basin significant oil- gas accumulation. Porosity varies widely between tight platform facies and porous reefal facies. Seismic data may provide indirect evidence of porosity. Increasing trend of acoustic impedance with depth correlated with decrease in porosity, indicative of compaction of limestones)

Sufiati, E. & Purnamaningsih (1994)- Kandungan flora diatomae Formasi Samosir di Pulau Samosir, Sumatera Utara. Geological Research Development Centre (GRDC), Bandung, Special Publ. 15, p. 101-117.
('Composition of diatomaceous flora in the Samosir Formation, Samosir Island, North Sumatra')

Suhendan, A.R. (1984)- Middle Neogene depositional environments in Rambutan area, South Sumatra. Proc. 13th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta,1, p. 63-73.
(Miocene of Rambutan area, SW part of S Sumatra basin. Rambutan field oil in M Miocene Lower Palembang Fm clastics)

Sukanta, U., M.M. Djamaludin, H, Semimbar, Yarmanto, B.S. Simanjuntak, G. Subiyantoro, Mulyadi & Pujiarko (2002)- Depositional environment and paleogeography of Miocene siliciclastic-rich outcrops in the northwest corner of the Central Sumatra basin. Proc. 31st Annual Conv. Indonesian Association Geologists (IAGI), Surabaya, 2, p. 701-710.
(Sand-rich outcrops of Miocene age outcrop in NW corner of C Sumatra basin. Few 100m thick, correlated to Sihapas Group. No figures? and no supporting biostrat control?)

Sukanta, U., Yarmanto, D. Kadar, H. Semimbar & D.A. Firminsyah (2008)- Current interpretation of regional stratigraphy of Late Oligocene- Miocene Sihapas Group in the Central Sumatra Basin. In: Sumatra stratigraphy workshop, Duri (Riau) 2005, Indonesian Association Geologists (IAGI), p. 81-82. *(Abstract only)*
(Summary of sequence stratigraphic study of C Sumatra Late Oligocene- E Miocene Sihapas Group. Five lithostratigraphic units (old to young: Menggala, Bangko, Bekasap, Duri and Telisa Fms). Seven basin-wide sequence boundaries (SB 25.5, 22, 21, 17.5, 16.5, 15.5 and 13.8 Ma), bounding six 3rd order sequences. Younger sands mainly developed in N, NE and E of basin and Telisa shale best developed to W and SW, suggesting sand sourced dominantly from N and NE, from Thailand-Malaysian Highs)

Sukanta, U., Yarmanto, A. Susianto & H. Semimbar (2008)- Syn-rift stratigraphy and sedimentation of Eocene-Oligocene Pematang Group, Central Sumatra Basin. In: Sumatra stratigraphy workshop, Duri (Riau) 2005, Indonesian Association Geologists (IAGI), p. 65-79.
(C Sumatra Eocene-Oligocene synrift continental deposits known as Pematang Group. Three units: Lower Red Bed (alluvial fan- fan delta; up to 1000m thick in Dalam depocenter), Brown Shale (up to 600m thick; lacustrine shales, also coal beds) and Upper Red Bed (braided stream, flood plain with paleosols. Pematang Group generally poor quality reservoirs. No documentation of ages))

Sukardjo (1989)- Tertiary depositional environments with emphasis on Sawahlunto coal distribution and quality in Waringin-Sugar area of the Ombilin Basin, West Sumatra, Indonesia. Thesis, University of Wollongong, p. 1-69. *(Unpublished)*

Suklis, J., A. Ames & E. Michael (2004)- CO_2 in South Sumatra- observations and prediction. In: R.A. Noble et al. (eds.) Proc. Deepwater and Frontier Exploration in Asia and Australasia Symposium, Jakarta 2004, Indonesian Petroleum Association (IPA), DFE04-OR-027, p. 269-278.
(Large quantities of gas found in S Sumatra since early 1990's. Along with hydrocarbon gas, high % of CO_2. CO_2 data suggest mixing from organic and inorganic CO_2 sources. Higher concentrations consistent with reservoir temperatures and isotope values expected from carbonate dissociation or magmatic sources. No simple model for high CO_2 (>40%) gases in low T reservoirs)

Sukmono, S. (2007)- Application of multi-attribute analysis in mapping lithology and porosity in the Pematang-Sihapas groups of Central Sumatra Basin, Indonesia. The Leading Edge 26, p. 126-131.

(On sand body prediction from seismic attributes in Eo-Oligocene of C Sumatra basin)

Sukmono, S., D. Noeradi, F. Fitris, Tafsillison, W.C. Richmond, Seffibudianti & Pujiyono (2003)- Integrated seismic multi-attribute analysis for complex fluvio-deltaic reservoir properties mapping, Minas Field, Central Sumatra. Proc. 29th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 1-23.
(Minas field 1942 discovery, reservoirs complex fluvio-deltaic depositional system. 3D seismic used to differentiate sands from shales Five main oil-producing reservoirs. Few specific conclusions)

Sukmono, Sigit, M.T. Zen, L. Hendrajaya, W.G.A. Kadir, D. Santoso & J. Dubois (1997)- Fractal pattern of the Sumatra Fault seismicity and its possible application to earthquake prediction. Bull. Seismological Society of America 87, 6, p. 1685-1690.
(Similar to Sukmono et al. 1995, 1996)

Sukmono, Sigit, M.T. Zen, W.G.A. Kadir, L. Hendrajaya & D. Santoso (1995)- Geometry and fractal characteristics of the Sumatra active fault. Proc. 24th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 201-214.
(NW-SE trending Sumatra Fault zone 1650km long and composed of 11 segments. Six fractal discontinuities from changes of fractal dimensions and gravity anomaly patterns. Variations suggest Sumatra mainland not rigid, but segmented into several blocks. N-S to NNE-SSW-oriented discontinuities correspond to major structural breaks in Sumatra fore-arc. Segmentation may also explain discrepancy between displacement and velocity of Andaman Sea opening, Sumatra fault motion and Sunda Strait opening)

Sukmono, Sigit, M.T. Zen, W.G.A. Kadir, L. Hendrajaya, D. Santoso & J. Dubois (1996)- Fractal geometry of the Sumatra active fault system and its geodynamical implications. J. Geodynamics 22, 1-2, p. 1-9.
(Similar to Sukmono et al. (1995))

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Sulistyo, A., K. Kelsch, V. Noguera, T. Heidrick, M. Djamaludin, A. Linawati et al. (1999)- Integrated reservoir characterization of the Kulin Field- Central Sumatra. Proc. 27th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 105-125.
(Kulin oil field 1970 discovery 135 km NW of Pekanbaru. Original oil in place (OOIP) ~500 MBO, but low recovery (13% after 25 years of production) due to high oil viscosity (20° API) and heterogeneous reservoir. Main reservoir in E Miocene deltaic Duri Fm. Detailed reservoir model lead to better understanding of complex compartmentalization of stratigraphy)

Sulitra, M.D. (1989)- The recognition and mapping of tight zones in the Arun reservoir, Sumatra: a synergistic effort. Proc. 18th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 91-120.

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('Study of Ombilin coal ash composition and chemical factors with geochemical environment of coal formation')

Sumotarto, U. (2014)- Structural and stratigraphic hydrocarbon traps in Bandar Jaya field, South Sumatra. Bul. Ilmiah Mineral dan Energi (MINDAGI; Trisakti) 7, 1, p. 1-8.
(Six hydrocarbon exploration wells in Bandar Jaya, Lampung, SE-most Sumatra, but no discoveries. Examples of seismic lines in area of generally shallow basement (<1 sec TWT), with rel. small, N-S trending half-grabens with up to ~2000m of Tertiary sediment. No maps (author probably means Bandar Jaya area, not field; JTvG))

Sunardi, E. (2015)- The lithofacies association of Brown Shales in Kiliran Jao subbasin, West Sumatra Indonesia. Indonesian J. on Geoscience (IJOG) 2, 2, p. 77-90.
(online at: http://ijog.bgl.esdm.go.id/index.php/IJOG/article/view/211/193)

(Lithology and sequences of Brown Shale Unit of Eo-Oligocene Pematang Gp at Karbindo Coal Mine, Kiliran Jao Subbasin, SW Ombilin Basin. Lower part consists of coal and evaporitic limestone facies, deposited in marginal lacustrine area. In upper part shales and sandstones deposited in shallow to deep lacustrine environments. High content of reworked organic matter, common turbiditic structures, gastropod, and bivalves)

Sunaryo, A.C. (1994)- NSO "A" Field: a new geological model, incorporating results of an integrated study of 3D seismic analysis and geologic well data. In: 10th Offshore South East Asia Conference, Singapore 1994, p. 223-237.
(Mobil NSO A 1972 offshore N Sumatra gas discovery in M Miocene Malacca Limestone carbonate buildup Carbonate total thickness ~950'; 415' gas column in discovery well)

Sunaryo, A.C. & A.H. Djamil (1990)- Development of Arun East flank, onshore North Sumatra. Proc. 19th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 517-546.

Sunaryo, A.C., R. Widjanarko, F.W. Musgrove, R. Kristanto & D.G. Ward (1998)- Development of the South Lho Sukon reef fields by horizontal wells. Proc. 26th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 17-33.
(South Lho Sukon A and D field produce gas from M Miocene Peutu Lst buildups. Reefal carbonates caused permeability substantial lateral variation, indicating preservation of original reef fabrics)

Suryanto, U. & N. Said (1991)- The Sihapas porosity and hydrocarbon distribution pattern in the Pematang and Bekasap Fields, Central Sumatera. Proc. 20th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 40-58.
(online at: https://www.iagi.or.id/web/digital/49/20th-(10-12-Des-1991)-3.pdf)
(Porosity/ permeability trends in E Miocene Sihapas Fm deltaic sandstone reservoirs in Pematang (1959) and Bekasap (1955) fields W of Duri)

Suryanto, U. & W.A. Wycherly (1984)- A high resolution seismic stratigraphy study, Central Sumatra Basin Indonesia. Proc. 13th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 281-300.
(Caltex seismic stratigraphy study of Duri sands near Bangko field, Bima 1 well)

Susanto, E., H. Priadi & P. Pathak (2008)- NSO gas field simulation and production optimization. Proc. 32nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA08-E-124, p. 1-18.
(Reservoir model of 1972 NSO gas discovery, 100km off N Sumatra. Producing since 1999. 415' gas column in E-M Miocene 'Malacca Limestone' reefal buildup. Area ~7 x 10km, OGIP 2.7 TCF gas. NSO gas ~32.5% CO_2 and 1.5% H_2S)

Susantoro, T.M., S. Suliantara, H.L. Setiawan, B. Widarsono & K. Wikantika (2022)- Heavy oil potentials in Central Sumatra Basin, Indonesia using remote sensing, gravity, and petrophysics data: from literature review to interpretations and analyses. Indonesian J. Science Technology (IJoST) 7, 3, p. 363-384.
(online at: https://ejournal.upi.edu/index.php/ijost/article/download/51288/20287)

Suseno, P. (2021)- High-resolution correlation of sequence stratigraphy to stipulate hydrocarbon prospect in a mature field: case study of Limau Field, South Sumatera Basin. Proc. 45th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA21-G-67, p. 1-12.
(Sequence stratigraphy study of fluvial-deltaic Talang Akar Fm in Belimbing Field, Limau Trend)

Suseno, P. (2025)- Sedimentologi & stratigrafi & model paleogeografi, Area Prabumulih- Limau Trend. Pertamina EP- Zona 4, p.
('Sedimentology, stratigraphy and paleogeographic model, Prabumulih- Limau Trend' (South Sumatra) Pertamina Open File Report?)

Suseno, P.H., Zakaria, N. Mujahidin & E.A. Subroto (1992)- Contribution of Lahat Formation as hydrocarbon source rock in South Palembang Area, South Sumatera, Indonesia. Proc. 21st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 325-337.
(Lahat or Lemat Fm mainly coarse volcanic rocks, but in some areas also claystone/ shale, like Benakat Shale. Such sediments organic-rich and in oil window. Mixed Type II- III kerogens may yield oil and gas. Biomarkers suggest Lahat and Talang Akar source rocks are identical)

Susianto, S. Grahia, Z. Azzaino, D.M. Sulistyo & E. Mastoadji (2023)- Rokan's enigmatic Telisa low quality reservoir, a geological perspective from core. Proc. 47th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p.
(E Miocene Telisa shale formation in Rokan Block, C Sumatra basin with 4-6 thin-bedded marine sand-rich intervals. Oil-bearing in 5 structures. Locally glauconitic and with globigerinid planktonic foraminifera)

Susianto, A., E.S. Utoro & S. Grahia (2006)- Oligocene- Early Miocene paleogeography models South Balam Trough, Central Sumatra Basin. Proc. 35th Annual Conv. Indonesian Association Geologists (IAGI), Pekanbaru 2006, PITIAGI2006-053, p. 1-16.
(online at: https://www.iagi.or.id/web/digital/15/2006_IAGI_Pekan-Baru_-Oligocene---Early-Miocene.pdf)
(S Balam Trough one of most prolific petroleum systems in C Sumatra Basin. Paleogeographic maps made for three chronostratigraphic intervals. In Oligocene syn-rift time half grabens created with lake deposits in center (Pematang Brown Shale), bordered by fan deltas. Late Oligocene map of early post-rift phase illustrates Pematang Upper Red Bed formation deposition. In late post-rift Early Miocene more shallow marine influence, with fluvial and deltaic deposition (Menggala Fm))

Susilawati, R. (2004)- Minerals and inorganic matter in coals of the Bukit Asam coalfield, South Sumatra Basin, Indonesia. M.Sc. Thesis, University of New South Wales, Australia, p. 1-224. *(Unpublished)*

Susilawati, R. & C.R. Ward (2006)- Metamorphism of mineral matter in coal from the Bukit Asam deposit, South Sumatra, Indonesia. Int. J. Coal Geology 68, p. 171-195.
(Miocene coal of Bukit Asam in S Sumatra mostly sub-bituminous, consistent with regional burial. Effects of Plio-Pleistocene igneous intrusions produced coal with vitrinite reflectance up to 4.17% (anthracite). Unmetamorphosed coals contain well-ordered kaolinite and quartz. Heat-affected coals, with Rv >1.0%, dominated by interstratified illite/smectite, poorly crystallized kaolinite and paragonite)

Susilo, A., B.S. Widjiono & B. Setyanta (1999)- Gravity expression on the North end of the Bengkalis Trough. In: H. Darman & F.H. Sidi (eds.) Tectonics and sedimentation of Indonesia, FOSI-IAGI-ITB Regional Seminar to commemorate 50th anniversary of Van Bemmelen's Geology of Indonesia, Bandung 1999, p. 40-42.
(N-S trending Bengkalis Trough in C Sumatra Basin 20-30km wide and 100km long. With low positive gravity anomalies, suggestive of deeper basement/ thicker sediment, flanked by higher gravity values)

Susilowati, T. & Suyoto (2009)- Model fasies karbonat Formasi Baturaja, lapangan Danendra, Cekungan Sumatra Selatan. J. Ilmiah Magister Teknik Geologi (UPN) 2, 1, p. 1-12.
(online at: http://jurnal.upnyk.ac.id/index.php/mtg/article/view/179/141)
('Carbonate facies model of the Baturaja Formation, Danendra Field, S Sumatra Basin'. Baturaja Fm oil-gas bearing E Miocene isolated reefal builups. In 'Danedra Field' (= not real name; JTvG) on Musi Platform five cycles. Moldic and vuggy porosity formed by dissolution in vadose environment)

Suta, I.N. (2003)- Reservoir characterization of Lower Talang Akar sandstones, Northeast Betara (NEB) Field, Jabung Sub-Basin, South Sumatra, Indonesia. M.Sc. Thesis, University of Oklahoma, p. 1-74. *(Unpublished)*

Suta, I.N. (2016)- Jabung Block exploration through time: discoveries and challenges. Proc. IPA 2016 Technical Symposium, Indonesia exploration: where from- where to, Indonesian Petroleum Association (IPA), Jakarta, 46-TS-16, p. 1-10.
(Exploration history of Jabung Block in Jambi subbasin of S Sumatra basin. CO_2 content of gas major challenge)

Suta, I.N. & B.T. Utomo (2006)- An example of integrated characterization for reservoir development and exploration: Northeast Betara field, Jabung Subbasin, South Sumatra, Indonesia. In: R.M. Slatt (ed.) Handbook of petroleum exploration and production, Elsevier, 6, Chapter 12, p. 423-472.
(NE Betara Field in Jambi (N) part of South Sumatra basin is 1995 discovery, downdip of 1971 Betara-1 well. Fault-bounded sandstone reservoirs in Oligocene Talang Akar Fm. Reservoirs lower braided river facies and upper meandering river facies, separated by areally extensive floodplain/marine shale. Better reservoir quality in meandering river sandstones)

Suta, I.N., B.T. Utomo, R.M. Slatt & M. Burnett (2006)- Integrated characterization for development of the Northeast Betara Field, South Sumatra Basin, Indonesia. In: R.M.Slatt et al. (eds.) Reservoir characterization: integrating technology and business practices, Proc. 26th Annual Bob F. Perkins Research Conference, Gulf Coast SEPM Foundation, p. 271-317.
(NE Betara Field in N part of S Sumatra basin is 1995 discovery, downdip of Betara-1. Fault-bounded reservoir in Oligocene Talang Akar Fm. Reservoir lower braided river facies and upper meandering river facies, separated by extensive floodplain/marine shale. Better reservoir quality in meandering river sandstones)

Suta, I.N. & Lu Xiaoguang (2005)- Complex stratigraphic and structural evolution of the Jabung Subbasin and its hydrocarbon accumulation: case study from Lower Talang Akar reservoir, South Sumatra basin, Indonesia. Proc. Int. Petroleum Technology (IPT) Conference, Doha 2005, IPTC 10094, p. 1-9.
(Combined stratigraphic and young inversion structural traps in Oligocene Lower Talang Akar Fm of Betara field complex in N part of S Sumatra basin)

Sutarwan, A.H. (1995)- Petrographical and chemical properties of coals from the Southern Peranap deposit Central Sumatra Basin, Indonesia. M.Sc. Thesis University of Wollongong, p. 1-280.
(online at: http://ro.uow.edu.au/theses/2833/)
(S Peranap coalfield in C Sumatra Basin, with 8 coal seams in Late Miocene-Pliocene Korinci Fm. Vitrinite is dominant (91%., mostly telovitrinite 43% and detrovitrinite 40%; minor gelovitrinite). Coals of brown coal rank with mean maximum vitrinite reflectances (Rmax) of 0.28-0.30%. Coals developed from ombrogenous mires in fluvial floodplain environment. Hydrogen-rich, low sulfur and nitrogen)

Sutiana, F.X. Widiarto, I. Siregar & S.M. Ulibasa (1994)- Analisis biomarker beberapa perconto Formasi Sangkarewang dan Formasi Sawahlunto di cekungan Ombilin. Proc. 23rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 2, p. 1097-1106.
(online at: https://www.iagi.or.id/web/digital/54/46.pdf)
('Biomarker analysis of some samples of the Sangkarewang and Sawahlunto Formations in the Ombilin basin')

Sutriyono, E., E.W.D. Hastuti & B.K. Susilo (2016)- Geochemical assessment of Late Paleogene synrift source rocks in the South Sumatra Basin. Int. J. of Geomate (Japan) 11, 23, p. 2208-2215.
(online at: http://geomatejournal.com/sites/default/files/articles/2208-2215-1141-Sutriono-July-2016.pdf)
(Geochemistry of outcropping shales in U Oligocene Talang Akar Fm at Lengkayap and Napalan rivers, Garba Mts, in S Sumatra basin. Low-moderate TOC's. Vitrinite reflectance indicates immature- early mature for oil)

Suwardi, S. & R. Koswara (2012)- Muara Enim coal characteristics based on petrographic study; selected sites in Darmo area, Tanjung Enim. Proc. 41st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2012-E-04, 1p. *(Abstract only)*
(Coals of Mio-Pliocene Muaraenim Fm in PTBA coalfield, Tanjung Enim area, S Sumatra, mainly consist of vitrinite (telocollinite, desmocollinite, corpocollinite), less inertinite (semifusinite, sclerotinite, inertodetrinite) and minor exinite (sporinite, cutinite, resinite, suberinite, and alginate). Vitrinite reflectance 0.43-0.45% (sub-bituminous). Also minor clay minerals, pyrite, and carbonate. Coal deposited in wet forest swamp zone influenced by anoxic zone and marine incursion).

Suwarna, N. (2004)- Relation of organic facies to paleoenvironmental deposition; case study in the 'Papanbetupang-Kasiro coal measures', South Sumatra. Jurnal Sumber Daya Geologi (JSDG), 14, 2, 146, p. 61-74.

(Organic petrography of Oligo-Miocene coals in fluvial-lacustrine intra-montane basins of C Sumatra.)

Suwarna, N. (2004)- Sulphide mineral (pyrite) as a paleoenvironmental indicator of the Eo-Oligocene Keruh coal in the Kuansing Regency, Riau Province. Jurnal Sumber Daya Geologi (JSDG), 14, 2 (146), p. 84-92.
(Eo-Oligocene coal of in 300m thick Keruh coal measures along E flank of Barisan Range, 45km WNW of Taluk Kuantan and W of Petai in N Kuansing subbasin at SW margin of C Sumatra Basin. Four regressive cycles preceding coal accumulation, each starting with marine and brackish conditions, overlying Permo-Carboniferous Kuantan Fm metamorphics and meta-limestone. With 1.4-21.6% pyrite (highest values associated with marine incursions))

Suwarna, N. (2004)- Maceral composition and rank of Kasiro coals: implications for hydrocarbon generation. Jurnal Sumber Daya Geologi (JSDG) 14, 2 (146), p. 114-126.
(On Early Miocene Kasiro coals from Kasiro-Sarolangun area of S Sumatra with vitrinite-A reflectance 0.75-0.95% (vitrinite-B slightly lower), suggesting maturation level in oil window)

Suwarna, N. (2006)- Source-rock organic geochemistry and petrography of the Eo-Oligocene Kasiro Formation, in the intramountain Papanbetupang Basin, Southern Sumatera. Proc. Jakarta 2006 International Geoscience Conference Exhib., Indonesian Petroleum Association (IPA), Jakarta, 06-PG-25, p. 1-3. *(Abstract only)*
(Papanbetupang Sub-basin in Asai-Rawas region of Jambi and S Sumatra Provinces. Meta-sediments of E-M Jurassic Asai Fm and Jurassic-Cretaceous Peneta Fm and Jurassic Mersip limestone form basement. Coals and organic rich mudstones/oil shales of Eo-Oligocene Kasiro Fm good to excellent source potential. Oil shale-bearing formations deposited in WNW- ESE grabens or half-grabens)

Suwarna, N., M. Iqbal, H. Hermiyanto & R. Koswara (2015)- Organic petrographic and geochemical characteristics of Eo- Oligocene Kasiro shales, Southern Sumatra, Indonesia. In: Hydrocarbons in the tropics: on the edge, Abstracts 32nd Annual Meeting Soc. Organic Petrology, Yogyakarta 2015, p. 132-133. *(Abstract)*
(Late Eocene- E Oligocene lacustrine oil shales of Kasiro Fm from Sekeladi Village, Jambi, with high TOC (0.72-16.1%) and kerogen mainly Type II. Good-excellent oil potential. Thermal maturity late immature- early mature; some samples mature- post mature (Rv 0.22- 0.63%, mainly 0.41%))

Suwarna, N., M.H.H. Jazuli, M. Iqbal & R. Koswara (2024)- Oil shale potential as an alternative energy source in selected sites of Sumatra Island. Badan Geologi ((Geological Agency), Bandung, p. 1-133.
(online at: https://geologi.esdm.go.id/storage/publikasi/VoIjQa8k5USw0CGnR533fE077Nger2M5keyzysH7.pdf)
(Book documenting evaluations of 11 sites across Sumatra with oil shale potential. Ages of oil shales mainly Eocene-Oligocene (in East Indonesia also in Pre-Tertiary), typically in syn-rift basin stages, in freshwater lacustrine environments, associated with coal deposits. Oil shales are essentially hydrocarbon source rocks that are geothermally immature)

Suwarna, N. & Y. Kusumahbrata (2010)- Macroscopic, microscopic, and paleo-depositional features of selected coals in Arahan, Banjarsari, Subanjeriji, and South Banko Regions, South Sumatra. Jurnal Geologi Indonesia 5, 4, p. 269-290.
(online at: http://oaji.net/articles/2014/1150-1408412693.pdf)
(Coal petrography of samples from Mio-Pliocene Muaraenim Fm of Lematang Depression, Muara Enim, S Palembang sub-basin. Nine named coal horizons. Dominant maceral group vitrinite (69- 97.4%), less inertinite (0.4- 22%), exinite (0.4- 18%). Vitrinite reflectance low- moderate (0.34- 0.59%). Coals deposited in lower delta plain)

Suwarna, N., Y. Kusumahbrata & H. Panggabean (2004)- Shale-gas potential of Tertiary oil shale-bearing Formation in Central Sumatera. Jurnal Sumber Daya Geologi (JSDG) 14, 2 (146), p. 102-113.
(Highest possibilty of shale-gas generation in Eo-Oligocene Keruh (Kuansing sub-basin, Late Eocene), Kiliran and Sangkarewang (Ombilin Basin), Lakat (Tigapuluh Mts; M-L Oligocene) and Kelesa Formations, in C Sumatra region)

Suwarna, N., H. Panggabean & R. Heryanto (2001)- Oil shale study in the Kiliranjao Sub-basin, Central Sumatera. Proc. Annual Conv. Indonesian Association Geologists (IAGI) and 10th GEOSEA Regional Congress, Yogyakarta, p.
(Oil shale in outcrop in SW part of C Sumatra basin)

Suwarna, N., E. Susanto & H. Panggabean (2003)- Coal petrology and coal seam formation within the Makarya coalfield, a selected area in the Kuantan-Singingi region, Riau. Proc. Kolokium Energi dan Sumber Daya Mineral 2003, Puslitbang Teknologi Mineral dan Batubara, Bandung, p. 345-352.
(Eo-Oligocene coal in Keruh Fm, 60km W of Taluk and W of Petai, Riau Province, SW corner of C Sumatra Basin)

Suyoto, H. & J. Bethancourt (2010)- A fractured pre-Tertiary basement reservoir engineering study: Proc. 34th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA10-E-64, p.
(Dayung field in Corridor PSC, South Sumatra, is fractured basement gas reservoir with 327m gas column in granite wash, granite breccia and altered granite. Discovered by Asamera in 1991, producing gas since 1998)

Syafri, Chairul (1997)- Geochemical evaluation of the oils and source rocks of the South Palembang Sub-Basin, South Sumatra, Indonesia. M.Sc. Thesis, University of Texas at Dallas, p. *(Unpublished)*

Syafrin, K. Novian (1995)- Deposition of middle Baong Sandstone as post-rift incised valley sequence, Aru onshore area, North Sumatra. Proc. 24th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 131-145.
(Basal Tortonian/ zone N14 Middle Baong Sst interpreted as incised valley system)

Syafrin, K. Novian, Erwinsyah & H. Harun (2008)- Stratigrafi zona dalam di daerah Gunung Kemala, Prabumulih: suatu perspektif baru pada penegasan stratigrafi Paleogen Cekungan Sumatra Selatan. In: Sumatra stratigraphy workshop, Duri (Riau) 2005, Indonesian Association Geologists (IAGI), p. 127-141.
('Stratigraphy of the 'Zona Dalam' in Gunung Kemala area, Prabumulih'. Pertamina 1997 Tapus Field with 25 oil-gas horizons in 950m of syn-rift and post-rift deposits. Subsequent deeper wells in old fields Gunung Kemala and Talang Jimar also successful ?)

Syaifudin, M. (2016)- Organic geochemical characteristic of crude oils from Limau Graben, South Sumatra Basin. J. Geoscience Engineering Environment Technology (JGEET), 1, 1, p. 27-34.
(online at: https://journal.uir.ac.id/index.php/JGEET/article/view/3/3)
(Source rocks of synrift Lemat Formation in the "Orange Graben"(??) in S Sumatra interpreted as fluvio-deltaic with terrestrial influence; overlying Talangakar Fm deltaic with marine and terrestrial influence)

Syaifudin, M. & E.A. Subroto (2024)- Geochemical characterizations of crude oils in Pendopo High and Limau Graben, South Sumatra Basin. Indonesian J. on Geoscience (IJOG) 11, 1, p. 1-13.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/824/446)
(24 crude oils from oil fields in Pendopo High and Limau Graben in S Palembang Subbasin. Isotopically depleted in δ13C sa, high Pr/Ph values, etc. Limau Graben oils terrestrial pattern, derived from humic kerogen (higher plants); Pendopo High oils deltaic pattern, mixed humic- sapropelic kerogen (common algae))

Syaifudin, M., E.A. Subroto, Dardji Noeradi & A.H.P.Kesumajana (2015)- Character and correlation study of source rocks and oils in Kuang Area, South Sumatera Basin: the potential of Lemat Formation as hydrocarbon source rocks. Proc. 39th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA15-G-034, p. 1-9.
(online at: www.researchgate.net/publication/281445294_characterization_and_correlation_study Etc.)
(Kuang area in SE part of Sumatra Basin with three oil fields: Air Serdang, Mandala, and Kuang. Crude oils in area most likely from terrestrial source facies in Lemat and Talangakar Fms in Tanjung Miring Subbasin)

Syaifudin, M. & B. Triwibowo (2002)- Application of the correction vitrinite refectance model in Central Sumatra Basin. Proc. 31st Annual Conv. Indonesian Association Geologists (IAGI), Surabaya, 1, p. 1-28.

(Vitrinite reflance commonly used hydrocarbon maturity parameter. Proven technique for coal samples, but often suppressed in source rocks, especially when rich in hydrogen (e.g. in Brown Shale of C Sumatra))

Syaiful, M. (1999)- Coal exploration in Mampun Pandan Area, Jambi. Proc. 28th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 2, p. 301-312.
(Coal exploration in Mampun Pandan area in Jambi sub-basin, S Sumatra, close to W edge of Tigapuluh Mts. Late Oligocene- E Miocene Talang Akar-equivalent rocks with four coal seams in Claystone-coal unit, 4.5-11m thick, and two 4m thick seams in underlying Conglomeratic Sst unit. High Volatile Bituminous A-C grade)

Syaiful, M., D.G. Siahaan, L.M. Hutasoit, A.M. Ramdhan, A.H. Widayat & I.Y.Tribuana (2014)- Shifting of compaction trend in the North Sumatra Basin and its implication to overpressure estimation in the North Sumatra Basin. Proc. 38th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA14-G-358, p. 1-16.

Syam, B., A. Aayuba, H.N. Saputra & T. Fitriano (2010)- Application of surface geochemistry for hydrocarbon detection case study: Panen Field, Jabung Block, South Sumatra. Proc. 34th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA10-G-034, p. 1-10.
(On gas anomalies from surface geochemistry sampling in Jabung Block, S Sumatra)

Syam, B., T. Fitrianto, M.I. Nursina, H.N. Saputra & I.N. Suta (2021)- New finding on oil distribution in Jabung Block and its implication to Pre-Talang Akar Formation play in the Jabung Block. Proc. 45th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA21-G-78, p. 1-13.
(Oil in Jabung block, Jambi subbasin, S Sumatra, mainly sourced from type-II and III kerogens, probably from fluvio-deltaic shale and coal of Oligocene Talang Akar Fm. Several wells from North Betara Field, suggest contribution from Type-I-lacustrine origin kerogen, presumably from Eocene Pre-Talang Akar Fm)

Syarifuddin, I.Y. & P. Ariyanto (2018)- Tectono-stratigraphy of Block A area, North Sumatra Basin: the impact of local tectonics and eustasy to accommodation space of the Tertiary interval. Proc. 42nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA18-586-G, p. 1-16.
(Review of N Sumatra basin. Major subsidence during Paleogene rifting and M Miocene- Recent syn-tectonic episodes, separated by period of tectonic quiescence in E-M Miocene. Very high rate of subsidence (N9-N11), likely related to activation of Barisan Mts uplift, with active thrusting along Barisan front)

Syavitri, D., R. Setiawan & M.A. Jambak (2019)- Biostratigraphic analysis based on planktic foraminifera from well X in North Sumatra Basin. Proc. 4th Annual Applied Science and Engineering Conference, Bali 2019, Journal of Physics: Conference Series 1402, 3, 033067, p. 1-6.
(online at: https://iopscience.iop.org/article/10.1088/1742-6596/1402/3/033067)
(Planktonic foraminifera from well X (6090-9919') in N Sumatra Basin show five zones: N8, N9- N13, N14- N16, N17 and N18 (Middle-Late Miocene, correlable with marine Baong, Ketapang and Seurula Fms. (no well name or well location))

Syefriyandi, A. Inabuy, M.A. Syaifurrahman, Mirza & A. Sarsono (2022)- Petroleum system and Pre-Tertiary Basement reservoir potential of South Palembang Sub-Basin, Indonesia. Proc. 46th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA22-G-8, p. 1-13.
(S Sumatra underlain by four Pretertiary terranes:East Malaya, Malacca, Mergui and Woyla. Some discussion of Pre-Tertiary basement in Musi High, S Palembang Basin (Woyla Terrane basement?), with some oil and gas shows in weathered and fractured basement. Etc.)

Syukri, I.Y., B. Permana, M. Ginanjar, M. Firdaus & S. Windyarsih (2018)- Identifying new potential in a mature field: a mixed siliciclastic carbonate K-Limestone reservoir characterization in Supat Field, South Sumatra Basin. Proc. 42nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA18-330-G, p. 1-28.
(online at: www.academia.edu/36576805/IDENTIFYING_NEW_POTENTIAL_IN_A_MATURE_FIELD Etc.)
(Supat Field in Corridor Block discovered in 1984 (Asamera), producing since 1988. Rel. thin latest Oligocene-earliest Miocene 'K-Limestone' at top of Talang Akar Fm along basin margin (below Pendopo Shale and Baturaja Limestone). Low-porosity sandy limestone with oil shows)

Syukri, I.Y., B. Permana, I. Rahmawan & I.B. Sinaga (2017)- An integrated subsurface study for evaluating potential in Teluk Rendah Field, South Jambi 'B' PSC, South Sumatera Basin. Proc. 41st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA17-121-G, p. 1-25.
(Study of Teluk Rendah Field, discovered in 1991 in NW corner of S Jambi 'B' Block, S Sumatera Basin. Produced gas-condensate from 2004 to 2012 from fluvial Lower Pendopo Fm (= Talang AkarFm?) sandstones in young faulted anticline. Sands sourced from NE)

Szemian, J.M.J. (1929)- Beginselen en werkwijze der agro-geologische opname van. Sumatra. Bergcultures 3, p. 1741-1747.
('Principles and working methods of the agrogeological mapping of Sumatra'. Summary of presentation)

Szemian, J.M.J. (1931-1932)- Bodemkundige kaart van Sumatra 1: 200.000. Unpublished reports, Dienst van den Mijnbouw, Bandung (Blad 1 (Telok-Betong), Blad 2 (Kota-Agoeng), Blad 3 (Bengkoenat), Blad 4 (Soekadana).
(Soil maps of South Sumatra)

Szemian, J.M.J. (1933)- Die Systematische Bodenkartierung von Sumatra. Soil Research, 3, p. 202-221.
('The systematic soil mapping of Sumatra' by Hungarian agrogeologist J. Szemian at the Dienst van den Mijnbouw (Bureau of Mines/ Geological Survey. Agrogeological mapping was conducted in conjunction with ongoing systematic geological mapping, from 1928 until 1932 or 1933, when the program was stopped after budget cuts during the global depression)

Tampubolon, R.A., S.A. Diria, H. Purba, A. Basundara & J. Trivianty (2017)- Kajian tektonik dan sedimentasi di Cekungan Sumatera Utara dan impikasinya untuk potensi gas serpih. Lembaran Publikasi Minyak dan Gas Bumi (Lemigas) 51, 2, p. 107-113.
(online at: https://journal.lemigas.esdm.go.id/index.php/LPMGB/article/view/22)
('Evaluation of tectonics and sedimentation in North Sumatra and its implications for shale gas potential'.)

Tampubolon, R.A., T. Ozza, M.T. Arifin, A.S. Hidayatillah, A. Prasetio & T. Furqan (2017)- A review of regional geology of the North Sumatra basin and its Paleogene petroleum system. Berita Sedimentologi (Indonesian Sedimentologists Forum, FOSI- IAGI) 37, p. 23-29.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/95/66)
(Brief review. North Sumatra basin third largest hydrocarbon-producing basin in Indonesia, after Central Sumatra and Kutei Basins. First oil discovery at Telaga Said in 1885. Since 1985 drilling activity stagnant)

Tampubolon, R.A., H. Purba, S.A. Diria, I. Jaya, T.P. Setyowaty, Y.P. Nusantara, A.B. Wicaksono et al. (2018)- Reassesment of the tectonic, paleogeography and geochemistry in Mergui and North Sumatra Basin. Proc. 42nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA18-508-G, p. 1-20.

Tampubolon, R., T.Y. Sitinjak, C. Asri, R. Imran & B.J. Raharjo (2021)- Chasing a new carbonate fracture play yype at South Sumatra Basin. Proc. HAGI-IAGI-IAFMI-IATMI Joint Convention, Bandung 2021, p. 323-327.
(online at: https://www.iagi.or.id/web/digital/52/JCB-2021-Paper-56.pdf)
(Newly discovered giant basement fracture gas reservoir in Sakakemang block in central part of N Palembang subbasin brings new potential exploration play into S Sumatra basin. 'X-1' well prospect)

Tamtomo, B. & E. Artono (1998)- Reservoar Pra-Tersier sebagai peluang eksplorasi Abad 21 studi kasus di daerah Beringin, Cekungan Sumatera Selatan. Proc. 27th Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 1, p. 106-116.
('Pre-Tertiary reservoirs as exploration play; Abad 21 case study in the Beringin region, S Sumatra basin')

Tamtomo, B., I. Yuswar & E. Widianto (1997)- Transgressive Talang Akar sands of the Kuang area, South Sumatra basin; origin, distribution and implication for exploration play concept. In: J.V.C. Howes & R.A. Noble (eds.) Proc. Conf. Petroleum systems of SE Asia and Australasia, Indonesian Petroleum Association (IPA), p. 699-708.

(Kuang area distribution of Talang Akar reservoirs controlled by basement highs, and stratigraphic traps form as onlaps along flanks of highs. Lower Talang Akar productive in Beringin Field; Upper Talang Akar produces in Air Serdang Field)

Tangkalalo, D. & M.F. Ma'ruf (1993)- Eksploitasi hidrokarbon pada endapan turbid lapisan BRS struktur PTB lapangan Pangkalan Susu. Proc. 22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 794-802.
('Hydrocarbon exploitation in bedded turbidite deposits, BRS structure, Pangkalan Susu field', N Sumatra. Besitang River sand in M Miocene Middle Baong Fm turbiditic deposits)

Tangkalalo, D., M.F. Ma'ruf & A. Sudiono (1997)- Gas reservoir delineation of Pantai Pakam Timur field, North Sumatera - Indonesia. Proc. Soc. Petroleum Engineers (SPE) Annual Technical Conference, San Antonio 1997, p. 507-520.
(Same as paper below)

Tangkalalo, D., M.F. Ma'ruf, A. Sudiono & Widjiono (1998)- Gas reservoir delineation of Pantai Pakam Timur Field, North Sumatra, Indonesia. In: C.A. Caughey & J.V.C. Howes (eds.) Proc. Conference Gas habitats of SE Asia and Australasia, Jakarta 1998, Indonesian Petroleum Association (IPA), p. 123-133.
(Seismic amplitude anomaly in rel. shallow (~1250m) Lower Keutapang Fm sandstone unit used to delineate gas reservoir. Sediment sourced from SW. Not much geology)

Tangkalalo, D. & A.A.P. Reddy (1994)- Preliminary study of hydrocarbon potential in old oil wells of Pulau Panjang Field, North Sumatra. Proc. 23rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 2, p. 1107-1117.
(online at: https://www.iagi.or.id/web/digital/54/47.pdf)
(Pulau Panjang field in Aru region of N Sumatra basin 1928 BPM discovery on NW-SE trending anticline. 65 wells drilled between 1928-1941. Production from Late Miocene Keutapang Fm deltaic sandstones. Re-evalution of old shut-in oil wells suggests varying degrees of depletion of reservoirs. Recompletion can result in economically viable production)

Tarazona, C., J.S. Miharwatiman, A. Anita & C. Caughey (1999)- Redevelopment of Puyuh oil field (South Sumatra): a seismic success story. Proc. 27th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 65-82.
(1993 Puyuh oil discovery in small domal closure in ?Oligocene Upper Lemat Sst in NE part of Corridor PSC. Puyuh-1 tested 625 BOPD from 1582-1600 m)

Tarigan, Z.L. & R.T. Silaen (2013)- Dolomite diagenesis of Tampur Formation along Tampur River, Southeast Aceh. Proc. 37th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA13-SG-066, p. 1-9.
(Diagenesis of limestone outcrop samples along Tampur River, a tributary of the Tamiang River, NW of Pangkalan Brandan and SW of Langsa, in Aceh, N Sumatra. Includes dolomitization and fracturing, interpreted as medium to deep burial diagenesis regime. Tampur Fm generally assigned to Eocene- E Oligocene (but no biostrat support for Eocene age ever published?; thin sections published here do not show traditional Indonesian Eocene limestone forams; JTvG))

Tarsis A.D. (2005)- Inventarisasi bitumen padat dengan metoda "outcrop drilling" di daerah Petai Kabupaten Kuantan Singingi Provinsi Riau. Kolokium Hasil Lapangan- DIM, 2005, p. 30.1- 30.10.
(online at: http://psdg.bgl.esdm.go.id/kolokium/Batubara/30.%20Pros_petai_No.9.pdf)
(Evaluation of bituminous shale ('bitumen padat') deposits in 'Lower Telisa Fm' of the Petai area, Kuantan Singingi regency, SW part of C Sumatra basin)

Taufiqurrahman, F. Bahesti, F.J. Situngkir, A.F. Kabisat, A.E. Putra & M. Wahyudin (2014)- Belumai Formation facies mapping using seismic paleomorphology and seismic attributes in the offshore North Sumatera. Proc. 38th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA14-G-107, p. 1-6.
(Seismic facies mapping of Lower Miocene Belumai Fm sandstones, offshore N Sumatera Basin)

Terres, R.R. & Soejanto (1995)- Central Sumatra prospect evaluation, structural and stratigraphic fluid barriers and hydrodynamic systems as indicated by wireline formation pressures. Proc. 24th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 19-32.
(Wireline formation pressure determinations from >350 C Sumatra wells. Analyses of depleted pressure anomalies allowed evaluation of structural and stratigraphic barriers to fluid flow. Several major faults have significant pressure anomalies. Sealing potential of faults from greatest to least sealing potential: NW-trending reverse faults, N-trending strike-slip faults and NE-trending normal faults. Stratigraphic barriers to fluid flow observed locally and regionally. Two major aquifer systems, Petani and Sihapas. Pematang Brown Shale Formation aquifer includes isolated sandstones with highly variable, normal to super-normal pressures)

Thamrin, H.M. (1985)- Studi pendahuluan prospek batubara di lapangan Benuang Sumatra Selatan. Proc. 14th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 223-231.
(online at: https://www.iagi.or.id/web/digital/40/PIT_IAGI_1985_paper20.pdf)
('Preliminary study of coal prospects in the Benuang field, S Sumatra'. Four main seams in coalfield on NW-SE trending Benuang anticline NE of Muara Enim)

Thesly, H.D., D.S. Asra, E.I. Gartika, T. Febriwan & J.J. Wood (2010)- Integrated geology and reservoir study in determining hydrocarbon reserves in Pangkal field, South Sumatra. Proc. 39th Conv. Indonesian Association Geologists (IAGI), Lombok, PIT-IAGI-2010-170, p. 1-8.
(Reserves study of Pangkal field in Palembang High area, S Sumatra basin, NE of Kaji Semoga field (= Medco Langkap field). Discovered in 1987; 35 wells drilled; current production 1400 BOPD from 14 wells. Reservoir Talang Akar Fm stacked fluvial channel sandstones with 15-21% porosity. OOIP of field is 24 MMBO, EUR 7 MMBO, cumulative oil production 5 MMBO)

'T Hoen, C.W.A.P. (1922)- Verslag over het onderzoek der Tertiaire petroleumterreinen ter Oostkust van Atjeh (terrein Atjeh II). Jaarboek Mijnwezen Nederlandsch-Indie 48 (1919), Verhandelingen 1, p. 163-229.
('Investigation of the Tertiary petroleum terrains of the East coast of Aceh (terrain Aceh II), N Sumatra'. Incl. presence of dark grey 'Tampoer Limestone' along Tampur River, at base of Tertiary section (eroded Tampoer Fm clasts also in overlying basal Tertiary unconformity conglomerates, so therefore thought to be of Pretertiary age)

'T Hoen, C.W.A.P. (1932)- Oliesporen in het Oembilin kolenveld. De Mijningenieur 13, p. 194.
('Oil traces in the Ombilin coal field'. Exploration well penetrated coal between 190-208m and another thin (20cm) coal at 272m. At 283m a 4m thick oil-stained sandstone from which few liters of oil were obtained)

Thomas, L.P. (2005)- Fuel resources: coals. In: A.J. Barber, M.J. Crow & J.S. Milsom (eds.) Sumatra- geology, resources and tectonic evolution, Geological Society, London, Memoir 31, p. 142-146.
(Brief overview of coal distribution in N, C and S Sumatra. Producing mines only in Central Sumatra (Ombilin; Eocene-Oligocene), S Sumatra (Late Miocene- Pliocene) and Bengkulu (Miocene) basins)

Tian, X., X. Wang, X. Lu, S. Bi, G. Fang, J. Huang, L. Hong & C. Zheng (2012)- Control of synsedimentary faulting on deposition in the back-arc rift basin of Ripah oilfield in Jabung region, South Sumatra basin, Indonesia. J. Chengdu University of Technology 39, 4, p. 395-402.
(In Chinese with English summary. Study of effect of synsedimentary faults on deposition in Ripah oilfield in back-arc basin of S Sumatra. Synsedimentary faults characterized by episodic activity and displayed in echelon in map view. Target beds in area dominated by delta plain subfacies)

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('Potential oil content in tight bitumen, Padanglawas area, West Sumatra'. Oil shale deposit in synclinal structure of U Telisa Fm (M Miocene), at W side of C Sumatra Basin. Oil shale with TOC 3.1- 14.8%. Classified as sapropelic oil shale, with dominant component alginite. Deposited in lacustrine environment)

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(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/566)
('Characteristics of oil shale samples of Sangkawerang Fm in the Sawahlunto area, W Sumatra, based on organic geochemistry'. Organic content in Sangkarewang Fm oil shale 0.11-5.1%. Derived from algae and higher plants, deposited in lake environment. Kerogen Type II and Type III, early mature)

Tobing, R.L. (2016)- Kematangan termal dan estimasi kandungan minyak endapan serpih Formasi Sinamar di daerah Dusun Panjang, Provinsi Jambi. Buletin Sumber Daya Geologi 11, 2, p. 93-101.
(online at: http://buletinsdg.geologi.esdm.go.id/index.php/bsdg/issue/archive)
('Thermal maturity and estimation of shale oil content of the Sinamar Fm in the Dusun Panjang area, Jambi Province'. Oligocene Sinamar Fm shales ~10- >25m thick in outcrop in W part of Jambi basin. Organic content up to 17%, dominated by Types I and II kerogen. Liptinite and vitrinite up to 10%, inertinite up to 0.49%. Immature to overmature. May produce 5- 90 liter oil/ ton shale, giving oil resource of ~69,535,298 barrels (!))

Tobing, R.L. (2021)- Karakteristik serpih minyak pada Formasi Sinamar berdasarkan data pengeboran BRP-02 di daerah Rantau Pandan, Provinsi Jambi. Buletin Sumber Daya Geologi 16, 1, 27-36.
(online at: http://103.87.161.68/index.php/bsdg/article/view/BSDG_Vol_16_No_1_Tahun_2021_3/290)
('Characteristics of oil shales in Sinamar Formation based on BRP-02 drill hole data at Rantau Pandan area, Jambi'. Oligocene(?) Sinamar Fm bituminous shales in well N of Rantau Pandan (Jambi Basin) with TOC 3.4-17.6%, dominated by liptinite macerals. Organic maturity immature to overmature)

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(online at: https://www.delpher.nl/nl/boeken/view?coll=boeken&page=18&identifier=MMUBL07:000002076:00005)
('Brief description of the petroleum terrains in the SE part of the Jambi Residency, Sumatra'. Detailed mapping of surface anticlines. Numerous oil-gas seeps (for more extensive report see Tobler (1918))

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('Brief description of the petroleum areas of Central, NW and North Lower Jambi', C. Sumatra. Extensive overview of stratigraphy and descriptions of 26 anticlinal structures. With 1:200k scale geologic map and 1:25,000 scale maps of 20 anticlinal structures)

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('The Lematang coal fields'. Popular magazine article on S Sumatra Miocene coals)

Tromp, H. (1919)- De wetenschappelijke en technisch-economische beteekenis der Lematang-kolenvelden, I. De Ingenieur 34, Nr. 40, p. 721-734, Nr. 41, p. 747-752 and Nr. 43, p. 767-774.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:034004000:00003)
('The scientific and technical-economic significance of the Lematang coalfields'. Part 1 of 3)

Tromp, H. (1919)- De wetenschappelijke en technisch-economische beteekenis der Lematang-kolenvelden, II. De Ingenieur 34, 41, p. 747-752.
(online at: https://resolver.kb.nl/resolve?urn=dts:2981059:mpeg21:pdf)
('The scientific and technical-economic significance of the Lematang coalfields'. Part 2: physical and chemical properties. Lematang coals low in ash (1-2%), low water content (1-2%), high caloric value (6000-7000, up to 8500 calories), resistant to weathering, etc.)

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(online at: https://ejournal.mgi.esdm.go.id/index.php/bomg/article/view/832/604)
(Late Miocene Middle Baong Sand Fm in Malacca Straits part of N Sumatra Basin in bathyal submarine facies. Provenance like from both Sumatra Barisan Range to SW and Malay Peninsula tp NE))

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(online at: https://www.iagi.or.id/web/digital/10/2011_IAGI_Makassar_Characteristic-of-Pematang.pdf)
(Late Eocene- Oligocene Pematang Fm in C Sumatra may contain reservoir rocks. Five Pematang facies identified: braided channel, meandering channel, paleosol- braided river, gravity flow (low energy), and debris flow-alluvial fan (high energy) facies. Braided channel facies good reservoir quality, debris flow facies poor. Deposition in semi-enclosed valleys bounded by normal fault creating alluvial fans, some of which poured into deep lakes, with braided and meandering rivers in other end of valley)

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(Coal in Muara Enim Fm in Tanjung Enim District, S Sumatera, increases in maturity and quality towards Bukit Asam and Bukit Kendi intrusions. K/Ar analysis shows Bukit Asam age is 0.92 ± 0.26 Ma and Bukit Kendi is 1.15 ± 0.29 Ma. Increase in maturity and quality of coal took place in last 1.15 Myrs. Nearby Bukit Serilo intrusion probably younger)

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Van Dijk, P. (1864)- Bruinkool van Ketaoen in Moko-Moko, Benkoelen. Natuurkundig Tijdschrift voor Nederlandsch-Indie 27, p. 259-264.
(online at: www.biodiversitylibrary.org/item/48499#page/793/mode/thumb
('Lignite of Ketaun in Moko-Moko, Bengkulu', SW Sumatra. With small sketch map)

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(online at: www.biodiversitylibrary.org/item/48386#page/203/mode/1up)
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('Review of the geological parameters of the South Palembang and Jambi sub-basins (a preliminary note)'. S Sumatra basin several sub-basins (Jambi, North Palembang, Central Palembang, South Palembang), separated by paleo-highs (Ketaling, Iliran, Pendopo) and flanked by high blocks that are sites of Early Miocene reef development (Musi- Kikim Platform, Kuang High, etc.))

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(M Miocene bathyal Middle Baong Sandstone in Alur Rambong-1 well (1993) in N Sumatra basin marine sandstone with tight density but gas-bearing)

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(Core description and well logs of Bekasap Fm in Gadang field, C Sumatra, suggest tide-dominated estuarine environment: WSW-ENE trending estuarine channels and tidal flat/ sand bar)

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(Traditional high quality siliciclastic reservoirs in C Sumatra basin now mostly depleted. Telisa A shoreface sediment in Bangko Field and distal lacustrine deltaic Brown Shale B in Balam SE Field have high volumes of Original-Oil-in-Place, but recovery factors <4%.)

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(In Chinese with English summary. High resolution sequence stratigraphic of marine delta sedimentary system of Lower Talang Akar Fm in NEB Gas Field of Jabung Block in S Sumatra Basin)

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(Coal in Ombilin basin mined in Sawahlunto area since 1891. Basin fill ~4600 m of M Eocene- E Miocene sediments. Fan-delta sediments below oldest M Eocene coal seam, seam itself and sediments overlying C seam investigated along W margin. Ombilin Basin is graben-like 'pull-apart' basin. Debris flows and fan-delta formation around margin of basin, with lake sediments in basin center. Peat accumulation influenced by underlying fan-delta lobe geometry. In interlobe areas thick sequences of low ash peat accumulated, while central lobe areas high ash coal or carbonaceous shale formed)

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('Contribution to the knowledge of the agrogeology of the Way Lima area (Lampung Districts)')

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(S Sumatra Basin consists of several deep sub basins. Recent Pertamina drilling results in Basin Center area with syn-rift sediment as main target (Lembak Deep: SKR-1 well, Lematang Deep: BED-1 well and Muara Enim Deep: SWI-1 well) less than satisfactory results, mainly due to poor reservoir properties (Lahat Fm with 1-5% porosity and poor permeability) With 'paleodepositional maps')

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Wibowo, R.A., W. Hindadari, P.D. Silitonga & R. Raguwanti (2006)- Using borehole image data for identification of fractures and reservoir characterization of gas carbonate reservoir at Merbau Field, South Palembang Basin, Sumatra, Indonesia. Proc. 23rd World Gas Conference, Amsterdam 2006, Int. Gas Union, 1.2EF.10, p. 1-24.

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(Merbau gas field in S part of S Palembang Basin discovered in E Miocene Baru Raja Fm carbonate in 1975. Determination of fracture density and orientation from borehole images of two wells, porosity distribution of carbonate facies, together with seismic inversion and interpretation are main tools in development well location and reservoir zones)

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(online at: http://buletingeologi.com/index.php/buletin-geologi/issue/view/2/08_BG201614)
('Geochemical study and maturation model of the Talangakar Formation rocks from the Tungkal Block, South Sumatera basin'. Talang Akar Fm sediments with immature - late mature organic matter. Dominated by mixed type II/III and type III kerogen. Modeling at well locations shows presently at early to main oil generation stage (Ro 0.5-1.3%). Maximum burial in Pliocene)

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(Talangjimar Field 1937 BPM oil discovery 5 km SE of Prabumulih, S Sumatra. in earliest Miocene Talang Akar Fm sandstone in Limau- Pendopo anticlinal system. Some wells encountered shallow gas at ~300m in ME1 layer of Late Miocene Muara Enim Fm, causing blowout in development well TLJ 240)

Wicaksono, A.F., H. Sijabat, T.K. Usman, D.N. Susanti, H. Indrajaya, Sugiri & M. Wahyudin (2016)- Defining Pre-Tertiary petroleum system of Langkat Area, North Sumatera Basin, Indonesia. Proc. 40th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA16-347-G, p. 1-13.
(Presence of Pretertiary black shales near Medan interpreted as Kaloi Fm (age and paleoenvironment not clear) suggest possibility of new petroleum system. Mention age of Tampur Fm is 33 Ma (Late Eocene-Oligocene), based on Sr dating and occurences of Discogypsina and Nummulites spp. (Pertamina 2011 study))

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(online at: https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_A-Prolific-North-Sumatera-Basin-%E2%80%93-Gas.pdf)
(Brief Pertamina review of two main N Sumatra gas fields, producing from M Miocene carbonates: giant Arun field in onshore 'B' Block (141 wells, cum. production since 1977 13.2 TCF gas) in NSO-A field in offshore NSO Block (11 wells. cum production 1.9 TCF gas since 1999)

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(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/493/269)

(C Sumatra basin with large heavy oil field, Duri. Heavy oil potential identified in 51 fields/structures, but only 6 are producing: Duri, Kulin, Batang, Rantau Bais, Sebanga North and Pendalian. Four types of heavy oil)

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(Palynofacies and geochemical study of samples from 102m core in Late Eocene Kiliran oil shale ('Brown Shale', Pematang Gp). Represents ~240.000 years of lacustrine deposition in warm-humid climate)

Widayat, A.H., K. Anggayana & I. Khoiri (2015)- Precipitation of calcite during the deposition of Paleogene Sangkarewang oil shale, Ombilin Basin, West Sumatra, Indonesia. Indonesian J. on Geoscience (IJOG) 2, 3, p. 157-166.
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(Calcite locally common in Ombilin basin lacustrine Sangkarewang oil shale (8.4%). Variation of calcite % related to primary productivity/ precipitation. As lake developed, primary productivity decreased (more negative d13C values))

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(*online at: www.sciencedirect.com/science/article/pii/S1878522013000143)*
(Oil shale samples from Late Eocene syn-rift Brown Shale and Sangkarewang Fms in Kiliran and Ombilin Basins. Organic matter of Kiliran Basin mainly lamalginite and telalginite (originated from lacustrine Botryococcus braunii). Vitrinite reflectance averaging 0.29%. Organic matter in Sangkarewang oil shale dominated by lamalginite, with vitrinite reflectance values ~0.37%. Oil shales immature. TOC ~5.6% and 5.0% for Kiliran and Ombilin shales, respectively)

Widayat, A.H., B. van de Schootbrugge, W. Oschmann, K. Anggayana & W. Puttmann (2016)- Climatic control on primary productivity changes during development of the Late Eocene Kiliran Jao lake, Central Sumatra Basin, Indonesia. Int. J. Coal Geology 165, p. 133-141.
(Palynofacies and inorganic geochemistry of 102 m long core of Late Eocene Kiliran Jao lacustrine oil shale, C Sumatra. Climate changes interpreted from abundance variation of fungal remains: relatively warm in middle part of oil shale. Botryococcus braunii 3-16%; generally more abundant in middle part)

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(Coal potential coal in the Seluma area and surroundings, Seluma District, Bengkulu Province')

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(Distribution and depositional environment of selected sandstone reservoirs in Late Oligocene- E Miocene fluvial-deltaic Talang Akar Fm in Jambi sub-basin. Mainly distributary channel fill facies)

Wijaya, M.A., I. Syafri, Y.A. Sendjaja, D. Kurniadi & I. Nugraha (2023)- Karakteristik reservoir karbonat berdasarkan analisis petrofisika pada lapangan Langsa Formasi Malacca Cekungan Sumatra Utara Offshore. Padjadjaran Geoscience J. 7, 5, p. 1633-1642.
(online at: https://jurnal.unpad.ac.id/geoscience/article/view/53325/22318)

('Characteristics of carbonate reservoir based on petrophysical analysis in Langsa field, Malacca Formation, North Sumatra Basin Offshore'. Petrophysical analysis of E-M Miocene limestone in offshore Langsa oil-gas field in North Sumatra Offshore (originally discovered by Asamera; no mention of potentially confusion with much underlying (Eocene or Permian) Tampur Limestone; JTvG)

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(Discussion of Gluyas & Oxtoby 1995 paper, disputing proposed rapid cementation rates)

Williams, H.H. & R.T. Eubank (1995)- Hydrocarbon habitat in the rift graben of the Central Sumatra Basin, Indonesia. In: J.J. Lambiase (ed.) Hydrocarbon habitat in rift basins, Geological Society, London, Special Publ. 80, p. 331-371.
(C Sumatra prolific oil attributed to graben sequences with thick organic-rich lacustrine shales, overlying marine sag sequence with excellent reservoirs, development of early structures and high heat flows. Geothermal gradient, average 3.38°F/100'. Distribution of oilfields largely fault controlled. Oil migrated vertically out of Eocene-Oligocene Pematang lacustrine shales and laterally up flanks of graben, generally in E direction, filling Miocene Sihapas Fm reservoirs. Hydrocarbos also in rift-fill sequence. Migration distance up to 20km. Differences in oils reflect different depositional and environmental histories of lake systems)

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(Most of oil and gas in C Sumatra Basin Generated from organic-rich lacustrine shales of Eo-Oligocene Pematang Gp. Oils paraffin-based, with 4-30% wax. Large freshwater lake systems developed in structurally controlled rift basins. Palynology indicates mainly freshwater conditions (with common Pediastrum), but also occurrences of slightly saline conditions or occasional marine incursions)

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(online at: https://www.researchgate.net/publication/270215895_Sequence_Stratigraphy_of_Miocene_Tide-Influenced_Sandstones_In_the_Minas_Field_Sumatra_Indonesia)
(E Miocene Sihapas Group in Minas field, C Sumatra, composed of succession of 10s of m thick, erosionally based, tide-influenced sandstone intervals interbedded with marine shale intervals. Past interpretations suggested reservoir sandstone intervals are incised-valley deposits. New interpretation suggests tide-influenced shorelines. Five major reservoir intervals over low-grade metamorphic basement. Two older intervals multiple upward-coarsening tide-influenced regressive shoreline successions capped by thin marine shelf transgressive sandstone and shale. Upper three reservoir intervals 4th-order regressive shoreline deposits variably reworked by tidal currents, together comprising 3rd-order forward-stepping sequence set)

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(Sedimentary fill of two lakes in Padang highlands, Lake Singkarak (pull-apart basin along Sumatran Fault) and Lake Maninjau (caldera lake). Seismic-reflection profiles and short sediment cores reveal various types of natural hazards (floods, avalanches, earthquakes. Volcanic activity triggers diatom blooms in Lake Singkarak)

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(online at: https://www.iagi.or.id/web/digital/52/JCB-2021-Paper-66-duri.pdf)
(Duri heavy oil field in Rokan Block in Riau Province, discovered in 1941, production started in 1958. Peak production in primary phase 65,000 barrels BOD in 1965. Caltex started steam injection pilot in 1975. Ten years later steamflooding implemented on large scale, increasing production to 290,000 BOD in 1992. Cumulative

production >2.6 billion BO. Duri is giant 4-way anticline; reservoirs E Miocene fluvio-deltaic Sihapas Sst at depth 300'-700'. Probably single oil-water contact under Telisa Fm regional seal)

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(Abstract only. General similarities in C Sumatra and Ombilin Basin fill, but Ombilin Basin development earlier: Paleocene onset, mid-Oligocene rifting. Red Beds and Brown Shale in C Sumatra are Eocene in age with Late Oligocene main rift phase)

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(online at: https://www.iagi.or.id/web/digital/26/2009_IAGI_Semarang_Paleogen-System-Of-Bengkulu.pdf)
(Literature review on possible potential of Palegene source rocks in Bengkulu forearc basin)

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('Statistics of "Direct HC indicators" on the presence of hydrocarbons in the Raja block, South Sumatra'. Positive correlation between seismic DHI's and oil-gas discoveries (Air Hitam, Abab, Tempirai, etc.))

Wisnugroho, P.H. (2014)- Coal deposits in Tanjung Enim coal field, Bukit Asam, South Sumatera Province. In: I. Basuki & A.Z. Dahlius (eds.) Sundaland Resources, Proc. Annual Conv. Indonesian Soc. Economic Geologists (MGEI), Palembang, p. 451-459.

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(online at: https://journal.lemigas.esdm.go.id/index.php/LPMGB/article/view/121)
(Hydrocarbon potential of the Bandarjaya sub-basin'. Bandarjaya sub-basin in C Lampung part of S Palembang sub-basin. Pre-Tertiary basement chlorite schist, overlain by Tertiary deposits. Hydrocarbon potential indicated by oil and gas shows in Ratu-1 and Tujoh-1 wells. Main source rock Talang Akar Fm shales, with kerogen types II and III, and early mature to mature (Ro=0.56-1%). Eight prospects from seismic)

Wongsosantiko, A. (1976)- Lower Miocene Duri Formation sands, Central Sumatra Basin. Proc. 5th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 63-76.
(E Miocene Duri Fm sand reservoirs productive in 12 fields in C Sumatra. Deltaic sands, derived from North)

Xie, C., H. Ma, H. Liang, D. Li, X. Qi & B. Xian (2007)- Alluvial fan facies and their distribution in the Lower Talang Akar Formation, Northeast Betara Oilfield, Indonesia. Petroleum Science 4, 2, p. 18-28.
(online at: www.researchgate.net/publication/225135567_Alluvial_fan_facies_and_their_distribution Etc.)
(Lower Talang Akar Fm in NE Betara Oilfield, Jabung Block, S Sumatra, in alluvial fan facies. Bed F coarse grained, poorly sorted and low quality. Conglomerates characterized by low gamma-ray, low resistance, high density and poor physical reservoir properties)

Yanto, Y. & T. Febriwan (2008)- AVO-inversion for reservoir characterization of Baturaja carbonate, Gunung Kembang Field, South Sumatra basin. Proc. 32nd Annual Conv. Indonesian Petroleum Association, IPA08-G-047, p. 1-11.
(Gunung Kembang gas-oil field in E Miocene Baturaja Fm carbonates in anticlinorium with max. reservoir thickness 80m, gas cap 40m, underlain by 8-12m oil column. AVO inversion used to map oil distribution.)

Yarmanto (2010)- Perkembangan batupasir pada sekuen Telisa Cekungan Sumatra Tengah. Ph.D. Thesis Institut Teknologi Bandung (ITB), p. 1- *(Unpublished)*
('Development of sandstones in the Telisa sequence in the Central Sumatra Basin')

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(Tertiary wrench faulting dominant in C Sumatra basin. Main deformation phases Pre-Tertiary, Eo-Oligocene and Plio-Pleistocene. Plio-Pleistocene deformation NW-SE, older structures trend mostly N-S)

Yarmanto, T.L. Heidrick, Indrawardana & B.L. Strong (1995)- Tertiary tectonostratigraphic development of the Balam depocenter, Central Sumatra basin, Indonesia. Proc. 24th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 33-45.
(Three major Tertiary tectonic- stratigraphic episodes in Balam Depocenter. Eocene (?)- Oligocene rifting (F1, ±45-25.5 Ma) created N-NNW-trending half-grabens. Balam depocenter compartmentalized. Rift margin faults N-S (Manggala) or NNW-SSE (Jakun and Balam) and dip E-ENE at low-angles. ENE-trending Antara-Nella Accommodation Zone (ANAZ) subdivides Balam Depocenter into shallow N and deep central sections. Regional base Miocene unconformity marks beginning of F2 tectonism (25.5-13.8 Ma). It cuts across basement platforms and F1 inversion structures and grades laterally into sag disconformities above F1 graben thicks. Isopach-lithofacies suggest N-S incised braided stream system. Final structuring (F3, 13.8 Ma- Recent) linked to widespread inversion of faults and folds. Giant Bangko and Balam S fields results of F3 structural episode)

Yarmanto, I. Muswar, D. Kadar & S. Johansen (2006)- Re-appraisal of shallow marine reservoirs in the Central Sumatra basin, sixty-five years after first hydrocarbon discovery. Proc. Jakarta 2006 International Geoscience Conference Exhib., Indonesian Petroleum Association (IPA), Jakarta, PG-07, p. 1-3. *(Abstract only)*
(Sihapas Group 5 major sequences; little or no supporting data)

Yarmanto, D. Noeradi & Hendar (2010)- Telisa deposition model in the Central Sumatra Basin. Proc. 24th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA10-G-204, p. 1-11.
(On depositional environment and paleogeography of Early Miocene marine shale-dominated Telisa Fm, Central Sumatra basin)

Yeni, Y.F. (2011)- Perkembangan sedimentasi Formasi Brani, Formasi Sawahlunto dan Formasi Ombilin ditinjay dari provenance dar komposisi batupasir cekungan Ombilin. Proc. Joint. 36th HAGI and 40th IAGI Annual Conv., Makassar, JCM2011-070, p. 1-21. *(online at: https://www.iagi.or.id/web/digital/10/2011_IAGI_Makassar_Perkembangan-Sedimentasi-Formasi-Brani.pdf)*
('On the composition and provenance of sandstones of Brani, Sawahlunto and Ombilin Fms in Ombilin Basin, W Sumatra'. Immature sands as fluvial lithic arenite, lithic graywacke, subarkose, felspahatic wacke. Etc.)

Yeni, Y.F., R. Wulandari, F. Ruzi, A. Azlin, A. Regina, R. Bramantyo, M.H. Thamrin & Raihan (2017)- Fractured and weathered basement reservoirs in Beruk High, Central Sumatra Basin. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, p. 1-6. *(online at: https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_Fractured-and-Weathered-Basement-Reservoirs.pdf)*
Beruk High part of Coastal Plain Pekanbaru Block in C Sumatra basin. Part of Sibumasu- E Sumatra Block. Oil produced from Permian- E Cretaceous fractured-weathered basement of Beruk High, with open fractures trending NW- SE. Lithologies: quartzite (E Permian K-Ar age: 276 Ma), granites (Jurassic K-Ar ages: 203, 179, 150 Ma, hornfels (116 ± 6 Ma). Also M Cretaceous intrusions)

Yensusminar, D. (2021)- Geochemical properties of heavy oil in Central Sumatra Basin. Scientific Contributions Oil and Gas (SCOG), Lemigas, 44, 3. p. 173-181.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/710/490)
(Four types of heavy oil in C Sumatra Basin:(1) shallow reservoir, water washed and biodegrad; (2) shallow reservoir with meteoric water and light biodegradation; (3) deep reservoir, vertical gravity segregation, usually located on edge of field (flank); (4) medium-heavy oil (27°API), difficult to produce)

Yosandian, H.H., H. Irawan, B.W.A. Ulum, I.Y. Tribuana & P. Embara (2014)- Overpressure characteristic in the Langkat field, North Sumatra. Proc. 3rd Int. Conf. Geological and Environmental Sciences, Singapore, IPCBEE 73, p. 40-44.
(online at: http://ipcbee.com/vol73/009-ICGES2014-B0006.pdf)
(N Sumatra Basin Top overpressure in Lower Keutapang Fm, just above M Miocene Baong Fm. In Aru and Kuala Simpang Fields, Baong Fm shale dominated, forming mud volcanoes. In Langkat Field, top overpressure also in Lower Keutapang and Baong Fms)

Younita, N. & B. Simandjuntak (2002)- Indikasi endapan estuaria pada Area II lapangan minyak Duri, Cekungan Sumatera Tengah. Proc. 31st Annual Conv. Indonesian Association Geologists (IAGI), Surabaya, 1, p. 224-245.
('Indications of estuarine deposits in Area II of the Duri oilfield, C Sumatra Basin')

Youens, S. (1986)- Porosity determination from seismic data in the Rawa area, Corridor Block PSC. United Nations ESCAP, CCOP, Technical Publication 17, p. 143-155.

Yulihanto, B. (1989)- The geological evolution of the Aru area of the North Sumatra Basin, Indonesia. M.Sc. Thesis, University of London, p. *(Unpublished)*

Yulihanto, B. & B. Situmorang (1991)- Structural inversion and its influence on depositional processes in the Aru area North Sumatra Basin, Indonesia. In: R.P. Aribert-Christ (ed.) Proc. First Offshore Australia Conference, Melbourne 1991, III, p. 25-42.

Yulihanto, B. & B. Situmorang (1994)- Paleogene grabens and their sedimentary facies: new play in the Aru Area, North Sumatra Basin, Indonesia. Proc. 29th International Geological Congress, Kyoto 1992, p.

Yulihanto, B. & B. Situmorang (2002)- Tertiary inversion tectonics in the North Sumatra basin, Indonesia. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 12, 130, p. 28-48.
(Structure of N Sumatra controlled by dextral motions along NW-SE and N-S trending fault systems. N-S faults associated with isolated Paleogene transtensional graben formation. Late M Miocene structural event caused inversion along NW-SE and N-S trending faults, causing shallowing of W part of basin and migration of depocenter to E, also uplift of Barisan Mountains. Since M Miocene sediments mainly sourced from Barisan Mts. Latest inversions during 'Plio-Pleistocene orogeny')

Yuniardi, Y. (2010)- Struktur geologi Cekungan Ombilin berdasarkan interpretasi citra satelit. Bull. Scientific Contribution (UNPAD) 8, 2, p. 78-84.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8246/3794)
('Geological structure of the Ombilin basin, based on satellite imagery interpretation'. Pull-apart basin with Paleogene and Neogene structural elements)

Yuningsih, E.T. (2007)- Studi provenance batupasir formasi-formasi di Cekungan Ombilin, Sumatra Barat. Bull. Scientific Contribution (UNPAD) 5, 1, p. 33-41.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8132/3705)
(Sandstone provenance studies of formations in the Ombilin Basin, West Sumatra'. Q-F-L triangle diagrams suggest provenance of quartz-rich (Eocene) Brani Fm is from continental block. (Oligocene) Sawahlunto and Sawahtambang Fms same or 'recycled orogen'. (Miocene) Sangkarewang and Ombilin Fms are 'transitional magmatic arc'. Etc.)

Yunus, M., B. Denk & Suprihatin (1993)- Geological contributions to the enhanced oil recovery project at the Kenali Asam Field. Proc. 22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 793-793. *(Abstract only)*
(online at: https://www.iagi.or.id/web/digital/53/22nd-Volume-2-(6-9-Des-1993)-189.pdf)
(Kenali Asam field biggest oil field in Jambi area, S Sumatra. Discovered by NIAM in 1931. With 16 productive hydrocarbon zones. Pertamina water injection program)

Yusliandi, A., I. Fardiansyah, E. Finaldhi, F. Fitris &A. Sugiarto (2024)- Interaction of fan and axial fluvial-lacustrine in syn-rift system: impact on Paleogen reservoir architecture in the North Aman Trough, Central Sumatra. Proc. 53rd Annual Conv. Indonesian Association Geologists (IAGI), Balikpapan 2024, p. 1-7.
(online at: https://www.iagi.or.id/web/digital/79/155---Interaction-of-Fan-and-Axial-Fluvial-Lacustrine-in-Syn-Rift-System-Impact-on-Paleogen-Reservoir-Architecture-in-the-North-Aman-Trough,-Central-Sumatra)
(Depositional model of syn-rift Pematang Upper Red Bed Fm in North Aman Trough half-graben, C Sumatra)

Yustiawan, R., B.A. Pramudhita, A. Prakoso, Y.A. Nagarani & H. Yusuf (2013)- Pematang Brown shale as potential reservoir for the future Malaca Strait. Proc. Joint Convention 38th Indonesian Association Geophysicists (HAGI) - 42nd Indonesian Association Geologists (IAGI), Medan 2013, p. 1-8.
(online at: https://www.iagi.or.id/web/digital/8/2013_IAGI_Medan_Pematang-Brownshale-as-Potential.pdf)
(Late Eocene- Oligocene synrift Pematang Fm Brown Shale proven as source rock in S Bengkalis Trough in Malaca Strait. Also thin sandy intercalations, with oil and gas shows)

Yuwono, R.W., B.S. Fitriana, P.S. Kirana, S. Djaelani & B.A. Sjafwan (2010)- Bentu & Korinci Baru block: proven and potential shallow biogenic gas in Central Sumatra Basin. Proc. 39th Annual Conv. Indonesian Association Geologists (IAGI), Lombok, PIT-IAGI-2010-226, p. 1-16.
(online at: https://www.iagi.or.id/web/digital/12/2010_IAGI_Lombok_Bentu-_-Korinci-Baru-Block.pdf)
(Bentu and Korinci Baru PSC in C Sumatra contain biogenic gas fields with up to 350 BCF of biogenic gas. Formerly considered drilling hazard in search for deeper oil, now producing. Main gas sands in Late Miocene-Pliocene Binio Fm coastal deposits, in NW-SE anticlines. Reservoirs 600'-2000' below sea level, 7-25' thick, and excellent porosity. Seismic data shows strong amplitude anomalies, but some bright spots are coals or thin stacked water sands. Biogenic gas origin demonstrated by carbon isotope d13C values of -62 to -66 ‰.)

Yuwono, R.W., B.S. Fitriana, P.S. Kirana, S. Djaelani & B.A. Sjafwan (2011)- Biogenic gas exploration and development in Bentu PSC. Proc. 35th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA11-G-108. 17p.
(Same paper as above and also published in AAPG Singapore 2012 Int. Conv.)

Yuwono, R.W., R. Siregar, A. Kurniawan, T. Prabowo, S. Djaelani & Y. Gautama (2012)- Development of marginal Bentu gas field in Central Sumatra Basin. Proc. 41st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2012-GG-03, p. 1-13. *(online at: https://www.iagi.or.id/web/digital/9/2012_IAGI_Yogyakarta_Development-of-Marginal-Bentu-Gas-Field-in-Central.pdf*
(Biogenic gas reservoir in Bentu Field (Stanvac, 1981) with 40-50' gas sand in Late Miocene- Pliocene Binio Fm. 2P- reserves only 14 BCF, but proximity to PLN power plant justifies development. Binio Fm deposited in coastal environment. Gas trapped in NW-SE anticline related to reverse fault)

Zaim, Y. & Aswan (2018)- The impact of coastal line development of the Jambi area during Late Pleistocene-Recent time on decline of the Srivijaya Kingdom prosperity. AMERTA 30, 2, p. 90-99.
(online at: https://jurnalarkeologi.kemdikbud.go.id/index.php/amerta/article/view/388)
(Five stages of seaward migration of paleo-coastlines in SE Sumatra and N Java, in response to Late Pleistocene-Recent sea level fluctuations. Trading activity of Srivijaya Kingdom in Jambi area from river ports near mouth of paleo-Batanghari River may have been negatively affected by shallowing of river)

Zaim, Y., G.F. Gunnell, R.L. Ciochon, Y. Rizal, Aswan & N. O'Shea (2014)- Paleogene vertebrates from Tanahsirah, Talawi- Ombilin Basin, West Sumatra: a preliminary field result. Buletin Geologi (ITB) 41, 3, p. 175-184. *(online at: https://www.researchgate.net/publication/282854166_PALEOGENE_VERTEBRATES_FROM_TANAHSIRAH_TALAWI_-_OMBILIN_BASINWEST_SUMATRA_INDONESIA_A_PRELIMINARY_FIELD_RESULT Etc.)*
(Paleogene Sangkarewang/Sawahlunto Fms initially known only for fish fossils. Subsequent finds of crocodiles, turtles, small mammal bones and teeth (first Paleogene mammal finds in oceanic SE Asia), and bird trackways)

Zaim, Y., L. Habrianta, C.I. Abdullah, Aswan, Y. Rizal, N.I. Basuki & F.E. Sitorus (2012)- Depositional history and petroleum potential of Ombilin Basin, West Sumatra- Indonesia, based on surface geological data. AAPG Int. Convention Exhibition, Singapore 2012, Search and Discovery Article 10449, p. 1-9.
(online at: www.searchanddiscovery.com/documents/2012/10449zaim/ndx_zaim.pdf)
(Ombilin Basin Eocene- M Oligocene initial rifting with deposition of Brani and Sangkarewang Fms in alluvial fan and lacustrine environment (with freshwater fish fossils). In Oligocene syn-rift changed from lake to fluvial Sawahlunto Fm and Sawahtambang Fm in Late Oligocene. E Miocene post-rift Ombilin Fm change to marine environment. Etc.)

Zaim, Y., Y. Rizal, G.F. Gunnell, T.A. Stidham & R.L. Ciochon (2011)- First evidence of Miocene avian tracks from Sumatra. Berita Sedimentologi 20, p. 5-6.
(online at: www.iagi.or.id/fosi/files/2011/01/BS20-Sumatra1.pdf)
(Ombilin Basin E Miocene intertidal beach sediments of Sawahlunto Fm with tracks of two different types of shorebirds. Represent first discovery of bird footprint fossils in Indonesia (Sawahluntoo Formation = older than Miocene?; JTvG)

Zainetti, F., G.A. Cole & A. Anuar (2015)- Fresh insights into the oil families of the South Sumatra Basin. Proc. Asia Petroleum Geoscience Conference and Exhibition (APGCE 2015), EAGE, Kuala Lumpur, p. 1-5. *(Extended Abstract)*
(Geochemical analyses of 44 oils in S Sumatra Basin. New biomarker interpretation method helps define three main oil families:(1) more algal-dominated; (2) mixed terrigenous with subordinate algal contribution, and (3) typical humic sourced family. All potential source rocks are syn-rift to sag in origin)

Zajuli, M.H.H., R. Oktavitania & O. Rizkika (2020)- Geokimia organik serpih hidrokarbon berumur Eosen di daerah Sumatera bagian Tengah. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 21, 1, p. 45-60.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/499/426)
('Organic geochemistry of Eocene-aged hydrocarbon shale in Central Sumatra Region'. Late Eocene shale of Kasiro Fm (Jambi basin), Sinamar (Ombilin basin, C Sumatra) and Kelesa Fm (C Sumatra basin). S Sumatra shales higher vitrinite and liptinite than C Sumatra shales. Kasiro Fm shale dominantly kerogen Type I and II, while shales of Sinamar and Kelesa Fm Types I, II and III. All have oil and gas source potential. Kasiro Fm shale higher oil than gas potential. Sinamar Fm oil and gas prone, also potential as oil shale)

Zajuli, M.H.H. & H. Panggabean (2013)- Depositional environment of fine-grained sedimentary rocks of the Sinamar Formation, Muara Bungo, Jambi. Jurnal Geologi Indonesia 8, 1, p. 25-38.
(online at: http://jgi.bgl.esdm.go.id/index.php/JGI/article/view/45/34)
(Lacustrine Oligocene Sinamar Fm at NW side of S Sumatra Basin consists of clastics with coal-seams. Dominant maceral groups exinite (alginite (3.4-18%), and resinite (1.6-5.6%)) and vitrinite (tellocolinite 0.4- 0.6%, desmocollinite 0.4%, vitrodetrinite 8.4-16.6%). Organic material of shales derived from higher plants and algae, especially Botryococcus species)

Zajuli, M.H.H. & H. Panggabean (2014)- Hydrocarbon source rock potential of the Sinamar Formation, Muara Bungo, Jambi. Indonesian J. on Geoscience (IJOG) 1, 1, p. 53-64.
(online at: http://ijog.bgl.esdm.go.id/index.php/IJOG/article/view/175/175)
(Oligocene Sinamar Fm good-excellent oil source rock, with up to 11% TOC and mainly Type I kerogen. Simamar village outcrop section ~42m thick brown-black shale, with coal and sandstone near base. Immature- early mature in outcrop)

Zajuli, M.H.H., H. Panggabean, Hendarmawan & I. Syafri (2015)- Dinamika kehadiran material organik pada lapisan serpih Formasi Kelesa di daerah Kuburan Panjang, Cekungan Sumatera Tengah, Riau. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 16, 4, p. 171-181.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/30)
('Dynamics of organic material presence Kelesa Fm shale in the Kuburan Panjang region, C Sumatra Basin'. Eocene-Oligocene Kelesa Fm shale in Kuburan Panjang area, Sumai sub-basin (SW of Rengat), good potential

source rocks with TOC 1.2- 7.2%. Vitrinite 0.2-5%, eksinite 0.6-4.7%. Pyrite 0.2-16%. Increase in organic material from bottom to top)

Zajuli, M.H.H., H. Panggabean, Hendarmawan & I. Syafri (2017)- Hubungan kelompok maseral liptinit dan vitrinit dengan tipe kerogen batuan sumber hidrokarbon pada serpih Formasi Kelesa bagian atas, Kuburan Panjang, Riau. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 18, 1, p. 13-23.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/101/126)
('Relationship between liptinite and vitrinite maceral groups with kerogen type of hydrocarbon source rock of upper Kelesa shale formation in Kuburan Panjang, Riau')

Zamiel, F., M. Irfani & K.N. Syafrin (1991)- Perkembangan "barrier bar" pada batupasir Formasi Keutupang bawah daerah Pulau Sembilan, Aru, Sumatra Utara. Proc. 20th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 206-230.
(online at: https://www.iagi.or.id/web/digital/49/20th-(10-12-Des-1991)-15.pdf)
('Development of a 'barrier bar' in sandstones of the Lower Keutupang Formation in the Pulau Sembilan area, Aru, North Sumatra'. NW-SE trending 'barrier bar' sandbody in Late Miocene of N Sumatra basin)

Zeliff, C.W. & D. Bastian (2000)- New play in a mature basin: prospecting for gas. AAPG International Conf and Exhib., Bali 2000, American Assoc. Petroleum Geol. (AAPG) Bull. 84, 9, 1p. *(Abstract only)*
(Dayung-1 1991 wildcat well, S Sumatra tested gas in fractured pre-Tertiary granite wash and granite. Since Dayung, Gulf discovered 8 gas fields where basement rocks represent primary reservoir)

Zeliff, C.W., S.W. Trollope & E. Maulana (1985)- Exploration cycles in the Corridor Block, South Sumatra. Proc. 14th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 379-400.
(Corridor area in S Sumatra several cycles of petroleum exploration. Exploration by BPM (Shell) in early 1890's, resulted in several small, shallow oil fields. Second cycle concentrating on deep Talang Akar prospects through 1930's terminated by World War II. Low level of activity post WW II through late 1960's. Modern exploration cycle initiated by Stanvac in 1971 and Asamera after 1980, with Tanjung Laban and Ramba fields discoveries in 1982).

Zhang, K. & H. C. Lau (2022)- Utilization of a high-temperature depleted gas condensate reservoir for CO_2 storage and geothermal heat mining: A case study of the Arun gas reservoir in Indonesia. J. Cleaner Production 343, 131006, p. 1-22.
(Reservoir model of depleted Miocene carbonate reservoir of Arun gas field, as potential CO_2 storage)

Ziegler, K.G.J. (1921)- Verslag over de resultaten van geologisch- mijnbouwkundig onderzoek van het Kendi-Ringin kolenveld (Res. Palembang). Jaarboek Mijnwezen Nederlandsch-Indie 47 (1918), Verhandelingen 2, p. 141-189.
('Report on the results of geological-mining investigation of the Kendi-Ringin coal field (Res. Palembang)'. Coal field with 12 coalbeds in Miocene Middle Palembang Fm. Coal grade improved by andesite intrusives)

Ziegler, K.G.J. (1922)- Verslag over het onderzoek der asfalt-terreinen by Tandjoeng Laoet (Res. Palembang). Jaarboek Mijnwezen Nederlandsch-Indie 49 (1920), Verhandelingen 1, p. 33-69.
('Report of investigation of asphalt deposits near Tanjung Laut (Res. Palembang)'. Six surface asphalt deposits 50 km WNW of Palembang, S Sumatra, which are large, degraded oil seeps in outcropping ?Pliocene clastics)

Zonneveld, J.P., V.D. Barreda, Y. Zaim, Y. Rizal, A.T. Hascaryo, R.L. Ciochon, J. Head, A. Murray, T. Smith et al. (2025)- Depositional framework of the Sangkarewang and Sawahlunto Formations, Ombilin Basin, West Sumatra, Indonesia. J. Asian Earth Sciences 287, 106611, p. 1-23.
(online at: https://www.sciencedirect.com/science/article/pii/S1367912025001269)
(Palynology 'novel reinterpretation' indicates that lacustrine Sangkarewang Fm and coal-bearing Sawahlunto Fm in Ombilin Basin are indeed Middle-Late Eocene in age)

Zonneveld, J.P., Y. Zaim, Y. Rizal, R.L. Ciochon, E.A. Bettis, Aswan & G.F. Gunnell (2011)- Oligocene shorebird footprints, Kandi, Ombilin Basin, Sumatra. Ichnos 18, 4, p. 221-227.
(Two types of bird footprints in intertidal sand flat fine sandstone of Oligocene Sawahlunto Fm in outcrop near Kandi Ombilin Mine. Referable to ichnogenus Aquatilavipes and similar to small modern shorebirds)

Zonneveld, J.P., Y. Zaim, Y. Rizal, R.L. Ciochon, E.A. Bettis, Aswan & G.F. Gunnell (2012)- Ichnological constraints on the depositional environment of the Sawahlunto Formation, Kandi, northwest Ombilin Basin, west Sumatra, Indonesia. J. Asian Earth Sciences 45, 2, p. 106-113.
(Low diversity trace fossil assemblage from Oligocene Sawahlunto Fm near Kandi, NW Ombilin Basin, W Sumatra. Traces and mud-draped and bidirectional ripples imply tidally-influenced marine setting. Bird footprints (Aquatilavipes) imply periodic subaerial exposure)

Zulmi, I., A. Inabuy & R. Wisnu Y. (2016)- A hidden gas potential of alluvial fan deposits in Gebang Block, North Sumatra. Proc. 14th Regional Conference Geology and Mineral Resources of SE Asia (GEOSEA XIV) and 45th Annual Conv. Indonesian Association Geologists (IAGI) (GIC 2016), Bandung, p. 544-548.
(Up to 300m thick Eo-Oligocene alluvial fan sandstones identified in Anggor and Secanggang Fields and Gebang Block wells in N Sumatra basin. Gas tested in Anggor and GB-04 wells. Risk of overpressure)

II.3. Sumatra - Western offshore forearc basins and islands

Abercrombie, R., M. Antolik & G. Ekstrom (2003)- The June 2000 Mw 7.9 earthquakes south of Sumatra: deformation in the India-Australia Plate. J. of Geophysical Research 108, B1, 2081, p. 1-16.
(June 2000 earthquakes S of Sumatra below Indian Ocean predominantly left-lateral strike-slip on vertical N-S trending faults, probably reactivated fracture zones. Earthquakes consistent with recent models of distributed deformation in India-Australia composite plate. Occurrence of Enggano earthquake implies stress field within Indian plate continues to depth of 50km in subducting slab)

Ammon, C.J., Chen Ji, H.K. Thio, D. Robinson, S. Ni, V. Hjorleifsdottir, H. Kanamori, T. Lay et al. (2005)- Rupture process of the 2004 Sumatra-Andaman earthquake. Science 308, p. 1133-1139.

Andi Mangga, S. & G. Burhan (1984)- The stratigraphic development of the Mentawai islands and its relation to the stratigraphic of Sumatera mainland. Proc. Annual Conv. Indonesian Association Geologists (IAGI), Bandung, p.
(see also Andi Mangga et al., 2006)

Andi Mangga, S., G. Burhan, Sukardi & E. Suryanila (1994)- Geologic map of the Siberut Sheet (0614-0714), Sumatra, 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(Map sheet of Siberut Island in Sumatra forearc/ accretionary prism. SW half of island mainly highly folded Late Miocene- Pliocene Sagulubek Fm. M-L Miocene? Tarikan Melange complex at base of thrust sheets, with blocks of Late Oligocene- E Miocene limestone in sheared tuffaeous claystone. NW part of island mainly strongly folded Late Miocene- Pliocene deep water tuffaceous sediments of Saibi Fm. Structure mainly NW-SE trending, NE dipping thrust faults)

Andi Mangga, S., S. Gafoer & N. Suwarna (1987)- Hubungan geologi antara Kepulauan Mentawai dan dataran Sumatra bagian Selatan. Proc. 16th Annual Conv. Indonesian Association Geologists (IAGI), p.
('Geological relationships between the Mentawai islands and S Sumatra'.)

Andi Mangga, S., Kusnama & Suryono (2006)- Stratigraphy and tectonic development of Mentawai islands West Sumatera, based on plate tectonic theory. Jurnal Sumber Daya Geologi (JSDG) 16, 3 (153), p. 136-143.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/359)
(Mentawai Islands off W Sumatra non-volcanic outer arc, which is accretionary wedge related to subduction of Indian Ocean. Pre-Oligocene ophiolite and melange complexes uplifted and overlain unconformably by Miocene and younger Mentawai Gp marine ponded basin sediments. Melange with ultramafic ophiolite fragments. Ophiolite overlain by M-L Eocene radiolarian cherts. Mentawai melange formed by mud diapirism, with blocks of serpentinite, basalt, Late Eocene Pellatispira- Nummulites limestone, etc., and N8 E-M Miocene planktonics in matrix (= Oyo Complex of Nias))

Anugrahadi, A., H.S. Koesnadi, Y. Surachman & D. Muljawan (2004)- Geological condition of the convergent margin system off West Java and Southern Sumatra. In: R.A. Noble et al. (eds.) Proc. Int. Conf. Deepwater and frontier exploration in Asia & Australasia, Jakarta, Indonesian Petroleum Association (IPA), p. 279-285.
(Short paper based on BGR 1999 seismic and bathymetry data; not much data)

Ardhyastuti, S., Y. Haryadi & T. Wiguna (2017)- Mapping of gas seepage zone in the fore arc basin Sumatra Region. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, p. 1-6.
(online at: https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_Mapping-of-Gas-Seepage-Zone-in-the-Fore-Arc-Basin.pdf)
Description of active gas seeps on seafloor in Simeulue- Siberut forearc basin: seismic expression, carbonate hardground cementation of seafloor. Seep vent fauna of white crabs, mytilid bivalves, Vestimentifera polychaete tube worms, etc.)

Aribowo, S., L. Handayani, N.D. Hananto, K.L. Gaol, Syuhada & T. Anggono (2014)- Deformasi kompleks di Pulau Simeulue, Sumatra: interaksi antara struktur dan diapirisma. J. RISET Geologi dan Pertambangan (LIPI) 24, 2, p. 131-144.

(online at: https://jrisetgeotam.lipi.go.id/index.php/jrisgeotam/article/view/89
('Complex deformation in Simeuleu Island, Sumatra: interplay between structure and diapyrism'. Simeulue in accretionary complex off NW Sumatra. Deformation generally NE-dipping reverse and thrust faults verging towards trench. NNE blocks tend to be higher than SSW blocks. Out-of-sequence 'backthrusts' present, possibly correlated to mud diapirism)

Aribowo, S., L. Handayani & N.D. Hananto (2015)- Origin of the uplifted Simeulue forearc high island. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI, Balikpapan, JCB2015-219, p. 1-4.
(online at: https://www.iagi.or.id/web/digital/3/2015_IAGI_Balikpapan_Origin-Of-The-Uplifted.pdf)
(UpliftedMio-Pliocene sediments intruded by diapiric melange in Simeulue Island may not be a part of accretionary complex, but may be forearc basin sediments that originated from Sumatra. Uplift may be related to NW trending Late Pliocene- Pleistocene compressional structures of W Andaman- Mentawai Fault zones)

Arisbaya, I., M.M. Mukti, L. Handayani, H. Permana, M. Schnabel & K. Jaxybulatov (2015)- Tinggian Tabuan-Panaitan jejak sesar Sumatra di Selat Sunda berdasarkan analisis data geofisika. In: H. Harjono et al. (eds.) Pros. Pemaparan Hasil Penelitian Geoteknologi 2015, Pusat Penelitian Geoteknologi (LIPI), Bandung, p. I33-I39.
(online at: http://pustaka.geotek.lipi.go.id/wp-content/uploads/2016/04/Prosiding-2015.pdf)
('The Tabuan- Panaitan Ridge, trace of the Sumatran fault in Sunda Strait, based on geophysical data analysis'. Semangko pull-apart basin in Sunda Straits two sub-basins separated by NW-SE to N-S trending Tabuan-Panaitan Ridge, part of main Sumatra Fault zone in Sunda Strait. With likely magmatic intrusion activity)

Arisbaya, I., M.M. Mukti & H. Permana (2016)- Seismic evidence of the southeastern segment of the Sumatran Fault Zone in Sunda Strait and Southern Java. Proc. 14th Regional Conference Geology and Mineral Resources of SE Asia (GEOSEA XIV) and 45th Annual Conv. Indonesian Association Geologists (IAGI) (GIC 2016), Bandung, p. 378-383. *(online at: https://www.academia.edu/31871495/Seismic_evidence_of_the_southeastern_segment_of_the_Sumatran_Fault_Zone_in_Sunda_Strait_and_Southern_Java)*
(Bathymetry data and local seismicity in Sunda Strait suggest existence of extension segment of Sumatran Fault Zone S of Ujung Kulon towards Sunda Trench, and is active fault)

Backman, J., W. Chen S. Kachovich, F. Mitchison, K. Petronotis, T. Yang & X. Zhao (2019)- Data report: revised age models for IODP Sites U1480 and U1481, Expedition 362. In: L.C. McNeill et al. (eds.) Proc. International Ocean Discovery Program (IODP) 362, College Station, TX, p. 1-7.
(online at: http://publications.iodp.org/proceedings/362/ERR/CHAPTERS/362_202.PDF)
(Revised age model for Late Maastrichtian-Recent sediments penetrated by Site U1480 between Sumatra forearc subduction trench and Ninetyeast Ridge, in ~4 km water depth. Based on calcareous nannofossils and planktonic foraminifera. Major (40 Myr) Eocene- E Miocene hiatus above thin Maastrichtian-Paleocene pelagic section. Increase in sedimentation rate in late E Miocene (17.4 Ma) until Late Miocene, followed by 15-fold increase in sedimention rate in Late Miocene (9.3 Ma) - Pliocene (1.8 Ma) (Nicobar Fan))

Balakina, L. & A. Moskvina (2012)- Andaman-Sumatra island arc: 1. Spatiotemporal manifestations and focal mechanisms of the earthquakes. Izvestiya, Physics of the Solid Earth, 48, 2, p. 117-154.

Baroux, E., J.P. Avouac, O. Bellier & M. Sebrier (1998)- Slip-partitioning and fore-arc deformation at the Sunda Trench. Terra Nova 10, p. 139-144.
(Oblique subduction at Sunda Trench causes transpressive deformation of plate leading edge. Right-lateral Great Sumatran Fault absorbs significant fraction of trench-parallel shear. Obliquity of convergence increases N-ward along Sumatra Trench, up to ~30°. Slip partitioning nearly complete along N segment of Sumatra Trench, where Great Sumatra Fault probably accommodates most trench parallel shear. Along S segment, where obliquity <20°, slip-partitioning not complete as indicated by oblique thrusting at subduction)

Beaudry, D. (1983)- Depositional history and structural evolution of a sedimentary basin in a modern forearc setting, western Sunda Arc, Indonesia. Ph.D. Thesis University of California, San Diego, p. 1-168.
(Unpublished)

(Seismic-stratigraphic interpretation of forearc basin of W Sumatra. Late Oligocene unconformity with subaerial erosion)

Beaudry, D. & G. Moore (1981)- Seismic-stratigraphic framework of the forearc basin off central Sumatra, Sunda Arc. Earth Planetary Science Letters 54, p. 17-28.
(Forearc basin W of C Sumatra SE of Nias six seismic-stratigraphic sequences. Paleogene prograding slope deposits onlapped by younger Paleogene(?) trough deposits. Uplift associated with rejuvenation of subduction in Late Oligocene led to erosion of shelf and formation of regional unconformity. E Miocene progradation. Buried reef zone near shelf edge. Erosional unconformity on shelf and slope in Late Miocene/E Pliocene time. Late Pliocene flexure at W boundary of basin, displacing outer-arc ridge upward. Over 1 km of Pliocene- Recent wedge in deep western portion of basin landward of outer-arc ridge. Up to 800 m of shallow-water limestone on shelf since M-Pliocene)

Beaudry, D. & G.F. Moore (1985)- Seismic stratigraphy and Cenozoic evolution of West Sumatra forearc basin. American Assoc. Petroleum Geol. (AAPG) Bull. 69, 5, p. 742-759. *(online at: (https://www.academia.edu/107406330/Seismic_Stratigraphy_and_Cenozoic_Evolution_of_West_Sumatra_Forearc_Basin)*
(W Sumatra forearc 3 tectonic cycles: Paleogene orogeny, Neogene subsidence, Late Tertiary tectonism. Superimposed are 3 transgressive-regressive cycles. Paleogene and older metasedimentary and metamorphic rocks comprise basement beneath landward (inner) margin of forearc basin. Basement rocks and lower Tertiary sedimentary rocks deformed and eroded ~25-30 Ma. Continental shelf exposed to erosion, and basin deposits restricted offshore, coincident with Oligocene lowstand. Paleogene orogeny prior to erosional event that cut angular unconformity on shelf. Neogene characterized by subsidence and near-continuous sedimentation. Latest Oligocene basal transgression culminated in M Miocene. Alternating limestones and shales comprise two 2nd-order cycles superimposed on overall transgression. Pliocene regressive sequence due to influx of siliciclastics from Sumatra. Shelf-slope break prograded basinward nearly 10 km)

Berglar, K. (2010)- The forearc off Sumatra: basin evolution and strike-slip tectonics. Doct. Thesis Gottfried Wilhelm Leibniz Universitat, Hannover, p. 1-131.

Berglar, K., C. Gaedicke, D. Franke, S. Ladage, F. Klingelhoefer & Y.S. Djajadihardja (2010)- Structural evolution and strike-slip tectonics off north-western Sumatra. Tectonophysics 480, p. 119-132.
(manuscript online at: http://archimer.ifremer.fr/doc/00000/11149/7818.pdf)
(Model for interaction between strike-slip faulting and forearc basin evolution off NW Sumatra between 2°N and 7°N. In Simeulue- and Aceh forearc basins strike-slip faulting controlled forearc basin evolution since Late Miocene. The Mentawai Fault Zone N of Simeulue Island and probably connected to Sumatran Fault Zone until end Miocene. Simeulue Basin two major Neogene unconformities, documenting differences in subsidence evolution along N Sumatran margin linked to subduction processes and strike-slip deformation)

Berglar, K., C. Gaedicke, S. Ladage & H. Thole (2017)- The Mentawai forearc sliver off Sumatra: a model for a strike-slip duplex at a regional scale. Tectonophysics 710-711, p. 225-231.
(At Sumatran oblique convergent margin Mentawai and Sumatran Fault right-lateral fault zones accommodate most of trench- parallel component of strain and bound Mentawai forearc sliver that extends from Sunda Strait to Nicobar Islands. Set of wrench faults obliquely connect two major fault zones, separating at least four horses of regional strike-slip duplex forming forearc sliver, each comprising individual basin in forearc. Duplex formation started in M-L Miocene SW of Sunda Strait, then propagated N-wards over 2000 km until E Pliocene)

Berglar, K., C. Gaedicke, R. Lutz, D. Franke & Y.S. Djajadihardja (2008)- Neogene subsidence and stratigraphy of the Simeulue forearc basin, Northwest Sumatra. Marine Geology 253, p. 1-13.
(Simeulue forearc basin Neogene sedimentary fill up to 5s TWT. Three stages of subsidence evolution after formation of regional basal Neogene unconformity. E-M Miocene stage marked by subsidence in half grabens along W border of basin. Late Miocene/Pliocene change to steadily subsiding trench-parallel trough. Present setup of forearc region under influence of strike-slip faults due to oblique subduction active at least since this time as evidenced by wrench faulting. At end of this stage subsidence expanded significantly E-ward, drowning

large carbonate platform that evolved in the then shallows and E parts of basin. Central part of Simeulue basin presently subject to inversion, probably related to reactivation of E-M Miocene half grabens)

Bradley, K., L. Feng, E.M. Hill., D.H. Natawidjaja & K.Sieh (2017)- Implications of the diffuse deformation of the Indian Ocean lithosphere for slip partioning of oblique plate convergence in Sumatra. J. of Geophysical Research 122, p. 572-591.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1002/2016JB013549)
Oblique plate convergence between Indian Ocean lithosphere and continental crust of Sunda plate distributed between subduction on Sunda megathrust and upper plate strike-slip faulting on Sumatran Fault Zone, in classic example of slip partitioning. Permanent deformation within fore-arc sliver minor and Sumatran Fault is a plate boundary strike-slip fault. Kinematic data best explained by diffuse deformation within oceanic lithosphere of Wharton Basin)

Bradley, K., Y. Qin, H. Carton, N. Hananto, F. Villanueva-Robles, F. Leclerc, Wei Shengji, P. Tapponnier et al. (2019)- Stratigraphic control of frontal decollement level and structural vergence and implications for tsunamigenic earthquake hazard in Sumatra, Indonesia. Geochem. Geophysics Geosystems 20, 3, p. 1646-1664.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2018GC008025)
(Propagation of fault rupture to seafloor likely cause of enhanced tsunami generation during megathrust earthquakes. New seismic profiles and swath bathymetry reveal significant and systematic lateral variations in stratigraphic level of frontal Sunda megathrust and vergence of frontal ramp faults. Where ramp faults are uniformly seaward vergent, decollement on top of pelagic sediments. Where ramp faults bivergent decollement within the subducting clastic sequence above transparent distal fan muds. Where ramp faults uniformly landward vergent decollement directly on top of oceanic crust of subducting Investigator Fracture Zone)

Brennan, P.A. & J.H. Shaw (2005)- Wedge structure, Nias Basin, Sumatra, Indonesia. In: J.H. Shaw et al. (eds.) Seismic interpretation of contractional fault-related folds; an AAPG seismic atlas, American Assoc. Petroleum Geol. (AAPG), Studies in Geology 53, p. 141-143.
(Complex inversion structure on seismic in Nias basin between Nias Island and SW Sumatra. Miocene and younger sediments deposited over basement composed of earlier Tertiary subduction complex. Basin underwent E-M Miocene extension, followed by compression in Late Miocene, Pliocene and Pleistocene)

Briggs, R.W., K. Sieh, W.H. Amidon, J. Galetzka, D. Prayudi, I. Suprihanto, N. Sastra, B. Suwargadi, D. Natawidjaja & T.G. Farr (2008)- Persistent elastic behavior above a megathrust rupture patch: Nias island, West Sumatra. J. of Geophysical Research 113, B12406, p. 1-28.
(Fore-arc deformation quantified using fossil reefs. Elevated coral reef flats and chenier plains show outer arc island of Nias experienced slow long-term uplift and subsidence during Holocene, but island rose up to 2.9 m during Mw 8.7 Sunda megathrust rupture in 2005. Average uplift rates since mid-Holocene 1.5- 0.2 mm/yr, highest on E coast of Nias, where coseismic uplift was nearly zero in 2005)

Briggs, R.W., K. Sieh, A.J. Meltzner, D. Natawidjaja, J. Galetzka, B. Suwargadi et al. (2006)- Deformation and slip along the Sunda megathrust in the great 2005 Nias-Simeulue earthquake. Science 311, 5769, p. 1897-1901.
(Seismic rupture produced deformation above a 400-kilometer strip of Sunda megathrust, off N Sumatra. Trench-parallel belts of uplift up to 3m on outer-arc islands above rupture and 1 subsidence farther from trench. More than 11m of fault slip under islands)

Budhitrisna, T. (1989)- Melange di Pulau Pagai dan Pulau Sipora, Kepulauan Mentawai. Bull. Geological Research Development Centre (GRDC) 13, p. 1-8.
('Melange of Pagai and Sipora islands, Melawai Islands'. Islands off W Sumatra with basal melange of sheared rocks with clasts of ophiolite, pelagic sediments, metamorphics, etc., overlain by Miocene-Pliocene sediments)

Budhitrisna, T. & S. Andi Manggal (1990)- Geological map of the Pagai and Sipora Quadrangle (0712-0713), Sumatra, 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(Map of W Sumatra forearc/ accretionary prism islands Sipura and N and S Pagai)

Bunting, T., S. Singh, M. Bayly & P. Christie (2008)- Seismic imaging of the fault that caused the great Indian Ocean earthquake of 26 December 2004, and the resulting catastrophic tsunami. The Leading Edge, Oct. 2008, p. 1272-1281.
(Deep seismic image over area of 2004 tsunami earthquake)

Carton, H., S.C. Singh, N.D. Hananto, J. Martin, Y.S. Djajadihardja, Udrekh, D. Franke & C.Gaedicke (2014)- Deep seismic reflection images of the Wharton Basin oceanic crust and uppermost mantle offshore Northern Sumatra: relation with active and past deformation. J. of Geophysical Research: Solid Earth 119, 1, p. 32-51.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1002/2013JB010291)
(Deep seismic reflection images in Wharton Basin offshore N Sumatra. Profile subparallel to Sumatran trench shows strike-slip deformation over two fracture zones of extinct Wharton Spreading Center. Western fracture associated with a wide region of strong basement topography, difference in crustal thickness of ~1.5 km, and age offset of 9 Ma)

Chauhan, A.P.S, S.C. Singh, N.D. Hananto, H. Carton, F. Klingelhoefer, J.X. Dessa et al. (2009)- Seismic imaging of forearc backthrusts at northern Sumatra subduction zone. Geophysical J. International 179, 3, p. 1772-1780.
(online at: http://gji.oxfordjournals.org/content/179/3/1772.full.pdf+html)
(Seismic image of N Sumatran forearc, near 2004 earthquake epicenter shows active back thrusts at seaward edge of Aceh forearc basin. Seaward dipping backstop buttress imaged. Uplifting along backthrust branches may explain presence of forearc islands along Sumatran margin)

Chlieh, M., J.P. Avouac, K. Sieh, D.H. Natawidjaja & J. Galetzka (2008)- Heterogeneous coupling of the Sumatran megathrust constrained by geodetic and paleogeodetic measurements. J. of Geophysical Research 113, B05305, p. 1-31.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1029/2007JB004981)
(Heterogeneous pattern of coupling in Sunda subduction zone. Near equator, megathrust is locked over narrow width of only a few tens of km. In contrast, locked fault zone is up to about 175 km wide in areas where great interplate earthquakes have occurred in past)

Collings, R., D. Lange, A. Rietbrock, F. Tilmann, D. Natawidjaja, B. Suwargadi, M. Miller & J. Saul (2012)- Structure and seismogenic properties of the Mentawai segment of the Sumatra subduction zone revealed by local earthquake traveltime tomography. J. of Geophysical Research 117, 1, B01312, p. 1-23.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/full/10.1029/2011JB008469)
(Seismicity distribution in S section of Mentawai segment of Sumatra subduction zone reveals significant activity along subduction interface and within two clusters in overriding plate either side of forearc basin. Downgoing slab of hydrated oceanic crust can be traced to ~50 km depth. Above slab, shallow continental Moho of less than 30 km depth can be inferred. Outer arc islands consist of fluid saturated sediments)

Collings, R., A. Rietbrock, D. Lange, F. Tilmann, S. Nippress & D. Natawidjaja (2013)- Seismic anisotropy in the Sumatra subduction zone. J. of Geophysical Research: Solid Earth 118, 10, p. 5372-5390.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1002/jgrb.50157)
(Seismic anisotropy from observations of shear wave splitting from temporary seismic networks deployed between 2007- 2009. Measurements from fore-arc islands exhibit trench-parallel fast directions, in Sumatra Fault region predominant fast direction fault/trench parallel, in back-arc region trench perpendicular)

Cook, B.J., T.J. Henstock, L.C. McNeill & J.M. Bull (2014)- Controls on spatial and temporal evolution of prism faulting and relationships to plate boundary slip offshore north-central Sumatra. J. of Geophysical Research: Solid Earth 119, 7, p. 5594-5612.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/full/10.1002/2013JB010834)
(Across- and along-strike variations in morphology and structure of N-C Sumatran forearc (~1.5°S- 1°N) broadly coincident with subducting plate topography. Two major fault structures divide prism into three strike-parallel belts that can be characterized by the relative fault slip rates along major and minor fault structures)

Craig, T.J. & A. Copley (2018)- Forearc collapse, plate flexure, and seismicity within the downgoing plate along the Sunda Arc west of Sumatra. Earth Planetary Science Letters 484, p. 81-91.
(online at: http://alexcopley.co.uk/papers/2018_tim_sumatra.pdf)
(On deformation of accretionary prism in near-trench off NW Sumatra from seismicity. Shallow compressional earthquakes within downgoing oceanic plate, in region typically expected to be in horizontal extension. Forearc prism shows steep front and low-angle top, characteristic of region undergoing morphological readjustment. Prism collapse likely results from rapid change in incoming sediment thickness and viscosity)

Darman, H. (2011)- Seismic expression of some geological features of Andaman- offshore West Sumatra subduction zone. Berita Sedimentologi 20, p. 18-21.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/217)
(Seismic examples of accretionary prism and forearc basins off NW Sumatra and Andaman Sea)

Deighton, I, M.M. Mukti, S. Singh, T. Travis, A. Hardwick & K. Hernon (2014)- Nias basin, NW Sumatra- new insights into forearc structure and hydrocarbon prospectivity from long-offset 2D seismic data. Proc. 38th Annual Conv. Indonesian Petroleum Association, Jakarta, IPA14-G-299, p. 1-21.
(Nias Basin in Sumatran Forearc between Nias island and Sumatran mainland. Mainly oriented N-S, in ~500m water, shallower than larger basins to NW (750-1000m), and SE (~1500m). Most fold and thrust structures can be related to Mentawai segment to SE. Change in direction along Nias segment resulted in increased uplift of Paleogene forearc sediments exposed on Nias Island. Thick sediments (4.5 sec TWT sub seabed) with half-graben/syn-rift character beneath main forearc package, interpreted as Paleogene. Thickest syn-rift section in SE. Even with low geothermal gradients observed in wells, bottom half of Paleogene mature for hydrocarbon expulsion. Reefal prospects updip from Paleogene kitchen on E margin of basin)

Delegation of Indonesia (1975)- Results of petroleum exploration in the Inter-Deep basin off West Sumatra, Indonesia. Proc. 12th Session Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Tokyo 1975, 40, p. 254-262. *(online at: https://repository.unescap.org/server/api/core/bitstreams/5b5b4d51-1dd6-443a-8f5f-4fb6187c3158/content)*
(Early review of petroleum exploration West Sumatra offshore forearc basin. Three sub-basins. By end of 1974 22 exploration wells drilled. Four Union Oil wells tested methane-only gas in Late Miocene reefal limstones (Meulaboh-1, K.eudepasi-1 Palambak-1 and Singkel-1, all in Meulaboh and Nias sub-basins. Oil show only in Baturaja Limestone in Bengkulu sub-basin (Aminoil A-1X). No hydrocarbons in Lower Miocene carbonates)

Delescluse, M., N. Chamot-Rooke, R. Cattin, L. Fleitout, O. Trubienko & C. Vigny (2012)- April 2012 intra-oceanic seismicity off Sumatra boosted by the Banda-Aceh megathrust. Nature 490, p. 240-244.
(Two large intra-oceanic earthquakes in NE Indian Ocean on 11 April 2012 largest strike-slip events in historical times. Triggered large aftershocks worldwide. Along fossil fabric of extinct Wharton basin and part of intraplate deformation between India and Australia that followed Aceh 2004 and Nias 2005 megathrust earthquakes. Australian plate, driven by slab-pull forces at the Sunda trench, is detaching from Indian plate, which is subjected to resisting forces at Himalayan front)

Delisle, G. & M. Zeibig (2007)- Marine heat flow measurements in hard ground offshore Sumatra. EOS Transactions American Geophysical Union (AGU) 88, 4, p. 38-39.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/2007EO040004/epdf)
(Hydrocarbon potential of fore arc basins between Siberut, Nias, Simeulue islands and Sumatra investigated in 2006 by BGR with marine-geophysical and marine-geological techniques. Average in situ thermal conductivities of 0.97 watts per meter per Kelvin) at 6 'soft ground' stations lower than average (1.23 watts per meter per Kelvin) at the 10 'hard-ground' stations)

DeShon, H., E. Engdahl, C. Thurber & M. Brudzinski (2005)- Constraining the boundary between the Sunda and Andaman subduction systems: evidence from the 2002 Mw 7.3 Northern Sumatra earthquake and aftershock relocations of the 2004 and 2005 great earthquakes. Geophysical Research Letters 32, L24307, p. 1-5.
(online at: http://igpphome.ucsd.edu/~shearer/Files/Sumatra_Papers/deshon_grl05.pdf)

(2004 Mw 9.0 Sumatra-Andaman earthquake initiated along Andaman subduction zone. Earthquakes history suggests S extent of stable Andaman microplate is ~50-100 km NW of previously reported)

Deonath, A. & B. Mukhopadhyay (2013)- A panoptic view of western margin of Sundaland: causes of seismic vulnerability of Sumatra. J. Geological Society India 81, 5, p. 637-646.
(W margin of Sundaland affected by Burmese-Andaman-Sunda Arc. Downgoing oceanic plate more strongly coupled to overlying plate where it is youngest (~ 40 Ma), has highest temperature and is topographically most elevated with highest seismic activity. Increase in convergence rate and presence of youngest oceanic crust appear to be main controlling factors underpinning tectonics and surge of recent seismic activity in Sumatra)

Dessa, J.X., F. Klingelhoefer, D. Graindorge, C. Andre, H. Permana et al. (2009)- Megathrust earthquakes can nucleate in the forearc mantle; evidence from the 2004 Sumatra event. Geology (GSA) 37, 7, p. 659-662.
(Seismogenic zone along subduction thrusts generally does not extend to forearc mantle below crust of upper plate. Great 2004 Sumatra-Andaman earthquake propagated downdip along interface between forearc mantle and subducting plate and nucleated along reportedly aseismic part of the interplate contact)

Dewanto, O., Maulina & T.B. Nainggolan (2020)- Identification of biogenic gas reservoir zone using log, petrophysics and geochemical data in S-1 well of Nias basin, North Sumatera. Proc. 9th Int. Conference on Theoretical and Applied Physics (ICTAP), Bandar Lampung 2019, Journal of Physics: Conference Series 1572, 012037, p 1-10.
(online at: https://iopscience.iop.org/article/10.1088/1742-6596/1572/1/012037/pdf)
(Union Oil well S-1 in Nias Basin in W Sumatra forearc with biogeneiic methane gas in Late Miocene carbonate. Identification of reservoir zones and source rock from log data. Presence of 99% methane gas at depths of 5034 - 5090' and 5198- 5216'. Intervals with source rock potential present, but thermally immature)

Diament, M., H. Harjono, K. Karta, C. Deplus, D. Dahrin, M.T. Zen et al. (1992)- Mentawai fault zone off Sumatra: a new key to the geodynamics of Indonesia. Geology (GSA) 20, p. 259-262.
(Oblique subduction in Sumatra region gave rise to Sumatra Fault Zone. New data show second ~600km long Mentawai strike-slip zone in fore-arc E of Mentawai islands, creating Sumatra sliver plate)

Djajadihardja, Y.S., A.H. Satyana, Won Soh, C. Gaedicke, T. Eko, Sasaki, R. Riza & S. Neben (2002)- Offshore southeastern extension of the Sumatran dextral fault: a new discovery in Indonesian marine geology and implications on the tectonics of the Sunda Strait- Southwest Java waters. Proc. 31st Annual Conv. Indonesian Association Geologists (IAGI), Surabaya, 1p. *(Abstract only)*
(Sumatran Fault generally assumed to end in Sunda Strait area around Semangko Bay. However, recent new data shows extension of Sumatran Fault zone running SE as far as 400 km from Semangko Bay. Newly discovered extended Sumatran Fault stops ~30 km N of the Java Trench in SW Java waters)

Djamal, B., W. Gunawan, T.O. Simandjuntak & N. Ratman (1994)- Geological map of the Nias sheet, Sumatra, 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(Nias island in W Sumatra accretionary prism, with core of Melange Complex with blocks of peridotite, gabbro, serpentinite, basalt, schist, etc., unconformably overlain by 2-3km thick, folded marine late E Miocene and younger Lelematua Fm (formerly Nias Fm) clastics and tuffs and coal, overlain by M Miocene- E Pliocene Gomo Fm)

Dobson, P.B., T. Rahardjo, C.A. Atallah, F.I. Frasse, T.D. Specht, A.S. Djamil, Marhadi, R.E. Netherwood & P.J.M. Montaggioni (1998)- Biogenic gas exploration in Miocene carbonate, West Sumatra, Indonesia. Proc. 26th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 349. *(Poster Abstract)*
(Nias PSC offshore W Sumatra fore-arc basin primary exploration play was M Miocene Isolated Reefs. Low geothermal gradient favors biogenic gas generation and entrapment. Biogenic gas in Miocene pinnacle reefs in 5 of 6 wells. Ibusuma 1 dry hole failed due to poor timing between vertical gas generation and entrapment. Analogous nearby Union Oil Suma 1 and Singkel 1 discoveries likely lateral migration component. Miocene carbonate porosity >23% log, 13.4-39.6% SWC, and 16-70 mD permeability)

Douville, H. (1912)- Les foraminiferes de l'Ile de Nias. Sammlungen Geologischen Reichs-Museums Leiden, 1, 8, 5, p. 253-278.
(online at: www.repository.naturalis.nl/document/552435)
('The foraminifera from Nias Island'. Descriptions of Tertiary larger foraminifera from Nias from samples collected by E. Schroder and R. Verbeek. Includes Eho River sample with M Eocene Nummulites bagelensis, N. pengaronensis, N. kelatensis, Discocyclina (here called Orthophragmina), Assilina granulosa and Alveolina javana (from Oyo Melange?; JTvG). Also E Miocene Lepidocyclina spp. (Eulepidina and Nepholepidina) (from Nias Beds?; JTvG). With 3 plates. No stratigraphy, no maps (but locality map in Van der Veen 1913))

Douville, H. (1915)- Les couches a Lepidocyclines de Sumatra, d'apres les explorations du Dr. Tobler. Compte Rendu Sommaire des Seances Societe Geologique de France 1915, p. 36-38.
('The Lepidocyclina-bearing beds of Sumatra, after the explorations of Dr. Tobler'. Brief note on larger foraminifera in E Miocene limestones from Batu Raja in S Sumatra. Also mention of poorly preserved (Cretaceous) Loftusia-like foraminifera in black limestones of the Gumai Mountains)

Dugan, B., L. McNeill, K. Petronotis and Expedition 362 Scientists (2017)- The role of input materials in shallow seismogenic slip and forearc plateau development. In: Expedition 362 Preliminary Report (Sumatra Subduction Zone), Proc. International Ocean Discovery Program (IODP) College Station, TX, p. 7-31.
(online at: http://publications.iodp.org/preliminary_report/362/362PR.PDF)
(Discussion of input materials of N Sumatran subduction zone, i.e, a thick (up to 45 km) succession of mainly Bengal-Nicobar Fan–related sediments. Input materials may affect distinctive slip behavior and long-term forearc structure. Expedition 362 sites U1480 and U1481 on Indian oceanic plate ~250 km SW of subduction zone, drilled, cored to depth of 1500m below seafloor penetrated complete Late Miocene (~9.5 Ma) - Recent Himalays-derived Nicobar Fan succession, the pre-fan Maastrichtian-Miocene abyssal-pelagic succession and underlying Late Cretaceous oceanic crust basalt)

Endharto, Mac & Sukido (1994)- Geological map of the Sinabang (0518) sheet, Sumatera, 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(Geology of Simeulue and Banyak Islands in exposed part of forearc accretionary prism off W Sumatra. Core of island Oligo-Miocene Kuala Makmur melange, with blocks of gabbro (up to 250m), basalt, metasediments. Unconformably overlain by E Miocene Lasikin Mb polymict conglomerate. Overlying Miocene Sigulai Fm marls with 400m thick E-M Miocene Sibogo reefal limstone mMb with Miogypsina and Spiroclypeus)

Endharto, Mac (1996)- Neogene geology of the outer-arc ridge: with a special reference of Simeulue island, West of Sumatra. Proc. 25th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 3, p. 470-487.

Engdahl, E.R., A. Villasenor, H.R. DeShon & C.H. Thurber (2007)- Teleseismic relocation and assessment of seismicity (1918-2005) in the region of the 2004 Mw 9.0 Sumatra-Andaman and 2005 Mw 8.6 Nias Island great earthquakes. Bull. Seismological Society of America 97, 1A, p. S43-S61.
(Seismicity in Sumatra-Andaman Islands region results from subduction of Indian and Australian oceanic plates beneath Eurasian plate (Andaman microplate, Sunda subplate. Oceanic plates vary in age from 60 Ma off Sumatra to 90 Ma along N Andaman Trench)

Farida, W.N., Y.B. Muslih, B.R. Irwansyah, T. Supratama, B. Novrian & D. Mindasari (2016)- Cenozoic Sumatra accretionary prisms: a new geological perspective and implications for hydrocarbon exploration. Proc. IPA 2016 Technical Symposium, Indonesia exploration: where from- where to, Indonesian Petroleum Association (IPA), Jakarta, 18-TS-16, p. 1-17.
(Literature review of Sumatra accretionary prism. High-risk frontier exporation area)

Feng, L., E.M. Hill, P. Banerjee, I. Hermawan, L.L.H. Tsang, D.H. Natawidjaja, B.W. Suwargadi & K. Sieh (2015)- A unified GPS-based earthquake catalog for the Sumatran plate boundary between 2002 and 2013. J. of Geophysical Research: Solid Earth 120, 5, p. 3566-3598.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/full/10.1002/2014JB011661)

(Documentation of 30 earthquakes in Sumatran plate boundary region (offshore forearc and accretionary prism) in 2002-2013)

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(online at: https://agupubs.onlinelibrary.wiley.com/doi/full/10.1002/2015JB012503)

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(Ridge on subducting Indo-Australian oceanic crust may exert control on margin segmentation. Ridge masked by sediment; most likely trend NNE–SSW. Interpreted as fracture zone on subducting oceanic plate)

Frankowicz, E. (2011)- Tectono-stratigraphic evolution of the Simeulue forearc basin, NW Sumatra. Berita Sedimentologi 20, p. 22-24.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/download/218/188)
(Brief review of Simeulue basin in NW Sumatra forearc area. Underlain by Jurassic-Cretaceous Woyla terrane, which accreted to Sundaland in late M Cretaceous, after which all of Sumatra subaerially eroded (no Late Cretaceous-Early Paleogene sediments). Early/Mid Paleogene extension in forearc area lead to formation of grabens; oldest oldest rocks penetrated by wells are Upper Eocene- Lower Oligocene dolomitic limestones, calcareous mudstones and pyritic shales. Late Oligocene uplift and erosion of forearc resulted in Top Paleogene unconformity, followed by E Miocene marine transgression. E-M Miocene carbonates overlain by Late Miocene Pliocene clastics derived from Barisan Mts)

Frederik, M.C.G. (2016)- Morphology and structure of the accretionary prism offshore North Sumatra, Indonesia and offshore Kodiak Island, USA: a comparison to seek a link between prism formation and hazard potential. Ph.D. Thesis University of Texas at Austin, p. 1-136.
(online at: https://repositories.lib.utexas.edu/handle/2152/45947)
(Incl. study of accretionary prism offshore N Sumatra between 1-7°N. Steep outer slope (5-12°), plateau ~100-120 km wide, and steep inner slope adjacent to Aceh Basin. Predominantly landward vergence from deformation front for ~70 km landward. Prism toe region prominent mass failures. Etc.)

Frederik, M.C.G., S.P.S. Gulick, J.A. Austin, N.L.B. Bangs & Udrekh (2015)- What 2-D multichannel seismic and multibeam bathymetric data tell us about the North Sumatra wedge structure and coseismic response. Tectonics 34, 9, p. 1910-1926.
(online at: http://onlinelibrary.wiley.com/doi/10.1002/2014TC003614/epdf)
(Bathymetric and seismic surveys across accretionary prism off NW Sumatra. Accretionary wedge in study area up to~180 km wide, narrowing to 125km to S, near Simeulue island. Seafloor depths ~4.5 km near Sunda Trench to <1 km on fore-arc high near fore-arc basin. Wedge consists of steep outer slope (5-12°), plateau ~100-120 km wide with anticlinal folds spaced 2-15km apart, and steep inner slope adjacent to Aceh forearc Basin. Mainly landward-vergent folds at trench side, mainly seaward vergent folds at landward side)

Ghosal, D., M.M. Mukti, S.C. Singh, H. Carton & I. Deighton (2021)- Fore-arc high and basin evolution offshore northern Sumatra using high-resolution marine geophysical datasets. J. Asian Earth Sciences 216, 104814, p. 1-13. *(online at: https://www.academia.edu/88484205/Fore_arc_high_and_basin_evolution_offshore_northern_Sumatra_using_high_resolution_marine_geophysical_datasets)*
(Offshore N Sumatra fore-arcseismic reflection datasets.Major structural features including backthrusts, fore-thrusts and fore-arc high developed during Miocene, and that growth of fore-arc high accelerated in Pliocene onwards due to a increase in sediment volume from Nicobar fan)

Ghosal, D., S.C. Singh, A.P.S. Chauhan & N.D. Hananto (2012)- New insights on the offshore extension of the Great Sumatran fault, NW Sumatra, from marine geophysical studies. Geochem. Geophysics Geosystems 13, 11, Q0AF06, p. 1-18.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/full/10.1029/2012GC004122)
(High-res bathymetry shows NW offshore extension of Great Sumatra FZ near Banda Aceh into young SW transpressional Breueh and NE transtensional Weh basins, with Sumatran volcanic arc passing through Weh basin)

Ghosal, D., S.C Singh & J. Martin (2014)- Shallow subsurface morphotectonics of the NW Sumatra subduction system using an integrated seismic imaging technique. Geophysical J. International 198, 3, p. 1818-1831.
(online at: https://archimer.ifremer.fr/doc/00290/40094/39185.pdf)
(Improved seismic imaging of accretionary wedge complex in NW Sumatra forearc)

Graindorge, D., F. Klingelhoefer, J.C. Sibuet, L. McNeill, T.J. Henstock, S. Dean, M.A. Gutscher, J.X. Dessa, H Permana et al. (2008)- Impact of lower plate structure on upper plate deformation at the NW Sumatran convergent margin from seafloor morphology. Earth Planetary Science Letters 275, p. 201-210. *(online at: https://www.academia.edu/5231205/Impact_of_lower_plate_structure_on_upper_plate_deformation_at_the_NW_Sumatran_convergent_margin_from_seafloor_morphology)*
(Multibeam bathymetric data in region of 26 Dec. 2004 earthquake providing seafloor images of NW Sumatra forearc. Greatest slope gradients in frontal 30 km of forearc, at toe of accretionary wedge. N-S oriented lineaments on incoming oceanic plate, etc.)

Guntoro, A. & Y.S. Djajadiharja (2005)- Tectonic scenario of the Sumatra fore-arc basin in relation to the formation of petroleum systems. Proc. Int. Conference Geology, Geotechnology and Mineral Resources of Indochina (GEOINDO 2005), Khon Kaen, Thailand, p. 28-30.

Hall, D.M., B.A. Duff, M.C. Courbe, B.W. Seubert, M. Siahaan & A.D. Wirabudi (1993)- The southern fore-arc zone of Sumatra: Cainozoic basin forming tectonism and hydrocarbon potential. Proc. 22nd. Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 319-344.
(Bengkulu PSC localized basins with four megasequences: (1) Paleogene syn-rift in NE-trending half grabens; (2) Major unconformity, then Late Paleogene- E Miocene in local pull-apart basins on underlying graben; (3) Unconformity, then M - Late Miocene open marine deposition in unified forearc basin; (4) regressive Pliocene-Recent syn-orogenic megasequence, from main Barisan Mts uplift. Basin inversion intensity increases from offshore to mountain belt. Fore-arc tectonically heterogeneous with potential for localised Paleogene and early Neogene basins and hydrocarbons. Wells indicate mature source and migrated hydrocarbons, and contradict assumption that heat flow in fore-arc areas is insufficient to allow expulsion and migration of hydrocarbons)

Hananto, N.D., S.C. Singh, M. Mukti & I. Deighton (2012)- Neotectonics of North Sumatra Forearc. Proc. 36th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA12-G-100, p. 1-13.
(Strain of oblique subduction at NW Sumatra forearc partitioned into two major directions, perpendicular (fold and thrust system in accretionary wedge) and parallel to trench (Sumatra Fault Zone on Sumatra mainland) Residual strain created two major structural features in forearc: 1) W-Andaman Faults (strike-slip faults/deep rooted backthrust between accretionary wedge sediments and continental crust. 2) Strike slip fault close to Sumatra platform. Deformation along forearc basin mainly compressional)

Handayani, L. & H. Harjono (2008)- Perkembangan tektonik daerah busur muka Selat Sunda dan hubungannya dengan zona sesar Sumatera. J. RISET Geologi dan Pertambangan (LIPI) 18, 2, p. 31-40. *(online at: http://download.garuda.kemdikbud.go.id/article.php?article=273368&val=7134&title=Perkembangan%20Tektonik%20Daerah%20Busur%20Muka%20Selat%20Sunda%20dan%20Hubungannya%20dengan%20Zona%20Sesar%20Sumatera)*
('The tectonic development of the Sunda Strait forearc area and its relationship to the Sumatran Fault Zone'. Sunda Strait forearc interpreted as ongoing separation of area as Sumatra forearc plate moved NW, bounded by Sumatra Fault. Sumatra Fault can be viewed to extend across fore arc to trench as several graben systems)

Hanus, V., A. Spicak & J. Vanek (1996)- Sumatran segment of the Indonesian subduction zone: morphology of the Wadati-Benioff zone and seismotectonic pattern of the continental wedge. J. Southeast Asian Earth Sciences 13, 1, p. 39-60.
(Earthquake foci in Sumatra either in recent Benioff zone or in continental wedge. Intermediate-depth aseismic gap in Wadati-Benioff zone associated with young calc-alkaline volcanism. Subduction process was correlated with stratigraphy and geology. Duration of present cycle of subduction ~6-8 Ma. Oligocene volcanism and deep earthquakes point to Tertiary subduction zone underlying present slab. Seismotectonic pattern of continental wedge described by 11 seismically active fracture zones)

Harbury, N.A. & H.J. Kallagher (1991)- The Sunda outer-arc ridge, North Sumatra, Indonesia. J. Southeast Asian Earth Sciences 6, 3-4, p. 463-476.
(Revised stratigraphy and Tertiary evolution of Nias and Simeulue islands in outer part of forearc. Oligocene and Eocene increase in subduction rate led to basin inversion and uplift of outer arc ridge. Deposits include melanges (?Eocene-Oligocene) and Neogene initially (E Miocene) deposited in deep water. Stable convergence rates through M Miocene, with deposition dominated by shallow water clastics and carbonates deposited on well-developed shelf and shelf-break. In Late Miocene, outer shelf limestones. Plio-Pleistocene clastics with volcanic detritus from rapidly eroding Sumatra volcanic arc)

Harbury, N.A., B. Situmorang, Sarjono D., J. Milsom, F.T. Banner & M.G. Audley-Charles (1989)- Tectonic inversions in the Sunda forearc. Proc. 24th Session Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Bangkok 1987, 2, p. 116- 122.
(Simeulue island in N Sumatra forearc two compressional and two extensional phases since end of Eocene. Forearc emerged as island in Late Oligocene- E Miocene, exposing imbricated ophiolite and melange. Fringing reefs developed in E-M Miocene. Mio-Pliocene turbidites (extension) followed by re-emergence after strong Late Pliocene- Early Quaternary folding)

Hariadi, N. & R.A. Soeparjadi (1975)- Exploration of the Mentawai Block, West Sumatra. Proc. 4th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 55-65.
(Post-mortem of unsuccessful exploration of Mentawai Block, offshore W Sumatra fore arc, by Jenney group 1969-1974. Two wells drilled in 1972 Mentawai A 1 and C1 with minor methane shows. Two onshore stratigraphic wells drilled in 1974 without hydrocarbon indicatons: Bengkulu X-1 and X2. One active onshore oil seep identified SE of Bengkulu town))

Haris, N.A., N.S. Mustafa, F.Y. Rifai, S.R. Zulivandama & S. Aswad (2020)- Biogenic gas reservoir distribution analysis using AI Inversion and seismic attributes in the Nias Basin, North Sumatra Proc. Digital Technical Conference 2020, Indonesian Petroleum Association (IPA), IPA20-SG164, p. 1-17.

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(online at: https://academic.oup.com/gji/article/189/3/1306/609255)
(Velocity model across part of W Sumatra forearc region. Progression in shear velocity across forearc to arc associated with thickening of accretionary prism and development of arc crust. Downgoing Indian Plate low seismic velocities, consistent with 14-24 % serpentinization of oceanic crust and upper mantle adjacent to Investigator fracture zone. Rapidly increasing sediment thickness in accretionary wedge of 6-15 km)

Heliani, L.S., C. Pratama, A. Wibowo, D.P. Sahara, Susilo, S.T. Wibowo, A.N. Safii, O. Prayoga, A. Sudrajat et al. (2025)- Strain accumulation in the Mentawai Forearc Sliver, Indonesia, inferred from continuous GNSS-derived strain rate. Geodesy and Geodynamics 16, 1, p. 1-6.
(online at: https://www.sciencedirect.com/science/article/pii/S1674984724000363)
(On present-day velocities of Mentawai Forearc Sliver, characterized by oblique deformation formed as slip partitioned between normal and parallel trench plate convergence. Dilatation and maximum shear strain rates reveal spatial coverage of strike-slip duplex and backthrust tectonics along Mentawai Forearc Sliver)

Henstock, T.J., L.C. McNeill, J.M. Bull, B.J. Cook, S.P.S. Gulick, J.A. Austin, H. Permana & Y.S. Djajadihardja (2016)- Downgoing plate topography stopped rupture in the A.D. 2005 Sumatra earthquake. Geology (GSA) 44, 1, p. 71-74.
(online at: http://geology.gsapubs.org/content/44/1/71.full.pdf+html)
(Isolated 3 km basement high off Nias is close to termination of slip of 2005 earthquake. It probably originated at Wharton fossil spreading ridge and may locally strengthen plate boundary, stopping rupture propagation)

Henstock, T.J., L.C. McNeill & D.R.Tappin (2006)- Seafloor morphology of the Sumatran subduction zone; surface rupture during megathrust earthquakes? Geology (GSA) 34, 6, p. 485-488.
(High-resolution multibeam bathymetry data from Sumatran subduction zone)

Heyde, I., M. Block, Y.S. Djajadihardja, J.P. Hutagaol, H. Lelgemann, H.A. Roeser & B. Schreckenberger (2001)- Gravimetric measurements and their interpretation on the active convergence zone between the East Eurasian and Indo-Australian plates along Indonesia. Proc. CCOP 37th Annual Session Bangkok 2000, 2, Technical Reports, p. 12-26.
(Free air gravity anomaly maps of forearc of SW Sumatra- W Java and Sunda Straits and comparison with satellite gravity. Marine gravity data higher resolution than satellite data)

Hippchen, S. & R.D. Hyndman (2008)- Thermal and structural models of the Sumatra subduction zone: implications for the megathrust seismogenic zone. J. of Geophysical Research 113, B12103, p. 1-12.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2008JB005698)
(Sumatra updip seismogenic limit is thermally controlled, but downdip limit is governed by the intersection of downgoing plate with fore-arc Moho)

Hopper, R.H. (1940)- Geological reconnaissance in western and northern. Nias. Nederlandsche Pacific Petroleum Maatschappij (NNPM), p. *(Unpublished)*.
(Report by American NNPM/Caltex geologist Richard H. Hopper. Available at Geological Survey, Bandung?)

Howles, A.C. (1984)- Structural and stratigraphic interpretation of the Bengkulu shelf, southwest Sumatra. M.Sc. Thesis University South Carolina, p. 1-94.

Howles, A.C. (1986)- Structural and stratigraphic evolution of the southwest Sumatran Bengkulu shelf. Proc. 15th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 215-243.
(Paleogene basin with >10,000' sediment under Bengkulu shelf interpreted as continuation of S Sumatran graben system. Mid-Oligocene unconformity truncates basement high and signifies possible change in tectonic configuration of region. Switch of rapid subsidence from E side of basement high to W side with initiation of Sumatran forearc. Right-lateral slip along Sumatran fault began in M Miocene. Restoring ~150 km offset along Sumatran fault causes graben to line up with S Sumatra Benakat Gully. Neogene transgressive cycle began with deposition of E Miocene Baturaja carbonates. M Miocene Parigi carbonate between fine clastics and younger deltaic regressive sequence. Erosion of Barisan Mountains generated Plio-Pleistocene deltaic/slope deposits which prograde onto E flank of Sumatran forearc basin)

Huot, G. & S.C. Singh (2018)- Seismic evidence for fluid/gas beneath the Mentawai fore-arc basin, Central Sumatra. J. of Geophysical Research: Solid Earth 123, 2, p. 957-976.
(https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1002/2017JB014849)
(Since 2004 three Mw >8.0 earthquakes offshore Sumatra, rupturing megathrust and possibly also backthrusts that bound Andaman Islands to Mentawai Islands toward forearc basins. Tomography and waveform inversion in region of 2007 Mw 8.4 Bengkulu earthquake show low-velocity anomaly above backthrust, probably caused by small amount of gas (2-13%) or 17-40% of fluids. Fluids may originate locally from dewatering of sediments from accretionary wedge or forearc basin or of deeper origin)

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Icke, H. & K. Martin (1907)- Over Tertiaire en Kwartaire vormingen van het eiland Nias. Sammlungen Geologischen Reichs-Museums Leiden, Ser. 1, 8, p. 204-252.
(online at: www.repository.naturalis.nl/document/552383)
('On Tertiary and Quaternary deposits of Nias Island'. Mainly descriptions of 51 species of gastropods and bivalve molluscs. With 5 plates, but no locality maps. Larger foraminifera from same samples studied by Douville (1912))

Izart, A., B.M. Kemal & J.A. Malod (1994)- Seismic stratigraphy and subsidence evolution of the northwest Sumatra fore-arc basin. Marine Geology 122, 1-2, p. 109-124. *(online at: https://www.academia.edu/3171664/Seismic_stratigraphy_and_subsidence_evolution_of_the_northwest_Sumatra_fore_arc_basin)*
(New seismic in Sumatra margin fore-arc. Area of oblique subduction with two large strike-slip faults parallel to subduction trench: onshore Sumatra fault and offshore Mentawai fault, separating accretionary prism from fore-arc basin. Widespread truncation at Top Paleogene reflects uplift and erosion event. Followed by Miocene subsidence, evidenced by two transgressive-regressive shelf sequences. In Pliocene-Quaternary fore-arc basin segmented into several sub-basins (Aceh, Simeulue and Nias basins) by compressional zones or strike-slip faults. Subsidence rate increased, producing sequence 3 for Pliocene, and 4 for Quaternary. Local variations in sediment thickness indicate tectonics prevail over eustacy)

Kallagher, H.J. (1989)- The structural and stratigraphic evolution of the Sunda Forearc basin, North Sumatra. Ph.D. Thesis University of London, p. 1-387. *(Unpublished)*

Kallagher, H.J. (1990)- K-Ar dating of selected igneous samples from the Sibolga Basin, Meulaboh and Semeulue Island, Western Sumatra. Lemigas Scientific Contribution Petroleum Science Technology 13, 1, p. 99-111.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/1131/917)
(Biotite from granodiorite in Seumayam Complex in Barisan Mts K-Ar age of ~98.6 Ma; biotites from Meuko River granodiorite ~56.2 and 53.2 Ma, compatible with Cretaceous- E Paleogene granitic activity recorded elsewhere in N Sumatra. Gabbro from E Simeulue ophiolite 35.4± 3.6 and 40.1 ± 2.7 Ma (Late Eocene), possibly representing formation as part of Indian Ocean floor. Basaltic- andesitic volcanics from Barisan Mts on E margin of Sibolga Basin 16- 9 Ma (M-L Miocene). Start of volcanic activity in M Miocene coincided with uplift of Barisan Mts along E margin of Sibolga Basin (E- M Miocene sediments only minor evidence of contemporaneous volcanic activity))

Karig, D.E. (1980)- Material transport within accretionary prisms and the "knocker" problem. Journal of Geology 88, 1, p. 27-39.
(On presence of high-pressure metamorphic rocks as blocks (knockers) and thrust sheets within non-metamorphic rocks in accretionary complexes. Using analog of modern Sumatra trench system, where deformation is concentrated near base of trench slope, whereas blueschist formation is assumed to occur much deeper. Mixing of incompatible lithologies in subduction complexes might better be explained by strike-slip faulting along trends sub-parallel to arc)

Karig, D.E., M.K. Lawrence, G.F. Moore & J.R. Curray (1980)- Structural framework of the fore-arc basin, NW Sumatra. J. Geological Society, London, 137, p. 77-91.
(Sumatra fore-arc basin subsiding trough between rising subduction complex and elevated continental core. Up to 4 km of Miocene-Recent on E flank of basin over unconformity cut across Paleogene continental margin that was uplifted and disrupted in Late Oligocene. Large step-like offsets of paleo-shelf edge attributed to right-lateral strike-slip faults, splaying across fore-arc from Sumatra Fault Zone. Offsets up to 100 km+, producing marginal re-entrants that became sites of turbidite-filled basins behind growing Neogene accretionary prism. Larger re-entrants may be floored with oceanic crust. Seaward flank of fore-arc basin migrated W during Neogene subduction. By late M Miocene, trench slope break was near sea level and formed shelf edge high. Thrusting and folding related to subduction probably decreased gradually upslope until LatePliocene, when large flexures and E-directed reverse faults developed)

Karig, D.E., G.F. Moore, J.R. Curray & M.B. Lawrence (1980)- Morphology and shallow structure of the lower trench slope off Nias Island, Sunda Arc. In: D.E. Hayes (ed.) The tectonic and geologic evolution of Southeast Asian seas and islands-1, American Geophysical Union (AGU), Geophysical Monograph 23, p. 179-208.
(In Sunda Arc subduction system 90% of shortening due to plate convergence occurs in distal accretionary prism, within 25 km of trench. Deformation in slope basins decreases rapidly upward as age decreases)

Karig, D.E., S. Suparka, G.F. Moore & P.E. Hehunassa (1978)- Structure and Cenozoic evolution of the Sunda Arc in the Central Sumatra region. UN ESCAP, CCOP, Technical Bulletin 12, p. 43-86. *(online at: https://repository.unescap.org/server/api/core/bitstreams/5863e474-3590-41cc-aaa8-f671730d78a3/content)*
(Same paper as Karig et al. 1978, AAPG, below)

Karig, D.E., S. Suparka, G.F. Moore & P.E. Hehunassa (1978)- Structure and Cenozoic evolution of the Sunda Arc in the Central Sumatra region. In: J.S. Watkins et al. (eds.) Geological and geophysical investigations of continental margins, American Assoc. Petroleum Geol. (AAPG), Memoir 29, p. 223-237.
(W Sumatra margin reflects effects of subduction and right-lateral slip. Nias consists of mid-Tertiary melange and less deformed younger beds. Forearc basin at least 4km sediment. Unconformity around Paleogene- Miocene boundary. Inner shelf and coastal mountains common Oligocene andesitic intrusives and volcanics (farther W than younger and older volcanic centers). Major uplift of Barisan Mts in Late Miocene- Pliocene)

Karta, K., Zuki & Isnawati (1998)- Geodynamics of the north Sumatra fore arc as caused by oblique subduction: results of the Sumenta expedition of R.V. Baruna Jaya III. In: J.L. Rau (ed.) Proc. 34th Session Coord. Comm. Coastal Offshore Geoscience Programmes E and SE Asia (CCOP), Taejon, Korea 1997, 2, Technical Reports, p. 172-185.

Kawamura, K., M. Kuranaga, K. Mochizuki & T. Kanamatsu (2021)- The role of pre-subduction sediment diagenesis in a shallow tsunami-generated slip, Sunda Trench, south of Sumatra. In: Y. Dilek et al. (eds.) Characterization of modern and historical seismic–tsunamic events, and their global-societal impacts, Geological Society, London, Special Publ. 501, p. 343-351.
(Study of sequence of Paleocene–Holocene sediments recovered at ODP Site U1480 in Sunda Trench, S of Sumatra. ?Paleocene hemipelagic clayey sediments recovered from depth of 1327m. Strong cohesion in undulated shaly fabric might be important factor in locking of shallow tsunami-generating slip in subduction zones)

Khan, P.K. & P.P. Chakraborty (2009)- Bearing of plate geometry and rheology on shallow-focus mega-thrust seismicity with special reference to 26 December 2004 Sumatra event. J. Asian Earth Sciences 34, p. 480-491.

Kieckhefer, R.M., G.F. Moore, F.J. Emmel & W. Sugiarta (1981)- Crustal structure of the Sunda forearc region west of central Sumatra from gravity data. J. of Geophysical Research 86, p. 7003-7012.
(Gravity modeling of transect S of Nias. Free-air anomalies -100 mGal low 10-20 km landward of trench axis and +80 mGal high over outer arc ridge but also large anomalies unrelated to topography. An 80 mGal rise may be near-surface body of high-density material (oceanic crust?). This slab may be exposed on SW coast of Nias, where ultramafic bodies were mapped. A -30 mGal free-air low over forearc basin modeled best if pre-Miocene melange or continental crust underlies basin)

Kieckhefer, R.M., G.G. Shor, J.R. Curray, W. Sugiarta & F. Hehuwat (1980)- Seismic refraction studies of the Sunda trench and forearc basin. J. of Geophysical Research 85, B2, p. 863-889.
(Six refraction lines around Nias Island, NW Sumatra, parallel to structure)

Kissling, E.A. (1948)- Enkele stratigrafische mededelingen over de eilanden voor de Z.W. kust van Sumatra. Geologie en Mijnbouw 10, 5, p. 118. *(Abstract only)*
('Some stratigraphic notes on the islands off the SW coast of Sumatra'. Summary of lecture on Mentawai islands (Nias, etc.), which show remarkably similar Tertiary stratigraphy over ~1200km. Common Miocene basic extrusives. In central islands Miocene isoclinally folded at end-Miocene, i.e. earlier than Sumatra)

Klingelhoefer, F., M.A. Gutscher, S. Ladage, J.X. Dessa, D.F. Graindorge, A. Camille, H. Permana, T. Yudistira & A. Chauhan (2010)- Limits of the seismogenic zone in the epicentral region of the 26 December 2004 great Sumatra-Andaman earthquake: Results from seismic refraction and wide-angle reflection surveys and thermal modeling. J. of Geophysical Research 115, B1, B01304, p. 1-23.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/2009JB006569/epdf)
(2004 Sumatra earthquake initiated at ~30km depth and ruptured 1300km of Indo-Australian- Sunda plate boundary. Seismic velocity model from tomography and forward modeling shows deep structure of earthquake source region. 4-5km of sediments on oceanic crust at trench. Crystalline backstop 120 km from trench axis, below fore-arc basin. Shallow continental Moho (22 km depth), 170 km from trench. Seismogenic zone begins 5-30 km from trench. Deeper part of rupture along contact between mantle wedge and downgoing plate)

Kopp, H. (2001)- Crustal structure along the central Sunda Margin, Indonesia. Dissertation Christian-Albrechts Universitat, Kiel, p. 1-138.
(online at: http://macau.uni-kiel.de/receive/dissertation_diss_00000439)
(Seismic and gravity study of 5600 km long forearc margin of Sumatra- Java. Subduction zone significant variation of trench curvature resulting in areas of normal and of oblique subduction. Frontal part of prism experiencing active accretion between deformation front and active backstop structure, which separates accretionary domain from outer high. Velocities under outer high fairly low, suggesting sedimentary origin. Forearc basin undeformed. Significant change of Moho depth under forearc basin: shallow Moho under Java forearc domain, crust under Sumatra forearc off Sumatra is more continental)

Kopp, H., E.R. Flueh, D. Klaeschen, J. Bialas & C. Reichert (2001)- Crustal structure of the central Sunda margin at the onset of oblique subduction. Geophysical J. International 147, 2, p. 449-474.
(online at: https://academic.oup.com/gji/article/147/2/449/721561)
(Data off S Sumatra and Sunda Strait show lateral increase in dip of subducted plate from 5° to 7° below outer high off Sumatra to Sunda Strait. Downgoing slab traced to >30 km depth. Backstop structure underlying trench slope break defines landward termination of accretionary prism. Velocities of outer high moderate, suggest sediments. Reduced reflectivity beneath rugged top basement supports high degree of deformation and compaction. Several km of sediment in forearc, with distinct basin recognized off S Sumatra but not off Sunda Strait. Bathymetric elevation of Java shelf in S Sunda Strait corresponds to increased basement high velocities and is connected to Sunda Strait transtensional basin. Velocity-depth model indicates continental-type crust under forearc basin off S Sumatra, whereas lower velocities found beneath Sunda Strait forearc)

Kopp, H., R. Weinrebe, S. Ladage, U. Barckhausen, D. Klaeschen, E.R. Flueh, C. Gaedicke, Y. Djajadihardja et al. (2008)- Lower slope morphology of the Sumatra trench system. Basin Research 20, p. 519-529.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/2006EO170001/pdf)
(Lower plate fabric extensively modulates upper plate morphology and morphotectonic segmentation of Sumatra trench system is linked to subduction of reactivated fracture zones and aseismic ridges of Wharton Basin. In general, increasing intensity of mass-wasting processes, from S to N, correlates with oversteepening of lower slope, probably in response to alternating phases of frontal accretion and sediment underthrusting)

Kutterolf, S., J.C. Schindlbeck-Belo, F. Muller, K. Pank, Y. Lee & A.K. Schmitt (2023)- Revisiting the occurrence and distribution of Indian Ocean Tephra: Quaternary marine Toba ash inventory. J. Volcanology Geothermal Research 441, 107879, p.
(Revisiting Quaternary marine tephrostratigraphy of very large (N Sumatra) volcanic eruptions, as recorded in the Eastern Indian Ocean off Sumatra, incl, 4-5 major Toba Tuff events. Tephra records from 28 DSDP, ODP, and IODP core holes identified 115 primary ash layers for last 2.3 Ma)

Kutterolf, S., J.C. Schindlbeck-Belo, K. Pank, A.K. Schmitt, H. Y. Lee & K.L. Wang (2023)- The Cenozoic marine tephra record in Indian Ocean deep drill sites. J. Volcanology Geothermal Research 441, 107875, p.
(Miocene-Recent marine tephrostratigraphy in E Indian Ocean ODP, etc. sites. Two major phases of explosive arc volcanism since 24 Ma (E Miocene) through Pleistocene (mainly from Sumatra-Andaman arc), and three episodes related to explosive ocean island volcanism in Kerguelen plateau, Broken Ridge, etc. Eleven layers linked to Toba-like source, ranging from 24 Ma to 75 ka (Young Toba Tuff))

Ladage, S., C. Gaedicke, U. Barckhausen, I. Heyde, W. Weinrebe, E.R. Flueh et al. (2006)- Bathymetric survey images structure off Sumatra. EOS Transactions American Geophysical Union (AGU) 87, 17, p. 165.
(Fault rupture models and aftershock activities of 2004 and 2005 earthquakes postulate strong structural segmentation of the Sumatra fore arc. Bathymetric images reveal multitude of morphological features)

Lange, D., F. Tilmann, T. Henstock, A. Rietbrock, D. Natawidjaja & H. Kopp (2018)- Structure of the Central Sumatran subduction zone revealed by local earthquake travel time tomography using amphibious data. Solid Earth Discussions, p. 1-24.
(online at: https://www.solid-earth-discuss.net/se-2017-128/se-2017-128.pdf)
(Tomographic model of C Sumatra subduction zone suggests thinned continental crust below basin E of forearc islands (Nias, Pulau Batu, Siberut) at ~180 km from trench. Reduced vp velocities beneath forearc region between Mentawai Islands and Sumatra mainland possibly reflect reduced thickness of overriding crust)

Lange, D., F. Tilmann, A. Rietbrock, R. Collings, D.H. Natawidjaja, B.W. Suwargadi, P. Barton et al. (2010)- The fine structure of the subducted Investigator Fracture Zone in Western Sumatra as seen by local seismicity. Earth Planetary Science Letters 298, 1, p. 47-56. *(online at: www.academia.edu/14868263/The_Fine_Structure_of_the_Subducted_Investigator_Fracture_Zone_in Etc.)*
(Earthquake data from dense local seismic network along segment of Sumatra forearc margin where Investigator Fracture Zone was subducted below Sunda plate. Well-defined linear streak of seismicity extending from 80- 200 km depth along prolongation of Investigator FZ sub-ridges. More intermediate depth seismicity to SE related to subducted rough oceanic seafloor)

Lasitha, S. (2007)- Geodynamics of the Andaman Sumatra Java Trench Arc system based on gravity and seismotectonic study. Doct. Thesis, Cochin University of Science and Technology, p. 1-191.
(online at: http://dyuthi.cusat.ac.in/xmlui/handle/purl/2993)
(Study of variation in subduction zone geometry along and across Sunda arc and fault patterns within subducting plate)

Lasitha, S., M. Radhakrishna & T.D. Sanu (2006)- Seismically active deformation in the Sumatra-Java trench-arc region: geodynamic implications. Current Science 90, 5, p. 690-696.
(online at: https://www.currentscience.ac.in/Volumes/90/05/0690.pdf)
(Crustal deformation rates for Sumatra-Java arc region highlight (1) large variations in dextral shear motion along the Sumatran Fault Zone (SFZ); (2) dominantly compression offshore Sumatra fore-arc and (3) dominance of compression in W part of offshore Java fore-arc, gradually changing to extension to E. Deformation pattern off Sumatra indicates Mentawai fault partly accommodates oblique subduction motion)

Lawver, L.A. & P.T. Taylor (1987)- Heat flow off Sumatra. In: E.N. Shor & C.L. Ebrahimi (eds.) Marine geophysics: a Navy symposium, p. 67-76.

Lay, T., H. Kanamori, C.J. Ammon, M. Nettles, S.N. Ward, R.C. Aster et al. (2005)- The Great Sumatra-Andaman earthquake of 26 December 2004. Science 308, p. 1127-1133.

Lestari, R.A., L. Fauzielly, Winantris & Yudhicara (2014)- Indikasi endapan tsunami berdasarkan subfosil di rawa daerah Simeulue, Sumatera Utara. Bull. Scientific Contribution (UNPAD) 12, 3, p. 163-170.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8377/3893)
('Indications of tsunami deposits by subfossils in the swamp of the Simeulue area'. Presumed tsunami deposit with mixed marine foraminifera from middle (Elphidium, Pararotalia) and outer neritic (Heterolepa subhaidingeri) environments)

Lin, J.Y., X. Le Pichon, C. Rangin, J.C.Sibuet & T. Maury (2009)- Spatial aftershock distribution of the 26th December 2004 great Sumatra-Andaman earthquake in the northern Sumatra area. Geochem. Geophysics Geosystems 10, 5, Q05006, p. 1-15.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/2009GC002454/epdf)

Lin, J.Y., C.L. Lo, W.N. Wu, J.C. Sibuet, S.K. Hsu & Y.Y. Wen (2015)- Crustal thickening and extension induced by the Great Sumatra-Andaman earthquake of 26 December 2004: revealed by the seismic moment tensor element Mrr. Marine Geophysical Research 36, 2, p. 187-195.
(Epicenter of 2004 mainshock near area where accumulated 'radial seismic moment' (Mrr) was highest during inter-seismic period. Negative accumulated Mrr at 40-100 km depth suggest down-dip extension caused by slab pull effect)

Lin, J.Y., J.C. Sibuet, S.K. Hsu & W.N. Wu (2014)- Could a Sumatra-like megathrust earthquake occur in the south Ryukyu subduction zone? Earth Planets and Space 2014, 66:49, p. 1-8.
(online at: www.gep.ncu.edu.tw/upload/focus/21/2014_Jing-Yi_Lin_EPS.pdf)
(Comparison of geological- geophysical environments of Himalaya-Sumatra and Taiwan-Ryukyu collision-subduction systems. Both areas highly oblique convergence and similar tectonic stress regimes. Intersections of oceanic fracture zones with subduction systems show trench-parallel high free-air gravity anomalies in fore-arcs and epicenters of large earthquakes at boundary between positive and negative gravity anomalies)

Ling, H.Y. & M.A. Samuel (1998)- Siliceous microfossils from Nias Island: their significance for the Tertiary paleoceanography of the northeast Indian Ocean. J. Asian Earth Sciences 16, 4, p. 407-417.
(M Eocene radiolarians in red chert from ophiolitic basement of SW Nias constrains oldest age of emplacement of ophiolitic basement. Low-latitude assemblage with Dictyoprora amphora, Lithochytris vespertilio, Podocyrtis and Theocotylissa ficus. (Similar to M Eocene radiolarians in ophiolitic melange of S Andaman (Ling and Srinivasan 1993) and nearby DSDP Site 216). Also sample with late M Miocene radiolaria in diatomite from Lahewa subbasin with rel. cool water diatoms (signifying upwelling?))

Liu, C.S., G.G. Shor & J.R. Curray (1991)- Velocity structure and nature of the forearc basin off West Sumatra from expanding spread experiments. Acta Oceanographica Taiwanica 27, p. 21-39.

Lutz, R., K. Berglar, C. Gaedicke & D. Franke (2007)- Petroleum systems modelling in the Simeulue forearc basin off Sumatra. AAPG Hedberg Conference, The Hague, p. *(Abstract only)*
(Simeulue forearc basin off N Sumatra explored by Union Oil from 1968-1978. Three wells with gas in carbonate reservoirs but none commercial. New 2D seismic by BGR (2006) shows 25 carbonate buildups, most in >1000 m water depth, showing backstepping geometry. Source rocks in area not confirmed by drilling)

Lutz, R., C. Gaedicke, K. Berglar, D. Franke, S. Schloemer & Y.S. Djajadihardja (2010)- Petroleum systems of the Simeulue fore-arc Basin off Sumatra, Indonesia. AAPG International Conference Exhib., Rio de Janeiro, Brazil 2009, p. 1-7.
(online at: www.searchanddiscovery.net/documents/2010/10230lutz/ndx_lutz.pdf)
(Expanded Abstract; short version of paper below)

Lutz, R., C. Gaedicke, K. Berglar, S. Schloemer, D. Franke & Y.S. Djajadihardja (2009)- Petroleum systems of the Simeulue fore-arc basin, offshore Sumatra, Indonesia. American Assoc. Petroleum Geol. (AAPG) Bull. 95, 9, p. 1589-1616.
(Fore-arc basins generally not considered as important petroleum provinces because of low heat flow. Simeulue fore-arc basin off N Sumatra bright spots on seismic above potential carbonate platform reservoirs, with AVO/AVA analyses indicating presence of gas. Petroleum system modeling of assumed source rocks in Eocene and E-M Miocene reveals hydrocarbon generation is possible in main depocenters of C and S Simeulue Basin and may be more prolific than previously thought)

Malod, J.A., B.M. Kemal, M.O. Beslier, C. Deplus, M. Diament et al. (1993)- Deformations du bassin d'avant-arc au Nord-Ouest de Sumatra: une reponse a la subduction oblique. Comptes Rendus Academie Sciences, Paris 316, p. 791-797.
('Deformation of the fore-arc basin NW of Sumatra; a response to oblique subduction'. NW Sumatra example of oblique convergence, expressed by two major strike-slip fault zones: Sumatra and Mentawai faults. Mentawai fault zone continues N-ward, and fore-arc basin segmented by strike-slip or compressional features)

Malod, J. & B.M. Kemal (1996)- The Sumatra margin: oblique subduction and lateral displacement of the accretionary prism. In: R. Hall & D.J. Blundell (eds.) Tectonic evolution of SE Asia, Geological Society, London, Special Publ. 106, p. 19-28.
(Oblique convergence in Sumatra forearc partitioned into trench- perpendicular convergence and strike-slip parallel to trench. Strike-slip along two major faults, Sumatra and Mentawai FZ. Mentawai fault attenuated at N end, terminates in accretionary prism. It is relayed and connected to Sumatra fault. Pattern can be explained with two sliver plates, Mentawai and Aceh, on top of which forearc basin developed. Accretionary prism moving NW along Mentawai fault. No extension within Mentawai plate, suggesting uniform motion along Sumatra fault S of 3°N. Strike-slip along Mentawai fault explained by better coupling between subducting slab and upper plate beneath accretionary prism compared to forearc)

Matson, R.G. & G.F. Moore (1992)- Structural influences on Neogene subsidence in the Central Sumatra fore-arc basin. In: J.S. Watkins et al. (eds.) Geology and geophysics of continental margins, American Assoc. Petroleum Geol. (AAPG), Memoir 53, p. 157-181.
(C Sumatra fore-arc Singkel and Pini subbasins with 11 Neogene sequences. In Miocene- E Pliocene both subbasins subsided independently. Initial subsidence of Singkel Basin from lateral translation of structural block between Batee and Singkel faults. Regional basin subsidence from deflection of descending oceanic plate, created when material was added to and/or redistributed in accretionary wedge. Structural influences on fore-arc basin subsidence: (1) location of continental margin; (2) presence of strike-slip faults traversing fore arc; and (3) local and regional deformation within accretionary wedge)

McCaffrey, R. (1991)- Slip-vectors and stretching of the Sumatra fore arc. Geology (GSA) 19, p. 881-884.
(Thrust earthquakes at Java trench SW of Sumatra suggest Sumatra fore arc translated to NW by oblique plate convergence. NW motion of forearc rel. to SE Asia increases from zero at Sunda Strait to 45-60 mm/yr in NW Sumatra)

McCaffrey, R. (1992)- Oblique plate convergence, slip vectors, and forearc deformation. J. of Geophysical Research: Solid Earth 97, B6, p. 8905-8915.
(On oblique plate convergence, with examples from Sumatra forearc. Thrust earthquakes suggest partial decoupling, where component of arc-parallel motion of leading edge of upper plate results in less oblique thrusting at trench)

McCaffrey, R. (1996)- Estimates of modern arc-parallel strain rates in fore arcs. Geology (GSA) 24, 1, p. 27-30.
(Arc-parallel extension strain observed in fore arcs of Sumatra, etc. subduction zones. Fore arcs deform even where convergence is perpendicular to curved margins, demonstrating that head-on subduction can produce 3-dimensional strain field)

McCaffrey, R. (2009)- The tectonic framework of the Sumatran subduction zone. Annual Review Earth Planetary Sciences 37, p. 345-366.
(online at: http://www.web.pdx.edu/~mccaf/pubs/mccaffrey_areps_2009.pdf)
(Well-illustrated overview of Sumatra subduction zone and earthquakes)

McCaffrey, R., P.C. Zwick, Y. Bock, L. Prawirodirdjo, J.F. Genrich, C.W. Stevens, S.S.O. Puntodewo & C. Surabaya (2000)- Strain partitioning during oblique plate convergence in northern Sumatra: geodetic and seismologic constraints and numerical modeling. J. of Geophysical Research 105, B12, p. 28363-28376.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/1999JB900362/pdf)
(GPS measurements along subduction zone of N Sumatra (2°S- 3°N) reveal oblique convergence strain partitioned between trench-normal contraction in forearc and trench-parallel shear strain in few tens of km of Sumatran fault. Volcanic arc can help partitioning by localizing margin-parallel shear strain in upper plate if weaker than its surroundings. Highest coupling on plate boundary beneath and seaward of forearc islands, consistent with rupture zones large earthquakes there)

McNeill, L.C., B. Dugan, J. Backman, K.T. Pickering, H.F.A. Pouderoux, T.J. Henstock, K.E. Petronotis, A. Carter, F. Chemale, K.L. Milliken, S. Kutterolf, H. Mukoyoshi et al. (2017)- Understanding Himalayan erosion and the significance of the Nicobar Fan. Earth Planetary Science Letters 475, p. 134-142.
(online at: https://www.sciencedirect.com/science/article/pii/S0012821X17303977)
(First sampling of full sedimentary section of Bengal-Nicobar Fan W of N Sumatra by IODP Expedition 362. Sources for Nicobar Fan mainly Himalayan-derived Ganges-Brahmaputra and Indo-Burman Ranges/W Burma, with minor contributions from Sunda forearc and arc and Ninetyeast Ridge. Bengal-Nicobar Fan clearly developing before Late Miocene, but distinct increase in sediment accumulation rate at ~9.5 Ma suggests restructuring of sediment routing in submarine fan system, coinciding with inversion of E Himalayan Shillong Plateau and encroachment of W-propagating Indo-Burmese wedge)

McNeill, L.C., B. Dugan, K.E. Petronotis and the Expedition 362 Scientists (2017)- Expedition 362 summary (Sumatra Subduction Zone). Proc. International Ocean Discovery Program (IODP) 362, College Station, TX, p. 1-20.
(online at: http://publications.iodp.org/proceedings/362/EXP_REPT/CHAPTERS/362_101.PDF
(Results of August-October 2016 N Indian Ocean Drilling campaign in input materials of N Sumatran subduction zone (up to 4-5 km thick succession of primarily Bengal-Nicobar Fan-related sediments. Tw drill sites U1480 and U1481 on Indian Ocean oceanic plate offshore N Sumatran forearc, with Upper Cretaceous basaltic oceanic crust (60-70 Ma) overlain by Late Maastrichtian- Miocene basal pelagic layer, overlain by Himalyas-derived Late Miocene (~9.5 Ma) - Recent sediments of Nicobar submarine fan)

McNeill, L.C. & T.J. Henstock (2014)- Forearc structure and morphology along the Sumatra-Andaman subduction zone. Tectonics 33, 2, p. 112-134.
(Sunda subduction margin characterized by major changes in accretionary prism and forearc morphology and structure along its 5000km length. In Sumatra-Andaman section (1) narrow and steep prism between Burma and Andamans; (2) broad prism with gentle slope in Andamans, Nicobars, and N Sumatra; (3) steep and narrow in C Sumatra; and (4) wider and less steep offshore S Sumatra, decreasing in width to W Java. Prism width ~90-180km, average surface slope ~1-3°, with inverse correlation between width and slope. Along-strike changes in morphology linked to input sediment thickness)

Meltzner, A.J., K. Sieh, M. Abrams, D.C. Agnew, K.W. Hudnut, J.P. Avouac & D.H. Natawidjaja (2006)- Uplift and subsidence associated with the great Aceh-Andaman earthquake of 2004. J. of Geophysical Research: Solid Earth 111, B02407, p. 1-8.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2005JB003891)
(Rupture of Sunda megathrust on 26 December 2004 produced broad regions of uplift and subsidence. Uplift extends for 1600km from Simeulue Island, off W Sumatra, to Preparis Island, Myanmar..N and W Andaman Islands rose, while S and E islands subsided. Nicobar Islands and W coast of Aceh subsided. Tilt at S end of rupture steep; distance from 1.5m of uplift to pivot line = 60 km)

Millayanti, A., A.R. Aprianto, R.F. Fauzan & M.U. Anggara1 (2019)- Evaluation of organic matters, hydrocarbon potential and thermal maturity of source rocks based on geochemical and statistical methods: case study Miocene of the Seblat and Lemau Formation, Bengkulu Basin. IOP Conference Series: Earth and Environmental Science 248, 012075, p. 1-16.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/248/1/012075/pdf)
(Outcrop samples of E-M Miocene Seblat Fm and M Miocene Lemau Fm in Bengkulu Basin fair to excellent hydrocarbon potential, including Type II kerogens with potential of generating oil and limited gas)

Milsom, J. (1993)- Interpretations of gravity data from the vicinity of Nias. Southeast Asia Research Group, London University, Report 119, p. 1-57. *(Unpublished)*

Milsom, J., S.B.S. Dipowirjo & J. Sipahutar (1990)- Gravity surveys in the North Sumatra forearc. United Nations ESCAP, CCOP, Technical Bulletin 21, p. 85-96.
(Land gravity surveys on N Sumatra forearc Nias, Simeulue, Banyak and Butu islands. Regions of high gravity fields and strong gradients associated with presence of mafic and ultramafic rocks)

Milsom, J., S. Dipowirjo, B. Sain & J. Sipahutar (1990)- Gravity surveys in the North Sumatra forearc. Lemigas Scientific Contribution Petroleum Science Technology 13, 1, p. 112-122.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/1132/918)
(same paper as Milsom et al. (1990) above)

Milsom, J., B. Sain & J. Sipahutar (1995)- Basin Formation in the Nias area of the Sumatra forearc, western Indonesia. In: G.H. Teh (ed.) Proc. AAPG-GSM Int. Conference 1994, Southeast Asian basins: oil and gas for the 21st century. Bull. Geological Society Malaysia 37, p. 285-299.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1995a19.pdf)
(Some of the modern structural highs that transect forearc basin of W Sumatra have been positive elements for considerable periods, but Singkel Basin near Banyak Islands overlies deep depression. Formation of this basin may be related to partitioning of strike-slip motion between main Sumatra fault system and Mentawai Fault)

Minarwan, A. Suhirmanto, A.R. Pangaribuan, L. Sitohang, R. Muammar, & A.S.R.B. Amijaya (2025)- Middle Miocene clastic deposits as a new exploration play objective in the forearc basin of offshore Western Sumatra, Indonesia. Proc. SE Asia Petroleum Exploration Society (SEAPEX) Conference, SEC 2025, Singapore, p. 1-6.
(NW Sumatra forearc basins have several 1970s biogenic gas discoveries, i.e. within U Miocene carbonate buildups, (Meulaboh-1, Keudapasi-1 and Singkil-1 wells). Similar gas in Pliocene sandstones of Palambak-1 near Banyak Islands and in Miocene sandstones of Merah-1 l near Nias Island. Sibolga Basin 2D seismic and well data indicateM Miocene clastic play sourced from Barisan Mts in deep-water area, as submarine fans in slope to basinal setting. Reservoir packages still within biogenic gas generation window)

Minarwan, A. Suhirmanto, Y.D. Kandi, C.D. Tiranda & A.R. Pangaribuan (2024)- Tectonostratigraphic evolution of the offshore Western Aceh region and its implications to hydrocarbon prospectivity in the Sibolga Basin. Proc. 48th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA24-G-101, p. 956-977.
(1970s Unocal Sumatra forearc exploration campaign (16 wells!) found biogenic gas discoveries in Sibolga Basin. Sibolga Basin underlain by Jurassic shales of Woyla Terrane. Thin shallow marine Late Eocene over Mesozoic section (with belmnite/ Inoceramus fragments?), unconformably overlain by E Miocene carbonate (Oligocene missing). Thicker Paleogene section may exist in graben-like local depocenters. No new well data since 1970s?)

Misawa, A., K. Hirata, L. Seeberd, K. Arai, Y. Nakamura, R. Rahardiawan, Udrekh, T. Fujiwara et al. (2014)- Geological structure of the offshore Sumatra forearc region estimated from high-resolution MCS reflection survey. Earth Planetary Science Letters 386, p. 41-51.
(High-resolution seismic around Sunda Trench, trench slope and forearc high regions off NW Sumatra. Trench-parallel anticlinal ridges from trench slope region to forearc high region. Two kinds of vergence systems in forearc: (1) landward vergence dominant in lower trench slope region, (2) seaward vergence dominant in forearc high region. Small piggyback or slope basins between anticlinal ridges. Deformation in uppermost part of these basins suggests 'recent' deformation)

Moeremans, R., S.C. Singh, M. Mukti, J. McArdle & K. Johansen (2014)- Seismic images of structural variations along the deformation front of the Andaman-Sumatra subduction zone: implications for rupture propagation and tsunamigenesis. Earth Planetary Science Letters 386, p. 75-85.
(Seven deep seismic reflection profiles across 3000 km-long subduction system from Andaman to S Sumatra. Frontal zone is characterized by thrusts, showing N-ward transition from dominantly seaward vergence of frontal thrusts to dominantly landward vergence of frontal thrusts. Accretionary wedge poor reflections, due to faulting. Oceanic crust highly disturbed by faults and topographic relief along most of margin)

Moore, G.F. (1978)- Structural geology and sedimentology of Nias Island. Indonesia: a study of subduction zone tectonics and sedimentation. Ph.D. Thesis, Cornell University, p. 1-142. *(Unpublished)*
(Study of mid-Tertiary subduction complex exposed on Nias Island, W. Sumatra. Comprises tectonic melanges and slope basin sediments)

Moore, G.F. (1979)- Petrography of subduction zone sandstones from Nias Island, Indonesia. J. Sedimentary Petrology 49, p. 71-84.
(Rocks on Nias two tectonostratigraphic units: (1) deformed late Oligocene-E Miocene trench deposits (tectonic melange) and (2) Miocene-Pliocene trench slope deposits. Sandstone rich in quartz and lithic fragments. Quartzose nature of Nias sediments indicates provenance from Sumatra W coast exposures of E Tertiary quartz-rich sediments and Paleozoic/Mesozoic metamorphic and plutonic rocks. Much lower contents of volcanic lithic grains than most arc-derived sandstones may be due to nonvolcanic source terrane on W coast)

Moore, G.F., H.G. Billman, P.E. Hehanussa & D.E. Karig (1980)- Sedimentology and paleobathymetry of Neogene trench-slope deposits, Nias Island, Indonesia. Journal of Geology 88, 2, p. 161-180.
(Nias Island Neogene consists of Miocene trench-slope marls, sandstones, and conglomerates of Nias beds that overlie Oyo melange. Lithofacies and sedimentary sequences similar to ancient submarine fan environments. Oldest Nias beds contain very poor fauna or no calcareous microfossils at all, indicating deposition below CCD. Lower Miocene assemblages indicative of depths >2000m. Middle bathyal (500-2000 m) benthic species in U Miocene strata. Nias beds overlain by Pliocene shelf deposits and Pleistocene coral cap. Lower Miocene strata uplifted 4000 m in ~20 Myrs. Basin sediments folded and faulted penecontemporaneous with sedimentation. Dominant source for Nias beds was arc terrane of mainland Sumatra)

Moore, G.F. & J.R. Curray (1980)- Structure of the Sunda Trench lower slope off Sumatra from multichannel seismic reflection data. J. Marine Geophysical Research 4, p. 319-340.
(Seismic profiles across Sunda Trench slope off C Sumatra reveal details of subduction zone structure. Oceanic crust not involved in deformation at toe of slope, and it can be observed dipping landward ~25 km under toe of accretionary prism. Middle portion of trench slope underlain by deformed accreted strata. Slope basins in 375-1500m water depths. Seaward flank of one large slope basin recently uplifted, indicated by shallow landward-dipping reflectors. Also arlier periods of uplift indicated by numerous angular unconformities in basin strata)

Moore, G.F., J.R. Curray & F.J. Emmel (1982)- Sedimentation in the Sunda trench and forearc region. In: J.K. Leggett (ed.) Trench-forearc geology, Geological Society, London, Special Publ. 10, p. 245-258.
(Much of Sumatra fore-arc trench sediment as far as W Sunda Straits is quartzose Himalayan detritus. Nearly all sediment derived from arc terranes of Java and Sumatra in Neogene trapped in forearc basin. Hemipelagic sedimentation dominates on lower inner trench slope (calcareous microfossils and volcanic ash)

Moore, G.F., J.R. Curray, D.G. Moore & D.E. Karig (1980)- Variations in geologic structure along the Sunda fore arc, Northeastern Indian Ocean. In: D.E. Hayes (ed.) The tectonic and geologic evolution of Southeast Asian Seas and Islands- I. American Geophysical Union (AGU), Geophysical Monograph 23, p. 145-160.
(online at: https://www.researchgate.net/publication/279416739_Variations_in_Geologic_Structure_Along_the_Sunda_Fore_Arc_Northeastern_Indian_Ocean)
(On Sunda fore arc from Birma to Sumba. Differences in styles due to oblique versus perpendicular subduction and thickness of sediments entering trench, mainly from Bengal Fan. Sumatran Fault System apparently connected to spreading centers in Andaman Sea. Part of Sumatra SW of Sumatra Fault zone moves NW with 'Burma Plate')

Moore, G.F. & D.E. Karig (1976)- Development of sedimentary basins on the lower trench slope. Geology (GSA) 4, p. 693-697.
(Discussion of accretionary prisms where oceanic plate with thick cover of sediments is subducted. Accreted sediments form ridges behind which younger sediments are ponded in small (2-10 km wide) deepwater basins. Including examples from Nias Island off W Sumatra)

Moore, G.F. & D.E. Karig (1980)- Structural geology of Nias Island, Indonesia: implications for subduction zone tectonics. American Journal of Science 280, p. 193-223.
(Nias Island exposes mid-Tertiary subduction complex. Lowest complex (Oyo) strongly sheared melanges, overlain by deformed Neogene (Nias beds))

Mosher, D.C., J.A. Austin, D. Fisher & S.P.S. Gulick (2008)- Deformation of the northern Sumatra accretionary prism from high-resolution seismic reflection profiles and ROV observations. Marine Geology 252, p. 89-99.
(Multibeam bathymetry over 2004 earthquake site suggests 2004 tsunami not triggered by single zone of offset, but series of small faults across broad frontal accretionary wedge)

Mukhopadhyay, B. & S. Dasgupta (2014)- Genesis of a new slab tear fault in the Indo-Australian plate, offshore northern Sumatra, Indian Ocean. J. Geological Society India 83, 5, p. 493-500.
(Slab-tear fault within subducting Indian plate ruptured in 2005 across W Sunda Trench within marginal intra-plate region)

Mukti, M.M. (2015)- Struktur, evolusi dan tektonik daerah busur depan tepian aktif Sundaland bagian barat. In: H. Harjono et al. (eds.) Pros. Pemaparan Hasil Penelitian Geoteknologi 2015, Pusat Penelitian Geoteknologi (LIPI), Bandung, p. I41-I49.
(online at: http://pustaka.geotek.lipi.go.id/wp-content/uploads/2016/04/Prosiding-2015.pdf)
('Structures, evolution and tectonics of the forearc region in the western Sundaland active margin')

Mukti, M.M. (2017)- Deformation in the Andaman- Northern Sumatra forearc revisited: implication for tectonic reconstruction of the western Sundaland margin. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, Art. 14, p. 1-3.
(online at: https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_Deformation-in-the-Andaman.pdf)
(Andaman - N Sumatra forearc is an area where N extension of Sumatran Fault (SF), the S extension of Sagaing Fault and spreading center in the Andaman Sea meet. Another fault zone in area is West Andaman Fault that stretches N-S for >1200 km from Andaman Sea to Sumatran forearc, likely a backthrusts in landward edge of accretionary complex. Etc.)

Mukti, M.M. (2018)- Structural configuration and depositional history of the Semangko pull-apart basin in the southeastern segment of Sumatra fault zone. J. RISET Geologi dan Pertambangan (LIPI) 28, 1, p. 115-128.
(online at: http://jrisetgeotam.com/index.php/jrisgeotam/article/view/954/pdf)
(On Semangko pull apart basin, transtensional pull-apart basin at step over between Semangko to Ujung Kulon segments of Sumatra Fault zone. Rhomboidal shape with dual depocenters and structural high in center)

Mukti, M.M. (2018)- Structural complexity in the boundary of forearc basin- accretionary wedge in the northwesternmost Sunda active margin. Bulletin of the Marine Geology 33, 1, p. 1-14.
(online at: http://ejournal.mgi.esdm.go.id/index.php/bomg/article/view/536/428)

Mukti, M.M., I. Arisbaya & H. Permana (2020)- Termination of a trench-linked strike-slip fault zone in the Sumatra-Java forearc basin and accretionary wedge complex. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 21, 4, p. 177-186.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/492)
(Seismic and bathymetry study in Sumatra forearc on location and characteristics of strike-slip fault zone that formed S-most segment of Great Sumatran Fault zone)

Mukti, M.M., M.R. Daryono, A.R. Puji & D.H. Natawidjaja (2021)- The growth of forearc basins along the oblique western Sunda subduction zone and its implication to seismic hazards. Proc. Int. Conference Ocean and Earth Sciences, Jakarta 2020, IOP Conference Series: Earth and Environmental Science 789, 012059, p. 1-8.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/789/1/012059)
(Main control of subsidence of W Sumatra forearc basin is due to uplift of forearc high. Present-day morphology of forearc high and forearc basin largely controlled by subduction of bathymetric highs on oceanic crust, which also likely contributed to distribution of large earthquakes in forearc region)

Mukti, M.M., H.B. Maulin & H. Permana (2921)- Growth of forearc highs and basins in the oblique Sumatra subduction system. Petroleum Exploration and Development (Petrochina) 48, 3, p. 683-692.
(online at: https://www.sciencedirect.com/science/article/pii/S187638042160054X)

(Development of forearc high in oblique Sumatra subduction system attributed to Pliocene flexural uplift, basin inversion, uplift of older accretion wedge, and backthrust in landward margin of accretion wedge. Uplifted sediments on forearc high previously formed in forearc basin environment)

Mukti, M.M., S. Singh, I. Arisbaya, I. Deighton, L. Handayani, H. Permana & M. Schnabel (2015)- Geodinamika daerah busur muka Selat Sunda berdasarkan data seismik refleksi. In: H. Harjono et al. (eds.) Pros. Pemaparan Hasil Penelitian Geoteknologi 2015, Pusat Penelitian Geoteknologi (LIPI), Bandung, p. I25-I31.
(online at: http://pustaka.geotek.lipi.go.id/wp-content/uploads/2016/04/Prosiding-2015.pdf)
('Geodynamics of Sunda Strait forearc area based on seismic reflection data'. Sunda Strait transition zone between Java frontal subduction and Sumatra oblique convergence. Disappearance of forearc basin off Sumatra and presence of horsts and grabens. Young faults formed in sediments formerly part of forearc. Horsts and grabens not only related to pull-apart system, but also connected to volcanic-magmatic activities)

Mukti, M.M., S.C. Singh, N.D. Hananto, D. Ghosal & I. Deighton (2011)- Structural style and evolution of the Sumatran forearc basins. Proc. 35th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA11-G-082, p. 1-7.
(Crust beneath Sumatra fore arc basin thin (~20 km), thickens towards mainland. NE-SW extensional structures with probably Late Eocene- E Oligocene syn-rift sediments. Late Oligocene- E Miocene post-rift sediments in grabens and slopes. Grabens exhibit transtensional structures. Inversion of structures related to transpressional strike-slip fault zone, followed by M-L Miocene marked subsidence, overprinting older depocenters)

Mukti, M.M., S.C. Singh, R. Moeremans, N.D. Hananto, H. Permana & I. Deighton (2012)- Neotectonics of the southern Sumatran forearc. Proc. 36th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA12-G-074, p. 1-10.
(Mentawai forearc interpreted as products of compression of accretionary wedge and forearc basin sediments. Compressional phases since Late Miocene)

Mukti, M.M., S.C. Singh, I. Deighton, N.D. Hananto, R. Moeremans & H. Permana (2012)- Structural evolution of backthrusting in the Mentawai Fault Zone, offshore Sumatran forearc. Geochem. Geophysics Geosystems 13, 12, Q12006, p. 1-21.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/2012GC004199/pdf)
(New deep seismic and bathymetry data over Mentawai Fault Zone, along boundary between accretionary wedge and proposed continental backstop. Arcuate ridges on seafloor are landward-vergent imbricated backthrusts at back side of accretionary wedge and backthrusts deforming forearc basin sediments. Backthrusts may have initiated in E-M Miocene, with slide and back-rotation of forearc thrusts. Higher-angle backthrusts initiated in Late Miocene, continuing to form fold-thrust belt to E in Pliocene. Folds and thrusts disturbed by diapirs and mud volcanoes)

Mukti, M.M. & Suwijanto (2016)- On the update of structural map of Sumatra, from on land to offshore observations: implication for the tectonic reconstruction. Proc. 14th Regional Conference Geology and Mineral Resources of SE Asia (GEOSEA XIV) and 45th Annual Conv. Indonesian Association Geologists (IAGI) (GIC 2016), Bandung, p. 375-377.
(Brief review)

Mulyana, B. (2006)- Extension tektonik Selat Sunda. Bull. Scientific Contribution (UNPAD) 4, 2, p. 137-145.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8123/3699)
('Extension tectonics of Sunda Straits'. Sunda Straits pull-apart basin at SE termination of Great Sumatra Fault Zone, with main opening in Pliocene- Recent. Clearly expressed by bathymetry. Associated with magmatism, with N20°E-trending, S-ward younging volcanic line from Sukadana in N (1.2 Ma) to Krakatau (1 Ma) and Panjaitan (0.5 Ma) in S)

Nainggolan, D.A. & T. Padmawijaya (2003)- Studi geodinamika lajur akresi daerah Siberut dari data gayaberat. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 13, 143, p. 24-37.

('Study of geodynamics of the accretionary prism in the Siberut area from gravity data'. Subduction melange in center and west of Siberut Island identified by high Bouguer anomaly. Bouguer gravity decreases to E, reflecting W part of Sumatra forearc basin with sediment thickness of 500-1500m)

Husen, M. (1990)- Tectonic mapping in Nias Island using Landsat MSS imagery. Lemigas Scientific Contribution Petroleum Science Technology 13, 1, p. 87-98.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/1130/916)
(Discussion of Nias island off Sumatra as exposed subduction complex. Paleogene Oyo Complex melange across most of island, overlain in NE by less deformed trench slope basin deposits of Miocene Nias beds)

Nalbant, S.S., M.N. Bhloscaidh, J. McCloskey, C. Ipek & M. Utkucu (2023)- The role of stress barriers on the shape of future earthquakes in the Mentawai section of the Sunda Megathrust. Turkish J. Earth Sciences 32, 3, 7, p. 320-329.
(online at: https://journals.tubitak.gov.tr/earth/vol32/iss3/7/)

Nalbant, S., J. McCloskey S. Steacy M.N. Bhloscaidh & S. Murphy (2013)- Interseismic coupling, stress evolution, and earthquake slip on the Sunda megathrust. Geophysical Research Letters 40, 16, p. 4204-4208.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1002/grl.50776)

Nas, D.S. & J.B. Supandjono (1995)- Geological map of the Telo sheet (0615), Sumatra, 1: 250,000. Geological Research Development Centre (GRDC), Bandung.
(Geologic map of Telo Island, NW of Siberut in Sumatra forearc/ accretionary prism. Oldest rocks Late Oligocene- earliest Miocene Tanahbala Melange with schist, phyllite, serpentinite, dunite and ultrabasic boudins, embedded in metamorphic rocks (same as Melange Gp of Nias). Overlain by M-L Miocene sandstones and marls of Sipika and Hiligeho Fms, and Late Miocene- E Pliocene Gunungbala Lst with Cycloclypeus)

Natawidjaja, D.H., K. Sieh, M. Chlieh, J. Galetzka, B.W. Suwargadi, H. Cheng, R.L. Edwards, J.P. Avouac & S.N. Ward (2006)- Source parameters of the great Sumatran megathrust earthquakes of 1797 and 1833 inferred from coral microatolls. J. of Geophysical Research 111, B06403, p. 1-37.
(Large uplifts and tilts on Sumatran outer arc islands between 0.5°- 3.3°S during great historical earthquakes in 1797 and 1833)

Natawidjaja, D.H., K. Sieh, J. Galetzka, B.W. Suwargadi, H. Cheng, R.L. Edwards & M. Chlieh (2007)- Interseismic deformation above the Sunda megathrust recorded in coral microatolls of the Mentawai islands, west Sumatra, J. of Geophysical Research 112, B02404, p. 1-27.
(Geomorphology and stratigraphy of modern coral microatolls show outer arc Mentawai islands of W Sumatra subsiding over past several decades. Same islands rose up to 3m during giant megathrust earthquakes of 1797 and 1833. Current subsidence may reflect strain that will lead to future large earthquakes)

Natawidjaja, D.H., K. Sieh, S.N. Ward, H. Cheng, R.L. Edwards et al. (2004)- Paleogeodetic records of seismic and aseismic subduction from central Sumatran microatolls, Indonesia. J. of Geophysical Research 109, B04306, p. 1-34.
(Coral microatolls in W Sumatra used to document recent vertical deformation associated with subduction)

Noda, A. & A. Miyakawa (2017)- Deposition and deformation of modern accretionary type forearc basins: linking basin formation and accretionary wedge growth. In: Y. Itoh (ed.) Evolutionary models of convergent margins: origin of their diversity, Intech, Japan, Chapter 1, p. 3-27.
(online at: http://repository.osakafu-u.ac.jp/dspace/bitstream/10466/15058/103/Chapter01.pdf)
(Includes brief review of Sumatra- Java forearc basins, classified as doubly-vergent 'two-wedge' accretionary-type forearc basins)

Omura, A., K. Ikehara, K. Arai & Udrekh (2017)- Determining sources of deep-sea mud by organic matter signatures in the Sunda trench and Aceh basin off Sumatra. Geo-Marine Letters 37, 6, p. 549-559.

(In Aceh basin frequency of turbidite mud decreased as sea level rose during Pleistocene- Holocene deglaciation. Terrigenous organic carbon content high at end of Last Glacial period, but during deglaciation most organic carbon of marine origin. In Sunda trench Holocene turbidites consisted of remobilized slope sediments from two sources: (1) old Bengal/Nicobar fan with thermally matured organic fragments, whereas those derived from trench slope contained little terrigenous carbon)

Permana, H., K. Hirata, T. Fujiwara, Udrekh, E.Z. Gaffar, M. Kawano & Y.S. Djajadihardja (2010)- Fault pattern and active deformation of outer arc ridge of Northwest of Simeulue Island, Aceh, Indonesia. Proc. 39th Annual Conv. Indonesian Association Geologists (IAGI), Lombok, PIT-IAGI-2010-241, p. 1-6.
(Interpretation of structural deformation in Sumatra forearc NW Simeuleu from new bathymetry map. General elongated major NW-SE thrust fault complex, with N-S, NNE-SSW, WNW-ESE or ENE-WSW and E-W structural lineaments)

Permana, H., K. Hirata, T. Fujiwara, Udrekh, E.Z. Gaffar, M. Kawano & Y.S. Djajadihardja (2011)- Fault pattern and active deformation of outer arc ridge of northwest of Simeulue Island, Aceh, Indonesia. Bulletin of the Marine Geology 26, 1, p. 41-49.
(online at: http://ejournal.mgi.esdm.go.id/index.php/bomg/article/view/33/33)
(Same paper as above)

Pesicek, J.D. (2009)- Structure of the Sumatra-Andaman subduction zone. Ph.D. Thesis University of Wisconsin, Madison, p. 1-167. *(Unpublished) (online at: http://www.geology.wisc.edu/homepages/to_be_removed/pesicek/public_html/publications/Pesicek_PhD_09.pdf*
(Seismic tomography studies of mantle, using new teleseismic data from aftershock sequences of 2004, 2005, and 2007 earthquakes)

Pesicek, J.D., C.H. Thurber, S. Widiyantoro, E.R. Engdahl & H.R. DeShon (2008)- Complex slab subduction beneath northern Sumatra. Geophysical Research Letters 35, L20303, p. 1-5.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/2008GL035262/epdf)
(New data from 2004-2005 Sumatra-Andaman earthquake sequences allows improved detail of P-wave velocity structure beneath Sumatra and adjacent regions. Below N Sumatra slab is folded at depth. Fold plays major role in segmentation of Sumatra megathrust and may impede rupture propagation in region. N of Sumatra, significant slab material in mantle transition zone imaged for first time)

Pesicek, J.D., C.H. Thurber, S. Widiyantoro, H. Zhang, H.R. DeShon & E.R. Engdahl (2010)- Sharpening the tomographic image of the subducting slab below Sumatra, the Andaman Islands and Burma. Geophysical J. International 182, 1, p. 433-453.
(online at: https://academic.oup.com/gji/article/182/1/433/563545)
(Increased ray coverage following 2004 and 2005 earthquakes allowed improved imaging of slab geometry in upper-mantle and transition zone regions along Sumatra, Andaman and Burma subduction zones)

Pesicek, J.D., C.H. Thurber, H. Zhang, H.R. DeShon, E.R. Engdahl & S. Widiyantoro (2010)- Teleseismic double-difference relocation of earthquakes along the Sumatra-Andaman subduction zone using a 3-D model. J. of Geophysical Research 115, B10303, p. 1-20.
('Double-difference seismic tomography method applied the method to relocate seismicity from Sumatra-Andaman region before and after great earthquakes of 2004 and 2005)

Philibosian, B., K. Sieh, J.P. Avouac, D.H. Natawidjaja, H.W. Chiang, C.C. Wu, H. Perfettini, C.C. Shen, M.R. Daryono & B.W. Suwargadi (2014)- Rupture and variable coupling behavior of the Mentawai segment of the Sunda megathrust during the supercycle culmination of 1797 to 1833. J. of Geophysical Research: Solid Earth 119, 9, p. 7258-7287.
(online at: http://onlinelibrary.wiley.com/doi/10.1002/2014JB011200/epdf)
(Periods of subduction strain accumulation under Mentawai Islands referred to as 'supercycles' because each culminates in partial ruptures of megathrust. Fnale of previous supercycle comprised two giant earthquakes in 1797 and 1833. 2007 earthquakes released only fraction of moment released during previous rupture sequence.

Major earthquakes generally do not involve rupture of entire Mentawai segment, but may significantly change state of coupling on megathrust for decades to follow, influencing subsequent ruptures)

Philibosian, B., K. Sieh, J.P. Avouac, D.H. Natawidjaja, H.W. Chiang, C.C. Wu, C.C. Shen, M.R. Daryono et al. (2017)- Earthquake supercycles on the Mentawai segment of the Sunda megathrust in the seventeenth century and earlier. J. of Geophysical Research: Solid Earth 122, 1, p. 1-35.
(online at: http://onlinelibrary.wiley.com/doi/10.1002/2016JB013560/epdf)
(At least five discrete uplift events identified at raised coral reef sites around Siberut, Sipora, Pagai islands in about 1597, 1613, 1631, 1658, and 1703, likely corresponding to large megathrust ruptures)

Philibosian, B., K. Sieh, D.H. Natawidjaja, H.W. Chiang, C.C. Shen, B.W. Suwargadi et al. (2012)- An ancient shallow slip event on the Mentawai segment of the Sunda megathrust, Sumatra. J. of Geophysical Research: Solid Earth 117, B05401, p. 1-12.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/2011JB009075/epdf)
(Coral record at Pulau Pasir implies large rupture of megathrust between trench and islands at ~1314 AD. Elevations of four older microatolls at Bulasat suggest at least two other shallow megathrust ruptures before the AD 1314 event)

Prawirodirdjo, L., Y. Bock, R. McCaffrey, J. Genrich, E. Calais, C. Stevens, O. Puntodewo, C. Subarya et al. (1997)- Geodetic observations of interseismic strain segmentation at the Sumatra subduction zone. Geophysical Research Letters 24, 21, p. 2601-2604.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/abs/10.1029/97GL52691)
(GPS surveys suggest complete coupling of forearc to subducting plate S of 0.5°S, half as much to N)

Prawirodirdjo, L., R. McCaffrey, C.D. Chadwell, Y. Bock & C. Subarya (2010)- Geodetic observations of an earthquake cycle at the Sumatra subduction zone: role of interseismic strain segmentation. J. of Geophysical Research 115, B03414, p. 1-15.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/full/10.1029/2008JB006139)
(GPS data from 1991-2007 used for examination of fault segmentation at Sumatra megathrust. Megathrust is segmented, Etc.)

Priyanto, W.S., H. Permana, D. Arisa, A. Aulia, M.M. Mukti, L. Handayani & A. Farisan (2020)- A complex structure in the northwestern of Sumatra Fore-arc. Proc. Int. Conference Ocean and Earth Sciences, Jakarta 2020, IOP Conference Series: Earth and Environmental Science 789, 012068, p. 1-9.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/789/1/012068/pdf)
(Shallow seismic and bathymetry data over accretionary prism off NW Sumatra show seaward and landward vergence thrust systems (dominantly landward vergence))

Pubellier, M., C. Rangin, J.P. Cadet, I. Tjashuri, J. Butterlin & C. Muller (1992)- L'ile de Nias, un edifice polyphase sur la bordure interne de la fosse de la Sonde (Archipel de Mentawai, Indonesie). Comptes Rendus Academie Sciences, Paris, Ser. II, 315, 8, p. 1019-1026.
('Nias Island, a polyphased tectonic belt along the inner edge of the Sunda trench (Mentawai Archipelago)'. Nias Island classically regarded as emergent accretionary wedge. Complex belt affected by polyphase tectonics in Eocene and M Miocene. Sediments shelf clastics and limestone. Nias Melange extremely thin mylonites and olistostromic scaly clay at several decollement levels. Reactivation of Eocene Tethys suture zone within crustal blocks of Sunda margin alternative hypothesis for structure of Mentawai Islands)

Putra P.R. & R. Ragunawati (2020)- Hydrocarbon prospectivity and petroleum system in West Sumatra Forearc Basin. Berita Sedimentologi 46, p. 44-50.
(online at: https://www.iagi.or.id/fosi/berita-sedimentologi-no-46-is-now-online.html)
(Review of West Sumatra forearc basin. Basin considered to have limited hydrocarbon potential due to its low geothermal gradient, but hydrocarbon shows found in Bengkulu A-1X and Arwana-1 wells, which suggest that the Bengkulu forearc basin area has matured source rocks. The Paleogene syn-extensional sediments still under explored. Also unconventional play potential, such as gas hydrate)

Qin, Y. & S.C. Singh (2018)- Insight into frontal seismogenic zone in the Mentawai locked region from seismic full waveform inversion of ultra-long offset streamer data. Geochem. Geophysics Geosystems 19, p. 4342-4365. *(online at: https://agupubs.onlinelibrary.wiley.com/doi/pdfdirect/10.1029/2018GC007787)*

Qiu, Z., X. Han & Y. Wang (2017)- Turbidite events recorded in deep-sea core IR-GC1 off Western Sumatra: evidence from grain-size distribution. Acta Geologica Sinica (English Ed.) 91, 4, p. 1448-1456.
(Seven deep-sea turbidite layers identified in Indian Ocean core off Sumatra, corresponding to events that occurred at 128-130, 105-107, 98-100, 86-87, 50-53, 37-41 and 20-29 ka. Possible triggering mechanisms for turbidite events include tsunamis, earthquakes, volcanic eruptions and sea-level changes)

Rangin, C., X. Le Pichon & J. Lin (2007)- Docked or accreted Indian Ocean fracture ridges along the Sumatra subduction zone northern tip. AGU 2007 Fall Meeting, EOS Transactions American Geophysical Union (AGU) 88, 52, Suppl., Abstract T31G-06, 1p. *(Abstract only)*
(Multibeam and echo sounder data off N tip of Sumatra over rupture area of Dec. 26 2004 earthquake show dominant N10°W trending dextral wrenching at W termination of Sunda subduction zone, at prolongation of N-S trending oceanic fracture zone that absorbs Indian-Australian plates relative motion. Structural fabric of wedge due to interaction of 90°-92°E oceanic fracture ridges system with Sumatra backstop and inner wedge)

Rebetskii, Y. & A. Marinin (2006)- Stressed state of the Earth's crust in the western region of the Sunda subduction zone before the Sumatra-Andaman earthquake on December 26, 2004. Doklady Earth Sciences, 407, 1, p. 321-325.

Rose, R. (1983)- Miocene carbonate rocks of Sibolga Basin, Northwest Sumatra. Proc. 12th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 107-125.
(1970's Union Oil exploration of Sibolga forearc basin discovered gas in six localities, five in carbonate reservoirs. Moderately deformed Neogene 1000'-15,000' thick over folded Paleogene sediments and volcanics. Miocene carbonates primarily beneath present-day shelf on E side of basin. Oldest unit in North is M Miocene, possibly E Miocene shelf limestone with reefs, overlain by deepwater clay-mudstone-siltstone, then U Miocene shelf carbonate-clastics with reefs. In S carbonate deposition late M Miocene- Late Miocene, with fewer reefs than to N. Methane gas in U Miocene in Keudepasi 1 and Singkel 1 wells, both in reefal deposits)

Salman, R., E.M. Hill, L. Feng, E.O. Lindsey, D.M. Veedu, S. Barbot, P. Banerjee, I. Hermawan & D.H. Natawidjaja (2017)- Piecemeal rupture of the Mentawai patch, Sumatra: the 2008 Mw 7.2 North Pagai earthquake sequence. J. of Geophysical Research: Solid Earth 122, 11, p. 9404-9419.
(online at: http://onlinelibrary.wiley.com/doi/10.1002/2017JB014341/epdf)

Samuel, M.A. (1994)- The structural and stratigraphic evolution of islands of the active margin of the Sumatra forearc, Indonesia. Ph.D. Thesis, University of London, p. 1-345. *(Unpublished)*

Samuel, M.A. & N. Harbury (1995)- Basin development and uplift at an oblique-slip convergent margin: Nias Island, Indonesia. In: G.H. Teh (ed.) Proc. AAPG-GSM Int. Conference 1994, Southeast Asian basins: oil and gas for the 21st century, Bull. Geological Society Malaysia 37, p. 101-116.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1995a07.pdf)
(Discussion of cross-section across Niasin Sumatra forearc. Basement ophiolite complex, containing pelagic red chert with M Eocene radiolaria. Initial basin sedimentation in Oligocene, below CCD depth. Nias subject to Oligocene-Early Miocene extension with development of half grabens dropping down to SW. Two phases of uplift/deformation: W areas inverted in E Miocene and whole island subject to Pliocene tectonism. 'Melanges' described by earlier authors diapiric in origin; composed mainly of Oligocene- Lower Miocene sedimentary material, intruding all younger formations)

Samuel, M.A. & N.A. Harbury (1996)- The Mentawai fault zone and deformation of the Sumatran forearc in the Nias area. In: R. Hall and D. Blundell (eds.) Tectonic Evolution of Southeast Asia, Geological Society, London, Special Publ. 106, p. 337-351.

(Sumatran Forearc not behaving as rigid plate and rate of slip increases along right-lateral Sumatran Fault System from SE to NW. Two hypotheses to explain pattern of decoupling: (1) arc-parallel stretching; (2) major right-lateral strike slip zone, parallel to Sumatran Fault System (Mentawai fault zone). Mentawai fault zone S of Nias can be explained as inversion of originally extensional structures and mud diapirism. Strike-slip motion is of limited importance along 600 km long Mentawai fault zone)

Samuel, M.A., N.A. Harbury, A. Bakri, F.T. Banner & L. Hartono (1997)- A new stratigraphy for the islands of the Sumatran Forearc, Indonesia. J. Southeast Asian Earth Sciences 15, 4-5, p. 339-380.
(Nias area heterogeneous Pre-Oligocene basement includes ophiolitic complexes, possibly also continental material. Oyo Fm indicates initial deposition in newly formed extensional sub-basins was deep marine, below CCD. Major E Miocene unconformity as result of period of basin inversion. E and M Miocene phases of differential uplift and subsidence ceased by Late Miocene. Massive influx of Himalayan-derived Bengal Fan sediments reached Sunda Trench in Sumatra area in late M Miocene. Pliocene unconformity represents initiation of major phase of deformation that continues to present day)

Samuel, M.A., N.A. Harbury, M.E. Jones & S. J. Matthews (1995)- Inversion-controlled of an outer-arc ridge: Nias Island, offshore Sumatra. In: J.H. & P.G. Buchanan (eds.) Basin Inversion, Geological Society, London, Special Publ. 88, p. 473-492.
(Three main sub-basins on Nias. Late Paleogene-Neogene sedimentation controlled by extensional faults. Two inversion phases: (1) E Miocene, in W, (2) initiated in Pliocene, in all sub-basins. Latest Pliocene-Pleistocene rocks unconformably overlie Miocene. Uplift and deformation controlled by reactivation of extensional faults and oblique-slip movements on transecting faults. Diapiric melanges developed during inversion. Uplift of sub-basins on Nias inversion of original major extensional faults rather than thrust-slices in accretionary prism. Nias not part of accretionary complex; accretionary prism SW of Nias)

Santi, L.D., I. Setiadi & H. Panggabean (2010)- Deliniasi cekungan busur muka Simeulue berdasarkan data anomali gaya berat. Jurnal Sumber Daya Geologi (JSDG) 20, 3, p. 159-167.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/169/165)
('Delineation of the Simeulue fore-arc basin based on gravity anomaly data'. Simeulue basin, offshore NW Sumatra, maximum length 418 km, in N and S bounded by topographic highs)

Schippers, A., G. Koweker, C. Hoft & B.M.A. Teichert (2010)- Quantification of microbial communities in three forearc sediment basins off Sumatra. Geomicrobiology J. 27, 2, p. 170-182.

Schluter, H.U., C. Gaedicke, H.A. Roeser, B. Schreckenberger, H. Meyer, C. Reichert, Y. Djajadihardja & A. Prexl (2002)- Tectonic features of the Sumatra-Java forearc of Indonesia. Tectonics 21, 5, 1047, p. 11/1-11/15.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2001TC901048)
(Sunda Arc off S. Sumatra-E Java two accretionary wedges: inner wedge I Late Oligocene tectonic flakes and Neogene-Recent outer wedge II. Wedge I forms outer arc high and backstop for outer wedge II. Missing outer arc high of S Sunda Strait explained by Neogene transtension due to clockwise rotation of Sumatra and arc-parallel strike-slip movements. Rotation created pull-apart basins along W Sunda Strait (Semangka Graben) and transpression and inversion on E Sunda Strait in Krakatau Basin. Sumatra FZ probably attached to Java Cimandiri-Pelabuhan Ratu strike-slip fault prior to Sumatra rotation)

Seeber, L., C. Mueller, T. Fujiwara, K. Arai, W. Soh, Y.S. Djajadihardja & M.S. Cormier (2007)- Accretion, mass wasting and partitioned strain over the 26 Dec 2004 Mw9.2 rupture offshore Aceh, northern Sumatra. Earth Planetary Science Letters 263, 1-2, p. 16-31.
(Bathymetric, and seismic survey over frontal active part of accretionary prism along Aceh segment where 26 December 2006 mega-earthquake and tsunami were triggered)

Setyanta, B. (2015)- Model kerak daerah busur muka di Pulau Siberut dan perairan di sekitarnya berdasarkan analisis anomali gayaberat. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 16, 2, p. 55-65.
(online at: http://kiosk.geology.esdm.go.id/artikel/pdf/model-kerak-daerah-busur-muka-di-pulau-siberut...)

('Model of the crust in the forearc area of Siberut Island and surrounding waters based on gravity anomaly'. Gravity profile in W Sumatra forearc from SW of Siberut to NE of Padang suggests trenches and accreted islands underlain by oceanic crust, volcanic arc areas underlain by transitional crust or andesitic crust)

Shamim, P., K. Khan & S.P. Mohanty (2019)- Stress reconstruction and lithosphere dynamics along the Sumatra subduction margin. J. Asian Earth Sciences 170, p. 174-187.
(Gravity modeling and stress reconstructions over Sumatra subduction margin between Indian-Australian and Asian plates)

Shulgin, A., H. Kopp, D. Klaeschen, C. Papenberg, F. Tilmann, E.R. Flueh, D. Franke, U. Barckhausen, A. Krabbenhoeft & Y. Djajadihardja (2013)- Subduction system variability across the segment boundary of the 2004/2005 Sumatra megathrust earthquakes. Earth Planetary Science Letters 365, 1, p. 108-119.
(On structural variations across rupture segment boundary between 2004 and 2005 earthquakes at Sumatra subduction zone off Simeulue Island. Structure of subduction system N and S of segment boundary attributed to subduction of 96°E fracture zone, which separates areas of different thickness of oceanic crust, decrease in amount of sediment in trench and variations in morphology and volume of accretionary prism)

Sibuet, J.C., C. Rangin, X. Le Pichon, S.C. Singh, A. Cattaneo, D. Graindorge, F. Klingelhoefer, J.Y. Lin, J. Malod et al. (2007)- 26th December 2004 Great Sumatra-Andaman earthquake: seismogenic zone and active splay faults. Earth Planetary Science Letters 263, p. 88-103.
(Landward and seaward-verging trench-parallel thrust faults mapped in wedge between N Sumatra and Indian-Indonesian boundary. Spatial aftershocks distribution of 26th December 2004 earthquake shows post-seismic motion partitioned along two thrust faults, the Lower and Median Thrust Faults)

Siegert, M., M. Kruger, B. Teichert, M. Wiedicke & A. Schippers (2011)- Anaerobic oxidation of methane at a marine methane seep in a forearc sediment basin off Sumatra, Indian Ocean. Frontiers Microbiology 2, 249, p. 1-16.
(online at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3245565/pdf/fmicb-02-00249.pdf)
(Cold methane seep in forearc basin off Sumatra, with methane-seep adapted microbial community)

Sieh, K. (2012)- The Sunda megathrust: past, present and future. J. Earthquake and Tsunami, 1, 1, p. 1-22.
(online at: http://www.tectonics.caltech.edu/sumatra/downloads/papers/Snu.pdf)
('Sunda Megathrust' is name for 1600km long seismogenic subduction thrust zone off Myanmar-Andaman-Sumatra- Java, which runs from deep trench on ocean floor under continental margins. Slippage events in 2004 and 2005 caused major earthquakes and tsunamis)

Silpa, K. & A. Earnest (2024)- Outer-arc active tectonic deformation off the Nias-Nicobar Trench: Insights from lithospheric stress and seismic slip models. J. Asian Earth Sciences 276, 106299, p.
(Study of deformation in outer-arc region off Nicobar trench)

Simoes, M., J. Avouac, R. Cattin & P. Henry (2004)- The Sumatra subduction zone: a case for a locked fault zone extending into the mantle. J. of Geophysical Research 109, B10, B10402, p. 1-16.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/2003JB002958/epdf)
Subduction interface locked between large interplate earthquakes (locked fault zone, LFZ), postulated to not extend into mantle because serpentinization of mantle wedge favors aseismic sliding. Uplift rates from coral growth and GPS indicate LFZ extends ~132 km from trench, to 35-57 km depth. LFZ extends below forearc Moho, estimated at ~30 km depth, 110 km from trench, probably into mantle)

Singh, S.C., H. Carton, P. Tapponnier, N.D. Hananto, A.P.S. Chauhan, D. Hartoyo, M. Bayly, S. Moeljopranoto et al. (2008)- Seismic evidence for broken oceanic crust in the 2004 Sumatra earthquake epicentral region. Nature Geoscience 1, p. 777-781.
(Sumatra 2004 earthquake caused by sudden slip along plate interface between subducting Indo-Australian plate and overriding Sunda plate. Seismic section of focal region reveals subducting crust and oceanic Moho are broken and displaced by landward-dipping thrust ramps, suggesting megathrust now lies in oceanic mantle.

Active thrust faults at front of accretionary wedgeconsistent with thrust aftershocks on steeply dipping planes. Brittle failure of mantle rocks accounts for initiation of exceptionally large earthquake)

Singh, S.C., A.P.S. Chauhan, A.J. Calvert, N. Hananto, D. Ghosal, A. Rai & H. Carton (2012)- Seismic evidence of bending and unbending of subducting oceanic crust and the presence of mantle megathrust in the 2004 Great Sumatra earthquake rupture zone. Earth Planetary Science Letters 321-322, p. 166-176.
(Deep seismic reflection and refraction data image top of subducting oceanic crust down to 60 km depth in 2004 great Sumatra-Andaman earthquake rupture zone. Top of downgoing plate does not dip gently into subduction zone but displays staircase geometry with three 5-15 km vertical steps, spaced ~50 km apart)

Singh, S.C., N.D. Hananto & A.P.S. Chauhan (2011)- Enhanced reflectivity of backthrusts in the recent great Sumatran earthquake rupture zones. Geophysical Research Letters 38, L04302, p. 1-5.
(Seismic images of backthrusts in the 2004 and 2007 great earthquake ruptured zones in the Sumatra forearc are brighter than those in regions where subduction zone is still locked. Enhanced reflectivity may be due to increase of fluid contents along reactivated backthrusts during or soon after great earthquakes)

Singh, S.C., N.D. Hananto, A.P.S. Chauhan, H. Permana, M. Denolle, A. Hendriyana & D. Natawidjaja (2010)- Evidence of active backthrusting at the NE margin of Mentawai Islands, SW Sumatra. Geophysical J. International 180, 2, p. 703-714.
(online at: https://academic.oup.com/gji/article/180/2/703/2101866)
(Onshore Great Sumatra Fault takes up significant part of strike-slip motion of oblique subduction of Indo-Australian plate beneath Sunda plate, but offshoreMentawai Fault characterized by active SW dipping backthrusts)

Singh, S.C., N. Hananto, M. Mukti, H. Permana, Y. Djajadihardja & H. Harjono (2011)- Seismic images of the megathrust rupture during the 25th October 2010 Pagai earthquake, SW Sumatra: frontal rupture and large tsunami. Geophysical Research Letters 38, 16, L16313, p. 1-6.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2011GL048935)
(Mentawai segment of Sumatra subduction zone locked and likely to produce large earthquake in near future. Part of locked zone ruptured on 12 September 2007 producing twin earthquakes of Mw = 8.5 and 7.9. Third earthquake of Mw = 7.8 occurred on 25th October 2010, SW of Pagai Island, generatingvery large tsunami on Pagai Islands with run-up height of up to 8 m. Frontal thrust is main active fault in this region. Etc.)

Singh, S.C., N.D. Hananto, M. Mukti, D.P. Robinson, S. Das, A. Chauhan, H. Carton, B. Gratacos, S. Midnet, Y. Djajadihardja & H. Harjono (2011)- Aseismic zone and earthquake segmentation associated with a deep subducted seamount in Sumatra. Nature Geoscience 4, p. 308-311. *(online at: https://www.academia.edu/49178643/Aseismic_zone_and_earthquake_segmentation_associated_with_a_deep_subducted_seamount_in_Sumatra)*
(Imaging of subducted seamount 3-4 km high and 40 km wide at 30-40 km below Sumatra forearc mantle. Seamount remained intact despite >160 km of subduction, and no seismic activity above or below seamount. Coupling between seamount and overriding plate appears weak and aseismic. Subduction of such a topographic feature could lead to segmentation of subduction zone)

Situmorang, B., N.A. Harbury & M.G. Audley-Charles (1987)- Tectonic inversions in the Sunda Forearc: evidence from Simeulue. Proc. 16th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 57-63.
(Cenozoic history of Simeulue, NW of Nias, includes Oligo-Miocene erosional unconformity. Repeated tectonic inversions may be related in part to transpression and transtension stresses generated by strike-slip motion interacting with sinuosities in trench and Sumatran fault system)

Situmorang, B. & Soepatono (1975)- Results of petroleum exploration in the interdeep basin off West Sumatra Indonesia. Proc. 12th Session Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), p. 255-262.

Situmorang, B., S. Wijaya, M. Husen & B. Yulihanto (1990)- Analisis struktur geologi Pulau Nias. Proc. 19th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 27-41.
('Analysis of the structure of Nias island'. Nias island with highly deformed Oyo Complex (mainly NE dipping imbricates of Eocene- Oligocene accretionary complex?), overlain by E- L Miocene Nias Beds)

Specht, T.D., T. Rahardjo, F.I. Frasse & P.B. Dobson (2000)- A comprehensive evaluation of the exploration potential of the Offshore Sibolga Area, West Coast Sumatra Island, Indonesia. AAPG International Conference Exhib., Bali 2000. *(Abstract only)*
(Caltex Sibolga PSC in Mentawai Forearc Basin acquired in 1996. Water depths from onshore to >2000'; sediments up to ~20,000' thick. Bordered by outer arc and Mesozoic-Paleozoic core and volcanic arc of Sumatra. Basin began to subside around 17 Ma and received nearly continuous Neogene sedimentation. Regional right-lateral strike-slip faults produced differences in structural and stratigraphic evolution between sub basins. Shallow burial depths limit size of biogenic accumulations and low heatflow suggests only limited thermogenic petroleum system)

Stevens, S.H. & G.F. Moore (1985)- Deformational and sedimentary processes in trench slope basins of the western Sunda Arc, Indonesia. Marine Geology 69, 1-2, p. 93-112.
(Structure and stratigraphy of trench slope basins W of Nias Island)

Stockmal G.S. (1983)- Modeling of large-scale accretionary wedge deformation. J. of Geophysical Research 88, B10, p. 8271-8287.
(Physical modeling of accretionary wedge deformation, loosely based on C Sumatra forearc)

Subagio & B.S. Widijono (2001)- Model gayaberat, struktur kerak, dan implikasinya terhadap kestabilan lahan di Pulau Nias. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 11, 120, p. 2-13.
('Gravity model, crustal structureand the implications for the stability of land on the island of Nias'. Gravity model suggests basement at W coast and in C Nias consist of continental accreted granite blocks; Basement in offshore forearc basin continental granitic crust)

Surabaya, C., M. Chlieh, L. Prawirodirdjo, J.P. Avouac, Y. Bock, K. Sieh et al. (2006)- Plate-boundary deformation associated with the great Sumatra-Andaman earthquake. Nature 440, 2, p. 46-51.
(2004 earthquake magnitude >9.0 ruptured Sunda subduction megathrust over >1500km, with >20m of slip off N Sumatra)

Syaefudin (1998)- Studi sekuen stratigrafi sedimen berumur Miosen cekungan muka busur Nias, Sumatera Utara. Proc. 27th Annual Conv. Indonesian Association Geologists (IAGI), 2 (Sedimentology Paleontology Stratigraphy), Yogyakarta, p. 106-122.
('Sequence stratigraphic study of Miocene-age sediments in the Nias fore-arc basin, N Sumatra'. Sequence strat interpretation of Panjang 1 well, in forearc between Nias and Sumatra islands)

Syuhada, S., F. Muttaqy, T. Anggono, B. Pranata, N.T. Puspito, M. Ramdhan, F. Febriani, M.M. Mukti et al. (2025)- Spatial variation of crustal anisotropy in Simeulue Island, Indonesia, from shear wave splitting analysis. Physics Earth Planetary Interiors 363, 107362, p.
(Crustal anisotropy around Simeulue Island, W Sumatra forearc, is measured from shear wave splitting analysis)

Tang, G., P.J. Barton, L.C. McNeill, T.J. Henstock, F. Tilmann, S.M. Dean, M.D. Jusuf, Y.S. Djajadihardja et al. (2013): 3-D active source tomography around Simeulue Island offshore Sumatra: thick crustal zone responsible for earthquake segment boundary. Geophysical Research Letters, 40, 1, p. 48-53
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2012GL054148)
(New 3D P-wave velocity model in area of Sumatra subduction zone across Simeulue Island, shows anomalous zone of intermediate velocities, associated with raised topography on top of oceanic crust. Interpreted as thickened oceanic crust in subducting plate, which became a primary control on upper plate structure and segmentation of 2004 and 2005 earthquake ruptures (see also Syuhada et al., 2025))

Tanioka, Y., T. Kususose, S. Kathiroli, Y. Nishimura, S. Iwasaki & K. Satake (2006)- Rupture process of the 2004 great Sumatra-Andaman earthquake estimated from tsunami waveforms. Earth Planets and Space 58, p. 203-209.
(online at: https://earth-planets-space.springeropen.com/articles/10.1186/BF03353379)
(Rupture process of 2004 Sumatra-Andaman earthquake estimated from tsunami waveforms at tide gauges and coseismic vertical deformation along coast. Average rupture speed ~1.7 km/s from tsunami waveform analysis. Rupture extends ~1200 km to NNW along Andaman Trough. Largest slip of 23m estimated on plate interface off NWt coast of Aceh. Another large slip of 21 m on plate interface beneath N Simeulue Island in Indonesia)

Tan Sin Hok (1936)- Bemerkungen uber die Cycloclypeen von Sipoera (Mentawai-Inseln). Geologie en Mijnbouw 15, 7, p. 57-58.
(online at: https://drive.google.com/file/d/1xXrzCscsLSc1mHYjqEKiAgunLMfS1uKT/view)
('Remarks on Cycloclypeus from Sipura, Mentawai Islands'. Brief critique of Tappenbeck (1936) interpretations of Cycloclypeus from Mentawai islands. Tappenbeck's Cycloclypeus koolhoveni probably Heterostegina or Spiroclypeus. Other species may also be misidentified. No figures)

Tappenbeck, D. (1936)- Uber Tertiare Foraminiferengesteine von Sipoera (Mentawei-Inseln). Proc. Koninklijke Nederlandse Akademie van Wetenschappen Amsterdam 39, 5, p. 661-670.
(online at: https://dwc.knaw.nl/DL/publications/PU00016907.pdf)
('On Tertiary foraminifera rocks from Sipura (Mentawai Islands)', W Sumatra. Larger foraminifera in samples collected by H. Terpstra: (1) M Eocene black limestone (zone Ta with Assilina, Nummulites, Borelis (presumably Alveolina; not figured); (2) Early Miocene (zone Te with Spiroclypeus, Miogypsina, Nephrolepidina spp.); (3) Late Miocene (Tf with Pliolepidina and Cycloclypeus cf. guembelianus) marl and limestones (similar to LF assemblages from Nias as described by Douville (1912); see also commentary by Tan Sin Hok (1936))

Tappin, D.R., L.C. McNeil, T. Henstock & D. Mosher (2007)- Mass wasting processes; offshore Sumatra. In: V. Lykousis (ed.) Submarine mass movements and their consequences, 3rd Int. Symposium, Advances in Natural and Technological Hazards Research 27, Springer, p. 327-336.
(online at: www.noc.soton.ac.uk/gg/sumatra/documents/tappin_etal_sumatra_mass_wasting_2007.pdf)
(Mapping of convergent margin offshore Sumatra using swath bathymetry, seismic and seabed photography reveals common seabed failures, but mainly small-scale blocky debris avalanches and sediment flows. Large landslides usually form in areas of high sediment input. Off Sumatra most sediment derived from oceanic plate, and little sediment entering system from adjacent land areas. Input from oceanic source limited due to diversion of sediment entering subduction system, attributed to Ninetyeast Ridge- Sunda Trench collision at ~1.5 Ma)

Terpstra, H. (1932)- Voorloopige mededeeling over een geologischen verkenningstocht op de eilanden Siberoet en Sipoera (Mentawi-eilanden, Sumatra's Westkust). De Mijningenieur 13, 2, p. 16-20.
('Preliminary note on a geological reconnaissance trip on the islands of Siberut and Sipura (Mentawai Islands, Sumatra W coast)'. On Siberut island no Pre-tertiary rocks. On Sipura island schists and amphibolites, and Tertiary similar to Siberut. Between Tertiary rocks serpentinized basic volcanics and dikes of andesite and basalt)

Tjia, H.D. & T. Boentaran (1969)- A morpho-structural study of Nias. Bull. of National Institute Geology and Mining (NIGM), Bandung, 2, 2, p. 21-28.
(Study of topographic maps suggests four anticlinal zones. Also at least 4 terrace levels up to 100m elevation)

Tsukada, K., A. Fuse, W. Kato, H. Honda, M. Abdullah, L. Wamsteeker, A. Sulaeman & J. Bon (1996)- Sequence stratigraphy of North Aceh Offshore Basin, North Sumatra, Indonesia. Proc. 25th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 29-41.
(Main results of stratigraphic prospecting: (1) 30 Ma P21 SB marks sudden break from non-marine to bathyal. A downlap or onlap surface of P22 SB represents favorable combination of porous sandstone and top-sealing compact deep-water mudstone. P21 and P22 SBs overlap on seismic sections because of thin sedimentary separation; (2) SBs of N11-N14 should be markers that identify exploration target in Baong sst. N14 Baong lowstand fan identified as stratigraphic prospect)

Van der Veen, A.L.W.E. (1913)- Bijdrage tot de geologie van Nias. Sammlungen Reichs-Museums Leiden Ser. 1, 9, p. 225-243.
(online at: www.repository.naturalis.nl/document/552442 and www.repository.naturalis.nl/document/552443)
('Contribution to the geology of Nias'. Petrography of samples collected by E. Schroder from Nias island, off W Sumatra. Includes ultrabasic rocks (gabbro, sepentinite, basalt), metamorphics (garnet mica schist), sandstones, Eocene foram breccia and Miocene limestone (see also Douville 1912). With sample location map)

Velbel, M.A. (1985)- Mineralogically mature sandstones in accretionary prisms. Journal of Sedimentary Research 55, p. 685-690.
(Mid-Tertiary quartz-rich sandstones from Nias Island accretionary prism mineralogically more mature than expected in this tectonic setting. Provenance petrogenetically may be unrelated to arc-trench system)

Verbeek, R.D.M. (1874)- Eerste verslag over een onderzoek naar kolen op het eiland Nias. Jaarboek Mijnwezen Nederlandsch Oost-Indie 3 (1874), 1, p. 157-163.
('First report on a survey for coal on the island of Nias', W Sumatra'. Five coal occurrences on Nias, deemed uneconomic. One 1m thick lignite bed, others much thinner)

Verbeek, R.D.M. (1876)- Sumatra's Westkust. Verslag No. 5. Geologische beschrijving van het eiland Nias. Jaarboek Mijnwezen Nederlandsch Oost-Indie 5 (1876), 1, p. 3-13.
('Geological description of Nias Island, NW Sumatra'. Early, brief report on geology of Nias, with 1:100,000 scale geologic map of NE Nias. Mainly composed of marly Miocene sediments, dipping 20-80°, overlain by near-horizontal, ~50m thick Pliocene? reefal limestones)

Vigny, C., W.J.F. Simons, S. Abu, R. Bamphenyu, C. Satirapod, N. Choosakul, C. Subarya et al. (2005)- Insight into the 2004 Sumatra-Andaman earthquake from GPS measurements in Southeast Asia. Nature 436, p. 201-206.
(Data from 60 GPS sites in SE Asia show rupture plane of 2004 Sumatra-Andaman earthquake must have been at least 1000 km long. Small but significant co-seismic jumps detected more than 3000km from epicenter)

Vita-Finzi, C. (1995)- Pulses of emergence in the Outer-Arc Ridge of the Sunda Arc. J. Coastal Research, Special Issue 17, p. 279-281.
(Islands of Nias and Simeulue part of the outer-arc ridge of Sunda Arc, thought to represent top of melange wedge of a mid-Tertiary subduction zone. Radiocarbon ages of Holocene sea-level suggest phases of (uplift) activity during 6,300-4,700, 3,300-1,600 and 600-0 yr BP separated by periods of quiescence)

Vita-Finzi, C. (2008)- Neotectonics and the 2004 and 2005 earthquake sequences at Sumatra. Marine Geology 248, p. 47-52.
(Deformation of outer-arc islands Nias and Simeulue associated with 2004 and 2005 earthquakes generally ascribed to stress release on interface between Indian and Eurasian plates at Java trench. Shallow seismicity and Holocene deformation of islands suggest also activity on imbricate faults in sediment prism behind trench)

Vita-Finzi, C. & B. Situmorang (1989)- Holocene coastal deformation in Simeulue and Nias, Indonesia. Marine Geology 89, p. 153-161.
(Islands W of Sumatra with common Late Quaternary elevated coral reefs and abandoned intertidal platforms. Localities sampled at 0.5-3.5 m above normal high tide with ages from <300 yrs to ~5800 yrs B.P. Average uplift rates are 0.3-1.0 mm/yr. Uplifts probably episodic and seismic in origin)

Wang, X., K.E. Bradley, S. Wei &, W. Wu (2018)- Active backstop faults in the Mentawai region of Sumatra, Indonesia, revealed by teleseismic broadband waveform modeling. Earth Planetary Science Letters 483, p. 29-38
(online at: www.sciencedirect.com/science/article/pii/S0012821X17306933)
(Fault plane solutions of 2005 and 2009 earthquakes in Mentawai offshore area suggest 'back-thrust' sequences occurred on steeply landward-dipping fault. Interpreted as 'unsticking' of Sumatran accretionary wedge along backstop fault that separates accreted material from stronger Sunda forearc lithosphere, or as reactivation of pre-Miocene normal fault under forearc basin)

Wibowo, R., I. Setiadi, Y. Firdaus & R. Rahardiawan (2024)- Gravity modeling of subsurface structures and reservoir characterization using seismic inversion in the Nias Basin. Bulletin of the Marine Geology 39, 2, p. 69-84.
(online at: https://ejournal.mgi.esdm.go.id/index.php/bomg/article/view/890/638)

Wirasantosa, S., H. Harjono & S. Suparka (1994)- Geoscientific surveys of the Sumatra margin. In: J.L. Rau (ed.) Proc. 29th Session Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Hanoi 1992, Bangkok, 2, p. 147-150.
(Brief discussion of marine cruises and profiles in the S part of the offshore Sumatra forearc)

Wissema, G.G. (1947)- Young Tertiary and Quaternary Gastropoda from the Island of Nias (Malay Archipelago). Doct. Thesis University of Leiden, p. 7-212. *(Unpublished)*

Woodward, H. (1879)- Notes on a collection of fossil shells, etc., from Sumatra (obtained by M. Verbeek, Director of the Geological Survey of the West Coast, Sumatra), Part I. Geological Magazine 6, 9, p. 385-393.
(online at: https://zenodo.org/records/1776759
(First of four short papers describing fossils collected by Verbeek in C Sumatra. Including descriptions of four Permian brachiopods from Sibelau, Padang Highlands (Spirifera glabra, Productus undatus, P. semireticulatus, P. costatus) and molluscs from Mio-Pliocene of Nias Island, W Sumatra)

Woodward, H. (1879)- Further notes on a collection of fossil shells, etc., from Sumatra (obtained by M. Verbeek, Director of the Geological Survey of the West Coast, Sumatra), Part II. Geological Magazine 6, 10, p. 441-444.
(Descriptions of Mio-Pliocene molluscs (Cyrena, Pecten) and solitary corals from Nias island, W Sumatra)

Woodward, H. (1879)- Further notes on a collection of fossil shells, etc., from Sumatra (obtained by M. Verbeek, Director of the Geological Survey of the West Coast, Sumatra), Part III. Geological Magazine 6, 11, p. 492-500.
(online at: https://zenodo.org/records/2048325/files/article.pdf)
(Additional descriptions of Mio-Pliocene molluscs from Nias island, including Oliva pseudoaustralis n.sp.)

Woodward, H. (1879)- Further notes on a collection of fossil shells, etc., from Sumatra (obtained by M. Verbeek, Director of the Geological Survey of the West Coast, Sumatra), Part IV. Geological Magazine 6, 12, p. 535-549.
(Additional descriptions of Mio-Pliocene molluscs from Nias island, all gastropods, including Pleurotoma, Phos, Cerithium, Turbo, Melania, Strombus sumatranus n.sp.)

Yulihanto, B. & B. Situmorang (1998)- Petroleum system of the Mentawai Bengkulu forearc basin, West Sumatra, Indonesia. Australian Petroleum Exploration Assoc. (APEA) Journal 38, p. 891-892. *(Abstract only)*
(Mentawai-Bengkulu Forearc Basin two phases of development. Bengkulu Sub-basin NE-SW Paleocene graben, followed by N-S Late Oligocene-E Miocene graben system. Mentawai Sub-basin N-S Late Oligocene- E Miocene graben system only. Bengkulu Basin Eocene lacustrine sediments poorly documented. Onshore Late Oligocene-E Miocene prospective petroleum source rocks. High pristane/ phytane ratio and alkanes from waxy material of terrestrial plants. Potential reservoir rocks in Eocene and Late Oligocene-E Miocene fluvial-alluvial clastics, Oligo-Miocene carbonate facies and shallow marine sandstones. Other potential reservoirs early M Miocene reefal carbonates in Mentawai Sub-basin. Regional seal U Miocene-Pliocene marine shales)

Yulihanto, B. & B. Situmorang (2002)- Structural inversion and its influence on depositional processes in the Aru area, North Sumatra basin, Indonesia. Proc. First Offshore Australia Conference, p. III25- III42.
(Two asymmetrical grabens in Aru area of N Sumatra: Pagarjati in NW, Kedurang in SE, separated by N-S trending Masmambang High. Two rift phases: NE-SW Paleogene grabens, overprinted by N-S Oligo-Miocene grabens, related to dextral motions along Sumatra Fault System. First transtensional episode in Oligo-Miocene (fluvial- shallow marine Seblat Fm sst, conglomerates, tuffaceous shales and limestones). Rejuvenation of extensional faults in M-L Miocene (Lemau Fm sst, claystones, coals). Basin subsidence continued during Late Miocene-Pliocene (littoral Simpangaur Fm). Shallow marine Plio-Pleistocene Bintunan Fm deposited during Barisan orogeny basin uplift and volcanic activity. Exploration potential in Pagarjati and Kedurang Grabens in

Seblat Fm sands and M Miocene limestones and potential source rocks in organically rich Lemau Fm. If Paleogene basin initiation model is accepted, may be potential for lacustrine source rocks)

Yulihanto, B., S. Sofyan, S. Widjaja, A. Nurdjajadi & S. Hastuti (1996)- Bengkulu forearc basin (South Sumatra). Post-Convention field trip, October 1996, Indonesian Petroleum Association (IPA), 68p.

Yulihanto, B. & I.B. Sosrowijoyo (1996)- Constraints on the new exploration strategies in the future for the Bengkulu forearc basin, Indonesia. Proc. 11th Offshore Southeast Asia Conference Exhibition (OSEA96), Singapore 1996, p. 169-176.
(W Sumatra Bengkulu forearc basin exploration mainly targeting Miocene carbonate buildups and E Miocene basal sandstones. Prior to M Miocene Barisan Range uplift Bengkulu basin was comnnected to S Sumatran basin. Future exploration may be concentrated in Paleo-Eocene and Oligo-Miocene grabens)

Yulihanto, B. & B. Wiyanto (1999)- Hydrocarbon potential of the Mentawai forearc basin, West Sumatra. Proc. 27th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 1-24.
(Series of N-S trending Paleogene grabens, partly inverted in M-L Miocene, with various potential hydrocarbon plays)

Zachariasen, J., K. Sieh, F.W. Taylor, R.L. Edwards & W.S. Hantoro (1999)- Submergence and uplift associated with the giant 1833 Sumatran subduction earthquake: evidence from coral microatolls. J. of Geophysical Research 104, B1, p. 895-919.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/1998JB900050/epdf)
(Giant Sumatran subduction earthquake of 1833 large emergence event in fossil coral microatolls on reefs of outer-arc ridge. Emergence increased trenchward from ~1 to 2 m. Pattern consistent with ~13 m of slip on subduction interface. Also rapid submergence in decades prior to earthquake, increasing trenchward)

Zachariasen, J., K. Sieh, F.W. Taylor & W.S. Hantoro (2000)- Modern vertical deformation above the Sumatran subduction zone: paleogeodetic insights from coral microatolls. Bull. Seismological Society of America 90, 4, p. 897-913.
(online at: www.tectonics.caltech.edu/sumatra/downloads/papers/P00b.pdf)
(Stratigraphic analysis of seven coral microatolls (5 outer-arc islands, 2 from mainland coast), indicate Mentawai Islands submerging at 4-10 mm/yr over last 4-5 decades, while Sumatra mainland has remained relatively stable. Presence of fossil microatolls up to several 1000 years old in intertidal zone indicates little permanent vertical deformation over that time)

Zen, M.T. (1993)- Deformation de l'avant-arc en reponse a une subduction a convergence oblique. Exemple de Sumatra. Doct. Thesis, Universite Paris VII, Institut de Physique du Globe, ORSTOM Ed. 130, p. 1-252.
(online at: https://horizon.documentation.ird.fr/exl-doc/pleins_textes/pleins_textes_6/TDM/41116.pdf)
('Deformation of the fore-arc in response to oblique convergence- example of Sumatra'. Oblique plate convergence across trench at Sumatra accommodated through partioning of slip into nearly orthogonal subduction along main subduction thrust zone and trench-parallel translation of forearc slivers along strike slip faults. Sumatra fault zone does not transmit all arc parallel displacement, so forearc sliver must be deformed. Seismic data of forearc shows Mentawai fault zone along ocean-continent boundary, with similar behavior to Sumatra FZ since 15 Ma. Bengkulu forearc basin developed on continental substratum)

II.4. Sunda Shelf, incl. 'Tin islands' (Bangka, Belitung, Singkep) and Karimata)

Abidin, H.Z. (2001)- A NW-SE trending zone of primary tin mineralization in North Bangka: geology, distribution and origin. Indonesian Mining J. 7, 1, p. 1-12.

Abidin, H.Z. (2001)- Penagan tin deposits, Bangka island. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 11, 117, p. 17-31.
(Primary tin deposit NE of Penagan, W side of Bangka Island, in quartz-cassiterite veins in E Triassic Tanjung Genting Fm quartz sst-siltstone, intruded by Late Triassic- E Jurassic Klabat Granite. Also with quartz-wolframite veins)

Abidin, H.Z. (2002)- Stratiform tin deposit at Sambung Giri, Bangka, Indonesia. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 12, 126, p. 2-12.
(Quartz veins from granitic intrusions with and without cassiterite in E Triassic Tanjung Genting Fm micaceous sandstones in NE Bangka)

Abidin, H.Z. (2004)- A NW-SE trending zone of primary tin mineralization in North Bangka, Indonesia: geology, distribution and origin. Majalah Geologi Indonesia (IAGI) 19, 3, p. 173-185.
(Same as Abidin 2001. Reprinted in Metalogeni Sundaland Vol. I (2014), p. 161-174. A 17x2 km NW-SE trending belt in NE Bangka with several primary tin deposits: Air Jangkang, Merawang, Sambung Giri and Pemali. Mineralization at contact with Late Triassic- E Jurassic Klabat granites and Permo-Triassic Pemali Fm meta-sediment, or in sediment bedding planes. Greisen mineralization common within granite. Granite emplacement ages peak in 213-217 Ma. Ore minerals mainly cassiterite, also wolframite, monazite, magnetite, chalcopyrite, sphalerite galena and REE elements)

Abidin, H.Z., Baharuddin & Surawardi (1999)- Toboali alluvial tin deposit: geology, depositional processes and material source. Indonesia Mining J. 5, 3, p. 1-12.
(Reprinted in Metallogeni Indonesia I, p. 137-150. Indonesian tin belt continuation of Main Range S-type granite from Thailand- Malaysia. Toboali area of S Bangka with alluvial tin deposits (onshore and adjacent offshore) derived from Toboali biotite granites. Late Miocene- E Pliocene thick lateritic weathering during warm climate, followed by erosion during Late Pliocene- M Pleistocene))

Abidin, H.Z. & B.H. Harahap (2005)- Petrologi granit pluton dari daerah Tenggara Palau Bangka. Jurnal Sumber Daya Geologi (JSDG) 15, 1 (148), p. 102-110.
('Petrology of a granite pluton from the SE area of Bangka Island'. Late Triassic- E Jurassic Klabat granite of SE Bangka closely associated with tin formation. Intrudes Permo-Carboniferous Pemali Complex metasediments and Triassic- Jurassic Tanjung Genting Fm clastic sediments. 72-74% SiO2, transitional alkaline-calk-alkaline and between syn-collisional, arc volcanic and within-plate granite. Mixed magma sources, 4 samples I-type and one S-type granite)

Abidin, H.Z. & S. Permanadewi (2003)- Greisen tin deposit in the Old Merawang mine, Bangka. Majalah Geologi Indonesia (IAGI) 18, 3, p. 175-184.
(Reprinted in Metalogeni Sundaland Vol. I (2014), p. 195-203. Old Merawang mine operated since 1950's. At contact coarse biotite granite and Triassic Tanjung Genting Fm clastic sediments. Cassiterite mineralization as as greisen, veins and dissemination)

Abidin, H.Z. & E. Rusmana (2004)- Wolframite associated with tin deposit in Bangka: prospect and origin. Majalah Geologi Indonesia (IAGI) 19, 1, p. 39-48.
(Reprinted in Metalogeni Sundaland Vol. I (2014), p. 205-215)
(Wolframite/ tungsten is most common mineral associated with tin deposits all over Bangka. Traditionally viewed as uneconomic, but may have value. Genetic origin similar to tin. Most common as late hydrothermal deposit in cracks and fractures of quartz veins in Triassic Tanjung Genting Fm sandstones)

Adam, J.W.H. (1932)- Kaksa genese. De Mijningenieur 13, 12, p. 217-221.

('Genesis of kaksa' = genesis of alluvial placer tin ore deposits on Bangka. Clear link between tin-bearing non-marine basal alluvial 'kaksa' sediments and erosion of primary ore veins in and around granites)

Adam, J.W.H. (1933)- Kaksa genese (slot). De Mijningenieur 14, 5, p. 81-87.
('Genesis of kaksa (final)'. Continuation of Adam (1932) paper)

Adam, J.W.H. (1960)- On the geology of the primary tin ore deposits in the sedimentary formation of Billiton, Indonesia. Geologie en Mijnbouw 39, 10, p. 405-426.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0X2p0TmhuZEVycnc/view)
(Billiton Island part of belt of tin mineralization from Burma, Malaya into Java Sea. Primary cassiterite lodes studied in Klappa Kampit mine (down to 300m below sea level). Mineralization in folded Permo-Carboniferous sediments, near Mesozoic granite intrusives. Most important cassiterite deposits are bedding-plane lodes at contact of shale and sandstone or radiolarite. Magnetite common in many lodes)

Aditya, R., I. Setiawan, R.D. Nugraheni, F.M.H. Sihombing & T.L. Indra (2020)- Characteristics of primary tin mineralization in the Central and West Bangka Island. In: Life and Environmental Sciences Academics Forum, Depok 2019, IOP Conference Series: Earth and Environmental Science 538, 1, 012016, p. 1-6.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/538/1/012016/pdf)
(Primary tin deposits in Cl and W Bangka in the endogreisen zone and in exogreisen alteration zones)

Aernout, W.A.J. (1922)- Verslag over eene geologisch-mijnbouwkundige verkenning der Karimata-eilanden. Jaarboek Mijnwezen Nederlandsch Oost-Indie 49 (1920), Verhandelingen 1, p. 305-320.
(Reconnaissance geological-mining investigation of Karimata group of 50 islands off SW Kalimantan. Mainly Lower Cretaceous granites and volcanics. Minor contact-metamorphic Triassic-Jurassic sediments (hornfels, quartzite). Regarded as western continuation of Schwaner Mountains (also related to Bangka-Billiton tin islands?; JTvG). U Cretaceous- Lower Tertiary sediments probably absent. With 1:200,000 scale map)

Agung, Y.Z., Y. Watanabe, A. Tampubolon, A.B. Purnama & M.F. Rosana (2024)- Characteristics of REE enrichments in the weathered granitic crust, Toboali, South Bangka: Possibility for ion adsorption-type REE mineralization. Resource Geology 74, 1, e12343, p.
(online at: https://www.gipc.akita-u.ac.jp/~yasushiwatanabe/images/REG.pdf)
(Characteristics and fractionation of rare earth elements (REEs) in two 15-18m deep drill holes in weathered Klabat granite in S Bangka)

Akkeringa, J.E. (1872)- Rapport van het Distrikt Blinjoe, eiland Bangka. Jaarboek Mijnwezen Nederlandsch Oost-Indie 1 (1872), p. 41-148.
('Report on the Blinyu District, Bangka island')

Akkeringa, J.E. (1873)- Verslag van een onderzoek naar tinaders op het eiland Billiton. Jaarboek Mijnwezen Nederlandsch Oost-Indie 2 (1873), 2, p. 3-72.
('Report on an investigation of tin ore veins on the island of Belitung'. Report of 1859 survey by Mijnwezen mining engineer into feasibility of tin exploitation on Belitung. Already ongoing exploitation of alluvial tin deposits. English miners had worked at Brang, probably in weathered tin-bearing veins, but had departed. Identified tin-bearing vein at Tadjouw mountain. No geology)

Akkersdijk, M.E. (1932)- Enkele geologische gegevens betreffende het Pemali-tinertsvoorkomen op het eiland Banka. De Mijningenieur 13, p. 6-10.
('Some geologic data on the Pemali tin ore occurrence on the island of Bangka'. Cassiterite in veins in ?Triassic phyllitic claystones, 100-200m from large Belinloe- Soengeilat granite massif)

Aleva, G.J.J. (1956)- The grain size distribution of quartz in granitic rocks of Billiton, Indonesia. Geologie en Mijnbouw 18, 6, p. 177-187.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0M3VVc2Z5VlpZZVU/view)

(Chemical nature of weathering of granites in Billiton causes complete alteration of feldspar and Fe-Mg minerals, leaving residu of quartz and some accessory minerals. Lognormal size distribution of quartz in Billiton granite)

Aleva, G.J.J. (1960)- The plutonic rocks from Billiton. Geologie en Mijnbouw 39, 10, p. 427-436.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0X2p0TmhuZEVycnc/view)

Aleva, G.J.J. (1973)- Aspects of the historical and physical geology of the Sunda Shelf, essential to the exploration of submarine tin placers. Geologie en Mijnbouw 52, 2, p. 78-91.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0SGRic1l6TklZUTQ/view)
(Sunda shelf is drowned continuation of Bangka- Belitung land areas. Thin tin-bearing Quaternary sediment cover with three sedimentary cycles, etc.).

Aleva, G.J.J. (1985)- Indonesian fluvial cassiterite placers and their genetic environment. J. Geological Society, London 142, p. 815-836.
(On tin placer deposits in alluvial valley systems near Belitung and Singkep island. 95% of mineable cassiterite directly on weathered bedrock)

Aleva, G.J.J., E.H. Bon, J.J. Nossin & W.J. Sluiter (1973)- A contribution to the geology of part of the Indonesian tin belt: the area between Singkep and Bangka islands and around the Karimata islands. In: B.K. Tan (ed.) Proc. Reg. Conf. the Geology of SE Asia, Kuala Lumpur 1972, Bull. Geological Society Malaysia 6, p. 257-271.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1973017.pdf)
(also in Bull. of National Institute Geology and Mining, Bandung, 4, 1, p. 1-22 (1972))
(Acoustic surveys and core holes between Singkep and Bangka and around Karimata islands. Basement covered by unconsolidated sub-horizontal sands with peat interbeds, probably Late Tertiary age. Followed by sediment-filled gullies, incised into older sediments, also with peat, also Late Tertiary. Near-horizontal planation surface at 20-30m below sea level, overlain by young marine sediments)

Aleva, G.J.J., L. J. Fick & G.L. Krol (1973)- Some remarks on the environmental influence on secondary tin deposits. In: N.H. Fisher (ed.) Metallic provinces and mineral deposits in the Southwest Pacific, Bureau Mineral Resources Geology Geophysics, Bull. 141, p. 163-172.
(online at: www.ga.gov.au/corporate_data/108/Bull_141.pdf)
(Five genetically different types of tin placer deposits in SE Asian tin belt. Common factors include deep chemical weathering, selective removal of lightweight material, and adequate catchment areas or traps. Mainly on Bangka-Billiton cassiterite placers ('left-behind deposits'), also W Thailand, Malaysia, Tudjuh archipelago)

Andi Mangga, S. & B. Djamal (1994)- Geological map of the North Bangka Sheet (1114), Sumatra, 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(N Bangka Island oldest rocks Permian Pemali Fm metamorphics, unconformably overlain by folded Tanjunggenting Fm meta-sandstones and claystone with lenses of limestone. Intruded by Late Triassic Klabat granite (217 ± 5 Ma). Unconformably overlain by Plio-Pleistocene and Holocene clastics)

Archbold, N.W. (1983)- A Permian nautiloid from Belitung, Indonesia. Publ. Geological Research Development Centre (GRDC), Bandung, Seri Paleontologi 4, p. 32-36.
(Fragment of straight nautiloid Neorthoceras at Kelapa Kampit, NE Belitung, suggests E-M Permian age for part of NE Belitung Island 'basement' complex of metasediments. Only other occurrence of Neorthoceras in Indonesia is Bitauni, Timor. With summary of other Permian macrofossil occurrences on Belitung)

Aryanto, N.C.D. & U. Kamiludin (2016)- The content of placer heavy mineral and characteristics of REE at Toboali coast and its surrounding area, Bangka Belitung Province. Bulletin of the Marine Geology 31, 1, p. 45-54.
(online at: http://ejournal.mgi.esdm.go.id/index.php/bomg/article/view/318/273)
(Bangka Island and surrounding areas major tin producer (cassiterite), but also heavy mineral placers (magnetite, ilmenite, zircon, apatite, monazite) and potential REE producer (La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, etc.). Tectonic environment of Toboali granitoid of S Bangka continental magmatic arc)

Aryanto, N.C.D. & U. Kamiludin (2016)- Heavy mineral placers and REE potential at the Bangka coasts and its surroundings. Proc. 52nd Annual Session Coord. Comm. Geoscience Programmes E and SE Asia (CCOP), Bangkok, p. 175-184.
(online at: www.ccop.or.th/download/as/52as2.pdf)
(Presence of REE minerals in beach sand and tin mining tailings in S Bangka island. Bangka granites subdivided in Klabat batholith in N (10 plutons; S-type, Late Triassic- M Jurassic; comparable to Main granite belt of Malay Peninsula) and Bebulu batholith in S (5 plutons; S and IS-types))

Aryanto, N.C.D., Nasrun, A.H. Sianipar & L. Sarmili (2005)- Granit Kelumpang sebagai granit Tipe-I di pantai Balok, Belitung. J. Geologi Kelautan 3, 1, p. 19-27.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/121/111)
('I-type Kelumpan Granite at Balok beach, Belitung'. In Bangka- Beliting region biotite-granites associated with cassiterite; no cassiterite mineralisation in hornblende granites. Kelumpang granite of SE Belitung hornblende granite, rich in K-feldspar megacrystic minerals, of I-type, and no cassiterite. Age E Jurassic?)

Aryanto, N.C.D., N. Sukmana & P. Rahardjo (2001)- Specific heavy minerals study on the South Bangka island: a statistical approach. Proc. CCOP 37th Annual Session Bangkok 2000, 2, Technical Reports, p. 65-70.

Aryanto, N.C.D., J. Widodo & P. Rahardjo (2003)- Keterkaitan unsur tanah jarang terhadap mineral berat ilmenit dan rutil perairan Pantai Gundi, Bangka Barat. J. Geologi Kelautan 1, 2, p. 13-18.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/95/85)
(The relationship between Rare Earth Elements and heavy minerals ilmenite and rutile in waters off Gundi Beach, West Bangka'. Niobium (Nb) and Tantalum (Ta) occur in association with ilmenite (FeTiO2) and rutile (TiO2) in near-coastal sands off SW Bangka)

Aryanto, N.C.D. & M. Zulfikar (2016)- The study of seafloor tin placer resources of Quaternary sediment at Toboali Waters, South Bangka. Bulletin of the Marine Geology 31, 2, p.
(online at: http://ejournal.mgi.esdm.go.id/index.php/bomg/article/view/285)

Baartmans, J.A., H. Boissevain, J. van Galen, P.H. Kuenen, T. Raven, G.L. Smit Sibinga, J. Weeda & J.I.S. Zonneveld (1947)- De morfologie van de Java- en Soenda Zee. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap II, 64, p. 442-465 and p. 555-576.
('The morphology of the Java and Sunda Sea'. Collection of chapters on Java Sea morphology and morphological history)

Baharuddin & Sidarto (1995)- Geologic map of the Belitung Sheet (1212, 1213, 1312, 1313), Sumatra. Geological Research Development Centre (GRDC), Bandung.
(Map of Belitung (= Billiton) Island, SE of Bangka. Similar geology with folded, low-metamorphic Permo-Carboniferous clastics: (1) Kelapakampit (Kelapa Kampit) Fm flysch-type deposits with rare Permian fossils, incl. ammonite Agathiceras sundaicum, Fusulina and Schwagerina and Gigantopteris, interfingering with: (2) Tajam Fm quartz sandstones and (3) Siantu Fm basalts and volcanic breccias. Intruded by Tanjungpandan S-type biotite-hornblende granite in NW, locally rich in primary cassiterite (Late Triassic; 215 Ma Rb-Sr age; Schwartz and Surjono 1990) and I-type Baginda adamellite in S (Jurassic?;160-208 Ma; Priem et al. 1975))

Bargawa, W.S., H. Sidiq, A. Dovena & Supandi (2023)- Skarn and greisen model for tin deposit in Batubesi Area, East Belitung, Indonesia. Iraqi Geological J. 56, 2F, p. 77-88.
(online at: https://igj-iraq.org/igj/index.php/igj/article/download/1770/1741/22012)

Batchelor, B.C. (1979)- Geological characteristics of certain coastal and offshore placers as essential guides for tin exploration in Sundaland, Southeast Asia. In: C.H. Yeap (ed.) Proc. Int. Symposium Geology of tin deposits, Kuala Lumpur 1978, Bull. Geological Society Malaysia 11, p. 283-313.
(online at: www.gsm.org.my/products/702001-101221-PDF.pdf)

(Over 95% of tin production in Malaysia and Indonesia from 'alluvial' placers. Discontinuously rising late Cenozoic eustatic sea-levels and accompanying climate changes main controls on Sundaland sedimentation. Late Cenozoic subdivided into Sundaland regiolith (Late Miocene- E Pliocene), Older sedimentary cover (Pliocene-E Pleistocene) and Young Alluvium (Late Pleistocene- Holocene))

Batchelor, B.C. (1979)- Discontinuously rising late Cainozoic eustatic sea-levels, with special reference to Sundaland, Southeast Asia. Geologie en Mijnbouw 58, 1, p. 1-20.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0c2VPc282N1Q3YVE/view)
(M Miocene- Recent level cyclicity. Late Cenozoic global eustatic sea-level rise, of greater magnitude and opposite trend to previous schemes, indicated by studies in Sundaland area. Abrupt sea-level drop in late M Miocene (~N14/N15; ~14-12 Ma?) to ~1000 m below present, correlated with emergent Sundaland continent. Increased land area resulted in more seasonal semi-arid climates. Sea levels have since risen discontinuously since Late Miocene (~11 Ma) at ~10cm/ 1000 yrs, with maximum transgression in late Quaternary. Pleistocene Sundaland coastlines changed little before M. Once since then seas rose above shelf-break causing major coast line shifts, dramatically affecting sedimentation and climates)

Batchelor, B.C. (1983)- Sundaland tin placer genesis and Late Cenozoic coastal and offshore stratigraphy in Western Malaysia and Indonesia. Ph.D. Thesis, University of Malaya, Kuala Lumpur, 2 vols., p. 1-598.
(Unpublished)

Batchelor, D.A.F. (2015)- Conceptual exploration for tin, gold and diamond placer deposits in 'Sundaland' (Indonesia and Malaysia) by understanding the Late Cainozoic stratigraphic context. Proc. PACRIM 2015 Congress, Hongkong, Australasian Institute of Mining and Metallurgy (AusIMM), Melbourne, Publ. Ser. 2/2015, p. 499-506. *(Extended Abstract)*
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(Upper Triassic fractured, low metamorphic limestones in Loemoet tin mine, SE of Klabat Bay, Bangka. Folded with phyllites and fine-crystalline quartzites. First documentation of poorly preserved Norian corals (Montlivaltia molukkana), calcareous sponges (Peronidella moluccana) and crinoids (Entrochus spec., Encrinus). No illustrations (Montlivaltia molukkana also known from U Triassic of Seram, Timor; JTvG))

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formed by melting of greywacke source material during collision of continental margins. Tin-barren granitoids from Bintan island NE of Tin Belt older (M-U Triassic; ~230-222 Ma) pre-collisional monzogranites and granodiorites of calc-alkaline affinity, formed above E-dipping subduction zone)

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('Report of a survey of tin ore on some islands in the Riau residency'. Reconnaissance survey to islands Bintang, Karimun, Kundur, Singkep, etc., in late 1863- early 1864, continuing work of J.E. Akkeringa who died during fieldwork. Similar geology of granites and older metamorphic rocks. Singkep most promising for tin production, from Quaternary alluvial deposits. Some mining already ongoing for 80-100 years by Chinese miners, by agreement with Sultan of Lingga. Some tin on Karimun but unlikely commercial)

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(Brief review of Kundur island geology, probably continuation of Malay Peninsula geology: granitic batholiths intruded into pre-Carboniferous schists/ amphibolites and lateritized ?Triassic sediments (red quartz-rich conglomerates, quartzites, limonite-rocks), causing contact-metamorphism. Petrography of rocks collected by Roggeveen during tin survey in 1930: amphibolites (metamorphosed gabbro), quartzites, greisens, granites, quartz veins with cassiterite and wolframite, etc.)

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Groothoff, C.T. (1916)- De primaire tinertsafzettingen van Billiton. Thesis Technische Hogeschool Delft (Delft Technical University), p. 1-103.
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(Review of former relative sea levels in Malay Peninsula and adjacent marine areas. Well established Holocene level of ~+6m. Levels down to -100m shown by depths of fluvial alluvium and erosional submarine morphology. No convincing evidence for former levels higher than + 6 m)

Haile, N.S. (1973)- The geomorphology and geology of the northern part of the Sunda shelf and its place in the Sunda mountain system. Pacific Geology 1973, 6, p. 73-89.

Hamzah, Y. (1995)- Tin placer deposits off the Rebo area, East coast of Bangka Island, Indonesia. In: J. Ringis (ed.) Proc. 31st Session Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Kuala Lumpur 1994, 2, p. 79-89. *(online at: https://repository.unescap.org/server/api/core/bitstreams/4198bc42-86c9-49fe-843e-60aebea03e54/content)*

Hamzah, Y. (1998)- Geophysical survey of tin placer deposits in West Singkep offshore, Riau Archipelago, Indonesia. In: J.L. Rau (ed.) Proc. 34th Session Coord. Comm. Coastal Offshore Geoscience Programmes E and SE Asia (CCOP), Taejon, Korea 1997, 2, Technical Reports, p. 55-63.
(Geophysical survey W of Singkep, NW of Bangka, to map cassiterite-bearing channels on biotite granite basement surface)

Hanebuth, T.J.J. & K. Stattegger (2003)- The stratigraphic evolution of the Sunda Shelf during the past fifty thousand years. In: F.H. Sidi, D. Nummedal et al. (eds.) Deltas of Southeast Asia and vicinity-sedimentology, stratigraphy and petroleum geology, Society for Sedimentary Geology (SEPM) Special Publ. 76, p. 189-200.
(online at: https://www.researchgate.net/publication/289074356_The_Stratigraphic_Evolution_of_the_Sunda_Shelf_during_the_Past_Fifty_Thousand_Years)
(Sunda shelf exposed during last glaciation, with soil formation and sediment bypass. Analysis of 36 cores from transect in main paleo-valley of North Sunda River on middle Sunda Shelf. Large foresets of delta system extended basinward following sea-level lowering before Last Glacial Maximum. Marshy soil formed after exposure, and sediment bypass dominated during lowstand. Subsequent sea-level rise caused stepwise submergence. Before 13.5 ka drowning restricted mainly to N Sunda River valley. After 13.5 ka flooding of Sunda plain (~70 m below modern sea surface) caused loss of upper course of river system combined with interruption of terrigenous supply)

Hanebuth, T.J.J. & K. Stattegger (2004)- Depositional sequences on a late Pleistocene-Holocene tropical siliciclastic shelf (Sunda Shelf, Southeast Asia). J. Asian Earth Sciences 23, p. 113-126.
(Sunda Shelf tropical siliciclastic shelf with low gradient, extreme width, huge paleo-valley systems, high sediment input due to large catchment area. Four systems tracts during last glacial sea-level fall and subsequent deglacial rise: (a) wide, partly detached deltaic clinoforms indicate forced regression; (b) shoreline deposits and soil formation of lowstand systems tract; (c) backstepping coastline deposits form confined transgressive systems tract and mainly restricted to paleo-valley system; (d) thin marine mud cover as condensed section over whole shelf (base of HST))

Hanebuth, T.J.J., K. Stattegger & A. Bojanowski (2009)- Termination of the Last Glacial Maximum sea-level lowstand: the Sunda-Shelf data revisited. Global and Planetary Change 66, p. 76-84.
(Sunda Shelf Late Pleistocene paleo-coastal relict forms indicating older lowstand 5m deeper than sea level during Last Glacial Maximum (LGM; 21-19 ka BP). LGM sea level recalculated to 123m below modern water depth. Deglacial sea level rise started with massive pulse of 10m in ~800 years, starting at ~19.6 ka. Followed by slow sea level rise throughout HS1, shifting shorelines steadily to hinterland. Onset of Meltwater Pulse 1a at 14.5 ka led to flooding of large parts of Paternoster Platform and Sunda Shelf and widened connections from SCS into Sulu Sea/Celebes Sea. After Meltwater Pulse 1b at ~9.5 ka Sunda Shelf fully flooded)

Hanebuth, T.J.J., K. Stattegger & P.M. Grootes (2000)- Rapid flooding of the Sunda Shelf- a late-glacial sea-level record. Science 288, p. 1033-1035.
(Sea level rise after last glacial maximum at ~20 ka derived from siliciclastic shoreline facies. Record generally confirms reconstructions from coral reefs (~-115m at 20 ka). Rise of sea level during meltwater pulse 1A was 16m in 300 years between 14.6 to 14.3 ka)

Hanebuth, T.J.J., K. Stattegger & Y. Saito (2002)- The stratigraphic architecture of the central Sunda Shelf (SE Asia) recorded by shallow-seismic surveying. Geo-Marine Letters 22, p. 86-94.
(Shallow seismic identified units and surfaces of last three 100 ka Pleistocene sea-level cycles)

Hanebuth, T.J.J., K. Stattegger, A. Schimanski, T. Ludmann & H.K. Wong (2003)- Late Pleistocene forced regressive deposits on the Sunda Shelf (SE Asia). Marine Geology 199, p. 139-157.
(Late Pleistocene regressive deposits on Sunda Shelf three different morphogenic types, including prograding delta wedges of North Sunda River (= Molengraaff River) system at outer shelf and shelf margin. Regressive units separated from their previous highstand shorelines by broad zone of sedimentary bypass)

Hanebuth, T.J.J., H.K. Voris, Y. Yokoyama, Y. Saito & J. Okuno (2011)- Formation and fate of sedimentary depocenters on Southeast Asia's Sunda Shelf over the past sea-level cycle and biogeographic implications. Earth-Science Reviews 104, p. 92-110.
(online at: https://www.academia.edu/25324629/Formation_and_fate_of_sedimentary_depocentres_on_Southeast_Asias_Sunda_Shelf_over_the_past_sea_level_cycle_and_biogeographic_implications)
(Review of sedimentary-biogeographic history of tropical Sunda Shelf as end-member of continental shelves of extreme width, enormous sediment supply and high biodiversity in response to rapid sea-level fluctuations)

Hantoro, W.S. (2018)- Sunda epicontinental shelf and Quaternary glacial-interglacial sea level variation and their implications to the regional and global environmental change. In: Global Colloquium on GeoSciences and Engineering 2017, LIPI, Bandung, IOP Conference Series: Earth and Environmental Science 118, 012053, p. 1-12.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/118/1/012053/pdf)
(Sunda Shelf epicontinental shallow shelf since Pliocene. Sedimentation and erosion cycles follow glacial-interglacial sea level variation cycles that periodically changed area to open land. During eustatic lowstands important river drainage systems from SE Asia in N (Gulf of Thailand) and system from Malay Peninsula, Sumatra, Bangka-Belitung and Kalimantan, named Palaeo Sunda River)

Hantoro, W.S., P.A. Pirazzoli, H. Faure, R. Djuwansah & L. Faure-Denard (1995)- The Sunda and Sahul continental platform: lost land of the last glacial continent in SE Asia. Quaternary International 29-30, p. 129-134.
(Discussion of glacial-nterglacial conditions in Indonesian region. Some maximum glacial periods with sea level ~125m below present sea level, exposing continental platform that was quickly covered by humid lowland tropical forest. Deep pass Indian-Pacific Ocean Gateways remained open. Etc.)

Harbowo, D.G., M. Afdareva, V. Inggrid & S. Sumardi (2021)- Batusatam physical and chemical properties review: A billitonite tektite in Southeastern Belitung Island, Indonesia. Int. Seminar on Mineral and Coal Technology, Bandung 2021, IOP Conference Series: Earth and Environmental Science 882, 012012, p. 1-9.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/882/1/012012/pdf)
(Chemical analyses of 10 Pleistocene 'batusatam' (billitonite) tektites from open pit tin mine at Birah Village, SE Belitung, similar to other Australian strewnfield tektites but higher concentrations of Fe, Ca, Mn, and Sn)

Hardjawidjaksana, K. & B. Dwiyanto (1998)- Submarine surface sediment distribution and mineral resources map of Indonesia. Proc. 33rd Session Co-ord. Comm. Coastal Offshore Geoscience Programmes E and SE Asia (CCOP), Shanghai 1996, 2, p. 231-245.
(Broad Sunda shelf region in Indonesia marked by complex depositional and erosional patterns. In addition to tin, large offshore deposits of detrital heavy minerals zircon and rutile offshore S Kalimantan and Java Sea)

Harsono, R.A.F. (1975)- Pengaruh gerak Kwarter terhadap akumulasi sekunder bijih timah di Bangka. Geologi Indonesia 2, 3, p. 1-9.
(On Quaternary secondary tin accumulations of Bangka island)

Harsono, R. (1987)- General aspects of the granitoids in the Indonesian Tin islands and the surroundings. SEATRAD Bull. VIII, 2, p. 17-27.

Hehuwat, F. (1973)- The significance of zircon and rutile distribution pattern on the Sunda shelf. UN ESCAP Reports 9th Session Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Bandung 1972, p. 164-171.
(Sunda Shelf locally covered by thin Quaternary relict and residual sediments. Zircon and rutile derived from metamorphic and igneous rocks. Main concentrations of heavy minerals at S side of Sunda Shelf platform)

Helfinalis (1993)- Rekaman peristiwa transgressi dan regressi Holosen P. Belitung serta kenaikan suhu muka bumi dewasa ini. Proc. 22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 126-134.
('Records of transgression and regression events of Holocene P. Belitung and the rise in temperature of the Earth surface today'. Around Belitung island Holocene transgression from -65m at 11000 BP to +7.5m at 3700 BP, followed by regression until today. Ancient beach ridges and coral at +5.75m)

Hendrawan, R.N., W.A. Draniswari, F.I. Wahyuni, B. Sapiie & N.I. Basuki (2024)- Metamorphic Complex deformation in North Bangka Island based on macrostructures and microstructures evidences. J. Geoscience Engineering Environment Technology (JGEET) 9, 2, p. 116-121.
(online at: https://journal.uir.ac.id/index.php/JGEET/article/view/13379/6603)
(Outcrops of Pemali basement metamorphic complex on N Bangka Island show Late Paleozoic sediments deformed by (Triassic?) collision between Indochina and Sibumasu blocks. Macro- and microstructures suggest three deformation phases: (D1) NW-SE directed ductile folding associated with Sibumasu-Indochina collision; (D2) NE-SW directed folding in brittle-ductile transition zone; (D3) brittle deformation during uplift to surface (faults, joints, veins). Deformation sequence of North Bangka similar to Bentong-Raub suture zone in Malay Peninsula)

Hermes, J.J. & D.R. de Vletter (1942)- Contribution to the petrography of Bintan (Riouw Lingga Archipelago). Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 45, 1, p. 82-88.
(online at: https://dwc.knaw.nl/DL/publications/PU00017703.pdf)
(Petrography of rocks collected at Bintan island by Roggeveen in 1930. Bintan dominated by granitic rocks. Sediments two formations: Triassic highly folded phyllites, liparite- dacite-tuffs and quartz schists, intruded by granite and unconformably overlain in S and SW by much less folded clastics with streaks of coal)

Hidayat, S. & H. Moechtar (2009)- Interaksi faktor kendali tektonik, permukaan laut dan perubahan iklim di daerah Teluk Klabat, Kabupaten Bangka Induk, Bangka. Jurnal Sumber Daya Geologi (JSDG) 19, 1, p. 23-36.
('Interaction of tectonic, sea-level and climate change factors in the Klabat Bay area, Bangka Regency, Bangka'. Study of depositional facies/ thickness of Quaternary deposits off N Bangka island)

Hinde, G.J. (1897)- Note on a radiolarian chert from the island of Billiton. In: R.D.M. Verbeek (1897) Geologische beschrijving van Bangka en Billiton, Jaarboek Mijnwezen in Nederlandsch Oost-Indie 26 (1897), p. 223-227.
(Cherts in folded (Permian or Triassic?) shales-sands of Billiton/ Belitung Island contain poorly preserved radiolaria and siliceous sponge spicules. Beloidea, Sphaeroidea (Cenosphaera, Dorysphaera), Prunoidea (cf. Cenellipsis) and Discoidea (cf. Theodiscus) recognized. Apparent absence of Cyrtoidea indicates probable Paleozoic age of rock. Assemblage contrasts strongly from radiolaria in Danau Fm of C Borneo, where cyrtoidal forms dominate)

Holt, R.A. (1998)- The gravity field of Sundaland- acquisition, assessment and interpretation. Ph.D. Thesis. Birkbeck College and University College, University of London, p. 1-342. *(Unpublished)*

Horsfield, T. (1848)- Report on the island of Banka. J. Indian Archipelago and Eastern Asia, Singapore, 2, 17, p. 299-336, 373-427, 705-725, 779-824.
(online at: http://ignca.nic.in/Asi_data/51359.pdf)
('Report delivered to His Excellency Thomas Stamford Raffles Esq. Lieut. Governor of Java etc., in the year 1814, by Thomas Horsfield'. Sect. I, The geographical description of the island, Sect. II Mineralogical description of

the island, Sect. III Views of the tin mines of Banka. Early descriptions of geology, botany, people and tin mining operations on Bangka island by American-born naturalist Horsfield. No figures)

Hosking, K.F.G., T.E. Yancey, H.L. Strimple & M.T. Jones (1977)- The discovery of macrofossils at Selumar, Belitung, Indonesia. Bull. Geological Society Malaysia 8, p. 113-116.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1977008.pdf)
(Up to 40cm long crinoid stems in magnetite-cassiterite ore body at Selumar (E Belitung) assigned to Moscovicrinus, believed to be of E Permian age)

Hosking, K.F.G. & T.B.A. Rabelink (1978)- Galena-bearing grains from the Lenggang stanniferous placers, Belitung, Indonesia. Bull. Geological Society Malaysia 10, p. 63-72.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1978005.pdf)

Houtz, R.E. & D.E. Hayes (1984)- Seismic refraction data from Sunda Shelf. American Assoc. Petroleum Geol. (AAPG) Bull. 68, 12, p. 1870-1878.
(Seismic refraction data along 2 Sundaland profiles, one NW of Natuna island, one off N Borneo. Offshore Sarawak Basin underlain by oceanic crust and now covered by 8 km of undisturbed sediment, implying shelf edge advanced about 300 km N-ward over oceanic crust as result of post-Eocene progradation)

Hovig, P. (1920)- Banka, de geologie en de tinertsen. Mededelingen Algemeen Ingenieurs Congres, Batavia 1920, Sectie 5, Mijnbouw en Geologie, Ruygrok, Batavia, p. 1-40. *(also as English version)*
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:045933000:00001)
('Bangka, the geology and the tin ores'. Popular review of Bangka geology. Oldest rocks monotonous, intensely folded, steeply dipping, unfossiliferous sediments (except Triassic? radiolaria) with main strike direction E-W (N90E- N120E), into which granites (24% of outcrop) intruded. Unlike much of Sumatra, Bangka was never covered by Tertiary sediment. Tin-bearing valley-fill deposits ('kong') of Quaternary age (based on Elephas sumatranus tooth), near granite intrusives, with valley floors locally deeper than 30m below sea level)

Hovig, P. (1923)- Over billitonieten, ertslaag en woestijnklimaat. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 7, p. 1-13.
(Discussion of (Pleistocene) Belitung glass tektites, found on top of bedrock ('kong'), below tin-bearing alluvial deposits. Mainly critique of Wing Easton (1921) suggestion that billitonites formed from colloidal solutions. Many billitonites have fragile small 'tables' on a stem, suggesting limited or no transport)

Huguenin, J.A. (1877)- Rapport van het district Toboali, eiland Bangka. Jaarboek Mijnwezen Nederlandsch Oost-Indie 6 (1877), 1, p. 81-185.
(map online at: https://historicalmaps.yale-nus.edu.sg/catalog/beinecke-16686254)
('Report of the Toboali District, Bangka Island'. Early geological- mining survey of southern peninsula of Bangka. With rel. detailed 1:60,000 geologic map)

Husson, L., F.C. Boucher, A.C. Sarr, P. Sepulchre & S.Y. Cahyarini (2020)- Evidence of Sundaland's subsidence requires revisiting its biogeography. J. of Biogeography 47, p. 843-853.
(online at: https://onlinelibrary.wiley.com/doi/epdf/10.1111/jbi.13762)
(Pleistocene sea level changes intermittently inundated the Sunda Shelf. Recent findings on geomorphology of currently submerged Sunda shelf suggest it subsided during Pleistocene and was never submerged prior to Marine Isotope Stage 11 (MIS 11, 400 ka). This would have enabled dispersal of terrestrial organisms regardless of sea level variations before 400 ka, but periodically hampered movements thereafter)

Hutchison, C.S. (1968)- Invalidity of the Billiton granite, Indonesia, for determining the Jurassic/ Upper Triassic boundary in the Thai-Malayan orogen. Geologie en Mijnbouw 47, 1, p. 56-60.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0cDYwRnRKR3hxalU/view)
(K-Ar age of 180± 5 Ma (Schurmann et al., 1960) for Billiton granite should not be used for setting the age of Triassic-Jurassic boundary. Emplacement of 'tin-belt' granite much more complex than model)

Iijima, A., K. Kimiya & H. Yanagimoto (1973)- Relationship between mineral composition and grain-size distribution in the low-grade bauxite deposit on Bintan Island. In: Third Int. Congress for the Study of bauxites, alumina and aluminum, Nice 1973, p. 55-61.

Ikhsan, N. & A.D. Titisari (2016)- Mineralogi dan geokimia granitoid Bukit Baginda, Pulau Belitung, Indonesia. In: R. Hidayat et al. (eds.) Proc. Seminar Nasional Kebumian 9, Dept. Teknik Geologi, Gadjah Mada University, Yogyakarta, p. 469-484.
(online at: https://repository.ugm.ac.id/273552/)
('Mineralogy and geochemistry of Baginda Hill granitoid, Belitung Island'. Granitoids widespread on Belitung; in NW associated with tin deposits, in SW, at Baginda Hill, extremely low Sn content. Magmatic affinity of granitoid calk-alkaline, high K alkaline/ shoshonitic, I-type metaluminous. Rb versus Y+Nb and Nb versus Y suggest Baginda Hill granitoid is Volcanic Arc Granite, associated with subduction)

Ikuno T., A. Imai, K. Yonezu, K. Sanematsu, L.D. Setijadji et al. (2010)- Concentration and geochemical behavior of REE in hydrothermally altered and weathered granitic rocks in Southern Thailand and Bangka Island, Indonesia. Proc. Int. Symposium Earth Science and Technology, Fukuoka, p. 269-273.

Imai, A., R. Osone, R. Takahashi & S.D. Pratiwi (2015)- Classification and Rare Earth Elements geochemistry of granitoids in Belitung Island, Indonesia. Proc. 5th Asia Africa Mineral Resources Conference, Marine Science Institute, Quezon City, Philippines, p. 51-54.

Irwanto, D. (2025)- Sundaland paleo-river system: Reconstructing the submerged drainage networks of the Last deglaciation. Preprint?
(online at: https://www.researchgate.net/publication/396509373_The_Sundaland_Paleo-River_System_Reconstructing_the_Submerged_Drainage_Networks_of_the_Last_Deglaciation)
(With map of reconstructed paleo-river systems and major drainage basins across the Sunda Shelf, showing six major paleo-river systems and large Gulf of Thailand paleo-lake)

Irzon, R. (2015)- Contrasting two facies of Muncung Granite in Lingga Regency using major, trace and Rare Earth Element geochemistry. Indonesian J. on Geoscience (IJOG) 2, 1, p. 23-33.
(online at: http://ijog.bgl.esdm.go.id/index.php/IJOG/article/view/187/187)
(Two granitic units in Lingga islands group, NW of Bangka: (1) S-type Muncung Granite (Triassic; on S Lingga, Selayar- N Singkep islands) and (2) and I-type Tanjungbuku Granite (Jurassic; S Singkep island). Granitic rocks from Lingga and nearby Selayar Island classified as A facies, others from Singkep Island B facies. Both facies syn-collisional and high-K calc-alkaline granites. Some identical characters with other granitic units in Peninsular Malaysia also detected)

Irzon, R. (2015)- Genesis granit Muncung dari Pulau Lingga berdasarkan data geokimia dan mikroskopis. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 16, 3, p. 141-149.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/38/39)
(Triassic Muncung Granite on Singkep Island besides Tanjungbuku Granite classified as S-type and in 'Main Range Granite Province' in SE Asia. Strong peraluminous character)

Irzon, R. (2017)- Geochemistry of Late Triassic weak peraluminous A-type Karimun Granite, Karimun Regency, Riau Islands Province. Indonesian J. on Geoscience (IJOG) 4, 1, p. 21-37.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/268/229)
(Late Triassic Karimun Granite on Karimun island S of Singapore differs from other felsic intrusive rocks in Malay Peninsula because of A-type affinity, although it is classified as part of Tin Islands (tin deposits exploited on Karimun island in 1860s (and later?)- JTvG)

Irzon, R. (2022)- REE-bearing minerals in tin waste dumps of Singkep Island: Geochemical identification and recovery. Indonesian J. on Geoscience (IJOG) 9, 1, p. 15-26.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/721/353)

(Monazite-(Ce), xenotime, and zircon are REE-bearing minerals in tailing dumps on Singkep island from tin mining since colonial period)

Irzon, R. (2022)- Pembentukan bauksit dan ferit pada profil pelapukan di Kabupaten Lingga. Buletin Sumber Daya Geologi 17, 1, p. 1-14.
(online at: http://103.87.161.68/index.php/bsdg/article/view/BSDG_VOL_17_NO_1_2022_1/303)
('Formation of bauxite and ferrite in weathered profiles in the Lingga Regency'. Paleozoic 'basement' units near Bentong-Raub Suture exposed to intensive tropical weathering for long time. Ferrite and bauxite formed in multiple locations. Highest Al2O3 concentration of bauxite 60%; highest Fe2O3T of ferrite is 69%. Samples originated from felsic rock. REE concentrations too low for further exploitation)

Irzon, R., H.Z. Abidin, Baharuddin, P. Sendjadja & Kurnia (2017)- Kandungan Rare Earth Elements pada granitoid Merah Muda dari daerah Lagoi dan perbandingan dengan granitoid sejenis lain. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 18, 3, p. 137-146.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/238/290)
('Rare Earth Element content in pinkish granite of the Lagoi area and its comparison with similar rocks of other regions'. Triassic granite intrusions on Bintan Island part of Main Range Granite belt of SE Asia. Different colours of granite. Pink granite in Lagoi area of N Bintan (226 ± 8 Ma) with high REE content (av. 295 ppm))

Irzon, R., I. Syafri, A.A. Ghani, A. Prabowo, J. Hutabarat & P. Sendjaja (2020)- Petrography and geochemistry of the Pinkish Lagoi Granite, Bintan Island: implication to magmatic differentiation, classification, and tectonic history. Bull. Geological Society Malaysia 69, p. 27-37.
(online at: https://gsm.org.my/products/702001-101836-PDF.pdf)
(Lagoi granite in N Bintan part of Eastern Granite Province in SE Asia. Ranges from granodiorite to granite and shows metaluminous character. Sevene samples classified in high-K calc-alkaline series, one shoshonitic. Categorized as syn-collisional I-type granitoid, formed at time of Sibumasu- East Malaya collision)

Irzon, R., I. Syafri, J. Hutabarat & P. Sendjaja (2016)- REE comparison between Muncung Granite samples and their weathering products, Lingga Regency, Riau Islands. Indonesian J. on Geoscience 3, 3, p. 149-161.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/226)
(Rare Earth Elements (REE) occur in Muncung Granite and in weathered layers (saprolite, laterite, and soil). Average REE content of Muncung Granite 265 ppm; lateritization increased REE content by >4 times)

Irzon, R., I. Syafri, J. Hutabarat, P. Sendjaja & S. Permanadewi (2018)- Heavy metals content and pollution in tin tailings from Singkep Island, Riau, Indonesia. Sains Malaysiana 47, 11, p. 2609-2616.
(online at: https://journalarticle.ukm.my/12641/1/03%20Ronaldo%20Irzon.pdf)
(Tin mineralization on Singkep Island associated with S-type Muncung 'Main Range' Granite . Tin mining on Singkep started in 1899 (NV Singkep Tin Exploitatie Maatschappij (SITEM) and ended in 1993. Mine tailings are environmental hazard die to heavy metals concentrations)

Irzon, R., M. Zulfikar, U. Kamiludin, N.C.D. Aryanto, D. Setiadi, Y. Noviadi & U. Hernawan (2023)- Geochemistry signature and K-Ar age of the I-type granite at East Coast of Bangka Island. Indonesian J. on Geoscience (IJOG) 10, 3, p. 309-322.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/901/430)
(Tanjung Berikat monzogranite-granodiorite in E of Bangka Island high-K calc-alkaline- shoshonitic affinity, I-type volcanic arc granite. K-Ar ages ~126 and 109 Ma (late Early Cretaceous) (most other Belitung granites Late Triassic, S-type?))

Isaacs, K.N. (1963)- Interpretation of geophysical profiles between Singapore and Labuan, North Borneo. Geophysics (SEG) 28, 5, p. 805-811.
(Airborne magnetometer profile and gravity profile from Singapore to Labuan, N Borneo, indicates shallow basement along W half of profile, except for minor sedimentary basins ~50 miles W of Tambelan Islands and in W Borneo. East of Kuching, Sarawak, major basin, with ~10,000' sediment)

Johari, S. (1987)- Relationship between Sn mineralization and geochemical anomalies in non-residual overburden at Tebrong area, Belitung, Indonesia. In: N. Thiramongkol (ed.) Proc. Workshop on Economic geology, tectonics, sedimentary processes and environment of the Quaternary in Southeast Asia, Haid Yai, Thailand 1986, IGCP 218/ Chulalongkorn University, Bangkok, p. 157-172.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/1986/5083...)
(Tebrong area of E Belitung underlain by Triassic granite plutons and metasediments with low-grade Sn mineralization in swarms of subvertical quartz-tourmaline-cassiterite veins. Overlain by Quaternary cassiterite 'kaksa' placers)

Johnson, H.D., F.A. Alqahtani, C.A.L. Jackson, M.R.B. Som, D.P. Ghosh & W.K.W. Sulaiman (2010)- Fluvial reservoir analogues in the Malay Basin: analysis of shallow 3D seismic data of Pleistocene rivers on the Sunda Shelf. In: L.J. Wood et al. (eds.) Seismic imaging of depositional and geomorphic systems, Proc. 30th Annual Perkins Research Conference, Gulf Coast Section SEPM, Houston, p. 328-329.

Johnson, R.F. & Marjono (1963)- Geology and bauxite deposits of the central Riau Islands, Indonesia. Direktorat Geologi, Bandung, Publikasi Teknik- Seri Geologi Ekonomi 6, p. 1-54.
(Occurrence of bauxite (Al2O3) concretions on several islands of C Riau Archipelago (Lobam, Ngenang), in addition to Bintan occurrences known since 1924. Products of in-place lateritic weathering. Some laterites residual on granitic rocks, some in marine terraces. Geology mainly summarized from A.C.D. Bothe (1928))

Jones, M.T., B.L. Reed, B.R. Doe & M.A. Lanphere (1977)- Age of tin mineralization and plumbotectonics, Belitung, Indonesia. Economic Geology 72, 5, p. 745-752.
(Primary tin deposits on Belitung related to Late Triassic granites with Rb-Sr isochron age of 213± 5 Ma. K-Ar ages of muscovite from two cassiterite-bearing greisens 195 and 200 Ma, suggesting tin mineralization not simple late-stage event in emplacement of plutons. Lead (galena) isotopes unreliable for age dating, but do suggest Precambrian continental origin of ores)

Jongmans, W.J. (1951)- Fossil plants of the Island of Bintan (with a contribution by J.W. Adam). Proc. Koninklijke Nederlandse Akademie van Wetenschappen, B 54, 2, p. 183-190.
(First description of latest Triassic 'Bintan flora', collected by geologists of Billiton company, from near-horizontal Bintan Fm shales and sands from Tanjung Batu Itam, SW Bintan island, Riau islands. Species identified all cycads, including Ptilophyllum bintanense n.sp., Otozamites gagauensis, Pterophyllum muensteri, P. rosenkrantzi, P. nathorsti, Cycadolepis sp. and Protocupressinoxylon malayense Roggeveen. Interpreted as part of Late Triassic Dictophyllum- Clathropteris flora, similar to flora of Tonkin (N.B.: thought to be comparable to E Cretaceous Gagau flora of E Malay Peninsula by Kon'no (1972) and Rishworth (1974), but considered to be Rhaetian-Liassic by Wade-Murphy and Van Konijnenburg (2008); JTvG)

Junker, H.W. (1936)- Bauxit und Laterit auf Banka. Ein Beitrag zur Kenntnis der Geologie von Banka. De Ingenieur in Nederlandsch-Indie (IV) 3, 2, p. IV.15- IV.23.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1936-02.pdf)
('Bauxite and laterite on Bangka; a contribution to the knowledge of the geology of Bangka'. Claims to be first to demonstrate presence of bauxite on Bangka (bauxite produced on nearby Bintan since 1935; JTvG))

Kanayama, S. (1973)- Tin bearing granites and tin placers in Bangka and Billition islands, in Indonesia. Kyoto University, Southeast Asian Studies 11, 3, p. 321-337.
(online at: http://kyoto-seas.org/pdf/11/3/110302.pdf)
(In Japanese with English abstract. Tin in Indonesia mainly exploited from placers with cassiterite. Source rocks are tin granites of collision type, which are more common in Europe and USA than in Japan. Economic cassiterite concentrations limited to area within 15 km from edges of granitic mother rocks; largest number of known tin placers ~5-12 km from granites. Surrounding rocks of tin placers mainly (Paleozoic?) steeply dipping clastics, mainly dipping to S?)

Karubaba, J.J. (1986)- Tin mineralisation of the foliated biotite granite, Pemali Mine, Bangka, Indonesia. Postgraduate Diploma in Science in Geology, University of Otago, Dunedin, New Zealand, p. 1-198.

(Unpublished) (Pemali Mine is one of primary tin mines on Bangka Island. Tin mineralization is postmagmatic hydrothermal deposit, tied to foliated biotite granite (S-type; Upper Triassic?). Cassiterite mineralization mainly disseminated and in small veinlets within granite with two trends, N10°- 40°E and N10°- 20°W)

Katili, J.A. (1967)- Structure and age of the Indonesian tin belt with special reference to Bangka. Tectonophysics 4, p. 403-418.
(Radiometric ages Billiton-Singkep granites Late Jurassic (Late Triassic according to Priem et al. (1975, 1982); JTvG). Oldest rocks in Bangka fossiliferous Permo-Carboniferous and Triassic; locally metamorphosed. Folding in Bangka probably also Late Jurassic. Three episodes of tectonic deformation on Bangka Island)

Katili, J.A. (1968)- Cross-folding in Bangka, West Indonesia. Contributions Department of Geology, Institut Teknologi Bandung (ITB) 68, p. 61-70.
(Cross-folds in N Bangka result of two orogenic movements: NW-SE trending folds formed in Late Jurassic, superimposed on older NE-SW structures, probably Paleozoic)

Keller, G.H. (1966)- Sediments of the Malacca Strait, Southeast Asia. Ph.D. Thesis University of Illinois, p. 1-109.
(Sediments in Malacca Strait largely derived from adjacent land provinces of Sumatra and Malay Peninsula, with highly variable provenance. Dominant NW current due to movement of water into strait from S China and Java Seas and to lesser extent from Andaman Sea)

Keller, G.H. & A.F. Richards (1967)- Sediments of the Malacca Strait, Southeast Asia. J. Sedimentary Petrology 37, 1, p. 102-127.
(Malacca Strait shallow passage between Malay Peninsula and Sumatra assumed present configuration as after post-glacial rise of sea level which drowned Sunda Shelf. Tidal NW current flow prevails throughout year. Surface salinities and T generally lower than surrounding seas. Bottom sediments mainly muddy sands, with common mud near river mouths and in Andaman Sea. Non-calcareous detrital fraction dominated hy quartz with minor feldspars. Heavy mineral primarily leucoxene, ilmenite, staurolile, biotite and amphiboles. Volcanic ash of andesitic origin in much of area. Many cores penetrate Late Pleistocene surface of indurated silty clay with much peat, with radiocarbon ages of 10,000 years B P., and probable tidal flat or estuarine deposit)

Kieft, C. (1952)- Accessory transparent minerals in tin granites of North Banka, Indonesia. Proc.Koninklijke Nederlandse Akademie van Wetenschappen B55, p. 140-149.
(Accessory heavy minerals in Banka tin granites include zircon, orthite, xenotime, monazite and allanite)

Kiel, B.A. (2009)- Three-dimensionality, seismic attributes, and long profile setting of valleys in recent stratigraphy of the Sunda Shelf, Indonesia: M.S. Thesis, University of Texas, Austin, p. 1-85. *(Unpublished)*

Kiel, B.A. & L.J. Wood (2010)- Correlations among seismic attributes and incised valley thicknesses in recent stratigraphy of the Sunda Shelf, Indonesia. In: L.J. Wood, T.T. Simo & N.C. Rosen (eds.) Seismic imaging of depositional and geomorphic systems, Proc. 30th Annual Perkins Research Conference, Gulf Coast Section SEPM (GCSSEPM), Houston, p. 23-48.
(3D seismic data set near Gabus Field, W Natuna Basin, image channelized series in upper 500m of Sunda Shelf (Pliocene-Recent U Muda Fm). Ten incised valley features mapped (mainly on methodology; JTvG))

Kiel, B.A. & L.J. Wood (2012)- Seismic attributes correlated with incised valley thickness in recent stratigraphy of the Sunda Shelf, Indonesia. Zeitschrift fur Geomorphologie 56, 4, p. 507-524.
(3D seismic data volume in highly channelized stratigraphic series in upper 500 ms of Sunda Shelf, offshore Indonesia, was used to map incised valley development)

Ko, U. Ko (1984)- Geology of Pemali primary tin deposit, Bangka Island, Indonesia. Southeast Asia Tin Research and Development (SEATRAD) Centre, Ipoh, p. 1-10.

Ko, U. Ko (1986)- Preliminary synthesis of the geology of Bangka Island, Indonesia. In: G.H. Teh & S. Paramananthan (eds.) In: G.H. Teh & S. Paramananthan (eds.) Proc. 5th Regional Congress Geology, Mineral and Energy Resources SE Asia SE Asia (GEOSEA V), Kuala Lumpur 1984, 2, Bull. Geological Society Malaysia 20, p. 81-96.
(online at: www.gsm.org.my/products/702001-101432-PDF.pdf)
(Stratigraphy Bangka 4 main units: (1) U Paleozoic isoclinally folded, imbricated Pemali Gp mudstone-dominated deep marine sediments with bedded radiolarian chert and rare Permian fusulinid limestone; (2) broadly folded shallow marine M-U Triassic marine Tempilang Sst, (3) E Tertiary Fan Fm fluvial deposits and (4) U Tertiary- Quaternary Ranggam Gp. Thrusting and granitizaton and uplift in Late Triassic- E Cretaceous, followed by N-S high-angle cross faulting. At Toboali in S Bangka, Permo-Carboniferous with glaciogenic 'pebbly mudstones'?)

Koesoemadinata, R.P. & A. Pulunggono (1975)- Geology of the southern Sunda Shelf in reference to the tectonic framework of Tertiary sedimentary basins of Western Indonesia. J. Indonesian Association Geologists (IAGI) 2, 2, p. 1-11.

Kort, M.C. (1920)- Het onderzoek van tinertsafzettingen op Banka. In: Algemeen Ingenieurs Congres, Batavia 1920, Sectie 5, Mijnbouw en Geologie, Mededeeling 11, p. 1-32.
('Investigation of tin ore deposits on Bangka'. Old review of exploration methods of alluvial tin deposits on Bangka. No maps)

Krause, P.G. (1898)- Obsidianbomben aus Niederlandisch-Indien. Sammlungen Geologischen Reichs-Museums Leiden 5, 5, p. 237-251.
(online at: www.repository.naturalis.nl/document/552416)
('Obsidian bombs from Netherlands Indies'. Early description of black 'glass pebbles' from Belitung (up to 4 cm diameter, 71-75% quartz) and Bungaran (= Natuna Besar; collected by Van Hasselt). Not associated with volcanoes and of possible extraterrestrial origin (In Krause collection up to 4cm long, but Verbeek (1897) described sizes up to 8 x2.5 cm. (See also Wing Easton (1921; 'billitonites') and Von Koenigswald (1935; Java tektite occurrences). These are tektites, and part of Australasian strewn field of M Pleistocene SE Asia mainland meteorite impact; JTvG) (also in Jaarboek Mijnwezen 27-1898, p. 17-31))

Krol, G.L. (1960)- Theories on the genesis of the kaksa. Geologie en Mijnbouw 39, 10, p. 437-443.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0UTdoQnkwZjFhTlk/view)
('Kaksa' deposits of Belitung Island are cassiterite-bearing alluvial deposits in valley floors and areas of low relief, resulting from long period of Tertiary denudation and peneplanation of Cretaceous granites, under humid climatic conditions as residual product of chemical weathering. Eluvial or 'kulit' deposits on hill slopes and watersheds, formed by chemical weathering in place; transportation insignificant. No figures)

Kruizinga, A. (1950)- *Agathiceras sundaicum* Han., a Lower Permian fossil from Timor. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam 53, 7, p. 1056-1063. *(should be* fossil from Billiton*)*
(online at: https://dwc.knaw.nl/DL/publications/PU00018850.pdf)
(First Paleozoic fossil found on Belitung island is small ammonite in lump of cassiterite. Identified as Agathiceras sundaicum, also common in Lower Permian of Timor (Bitauni) and Leti (but 'more likely Lower Middle Permian'; Fontaine 1989, p. 105). New find indicates presence of E-M Permian sediments, subsequently intruded/ metamorphosed by post-Triassic 'tin granites')

Kudrass, H.R. & H.U. Schluter (1994)- Development of cassiterite-bearing sediments and their relation to Late Pleistocene sea-level changes in the Straits of Malacca. Marine Geology 120, p. 175-202.
(Survey of tin-bearing sediments in central parts of Straits of Malacca by seismic profiling and vibrocoring. Placer deposits found in tidal scour channel of Cape Rachado and Pleistocene river valley. Cassiterite derived from local primary mineralization of granite and from long-distance fluvial transport)

Kurnio, H. & N.C.D. Aryanto (2010)- Paleo-channels of Singkawang waters, West Kalimantan, and its relation to the occurrences of sub-bottom gold placers based on strata box seismic record analyses. Bulletin of the Marine Geology 25, 2, p. 65-76.
(online at: http://ejournal.mgi.esdm.go.id/index.php/bomg/article/view/26/26)
(Sunda shelf off W Kalimantan with Pleistocene incised valleys seen on shallow seismic lines may contain gold placer accumulations, derived from Sintang Intrusives)

Kusnama, K., Sutisna, T.C. Amin, S. Koesoemadinata, Sukardi & B. Hermanto (1994)- Geologic map of the Tandjung Pinang Sheet (1016-1016), Sumatra, 1: 250,000. Geological Research Development Centre (GRDC), Bandung.
(Geologic map of Batam, Bintan etc., islands in Malacca Straits. Oldest rocks highly deformed meta-sediments of Permo-Carboniferous Berakit Fm (=Mersing Schist on Malay Peninsula?), intruded by Triassic Batam (Nongsa) and Bintan (Kawal Pluton) granites. Unconformably overlain by 600m of latest Triassic (Rhaetian) shales and quartz sandstone of Duriangkang Fm with 'Bintan flora' with Pterophyllum bintanense, 500m Jurassic Pulaupanjang Fm redbeds and ~300-500m of Cretaceous redbeds of Pancur and Semarung Fms (Cretaceous mainly on smaller islands of Lingga Archipelago))

Kusnama, K. Sutisna, T.C. Amin & Sidarto (1995)- Geology of the Batam and Bintan area. Bull. Geological Research Development Centre (GRDC) 18, p. 56-67.
(Batam and Bintan islands, S of Singapore. Outcrops of Permo-Carboniferous Berakit Fm metamorphics, intruded by Late Triassic 'tin granites' (~225-230 Ma). Unconformably overlain by latest Triassic fluvial-shallow marine Duriangkang Fm sands-shales with 'Bintan flora' (see also Wade-Murphy et al. 2008), ?Jurassic redbeds, E Cretaceous Pancur Fm and Late Cretaceous Semarung Fm clastics)

Kusnida, D., P. Astjario & B. Nirwana (2008)- Magnetic susceptibilities distribution and its possibly geological significance of submerged Belitung granite. Indonesian Mining J. 11, 2, p. 24-31.
(online at: http://jurnal.tekmira.esdm.go.id/index.php/imj/article/view/592/454)
(Marine magnetic anomalies over Belitung waters, where zone of <50 nT total magnetic anomaly interpreted to reflect submerged Belitung granite. Correlation between magnetic susceptibility and type of granites indicated submerged Belitung intrusive is biotite-granite, associated with cassiterite minerals)

Lehmann, B. & Harmanto (1990)- Large scale tin depletion in the Tanjung Pandang tin granite, Belitung Island, Indonesia. Economic Geology 85, 1, p. 99-111.
(M Triassic (~215Ma) Tanjungpandan batholith on Belitung associated with major alluvial tin ore deposits (Plio-Pleistocene paleoplacers). Two bedrock suites: widespread biotite granite and more restricted quartz syenite. Hydrothermal removal of tin by high-T fluids allowed exceptional degree of redistribution of tin)

Lericolais, G., S. Berne, Y. Hamzah, S. Lallier, W. Mulyadi, F. Robach & S. Sujitno (1987)- High resolution seismic and magnetic exploration for tin deposits in Bangka, Indonesia. Marine Mining, 6, 1, p. 9-21.
(1983 Corindon 8 seismic and magnetic survey off NE Bangka allowed to outline E border of Klabat granite and possible associated peripheral alluvial tin deposits)

Loth, E.J. (1919)- Bijdrage tot de studie over de vorming der secundaire tinertsafzettingen op Banka, Billiton en analoge gebieden. De Ingenieur 1919, 36, p. 660-664.
('Contribution to the formation of the secondary tin ore deposits on Bangka, Belitung and analogous areas')

Ma, P., Z. Liu, M. Jiang, H. Cheng, L. Zhang & D. Cai (2022)- Carbon sequestration of the Middle Miocene Sunda Shelf facilitated global climate change. Geophysical Research Letters 49,21, e2022GL100638, p. 1-11.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2022GL100638)
(Calculations of M Miocene organic carbon burial on Sunda Shelf (world's largest tropical shelf), using 367 drill sites from Pattani Basin and SW China Sea to N Borneo. Organic Carbon burial on Sunda Shelf essential to global carbon cycle during M Miocene. OC burial rate of M Miocene Climate Transition (MMCT; 13.5-14.5 Ma)) was faster than that of preceding M Miocene Climatic Optimum (MCO; 14.5-17 Ma). Expanded terrestrial carbon reservoirs and enhanced organic matter burial efficiency promoted MMCT)

Mainguy, M. & L.W. Stach (1968)- Regional geology and prospects for mineral resources on the northern part of the Sunda Shelf. United Nations ECAFE CCOP, Technical Bulletin 1, p. 129-142.
(online at: https://repository.unescap.org/handle/20.500.12870/5060)

Mamengko, D.V. (2013)- Potensi bauksit di Kabupaten Lingga, Provinsi Kepulauan Riau. Istech (Universitas Papua) 5, 2, p. 66-70.
(online at: https://www.researchgate.net/publication/358387102_Potensi_Bauksit_di_Kab_Lingga_Prov_Kepulauan_Riau_Istech_Vol5_No1_Agust_13)
('Bauxite potential in the Lingga District, Riau islands')

Manus, S.A. (1968)- Bijdrage tot de kennis van de geologische gesteldheid in het Toboali-district (Zuid Bangka, Indonesia); in het bijzonder de petrografie en petrologie van de granietische gesteenten. Doctoral Thesis, Rijksuniversiteit Gent, p. 1-246. *(Unpublished)*
('Contribution to the knowledge of the geological situation of the Toboali District (S Bangka), in particular the petrography and petrology of granitic rocks')

Mardiah & Guskarnali (2019)- Penaksiran endapan timah primer menggunakan metode resistivitas dan metode geomagnetik di Bukit Sambunggiri, Kecamatan Merawang, Kabupaten Bangka. Jurnal Promine 7, 1, p. 41-47.
(online at: https://journal.ubb.ac.id/index.php/promine/article/view/1063/797)
('Estimating primary tin deposits using resistivity and geomagnetic methods in Sambunggiri Hill Merawang District, NE Bangka'. Primary tin deposits show low resistivity and low geomagnetic anomaly. Primary tin deposits estimated to be found in NW-SE direction)

Margono, U., R.J.B. Supandjono & E. Partoyo (1995)- Geological map of the South Bangka sheet (1113-1213), Sumatera, 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(Permo-Carboniferous Pemali Fm metamorphic complex, unconformably overlain by ?E Triassic Tanjung Genting Fm clastics with limestone lenses with Montlivaultia. Uplifted and intruded by Late Triassic Klabat biotite granite (radiometric ages 201-223 Ma). Overlain by U Miocene?-Quaternary clastics)

Martin, K. (1880)- On a post-Tertiary fauna from the stream tin deposits of Blitong (Biliton). Notes from the Leyden Museum 3, p. 17-22.
(online at: www.repository.naturalis.nl/document/552195)
(Well-preserved fossils from stream-tin-deposits of Belitung, collected by C. de Groot. 61 species of gastropods, bivalves, corals, echinoids, etc. Fauna agrees with that of Recent faunas in sea around island of Belitung, sediments therefore very young)

Menten, J.H. (1877)- Verslag van een onderzoek naar tinerts op het eiland Singkep. Jaarboek Mijnwezen Nederlandsch Oost-Indie 6 (1877), 2, Verhandelingen, p. 145-171.
('Report of survey of tin ore on Singkep Island'. Early geological- mining survey of Singkep Island, off NE Sumatra. With rel. detailed 1:75,000 scale map of survey areas. River valley deposits of NE Singkep intensively sampled, but results not encouraging for profitable government exploitation)

Meyer, H.C. (1975)- Mineralogy of the primary tin deposits of Kelapa Kampit, Belitung, Indonesia. Bull. of National Institute Geology and Mining (NIGM) 5, 1, p. 1-12.
(online at: http://pustaka.geotek.lipi.go.id/wp-content/uploads/2016/02/NIGM-5-1.pdf)
(Primary tin mineralization at Kelapa Kampit on NE Belitung cassiterite in hydrothermal veins in steeply dipping, E-W to WNW-ESE trending Permo-Triassic sequence of sand-shale with radiolarian chert. Mineralization related to end-Triassic granite emplacement. Mined since 1908)

Moechtar, H. & S. Hidayat. (2010)- Sedimentologi dan akumulasi kasiterit pada endapan aluvium sepanjang Air Inas hingga laut lepas pantai Tanjung Kubu (Toboali), Bangka Selatan. Jurnal Sumber Daya Geologi (JSDG) 20, 2, p. 59-68.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/162/157)

('Sedimentology and cassiterite accumulation in the alluvium deposit along the Inas River to the open sea at Tanjung Kubu beach (Toboali), South Bangka'. Cassiterite placers between elevation +25 and -7.2m)

Molengraaff, G.A.F & M. Weber (1919)- Het verband tusschen den Plistoceenen ijstijd en het ontstaan der Soenda-zee (Java- en Zuid-Chineesche Zee) en de invloed daarvan op de verspreiding der koraalriffen en op de land-en zoetwater-fauna. Verslagen Koninklijke Akademie van Wetenschappen, Amsterdam, Vergaderingen Wis- en Natuurkundige Afdeeling, 28, p. 497-544.
(online at: https://resolver.kb.nl/resolve?urn=MMKB21:045575000:pdf)
(Early paper explaining origin of continental shelves as drowned coastal peneplains during Pleistocene lowered sea level. Sunda shelf averages 40-50m depth and has remnants of river valleys. Coral reefs relatively rare in Sunda Sea, probably because of rapid drowning. Line of coral islands in S China Sea follows 40 fathoms contour, believed to follow paleo-coastline of Pleistocene Sunda land. Similarly, modern reefs lining Borneo Bank (=Paternoster Platform) near Makassar Straits mark NE margin of Pleistocene Sundaland)

Molengraaff, G.A.F. & M. Weber (1921)- On the relation between the Pleistocene glacial period and the origin of the Sunda Sea (Java- and South China Sea), and its influence on the distribution of coral reefs and on the land- and freshwater fauna. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 23, 1, p. 395-439.
(online at: https://dwc.knaw.nl/DL/publications/PU00014627.pdf)
(English version of above paper)

Ng, S.W.P., M.J. Whitehouse, M.H. Roselee, C. Teschner, S. Murtadha, G.J.H. Oliver, A.A. Ghani & S.C. Chang (2017)- Late Triassic granites from Bangka, Indonesia: a continuation of the Main Range granite province of the South-East Asian Tin Belt. J. Asian Earth Sciences 138, p. 562-587.
(SE Asian Tin Belt tied to arc-related Eastern granite province and collision-related Main Range granite provinces, running across Thailand, Singapore and Indonesia, and separated by Paleo-Tethys sutures. E Province usually granites with biotite ± hornblende; Main Range granites sometimes characterised by biotite ± muscovite. On Indonesian Tin Islands both hornblende-bearing (previously I-type) and hornblende-barren (previously S-type), apparently randomly distributed. Bangka granites geochemically similar to Malaysian Main Range granites, with zircon U-Pb ages of ~225 Ma and ~220 Ma, within time of Main Range magmatism (~226-201 Ma) in Malay Peninsula. This suggests Paleo-Tethyan suture lies E of Bangka island)

Ngadenin & A.J. Karunianto (2016)- Identifikasi keterdapatan mineral radioaktif pada Granit Muncung sebagai tahap awal untuk penilaian prospek Uranium dan Thorium di Pulau Singkep. Eksplorium 37, 2, p. 63-72.
(online at: https://ejournal.brin.go.id/eksplorium/article/view/8115/6225)
('Identification of the presence of radioactive minerals in Muncung Granite as an initial stage for prospect assessment of Uranium and Thorium on Singkep Island'. Radioactive minerals in Muncung granite monazite and zircon; in pan concentrate also zircon, and xenotime. Area of Muncung granite prospective for U and Th)

Ngadenin, I.G.Sukadana, H. Syaeful, A.G. Muhammad, F.D. Indrastomo, I. Rosianna, R.C Ciputra et al. (2023)- Radioactive mineral distribution on tin placer deposits of Southeast Asia Tin Belt granite in Bangka Island. Eksplorium 44, 2, p. 49-56.
(online at: https://ejournal.brin.go.id/eksplorium/article/view/8162/6259)
(Radioactive mineral content in Bangka paleo channel, modern channels and tin mine tailings variable. Monazite and zircon content highest in tin mine tailings)

Nitiwisastro, M., W. Wibowo & H. Moechtar (1995)- Geological data in relation to the present and future exploration ("case study in Bangka and Belitung"). Proc. Indonesian Mining Assoc. Conference 1995, Jakarta, 2, p. 1-24.

Notosiswojo, S. & M.B. Sugeng (1987)- Primary tin mineralization in granite intrusion at Tempilang, Bangka Island. In: W. Gocht (ed.) Proc. Seminar on Importance of primary tin mining in Southeast Asia, Bandung 1986, Intertechnik 28, Aachen, p. 77-90.

Oktaviani, A.D., D. Kurnia Dewi & F.M.H. Sihombing (2021)- Structural control of primary tin mineralization (case study: Parit Tiga, West Bangka Regency, Bangka Belitung). Proc. Int. Conf. Science, Infrastructure Technology and Regional Development, South Lampung 2020, IOP Conference Series: Earth and Environmental Science 830, 012046, p. 1-10.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/830/1/012046/pdf)
(Primary tin mineralization and alteration in Parit Tiga, NW Bangka, controlled by NE-SW shear stress/ strike slip faulting. Cassiterite, hematite, and pyrite in mineralization zone associated with greisen deposit. Etc.)

Omer-Cooper, W.R.B., W.V. Hewitt & H. van Wees (1974)- Exploration for cassiterite-magnetite-sulphide veins on Belitung, Indonesia. Proc. 4th World Tin Conference, Kuala Lumpur, 2, p. 97-119.

Oosterom, M.G. (1988)- The geochemistry of granitoid-related deposits of Tin and Tungsten in orogenic belts. In: C.S. Hutchison (ed.) Geology of Tin deposits in Asia and the Pacific, Springer Verlag, p. 187-198.
(online at https://repository.unescap.org/items/f0e6c175-01e9-4218-9d43-94ae4ec4573e)
(Includes preliminary survey of trace element geochemistry of Triassic-Jurassic granites from Bangka and Belitung)

Osberger, R. (1965)- Uber die Zinnseifen Indonesiens und ihre genetische Gliederung. Zeitschrift Deutschen Geologischen Gesellschaft, Berlin, 117, 2-3, p. 749-766.
('On the tin deposits of Indonesia and their genetic formation'. On distribution and types of cassiterite-bearing deposits on 'Tin islands' Bangka, Belitung, Singkep; less on Karimun, Kundur)

Osberger, R. (1967)- Zur Geologie der Insel Billiton. Report Belitung Tin Mines, p. 1-177. *(Unpublished)*
('On the geology of Belitung Island')

Osberger, R. (1967)- Prospecting tin placers in Indonesia. Mining Magazine 117, p. 97-103.
(Coarse-grained cassiterite in placers, especially with common monazite and xenotime, suggests proximity to source granites. Most placers in valleys controlled by mineralized faults. Richest placers in lower parts of stream valleys. Most favorable conditions for prospecting are offshore from islands of western tin belt of Karimun, Kundur, Singkep, Bangka and Billiton)

Osberger, R. (1967)- Dating Indonesian cassiterite placers. Mining Magazine 117, 4, p. 260-264.
(Cassiterite placers of Indonesian tin region comprise 'kaksa' placers of Pleistocene- early Holocene age. Pre-Pleistocene placers may have existed, as age of tin-bearing granite is Mesozoic, but only few occurrences of extremely fine-grained cassiterite are known. Age of kaksa and mintjan placers based on age of wood, geologic relationships of placers and occurrence of fossils and artifacts)

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(online at: http://buletinsdg.geologi.esdm.go.id/index.php/bsdg/issue/archive)
('Characteristics of primary tin reserves in the area of Parit Tebu, East Belitung Regency'. Primary tin mineralisation in quartz veins, hosted by quartz-arenite sandstone and metaclaystone, intruded by aplitic granite. Tin mineral cassiterite associated with realgar, molybdenite, pyrite, sphalerite, galena, etc.)

Pelejero, C., M. Kienast, L. Wang & J.O. Grimalt (2000)- The flooding of Sundaland during the last deglaciation: imprints in hemipelagic sediments from the southern South China Sea. Earth Planetary Science Letters 171, 4, p. 661-671.
(Postglacial sea level rise of last 30 kyrs modified hydrography of S China Sea, including submergence of Sundaland in S and opening of channels connecting it to tropical Indo-Pacific. Main changes at ~15-13.5 ka BP, when sea surface T rose and clay content dropped, reflecting rapid retreat of coastline and initial flooding of Sundaland. Second change at ~11.5 ka, culminating at 10 ka, establishment of modern hydrographic conditions)

Pitfield, P.E.J. (1987)- Southeast Asia granite project: Report on the geochemistry of Tin Islands granites of Indonesia. British Geological Survey, Overseas Report MP/87/9/R, p. 1-51. *(Unpublished)*

Posewitz, T. (1885)- Geologische Notizen aus Bangka, I. Das geotektonische Verhalten der Granitmassive und das Marasgebirge. Natuurkundig Tijdschrift voor Nederlandsch-Indie 44, 2, p. 108-115.
(online at: www.biodiversitylibrary.org/item/118914page/130/mode/1up)
('Geologic notes from Bangka I: The geotectonic behaviour of the granite massifs and the Maras Mountains'. Bangka Island in same 'geotectonic line' as Malay Peninsula, with similar geology and tin ores. All high peaks on Bangka are granites, except Maras Mountains, which are composed of sediments. Granites believed to be arranged in 3 NW-SE trending rows)

Posewitz, T. (1885)- Geologische Notizen aus Bangka, II. Die Kustenbildungen und die Natur der Flusse. Natuurkundig Tijdschrift voor Nederlandsch-Indie 44, 2, p. 162-173.
('Geologic notes from Bangka II: The coastal deposits and the nature of the rivers'. Alluvial deposits different at E and W coasts. Main drainage divide NW-SE. Etc. Written in Pangkal-Pinang, July 1884. No figures, maps)

Posewitz, T. (1885)- Die Zinninseln im Indischen Oceane. 1. Geologie von Banka. Als Anhang: Das Diamantvorkommen in Borneo. Mitteilungen Jahrbuch koniglichen Ungarischen Geologischen Anstalt, Budapest, 7, p. 153-182.
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(Hungarian version online at: http://real-j.mtak.hu/18668/1/00125_EPA03274_mafi_evkonyv_1884_04.pdf)
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Posewitz, T. (1886)- Die Zinninseln im Indischen Oceane. 2. Das Zinnerzvorkommen und die Zinngewinnung in Bangka. Mitteilungen Jahrbuch koniglichen Ungarischen Geologischen Anstalt, Budapest, 8, p. 55-106.
(online at: https://epa.oszk.hu/03600/03681/00034/pdf/EPA03681_mittheilungen_1886_03_057-106.pdf)
('The tin islands in the Indian Ocean, 2. The tin ore occurrences and tin mining on Bangka'. One of the more comprehensive of Posewitz reviews of tin occurrences, history, production, etc. on Bangka island. Alluvial tin-bearing sands ('kollong') unconformably over granite and schist basement and at base of Quaternary fluvial deposits. Almost all alluvial valleys tin-bearing. With one map, diagrammatic cross-section and columns of several kollong mines)

Posewitz, T. (1886)- Geologische Notizen aus Bangka, III. Vorlaufige Mitteilung uber das Laterit-vorkommen in Banka. Natuurkundig Tijdschrift voor Nederlandsch-Indie 45, 2, p. 152-155.
(online at: https://ia800203.us.archive.org/19/items/mobot31753002486873/mobot31753002486873.pdf)
('Geologic notes from Bangka III: Preliminary communication on the laterite occurrence in Bangka'. Brief report on rel. common iron-rich 'limonitic' brown iron claystone weathering soils on granites and schists in Bangka. Posewitz commisioned digging of soil profiles in Pangkal Pinang. No maps or figures. Written in Batavia, 1 February 1885, just before returning to Europe)

Posewitz, T. (1886)- Geologische Notizen aus Bangka, IV. Klippenstudien in Banka. Natuurkundig Tijdschrift voor Nederlandsch-Indie 45, 3, p. 157-159.
(online at: https://ia800203.us.archive.org/19/items/mobot31753002486873/mobot31753002486873.pdf)
('Geologic notes from Bangka IV: Studies of cliffs in Bangka'. Bangka island surrounded by cliffs, especially the E coast. Ascribed to recent flooding, and concluding that Bangka island was larger in the past. No mapsor figures. Also written in Batavia, 1 February 1885)

Posewitz, T. (1887)- Das Laterit-Vorkommen in Bangka. Petermanns Geographische Petrographische Mitteilungen 33, p. 20-25.
(online at: https://zs.thulb.uni-jena.de/receive/jportal_jparticle_00513790)
('The laterite occurrence of Bangka'. Rel. common iron-rich 'limonitic' soils on granites and schists. Same paper as Posewitz (1886), above))

Posewitz, T. (1887)- Die geologischen-montanistischen Verhaltnisse der Insel Billiton (Blitong). Petermanns Geographische Petrographische Mitteilungen 33, p. 108-116.
(online at: https://zs.thulb.uni-jena.de/receive/jportal_jparticle_00513808)
(The geologic-'montanistic(?) relationships of Belitung island'. Early summary of geology of Belitung and history of discovery and mining of tin ores since 1851 (mainly with Chinese contract labor). Geology similar to Bangka: granites and low metamorphic metasediments. Tin ore both in veins and in Quaternary deposits)

Posewitz, T. (1887)- Das Zinnvorkommen auf den Inseln des Riauw-Lingga Archipels. Petermanns Geographische Petrographische Mitteilungen 33, 12, p. 366-369.
(online at: https://zs.thulb.uni-jena.de/receive/jportal_jparticle_00513867)
('The tin occurrence on the Riau- Lingga archipelago'. Brief review of tin occurrences on Karimata islands, Singkep, Lingga, Karimon, Kundor)

Posewitz, T. (1887)- Die geologischen Verhaltnisse Bangka's. Das Ausland, Stuttgart, 60, 22, p. 423-426.
('The platinum occurrences in Borneo'. Brief note in German popular geographic journal on the geology of and tin mining on Bangka island, largely based on Posewitz' 1.5 years stay there as Army Health Officer in 1883-1884, and Dutch reports (Van Diest, etc.). Paleozoic low-metamorphic mica schists and granites, overlain by Quaternary deposits, No figures (more extensive Posewitz papers on Bangka elsewhere))

Posewitz, T. (1888)- Das Zinnvorkommen in Bangka. Das Ausland, Stuttgart, 61, 10, p. 183-186.
('The tin ore occurrences in Bangka'. Brief note in German popular geographic journal on Bangka tin. Mainly review of Dutch literature. Tin in Quaternary alluvial deposits and in primary veins in Paleozoic metamorphic rocks. Exploited by Chinese miners since mid-1700s. No figures. (see more detailed Posewitz papers on Bangka tin above)

Praditwan, J. (1989)- Mineral distribution study for cassiterite associated heavy minerals in Belitung Island, Indonesia. SEATRAD Centre, Ipoh, Malaysia, Report of Investigation 76, p. 1-33.

Priem, H.N.A. (1976)- Geochronological relationships in the Indonesian tin belt. Proc. Seminar on isotopic dating, United Nations ESCAP, CCOP, Technical Publication 3, p. 129-135.

Priem, H.N.A., N.A.I.M. Boelrijk, E.H. Bon, E.H. Hebeda, A.E.T. Verdurmen & R.H. Verschure (1975)- Isotope geochronology in the Indonesian tin belt. Geologie en Mijnbouw 54, 1, p. 61-70.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0WFBITzVsQjFLcGs/view)
(Rb-Sr ages of 4 granites from Bangka average 217±5 Ma and K-Ar age ~214 Ma (= Late Triassic, near Norian-Rhaetian boundary) (Hutchison 1977: similar to ages of granites of Singapore and Johore; Rb-Sr and K-Ar ages suggest similar ages for cooling of Malay Peninsula East Belt of granites). Granite from Karimata Islands Rb-Sr age ~74 Ma; associated amphibolite K-Ar age 78 Ma (= Campanian, Late Cretaceous). Cassiterite mineralisation associated with both U Cretaceous and U Triassic granites, but main tin deposits related to U Triassic plutons)

Priem, H.N.A. & E.H. Bon (1982)- A calibration point in the Late Triassic: the tin granites of Bangka and Belitung, Indonesia. In: G.S. Odin (ed.) Numerical dating in stratigraphy, Wiley, p. 501-507.
(Bangka steeply folded Late Carboniferous- Triassic (incl. Norian limestones) deep-water low-grade metasediments, intruded by Late Triassic- E Jurassic tin granites. These rocks unconformably overlain by weakly folded Bintan Fm molasse series; originally thought to be Late Triassic age based on plants, but more likely Early

Cretaceous. Radiometric ages of Bangka and Belitung tin granites almost all in 214-217 Ma range = M Norian, Late Triassic)

Prihutama, F.A., M. Syarifuddin, A.I.A.F. Ryandhika, S.A.W. Yogatama & R. Aviandono (2019)- Structure system and it controls to mineralization of primary tin deposit, Airdibi Area, Jebus Subdistrict, West Bangka, Bangka and Belitung. Proc. 1st Workshop on Environmental Science Society and Technology, Medan 2018, Journal of Physics: Conference Series 1363, 012029, p. 1-4.
(online at: https://iopscience.iop.org/article/10.1088/1742-6596/1363/1/012029/pdf)
(Geologic structure of W Bangka controlled primary tin mineralization. Veins with NW-SE direction (extension faults) with highermineralization level than sheeted veins witf NE – SW direction (compressional faults))

Putra, M.K.M.D., R.A.F. Jaya, W.V. Pratama, A. Murtono & M. S. Sugiharto (2024)- Unravel the mystery of long hiatus in the geology of Bangka: new evidence from drill hole data and palynological analysis at Cungfo, Bangka Regency. Proc. 53rd Annual Conv. Indonesian Association Geologists (IAGI), Balikpapan 2024, 103, p. 1-11.
(online at: https://www.iagi.or.id/web/digital/79/192---Unravel-The-Mystery-Of-Long-Hiatus-In-The-Geology-Of-Bangka-New---Kivlan-Marcellyo-Darma.pdf)
(Bangka Island stratigrapy long hiatus between Triassic- Jurassic Klabat Granite and Late Miocene- Pliocene Ranggam Fm. New drillhole data shows presence of previous unreported E Miocene "Cungfo"sediments: crystalline limestone (marble), overlain by clastics, including glauconitic sandstone and claystone with Florschuetzia levipoli/ trilobata zone spores-pollen (identified by PT Geoservices) (N.B. Presence of metamorphosed Early Miocene limestones in this setting makes no sense; more likely Permian-Triassic?; JTvG)

Raes, N., C.H. Cannon, R.J. Hijmans, T. Piessens, Leng Guan Saw, P.C. van Welzen & J.W.F. Slik (2014)- Historical distribution of Sundaland's dipterocarp rainforests at Quaternary glacial maxima. Proc. National Academy of Sciences USA (PNAS) 111, 47, p. 16790-16795.
(online at: www.pnas.org/content/111/47/16790.full.pdf)
(Climate of C Sundaland during Late Pleistocene Last Glacial Maximum suitable to sustain Dipterocarp rainforest. Presence of previously suggested transequatorial savannah corridor at that time unlikely. Dipterocarp species richness lower at LGM, and areas of high species richness mostly off current islands, on emergent Sunda Shelf)

Purwanto, E. (1990)- Geostatistical ore reserve estimation for the Bintan bauxite deposit, Indonesia. Ph.D. Thesis, University of New South Wales, Sydney, p. 1-239.
(online at: http://unsworks.unsw.edu.au/fapi/datastream/unsworks:41830/SOURCE01?view=true)

Rahman, M.M., E. Sathiamurthy, G. Zhong, J. Geng & Z. Liu (2016)- CHIRP acoustic characterization of paleo fluvial system of Late-Pleistocene to Holocene in Penyu Basin, Sunda Shelf. Bull. Geological Society Malaysia 62, p. 47-56.
(online at: https://gsmpubl.files.wordpress.com/2017/04/bgsm2016007.pdf)
(Shallow acoustic profiles across paleo-incised valleys in Penyu Basin, S China Sea, formed during several phases of Late Pleistocene regression and subsequent Last Glacial Maximum when sea level was ~123m lower than present-day. Valleys filled during lowstand and subsequent post-glacial marine transgression. Holocene shallow-marine cover (3-10m thick) healed ravinement surface. Average late-Pleistocene surface 53-64m below present-day MSL, with ~16-50m of valley incision)

Rahman, M.M., E. Sathiamurthy, G. Zhong, J. Geng & Z. Liu (2018)- Variations of fluvial patterns and infilling history of a paleoincised valley system during Late Pleistocene to Holocene, Offshore Pahang River, Peninsular Malaysia. Interpretation (SEG-AAPG) 6, 1, p. T39-T50.
(Pahang River paleovalleys in S China Sea formed during regressive phase of last glacial cycle, and submerged and filled during postglacial marine transgression. Valley fills overlain by marine transgressive ravinement surface and 5-10m thick Holocene shallow marine deposits. Low-sinuosity lowstand valley system changed to high-sinuosity meander belt and eventually into deltaic distributary channel system, before submergence. Average Late Pleistocene surface between 53-64m below sea level, with ~16-50 m of valley incision)

Rant, H.F.E. (1873)- Verslag van de bevinding en de vooruitzichten der aderontginning nabij den berg Tadjouw op het eiland Billiton. Jaarboek Mijnwezen Nederlandsch-Indie 2, 2, p. 73-91.
('Observations and prospects of the vein exploitation near the mountain Tadjouw on Billiton island')

Renaud, G.P.A. (1874)- Rapport van het District Soengeiselan, eiland Bangka. Jaarboek Mijnwezen Nederlandsch-Indie 3, I, Verhandelingen, p. 3-81.
('Report on the Sungai Selan District, Bangka island'. Surveys of tin placer deposits in SW Bangka by mining engineers Van Diest, de Greve, Menten and the author. Outcrops of granites, covered by alluvial deposits. Tin mining in district since 1849)

Renaud, G.P.A. (1884)- Over de Chineesche ontginningswijze van tinerts op het eiland Banka en de eventueele toepassing daarop van Europeesche werktuigen. Jaarboek Mijnwezen Nederlandsch Oost-Indie 13 (1884), Technisch Admin. Ged., p. 5-121.
('On the Chinesese methods of tin ore mining on the island of Bangka and its possible application on European equipment')

Rizal, Y. & E.R.N. Annisa (2021)- Studi fasies dan elemen arsitektur Formasi Ranggam di daerah Belo Laut, Kabupaten Bangka Barat. Bulletin of Geology (ITB) 5, 2, p. 612-627.
(online at: https://buletingeologi.com/index.php/buletin-geologi/article/view/160/46)
('Study of facies and architectural elements of the Ranggam Formation in the Belo Laut area, West Bangka Regency'. Description of fluvial unit named Ranggam Fm, older than the Quaternary alluvial units A-B. Overlies Late Triassic Klabat granite and is here assumed to be of Late Miocene- Pliocene age))

Roggeveen, P.M. (1932)- Tektonik des Zinnertzgrubengebietes von Klappa Kampit, Billiton, Niederlandisch Ost-Indien. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 35, p. 575-579.
(online at: https://dwc.knaw.nl/DL/publications/PU00016259.pdf)
('Tectonics of the tin ore quarry area of Klappa-Kampit, NE Belitung'. Steeply dipping (generally to S), isoclinally folded unfossiliferous quartzites and shales, generally striking 90-110°, with veins of tin ore from adjacent granite laccolith)

Roggeveen, P.M. (1932)- Mesozoisches Koniferenholz (*Protocupressinoxylon malayense* n.s.) von der Insel Soegi im Riouw Archipel, Niederlandisch Ost-Indien. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 35, p. 580-584.
(online at: https://dwc.knaw.nl/DL/publications/PU00016260.pdf)
('Mesozoic conifer wood from Sugi Island, Riau Archipelago'. Silicified conifer wood in sandstone-shale-conglomerate series at cliff of Tanjung Riau, S coast of Sugi island, S of Singapore. Described as Protocupressinoxylon malayense n.sp. Thought to be Triassic-age by A.C.D. Bothe (1926), but could be Jurassic-Cretaceous? (age of beds poorly constrained and classification uncertain; Philippe et al. 2004; Protocupressinoxylon in China is Jurassic genus; JTvG))

Ronojudo, A. (1973)- Offshore exploration of the cassiterite placers of Belitung, Indonesia. Proc. 9th Session Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), UN ESCAP, Bandung 1972, Paper 23, p. 149-158.
(online at: https://repository.unescap.org/items/e55a1782-a5c5-4dc4-87a4-ec9a41943734)

Ronojudo, A. (1974)- An offshore granite subcrop, East Billiton (Indonesia). Proc. 11th Session Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Seoul 1974, UNDP, Bangkok, p. 259-265.

Roselee, M.H., A.A Ghani, S.N. Wai Pan, S. Murtadha, G.J.H. Oliver, L.X. Quek &M.R. Umor (2017)- Geochemistry of Bangka granites, Bangka Island, Sumatera, Indonesia. Proc. 30th Proc. National Geoscience Conference Exhib. (NGC 2017), Kuala Lumpur, PDRG29-171, Warta Geologi 43, 3, p. 326. *(Abstract only)*
(online at: https://gsmpubl.files.wordpress.com/2017/09/ngsm2017_032.pdf)

(Bangka Island granites show evidence of mixed source of greywacke and amphibolite and formed in syn-collisional tectonic setting. Geochemistry of Bangka granites comparable to Main Range granite of Malay Peninsula, although overlapping fields between Main range and East Malaya- Sukhothai granites. Bangka Island is S-ward continuation of Malaysia Main Range granite province)

Rueb, J. (1915)- Exploratie naar gangtinertsen op Billiton en het verwerken van deze ertsen. Jaarboek 1914-1915 van de Mijnbouwkundige Vereeniging te Delft, p. 147-188.
(online at: https://resolver.kb.nl/resolve?urn=MMAD01:000055001:pdf)
('Exploration of tin vein ores on Belitung and the processing of these ores'. Summary of May 1915 lecture in Delft. Overview of primary tin-bearing veins: Mengkoebang, Antoe, Batoen, Garoe Medang, Seloemar, Klappa Kampit and Tikoes. Summary of presentation. No maps, figures)

Rueb, J. (1915)- Ontstaan der alluviale tinerts afzettingen van Banka en Billiton. De Ingenieur 1915, 5, p. 19-
(Reprinted in Jaarboek 1914-1915 van de Mijnbouwkundige Vereeniging te Delft, p. 287-296; online at: https://resolver.kb.nl/resolve?urn=MMAD01:000055001:pdf)
('The origin of the alluvial tin ore deposits of Bangka and Belitung'. Discussion origin of two types of alluvial tin ore: 'koelit' (rel. in-place weathered granite material; mainly formed during period of dry-warm climate) and 'kaksa' (erosional products transported by rivers))

Rueb, J. (1920)- Ontstaan der alluviale tinertsafzettingen van Banka en Billiton. De Ingenieur 35 (1920), 2, p. 21-27.
('The origin of the alluvial tin ore deposits of Bangka and Belitung'. Reply to comments on Rueb (1915) paper)

Ruswandi, E. (1988)- Application of geophysical methods to investigate the extention of primary tin deposits in the Pemali open pit mine, Bangka, Indonesia. In: C.S. Hutchison (ed.) Geology of tin deposits in Asia and the Pacific, Selected papers from Int. Symposium Geology of tin deposits, Nanning, China, 1984, Springer Verlag, Berlin, p. 557-570.
(online at https://repository.unescap.org/items/f0e6c175-01e9-4218-9d43-94ae4ec4573e)
(Study of primary tin deposits at Pemali Mine, 75km N of Pangkalpinang, Bangka, by geophysical methods)

Sarr, A.C., L. Husson, P. Sepulchre, A.M. Pastier, K. Pedoja, M. Elliot, C. Arias-Ruiz, T. Solihuddin, S. Aribowo & Susilohadi (2019)- Subsiding Sundaland. Geology (GSA) 47, p. 119-122.
(online at: https://hal.archives-ouvertes.fr/hal-02440378/file/sarretal19.pdf)
(Sundaland is partly drowned continental landmass of Borneo, Sumatra, Java and Malay Peninsula. Geomorphological observations with simulations of coral reef growth and shallow seismic stratigraphy suggest Sunda shelf is subsiding. Intermittent regime of transgressions only over past 400,000 yrs; before that Sundaland permanently exposed. Belitung drowning events related to transient dynamic topography in Indo-Australian subduction zone (see also critique by P.R. Parnham, 2019, vol. 57-7, basically agreeing, and Reply))

Sarr, A.C., P. Sepulchre & L. Husson (2019)- Impact of the Sunda shelf on the climate of the Maritime Continent. J. of Geophysical Research: Atmospheres, 124, 5, p. 2574-2588. *(online at: www.researchgate.net/publication/331052972_Impact_of_the_Sunda_Shelf_on_the_Climate_of_the_Maritime_Continent)*
(Periodic emergence of Sunda shelf created wide continental platform in heart of Maritime Continent and may have modified regional/global climate systems. One effect may be increased precipitation over platform)

Sathiamurthy, E. & M.M. Rahman (2017)- Late Quaternary paleo fluvial system research of Sunda Shelf: a review. Bull. Geological Society Malaysia 64 (50th Anniversary Issue 2), p. 81-92.
(online at: www.gsm.org.my/products/702001-101716-PDF.pdf)
(Review of Late Pleistocene paleo-fluvial system on Sunda Shelf (first identified by Molengraaff, 1921). Regional reconstruction mainly based on modern sea floor bathymetry)

Sathiamurthy, E. & H.K. Voris (2006)- Maps of Holocene sea level transgression and submerged lakes on the Sunda Shelf. Natural History J. Chulalongkorn University, Supplement 2, p. 1-44.

(online at: www.biology.sc.chula.ac.th/TNH/archives/VorisSupplement.pdf)
(26 maps showing drowning of Sunda Shelf during Holocene transgression (21 ka- now), mainly from ETOPO2 Global 2 bathymetry data. Depressions could be paleo-lakes when Sunda Shelf was exposed during Last Glacial Maximum (LGM). These gradually submerged when sea level began to rise from -116m below present-day levels to its maximum, +5m above present SL during mid-Holocene (4.2 ka))

Satyana, A.H. (2024)- Belitung Island attests terrane tectonic evolution: Pre-Tertiary terrane drifting, subduction, collision- Outcrop analogues for Basement reservoirs of Southeast Asian basins. Proc. 48th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA24-G-323, p. 1359-1377.
(Belitung Island with deformed Carboniferous-Permian rift-drift rocks of Tajam Fm sst and marine Kelapa Kampit flysch Fm with chert and pillow lavas, and Late Triassic (224-200 Ma) I- and S-type granitic intrusions recorded subduction of Meso-Tethys Ocean and collision of Indochina Terrane-Belitung with Sibumasu and West Sumatra Terranes, respectively (Belitung Island here viewed as southernmost part of Indochina Terrane). Late Mesozoic- Recent uplift. Island outcrops good equivalent of basement hydrocarbon reservoirs elsewhere)

Schurmann, H.M.E., A.H.W. Aten, A.J.H. Boerboom & A.C.W.C. Bot (1960)- Fourth preliminary note on age determinations of magmatic rocks by means of radioactivity. Geologie en Mijnbouw 22, p. 93-105.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0UFBINUt4TUFPcU0/view)
(Last of four notes on radiometric age dating. Includes results of two tin-granites from Singkep and Billiton: Feldspar155 Ma, monazite 140 Ma, zircon 175 Ma, zircon Ra 230 Ma, biotite 180 Ma, etc. (Triassic- Jurassic))

Schuurman, J.A. (1898)- Historische schets van de tinwinning op Bangka, I. Tijdperk loopende van 1710-1816. Jaarboek Mijnwezen Nederlandsch Oost-Indie 27 (1898), Technisch Administratief Gedeelte, p. 1-112.
('Historical sketch of the tin mining on Bangka, chapter I, period 1710-1816'. Detailed early history of tin mining on Bangka island, off NE Sumatra. Until 1816 tin was mined by Chinese miners and sold to government)

Schuurman, J.A. (1922)- Historische schets van de tinwinning op Bangka, II: Tijdperk loopende van 1816-1900. Jaarboek Mijnwezen Nederlandsch Oost-Indie 48 (1919), Verhandelingen 2, p. 1-365.
('Historical sketch of the tin mining on Bangka, chapter II, period 1816-1900. Continuation of Schuurman (1898) Bangka history paper)

Schwartz, M.O. (1992)- Geochemical criteria for distinguishing magmatic and metasomatic albite-enrichment in granitoids- examples from the Ta-Li granite Yichun (China) and the Sn-W deposit Tikus (Indonesia). Mineralium Deposita 27, 2, p. 101-108.
(On two examples of albite-rich granitoids: Late Triassic Tikus granite on Belitung and Ta-Li in China)

Schwartz, M.O., S.S. Rajah, A.K. Askury, P. Putthapiban & S. Djaswadi (1995)- The Southeast Asian tin belt. Earth-Science Reviews 38, p. 95-290.
(SE Asian tin belt, N-S zone, 2800 km long/ 400 km wide, from Myanmar- Thailand to Malay Peninsula and Indonesian Tin Islands Bangka- Belitung. Granitoids grouped geographically into 5 provinces: (1) Main Range Granitoid Province in W Malay Peninsula, S Peninsular Thailand and C Thailand, almost entirely biotite granite (184-230 Ma). Contributed 55% of tin production of SE Asia; (2) N Granitoid Province in N Thailand (0.1% of tin production), also mainly biotite granite (200-269 Ma); (3) E Granitoid Province of E Peninsular Malaysia- E Thailand (Malaysian part subdivided into E Coast Belt (220-263 Ma), Boundary Range Belt (197-257 Ma) and C Belt (79-219 Ma)). Wide compositional range. Tin deposits only in biotite granite in E Coast Belt (3% of production); (4) W Granitoid Province (22-149 Ma) in N Peninsular and W Thailand and Burma biotite granite (14% of tin production); (5) Granitoids of Indonesian Tin Islands (193-251 Ma) do not permit grouping into above units; most tin deposits associated with Main Range-like plutons)

Schwartz, M.O. & Surjono (1990)- Greisenization and albitization at the Tikus tin-tungsten deposit, Belitung, Indonesia. Economic Geology 85, p. 691-713.
(Tikus primary tin-tungsten deposit on NW Belitung hosted by large Late Triassic Tanjungpandan biotite granite pluton (Rb-Sr age 215±3Ma). Deposition mechanism for cassiterite and wolframite was pH increase and temperature decrease in both greisen and moderately albitized granite)

Schwartz, M.O. & Surjono (1990)- The strata-bound tin deposit Nam Salu, Kelapa Kampit, Indonesia Economic Geology 85, 1, p. 76-98.
(Nam Salu horizon at Kelapa Kampit on Belitung Island is richest strata-bound tin mineralization in SE Asia, in (isoclinally folded?) Carboniferous-Permian meta-sediments and volcanics, intruded by Triassic granitoids. Most likely source of Sn-bearing fluids is granitic magmatism, although mearest buitite granite 20-30km away. Nam Salu horizon steeply dipping, 35m-thick layer of stilpnomelane-chlorite-(biotite) phyllite, exposed over 3 km, with high-grade cassiterite ore)

Schwartz, M.O. & Surjono (1991)- The Pemali tin deposit, Bangka, Indonesia. Mineralium Deposita 26, 1, p. 18-25.
(Pemali Mine in NE Bangka is most important granite-hosted tin deposit in Indonesia. Mineralization in SE part of large Klabat batholith Triassic two-mica granite and consists of disseminated cassiterite and greisen-bordered veins)

Setiady, D. & Faturachman (2004)- Tipe granit sepanjang pantai timur Pulau Batam dan pantai barat Pulau Bintan, perairan selat Batam Bintan. J. Geologi Kelautan 2, 2, p. 9-14.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/109/99)
('Granite types along the east coast of Batam Island and the west coast of Bintan Island, in waters of the Batam Bintan strait'. Granites of Batam and Bintan mainly S-type granites)

Sharma, C. (2002)- Late Quaternary paleoenvironmental reconstruction of the Sunda Rivers Delta system, Sunda Shelf, south China Sea: timing of drowning and sea-level changes. Ph.D. Thesis, Dalhousie University, Halifax, p. 1-173.
(Late Quaternary paleoenvironmental reconstruction of Sunda Shelf, S China Sea, using foraminifera, radiocarbon chronology, sedimentology and reflection seismic. Sixteen sediment-cores from water depths 71-151m used to reconstruct evolution of Paleo-Sunda Rivers deltas from time when shelf was subaerially exposed during low sea levels to time when delta flooded by post-glacial sea-level rise. Complete flooding of shelf at ~11,000 yrs BP, which led to drowning and reorganization of Sunda Rivers Delta System)

Shoup, R. (2019)- Tertiary paleogeographic evolution of the Sunda Shelf: implications for exploration play development. Proc. Asia Petroleum Geoscience Conference and Exhibition (APGCE 2019), EAGE, Kuala Lumpur, p. 1-5. *(Extended Abstract)*
(Paleogeographic and depositional environment maps for Lower, Middle and Upper Oligocene and Lower, Middle and Upper Miocene)

Simamora (2007)- Penafsiran struktur bawah permukaan daerah Bangka Utara, berdasarkan anomali gaya berat. Jurnal Sumber Daya Geologi (JSDG) 17, 3, p. 163-177.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/287/2580)
('Interpretation of subsurface structure of the North Bangka region, based on gravity anomalies'. Identification of Pemali Fm Paleozoic basement and lighter Triassic granite intrusions across N Bangka island)

Simatupang, M. (1974)- Problems arising from the presence of accessory minerals in tin mining operations in Indonesia. Proc. Fourth World Conference on Tin, Kuala Lumpur 1974, 2, Prospecting and mining, Tin Council, London, p. 144-161.

Simatupang, M. (1979)- Indonesian offshore tin development. In: A. Prijono, C. Long and R. Sweatman (eds.) The Indonesian mining industry, its present and future, Proc. First Indonesian Mining Symposium, Jakarta 1977, Indonesian Mining Assoc. (IMA), Jakarta, p. 93-103.

Siregar, D.A. & M. Situmorang (1994)- The C-14 carbon dating and age of Quaternary deposits in Sunda Shelf. Jurnal Geologi dan Sumberdaya Mineral (JGSM), 4, p.

Siregar, R.N., K.S. Widana & Sismanto (2022)- Radiogenic heat production of S-type and I-type granite rocks in Bangka Island, Indonesia. Kuwait J. Science 49, 3, p. 1-11.
(online at: https://journalskuwait.org/kjs/index.php/KJS/article/view/15423)
(Radiogenic Heat Production average higher in I-type granite (~28; continental arc), than S-type granite (av.~ 8.4; continental collision))

Sitanggang, J.M. (1983)- The use of alkali elements as a guide to tin mineralization in some granite rocks in the island of Bangka. Proc. 12th Annual Conv. Indonesian Association Geologists (IAGI), p. 163-167.

Sitanggang, J.M. (1986)- Distribution of major and some trace elements of some granites from Bangka, Indonesia. In: G.H. Teh & S. Paramananthan (eds.) Proc. 5th Regional Congress Geology Mineral Energy Resources of SE Asia (GEOSEA V), Kuala Lumpur 1984, 2, Bull. Geological Society Malaysia 20, p. 401-422.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1986b19.pdf)
(Major and trace elements of Menumbing, Pelangas and Tempilang tin granites of Bangka are S-type granites, which may have sedimentary origin)

Sitha, K., L.D. Setijadji, K. Sanematsu, T. Ikuno, A. Imai, A. Dimara & K. Watanabe (2009)- REE in monzo-granites in Bangka Island, Indonesia. Proc. 2nd Reg. Conference Interdisciplinary Res. Natural Resources and Materials Engineering, Yogyakarta 2009, p. 145-152.

Slik, J.W.F., S.I. Aiba, M. Bastian, F.Q. Brearley, C.H. Cannon, K.A.O. Eichhorng, G. Fredriksson, K. Kartawinatai, Y. Laumonier et al. (2011)- Soils on exposed Sunda shelf shaped biogeographic patterns in the equatorial forests of Southeast Asia. Proc. National Academy of Sciences USA (PNAS) 108, 30, p. 12343-12347.
(online at: https://www.pnas.org/doi/pdf/10.1073/pnas.1103353108)
(Present-day biogeographic difference between W (Malay Peninsula, Sumatra) and E Sundaland (Borneo) surprising as these areas formed single landmass for much of Pleistocene. Dry savanna corridor dispersal barrier during glacial maxima proposed to explain this, but short duration of dry savanna conditions make it unlikely sole cause. Analysis of tree inventories suggest exposed sandy sea-bed soils acted as dispersal barrier. No confirmation of savanna corridor)

Soehaimi, A. & H. Moechtar (1999)- Tectonic, sea level or climate controls during deposition of Quaternary deposits on Rebo and Sapur nearshores, East Bangka- Indonesia. In: I. Busono & H. Alam (eds.) Developments in Indonesian tectonics and structural geology, Proc. 28th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 1, p. 91-101.
(Survey of tin-bearing alluvial and fluvial deposits off NE Bangka island)

Soeria-Atmadja, R., D. Darda & D. Hasanuddin (1986)- Some aspects of southern granitoid complex and tin mineralization in the northern part of Bangka, Indonesia. In: G.H. Teh & S. Paramananthan (eds.) Proc. 5th Regional Congress Geology Mineral Energy Resources of SE Asia (GEOSEA V), Kuala Lumpur 1984, 1, Bull. Geological Society Malaysia 19, p. 349-367.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1986026.pdf)
(Petrographic details of Late Triassic S-type granitoids of Bangka. Bangka granitoids high-level intrusions, with thermal aureoles. Bangka granitoids most like correlative to Main Range granites of Malay Peninsula. Tin mineralization along WNW, NNE and N-S directions, related to Late Triassic deformation. Fold-axis of Paleozoic-Triassic folded meta-sedimentary host rock mainly E-W. Bentong-Raub suture zone of Peninsular Malaysia probably continues into Bangka and perhaps also Belitung (small serpentinitic bodies present))

Solihuddin, T. (2014)- A drowning Sunda Shelf model during Last Glacial Maximum (LGM) and Holocene: a review. Indonesian J. on Geoscience (IJOG) 1, 2, p. 99-107.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/182/179)
(Five-stage drowning model of Sunda Shelf after LGM maximum shelf exposure at ~20,500 yrs BP (sea level ~118m below present sea level). Sea level highstand at ~6000-4000 yr BP (~5m above present sea level))

Stattegger, K., W. Kuhnt, H.K. Wong, C. Buhring, C. Haft, T. Hanebuth et al. (1997)- Sequence stratigraphy, Late Pleistocene- Holocene sea level fluctuations and high resolution record of the Post-Pleistocene transgression on the Sunda Shelf. Cruise Report Sonne 115, Sundaflut, Universitat Kiel, Geol.-Palaontologisch Institut, Reports 86, p. 1-211.

Steinke, S., T.J.J. Hanebuth, C. Vogt & K. Stattegger (2008)- Sea level induced variations in clay mineral composition in the southwestern South China Sea over the past 17,000 yr. Marine Geology 250, p. 199-210.
online at: www.academia.edu/20822204/Sea_level_induced_variations_in_clay_mineral_composition_i Etc.)
(Variations in clay mineral composition of Sunda Shelf margin and slope cores over past 17,000 yrs. Deglacial sea level rise principal factor driving changes. Late Glacial high kaolinite reflect higher contribution of clays from soils formed on exposed Sunda Shelf. After coastline retreated close to present-day position in mid-Holocene stronger influence of illite-rich sources (e.g. Borneo))

Steinke, S., M. Kienast & T. Hanebuth (2003)- On the significance of sea-level variations and shelf paleo-morphology in governing sedimentation in the southern South China Sea during the last deglaciation. Marine Geology 201, p. 179-206.
(Quaternary deglacial sedimentation on outer Sunda Shelf, shelf margin and slope controlled by shelf paleo-physiography and changes in sea level and sediment supply. Five sites along transect across outer shelf and continental slope document four intervals of significant depositional changes in last 20 000 years: drowning of lower course of North Sunda (Molengraaff) River;16.5-14.5 ka), rapid rise in sea level with flooding of middle part of paleo-valley at 14.5-14 ka and flooding of surrounding plains of river valley (14-8.5 ka). Coastline reached modern position between ca. 8.5- 6 ka)

Strimple, H.L. & T.E. Yancey (1976)- *Moscovicrinus* preserved in magnetite from Selumar, Belitung Island, Indonesia. Journal of Paleontology 50, 6, p. 1195-1202.
(Rare, probably Early Permian age crinoid from folded, E-W trending sandstones-shales in Selumar open pit mine on E side of Billiton Island, near margin of magnetite-cassiterite vein. Moscovicrinus hoskingi n.sp. Also mention Van Overeem (1960) record of fusulinid limestone in wells just off N coast of Beliting. See also Hosking et al. 1977)

Sudibyo, H.T. (1984)- Paleotopografi dan endapan timah sekunder di daerah Air Bara, Bangka. Proc. 13th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, p. 439-454.
('Paleogeography and secondary tin deposits in the area of Bara waters, Bangka')

Sugiharto, M.S. (2024)- Tungsten-bearing mineral occurrences of Batubesi tin skarn deposits. Bulletin of Geology (ITB) 8, 2, p. 1358-1366.
(online at: https://buletingeologi.com/index.php/buletin-geologi/article/view/395/107)
(Batubesi tin skarn deposit in Belitung categorized as Fe-Sn skarn deposit, with cassiterite as main ore mineral. Hosted in Permo-Carboniferous meta-sediments of Kelapa Kampit Fm and intruded by Triassic-Jurassic ilmenite series granite ('Main Range granite'))

Sujitno, S. (1977)- Some notes of offshore exploration for tin in Indonesia. CCOP, Technical Bulletin 11, p. 169-182.
(online at: https://repository.unescap.org/items/62741596-bd53-4f3d-b9bd-fc94701cbe59)
(Indonesian tin belt on islands Riau-Lingga, Singkep, Bangka and Belitung, Karimata are S part of the SE Asian tin belt extending from N Burma- Thailand- W Malaysia. Tin tied to Late Triassic granites, except Karimata, where granite dated as Late Cretaceous (74 Ma))

Sujitno, S. (1977)- A new discovery of offshore tin deposit off the west coast of Kundur Island and problems of exploration. Proc. 14th Session Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), p. 328-340.

Sujitno, S. & M.K. Ginting (1981)- Search for tin offshore in the Riau Islands, Indonesia. Proc. 17th Session Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Bangkok 1980, p. 140-156.
(online at: https://repository.unescap.org/items/7e5623b0-bcfc-4f92-96d3-0d07128db168)
(Review of offshore tin exploration around Riau islands of Singkep, Lingga, Bintan, Batam, and the group of islands at Karimum-Kundur. Pre-Tertiary formations metasediments and volcanics that can be correlated with Permo-carboniferous- Triassic "Pahang Volcanic Series" of Malay Peninsula. Age of the granites on Riau islands is supposed to be post-Triassic)

Sujitno, S. & P.T. Timah (1977)- Some notes on offshore exploration for tin in Indonesia 1966-1976. In: A. Prijono et al. (eds.) Proc. First Indonesian mining symposium; the Indonesian mining industry, its present and future, Indonesian Mining Assoc. (IMA), Jakarta, p. 124-146.

Sujitno, S., Ronojudo, A. and Muljadi (1981)- The occurrences of complex tin-iron in Belitung, Indonesia. In: A.H.H. Hasbi & H. van Wees (eds.) Complex tin ores and related problems, SE Asia Tin Research Development Centre (SEATRAD), Ipoh, Technical Publ. 2, p. 107-136.

Sujitno, S. & M. Simatupang (1981)- Review of discoveries of new tin deposits in Indonesia. Proc. 5th World Conference on Tin, Kuala Lumpur 1981, p. 1-44.

Sun, X., X. Li, Y. Luo & X. Chen (2000)- The vegetation and climate at the last glaciation on the emerged continental shelf of the South China Sea. Palaeogeogr. Palaeoclim. Palaeoecology 160, 3-4, p. 301-316.
(online at: http://users.clas.ufl.edu/krigbaum/6930/Sun_etal_P3_2000.pdf)
(Pollen from hemipelagic sediments from continental slopes of S China Sea show record of vegetation on exposed shelves at Last Glacial Maximum and late Marine Isotope Stage 3. At low sea level stand, Artemisia-dominated grassland covered N continental shelf, tropical lowland rainforest and mangroves grew on S shelf of Sundaland. Sundaland experienced marginally lower temperature but not drier than today)

Surjono & M.C.G. Clarke (1982)- Primary tungsten occurrences in Sumatra and the Indonesian tin islands. In: J.V. Hepworth & Y.H. Zhang (eds.) Proc. Symposium on Tungsten Geology, Jiangxi 1981, UN ESCAP, p. 217-231.
(In NE Bangka discontinuous serpentinites at Pemali Mine (tungsten generally associated with tin; viewed as trace of southern continuation of Triassic Raub-Bentong suture of Malay Peninsula by Pulunggono & Cameron 1984))

Surjono & M.C.G. Clarke (1982)- Primary tungsten occurrences in Sumatra and the Indonesian tin islands. Bul. Direktorat Sumber Daya Mineral, Bandung, 1, 5, p.
(Same paper as Surjono & Clarke (1982) above)

Sutarto, Ngadenin, F.D. Indrastomo, D. Kamajati, P. Rahmawati, P. Oktavian & P Adriyanto (2017)- Mineralisasi bijih Timah dan Thorium di Kabupaten Belitung Timur, Provinsi Kep. Bangka-Belitung. Proc. Seminar Nasional Kebumian 12, Fakultas Teknologi Mineral UPN "Veteran", Yogyakarta 2017, p. 142-151.
(online at: https://karya.brin.go.id/id/eprint/1090/1/PROSIDING_SUTARTO_UPNVY_2017.pdf)
('Tin and Thorium ore mineralization in East Belitung Regency, Province. Bangka-Belitung')

Sutedjo & Sujitno (1979)- Some notes on offshore exploration for tin in Indonesia 1966-1976. In: A. Prijono et al. (eds.) The Indonesian mining industry, its present and future, Proc. First Indonesian Mining Symposium, Jakarta 1977, Indonesian Mining Assoc. (IMA), Jakarta, p. 124-146.

Sutisna, K., G. Burhan & B. Hermanto (1994)- Geologic map of Dabo Quadrangle (1015), Sumatra, 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(Geologic map of islands E of C Sumatra Basin, incl. Singkep and S part of Lingga islands. Singkep and Selayar islands with core of Permo-Carboniferous Persing Fm phyllites and Duabelas Fm quartzites, intruded by Triassic

and Late Jurassic? granites. Lingga different: folded Jurassic Tanjung Datuk Fm meta-clastics, overlain by Cretaceous sandstones and red shales)

Syafrizal, A.N.H. Hede, T.A. Rivai & R.F. Sihite (2024)- Characterization of Rare Earth Elements in cassiterite-associated minerals in Bangka-Belitung Islands, Indonesia. Indonesian J. on Geoscience (IJOG) 11, 2, p. 201-219.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/861/470)
(Minerals commonly associated with cassiterite in Bangka-Belitung tin sands (ilmenite, zircon, monazite, xenotime) concentrated mostly in sand to silt-sized particles. Main REE-bearing minerals monazite and xenotime. No REE-bearing minerals like allanite, apatite, titanite in alluvial, concentrate and tailing samples)

Syamsudin, Z. (1994)- Deep seated alluvial tin exploration in offshore areas of Bangka- Indonesia, status and problems. In: J.L. Rau (ed.) Proc. 29th Session Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Hanoi 1992, Bangkok, 2, p. 253-261.

Tampubolon, A., I. Syafri, M.F. Rosana & E.T. Yuningsih (2024)- The correlation between Rare Earth Elements and tin in granite, quartz vein, and weathered granite samples, in South Bangka, Bangka Belitung Islands, Indonesia. Bull. Geological Society Malaysia 77, p. 73-85.
(online at: https://gsm.org.my/articles/bgsm202477-08/)
(Rare Earth Elements (REEs) and tin (Sn) in placer deposits in Bangka Belitung Islands from same magmaticfluid source, but. REEs formed during early magmatic crystallization as mineral and stannite (Cu-Sn) in granite, while Sn was enriched as cassiterite in deposits of late-stage hydrothermal fluid in parent granite)

Tjia, H.D. (1964)- Topographic lineaments in Riauw and Lingga Archipelagoes, Indonesia. Their structural significance. Proc. 22nd International Geological Congress, New Delhi, p.

Tjia, H.D. (1970)- Quaternary shorelines of the Sunda Land, Southeast Asia. Geologie en Mijnbouw 49, 2, p. 135-144.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0cDdVR2QzNkkzbnM/view)
(Sundaland elevated shorelines at +10-12m, 16-18m 30-33m and 50m. Submarine strandlines at -82-90m, -67m, -60m, -50m, -45m, -36m, -30-33m, -28m, -22m, -18m, -13m, -10m and -7m. Sea levels of last 6000 years up to +6m)

Tjia, H.D. (1980)- The Sunda Shelf, Southeast Asia. Zeitschrift fur Geomorphologie, N.F., 24, 4, p. 405-427.
(During low sea levels of Quaternary Sunda Shelf floor was exposed, and three large and three smaller drainage systems were carved. Radiometrically dated shorelines of northern shelf area indicate that during past 6000 years sea level fluctuated several times above present datum and once reached 4.5m elevation)

Tjia, H. (1996)- Sea-level changes in the tectonically stable Malay-Thai Peninsula. Quaternary International 31, p. 95-101.
(Malay-Thai Peninsula area of relative crustal stability. Over 200 Holocene shoreline indicators below and above present sea level have been radiocarbon dated, indicating that before 6 ka sea level rose from >-90 m below present level at initial rates of 15 mm/year, later 6 mm/year. At ~6 ka, rising sea reached +5m above today's. After 6 ka maximum 6 ka transgression regional sea level subsided through series of fluctuations with amplitudes of 2m and periods of ~2000 years)

Tjia, H.D., S. Asikin & R. Soeria-Atmadja (1968)- Coastal accretion in western Indonesia. Bull. of National Institute Geology and Mining (NIGM), Bandung, 1, 1, p. 15-45.
(online at: http://www.jrisetgeotam.com/index.php/NIGM/article/viewFile/15-45/157)
(Coastal accretion high near mouths of large streams along Sumatra E coast (60-500m/ year) and Java N coast (55 -214m/year). Elsewhere on same coasts accretion rates ~15-30m/ year. Annual accretion near Padang, Sumatra W coast, less than 10m)

Tjia, H.D., S. Fujii & K. Kigoshi (1977)- Changes of sea-level in the southern China Sea area during Quaternary times. In: Quaternary geology of the Malay-Indonesian coastal and offshore areas, UN ESCAP, CCOP, Technical Publication 5, p. 11-35.
(Review of shoreline indicators on and around Sunda Shelf (Malay Peninsula, Bangka- Belitung, etc.). Drowned Pleistocene shorelines traced to depths of 82-90m and raised shorelines at elevations up to 50m above sea level)

Tjia, H.D., S. Sujintno, Y. Suklija, R.A.F. Harsono, A. Rachmat, J. Hainim & Djunaedi (1984)- Holocene shorelines in the Indonesian tin islands. Modern Quaternary Research in Southeast Asia 8, Balkema, Rotterdam, p. 103-117.
(On Bangka and Belitung evidence of several marine terraces up to 3m above present-day high-tide level, reflecting eustatic sea level hihs in last 5300 years similar to those affecting Malay Peninsula)

Umar, N., A. Simatupang & I. Azwardi (2000)- Tin exploration in offshore of West Karimun-Kundur Island. Berita Sedimentologi 14, 1, p. 6-7.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/254/224)
(Brief summary of tin exploration around Karimun and Kundur island in Malacca Straits. Tin placers derived from Late Triassic granites. (tin mining on Karimun already taking place by Dutch company in early 1860s (Dach (1863)- JTvG))

Untung, M. (1967)- Results of a sparker survey for tin ore off Bangka and Belitung islands, Indonesia. United Nations ECAFE, CCOP Reports of 4th Session, Taipeh, p. 61-67.

Usman, E., A. Sudradjat, E.R. Suparka, I. Syafri & D. Muslim (2013)- Studi geokimia granit Bangka dan seismik refleksi resolusi tinggi untuk identifikasi batuan induk dan Sungai Purba di Prairan Kawasan Barat Indonesia. Proc. Joint Convention 38th Indonesian Association Geophysicists (HAGI) - 42nd Indonesian Association Geologists (IAGI), Medan, JCM2013-0248, p. 1-4.
(Geochemical studies of Bangka granites and high-resolution seismic reflection for host rock identification and ancient rivers in the western Prairan Region, Indonesia'. Granite in Bangka with 70-75% SiO2 and total alkali content 6.0 - 7.5%. Tectonic environment transitional between intra-plate granite and arc-related granite)

Van Baren, F.A. (1948)- De sedimenten van de Soenda Zee. Landbouw (Bogor) 20, 5/6 (E.C.J. Mohr volume), p. 195-210.
(online at: https://edepot.wur.nl/211179)
('Sediments of the Java Sea'. Ten sediment-petrological provinces. Heavy minerals study of samples previously analyzed by E. Mohr. Much of the Java Sea was an old land area, covered by younger marine sediments only in the coastal zones of Java and Sumatra. For more extensive version see Van Baren & Kiel, 1950)

Van Baren, F.A. & H. Kiel (1950)- Contribution to the sedimentary petrology of the Sunda Shelf. J. Sedimentary Petrology 20, 4, p. 185-213.
(As sugggested by Molengraaff, Sunda Shelf is Pllistocene and older peneplain that drowned during Holocene transgression. Abundant quartz in area around Borneo and Malacca, low-quartz sediments N of Java. Heavy minerals in seafloor sediments suggest ten petrological provinces. Along shore Sumatra and Java augites, hypersthenes and hornblendes of probable Tertiary volcanic source. Metamorphic andalusite and staurolite along Borneo coast, epidote and blue-green hornblende prominent in S China Sea area. Epidote, glaucophane, zircon, and rutile common in Meratus-Pulau Laut group, derived from dynamic metamorphic rocks of Bobaris-Meratus Mts. Also picotite from ultrabasic rocks)

Van Bemmelen, R.W. (1940)- De agmatitische graniet van Tandjoeng Binga (NW-Billiton). De Ingenieur in Nederlandsch-Indie (IV) 7, 5, p. IV.63- IV.66.
('The agmatitic granite of Tanjung Binga (NW Belitung)'. Granite with numerous angular inclusions of dark rocks of kersantite, spessartite, malchite, microdiorite, minette, etc. Irregular structure with streaks of aplitic and pegmatitic varieties in biotite-hornblende granite. At short distance from agmatitic granite contact-are metamorphic quartzites. Inclusions probably granitisation of ?Triassic diabase and quartzite)

Van Bemmelen, R.W. (1940)- Komen op Bangka pretriadische kristallijne schisten voor? De Ingenieur in Nederlandsch-Indie (IV) 7, 5, p. IV.67- IV.68.
('Do pre-Triassic crystalline schists occur on Bangka?'. In Loemoet valley, N Bangka, near contact with Belinjoe-granite, gradual transition of Triassic Bangka Fm shales into micaceous schists with abundant tourmaline. Also seen at Bukit Pemali mine and Mine 40. Schists do not represent older geological cycle, but originated by pneumatolytic contactmetamorphism of Triassic 'Bangka formation' phyllitic shales)

Van Bemmelen, R.W. (1941)- Origin and mining of bauxite in Netherlands-India. Economic Geology 36, 6, p. 630-640.
(Bauxite of aluminous laterite type, derived from Triassic aphanitic hornfels parent rock (unweathered at ~50m depth) on SE Bintan Island opposite Singapore. Production began in 1935 and now 5-6% of world production)

Van Bemmelen, R.W. (1949)- The Sunda shelf. In: The geology of Indonesia, Government Printing Office, Nijhoff, The Hague, 1, p. 298-325.

Van den Bold, W.A. & J.P. van der Sluys (1942)- On rocks from the isle of Batam (Riouw Archipelago). Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 45, 10, p. 1003-1009.
(online at: https://dwc.knaw.nl/DL/publications/PU00017847.pdf)
(Petrographic descriptions of rocks collected by Roggeveen. Mainly post-Triassic granites, Carboniferous-Triassic 'Pahang Volcanic Series' and Upper Triassic 'Central Batam Fm' sandstones-shales)

Van der Veen, R.W. (1919)- Het ontstaan der secundaire tinertsafzettingen op Banka en Billiton. De Ingenieur 1919, 10, p. 170-176.
(The genesis of the secondary tin ore deposits on Banka and Belitung', by Prof. Ir. Rudolf Willem van der Veen (1883-1925), Professor of Economic Geology at TH Delft from 1916 until his untimely death in 1925)

Van der Veen, R.W. (1923)- De geologie van het stroomtin in Ned.-Indie. De Ingenieur 38, 29, p. 576-584. (also p. 621)
(online at: https://resolver.kb.nl/resolve?urn=dts:2965041:mpeg21:pdf)
('The geology of alluvial tin in the Netherlands Indies'. Tin found mainly in alluvial valleys of present-day rivers. VdV argues that alluvial tin deposits of Bangka, Belitung and Singkep formed from erosion of tin granites in Pleistocene time, during period of semi-arid climate with intense weathering and mechanical erosion. Spasmodic rains concentrated eroded tin ores at base of river beds ('kaksa'), directly on bedrock ('kong') and at foot of hills. Rivers at that time had steeper gradients, with large clasts, and sealevel was 20m (or more) lower than today. Overlying valley fill deposited during higher sealevel and humid climate with more vegetation. In SE Belitung 'kaksa' with billitonites/tektites. Billitonites and quartz clasts often etched by chemical weathering (kaolinisation). With maps and many cross-sections of valley fills and basal tin ore layers)

Van der Veen, R.W. (1923)- Origin of the tectite sculpture and some consequences. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 7, p. 15-42.
(On the nature of the glassy Pleistocene billitonites (tektites) from Belitung)

Van der Veen, R.W. (1925)- Nog iets over billitonieten. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 8 (Gedenkboek Verbeek, memorial volume), p. 551-553.
(online at: https://books.google.com/books?id=Yy0RAAAAIAAJ&pg)
('Some more about billitonites'. Short but significant paper on microscopic character of billitonites (tektites). At 900x magnification and after heating to 800° C numerous small unidentifiable elongate crystals (devitrification?). According to Ir. J. de Kroes (1) billitonites never occur in 'koelits', but always at interface between 'kaksa' and cover layers; (2) billitonites unknown from nearby Bangka, and (3) in Belitung billitonites only in narrow band from Tanjong Pandan to point at south coast, at ~30° angle with Equator, suggesting meteor shower that landed simultaneously after creation of kaksa and before deposition of cover layers)

Van der Wyck, O.H. (1896)- The occurrence of tin ore in the islands of Banca and Billiton. 17th Annual Report U.S. Geological Survey to the Secretary of the Interior 1895-1896, 3, p. 227-242.

(online at: https://pubs.usgs.gov/ar/17-3/report.pdf)
(Early review in English of Bangka tin deposits and mining operations. No figures)

Van Diest, P.H. (1865)- Bangka, beschreven in reistogten. C.F. Stemler, Amsterdam, p. 1-101.
(Report on travels and early tin exploration activities on Banka by mining engineer Van Diest)

Van Diest, P.H. (1872)- Inleiding tot de geognostische mijnbouwkundige rapporten der distrikten van Bangka. Jaarboek Mijnwezen Nederlandsch Oost-Indie 1872, 1, p. 3-40.
(Introduction to geognostic- mining reports of the districts of Bangka'. Part of series of mining evaluations on Bangka Island)

Van Diest, P.H. (1872)- Rapport van het distrikt Soengei-liat, eiland Bangka. Jaarboek Mijnwezen Nederlandsch Oost-Indie 1872, 2, p. 3-71.
(map online at: https://www.europeana.eu/portal/en/record/9200517/ark__12148_btv1b530622818.html)
('Report on the district Sungei-Liat, Bangka island'. Based on 1859-1861 surveys, in first volume of 'Jaarboek van het Mijnwezen'. With map)

Van Diest, P.H. (1873)- Rapport van het distrikt Merawang, eiland Bangka. Jaarboek Mijnwezen Nederlandsch Oost-Indie 2, 1 (1873), p. 3-104 and 242-243.
('Report on the district Merawang, Bangka island'. Bedrock mainly mainly phyllites and sandstones, overlain by locally tin-bearing alluvial deposits around modern river beds (with numerous mine locations). With 1853-1862 production statistics). Granite in NE corner of island surrounded by ~800m wide zone with tin-bearing quartz veins. With 1:60,000 scale geologic map)

Van Dijk, P. (1879)- Obsidiaan van Billiton. Jaarboek Mijnwezen Nederlandsch-Oost-Indie 8, 2, p. 225-230.
('Obsidian from Billiton'. First description of Pleistocene glassy tektites, locally common in alluvial tin deposits of Belitung island (subsequently also called 'billitonites'; part of large SE Asian- Australia tektite-strewn field and dated at ~0.7-0.8 Ma; JTvG))

Van Lohuizen, H.J. (1918)- Over de wijze van voorkomen van het tinerts in het district Blinjoe op Bangka. Jaarboek Mijnwezen Nederlandsch Oost-Indie 46 (1917), Verhandelingen 1, p. 192-207.
('On the mode of occurrence of tin ore in the district Blinjoe on Bangka'. Primary tin ore in Bangka formed as 'pneumatolytic' formations in altered bedrocks around granite intrusions and in edges of granite ('greisen'))

Van Overeem, A.J.A. (1960)- The geology of the cassiterite placers of Billiton, Indonesia. Geologie en Mijnbouw 39, 10, p. 444-457.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0X2p0TmhuZEVycnc/view)
(On cassiterite placers on twice dissected old Sundaland peneplain around Beliting island. Includes discussion of basement geology: probably thick series steeply dipping Permo-Carboniferous sediments (strike ~N110°E, mainly dipping to N), with possible turbiditesand chert, intruded by Cretaceous granitoids. In SE of Belitung island Permian plant assemblages provisionally identified by Jongmans as Cathaysian (Gigantopteris) flora. In SE also Lower Permian cassiterized ammonoid Agathiceras sundaicum (Kruizinga 1950). At NW coast of island poorly preserved fusulinids, possibly M Permian Fusulina (Schwagerina))

Van Overeem, A.J.A. (1960)- Geological control of dredging operation on placer deposits, Billiton, Indonesia. Geologie en Mijnbouw 39, 10, p. 458-463.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0X2p0TmhuZEVycnc/view)
(Not much on geology)

Van Raadshoven, B. & J. Swart (1942)- On rocks from Karimon (Riouw Archipelago). Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 45, 1, p. 89-96.
(online at: https://dwc.knaw.nl/DL/publications/PU00017704.pdf)
(Karimun island, SW of Singapore. Rocks collected by Roggeveen. Most of island post-Triassic biotite granites. Sediments in NE of island contact-metamorphic slates, quartzites, limestone, etc., possibly of Carboniferous and

Triassic age. Basic plutonic rocks and associated metamorphics (metagabbros, diallagites, microfolded hornblende schists identical to schists of Singkep lsland) on small islands Temblas and Merak, off S coast of Karimun (interpreted to be trace of Raub-Bentong Triassic suture zone by Pulunggono & Cameron 1984)

Van Wees, H. & C.P. de Vente (1984)- The primary tin-magnetite deposit of Gunung Selumar, Belitung Island, Indonesia: interim results of an exploration research study and ore genetic implications. SE Asia Tin Research Development Centre (SEATRAD), Ipoh, Report 22, p. 1-77. *(Unpublished?)*

Van Wessem, A. (1941)- On rocks from the islands of Soegi, Tjombol and Tjitlim, Riouw Archipelago, Netherlands East Indies. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 44, 10, p. 1219-1226.
(online at: https://dwc.knaw.nl/DL/publications/PU00017686.pdf)
(Petrographic descriptions of rocks collected by Roggeveen: schists, radiolarian chert as pebbles in conglomerate, quartzite, sandstones, greywackes, porphyrite, diotite, etc.)

Verbeek, R.D.M. (1897)- Geologische beschrijving van Bangka en Billiton. Jaarboek Mijnwezen Nederlandsch Oost-Indie 26, Wetenschappelijk Gedeelte, p. 1-272.
(Geological description of Bangka and Billiton (Belitung) Islands, E Sumatra, with focus on occurrences of tin. Incl. descriptions of radiolaria of probable Late Paleozoic age from chert by Hinde (p. 223-227) and 'glass pebbles (tektites) from Belitung)

Verbeek, R.D.M. (1897)- Glaskogels van Billiton. Jaarboek Mijnwezen Nederlandsch Oost-Indie 26, Wetenschappelijk Gedeelte, p. 235-272.
('Glass pebbles from Billiton'. Early description of up to 5cm large tektites, locally common on Belitung island in Pleistocene alluvial deposits. Also known from Java, Kalimantan and Australia. Can not be tied to Indonesian volcanoes, so Verbeek assumes extra-terrestrial origin, possibly from volcanoes on moon (now interpreted as part of large SE Asian- Australia tektite-strewn field, dated at ~0.7-08 Ma (see also Krause (1898), Wing Easton (1915, 1921), Von Koenigswald (1935), Chapman (1964), etc.; JTvG))

Von Koenigswald, G.H.R. (1933)- Soenda-plat en poolverplaatsing. De Mijningenieur. 14, 7, p. 124-130.
('The Sunda Shelf and polar wandering'. Sunda shelf between Sumatra, Java and Borneo is drowned alluvial plain now covered by Java Sea. Usually explained as Pleistocene post-glacial sea level rise of ~70-100m, but drowning may also be due subsidence related to change of geoid with shifting of pole in Pleistocene (?))

Wade-Murphy, J. & J.H.A. van Konijnenburg-van Cittert (2008)- A revision of the Late Triassic Bintan flora from the Riau Archipelago (Indonesia). Scripta Geologica 136, p. 73-105.
(online at: https://repository.naturalis.nl/pub/314208)
(Flora from SW Bintan Island, Riau Archipelago, partly described by Jongmans in 1951 andinterpreted as Late Triassic in age. Additional taxa identified. Absence of fern and sphenophytes and dominance of diminutive Pterophyllum and Ptilophyllum leaves. Stronger similarities between Bintan and SW Asia than with SE Asia floras. Differences may point to slightly younger age (E-M Jurassic), but unlikely to be Early Cretaceous as suggested by Kon'no 1972)

Wang, X.M., X.J. Sun, P.X. Wang & K. Stattegger (2007)- A high-resolution history of vegetation and climate history on Sunda Shelf since the last glaciation. Science in China Ser., D- Earth Sciences, 50, p. 75-80.
(16,500-year high-resolution pollen and spore records from sediments of core 18287 on continental slope of southern S China Sea. Between 16.5-13.9 ka BP low-mountain rainforest dominated. In 13.9-10.2 ka BP lowland rainforest and ferns expanded, indicating warming at last deglaciation and pollen sedimentation rates reduced, implying rise of sea level/ submergence of shelf. After 10.2 ka BP, decreasing fern indicates early Holocene (10.2-ka BP) cold period, while increasing of fern marks rising temperature (7-3.6 ka BP)).

Wang, X.M., X.J. Sun, P.X. Wang & K. Stattegger (2009)- Vegetation on the Sunda Shelf, South China Sea, during the Last Glacial Maximum. Palaeogeogr. Palaeoclim. Palaeoecology 278, p. 88-97.
(online at: http://ocean.tongji.edu.cn/pub/pinxian/eng/2009-04.pdf)

(Pollen from Sonne 1996 cruise sediment cores along paleo-valley of North Sunda River on Sunda Shelf of southern S China Sea. During Last Glacial Maximum (22-16 ka) high percentages of pollen from lowland rain forests and lower montane rainforests, suggesting exposed shelf covered with humid vegetation. Marshy vegetation in valley along N Sunda River. Climate during LGM inferred from vegetation cooler today, but no significant decrease in humidity recorded)

Warburg, O. (1897)- Zwei neu fossile Phanerogamen-Gattungen von der Insel Bangka. Jaarboek Mijnwezen Nederlandsch Oost-Indie 26, p. 229-234.
('Two new phanerogam species from Bangka island'. Fossil Pliocene (?) plant fruit fossils collected by Verbeek in tin quarry 7 of Lumut River, Blinju District. Described by Dr. Warburg from Berlin as Spondiocarpus verbeekii and Monoderosperum bangkanum)

Westerveld, J. (1936)- On the geology of North Banka (Djeboes). Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 39, 9, p. 1122-1132.
(online at: https://dwc.knaw.nl/DL/publications/PU00016981.pdf)
(Survey of NW Bangka Island. Oldest rocks thick, monotonous series of presumably Triassic-age, intensely folded dark shales and yellowish sandstones, steeply dipping, NW-SE or WNW-ESE trending. Sandstones mainly composed of undulose (metamorphic) quartz. Presence of radiolaria in shales similar to Triassic rocks in Malaya, etc. With Djeboes granite, part of large (~100 km) intrusive biotite granite mass. W of granite area diabase intrusions in folded Mesozoic clastics (should not be confused with Pahang series of Malay Peninsula))

Westerveld, J. (1936)- The granites of the Malayan tin belt compared with tin granites from other regions. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam 39, p. 1199-1209.
(Brief overview, without figures, of tin granites of Sumatra (Banka, Billiton, etc.), Malay Peninsula, Cornwall, Saxony, Bolivia and S Africa)

Westerveld, J. (1937)- The tin ores of Banca, Billiton and Singkep, Malay Archipelago- a discussion. Economic Geology 32, p. 1019-1041.
(Discussion of Wing Easton 1937 paper, arguing that (1) there is one granite instead of two; depth of granitic intrusion and mineralization was deep; some contact-metamorphism is present. Tin mineralization not Pliocene but post-Triassic and probably pre-Cenomanian, etc.)

Westerveld, J. (1941)- Mineralisatie op de tineilanden. Jaarboek Mijnbouwkundige Studenten Delft 1938-1941, Delft, p. 187-233.
(online at: https://resolver.kb.nl/resolve?urn=MMAD01:000080001:pdf)
('Mineralization on the tin islands'. Rel. comprehensive review of geology and tin mineralization on Bangka, Billiton and Riau-Lingga Archipelago, from presentation to Delft students in 1939. Much of data provided by J.W.H. Adam. Tin granites believed to be of Jurassic age, intruded into isoclinally folded but not regionally-metamorphosed Triassic clastic sedimentary series (derived from granitic rocks; with rare Daonella on Lingga and radiolarian chert). Tin Island granites rel. rich in Rare Earth Elements (Y, La, Ce, Nd). Primary cassiterite mineralization veins in sediments surrounding granite and in greisen zones in granite. Most tin mined from residual cassiterite deposits ('kaksa') in Quaternary valley bottoms above and around tin granite outcrops, both onshore and near-offshore. With maps of residual cassiterite deposits of Bangka and Belitung)

Wichmann, A. (1893)- Obsidianbomben der Zinnseifen der Insel Billiton. Zeitschrift Deutschen Geologischen Gesellschaft 1893, p. 518-519.
('Obsidian bombs from the tin-bearing beds of Belitung Island'. Brief comment by Wichmann on glass spheres in tin beds of Belitung (but not on Bangka, and never found on Indonesian active volcanoes). Described earlier by Van Dijk 1879 (see also Verbeek 1897, Wing Easton 1921, etc.) (These are now known to be part of M Pleistocene Australasian tektite strewn field from comet or asteroid impact in mainland SE Asia, JTvG))

Wichmann, A. (1912)- Over rhyolieth van de Pelapis-eilanden. Verslagen Koninklijke Akademie van Wetenschappen, Amsterdam, Vergadering Wis.-Natuurkundige Afdeeling, 1912, p. 386-391
(online at: https://archive.org/details/p1verslagvandege21akad)

('On rhyolite of the Pelapis islands', between SW coast of Kalimantan and Karimata islands. Rhyolitic volcanic rock sample collected by Everwijn in 1854 from islands composed of claystones intruded by granitic rocks)

Widana, K.S. (2013)- Petrografi dan geokimia unsur utama granitoid Pulau Bangka kajian awal tektonomagmatisme. Eksplorium 34, 2, p. 75-88.
(online at: https://ejournal.brin.go.id/eksplorium/article/view/8046/6169)
('Petrography and major element geochemistry of Bangka island granitoids: preliminary study of tectonomagmatism'. Bangka Island granitoids ages range from Late Permian- Late Triassic. Petrographic analysis show dominant granitoid type as alkali feldspar- syeno granite. May have formed on continental arc where subduction and collision are involved. Some granitoids generally I- type peraluminous (Pemali, Koba, Pading, Romodong;'continental arc' type). S-type granitoids in S and W Bangka (Toboali, Menumbing) characterized by high K2O and abundant biotite+ muscovite + cordierite (continental collision type))

Widana, K.S. & B. Priadi (2015)- Karakteristik unsur jejak dalam diskriminasi magmatisme granitoid Pulau Bangka. Eksplorium 36, 1, p. 1-16.
(online at: https://ejournal.brin.go.id/eksplorium/article/view/8088/6201
('Characteristics of trace elements in granitoid magmatism discrimination on Bangka Island'. Klabat granitoids on Bangka Island studied for trace elements. Granitoids in E (Belinyu) and C Bangka display crust-mantle mixing with calc-alkaline affinity, characteristic of I type (='Eastern Province' of Malay Peninsula?). In S and W Bangka granitoids high K calc-alkaline and of S type (= 'Main Range' of Malay Peninsula?))

Widana, K.S., B. Priadi & Y.T. Handayani (2014)- Profil unsur tanah jarang granitoid Klabat di Pulau Bangka dengan analisis aktivasi neutron. Eksplorium 35, 1, p. 1-12.
(online at: https://ejournal.brin.go.id/eksplorium/article/view/8065/6184)
('Rare Earth Elements profile of Klabat Granitoid in Bangka Island by neutron activation analysis'. Enrichment of La-Sm as light REE (LREE) and Eu-Lu slight decrease in heavy REE (HREE) suggest plutonic rock formed in continental magmatic arc)

Wilhelm, C.H.J. (1928)- De tinertsafzettingen van het eiland Singkep en de genese der alluviale afzettingen. Doct. Thesis, Technical University Delft, Waltman, Delft, p. 1-126.
(online at: http://resolver.tudelft.nl/uuid:578affd6-2c32-4bcc-8198-477e1c41ac54)
('The tin ore deposits of Singkep island (E Sumatra) and the genesis of the alluvial deposits'. Singkep geology mainly granite and mica schist. Alluvial tin ores derived from tin-bearing quartz veins in (E Mesozoic) granite. Tin ore reserves of Singkep less than on Belitung and Bangka)

Willems, H.W.V. (1940)- Fayalite from Seloemar mine, Billiton, Netherlands East Indies. Geologie en Mijnbouw 2, 2, p. 26-29.
(online at: https://drive.google.com/file/d/1di97JSfi0Ew8JM7LMEjCVY21AOlyAMJ_/view)
(Occurrence of fayalite, an iron-chrysotile mineral from Selumar tin mine, E Belitung. Associated with serpentine, magnetite and sulphides)

Wing Easton, N. (1921)- The billitonites (an attempt to unravel the tectite puzzle). Verhandelingen Koninklijke Akademie van Wetenschappen, Amsterdam, Sectie 2, 22, 2, p. 1-32.
(online at: https://ia803101.us.archive.org/35/items/Billitonites/easton-n-billitonites-1921-00053347.pdf)
(On 'billitonites' (tektites; black glass pebbles from meteorite impacts), found at base of the tin-bearing alluvium of Belitung Island, and first reported by Verbeek (1887) and Krause (1898). Believed to be of extraterrestrial origin by earlier authors (Verbeek, Suess), but Wing Easton noted 89% SiO2 is much too high for meteorites and suggested terrestrial origin as colloidal formations in soil horizons (similar tektites also known from tin-bearing beds of the Malay Peninsula, Bunguran (Natuna), N Borneo, SE Kalimantan, Indochina, Philippines, Australia; JTvG))

Wing Easton, N. (1925)- Billiton-herinneringen. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 8 (Verbeek memorial volume), p. 125-154.
(online at: https://books.google.com/books?id=Yy0RAAAAIAAJ&pg)

('Billiton memories'. Geological observations on geology and tin mineralization of Belitung island, made in 1919/1920)

Wing Easton, N. (1933)- De geologische geschiedenis van Billiton en het ontstaan der kaksa. De Mijningenieur 14, 10, p. 165-174.
('The geological history of Belitung and the origin of the 'kaksa'. Partly critique of Adam (1933) papers. Kaksa tin ore is residual product of weathering of granite, not alluvial-fluvial transported. Followed by Adam rebuttal)

Wing Easton, N. (1937)- The tin ores of Banca, Billiton and Singkep, Malay Archipelago, Part I. Economic Geology 32, 1, p. 1-30.
(First overview in English languge of geology and tin mining on Bangka, Belitung and Singkep- part 1. Most of tin produced from secondary placer deposits, but primary mineralization in veins in granite. WE believes there are two groups of granites, one older than folded sediments without tin and one younger (Cretaceous) age with tin mineralizion. Mineralization age believed to be Pliocene. Conclusions disputed by Westerveld 1937)

Wing Easton, N. (1937)- The tin ores of Banca, Billiton and Singkep, Malay Archipelago, part II. Economic Geology 32, 2, p. 154-182.
(Overview in English languge of geology and tin mining on Bangka, Belitung and Singkep- part 2. On ore deposits, mainly on formation and distribution of valley placer deposits called 'kaksa beds' (see also critical discussion by Westerveld 1937))

Wisoko (1981)- Geologi endapan timah primer di Pemali, Bangka. Proc. 10th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 17, p. 193-203.
(online at: https://www.iagi.or.id/web/digital/34/PIT-IAGI-1981-Vol-1-Paper-17.pdf)
('Geology of primary tin deposits in Pemali, Bangka'. With block diagram of tin mineralization at Pemali open pit mine)

Wisoko (1983)- Pengaruh kipas aluvial terhadap penyebaran bijih timah sekunder daerah Mentok Selatan Bangka. Proc. 12th Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, p. 293-300. *(online at: https://www.iagi.or.id/web/digital/37/PIT-1983-Paper-29.pdf)*
('Influence of alluvial fan deposition on secondary tin ore deposition in the South Mentok area, Bangka')

Wong, H.K., T. Ludmann, C. Haft & A.M. Paulsen (2003)- Quaternary sedimentation in the Molengraaff Paleo-delta, Northern Sunda Shelf (Southern South China Sea). In: F.H. Sidi, D. Nummedal et al. (eds.) Tropical deltas of Southeast Asia- sedimentology, stratigraphy and petroleum geology, Society for Sedimentary Geology (SEPM) Special Publ. 76, p. 201-216.
(Seven seismic units in M-L Pleistocene lowstand delta at Sundaland margin, fed by Molengraaff/ North Sunda river during Last Glacial Maximum. Outer Sunda shelf was delta plain of Molengraaff river system during Last Glacial Maximum)

Wu, K., S. Liu, X. Shi, C.A.R. Mohamed, H. Zhang, R. Pinna-Jamme, A. Dapoigny & C. Colin (2025)- Study of the sources and dispersion of sediments on the Sunda Shelf based on the investigation of rare earth element concentrations and Nd isotope compositions. Chemical Geology 685, 122807, p.
(On provenance of Sunda Shelf sediments)

Wu, K., S. Liu, L. Wang, C.A.R. Mohamed, H. Zhang, C. Zhu, B. Sun, J. Chen & X. Shi (2025)- Significant shifts of sedimentary environment and carbon burial during the middle Holocene on the Sunda Shelf. Palaeogeogr. Palaeoclim. Palaeoecology 674, 113052, p.
(Shift in sediment provenance in central Sunda Shelf around 7.5 ka, from primarily sourced from Thai rivers and Mekong River, to sediment contributions from Mekong River, Thai and Malay Peninsula rivers. Intensity of chemical weathering on Sunda Shelf markedly weakened after 7.5 ka. Etc.)

Wu, S.G., H.K. Wong, Y.L. Luo & Z.R. Liang (1999)- Distribution and origin of sediments on the northern Sunda Shelf, South China Sea. Chinese J. Oceanology Limnology 17, p. 28-40.

(77 surface sediment samples and seismic profiles from outer Sunda Shelf analyzed. Seismic shows thick, prograding Pleistocene deltaic sequence near shelf-break and thin Holocene sediment layer on outer shelf. Five sedimentary areas distiguished: modern Mekong sediments, insular shelf area receiving sediments from Borneo rivers, shelf area near Natuna-Anambas islands, area of relict sediments on outer shelf N of Natuna Islands, and coral reefs and detritus)

Yang, J.H., R.Z. Hu, M.F. Zhou, B. Lehmann, J.H. Zhao, J.H. Wu, L. Liu, W. Mao, Z.T. Cui & M.F. Rosana (2025)- Cassiterite U-Pb ages from the Tin Islands, Indonesia, the southern end of the Southeast Asian tin province. Mineralium Deposita 60, p. 1755-1767.
(U-Pb ages of cassiterite from three granite-related tin deposits (Pemali, Selumar and Tikus) and four placer tin deposits (Penyusuk, Sadab Perlang, Gunung Mudal Sincong and Riding Panjang) on Bangka and Belitung Islands. All ages within 230-210 Ma range (~Norian, Late Triassic), and similar to metallogenic ages of tin deposits in Main Range belt of Malaysia and Thailand)

Yu. J., L. Li, X. Zhang, J. He, G. Jia & W.Kuhnt (2023)- Mangrove sediment erosion in the Sunda Shelf during meltwater pulses: Insights from biomarker records. Organic Geochemistry 175, 104542, p. 1-12.
(online at: https://archimer.ifremer.fr/doc/00813/92452/98657.pdf)
(Reduced terrestrial deposition in N Sunda Shelf (S margin of S China Sea) since last glaciation. Remarkable peaks in angrove proxy (Taraxerol/n-C28 alcohol ratio) during meltwater pulse (MWP), associated with drowning and destruction of mangroves that could not withstand rapid sea-level rise)

Zhang, Y., X. Yu, Y. Wang, X. Qian, C. Gan, A.A. Ghani, Y. Yu & C. Xu (2023)- Reconstructing the East Palaeo-Tethyan assemblage boundary in west Indonesia: constraints from Triassic granitoids in the Bangka and Belitung islands. In: The consumate geoscientist: a celebration of the career of Maarten de Wit, Geological Society, London, Special Publ. 531, p. 1-22. *(online at: https://www.researchgate.net/publication/365074350_Reconstructing_the_East_Palaeotethyan_assemblage_boundary_at_West_Indonesia_Constraints_from_Triassic_granitoids_in_Bangka_and_Belitung_islands)*
(New zircon U-Pb geochronological, petrological, elemental and Sr-Nd-Pb-Hf-O isotopic data from granitoids of Bangka and Belitung (essentially similar). Two groups of granites with similar ages (~230-220 Ma; Late Triassic) and enriched Nd-Hf isotopic composition. Probably originated from melting of metagreywacke, metapelite and minor meta-igneous component. Both formed during post-collisional processes and are likely S-ward continuation of Main Range granitoids of W Malay Peninsula (= Sibumasu Terrane). If correct, location for Paleo-Tethys suture zone located somewhere between Bangka/Belitung and W Kalimantan (same conclusion reached by others (Ng at al.,2017, Wang et al., 2021, and other authors; JTvG))

Zglinicki, K., K. Szamałek & S. Wołkowicz (2021)- Critical minerals from post-processing tailing. A case study from Bangka Island, Indonesia. Minerals (MDPI) 11, 4, 352, p. 1-16.
(online at: https://www.mdpi.com/2075-163X/11/4/352)
(Tin mining waste on Bangka from processing of cassiterite-bearing sands contains REE-bearing minerals, chiefly monazite and xenotime, zircon, ilmenite, rutile, niobium-tantalum. Potential source of "critical raw materials")

Zulfikar, M. & N.C.D. Aryanto (2016)- The study of seafloor tin placer resources of Quaternary sediment in Toboali waters, South Bangka. Bulletin of the Marine Geology 31, 2, p. 67-76.
(online at: http://ejournal.mgi.esdm.go.id/index.php/bomg/article/view/285/275)
(Boomer shallow seismic survey off S coast of Bangka to determine Quaternary sediment thickness (5-20ms))

Zulfikar, M. & N.C.D. Aryanto, A.A. Nur & I. Syafri (2020)- Study of granitoid distribution at Toboali waters, Bangka Belitung Province: seismic data interpretation approach. Bulletin of the Marine Geology 35, 2, p. 53-64.
(online at: http://ejournal.mgi.esdm.go.id/index.php/bomg/article/view/681/510)
(Acoustic seafloor mapping off SE Bangka suggests onshore 'Main Range' granitoid body continues 7 km offshore below Quaternary marine sediments)

Zwartkruis, T.C.J. (1962)- Orbicule-bearing blastopsammitic hornfelses from southern Bangka, Indonesia. Ph.D. Thesis University of Amsterdam, p. 1-94. *(Unpublished)*
(Descriptions of contactmetamorphic hornfels, adjacent to tin granites of probable E-M Jurassic-age. Material collected by De Roever in 1947. Orbicular structures probably metamorphosed calcareous concretions in clastic precursor rock. Also first description of 'diamictite' from S Bangka (interpreted as mudflow deposit, possibly same as E Permian glacial 'pebbly mudstone' known from N Sumatra, W Malaysia, peninsular Thailand, etc; U Ko Ko 1986))

Zwierzycki, J. (1920)- Zijn de Indische petroleumterreinen, in het bijzonder die op Sumatra, peneplains of abrasievlakken? De Mijningenieur 1, 2, p. 3-5.
(online at: https://babel.hathitrust.org/cgi/pt?id=coo.31924081565537;view=1up;seq=25)
('Are the Indies petroleum basinal areas, in particular those on Sumatra, peneplains or abrasion plains?' Landscape of petroleum terrains in N and S Sumatra and Java routinely viewed as peneplains on gently folded Tertiary sediments. Age of folding probably Pleistocene, not leaving much time for peneplanization by complete fluvial erosion cycle; wave abrasion on coastal plains probably a faster and more likely mechanism)

Zwierzycki, J. (1933)- Enkele nieuwere geologische waarnemingen op de tineilanden en op Sumatra betreffende het tinvraagstuk. De Mijningenieur 14, 10, p. 171-176.
('Some newer observations on the tin islands and on Sumatra regarding the tin problem'. Mainly response to Wing Easton (1933). Oldest rocks on Bangka isoclinally folded crystalline schists and non-metamorphic sediments, reminescent of schists of Lampung. (Permian?-)Triassic Pahang Volcanic series of Malay Peninsula probably continues into Batam, Bintan and Lingga, then to diabase on Bangka and N coast of Belitung (also >1000m thick, isoclinally folded Triassic 'flysch-type' sediments). 'Kaksa' and overlying 'koelit' tin placers all very young, probably Holocene (with rel. young Elephas sumatranus fossils). In some tin mines four 'kaksa' tin ore horizons (here clearly fluvial?). (Other interesting observation on S Sumatra, p. 173:'Small anticlinal dome on Palembang-anticline 18 km W of Palembang exposes gravel bank of Lower Palembang Fm, containing chunks of Pahang Volcanic Series with Fusulina and vein quartz with cassiterite crystals; at 191m at Bioekoe granite syenite, similar to exposed at Bukit Batu'; JTvG)

II.5. Natuna, Anambas

Adrian, H., L. Andria & A. Sudarsana (2005)- Horizontal well placements using V shale and facies geomodel: an example from Belanak Field, South Natuna Sea, Indonesia. Proc. 30th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 145-162.
(Main reservoirs in Belanak Field, S Natuna Sea Block 'B' are U Oligocene Gabus Massive Sand and Gabus Zone-3. Massive Sand gas with thin oil rim, deposited in a fluvial channel environment. Multi-storied channel sands. Porosity ranges similar throughout field, but permeabilities are variable)

Alyadrus, M.A. & R.L. Coates (1990)- Successful marginal feld development, Ikan Pari Field, Natuna Sea. Proc. 19th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 345-351.
(Ikan Pari Field, discovered in 1983, 50 miles NE of Udang Field. Developed with four seafloor completions)

Ardhie, M.N. (2004)- An inversion structure and its implication for structural trapping mechanisms: study of Kakap PSC, West Natuna Basin, Indonesia. Masters Thesis, University of Texas at Arlington, p. 1-113. *(Unpublished)*
(W Natuna basin formation Eocene-Oligocene transtension, followed by Miocene- Recent transpression and inversion. In Kakap PSC two rift trends: NW-SE and NE-SW major half-graben and series of smaller half-graben, all associated with Sunda folds and flower structures. Main phase of inversion E-M Miocene (thinning of M-U Arang Fms), second phase in M-L Miocene (base Muda unconformity). Tectonostratigraphy of Kakap PSC four major tectonic events; syn-rift, transitional, inversion and post-inversion)

Arif, F. & C. Kenyon (2017)- Lama play assessment based on reservoir effectiveness using structural evolution modeling in Natuna A Block. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, p. 1-8.
(Play assessment of Eo-Oligocene early syn-rift Lama Fm quartz-rich fluvio-lacustrine clastics in Natuna A Block. Due to deep burial, reservoir effectiveness critical risk (especially due to quartz cementation. Two main erosion events: (1) base Miocene (Base Arang shale; ~25 Ma); (2) M Miocene unconformity (~16- 11 Ma). Sweet spots for Lama Play at rift flexural margin)

Bachtel, S.L., R.D. Kissling, D. Martono, S.P. Rahardjanto, P. Dunn & B.A. MacDonald (2004)- Seismic stratigraphic evolution of the Miocene-Pliocene Segitiga platform, East Natuna Sea, Indonesia: the origin, growth, and demise of an isolated carbonate platform. In: G. Eberli et al. (eds.) Seismic imaging of carbonate reservoirs and systems, American Assoc. Petroleum Geol. (AAPG), Memoir 81, p. 309-328.
(High-resolution 2D seismic survey over Segitiga Platform (1400 km^2), E Natuna-Sarawak Sea. Terumbu Fm carbonate up to 1800m thick, subdivided into 12 seismic sequences, showing (1) initial isolation; (2) progradation /coalescence; (3) backstepping; (4) terminal drowning. Platform originated as 3 smaller platforms on highs, separated by deep intraplatform seaways. Three platforms merged into composite platform in M-U Miocene. Rapid end Miocene sea level riset caused major backstepping of carbonate margins (and drowning of Natuna field carbonate platform to E) resulting in smaller platform in Lower Pliocene. Rapid subsidence at end of E Pliocene, caused terminal drowning)

Ben-Brahmin, L. et al. (1999)- Characterization of seismic anomalies using converted waves: a case of history from East Natuna Basin. Proc. 27th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 295-302.

Bennett, M. (1999)- Intra-Muda shallow gas in Cumi-Cumi PSC, Natuna Sea- a driller's nightmare becomes a geophysicist's dream. Proc. 27th Annual Conv. Indonesian Petroleum Association (IPA), p. 303-321.
(M Miocene age Intra-Muda Fm. sandstones draped over inversion feature. Strong seismic amplitude anomaly over crest, with 'flatspots' around flanks of structure and gas-charged in Tenggiri 1 and Mako 1 wells)

Bhikuningputra, D. (1986)- Seismic stratigraphic study to evaluate reservoirs and seals of the Natuna area. In: Seismic Stratigraphy I, Proc. Joint ASCOPE/ CCOP Workshop, Jakarta 1986, United Nations ESCAP, CCOP, Technical Publication 17, p. 157-180.

Bothe, A.C. (1928)- Geologische verkenningen in den Riouw-Lingga archipel en de eilandengroep der Poelau Toedjoeh (Anambas- en Natoena-eilanden). Jaarboek Mijnwezen Nederlandsch Oost-Indie 54 (1925), Verhandelingen 2, p. 101-152.
(Geological reconnaissance surveys of Riau Archipelago (common granites), Anambas Islands (mainly granites) and Natuna islands (metamorphic rocks, possibly Jurassic radiolarian chert, serpentinites, granites). At S coast of Natuna Besar (Bunguran) NW-SE and E-W trending siliceous shales with cherts with Late Jurassic- E Cretaceous radiolaria identical to described by Hinde (1900) from Danau Fm of NW Kalimantan (Cenosphaera, Stichocapsa rotunda, Sethocapsa, Dictyomitra). At W coast of Bunguran gabbro and serpentinite)

Budiyono (2002)- Forel field reservoir characterization and field assessment, West Natuna Basin Indonesia. M.Sc. Thesis University of Texas, Austin, p. 1-178. *(Unpublished)*

Burton, D. & L.J. Wood (2010)- Seismic geomorphology and tectonostratigraphic fill of half grabens, West Natuna Basin, Indonesia. American Assoc. Petroleum Geol. (AAPG) Bull. 94, 11, p. 1695-1712.
(Study of Eo-Oligocene synrift architectures of Cenozoic grabens in W Natuna Basin (WNB) from Gabus and Belanak 3D seismic surveys. Five facies: fluvial, deltaic, alluvial fan, shallow lacustrine and deep lacustrine. Synrift stratigraphy shows strong tectonic control. Hydrocarbon in basin restricted to upper synrift- postrift reservoirs in M Miocene inversion anticlines, but synrift may have potential)

Burton, D. & L.J. Wood (2010)- Interpreting the rift stratigraphy and petroleum systems elements of the West Natuna Basin using 3D seismic geomorphology. In: L.J. Wood et al. (eds.) Seismic imaging of depositional and geomorphic systems, Proc. 30th Annual Bob F. Perkins Research Conference, Gulf Coast Section SEPM (GCSSEPM), Houston, p. 376-395.
(Seismic geomorphic facies character and stacking suggest three stages of rift development in W Natuna Basin. (1) alluvial fans and red beds filled small, isolated half-grabens; (2) as faults began to merge, subsidence increased, and deep lakes were established; (3) lakes slowly filled and upper synrift is dominated by fluvial deposits. Best remaining exploration targets deltaic reservoirs in lower middle synrift)

Chalik, M. (2001)- Sealing and non-sealing faults along a major wrench trend in the Kakap area, West Natuna Basin. Proc. 28th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 757-778.
(Oil traps at KG, KRN and KR oil fields in 3-way dip closures against sealing normal faults, splaying from large wrench zone. Faults seal hydrocarbons where fault throw is >300' or where reservoir is in contact with shale across fault)

Challis, M., R. Adhyaksawan & V. Ball (2006)- Seismic prediction of thin sand intervals for development drilling at North Belut Field, Block B, South Natuna Sea. Proc. Jakarta 2006 International Geoscience Conference Exhib., Indonesian Petroleum Association (IPA), Jakarta, 06-CH-06, p. 1-5.

Cherdasa, J.R., A. Jollands & S. Carmody (2013)- Structural reconstruction and basin modelling lead to a new charge/migration model for the KB Graben, West Natuna Basin, Indonesia. Proc. 37th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA13-G-039, p. 1-14.
(KB Graben is NE-SW trending rift basin at E flank of Khorat Platform in N West Natuna Basin. Rifting process started at ~38 Ma and continued to 25 Ma; syn-inversion period started at ~23 Ma. Lack of oil in younger structures may be due to late syn-rift Lama Fm overpresssured shales, which provide regional seal for hydrocarbons generated in syn-rift kitchen)

Clements, B. (2004)- Analysis of inversion structures within the Boundary High Structure, West Natuna Sea Basin, Indonesia. Masters Thesis, Royal Holloway, University of London, p. *(Unpublished)*

Comrie-Smith, N. (2016)- The Natuna Sea: a review of hydrocarbon exploration and future potential. Proc. IPA 2016 Technical Symposium, Indonesia exploration: where from- where to, Indonesian Petroleum Association (IPA), Jakarta, 50-TS-16, p. 1-5.
(Brief review of petroleum exploration in Natuna Sea since late 1960s. In W Natuna >90% of production to date from post-rift and syn-inversion megasequences (Gabus and Arang Fms). In E Natuna one supergiant giant gas

field, D-Alpha, discovered in 1973 by AGIP, but undeveloped because of 77% CO_2. Still numerous small, undeveloped oil-gas discoveries.)

Core Laboratories (1999)- The petroleum geology and hydrocarbon potential of East Natuna, Indonesia. Unpublished multi-client study.
(Study/ data base, incorporating 23 wells in East Natuna Basin)

Dajczgewand, D. (2005)- Tectonic evolution and structural styles of deformation of southern Kakap Blocks, West Natuna Basin, Indonesia. Proc. 6th Congres Exploracion y desarrollo de hidrocarburos, Mar del Plata, Argentina, 2005, p. 1-12.
(online at: http://biblioteca.iapg.org.ar/ArchivosAdjuntos/CONEXPLOR2005/Trabajost%E9cnicos/027.pdf)
(Structural evolution of Kakap oilfield area, W Natuna basin, based on work done for M.Sc Thesis at University of London. Extension started in Late Eocene, creating E-W trending half-graben with N-dipping normal faults. Second extensional phase began in M Oligocene. Compression started in latest Late Oligocene, initial stage being mild, and was stronger in E. Strongest compression/ tectonic inversion in M Miocene. Muda regional unconformity developed in late M Miocene and early Late Miocene and was subsequently deformed by compression, continuing to recent times)

Daines, S.R. (1985)- Structural history of the West Natuna Basin and the tectonic evolution of the Sunda region. Proc. 14th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 39-61.
(Structures in W Natuna Basin formed during two deformation periods: (1) extension from ~38-29 Ma, resulting in graben development in Boundary area; (2) compression, resulting in 2 stages basin inversion, 29-20 Ma left-lateral wrench movement and 15- 10 Ma when most NE-SW oil-bearing anticlines formed. Extensive Jurassic suture, separating Indochina and Sunda, responsible for propagation of Malay-Natuna-Lupar shear zone, and facilitated basin development in area)

Darmadi, Y. (2005)- Three-dimensional fluvial-deltaic sequence stratigraphy Pliocene-Recent Muda Formation, Belida field, West Natuna Basin, Indonesia. M.Sc. Thesis, Texas A&M University, p. 1-72.
(online at: oaktrust.library.tamu.edu/bitstream/.../etd-tamu-2005C-GEOP-Darmadi.pdf)
(Pliocene-Recent Muda interval in W Natuna Basin contains five 3rd-order sequences, with depositional environments confined to shelf and consisting mainly of fluvial elements)

Darmadi, Y., E. Hartadi, B. Pangarso, I. Sihombing & R. Wijayanti (2011)- Reservoir characterization of the Gabus-1 reservoir in North Belut Field: an integration of core, well logs and seismic, Natuna Sea Basin, Indonesia. Proc. 35th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA11-G-196, p. 1-19.
(N Belut 1974 gas discovery with stacked sand reservoirs across 1700' interval deposited in fluvio-deltaic environments in Oligo-Miocene Udang and Gabus Fms. Gabus 1 interval two major sequences with sharp erosional base and shale on top. NNE-SSW trending incised valley system)

Darmadi, Y, B.J. Willis & S.L. Dorobek (2007)- Three-dimensional seismic architecture of fluvial sequences on the low-gradient Sunda Shelf, Offshore Indonesia. Journal of Sedimentary Research 77, p. 225-238.
(Sequence stratigraphy of Belida Field area, W Natuna Basin. Upper Muda Fm Pliocene-Holocene fluvial architecture study from high-resolution seismic. 225m dominantly fluvial section. Five main sequences of episodic channel incision and bypass alternating with periods of floodplain aggradation)

Darman, H. (2017)- Seismic expression of key geological features in the East Natuna Basin. Berita Sedimentologi 38, p. 50-61.
(online at: https://drive.google.com/file/d/0B35lLH-Cki2NV01LNEVCcGl2Z2M/view)
(Examples of regional seismic lines across East Natuna basin rifts and highs with carbonate buildups)

Dash, B.P. (1971)- Preliminary report on seismic refraction survey southeast of Natuna Islands and seismic profiling in the vicinity of the Natuna and Tioman Islands on the Sunda Shelf. Proc. 8th Session Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), U.N. ECAFE, p. 168-174.

Dash, B.P., C.M. Shepstone, S. Dayal, S. Guru, B.L.A. Hains, G.A. King & G.A. Ricketts (1972)- Seismic investigations on the northern part of the Sunda shelf South and East of Great Natuna Island. United Nations ECAFE CCOP, Technical Bulletin 6, p. 179-196.
(online at: https://repository.unescap.org/handle/20.500.12870/5064)
(Regional shallow seismic survey of 1160km, SE of Great Natuna island, showing basinal and ridge-like features. Khorat- Natuna swell may be linked with mainland Asia and NW Kalimantan)

Dickerman, K.M. (1993)- The utilization of 3D seismic for small fields in the South Natuna Sea Block B. Proc. 22nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 659-678.

Dipowiguno, A. Prabowo, V.E. Setiawan, A.S. Arifin, A. Kusworo & A.K. Permana (2010)- Geological history of Natuna Island: geodiversity, geoheritage, and sustainable development based on geodiversity inventory and geoheritage assessment. Proc. Joint Convention HAGI- IAGI-IAFMI-IATMI, Yogyakarta 2019, p. 1-5.
(online at: www.researchgate.net/publication/339301670_Geological_History_of_Natuna_Island_Ge Etc.)
(Brief discussion of Natuna Island geology))

Dunn, P.A., M.G. Kozar & Budiyono (1996)- Application of geoscience technology in a geologic study of the Natuna gas field, Natuna Sea, offshore Indonesia. Proc. 25th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 117-130.
(Natuna D Alpha gas field in the East Natuna Basin in Miocene reefal buildup with >200TCF gas, but gas has 71% CO_2)

Evans, H. (1998)- New life in an old basin, an example from Natuna Sea Block A, West Natuna, Indonesia. Proc. Offshore South East Asia Conference Exhibition (OSEA98), Singapore, SE Asia Petroleum Exploration Society (SEAPEX), p. 141-154.
(Review of exploration history West Natuna Basin and its extension into E Malay Basin)

Eyles, D.R. & J.A. May (1984)- Porosity mapping using seismic interval velocities, Natuna L structure. Proc. 13th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 301-316.
(Seismic interval velocities used to produce average porosity map of the gas-bearing carbonate buildup reservoir of 'L-structure' in Natuna D-Alpha Block, S China Sea. Maximum gross gas thickness of L-Structure is 5250', field size ~110 square miles)

Fachmi, M. (2003)- Quantitative seismic geomorphology of Gabus and Belanak fields, West Natuna Basin, Indonesia. M.Sc. Thesis, University of Texas, Austin, p. 1-74. *(Unpublished)*
(Morphology of fluvial and deltaic depositional systems imaged in 3D seismic from W Natuna Basin, Indonesia. Fluvial systems include straight, low-sinuosity, high-sinuosity, anastomosing and braided rivers. No consistency of channel axis. Shore zone represented by prograding strandplain systems. Shelf systems identified from very flat and uniform amplitude map. Channel width ranges from 45- 2174m, meander belt width 243- 8750m, meander wavelength 540- 18,450m, radius of curvature 119 to 4635m and sinuosity 1.0 to 3.4)

Fachmi, M. & L.J. Wood (2005)- Seismic geomorphology: a study from West Natuna Basin, Indonesia. Proc. 30th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, IPA05-G-190, p. 163-178.
(Two types of U-M Miocene fluvial/ fluvial-deltaic systems identified on 3D seismic horizon slices from Belanak and Gabus areas in W Natuna basin: meandering river system and distributary channel system)

Fahman, M., Faisal Nur, J.S. Djalal, Subagio & Kasjati (1991)- An overview of the Anoa field development. Proc. 20th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 293-313.
(Small Anoa oilfield in West Natuna Sea, at Indonesian SE end of Malay Basin, E of Tapis Trend. Discovered in 1974 (AGIP), producing since 1990 (Amoseas))

Fainstein, R. & J. Meyer (1997)- Structural interpretation of the Natuna Sea, Indonesia. Soc. Exploration Geophysics (SEG) 1997 Conv. Abstract, p. 639-642.

(W Natuna Basin extensional episodes in Eocene and Oligocene, followed by compression/ inversion peaking in Late Miocene, with oil fields in syn-rift clastics and inversion anticlines. East Natuna basin major features are Miocene carbonate buildups)

Fairburn, J.R. (1994)- Conoco Belida Field- directional driling case study. Proc. 23rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 315-325.

Franchino, A. (1990)- Notes sur les Iles Natuna. Archipel 39, p. 47-63.
(online at: www.persee.fr/doc/arch_0044-8613_1990_num_39_1_2619)
('Notes on the Natuna islands'. Mainly geographic description with notes and map on geology. Core of island E-W trending high composed of Jurassic- Cretaceous sediments and volcanics of Bunguran Beds, with common red cherts and with gabbros-serpentinites. Late Cretaceous granite intrusions, the largest Mount Ranai (1035m). Overlain by Oligocene Natuna Sandstone)

Franchino, A. & P. Liechti (1983)- Geological notes on the stratigraphy of the island of Natuna, Indonesia. Memorie di Scienze Geologiche, Padova, 36, p. 171-193.
(2/3 of Natuna island with outcrops of Jurassic- Cretaceous Bunguran Beds. Late Cretaceous granite intrusions. Gabbros- peridotites in South, etc.)

Franchino, A. & C. Viotti (1986)- Stratigraphic notes on Middle Miocene-Recent sequence in East Natuna Basin (Indonesia). Memorie di Scienze Geologiche, Padova, 38, p. 111-127.
(M Miocene- Recent stratigraphy of clastic and carbonate sediments and typical foraminifera in Agip oil exploration wells in Natuna Basin. Thick M Miocene- E Pliocene shelf limestone/ reef complex formerly named Terumbu here renamed Ranai Group (>5000' thick?). Ranai Gp subdivided into 3 Formations, Sahi (Tf1-2; M Miocene with Lepidocyclina spp., Miogypsina spp.), Panda (Tf3; Late Miocene, with Lepidocyclina rutteni) and Senua (Tg, latest Miocene, with Alveolinella quoii). Lateral basinal clastic equivalents named Pilong Fm)

Gaynor, J., G. Hepler & M. Thornton (1995)- the importance of reservoir characterization and sedimentology in the Belida Field development. Proc. 24th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 361-375.
(On reservoir characterization of 214 MMBO Belida Field. Oil in two major units separated by 200' thick Barat shale: Oligocene Udang Fm fine-grained in lacustrine delta sandstone, and E Miocene Lower Arang Fm m-grained tide dominated marine shelf sandstones)

Ginger, D.C., W.O. Ardjakusumah, R.J. Hedley & J. Pothecary (1993)- Inversion history of the West Natuna Basin: examples from the Cumi-Cumi PSC. Proc. 22nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 635-658.
(W Natuna Basin similar to many Sundaland basins with Late Eocene- E Oligocene extension creating complex system of rift basins. From earliest Miocene times basins progressively inverted in right-lateral stress regime. Wrench zones also developed by reactivation of NW-SE faults in earlier rift system. Displacement across faults relatively small, 1-2 km in Cumi-Cumi PSC. Magnitude of graben inversion depends on initial size and orientation of original half graben. Each graben unique inversion history in framework of Miocene inversion)

Grabowski, G.J., R.M. Kick & D.A. Yurewicz (1985)- Carbonate dissolution during late-burial diagenesis of the Terumbu Limestone (Miocene), East Natuna Basin, South China Sea, Indonesia. American Assoc. Petroleum Geol. (AAPG) Bull. 69, 2, p. 258. *(Abstract only)*
(Terumbu Lst reservoir 200 TCF (72% CO_2), 1500m of M-L Miocene platform-reef carbonates with complex diagenetic history. Partial marine cementation and micritization in platform environments during deposition. Freshwater diagenesis below subaerial unconformities within and at top Terumbu. Aragonitic grains leached, pores partially cemented by low-Mg calcite. Pressure solution and cementation during burial to ~3000m left minor porosity. Late burial leaching high-Mg calcite. Ferroan-calcite and dolomite cements line pores and fluorite crystals occlude many pores. Whole-rock isotopes suggest high-T carbonate alteration. CO_2 derived from dissolved Terumbu Lst. Fluoride-bearing hydrothermal fluids from granitic basement selectively dissolved constituents in deeply buried Terumbu)

Granath, J.W., M.G. Dinkelman, J.M. Christ & P.A. Emmet (2012)- Crustal-scale imaging in the Natuna Basin (Indonesia) and its impact on the tectonic history of the Central Sunda Craton. AAPG International Conference & Exh., Singapore 2012, Search and Discovery Article 90155, 1p. *(Abstract only)*
(online at: www.searchanddiscovery.com/abstracts/html/2012/90155ice/abstracts/gra.htm)
(Well penetrations of basement in Natuna Basins suggest it is composed of Mesozoic forearc and arc-related lithologies. New regional seismic survey compatible with concept that crust is accretionary prism and arc. Crustal thickess 25 km in E, to 35 km in W. W-dipping planar fabric under E Natuna Basin compatible with forearc above W dipping subduction zone. Arcuate to parabolic reflectors under W Natuna Basin may be plutonic bodies of volcanic arc batholiths. Oligo-Miocene extension in E Natuna roots in this fabric. Miocene inversion with (transpressive?) positive flower structures along Cumi Cumi and Kakap wrench zones. Wrench zones correlate in time with late phase of subsidence in neighboring Malay Basin)

Gumelar, B. Sapiie & I. Gunawan (2023)- Horizontal stress orientation from borehole breakout analysis in West Natuna Basin. Bulletin of Geology (ITB) 7, 3, p. 1255-1260.
(online at: https://buletingeologi.com/index.php/buletin-geologi/issue/view/20/PR73-5)
(West Natuna Basin is an intracontinental basin with Eocene-Oligocene half grabens, which inverted during Miocene. Formed under transtensional conditions, featuring SW-NE-trending half grabens, accompanied by NW-SE-striking left-lateral wrench zones. Present-day stress from borehole breakout data from nine wells show NW-SE maximum horizontal stress orientation)

Gunarto, M.O., B.P. Istadi & H.R. Siregar (2000)- Sequence stratigraphy study in Northwest Natuna. Proc. 29th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 103-139.
(11 sequences in Late Eocene- M Miocene between basement and base Muda unconformity (M-L Miocene boundary. Geological history Natuna basin 4 phases: syn-rift (seq. 1-2; Late Eocene- E Oligocene), post-rift (seq. 3-4; Late Oligocene), syn-inversion (seq. 5-10; E-M Miocene), post-inversion (Late Miocene- Recent)

Haile, N.S. (1970)- Radiocarbon dates of Holocene emergence and submergence in the Tambelan and Banguran Islands, Indonesia. Geological Survey of Malaysia Bull. 3, p. 135-137.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1970011.pdf)
(C14 dates from Tridacna clams in Tambelan islands suggest sea level was higher by at least 0.3m at ~5600 BP and 0.4m at ~5270 BP. Wood from peat below tide level in Bunguran (Natuna) islands indicates sea level 0.7m lower at ~6260 BP)

Haile, N.S. (1970)- Notes on the geology of Tambelan, Anambas and Bunguran (Natuna) islands, Sunda shelf, including radiometric age determinations. United Nations ECAFE, CCOP, Technical Bulletin 3, p. 55-90.
(online at: https://repository.unescap.org/items/24cf5790-ee6f-4c84-9ceb-b5b03ec2d14b)
(Tambelan Islands S of Natuna composed of basic-intermediate igneous rocks and tuffs, intruded by Late Cretaceous (84 Ma) granite. Anambas Islands, SW of Natuna, composed of granite, andesite, etc. Bunguran-Natuna Islands composed of probably Mesozoic folded cherts and metasediments, with three granite intrusions, one dated as 73 Ma. Unconformably overlain by flat-lying Tertiary Natuna sandstone)

Haile, N.S. (1971)- Confirmation of the Late Cretaceous age for granite from the Bunguran and Anambas islands, Sunda shelf, Indonesia. Newsletter Geological Society Malaysia 30, p. 6-8.
(online at: https://gsmpubl.files.wordpress.com/2014/09/ngsm1971003.pdf)
(Previously published K/Ar determinations by Bignell indicate Late Cretaceous ages for granites from Tambelan (84 Ma) and Bunguran (Natuna) Islands (73 Ma)). Additional analyses by AGIP gave 75.2 Ma age for same Ranai Intrusion of Bunguran Island and 86.6 Ma age for Batu Garam, Anambas Islands)

Haile, N.S. & J.D. Bignell (1971)- Late Cretaceous age based on K/Ar dates of granitic rock from the Tambelan and Bunguran Islands, Sunda Shelf, Indonesia. Geologie en Mijnbouw 50, 5, p. 687-690.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0ZTQ4cGxXeDFDVlE/view)

(Late Cretaceous K/Ar ages ages for granites (adamellites) from Tambelan (84 Ma) and Bunguran (Natuna) Islands (73 Ma). These ages throw doubt on supposed 'pre-Upper Triassic' age of acid batholiths in Anambas Zone of Sunda Shelf and its extension into W Borneo)

Hakim, A.S. (2004)- The occurrence of the dismembered ophiolite in the Bunguran islands, Riau Province, Sumatra. Jurnal Sumber Daya Geologi (JSDG) 14, 3 (147), p. 3-15.
(Bunguran (Natuna Besar, Laut, etc.) islands tectonostratigraphy similar to NW Kalimantan. Along W side of island basement composed of Jurassic peridotites, gabbros and basalts (part of Proto-China Sea crust), overlain by siliceous shale chert and amphibolite (Cretaceous Bunguran Fm). Intruded by Cretaceous granites in E and S: Ranai hornblende-biotite granite (71.6 Ma) and Semiun muscovite-biote granite (100 Ma))

Hakim, A.S. & N. Suryono (1994)- Geological map of the Teluk Butun and Ranai Sheet, Sumatera, Quad 1319-1320, 1:250,000, Geological Research Development Centre (GRDC), Bandung.
(Natuna Islands surface geology mainly Cretaceous accretionary complex. Oldest rocks in SW part of Bunguran (=Natuna) Besar island Jurassic or E Cretaceoeus peridotites-gabbro-basalt, overlain by widespread E-M Cretaceous Bunguran Fm strongly folded siltstone, tuff and chert (melange sediments?), intruded by Late Cretaceous (100, 72 Ma) granites. Overlain by rel. thin Tertiary clastics)

Hakim, A.S. & N. Suryono (1997)- Geologi Kepulauan Bunguran, Riau. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 7, 73, p. 17-28.
('Geology of the Bunguran islands, Riau'. Natuna Besar and adjacent islands composed Pre-Tertiary 'Natuna Complex' basement of (1) Jurassic- mafic-ultramafic rocks and amphibolites-schists in SW, (2) Bunguran Fm strongly folded siliceous shales and chert in E, separated by NW-SE trending shear zones. Also (3) Cretaceous granites at Ranai at E side Natuna Besar (K/Ar age 101 Ma) and on Pulau Semiun NW of Natuna Besar (72 Ma). Unconformably overlain by rel. thin (<400m) and flat-lying Oligocene- Miocene Pengadah Fm fluvial sediments. Sheared zone believed to be continuation of Crocker-Rajang complex in W tip of Sarawak, tectonically close to 'Lupar Zone' of collision between Eurasia and Indian Ocean plate in Jurassic time)

Hakim, M.R., M.Y.Y. Naiola, Y.R.A. Simangunsong, K.P. Laya & T.Y.W. Muda (2008)- Hydrocarbon play of West Natuna basin and challenge for new exploration related to structural setting and stratigraphic succession. Proc. 32nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA08-SG-039, p. 1-11.
(W Natuna Basin started to form in Late Eocene by SW-NE trending half-graben rifting within Sunda Platform. M Oligocene- E Miocene tectonic quiescence followed by M Miocene tectonic inversion. Significant inversion in N part of basin, none in main area. Eo-Oligocene lacustrine source rocks. Primary reservoir M-L Oligocene Gabus Sst. Still remaining hydrocarbon potential.

Harahap, B.H. (1994)- Middle to Late Cretaceous age based on K/Ar dating of granitic rocks from the Serasan Islands, South Natuna. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 4, 31, p. 2-4.
(K/Ar ages of two M-U granitoids from Serasan island S of Natuna Besar island: biotite granodiorite in SW part Serasan (112.3 Ma) and biotite granodiorite of Sedua island, NE of Serasan (69.7 Ma). Part of SW-dipping Cretaceous subduction zone/ volcanic arc that stretches from W Kalimantan to Natuna Besar (with dates of 71, 74 Ma; Haile & Bignell 1971))

Harahap, B.H., S.A. Mangga & U. Hartono (1996)- High Nb content basalts from Midai Island South Natuna: evidence for intraplate volcanism? Jurnal Geologi dan Sumberdaya Mineral (JGSM) 6, 54, p. 6-11.
(Midai extinct volcano SSW of Bunguran (Natuna Besar) represents youngest volcanism in S China Sea. Plio-Pleistocene basaltic lavas and tuffs. Not subduction-related, but possibly related to rifting of Sundaland continental crust in Natuna area. Classified as continental tholeiite, similar to Matulang and Niut volcanics of Kalimantan, and possibly continuation of same magmatic belt)

Harahap, B.H., S.A. Mangga & S. Wiryosudjono (1995)- Geological map of South Natuna sheet, Quad. 1318, scale 1:250,000. Geological Research Development Centre (GRDC), Bandung.

Harahap, B.H. & S. Wiryosujono (1994)- Geology of the South Natuna sheet. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 4, 30, p. 15-23.
(Oldest rocks on Natuna islands are Jurassic Seraya Complex ophiolites (peridotites, gabbros, basalts; may correlate to Serabang Ophiolite of W Kalimantan) and Balau Fm Jurassic- Cretaceous turbiditic sequence in E (no fossils, but correlated to Pedawan Fm of W Borneo). Ophiolite and sediments intruded by Late Cretaceous Serasan/ Tebeian granites/ granodiorites (K/Ar ages ~70 and 112 Ma) and volcanics, representing Cretaceous SW-dipping subduction zone, parallel to 'Lupar Line' of N Borneo. Teraya Fm ?Oligo-Miocene and younger fluvial- shallow marine sediments unconformable over Mesozoic. Midai island S of Natuna with Plio- Pleistocene olivine basalts similar to Mt Niut in N Sanggau, W Kalimantan. Pre-Tertiary rocks dip 17-77°, Tertiary rocks 5-12°)

Haribowo, N., S. Carmody & J. Cherdasa (2013)- Active petroleum system in the Penyu Basin: exploration potential syn rift and basement-drape plays. Proc. 37th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA13-G-041, p. 1-16.
(Penyu Basin, N Natura area, composed of several NE-SW trending Tertiary half grabens. Rifting from M Eocene-E Oligocene controlled deposition of syn-rift Benua/Lama and Belut Fms source rocks. M-L Miocene inversion created ENE-WSW trending anticlines, which proved to be successful hydrocarbon traps in Malay and W Natuna Basins, but 80% failure rate in Penyu Basin)

Hutomo, P. & W.V. Jordan (1985)- Wireline pressures detect fluid contacts, Ikan Pari Field, Natuna Sea. Proc. 14th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 543-563.
(Improved wireline formation pressure data help predict oil-water and gas-oil contacts in recently discovered Ikan Pari Field, Block B, Natuna Sea)

Ilona, S. (2006)- 3D structural architecture of the KRA Field, West Natuna Basin, Indonesia. Proc. Jakarta 2006 International Geoscience Conference Exhib., Indonesian Petroleum Association (IPA), Jakarta 06-PG-14 3D, p. 1-5. *(Extended Abstract)*
(KRA Field large structure in W Natuna Basin, formed by NNW-SSE trending Eocene-E Oligocene extension, followed by E-M Miocene compression)

Ilona, S. (2006)- 3D structural architecture and evolution of the West Natuna Basin, Indonesia. AAPG International Conference Exhibition, Perth 2006, p. 1-6. *(Extended abstract)*

Indranadi, V.B. & D. Djunaedi (2022)- Depositional model of Muda Formation, East Natuna Basin. Proc. 46th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA22-G-295, p. 1-35.
(Medco study of depositional model reconstructions for Late Miocene- Pleistocene Muda Fm marine clastics in East Natuna Basin, E and NE of Natuna (Bunguran) Island)

Indranadi, V.B., Y. Indra, A. Rifai, A. Saripudin, F. Kamil & R. Waworuntu (2018)- Outcrops in Natuna Island: new insights of reservoir potential and sediment provenance of the East Natuna Basin. Proc. 42nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA18-319-G, p. 1-9.
('Basement' outcrops on Natuna Islands Jurassic- E Cretaceous ophiolite (peridotite-gabbro-basalt) and (NE-dipping?) ?Cretaceous melange/ subduction complex of Bunguran Fm in SW, with intensely folded deep marine pelagic siltstones, radiolarian cherts and tuffs, and sandstones in scaly clay matrix. In NE and E intruded by Late Cretaceous granodiorites (~71-73 Ma) in Ranai area. Pre-Tertiary overlain by Tertiary fluvial-shallow marine basal conglomerates, stacked sandstones and interbedded siltstone-claystone. Sandstones mostly sub-litharenites, dominated by quartz, chert and metamorphic fragments, of good potential reservoir quality)

Jagger, L.J. & K.R. McClay (2018)- Analogue modelling of inverted domino-style basement fault systems. Basin Research 30, Suppl. 1, p. 363-381.
(Includes previously unpublished figure showing West Natuna M-L Eocene- Oligocene half-grabens, inverted in ?M Miocene time)

Jones, P.A., S.R. Freeman, R. Morgan, N.A. McCabe, V.S. O'Connor & R.J. Knipe (2009)- Seismic interpretation of the frontier NW Natuna Basin for hydrocarbon play evaluation. In: 71st EAGE Conference & Exhibition, Amsterdam 2009, p. 1-5. *(Extended Abstract)*
(NW Natuna basin is frontier hydrocarbon exploration area N of main W Natuna Basin. Main graben system initiated at Belut times (~45-35Ma), with deposition of source rocks restricted to deepest parts of graben system Gabus times (~35-26Ma) main period of likely reservoir deposition, also confined to deeper parts of graben, with local extensional and strike-slip fault activity. Barat times (~25Ma) major inversion occurs. Lower Arang times (~23Ma) continued minor inversion, sedimentation widespread, locally restricted around inversion topography. Upper Arang time widespread passive deposition likely with seal lithologies), then switching to widespread transtension. Muda time (<5Ma) quiescent)

Jonklaas, P. (1991)- Integration of depth conversion, seismic inversion and modelling over the Belida Field, South Natuna Sea Block 'B', Indonesia. Proc. 20th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 557-585.
(Belida 1989 oil-gas field in S Natuna Sea with 190 MB oil and 75 GCF of recoverable gas. Structure broad low relief anticline, ~10x5 km with 160' of vertical closure)

Juliansyah, M.N. (2022)- Investigating Natuna carbonate platform complexities through integration of multi-geophysical datasets from seismic FWI PDSM reprocessing. Proc. 46th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA22-G-147, p. 1-13.
(Extensive M-L Miocene Terumbu carbonate platform in N part of E Natuna Basin widely known since 1970's. Compartmentalized into SW and NE carbonate complexes. Eight horizontal seismic time slices)

Kausarian, H., S. Lei, G.T. Lai, Y. Cui & A. Suryadi (2019)- A new geological map of formation distribution on southern part of South China Sea: Natuna Island. Proc. 4th Int. Conference Science Technology and Interdisciplinary Research (IC-STAR 2018), Bangka-Belitung 2018, IOP Conference Series: Materials Science Engineering 532, 012020, p. 1-8.
(online at: https://iopscience.iop.org/article/10.1088/1757-899X/532/1/012020/pdf)
(On update of existing GRDC geologic map of Natuna island from satellite imagery and field checking)

Kirana, P.S. (2024)- The benefit of 3D seismic data for Muda reservoir characterization from Kaci discovery, South Natuna Sea Block B, West Natuna Basin. Proc. 48th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA24-G-220, p.

Koswara, A. & N. Suryono (2001)- Struktur geologi kepulauan Natuna, Riau Kepulauan, Sumatra. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 11, 115, p. 17-26.
('Structural geology of the Natuna islands, Riau Islands, Sumatra'. Natuna Islands Pre-Tertiary basement rocks (mafic, ultramafic, chert, granite), overlain by Plateau Sst Fm. Fault orientations N-S (Cretaceous?) and NW-SE (U Cretaceous- M Miocene), parallel to Malay-Natuna shear zone)

Kraft, M.T. & J.B. Sangree (1982)- Seismic stratigraphy in carbonate rocks: depositional history of the Natuna D-Alpha block (L-structure): stage II. Proc. 11th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 299-321.
(Natuna D-Alpha Block with thick Terumbu Fm carbonate buildup of L structure, deposited mainly in Late Miocene time (>5000' of carbonates deposited in ~2 Myrs?). Lower Terumbu Units I-III broad carbonate platform, Upper Terumbu reefal buildup. Carbonate complex with 5250' thick gas column, with $C0_2$ content from 67% in upper zones to 82% near base. Reef facies higher porosity than off-reef facies)

Krause, P.G. (1898)- Verzeichniss einer Sammlung von Mineralien und Gesteinen aus Bunguran (Gross Natuna) und Sededap im Natuna-Archipel. Sammlungen Geologischen Reichs-Museums Leiden Ser. 1, 5, p. 221-236.
(online at: www.repository.naturalis.nl/document/552437)
(also in Jaarboek Mijnwezen Nederlandsch Oost-Indie 1898, Wetenschappelijk Gedeelte, p. 1-16)
('Description of a collection of minerals and rocks from Bunguran (Natuna Besar) and Sededap in the Natuna Archipelago'. Brief descriptions of granite, quartzite, serpentine, etc. No locality information)

Kurniawan, B.A., A.E. Harahap & I.Y. Syukri (2017)- Fundamental work flow for improving static model using seismic data case study: Upper Gabus zones in Kerisi Field. Proc. 41st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA17-682-G, p. 1-24.
(Seismic- geologic study of Late Oligocene Upper and Lower Gabus Fm channelized sandstone reservoirs in 1990 Kerisi oil field in Block B)

Livsey, A., S. Carmody & M. Raharja (2014)- The use of fluid inclusion information to understand hydrocarbon charge history in the Sokang Trough, East Natuna Basin. Proc. 38th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA14-G-362, p. 1-18.
(Sokang sub-basin underexplored Neogene depocenter in E Natuna Basin. Sokang-1 well drilled on inversion structure in 1973 tested CO_2-rich gas from Late Miocene sandstones. Fluid inclusion study showed multiple populations of liquid petroleum in Late Miocene and deeper sandstones of Sokang 1, proving presence of liquid petroleum system and indicating complex hydrocarbon charge history. Contributions from at least three different source rocks suggested by biomarkers and range of API gravities. Inclusions provide evidence of earlier oil accumulation, displaced by late migration of CO_2- rich gas)

Lunt, P. (2021)- A reappraisal of the Cenozoic stratigraphy of the Malay and West Natuna Basins. J. Asian Earth Sciences: X, 5, 100044, p. 1-13.
(online at: www.sciencedirect.com/journal/journal-of-asian-earth-sciences-x/vol/5/suppl/C)
(Revision of Malay and W Natuna Basins tectono-stratigraphic framework and Cenozoic stratigraphy. No link to eustatic sea-level changes until M Pliocene, after which strong glacio-eustatic signal is observed)

Manur, H. & J.M. Jacques (2014)- Deformational characteristics of the West Natuna Basin with regards to its remaining exploration potential. Proc. 38th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA14-G-193, p. 1-13.
(Structural history of W Natuna Basin, in particular temporal variation and magnitude of inversions and effect on spatial distribution of known hydrocarbons. Structural trap styles: (1) Paleogene basement high (KRA field type), (2) Neogene, minor wrench-related (KG, KH), and (3) major inversion structures (KF-Anoa). Initiation of inversion diachronous (~27-18 Ma), with peak inversion from ~21-15 Ma. This resulted in inversion of many of Eocene- E Oligocene E-W trending half grabens and formation of 'Sunda' propagation folds)

Mattes, E.M. (1979)- Udang Field: a new Indonesian development. Proc. 8th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 177-184.
(Conoco Udang field in Natuna Sea discovered in 1974. Reservoir is GabusFm alluvial fan sands. Production start January 1979)

Mattes, E.M. (1981)- Indonesia's Udang field developed. Oil and Gas Journal 79, 18, p. 127-132.

May, J.A. & D.R. Eyles (1985)- Well log and seismic character of Tertiary Terumbu carbonate, South China Sea, Indonesia. American Assoc. Petroleum Geol. (AAPG) Bull. 69, 9, p. 1339-1358.
(Large Miocene gas-bearing carbonate complex, called L-structure, in Natuna D-Alpha block, 200 km NE of Natuna Island. Isolated buildup in front of much larger carbonate shelf)

Maynard, K. & I. Murray (2003)- One million years from the Upper Arang Formation, West Natuna Basin, Implications for reservoir distribution and facies variation in fluvial deltaic deposits. Proc. 29th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 270-276.
(M Miocene Upper Arang Fm important reservoir in fluvial deltaic deposits, with gas sourced from interbedded coals. Periodic marine flooding events provide intra-formational seals. Series of horizon slices over 1 million year time interval, at ~4800' illustrate major changes in reservoir distribution and facies. Lateral and vertical complexity of these reservoir not resolved by limited well penetrations)

Maynard, K., W. Prabowo, J. Gunawan, C. Ways & R. Brotherton (2003)- Maximising the value of a mature asset, the Belida Field, West Natuna- can a detailed subsurface re-evaluation really add value late in field life? Proc. 29th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 291-305.
(Belida Field 1989 discovery, EUR ~350 MMBO developed in 1992, with peak oil production of 135,000 bopd in 1994 from two fluvial deltaic sandstone reservoirs, E Miocene Lower Arang Fm and Oligocene Udang Fm)

Maynard, K., P. Siregar & L. Andria (2002)- Seismic stratigraphic interpretation of a major 3D, the Gabus Sub-basin, Blocks B and Tobong, West Natuna Sea, Indonesia: getting the geology back into seismic. Proc. 28th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 87-104.
(Conoco 2000 large regional 3D survey in Gabus Sub-Basin, W Natuna. Interpretation focused on stratigraphy. Source rock distribution re-interpreted based on seismic facies)

Meirita, M.F. (2003)- Structural and depositional evolution, KH Field, West Natuna Basin, Offshore Indonesia. M.Sc. Thesis Texas A&M University, College Station, p. 1-56.
(online at: http://txspace.tamu.edu/..)
(3D seismic study of KH field. Structure formed by N-S trending Eo-Oligocene rifting, reactivated by E-M Miocene inversion)

Michael, E. & H. Adrian (1996)- The petroleum systems of West Block 'B' PSC, South Natuna Sea, Indonesia. Proc. 25th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 465-479.
(Two petroleum systems in Conoco West Block 'B': (1) coals and coaly shales of Late Oligocene- E Miocene Arang and Gabus Fms and (2) Oligocene lacustrine synrift Belut/Gabus Fms. Synrift organic facies divided into 'deep lacustrine' and 'shallow lacustrine'. Early synrift sections expel as early as 29-19 Ma, shallower; more gas prone synrift sections expel from 26-12 Ma and 23-0 Ma. Coals and coaly shales in Arang and Gabus expulsion below 7500' (0.7% Ro) suggesting charging from 8 Ma- present. Late formed traps (<20 Ma) likely charged from gas prone synrift facies or syn-inversion coals and coaly shales)

Michael, E. & D. Bond (1997)- Integration of 2D modelling, drainage polygon analysis and geochemistry as petroleum systems analysis tools: West Block B PSC, S Natuna Sea. In: J.V.C. Howes & R.A. Noble (eds.) Proc. Petroleum Systems of SE Asia and Australasia Conf., Indonesian Petroleum Association (IPA), Jakarta, p. 391-401.
(2D modeling of hydrocarbon generation and migration)

Mone, A. & S. Samsidi (1993)- A successful gas injection project in the Kakap KF Field: design, implementation and results. Proc. 22nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 323-340.

Morley, R.J., H.P. Morley & P. Restrepo-Pace (2003)- Unravelling the tectonically controlled stratigraphy of the West Natuna Basin by means of palaeo-derived Mid-Tertiary climate changes. Proc. 29th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 561-584. *(online at: https://www.researchgate.net/publication/280114135_Unravelling_the_Tectonically_Controlled_Stratigraphy_of_the_West_Natuna_Basin_by_Means_of_Palaeo-Derived_Mid_Tertiary_Climate_Changes)*
(15 climate cycles interpreted from Late Eocene- M Miocene. Arang Fm climate cycles reflect mainly very wet climates, but with cool lowstand phasesand warm climate highstands. Barat, Udang and Gabus cycles characterized by cool and dry lowstands and warm and slightly wetter highstands. Belut Group cycles trend from drier to wetter with little temperature change)

Morley, R.J., P. Salvador, M.I. Challis, W.R. Morris & I.R. Adhyaksawan (2007)- Sequence biostratigraphic evaluation of North Belut Field, West Natuna Basin. Proc. 31st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA07-G-120, p. 357-375.
(Stratigraphic model of N Belut field reservoir interval from foraminiferal and palynological analysis of Barat, Udang and Gabus Fms. Fourteen biofacies in lacustrine and coastal plain facies. Shales either allocyclic or autocyclic. 15 cycles, capped by allocyclic shale and interpreted as 4th-order sequences, identified through U Gabus and Udang Fms. Packages can be differentiated into 3 groups, thought to reflect 3rd-order sequences)

Mujito, S. Hadipandoyo & Suprijanto (1995)- Hydrocarbon assesment of the carbonate play, East Natuna basin. In: J. Ringis (ed.) Proc. 31st Session Comm. Coord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Kuala Lumpur 1994, 2, p. 10-19. *(online at: https://repository.unescap.org/server/api/core/bitstreams/4198bc42-86c9-49fe-843e-60aebea03e54/content)*
(E Natuna basin considered to form W part of large Sarawak Basin. N-S trending Oligo-Miocene rift-basin. Middle-Late Miocene carbonates with local buildups in N half of E Natuna basin (Terumbu Fm). Risked total resources in carbonate play may be as high as 1196 MT oil and 3110 Gm3 of gas)

Mulyono, D.H. (2022)- Clastic plays in the North East Natuna Basin. Proc. 46th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA22-G-237, p. 1-12.
(On NE Natuna Basin non-marine- deltaic clastics below M-L Miocene Terumbu carbonates, with 2014 Premier Oil discovery of Tuna Field. NE-SW trending Oligocene- E Miocene half-grabens)

Mulyono, D. & N. Comrie-Smith (2023)- Pre-Terumbu clastic plays in the Tuna PSC, East Natuna Basin, Indonesia. Proc. 2023 Southeast Asia Petroleum Exploration Society (SEAPEX) Conference, Singapore 2023, p. 45 *(Abstract:only)*
(Tuna oil and gas field 2014 discovery by Premier/ Harbour Energy in Tuna PSC in Natuna Sea, 260km N of Natuna Besar Island, within E Natuna basin (Kuda Laut-1 and Singa Laut-1 wells). Main reservoirs below Terumbu carbonate, in rel. unexplored U Oligocene Gabus and Lower Miocene Terumbu Fms clastics)

Murbini, S. (2000)- Technology challenge for Natuna gas development. Proc. 27th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, IPA-99-E-164, p. 339-351.
(Natuna AL (Alpha) Miocene carbonate reservoir, discovered by AGIP in 1973, contains largest undeveloped gas accumulation in SE Asia with estimated recoverable hydrocarbons of 46 TSCF) from total gas in place of 222 TSCF, of which 71% is CO_2 and 0.55% hydrogen sulfide H_2S)

Murti, N.A. & Minarwan (2000)- Natuna. In: H. Darman & F.H. Sidi (eds.) An outline of the geology of Indonesia, Indonesian Association Geologists (IAGI), Special Publ., chapter 3, p. 37-43.

Nagura, H., H. Honda & S. Katori (2000)- Tertiary inversion tectonics and petroleum systems in West Natuna Sea Basins, Indonesia. J. Japanese Association for Petroleum Technology 65, 1, p. 91-102.
(online at: https://www.jstage.jst.go.jp/article/japt1933/65/1/65_1_91/_article/-char/en)
(In Japanese, with English summary. W Natuna Sea Basins inverted Tertiary intra-continental rift-basins on Sunda Shelf. Basin deposits include M-U Eocene lacustrine, Oligocene fluvial-deltaic, E Miocene muddy facies, M Miocene sand-dominant deposits, and Late Miocene-Recent mud-sand deposits. No E-M Miocene carbonates. Four petroleum systems identified: 1A (Belida oil field), 1B (Tembang, Buntal and Bintang Laut gas pools), 2B (Forel oil pool, Belanak oil and gas field) and 2A (Udang oil field))

Navilova, H. & B.A. Kurniawan (2013)- Comparing and contrasting a meandering point bar sequence and barrier island system within the Upper Arang Formation, Belanak Field, West Natuna Basin. Proc. 37th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA13-G-114, p. 1-17.
(Two distinct depositional systems interpreted from M Miocene Upper Arang Fm gas bearing reservoirs from Belanak Field, Block B, W Natuna Sea. Arang-7 seismic amplitudes look like point bar system, Arang-8 amplitudes interpreted as barrier island system)

Nugraha, R.S., R. Wijayanti & H. Mohede (2012)- Geological concept to geomodel: lessons learned from the Belanak Field Arang-3 development. Proc. 36th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA12-G-182, p. 1-13.
(Reservoir model of Late to M Miocene Arang-3 secondary gas reservoir in Belanak oil-gas field in Block B, Natuna Sea. Interpreted as NNE-SSW trending lower delta plain distributary channel complex)

Nugraha, R.S., P.S. Wisman & D.A. Ramdani (2014)- Depositional model of Gabus Massive Zone, Kerisi Field, West Natuna Basin, Indonesia. Proc. 38th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA14-G-075, p. 1-15.

(Late Oligocene- E Miocene Gabus Massive Mb sandstones primary reservoir for several Natuna Sea Block B fields, including 1990 Kerisi oil field. Depositional environment lower delta plain- estuarine distributary system, exposed to autocylic avulsion related floods. Seismic data show SW-NE trending main channel complex ~2 km wide and 40 ms thick with 200-250m wide individual channels inside it. Correlations suggest increased tidal (-marine) influence to SW)

Ozza, T., M. Mazied, F.H. Korah, M. Arisandy, H.I. Darmawan, I W.A. Darma, B.P. Putra & W.N. Farida (2018)- Geochemistry analysis and petroleum system modeling for "X" Block, West Natuna Basin. Proc. 42nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA18-417-G, p. 1-18.
(Geochemistry and hydrocarbon charge/ entrapment model for "X" Block close to NW tip of West Natuna Basin and with several inverted half-grabens (Anoa, Gajah, Kakap, Kambing) that delivered hydrocarbon charge. Inversion structures started at ~21 Ma; M Miocene erosion up to 1000m. Oil biomarkers indicate (Paleogene) lacustrine source facies. In deep grabens hydrocarbon expulsion started at 37, 31 Ma)

Padmawidjaja, T., Y. Iskandar, A.S. Wibowo & E.B. Lelono (2019)- South Natuna Basin reconfiguration based on recent seismic and gravity surveys. Scientific Contributions Oil and Gas (SCOG), Lemigas, 42, 2, p. 65-71.
(online at: http://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/377)
(Identification of small new rift basin, N of Bangka basin. Datuk 1X and Amby 1X wells stratigraphy shows Oligocene-Pleistocene marginal marine sediments)

Pangarso, B., J. Guttormsen, P. Schmitz, I. Sihombing & H. Eko (2010)- North Belut Field- complex clastic diagenesis in an inverted paleo-structure. Proc. 34th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA10-G-184, p. 1-16.
(W Natuna Basin Belut 1974 discovery undeveloped until 2009. Structure originally paleo-tilted fault block, which flooded, filled, then inverted. Hydrocarbon zones in Udang and Gabus Fm fluvial- deltaic clastics. Crest of structure good porosity- permeability sands; downdip portions of field tight due to ferroan cement)

Panjaitan, J.P., A.B. Nugroho, T. Hamonangan, I. Yuliandri, I. Rahmawan & M. Firdaus (2016)- Case study: horizontal drilling challenge in the thin Gamma 1B Member of the Arang Formation, Belida Field. Proc. 40th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA16-36-E, p. 1-15.
(On horizontal drilling into late E Miocene gas sand in Arang Fm of Belida Field)

Panjaitan, J.P., B. Siswanto, R.P. Putra, H. Putranto & R. Achdiat (2015)- Comparing overpressure in the West and East Natuna Basins. Proc. 39th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA15-G-235, p. 1-17.
(Little indication of overpressure in W Natuna Basin while in E Natuna Basin significant overpressure common. Overpressure in E Natuna due to both disequilibrium compaction caused by rapid sedimentation and unloading tied to thermal cracking of hydrocarbons as evidenced by high $CO_2$and high geothermal gradients)

Permana, B.R. & M. Firdaus (2014)- Temperature profile and geothermal gradient in Block B West Natuna Basin; case study: the impact on SW calculation for Lower Arang Zone Belut-1 Well. Proc. 38th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA14-G-076, p. 1-10.
(Prior studies based on nine wells estimated geothermal gradient for W Natuna Basin between 1.9° F/100' and 2.7°F/100' (Aadland and Phoa, 1981). New temperature profiles from many additional wells suggest deep segment of wells has geothermal gradient of 2.38° F/100', in shallower reservoir sections 3.45° F/100')

Permana, B.R., M. Firdaus, R. Wijayanti & L. Hidayat (2015)- "Cool" shale in the Udang Formation, South Belut Sub-Basin. Proc. 39th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA15-G-033, p. 1-15.
(Low-radioactive shale in Late Oligocene- E Miocene Udang Fm in S Belut sub-basin of W Natuna basin, caused by dominance of low radioactivite minerals like kaolinite or chlorite)

Pertamina BPPKA (D. Natanegara et al.) (1996)- Petroleum geology of Indonesian basins: West Natuna basin. Petroleum geology of Indonesian basins, principles, methods and applications, XIV, p. 1-86.

Phillips, S., L. Little, E. Michael & V. Odell (1997)- Sequence stratigraphy of Tertiary petroleum systems in the West Natuna Basin, Indonesia. In: J.V.C. Howes & R.A. Noble (eds.) Proc. Petroleum Systems of SE Asia and Australasia Conf., Indonesian Petroleum Association (IPA), Jakarta, p. 381-389.
(W Natuna Tertiary 3-4 megasequences (Oligocene syn-rift, Late Oligocene- earliest Miocene post-rift, E-M Miocene syn-inversion, Late Miocene-Recent post inversion), subdivided into third-order sequences. Two major Tertiary petroleum systems: syn-rift and syn-inversion. Two source intervals in syn-rift of larger rift half-grabens: (1) early syn-rift open lacustrine, with algal organic matter, and (2) late syn-rift shallow lacustrine/ shoreline, with mixed algal- terrestrial organic matter. Source rocks of syn-inversion coals and coaly shales)

PND- Patra Nusa Data (2006)- Cakalang, Kerapu and Baronang Blocks, Northwest Natuna. Inameta J. 3, p. 28-32.
(online at: www.patranusa.com)
(Overview of geology and prospectivity of W Natuna Basin tender blocks)

Pollock, R.E., J.B. Hayes, K.P. Williams & R.A. Young (1984)- The petroleum geology of the KH Field, Kakap, Indonesia. Proc. 13th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 407-424.
(KH oil-gas field in SW corner of Kakap discovered in 1980 in faulted anticline with four-way dip. Reservoirs fluvial channel sands of Late Oligocene Gabus Formation. Overlying E Miocene Arang Fm sands reservoirs for non-associated gas. Hydrocarbon generation and migration very late (5 Ma), postdating regional unconformity at base Muda Fm. Light, waxy crudes with gravities of 42-47.5° API at 65°F)

Prasetyo, B. (2002)- Source rock evaluation and crude oil characteristics, West Natuna Area, Indonesia. Proc. 28th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 825-837.
(W Natuna Basin source rock candidates Keras, Benua and Barat Shales. Only effective source is Benua Shale at P-13 (10,295'-10,895') and P-15 wells (11,138-11,280'). Hydrocarbon generation started at 17.5 Ma and is still occuring in Lower Gabus Fm. Source rock environment shallow lacustrine with terrestrial input)

Prasetyo, E. & D. Ariyono (2013)- Study of sequence stratigraphy in Siput Field and surrounding areas, West Natuna Basin, Indonesia, based on seismic, wireline logs, and cutting data. Proc. Joint Convention 38th Indonesian Association Geophysicists (HAGI) - 42nd Indonesian Association Geologists (IAGI), Medan, JCM2013-0049, p. 1-10.
(online at: https://www.iagi.or.id/web/digital/8/2013_IAGI_Medan_Study-of-Sequence-Stratigraphy.pdf)
Six depositional sequences identified in Oligocene- E Pliocene from interpretation of 8 wells and seismic data over Siput Field, W Natuna Basin)

Prasetyo, T., S. Danudjaja & Y. Budiningsih (2000)- Reservoir characterization study to improve future field development plans, Tembang Field, West Natuna basin. Proc. 29th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 35-54.
(Tembang 1981 discovery, with gas in 13 deltaic sand horizons in E-M Miocene Arang Fm)

Prasetyo, T., S. Danudjaja & Y. Budiningsih (2001)- Application of reservoir characterization to better handle reservoir management plan for Belida shallow gas. Proc. 28th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 581-596.
(E-M Miocene Beta-1A zone is shallowest gas reservoir in Oligocene- Miocene clastics reservoirs of 1989 Conoco Belida oil-gas Field. Lower delta plain sandstones with general channel direction trend N to NE)

Pribadi, A. & B. Simbolon (1984)- Penyelidikan atas distribusi overpressure dan salinitas di cekungan sedimentasi Tersier daerah Natuna. Proc. 13th Annual Conv. Indonesian Association Geologists (IAGI), p. 463-480.
('Study of distribution of overpressure and salinity in the Tertiary sedimentary basin of the Natuna area')

Rachmad, A.A., Djuhaeni & P. Sumintadireja (2017)- Tektonostratigrafi dan sikuen stratigrafi endapan lisu Blok Duyung, Cekungan Natuna Barat. Bulletin of Geology (ITB) 1, 2, p. 94-106.
(online at: http://buletingeologi.com/index.php/buletin-geologi/article/view/7/3)

('Tectonostratigraphy and sequence stratigraphy of rift deposits, Duyung Block, West Natuna Basin'. Stratigraphy of Lower Gabus Fm LateOligocene fluvial-deltaic-lacustrine syn-rift deposition in Duyung Block, W Natuna Basin. Syn-rift depositional system 3 sequences)

Raharja, M., S. Carmody, J.R. Cherdasa & N. Haribowo (2013)- Dual Paleogene and Neogene petroleum systems in East Natuna Basin: identification of a new exploration play in the South Sokang Area. Proc. 37th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA13-G-036, p. 1-12.
(Major unconformity previously called 'Top Basement' re-interpreted as E Miocene unconformity and older section interpreted as Paleogene syn- and post-rift deposits, similar to Eocene/Oligocene sediments in W Natuna area. Two Tertiary petroleum systems in Sokang Sub-Basin (E Natuna): Neogene system related to E Natuna M Miocene rifting and Paleogene petroleum system related to W Natuna Basin rifting in Oligocene)

Ramadhani, H. (2017)- Analisis tahapan diagenesis interval batupasir pada sumur DAR-24 Formasi Gabus Lapangan Anoa Cekungan Natuna Barat. Kurvatek (Yogyakarta), 2, 2, p. 67-76.
(online at: https://journal.itny.ac.id/index.php/krvtk/article/view/529/pdf)
('Analysis of the stages of diagenesis of sandstone intervals in the DAR-24 well of the Gabus Formation, Anoa Field, West Natuna Basin'. Oligocene M Gabus Fm 15-20% porosity)

Riadini, P., G. Fardanea, D. Iskandar & O. Rizaldi (2023)- Arang and Gabus Formation reservoir core description and analysis: impact on production performance in the Natuna Block-A, West Natuna, Indonesia. Proc. 47th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA23-G-06, p. 1-8.
(Natuna Block A clastic reservoirs description)

Riadini, P., A.B. Ritonga, F. Arif, Abdurahman & Budiyono (2017)- Structural evolution and hydrocarbon traps mechanism in the West Natuna Basin, Indonesia. Proc. 41st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA17-522-G, p. 1-18.
(W Natuna Basin Late Eocene- E Oligocene rifting, NNE-SSW trending inversion structures around M-Late Miocene boundary (right-lateral transpression), etc.)

Riadini, P., O. Rizaldi, A.B. Ritonga, Abdurahman & Budiyono (2020)- Structural evolution using seismic low frequency magnitude approach: a case study on defining strike-slip development in West Natuna Basin, Indonesia. Proc. Digital Technical Conference 2020, Indonesian Petroleum Association (IPA), IPA20-G290, p. 1-22.
(West Natuna Basin complex structural history of.Late Eocene-E Oligocene rifting, followed by M Miocene inversion of older grabens. Both structural episodes may happen in regional strike-slip setting associated with Three Pagodas, Aliaoshan-Red River, etc. major strike-slip fault zones)

Rodriguez, F.H. & B. Peribere (1986)- A proposed solution to the challenge of producing oil reserves from offshore marginal fields in the Natuna Sea of Indonesia. Proc. 15th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 79-85.

Rudolph, K.W. & P.J. Lehmann (1989)- Platform evolution and sequence stratigraphy of the Natuna Platform, South China Sea. In: P.D. Crevello, J.L. Wilson et al. (eds.) Controls on carbonate platform and basin development, Society for Sedimentary Geology (SEPM) Special Publ. 44, p. 353-361.
(Seven depositional sequences in Miocene Terumbu Fm carbonates of Natuna Platform. Highest porosity in grain-prone carbonates of late highstand-systems tract on platform crest. Porosity also downdip in onlapping lowstand systems tract. Increased subsidence from M Miocene caused retreat of platform, more on W (low-productivity, shelfward) side. Eustatic sea-level rise in E Pliocene, combined with continued subsidence, drowned platform and ended carbonate sedimentation)

Ryer, T.A., J. Meyer, M. Bagge, N.J. Comrie-Smith & G.Van Mechelen (2000)- Sequence stratigraphy and depositional history, Upper Sandy Member of Gabus Formation (Miocene), Kerisi-Hiu area, West Natuna Basin, South China Sea, Indonesia. Proc. 14th Annual Conv. AAPG, New Orleans, Search and Discovery Article 90914.
(Abstract only)

(Upper Sandy Member of Gabus Fm in Kerisi-Hiu area includes high-stand deposits of earlier sequence, a sequence boundary with >120' of erosional relief and aggradational, transgressive-phase deposits of later sequence. Delta-front sandstones with gas on Hiu structure and two E-trending incised valleys. Aggradational valley fill sand-rich, overlying unconfined river coastal-plain deposits with lower sand content)

Salvador, P., W.R. Morris, R.J. Morley, M. Gunarto, R. Adhyaksawan & M. Challis (2008)- Managing reservoir uncertainty at the North Belut Field, Offshore Indonesia, Natuna Sea: an integrated analysis of biostratigraphy, core, wireline and seismic data. Proc. 32nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA08-G-205, p. 1-14.
(Reservoir study of North Belut gas field in Udang and Gabus sands. 1500' section of thin, stacked lacustrine and deltaic sands with significant variation in vertical and lateral reservoir development)

Samodra, H. (1995)- Geological map of the Tarempa and Jemaja Sheet, Riau, Quad 1118-1119, 1:250,000, Geological Research Development Centre (GRDC), Bandung.
(Geologic maps of Anambas archipelago of small islands SW of Natuna Besar. Widespread Cretaceous Anambas Granite (probably Late Cretaceous 73-84 Ma, as at Tambelan and Natuna). Intruded into melange/ oceanic accretionary complex of strongly folded Matak Fm (with NW-SE axes, locally contactmetamorphic Late Jurassic-Cretaceous sediments), associated with gabbro, diabase and basalt intercalated with radiolarian chert. Matak Fm with Late Jurassic- earliest Cretaceous radiolarian chert with Cenosphaera, Sethocapsa, Stichocapsa rotunda Hinde 1900, Dictyomitra, etc. Radiolaria species similar to Danau Fm accretionary complex of Central Kalimantan, as described by Hinde 1900)

Sangree, J.B. (1981)- Use of seismic stratigraphy in carbonate rocks, Natuna D-Alpha Block Example. Proc. 10th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 135-152.
(Natuna D-Alpha 'L' structure large Late Miocene reef complex, with 5250' gas column. Gas 67- 82% CO_2. Arang Fm considered source of methane;CO_2 believed to be from deep igneous activity. E-M Miocene Arang and Barat-Gabus shale widespread and uniform thickness, suggesting stable nonmarine-shallow marine shelf conditions. Post-Arang normal faulting resulted in rotation and faulting of 'L' structure and Terumbu (U Miocene) carbonate development Further downfaulting in Lt Miocene- E Pliocene resulted in widespread carbonate deposits with local reef development on W shelf area and local buildups on crest of 'L' structure)

Satriawan, R.W., T. Read & H. Baskara (2005)- Applying seismic attribute analysis and inversion techniques to understand the trapping mechanism in the Gajah Abu Abu Field, West Natuna Offshore. Proc. 30th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 135- 144.
(Gajah Abu Abu field in W Natuna Basin 1992 discovery in faulted Late Miocene inversion anticline. Significant stratigraphic component in Gajah Abu Abu trap)

Sihombing, E.H., Y. Indra, R.D. Waworuntu & D. Priwastono (2019)- The stratigraphy of a lacustrine associated reservoir in the Belut Formation, Block B, West Natuna Basin. Proc. 43rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA19-G-437, p. 1-32. *(online at: https://www.researchgate.net/publication/337473998_The_Stratigraphy_of_A_Lacustrine_Associated_Reservoir_in_the_Belut_Formation_Block_B_West_Natuna_Basin)*
(Belut Fm in W Natuna Basin is (Eocene?-) E Oligocene-age syn-rift deposit, with lacustrine facies, incl. lacustrine deltas)

Simabrata, H., Y. Indra, B.R. Permana, R.D. Waworuntu & B. Arif (2019)- Integrated approach to a robust paleogeographic model: a case study in the base of Muda X Field, West Natuna Basin. Proc. 43rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA19-G-438, p. 1-15.
(Paleogeography at base of post-M Miocene inversion Muda Fm in South Natuna Sea Block B PSC, West Natuna Basin)

Simabrata, H., B.R. Permana, A. Sulistiarso, R. Wijayanti & R.D Waworuntu (2016)- Integrated chronostratigraphic correlation and its dilemma: a case study in West Natuna Basin Block "B" Arang Formation. Proc. 40th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA16-495-G, p. 1-20.

(online at: www.researchgate.net/publication/354671070_INTEGRATED_CHRONOSTRATIGRAPHIC_CORRELATION_AND_ITS_DILEMMA_A_CASE_STUDY_IN_WEST_NATUNA_BASIN_BLOCK_B Etc.)
(Integration of biostratigraphy (palynology) and seismic data of M Miocene section in W Natuna Basin showed only few biostratigraphic ages in agreement with seismic markers)

Solisa, D., F. Usmani, F. Ekaninggarani, F. Kusdiantoro & I.Y. Syarifuddin (2022)- The Arang Petroleum Play in the West Natuna Basin: a new perspective from geochemical study and petroleum system modelling. Proc. 46th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA22-G-67, p. 1-18.
(Medco study of South Natuna Sea 'Block B' E-M Miocene Arang Fm gas reservoir sandstones and Eo-Oligocene Belut Fm source rocks in NE-SW trending active rifts)

Subono, S., Siswoyo & A. Firman (1995)- Heat flow in border areas of Indonesia, Malaysia and Vietnam. In: J. Ringis (ed.) Proc. 31st Session Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Kuala Lumpur 1994, 2, p. 59-75. *(online at: https://repository.unescap.org/server/api/core/bitstreams/4198bc42-86c9-49fe-843e-60aebea03e54/content)*
(Mainly on heatflow from 46 wells in W Natuna and 24 wells in E Natuna basins. Av. T gradient 39.7 °C/km)

Sugihardjo, S.S. Aprilian, A. Yusuf & S. Sumardan (2000)- Investigations of the storage efficiency of CO_2 in carbonate aquifers. Proc. 27th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 79-93.

Surjono, S.S., M. Afandi, I. Arifianto, A.A. Mitasari & F.H.M. Mahendra (2023)- Sedimentology and reservoir characteristics of syn-rift to syn-inversion succession in Anoa half-graben, West Natuna basin, Indonesia. Marine and Petroleum Geology 152, 106258, p. 1-14.
(Complex and mostly non-marine sedimentary fill of NW Natuna basin, grouped as: M Eocene syn-rift (Benua-Lower Gabus), Late Oligocene post-rift (U Gabus- Barat), E-M Miocene-inversion (Arang Fm), and Late Miocene post-inversion (Muda Fm). Reservoir quality depends on depositional environment and effects of compaction controlled by inversion of basin)

Suryono, N. (1997)- Analisa struktur P. Laut dan P. Sekatung, Kepulauan Natuna besar. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 7, 74, p. 2-24.
('Analysis of the structure of the Laut and Sekatung islands, Natuna Besar island group'. Laut and Sekatung Islands ~80km NNE of Natuna Besar. Composed of Jurassic- Cretaceous Bunguran Fm. Intensely deformed, with 5 types of oblique slip fault, of different orientations, but tied to first order WNW-ESE right-lateral fault)

Sutoto, A. (1991)- Reservoir geology of the Belida Field South Natuna Sea, Block B. Proc. 20th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 453-478.
(1989 Conoco Belida oil field with 187 MBO and 130 BCF gas. Trap four-way closure, a structural inversion of half-graben during E Miocene (later?; JTvG) regional compression. Age of sediments over Cretaceous granite Oligocene- Holocene. Oil reservoirs Oligocene Udang and E Miocene Lower Arang Sands, gas in E Miocene Arang Fm. Udang Fm sands stacked fluvial channels, Lower Arang sands distributary mouth bars in progadational lacustrine delta. Good vertical and lateral reservoir continuity. Sands ~30% porosity)

Syukri, I.Y., J. Hughes & M. Medianesterian (2014)- A comparison of depth conversion methods in Buntal Gas Field, Block B, Natuna Sea, Indonesia. Proc. 38th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA14-G-227, p. 1-17.
(On impact of depth conversion methods on volumetric analysis of Buntal gas field, 1990 discovery 30 km E of Belida field, producing since 2003. WSW-ENE trending structure with three primary reservoirs in fluvial-deltaic M Miocene Arang Fm sandstones)

Thamrin, M., Prayitno, S. Tiwar & Solichin (1983)- Heatflow investigation in the Tertiary basins of Natuna Sea. Proc. 19th Session Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Tokyo 1982, 2, Technical Reports, p. 153-166.
(Heatflow data from 29 wells in Indonesian sector of Natuna Sea. Heatflow in W area of Natuna Arch (av. 2.03 HFU, T gradient av. 3.45 °C/100m) higher than in E (av. 1.59 HFU, T gradient av. 3.36 °C/100m))

Tjia, H.D. (1997)- Regional northwest to west-northwest lineaments in the southern part of the South China Sea Basin. Warta Geologi (Newsletter Geological Society Malaysia) 23, 5, p. 297-302.
(online at: https://gsmpubl.files.wordpress.com/2014/09/ngsm1997005.pdf)
(Several well-developed NW-WNW striking regional lineaments known from S part of S China Sea Basin and adjacent land areas. In W Sarawak: Lupar Line, Tatau horst-graben, W Balingian Line, Tinjar Line, Upper Baram Line, W Baram Line. In Sabah: Kinabalu Lineament and Balabac Fault. Also ~10 major NE/NNW trending wrench-fault zones across continental margin in SE S China Sea. May tie to regional NW faults in mainland SE Asia, believed to have facilitated extrusion of continental SE Asia)

Usman, E. (2015)- The geochemical characteristic of major element of granitoid of Natuna, Singkep, Bangka and Sibolga. Bulletin of the Marine Geology 30, 1, p. 45-54.
(online at: http://ejournal.mgi.esdm.go.id/index.php/bomg/article/view/74/75)
(Mesozoic granites from Natuna, Bangka and Singkep with SiO_2 contents of ~71-75% and classified as acid and calk-alkaline magmas. Sibolga granitoid with SiO_2 60- 71% classified as intermediate-acid magma and high K, ultrapotassic island arc granite)

Van Mechelen, G., J. Meyer & R. Gir (1998)- Correlation mapping technique, a powerful tool to minimize risk and to guide future development plans. Proc. 26th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 175-196.
(Geophysical study over two gas fields in W Natuna Basin)

Wagimin, N. & E.A. Sentani (2009)- Opportunities (II), East Natuna area. Inameta J. 7, p. 24-27.
(online at: www.patranusa.com)
(Brief overview of E Natuna Basin, in conjunction with tender round offering)

Webb, M., F. Endinanda & A. Gough (2023)- Mesozoic magmatism of Natuna Island, Indonesia: implications for the subduction history of eastern Sundaland. Gondwana Research 119, p. 45-67.
(online at: https://www.sciencedirect.com/science/article/pii/S1342937X23000746)
(Natuna records abundant subduction- magmatism, with switches from extensional to compressional regimes driven by changes in angle of subduction and rate of slab roll-back (of Paleo-Pacific). Inherited zircons suggest Triassic- E Jurassic crust beneath Natuna. This is followed by M-L Jurassic spreading in fore-arc driven by slab-roll back and formation of Jurassic Pulau Tiga Ophiolite coeval with deposition of cherts in Bunguran Fm. Initial I/S-type granodiorite and porphyritic granite at 85-86 Ma. I/S-type granites (Ranai), recording arc crustal thickening and increased contamination from melted crust, at 71-75 Ma, towards end of Paleo-Pacific Arc/ subduction zone beneath E Sundaland. Later compression in fore-arc, ophiolite obduction. Late Jurassic- E Cretaceous Natuna Accretionary Complex formed along Lupar Line (similar to Danau Fm of Borneo))

Webb, M., A. Gough & F. Endinanda (2024)- Depositional environments and sedimentary provenance of the Cenozoic deposits of Natuna Island, Indonesia: Implications for basin evolution in central Sundaland. Gondwana Research 134, p. 298-325.
(online at: https://www.sciencedirect.com/science/article/pii/S1342937X24001278)
(Above pre-Jurassic Natuna Accretionary Complex and Cretaceous granites are Late Eocene and younger sediments onshore Natuna island, which correlate directly in both age and sedimentology with Oligocene-Pliocene successions in W and E Natuna basins. Eocene Senua Ignimbrite tuffs (~38.5 Ma; Late Eocene)) reflect onset of Sundaland rifting, Oligocene rift and E Miocene post-rift clastics (Pengadah Fm), M Miocene inversion. Tectonically inactive since Late Miocene-Pliocene (Raharjapura Fm)),)

Wirojudo, G.K. (1985)- Geological studies as a risk-reducing factor in exploration ventures with special references to the South China Sea. Energy 10, 3, p. 517-523.
(40 new exploration wells drilled in E and W Natuna basin in 1981-1982. Decisions on exploration ventures involve knowledge of basin geology. Natuna basins area can be used as model)

Wirojudo, G.K. & A. Wongsosantiko (1985)- Tertiary tectonic evolution and related hydrocarbon potential in the Natuna area. Energy 10, 3/4, p. 433-455.
(In E Oligocene Natuna area included W Natuna and E Natuna Basins, separated by N-S trending Natuna basement Arch. Basin development in W Natuna began in E Oligocene time with rifting and pull-apart forming SW-NE half-grabens filled with nonmarine sediments, possibly driven by extrusion of Malay Peninsula from Asia during early stages of India-Asia collision. In E Natuna Basin no rifting, but Oligocene sediments only thicken regionally E-ward toward basin center. Compressive forces in W Natuna Basin during E Miocene resulting in inversion of normal faults. Simultaneously in E Natuna Basin mainly tensional forces that produced NW-SE right lateral movements coupled with NE-SW trending normal faulting. Hydrocarbon potential of W Natuna Basin enhanced by presence of locally thick Oligocene and Miocene sediments)

Wongkosantiko, A. & P. Prijosoesilo (1995)- Geologic summary of the Natuna Sea. In: Seismic Atlas of Indonesian Oil and Gas Fields, II: Java, Kalimantan, Natuna, Irian Jaya, Indonesian Petroleum Association (IPA), Jakarta, p. 1-6.

Wongkosantiko, A. & G.K. Wirojudo (1984)- Tertiary tectonic evolution and related hydrocarbon potential in the Natuna area. Proc. 13th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 161-183.
(W and E Natuna Basins separated by N-S trending Natuna basement Arch. W Natuna Basin started in E Oligocene by rifting/ pull-apart, producing SW-NE half-grabens filled with non-marine sediments. Extension in W Natuna little effect on E Natuna Basin, where Oligocene sediments more uniform thickness. Compressive forces started in W Natuna in E Miocene, resulting in inversions of former half grabens)

III. JAVA, MADURA, JAVA SEA

III.1. Java - General, Onshore geology, Forearc

Abdalla, H.A., N.D. Khalifa, C.A. Lestari, M.M. Mukti, A.K. Gibran & Fadlin (2024)- The origin of Baribis Fault and its relationship to the dynamics of Sunda Arc. Riset Geologi dan Pertambangan 34, 1, p. 55-65.
(online at: https://jrisetgeotam.brin.go.id/index.php/jrisgeotam/article/view/1311/pdf)
(Baribis Fault in NW Java N-directed backarc thrust that developed behind modern volcanic arc No general agreement on mechanisms of backarc thrusting. Possibly linked in E with Kendeng Zone and Flores Thrust)

Abdissalam, R., S. Bronto, A. Harijoko & A. Hendratno (2009)- Identifikasi gunung api purba Karangtengah di Pegunungan Selatan, Wonogiri, Jawa Tengah. Jurnal Geologi Indonesia (Indonesian J. on Geoscience (IJOG)) 4, 4, p. 253-267.
(online at: www.bgl.esdm.go.id/dmdocuments/jurnal20090403.pdf)
('Identification of the Karangtengah ancient volcano in the Southern Mountains, Wonogiri, C Java'. Identification of E Miocene Karangtengah paleovolcano eruptive center, which formed on seafloor, basaltic in composition, and part of volcanic island arc)

Abdul, M., M. Irfan & T. Sopandi (2005)- Between reality and illusion, hidrocarbon hunting in East Java Basin. Proc. Joint Convention 34th IAGI- 30th HAGI, Surabaya 2005, p. 48-56.

Abdullah, C.I., N.A. Magetsari & H.S. Purwanto (2003)- Analisis dinamik tegasan purba pada satuan batuan Paleogen- Neogen di daerah Pacitan dan sekitarnya, Provinsi Jawa Timur ditinjau dari studi sesar minor dan kekar tektonik. ITB J. Science and Technology, 35A, 2, p. 111-127.
(Structural analysis of faults in Pacitan area, S coast of East Java. Four trends: NW-SE (~N320°E; E Miocene), N-S, NE-SW (~N045°E; M Miocene), and E-W (N080°E))

Abdurrachman, M., S. Widiyantoro, A. Saepuloh & I.A. Kurniawan (2018)- Tracing the missing Argoland beneath Java: evidence from geochemical signature and seismic tomogram. Proc. 1st Springer Conf. Arabian J. of Geosciences (CAJG-1), Tunisia 2018, p. 37-40.
(Petrological and geochemical studies of 20 active Java volcanoes combined with tomographic study improve understanding of crust architecture and interior in Java. In agreement with geochemical data, high velocity zone from tomographic data in S part of Late Cretaceous- E Tertiary melange. If so, extension of Argoland in East Java seems to continue to C and W Java)

Abdurrokhim (2014)- A prograding slope-shelf succession of the Middle- Late Miocene Jatiluhur Formation: sedimentology and genetic stratigraphy of mixed siliciclastic and carbonate deposits in the Bogor Trough, West Java. Ph.D. Thesis Graduate School of Science, Chiba University, Japan, p. 1-134.
(online at: https://opac.ll.chiba-u.jp/da/curator/900117817/SGB_0019.pdf)
(Sedimentological study of M Miocene Jatiluhur Fm in N Bogor Trough, NE of Bogor. Lower and M Jatiluhur Fm interpreted as M Miocene S-ward prograding slope-shelf system, derived from Sundaland. Late Miocene deposits suggest additional supply of volcanogenic sediments from volcanic terranes to S. Klapanunggal Limestone in middle part of formation with Katacycloclypeus and coral))

Abdurrokhim (2017)- Stratigrafi sikuen Formasi Jatiluhur di cekungan Bogor, Jawa Barat. Bull. Scientific Contribution (UNPAD) 15, 2, p. 167-172.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/13405/pdf)
('Sequence stratigraphy of the Jatiluhur Formation in the Bogor Basin'. M-L Miocene Jatiluhur Fm clastics and limestones in N part of the Bogor Trough, ~20 km NE of Bogor. Overall shallowing upward succession in slope and shelf margin settings, overlain by deeper succession in middle part as response of single relative sea level fall and rise)

Abdurrokhim (2017)- Carbonate reef of the Klapanunggal Formation in the Bogor Trough, West Java. J. Geological Sciences Applied Geology (UNPAD) 2, 1, p. 33-42.
(online at: http://jurnal.unpad.ac.id/gsag/article/view/13422)

(On Late Miocene shelf-margin carbonate reef up to 240m thick, well exposed in Cibinong area, NE of Bogor, named Klapanunggal Fm. Thick and massive reefal limestone with large foraminifera. Interpreted a S-prograding shelf margin, facing Bogor Trough in S (with picture of Katacycloclypeus annulatus, suggesting Middle Miocene age; JTvG))

Abdurrokhim, B. Adhiperdana & Hendarmawan (2022)- Temporal variation in sandstone composition of Miocene Jatiluhur Formation in the Bogor Trough, West Java, Indonesia. J. Geoscience Engineering Environment Technology (JGEET) 7, 3, p. 132-139.
(online at: https://journal.uir.ac.id/index.php/JGEET/article/view/9311/4602)
(Sediments in Bogor Trough, central W Java, typically turbidites composed mainly of volcanoclastic materials derived from S, but also continental source from N (Sundaland). In Bogor-Purwakarta area, North-derived Middle- Late Miocene (N12-N16) Jatiluhur Fm clastics classified into 2 groups: (F1) feldspathic arenite, and (F2) feldspathic greywacke. LateMiocene samples increasing % of glauconite; also volcanic materials observed, which records sedment starvation into basin, which promoted development of Klapanunggal Fm carbonate reefs in shelf-margin setting)

Abdurrokhim, Y. Firmansyah, N. Natasia & M. Saputra (2017)- Lithofacies of the Halang Formation in the Cijurey River-Majalengka. J. Geological Sciences Applied Geology (UNPAD) 2, 3, p. 83-87.
(online at: http://jurnal.unpad.ac.id/gsag/article/view/15614/7343)
(450m thick section of M-L Miocene Halang Fm exposed along Cijurey River. Lithofacies interpreted as mass transport deposits (no maps and not much other detail))

Abdurrokhim & I. Haryanto (2025)- Continental sediments of Cinambo Formation in the Bogor Trough West Java. Indonesia J. Geoscience Engineering Environment Technology (JGEET) 10, 1, p. 1-5.
(online at: https://journal.uir.ac.id/index.php/JGEET/article/view/19069/7879)
(Most Neogene sediments in Bogor Trough are volcanoclastic turbidites. M Miocene Cinambo Fm in Majalengka area grouped into: (1) volcanoclastic sediments from Southern Mountains and (2) quartz-rich continental sediments sourced from Sundaland in N))

Abdurrokhim & Hendarmawan (2014)- Temporal variation in petrographic features of the Miocene Jatiluhur Formation in the Bogor Trough, West Java. Bull. Scientific Contribution (UNPAD) 12, 2, p. 107-117.
(M-L Miocene Jatiluhur Fm in N Bogor Trough feldspathic arenite, greywacke, limestone, and mixed siliciclastic-carbonate. Derived mainly from continental source in N (Sundaland). Increase in volcanic fragments in Late Miocene suggests also sediment source from contemporaneous volcanic provinces to S)

Abdurrokhim & Hendarmawan (2015)- Limestone beds development of the Middle-Late Miocene Jatiluhur Formation in the Bogor Trough, West Java. Bull. Scientific Contribution (UNPAD) 13, 2, p. 107-118.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8395/3905)
(Jatiluhur Fm along Cipamingkis River, W Java Middle- Late Miocene (~N12-N16?) mixed limestone- clastics series. Late Miocene Klapanunggal Fm = Parigi Lst in north is reefal limestone buildup, and probably source of carbonate detritus in upper part of Jatiluhur Fm (with Cycloclypeus annulatus))

Abdurrokhim & M. Ito (2013)- The role of slump scars in slope channel initiation: a case study from the Miocene Jatiluhur Formation in the Bogor Trough, West Java. J. Asian Earth Sciences 73, p. 68-86.
(Jatiluhur Fm, part of M-L Miocene (N12-N16) clastic succession in Bogor Trough, W Java, up to 1000m thick in study area, and interpreted as prograding slope-shelf system. Lower part is siliciclastic succession, with slump deposits and formed in slope and shelf-margin environments. Slump-scars-fill deposits have lenticular geometry, 140-480m wide and 0.4-1.6m thick. Some slump scars formed incipient seabed irregularities that may have played important role in development of slope channels)

Abercrombie, R., M. Antolik, K. Felzer & G. Ekstrom (2001)- The 1994 Java tsunami earthquake: slip over a subducting seamount. J. of Geophysical Research: Solid Earth 106, B4, p. 6595-6607.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/abs/10.1029/2000JB900403)

(First recorded large shallow thrust earthquake in South Java subduction zone, dip of 12°, epicenter depth 16km. Normal seismicity near trench low, and dominated by normal faulting earthquakes in subducting plate. Interpreted as slip over subducting seamount, which is a locked patch in otherwise decoupled subduction zone)

Abidin, H.Z., H. Andreas, T. Kato, T. Ito, I. Meilano, F. Kimata, D.H. Natawidjaja & H. Harjono (2009)- Crustal deformation studies in Java (Indonesia) using GPS. J. Earthquake and Tsunami 3, 2, p. 77-88.
(online at: www.researchgate.net/profile/Fumiaki-Kimata/publication/228990968_Crustal_deformation Etc.)
(GPS surveys in W Java show areas around Cimandiri, Lembang and Baribis fault zones have horizontal displacements of ~1-2 cm/yr. C Java May 2006 Yogyakarta earthquakes caused by sinistral movement of Opak fault with horizontal co-seismic deformation generally <10 cm. Post-seismic horizontal deformation of July 2006 S Java tsunami earthquake in first year after earthquake <5 cm, decreasing after that)

Abidin, H.Z., H. Andreas, I. Meilano, M. Gamal, I. Gumilar & C.I. Abdullah (2009)- Deformasi koseismik dan pascaseismik gempa Yogyakarta 2006 dari hasil Survei GPS. Jurnal Geologi Indonesia 4, 4, p. 275-284.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/259)
(On deformation caused by 2006 Yogyakarta earthquake from GPS data)

Abidin, H.Z. & Baharuddin (2005)- Low sulfidation epithermal gold deposit at Cibaliung Creek, Pengalengan area, West Java. J. Ilmu Kebumian Teknologi Mineral 18, 1, p. 15-20.
(Low sulfidation epithermal gold deposit in Pengalengan District, S of Regency (near Malabar Tea plantation?). Gold in quartz veins hosted in altered 'Old Andesite Volcanics')

Abidin, H.Z., S. Permanadewi & W. Bambang (2004)- Sulphur, carbon and oxygen isotope study of the Pongkor gold deposit, West Java. Majalah Geologi Indonesia (IAGI) 19, 1, p. 1-11.
(Pongkor low sulfidation epithermal gold deposit 80km SW of Jakarta, in Miocene host rocks. Isotopes suggest gold deposit formed due to mixing of magmatic ore fluid with meteoric water)

Abidin, H.Z. & Soetrisno (1992)- Geology of the Pamanukan Quadrangle, Jawa. Quadrangle 1209-6, 1:100,000. Geological Research Development Centre (GRDC), Indonesia, p. 1-7.

Achdan, A. & S. Bachri (1993)- Geological map of the Blambangan Quadrangle, Jawa, 1707-1, scale 1:100,000. Geological Research Development Centre (GRDC), Bandung.
(SE tip of East Java, with folded Late Oligocene-Miocene volcanics, tuffaceous sandstones and limestone of Batuampar Fm, intruded by Miocene andesites and granodiorites (= 'Old Andesites'; JTvG). Overlain by E Miocene sediments of Jaten Fm, and M Miocene Wuni and Punung Fms and Quaternary volcanics)

Accordi, G., F. Carbone, M. Di Carlo, R. Matteucci, J. Pignatti & A. Russo (2010)- Biostratigraphy of the Jatibungkus olistolith (Central Java). Forams 2010, Int. Symposium on Foraminifera, Bonn. *(Poster Abstract*)
(online at: www.girmm.com/abstracts/Accordi_etal_Jatibunkus_2010.pdf)
(Eocene Karangsambung melange of C Java with exotic blocks, including huge Jatibungkus limestone olistolith. Larger forams (Ranikothalia, Miscellanea, rotaliids and discocyclinids), corals (11 species) and calcareous algae (incl. Distichoplax biserialis) suggest Late Paleocene age (Thanetian; foram zones SBZ3/ SBZ4). Three main depositional environments)

Adeyosfi, M.M., A. Pradana, M. Wahdanadi, A.H. Purwanto, Muhajir & D. Juandi (2018)- Single well to field scale secondary porosity characterization in carbonate reservoir of Tuban Formation. Proc. 42nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA18-224-G, p. 1-17.
(E Miocene carbonates of Tuban Fm in Sukowati Field, NE Java basin, produced oil and gas since 2004. Two carbonate build ups, with different productivity rates. Highest productivity in N of field, with better-developed secondary porosity)

Adha, I. (2021)- Karakteristik batuan Formasi Kerek sebagai reservoir di Lapangan Cipluk Kendal. PETROGAS J. of Energy and Technology 3, 2, p. 39-50.
(online at: https://ejournal.sttmigas.ac.id/index.php/petrogas/article/view/69/52)

('Characteristics of the Kerek Formation rocks as a reservoir in the Cipluk Kendal Field'. Small, old and long-abandoned Cipluk oil field in Klantung, SW of Semarang, C Java, in western Kendeng zone thrust belt. Still oil seepage around field. Reservoir presumably M Miocene Kerek Fm turbidites, as exposed nearby in Kali Lutut. Sands good reservoir quality((Tjiploek-1 well was an 1889 discovery by the Dordtsche Petroleum Maatschappij of Surabaya. Field produced oil from 300m depth in 1903-1912. One thin section shows reworked? Nummulites= Paleogene- JTvG))

Adhiperdana, B.G. (2018)- Sedimentological study of a fluvial succesion of the Eocene-Oligocene Bayah Formation, West Java: reconstruction of paleohydrological features of an ancient fluvial system using empirical equations developed from modern fluvial systems in the Indonesian islands. Doct. Thesis Chiba University, Japan, p. 1-217.
(online at: https://opac.ll.chiba-u.jp/da/curator/105424/SGB_0024.pdf)
(Late Eocene- E Oligocene Bayah Fm in Walat Hill, Sukabumi High, SW Java, up to 915m thick fluvial-lacustrine-deltaic series. Subdivided into 7 intervals separated by erosional surfaces. Fluvial morphology controlled by flood-related episodic discharge rather than by annual mean discharge. Slight temporal variation in paleohydrologic features of Bayah Fm more likely to represent temporal variations in paleodischarges, associated with ever-wet (with coals) to seasonal transitions of equatorial climate in Sundaland under overall change from greenhouse to icehouse conditions)

Adhitama R. (2020)- Analisis paleostress sistem sesar Baribis- segmen sesar Brebes berdasarkan data sesar skala singapan. J. Geoscience Engineering & Energy (JOGEE) 1, 2, p. 40-46.
(online at: https://trijurnal.lemlit.trisakti.ac.id/index.php/jogee/article/download/7680/5582/22892)
('Analysis of the paleostress system of the Baribis fault --Brebes fault segment, based on fault screening data'. Baribis thrust fault often viewed as part of long W-E striking reverse fault trend, extending from West Java to East Java (Kendeng zone). This is oversimplificatione)

Adipta, A. & R. Hendrawan (2019)- An applicable approach of stratigraphy- supervised seismic inversion: a case study of Ngrayong Formation, East Java Basin. Proc. 81st European Association of Geoscientists & Engineers (EAGE) Conf.Exhib. 2019, London, p. 3763-3767.
(M Miocene Ngrayong Fm relatively thick highstand to transgressive system-tract on top. Clinoform geometries clearly defined. Intra-formation features caused by variability of depositional settings)

Adipta, A. & R. Hendrawan Bayu Pandita (2018)- Seismic stratigraphy supervised inversion: exposing the internal features of Ngrayong Formation, East Java Basin. 4th AAPG/EAGE/MGS Myanmar Oil and Gas Conference: Myanmar: A global oil and gas hotspot: unleashing the petroleum systems potential, Yangon, AAPG Search and Discovery Article 9033, 1p. *(Abstract only)*
(Well-defined seismic clinoform geometries of M Miocene Ngrayong Fm in E Java Basin)

Adiwiarta, A.M., R.M. Zainal & Y. Hirosiadi (2010)- Kemandung Ridges play concept to increase exploration prospectivity in East Tuban Block: preliminary study. Proc. 34th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA10-G-207, p. 1-6.
(Seismic reprocessing improves imaging of NE-SW trending basement high named Kemandung Ridge, with potential overlying Ngimbang or Kujung Fm carbonate build-ups, in Tuban Block, NE Java basin)

Adhidjaja, J.I., A.J. Davidoff & I.R. Novianti (2002)- PSDM Enhances reef interpretation in Jatiluhur Block, West Java. Proc. 28th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 31-43
(Jatiluhur Block covers Bogor Trough and volcanic centers in S. Poor seismic imaging due to volcanic cover and rugged topography, associated with complicated structures. One target is Batu Raja Limestone, with best reservoir quality in buildup facies and typically developed on basement highs. Pre-stack depth migration (PSDM) improved imaging. One prospect is probable Batu Raja reefal buildup on basement high)

Adinegoro, U. (1973)- Reef limestone in the Sukabumi area. Proc. 2nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 109-120.

(Study of Late Oligocene Rajamandala Limestone around Sukabumi, W. Java. Age close to foram zone N4, larger foram zone Lower Te with Heterostegina borneensis, Miogypsinoides spp, Spiroclypeus, etc.)

Adinegoro, U. & Arpandi (1976)- Guide book fieldtrip to Sukabumi and Padalarang area. IPA, Carbonate Seminar, Jakarta 1976, Indonesian Petroleum Association (IPA), Fieldtrip guidebook, p.

Adisaputra, Mimin K. (1989)- Foraminifera of the Miocene Jatiluhur Formation: implications for the Indonesian Letter Classification and the planktic zonation scheme. J. RISET Geologi dan Pertambangan (LIPI) 9, 1, p. 21-26.
(M Miocene Jatiluhur Fm with larger foraminifera Katacycloclypeus annulatus (Tf1-2) in lower part and Lepidocyclina spp. (incl. L. radiata), in upper part. Planktonics of zone N11-N12, with Glorotalia fohsi and Gr. peripheroronda. Boundary between Tf1-2 and Tf3 lies within N11-N12)

Adisaputra, Mimin K. & Budiman (1995)- Biostratigrafi Formasi Cimandiri, di daerah Jampang Tengah, Sukabumi, berdasarkan foraminifera plangton dan foraminifera besar. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 5, 45, p. 2-11.
('Biostratigraphy of the Cimandiri Formation in the Central Jampang area, Sukabumi, based on planktonic and larger foraminifera'. Open marine Cimandiri Fm S and SW of Sukabumi, SW Java, ~130m thick and divided into Bojonglopang, Nyalinding and Cimandiri s.s. members. Planktonic foraminifera suggest age mainly M Miocene (N8 (with Preorbulina glomerosa) - N14). Miogypsina present in N8, Miogypsina cushmani appears at base N9. Top Miogypsina and Base Alveolinella quoyi near base N12, Lepidocyclina rutteni in N14)

Adisaputra, Mimin K. & H. Prasetyo (1998)- Foraminifera from dredged samples in Bali and Flores basins: implications for tectonic environment. In: J.L. Rau (ed.) Proc. 34th Session Coord. Comm. Coastal Offshore Geoscience Programmes E and SE Asia (CCOP), Taejon, Korea 1997, 2, Technical Reports, p. 22-34.
(Early Miocene shallow water limestone samples with Miogypsina-Miogypsinoides dredged from sites D1 and D2 (1500 and 2100m) in Bali-Flores Basin, N of Sumbawa. May be reworked into Pliocene- Pleistocene deep water sediments from nearby uplifted fault blocks. Not much detail on sample positions)

Adisaputra-Sudinta, M.K. & P.J. Coleman (1983)- Correlation between larger benthonic and smaller planktonic foraminifera from the mid-Tertiary Rajamandala Formation, Central West Java. Publ. Geological Research Development Centre (GRDC), Bandung, Seri Paleontologi 4, p. 37-55.
(Samples from Tagogapu/ Cikamuning part of Rajamandala Limestone in W Java, with both planktonics (zones N2-N4) and larger forams (mainly Te1-4, at top Te5; Late Oligocene- earliest Miocene)

Adisaputra-Sudinta, M.K., R. Smit & E.J. van Vessem (1978)- *Miogypsina cushmani* and *Miogypsina antillea* from Jatirogo (East Java). Bull. Geological Research Development Centre (GRDC), Bandung, p. 29-47.
(Localities on Jatirogo Quadrangle, NE Java: (1) Miogypsina cushmani in Middle Rembang Beds below Ngrayong-equivalent quartz sands, and (2) Miogypsina antillea in 200m thick 'U Rembang Fm/ Tlatah Limestone Beds', probably equivalent of M Miocene 'Platen Limestone')

Adli, F.Z., M.G. Rachman, C. Prasetyadi & G.D. Zoenir (2021)- Thrust fault evidence to determine the structural geology correlation between South Mountains of Eastern Java & Kendeng. Proc. HAGI-IAGI-IAFMI-IATMI Joint Convention Bandung (JCB) 2021, p. 650-655.
(online at: https://www.iatmi.or.id/proceedings-of-jcb-joint-convention-bandung-2021/)
(Kendeng Zone undisputed N-directed fold-thrust belt. Isolated hills at Sampung Village (25km SE of Mt. Lawu) can be viewed as klippen (remnant of overthrust sheet) from Southern Mountains, confirming Plio-Pleistocene N-ward thrusting also in S Mountains (old volcanic arc). Rare thrusting, and lack of folding, in S Mountains probably due to its brittle lithologies. With regional S-N cross-section from S Mountains to Kendeng zone)

Adnan, A., Sukowitono & Supriyanto (1991)- Jatibarang sub basin- a half graben model in the onshore of Northwest Java. Proc. 20th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 279-298.
(Jatibarang sub-basin in E part of NW Java Basin with oil-gas in E Oligocene- Late-Miocene reservoirs (Jatibarang, Talang Akar, U Cibulakan and Parigi Fms). Sub-basin formed in E Tertiary with formation of half-

graben. Two graben generation stages, each initially filling with clastics, then terminating with carbonate sedimentation. Hydrocarbons controlled by normal faults, providing vertical migration for hydrocarbon sourced from Talang Akar Fm. With seismic lines, x-sections)

Adriansyah, A. & G.A. McMechan (2001)- AVA analysis and interpretation of a carbonate reservoir, Northwest Java basin, Indonesia. Geophysics (SEG) 66, 3, p. 744-754.
(Seismic amplitude analysis of M Miocene Parigi Fm carbonate reefs in onshore NW Java basin)

Adriansyah, A. & G.A. McMechan (2002)- Analysis and interpretation of seismic data from thin reservoirs. Northwest Java basin, Indonesia. Geophysics (SEG) 67, 1, p. 14-26.
(Attribute analysis, impedance inversion and full-wavefield modeling of 2-D seismic line over thin gas reservoirs in E-M Miocene U Cibulakan Fm clastics in NW Java Basin suggest reservoirs detectable even when less than tuning thickness)

Afnimar, E. Yulianto & Rasmid (2015)- Geological and tectonic implications obtained from first seismic activity investigation around Lembang fault. Geoscience Lett. 2, 4, DOI 10.1186/s40562-015-0020-5, p. 1-11.
(online at: https://link.springer.com/content/pdf/10.1186%2Fs40562-015-0020-5.pdf)
(Microseismic events around Lembang fault at N side of Bandung suggest this fault is left-lateral fault)

Agastya, I.B.O., Y.B. Muslih, M. Rizkan, N. Mukhammad & I.H. Pratama (2018)- Basement structures controlled Neogene post-volcanic carbonates in Southern Mountain of East Java. Regional Seminar FOSI-IAS-SEPM, p. 1-10.
(online at: www.academia.edu/37591831/BASEMENT_STRUCTURES_CONTROLLED_NEOGENE Etc.)
(Miocene carbonates in Southern Mountains of E Java between Kulon Progo and Gajah Mungkur controlled by highs and lows from older structures (although faults not necessarily active during carbonate sedimentation): N-S, NW-SE and W-E structures inherited from of East Java Microcontinent, NE-SW Paleogene rift structures and locations of remnants of Late Oligocene- E Miocene 'Old Andesite' volcanic centers)

Agastya, I.B.O. & S. Sugiarto (2017)- Thrust fault kinematic and implication for tectonic evolution in Kendeng Zone Ngrancang area, East Java Province, Indonesia. Proc. Joint Convention HAGI- IAGI- IAFMI- IATMI (JCM 2017, Malang), 195, p. 1-5.
(online at: www.academia.edu/37243005/THRUST_FAULT_KINEMATIC_AND_IMPLICATION_FOR_ Etc.)
(Kinematics of Plio-Pleistocene folding-thrusting in Kendeng Zone, NE Java. Asymmetrical E-W trending anticlines that decrease in intensity to E. Modified by strike-slip faulting. Provenance of Kendeng Zone came from Southern Mountains)

Agnes M., K.A. Maryunani & A.T. Rahardjo (2000)- The characteristics of foraminifera distribution patterns within turbidite sequence of Banyak Formation, Central Java. Buletin Geologi (ITB) 32, 1, p. 1-9.

Agulia, Y.Y., M. Gurch, S.R. Mohammad & B. Hutahayan (2018)- Succesful depth imaging at Banyu Urip Field. Proc. 42nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA18-G-557, p. 1-9.
(2017 reprocessing improved seismic data quality, previously hampered by extensive shallow gas attenuation and non-uniform seismic data coverage)

Agustawijaya, D.S., Karyadi, B.D. Krisnayanti & Sutanto (2017)- Rare Earth Element contents of the Lusi mud: An attempt to identify the environmental origin of the hot mudflow in East Java- Indonesia. De Gruyter, Open Geoscience 2017, 9, p. 689-706.
(online at: https://www.degruyterbrill.com/document/doi/10.1515/geo-2017-0052/pdf)
(Analyses of mud from Sidoarjo (LUSI) mudflow for rare earth elements (REE) indicate Lusi hot mud is composed of porous smectite-rich shale (from Pleistocene U Kalibeng Fm?). Moderate Ce and Eu anomalies in mud indicate deep marine basin as most probable environment of mud and REE deposition)

Agustiyanto, D.A. & S. Santosa (1993)- Geological map of the Situbondo Quadrangle, Jawa, 1708-1, scale 1:100,000. Geological Research Development Centre (GRDC), Bandung.

(NE-most tip of Java, with folded (Late) Miocene- Pliocene sediments, overlain by Quaternary volcanics of Ringgit, Old Ijen, Raung, Baluran, etc.)

Ahdyar, L.O., A.B. Cahyono, T. Hidayah & R.P. Sekti (2021)- Redefining reservoir architecture of hydrocarbon-bearing Ngrayong Formation in Banyu Urip Area: new insights to unravel hidden potential in East Java Basin. Proc. 45th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA21-G-178, p. 1-19.
(M Miocene (Serravallian) Ngrayong Fm in Banyu Urip area, Cepu Block, NE Java, composed of stacked deep water channels and lobes. Well data indicates ~100m net stacked clastic reservoirs, consisting of mixed carbonate-clastic materials, with good reservoir pressure connectivity with underlying carbonate reservoir. Mixed clastic-carbonate system diagenetically altered, with secondary porosity in coarser sands)

Ahdyar, L.O., R.P. Sekti & I.M. Kerscher (2017)- Stratigraphic interpretation of Alas Tua west: a carbonate structure in Cepu Block, East Java. Proc. 41st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA17-738-G, p. 1-11.
(2011 Alas Tua W1 well in E Java Basin discovered gas in ~300m Early Oligocene platform carbonates, overlain by ~200m of Late Oligocene deeper water marls)

Ahdyar, L.O., R.P. Sekti, S.R. Mohammad, F. Fernandez-Ibanez & P.J. Moore (2019)- Integrated carbonate non-matrix characterization in Banyu Urip Field. Proc. 43rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA19-G-35, p. .

Ahdyar, L.O., R.P. Sekti & LO.B Stiawan (2024)- Multi-scale pore systems: new look of Tertiary carbonate in Indonesia and its effect on hydrocarbon reserves. Proc. 48th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA24-G-300, p. 1-11.

Ahmady, F.N., D. Santoso, S. Alawiyah & A. Saepuloh (2024)- Three-dimensional subsurface model of Luk-Ulo melange momplex, Karangsambung, Indonesia: insights from gravity modeling. Geosciences (MDPI) 14, 11, p. 1-22.
(online at: https://www.mdpi.com/2076-3263/14/11/297)

Ahnaf, J.S., A. Patonah, H. Permana & Ismawan (2018)- Structure and tectonic reconstruction of Bayah Complex Area, Banten. J. Geoscience Engineering Environment Technology (JGEET) 3, 2, p. 77-85.
(online at: http://journal.uir.ac.id/index.php/JGEET/article/view/1554/1045)
(In Bayah area, SW Java, fracture patterns N-S (Sunda trend), E-W (Java trend) and SW-NE (Meratus Trend), formed between E Eocene- Pliocene. Metamorphic rock foliations NW-SE and N-S directions belong to Pre-Tertiary Sumatra Pattern. Three orogenic events between E Oligocene- Pliocene)

Ahnaf, J.S., A. Patonah & H. Permana (2019)- Petrogenesis of volcanic arc granites from Bayah Complex, Banten, Indonesia. J. Geoscience Engineering Environment Technology (JGEET) 4, 2, p. 104-115.
(online at: https://journal.uir.ac.id/index.php/JGEET/article/view/3171/1836)
(Cihara granodiorite in Bayah complex uplift, SW Java, of Oligocene age. Most likely S-type granitoid (derived from sediments), although there is also one I-type sample. High K calc alkaline, formed in volcanic-arc setting)

Aini, H.N., N.I. Setiawan, M.N. Haq, C.A. Mahardika, S. Nugroho & R. Setiawan (2022)- Characteristics of Mengger Formation's volcaniclastic in Cisaat River, Brebes, Central Java, Indonesia. Proc. 13th AUN/SEED-Net Regional Conference Geological and Geo-Resource Engineering (RCGEOE), Yogyakarta 2021, IOP Conference Series: Earth and Environmental Science 1071, 012014, p. 1-10.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1071/1/012014/pdf)
(Pleistocene Bumiayu Site in N Serayu Mts of C Java, ~30 km NW of Mt. Slamet, known as locations of fossil vertebrates, invertebrates, hominids and artifacts. Two groups of vertebrate faunas: (1) Satir (2-1.5 Ma) and Cisaat (1.2- 1 Ma) (probably oldest mammals in Java). Mengger Fm in area overlies Pliocene? fossil-bearing formations, with 150m fluvial clastics with 3 or more episodes of pumice-rich volcanoclastics, presumably from eruptions of Mt Slamet. Hornblende from pumice in lahar deposit of Mengger Fm K-Ar age of 1.53 Ma)

Airlangga, F., Handoyo, S.M. Irawati & A.S. Wibowo (2024)- Karakterisasi batuan induk hidrokarbon dan reservoar nonkonvensional di Cekungan Jawa Timur bagian utara. Buletin Sumber Daya Geologi 19, 3, p. 173-185. *(online at: https://buletinsdg.geologi.esdm.go.id/index.php/bsdg/article/view/BSDG_VOL_19_NO_3_2024_3/347)*
('Characterization of hydrocarbon source rocks and unconventional reservoirs in the northern East Java Basin'. Study of source rocks of Prupuh Fm, shale of Kranji Fm, and limestone of Ngimbang Fm)

Akbar, M.A. & N I. Setiawan (2015)- Petrogenesis batuan beku intrusi di daerah perbukitan Jiwo Barat dan Timur, Kecamatan Bayat, Kabupaten Klaten, Provinsi Jawa Tengah. Proc. Seminar Nasional Kebumian 8, Jurusan Teknik Geologi, Universitas Gadjah Mada, Yogyakarta, p. 675-683.
(online at: https://repository.ugm.ac.id/135503/1/...)
('Petrogenesis of igneous rock intrusions in the West and East Jiwo hills, Bayat District, Klaten, Central Java'. Three types of igneous rocks in Jiwo Hills: olivine gabbro (in SW), micro gabbro (W and E) and diorite (Gunung Pendul in W and Gunung Dowo, Butak and Desa Drajet in W Jiwo))

Akmaluddin (2008)- Age correlation of Oyo Formation based on nannofossils and foraminifera biostratigraphy at Southern Mountains area, Yogyakarta, Indonesia. Proc. 6th Int. Workshop on Earth Science and Technology, p. 247-252.

Akmaluddin (2011)- Cenozoic chronostratigraphy and paleoceanography of Southern Mountains, Central Java, Indonesia. Doctoral Thesis, Kyushu University, Fukuoka, Japan, p. *(Unpublished)*

Akmaluddin (2012)- Nannofossils biostratigraphy of Miocene sequences in Southern Mountains, Central Java, Indonesia. Pros. 5th Seminar Nasional Kebumian, UGM, Yogyakarta, D-10, p. 1-13. *(online at: https://www.researchgate.net/publication/309634140_NANNOFOSSILS_BIOSTRATIGRAPHY_OF_MIOCENE_SEQUENCES_IN_SOUTHERN_MOUNTAINS_CENTRAL_JAVA_INDONESIA)*
(Calcareous nannofossils from Kali Ngalang section. in Southern Mountains. 57 taxa, subdivided into 7 interval zones and one range zone. Sambipitu Fm 5 zones (NN2-NN6; E-M Miocene); Oyo Fm 3 zones (NN8-NN10; M-L Miocene. Results indicate gap between Sambipitu and Oyo Fm, spanning M Miocene zone NN7/CN5b)

Akmaluddin, A., M.V. Agustin & A.M. Kurniawan (2018)- Stratigraphy and foraminiferal biostratigraphy of Sentolo Formation in Sedayu area: local unconformity identification in Early Pliocene. J. Applied Geology (UGM) 3, 2, p. 83-98.
(online at: https://jurnal.ugm.ac.id/jag/article/view/48596/25155)
(E Pliocene Sentolo Fm in Sedayu area, E of Kulon Progo Mts, S Java. Erosional surface and abrupt change in paleobathymetry from upper bathyal to middle neritic, suggesting unconformity at 4.5-4.2 Ma (N18-N19 boundary))

Akmaluddin, R. Ardian, E M. Nurhidayah & D.N.R. Syah (2024)- Oligo-Miocene climate change based on calcareous nannofossil from Kebo-Butak Formation, Bayat Area. Proc. 53rd Annual Conv. Indonesian Association Geologists (IAGI), Balikpapan 2024, 106, p. 1-4.
(online at: https://www.iagi.or.id/web/digital/79/256---Oligo-Miocene-Climate-Change-based-on-Calcareous-Nannofossil-from-Kebo-Butak-Formation,-Bayat-Area---Akmaluddin.pdf)
(Three warm-cold cycles in Late Oligocene (~23-28 Ma) of Kebo Butak Fm at Kalinampu, S of Bayat, C Java from peaks in Discoaster + Sphenolithus spp. (warm taxa) versus Coccolithus pelagicus (cold taxon))

Akmaluddin & Y. Ardhito (2014)- Biostratigrafi nanofosil Formasi Oyo jalur Gunung Lanang, daerah Bayat-Klaten. Proc. 43rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, PIT IAGI 2014-247, p. 1-5.
(online at: https://www.iagi.or.id/web/digital/6/2014_IAGI_Jakarta_Biostratigrafi-Nanofosil-Formasi.pdf)
('Biostratigraphy of nannofosils in the Oyo Formation along the Gunung Lanang section, Bayat, Klaten area'. Calcareous nannofossils Gn Lanang four zones: NN7 (Zone Discoaster exilis), NN8 (Catinaster coalitus), NN9 (Discoaster hamatus) and NN10 (Discoaster calcaris), suggesting Oyo Fm is of latest Middle -Late Miocene age, comparable to N13-N16 zone of planktonic foraminifera (= younger than N8-N11 age suggested by foraminifera in Surono et al. (1992) geological map))

Akmaluddin & M.F. Al Hafizh (2017)- Stratigrafi dan biostratigrafi Formasi Sentolo bagian Atas. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, p. 1-5.
('Stratigraphy and biostratigraphy of the Upper Sentolo Formation'. U Sentolo in section near Kaliagung Village, SW of Sentolo, C Java, 24m thick, mainly calcareous sandstone. Age Late Pliocene (N20-N21))

Akmaluddin, A. Kamei & K. Watanabe (2009)- Preliminary study of high-resolution correlation and calibration of biodatum marine microfossils (foraminifera and nannofossils) using strontium isotope stratigraphy: case study in Southern Mountains, Central Java-Indonesia. Proc. Int. Seminar on Geology of the Southern Mountains of Java, Yogyakarta 2009, 1, p. 103-108.

Akmaluddin, A. Kano & K. Watanabe (2009)- Paleoclimate reconstruction based on oxygen isotope composition of foraminifera in Southern Mountains area, Central Java, Indonesia. Proc. Int. Seminar on Geology of the Southern Mountains of Java, Yogyakarta 2009, 1, p. 97-102.

Akmaluddin, A. Kano & K. Watanabe (2012)- Paleoceanography of Central Java and closing of Indonesian Seaway reconstruction based on oxygen isotope composition of foraminifera. Proc. 41st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2012-SS-10, p. 17. *(Abstract only)*
(Oxygen isotopes study of planktonic and benthic foraminifera from Ngalang River section, S Mountains, C Java, Indonesia. Low planktonic δ18O values indicate sea surface T in this area higher than other tropical areas during E-M Miocene, probably related to development of W Pacific Warm Pool, which moved to present-day location in W Pacific after ~10Ma, due to closure of Indonesian seaway. Low δ18O values (warming of bottom water) of benthic foraminifera at ~18 Ma and ~12 Ma. Gradual δ18O increase (cooling) in Late Miocene (~12 Ma) in all taxa can be correlated to global cooling and/or closing of Indonesian seaway. Decreasing of carbon δ13C in Late Miocene likely correlates to 'carbonate crash', at ~11-10 Ma)

Akmaluddin, A., E.M. Nurhidayah, R. Ardian, M.I. Novian & D.H. Barianto (2024)- Nannofossil diversity and biostratigraphy of Kebo Butak Formation from Kalinampu Area, Bayat-Central Java. Proc. 8th Int. Conference on Biological Sciences (ICBS 2023), Yogyakarta, BIO Web of Conferences 94, 04008, p. 1-6.
(online at: https://www.bio-conferences.org/articles/bioconf/pdf/2024/13/bioconf_icbs2024_04008.pdf)
(Volcanoclastic Kebo Butak Fm in Kalinampu section, Jarum Village, Bayat, with well-preserved nannofossils of zones Furcatolithus predistentus (CNO4/NP24), Sphenolithus ciperoensis (CNO5/NP25), Sphenolithus delphix (CNO6/NP25) and Discoaster druggii (CNM1/NN1). Results confirm Kebo Butak Fm deposited in marine environment during Late Oligocene- E Miocene (~27-23 Ma) (with some reworked Eocene taxa))

Akmaluddin, A.R. Perdana, A.N. Fadhillah, Z. Nadirah & A. Hafiz (2017)- Studi awal kelimpahan fosil moluska pada Formasi Sentolo bagian atas. Proc. Seminar Nasional Kebumian 10, Dept. Teknik Geologi, Universitas Gadjah Mada (UGM), Yogyakarta, PSP-10, p. 895-911.
(online at: https://repository.ugm.ac.id/274228/1/PSP-10.pdf)
('Preliminary study of abundance of fossil molluscs in the upper Sentolo Formation'. Molluscs in Late Pliocene (N20-N21) part of Sentolo Fm NW of Kaliagung village, Kulon Progo, C Java: 10 species of gastropods (incl. Corbicula gerthi, Conus spp., Amnicola, Sulcospira, Cypraea) and 5 species of pelecypoda (incl. Anomia boettgeri, Paphia cheribonensis, Meretrix, Pallium, Anadara). Most species shallow marine and transitional)

Akmaluddin & R.N. Saputra (2014)- Umur Formasi Kebo Butak berdasarkan nanofosil gampingan daerah Bayat, Kab. Klaten, Provinsi Jawa Tengah. Proc. Seminar Nasional Kebumian 7, Jurusan Teknik Geologi, Universitas Gadjah Mada, Yogyakarta, M4P-07, p. 874-885.
(online at: https://repository.ugm.ac.id/135168/1/874-885%20M4P-0.pdf)
('Age of the Kebo Butak Formation based on calcareous nannofossils in the Bayat area, Klaten District, C Java'. Kebo Butak Fm of S Mountains of E Miocene age. Tegalrejo-Cermo section with Cyclicargolithus floridanus, Sphenolithus ciperoensis and Dictyococcites bisecta (zone NN1, earliest Miocene) and Discoaster druggii (zone NN2). Basal Karangnongko section with Sphenolithus heteromorphs and S. belemnos (NN4))

Akmaluddin, D.L. Setijadji, K. Watanabe & T. Itaya (2005)- New interpretation on magmatic belts evolution during the Neogene- Quaternary periods as revealed from newly-collected K-Ar ages from Central-East Java, Indonesia. Proc. 34th Annual Conv. Indonesian Association Geologists (IAGI), Surabaya, JCS2005-V143, p. 235-238.
(online at: http://repository.ugm.ac.id/digitasi/download.php?file=3261)
(K-Ar dating shows rock samples from Lawu and Wilis volcanic complex very young (Holocene?). Three volcanic centers of Late Miocene age at transition zone between Quaternary belt and Tertiary Southern Mountains (volcanic centers near Borobudur, Selogiri area, SE of Yogya, and hornblende-rich tuff of ~12 Ma)

Akmaluddin, T. Susilo & W. Rahardjo (2006)- Calcareous nannofossils biostratigraphy of Ngalang River section, Southern Mountain area, Gunung Kidul, Yogyakarta. Proc. 35th Annual Conv. Indonesian Association Geologists (IAGI), Pekanbaru 2006, 1p. *(Abstract only)*
(Samples from Miocene Sambipitu and Oyo Fms of Ngalang River section, S Mountains, C Java. Sambipitu Fm shows 5 zones (NN2-NN6; E- M Miocene), Oyo Fm 3 zones (NN8-NN10; M- L Miocene). Results suggest gap between Sambipitu and Oyo Fms. Suggesting younger ages than dated previously)

Akmaluddin, K. Watanabe, A. Kano & W. Rahardjo (2010)- Miocene warm tropical climate: evidence based on oxygen isotope in Central Java, Indonesia. World Academy of Science, Engin. Technology, 71, p. 66-70.
(online at: www.waset.org/journals/waset/v71/v71-11.pdf) ((also in Int. J. Environmental Earth Sciences 1, 2, p. 52-56, online at: www.idc-online.com/technical_references/pdfs/civil_engineering/Miocene%20Warm.pdf)
(O and C isotopes records of foraminifera and bulk carbonates from Oyo- Sambipitu Fms, S Mountains, C Java, demonstrate warm sea surface T during Miocene. Decrease of O isotope values at ~14 Ma, tied to M Miocene Optimum. Warming of sea surface T related to development of W Pacific Warm Pool and flow of warm water through Indonesian seaway. Cooling at ~12 Ma, tied to Late Miocene global cooling or closing of Indonesian Gateway)

Akmaluddin, K. Watanabe & H. Ohira (2012)- Oligocene-Early Miocene foraminifera, 40Ar/39Ar dating & fission track dating in Southern Mountains, Central Java. Proc. 41st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2012-SS-09, 1p. *(Abstract only)*
(Fission track dating of 3 samples from lower, middle and upper Semilir Fm at Buyutan section yielded ages of 23.2 Ma; near FO Globoquadrina dehiscens, 19.8±1.5 Ma and 19.4 Ma, near Top Globigerina binaiensis)

Akmaluddin, K. Watanabe & W. Rahardjo (2012)- Miocene calcareous nannofossils and foraminifera biostratigraphy, with calibrating the age using 40Ar/39Ar dating in Southern Mountains, Central Java. Proc. 41st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2012-SS-08, 1p. *(Abstract only)*
(online at: https://www.iagi.or.id/web/digital/9/2012_IAGI_Yogyakarta_Miocene-Calcareous-Nannofossils-and-Foraminifera.pdf)
(Calcareous nannofossil analysis on Miocene Sambipitu and Oyo Fms at Kali Ngalang section. Sambipitu Fm 5 zones (NN2-NN6; E-M Miocene), Oyo Fm 3 zones (NN8-NN10; M-L Miocene). Results indicate gap between Sambipitu and Oyo Fms, with absence of NN7. Foraminifera biostratigraphy of Sambipitu Fm 4 zones (N6-N8a), good agreement with nannofossil biozones, but M Miocene (Oyo Fm) suggest hiatus of N10-N12, inconsistent with nannofossils. 40Ar/39Ar date of 10 Ma of Oyo Fm tuff layers in agreement with biostratigraphic ages (tuff layers 10m above FO Discoaster hamatus (10.7 Ma) and FO Globigerina nepenthes (11.7 Ma), 20m below LO D. hamatus (9.4 Ma))

Alam, S., A.H. Hamdani, M.S.D. Hadian & N. Sulaiman (2025)- Orbital-climate control on deep-sea sedimentation of Halang Formation: A case study of Bantarujeg Section, Majalengka-West Java. Proc. 4th Int. Conference on Geological Engineering and Geosciences (ICGoES 2024), Yogyakarta, IOP Conference Series: Earth and Environmental Science 1517, 012007, p. 1-10.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1517/1/012007/pdf)
(Late Miocene-Pliocene rhytmic facies of volcanoclastc turbidites of Halang Fm exposed along Cilutung and Cijurey Rivers in the Bantarujeg area, Majalengka. Supposedly dominated by 100 kyr eccentricity periodicity (based on color?))

Alam, S., Y.A. Sendjadja, L. Jurnaliah, R.M.G. Gani & K.A Fachrudin (2019)- Evidence of Pliocene-Pleistocene unconformity in eastern Bogor Trough, Sumedang West Java. J. Geological Sciences Applied Geology (UNPAD) 3, 1, p. 38-43.
(online at: http://jurnal.unpad.ac.id/gsag/article/view/21528)
(Evidence for angular unconformity in Cikandung and Cipedes Rivers in eastern Bogor Trough, close to Pliocene-Pleistocene boundary, between marine Kaliwangu Fm and fluvial Citalang Fm.)

Alawiyah, S., W.G.A. Kadir, D. Santoso, E.J. Wahyudi, W. Aji & I. Gunawan (2022)- Modeling of subsurface structure by using magnetic methods in the area of Mt. Pandan, Indonesia. Arabian J. Geosciences 15, 1330, p. 1-12.
(online at: https://link.springer.com/article/10.1007/s12517-022-10599-0)
(Geomagnetic study around small Mount Pandan volcano in Kendeng Zone, E Java)

Aldan, F.A., A. Idrus, R. Takahashi & G. Kaneko (2019)- Spatial and temporal constraints of leached Cu-Au porphyry shoulder high-sulfidation epithermal deposit: insight from new discovered Kumbokarno Prospect, Trenggalek District, East Java. Proc. Int. Conf. Engineering, Technology and Innovative Researches, Purwokerto 2019, Journal of Physics: Conference Series 1367, 012037, p. 1-14.
(online at: https://iopscience.iop.org/article/10.1088/1742-6596/1367/1/012037/pdf)
(Newly discovered Kumbokarno Cu-Au high sulfidation deposit in Trenggalek District, SE Java. Alteration pattern suggests concealed intrusion, presumably part of Mio-Pliocene volcanic arc system. Propose model of leached Cu-Au porphyry shoulder high-sulfidation epithermal deposit)

Aldan, F.A., A. Idrus, R. Takahashi & G. Kaneko (2022)- High-sulfidation epithermal–porphyry transition in the Kumbokarno Prospect, Trenggalek district, East Java, Indonesia: constraints from mineralogy, fluid inclusion, and sulfur isotope studies. Resource Geology 72, 1, e12289, p. 1-25.
(online at: www.researchgate.net/publication/359062468_High-sulfidation....etc.)
(Indication of high-sulfidation epithermal-porphyry transition in Kumbokarno prospect, Southern Mountains, E Java. Prospect composed of two M Miocene intrusions with tonalite and diorite compositions).

Alderton, D., R. Harmon, R. Sloane & T. Sudharto (1994)- Fluid inclusion and stable isotope studies at Gunung Limbung Cu/Pb/ Zn deposit, West Java. J. Asian Earth Sciences 10, 1-2, p. 25-38.
(On base metal mineralization at Gunung Limbung in several steeply-dipping quartz veins, hosted by Miocene monzodiorite stock (see also Sudharto 1986 thesis))

Alderton, D.H.M. & R.T. Sudharto (1987)- Mineralization at Gunung Limbung, West Java: a fluid inclusion and geochemical study. In: E. Brennan (ed.) Proc. Pacific Rim Congress 1987, Gold Coast, Australasian Institute of Mining and Metallurgy (AusIMM), Parkville, p. 5-8.
(Cu-Pb-Zn sulphide mineralization associated with M-U Miocene quartz monzonite stock, 40km W of Bogor)

Alfing, J., M. Brocker & N.I. Setiawan (2021)- Rb-Sr geochronology of metamorphic rocks from the Central Indonesian Accretionary collision complex: Additional age constraints for the Meratus and Luk Ulo complexes (South Kalimantan and Central Java). Lithos 388-389, 105971, p. 1-20.
(New Rb-Sr geochronology for metamorphic rocks in Meratus Complex, SE Kalimantan, and Luk Ulo, C Java. both parts of the same E Cretaceous subduction system. New ages of HP/LT rocks from Luk Ulo Complex 119-114 Ma (Aptian))

Alfyan, M.F. & N.I. Setiawan (2014)- Petrogenesis batuan metamorf di daerah perbukitan Jiwo, Kecamatan Bayat, Kabupaten Klaten, Provinsi Jawa Tengah. Pros. Seminar Nasional Kebumian 7, Jurusan Teknik Geologi, Universitas Gadjah Mada, Yogyakarta, 1p. *(Abstract only)* *(online at: https://www.researchgate.net/publication/375718791_Petrogenesis_Batuan_Metamorf_di_Daerah_Perbukitan_Jiwo_Kecamatan_Bayat_Kabupaten_Bayat_Provinsi_Jawa_Tengah)*
('Petrogenesis of metamorphic rocks in the Jiwo hills, Bayat, Klaten regency, Java'. Metamorphic rocks in Jiwo Hills mica-albite phyllite, calc-silicate schist, graphite schist, serpentinite, quartzite, marble, albite-mica schist, epidote-glaucophane schist, glaucophane marble with lawsonite, gabbro, garnet-wollastonite skarn and meta-

siltstone. Metamorphic protoliths mainly pelitic sediments, but also basaltic-andesitic rocks. Epidote-glaucophane schist, gabbro and serpentinite may indicate Cretaceous subduction process and presence of ocean plate stratigraphy in Jiwo hills)

Ali, R.K., T. Winarno & M.A. Jamalulail (2020)- Karakteristik alterasi dan mineralisasi tipe epitermal daerah Gunung Budheg dan sekitarnya, Tulungagung, Jawa Timur. Eksplorium 41, 1, p. 1-14.
(online at: https://ejournal.brin.go.id/eksplorium/article/view/8034/6158)
('Characteristics of epithermal type alteration and mineralization in Gunung Budheg area and its surrounding, Tulungagung, East Java'.Discovery of vuggy quartz boulders around Pojok Village indicates presence of mineral deposits in area, likely an epithermal high sulfidation system)

Alloy, S., B. Kartika & M. Tambunan (1992)- Pemelajaran geologi daerah Malingping, Jawa Barat bagian Selatan. Proc. 21st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2, p. 463-476.
(online at: https://www.iagi.or.id/web/digital/50/21th-Vol-II-(7-10-Des-1992)-93-106.pdf)
('Geology study of the Malingping area, Southern West Java'. Brief review of area of W Bayat High- West Malingping Low-Honje High in SW Java. N-S trend of highs-lows)

Alwi, M., J. Hutabarat & A. Mulyo (2016)- Karakteristik exotic block batuan metamorf pada Komplek Melange Luk Ulo. Seminar Nasional Ke III, Fakultas Teknik Geologi Universitas Padjadjaran, Bandung, p. 1-11.
(online at: http://ftgeologi.unpad.ac.id/wp-content/uploads/2018/04/Karakteristik-Exotic-Block-Batuan-Metamorf-Pada-Komplek-Melange.pdf
('Characteristics of exotic blocks of metamorphic rocks in the Luk-Ulo melange complex'. Luk Ulo Melange complex in Karangsambung area is accretion prism complex formed during Cretaceous-Paleocene subduction. Exotic blocks of metamorphic rocks includes serpentinite, phyllite, schist, marble, quartzite, and eclogite)

Alzwar, M., N. Akbar & S. Bachri (1992)- Geological map of the Garut and Pameungpeuk Quadrangle, Jawa, 1208-6 and 1208-3, 1:100,000. Geological Research Development Centre (GRDC), Bandung.

Amiarsa, D.P., D. Noeradi, A.H. Harsolumakso & S. Ubaidillah (2011)- Potensial hydrocarbon reservoir at the Pliocene carbonate sediment, Situbondo Area, East Java. Proc. 35th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA11-SG-020, p. 1-8.
(On Pliocene Pacalan Mb globigerinid limestone exposed on flank of anticline in Situbondo area, S of Madura Straits, E Java)

Amijaya, D.H., N. Adibah & A.Z.A. Ansory (2016)- Lithofacies and sedimentation of organic matter in fine grained rocks of Nanggulan Formation in Kulon Progo, Yogyakarta. J. Applied Geology (UGM) 1, 2, p. 82-88.
(online at: https://journal.ugm.ac.id/jag/article/view/26964/16605)
(Eocene shale at Nanggulan, south C Java, potential shale gas source. Deposited in estuarine to shallow marine environments. Core samples with TOC 0.36-1.0 % for shales and 12.8 % for coaly shales. Estuarine E Eocene higher TOC. Volcanic activity in M Eocene caused lower organic content)

Amijaya, H. & P.A. Pameco (2017)- Geochemistry of natural gas seepages in Boto Area, Bancak, Semarang, Central Java. Indonesian J. on Geoscience (IJOG) 4, 2, p. 61-70.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/327/233)
(Natural gases from surface seeps in W Kendeng zone SE of Semarang and NE of Salatiga thermogenic gases with 53-85% methane, 10-35% N_2, etc. Possibly derived from humic (coaly) organic matter))

Amijaya, H., M.I. Novian & E. Iswandi (2011)- Contribution of organic petrography study on organic-rich sediment to the depositional environment determination of Upper Semilir Formation of Southern Mountain in Yogyakarta. Proc. Joint 36th HAGI and 40th IAGI Annual Conv., Makassar, JCM2011-215, p. 1-8.
(Organic-rich coaly silt-sandstone and thin coal in upper Semilir Fm, interpreted as lagoonal-estuarine facies)

Aminuddin, B.M., T.Y. Nahrowi, P.K. Yohannes & M.G. Rukmiati (1981)- Studi anggota Selorejo, Cekungan Jawa Timur bagian Utara. Proc. 10th Annual Meeting Indonesian Association Geologists (IAGI), Bandung, 1, 14, p. 144-155.
(online at: https://www.iagi.or.id/web/digital/34/PIT-IAGI-1981-Vol-1-Paper-14.pdf)
('Study of the Selorejo Formation, NE Java'. 'Coquina- globigerid sand' of Late Pliocene (N21) age. Thickness 100-300m in north, 0-50m in south. Gas-bearing in Cepu area (Balun, Tobo), oil-bearing near Surabaya)

Aminuddin, M.I.K.A., N.I. Setiawan, I.W. Warmada & Z. Endut (2024)- Petrography & geochemistry of metapsammite and metagranite rocks from Luk Ulo complex, Central Java, Indonesia. Conference Langkawi 2022, AIP Conference Proceedings 3014, 1, p. 1-15.
(Metasandstone and metagranite rocks as large boulders near Loning-Luk Ulo River confluence)

Aminuddin, M.I.K.A., M. Shuaib, N. Akhtar, N.I. Setiawan & I.W. Warmada (2023)- U-Pb zircon geochronology and geochemistry of Luk Ulo River boulders belong to Late Cretaceous-Paleocene metapsammite and metagranite of Luk Ulo Karangsambung, Central Java, Indonesia. Environmental Science and Pollution Research, p. 1-38.
(preprint online at: www.researchgate.net/publication/368675680_U-Pb_Zircon_geochronology_and_geochemistry_of_ Etc.)
(Large boulders of Late Cretaceous-Paleocene hornblende and garnet-bearing metapsammite and metagranite in Luk Ulo Complex. Protolith of rocks with hornblende identified as I-type granitoid from magmatic arc with basaltic differentiation. Protolith of rocks with garnet S-type post-collisional granitoid. Zircon magmatic ages ~67-69 Ma (late Cretaceous). Ages of inherited zircons ~100- 437 Ma (E Cretaceous- Silurian). Age distribution patterns suggest Sundaland source)

Amri, I.U., T. Octaviani & B. Indra (2011)- Hydrocarbon traps modelling in Mojokerto area East Java region, based on gravity data. Proc. 35th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA11-SG-015, p. 1-7.

Amrullah, I., B.S. Fitriana, R. Armanda, I.K.A. Permana, B. Suryoko & D. Yusmen (2025)- Unleashing fractured reservoir potential on tight carbonate in onshore East Java, Indonesia. Proc. SE Asia Petroleum Exploration Society (SEAPEX) Conference, SEC 2025, Singapore, *(Abstract + Presentation, 8p.)*
(Pertamina EP- Cepu presentation. Oligocene- E Miocene Kujung Fm carbonate may eveop fractures in folded/ deformed areas)

Andreas, H., H.Z. Abidin, T.P. Sidiq, I. Gumilar, Y. Aoki, A.L. Hakim & P. Sumintadiredja (2017)- Understanding the trigger for the LUSI mud volcano eruption from ground deformation signatures. In: P. Cummins & I. Meilano (eds.) Geohazards in Indonesia: Earth science for disaster risk reduction, Geol. Soc, London, Special Publ. 441, p. 199-212.
(online at: http://www.eri.u-tokyo.ac.jp/people/yaoki/2017GSLSP.pdf)
(LUSI mud volcano in Sidoarjo, E Java, started to erupt on 29 May 2006, 200 m from drilling Lapindo oil-gas well, and continues to erupt. Ground deformation data from GPS monitoring do not support triggering of LUSI eruption by reactivation of underlying fault due to Yogyakarta earthquake)

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(Four Quaternary marine terraces identified along S coast of Java: T1 0-.05m, T2 2m, T3 17m, T4 22 m, suggest late Quaternary uplift of 0.17 mm/yr)

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(M Miocene Klapanunggal Fm limestone outcrops in Citeureup area, West Java. Not much new, poor location map, no bioclasts identifications, etc.; JTvG)

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(High-grade, epithermal gold-silver deposits near Pandeglang, Banten, W Java)

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(online at: https://booksc.org/book/10173323/975ad3)
(Cibaliung gold project in SW Java, W of Bayah Dome, in Neogene Sunda-Banda arc. Epithermal gold-silver quartz vein mineralization in sub-aqueous basaltic andesite Honje Fm volcanics with intercalated sediments, intruded by andesite-diorite plugs and dykes. Age of mineralization Late Miocene. Hydrothermal system responsible for mineralization may be related to rhyolitic magmatism near volcanic intrusive center during back arc rifting that formed graben or pull-apart basin (see also Harijoko et al. 2004))

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(online at: https://library.hagi.or.id/wp-content/uploads/2024/01/112.pdf)
(Field in Jatibarang area, NW Java, with secondary porosity enhancement in Baturaja limestone reservoir))

Anggrainy, L.N.R. (2023)- Biostratigrafi nanofosil gampingan di daerah Blora, Cekungan Jawa Timur Bagian Utara. Universitas Trisakti, Thesis, p.
('Calcareous nannofossil biostatigraphy in the Blora area, NE Java basin'. Miocene nannofossils of Tawun-Ngrayong Formations in LN well(s))

Anggun, A. (2012)- Play identification for Paleogene rift sediment in Ngimbang Sub basin, East Java Basin, Indonesia. In: 74th EAGE Conference & Exhibition, Copenhagen 2012, P054, p. 1-5. *(Extended Abstract)*
(Study to identify play types in Eocene- Oligocene rift sediments in Ngimbang Sub Basin, S part of NE Java Basin. At least four play types: facies change, alluvial fan, basin floor fan and channel fill plays)

Anhaer, N., M.I. Novian & D. Novita (2025)- Facies analysis and sedimentation mechanism of volcaniclastics of Cikarang Member of Jampang Formation in West Java. Riset Geologi dan Pertambangan (BRIN) 34, 2, p. 111-129.
(online at: https://jrisetgeotam.brin.go.id/index.php/jrisgeotam/article/view/1343/pdf_1)
(Late Early Miocene (N7- N8) Upper Cikarang Member of volcanics-rich Jampang Fm (overlying Jampang Fm Tuff and Breccia Member) in Nyalindung sub-district S of Bogor in SW Java, is characterized by volcanoclastics-rich gravity flow deposits.Eleven lithofacies types oberved along Tonjong River)

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(online at: https://resolver.kb.nl/resolve?urn=MMKB24:078906000:pdf)

('Iodine'. Overview of occurrences and production of iodine in Indonesia, mainly from wells in Tertiary basins of East Java, N of volcanic arc. No figures or maps)

Anonymous (1924)- Uitkomsten van de mijnbouwkundig-geologische onderzoekingen in de Djampangs (Residentie Preanger Landschappen). Verslagen Mededeelingen Indische delfstoffen en hare toepassingen, Dienst Mijnbouw Nederlandsch Oost-Indie, 16, p. 1-28.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB24:078908000:00001)
('Results of mining-geological surveys in the Jampangs, Priangan Residency'. Results of mineralization survey by the Dienst van het Mijnwezen in 1922-1924. Unlike conclusions of earlier workers on Java (Junghuhn, Verbeek & Fennma), there are potentially commercial gold-silver-copper mineralizations in Jampang Kulon area (SW of Sukabumi, SW Java), in quartz veins associated with igneous intrusives. Main Mijnwezen personnel Irs. Harting, Planten and Van Gelder (this eventually led to 1930s gold mining by government and Billiton Maatschappij))

Anonymous (W.F.F. Oppenoorth et al.) (1931)- Verslag naar het onderzoek naar het voorkomen van ertsafzettingen in Zuid-Bantam. Verslagen Mededeelingen Indische delfstoffen en hare toepassingen 20, Dienst Mijnbouw Nederlandsch-Indie, G. Kolff, Bandung, p. 1-75.
('Report of investigation of the presence of ore deposits in South Banten'. Thorough report on ore deposits in South Banten (Cikotok, Cipicung, Cihara, Pasirmalang, etc.), based on investigations by Oppenoorth, Koolhoven, Ter Haar, Ter Bruggen and Bothe between 1924-1929. Most Au-Ag bearing quartz veins in S Banten trending N-S or NNW-SSE ('Jampang trend') and found in intrusive andesites and trachytes or their contact with Eocene sediments)

Anonymous (1939)- Delfstoffen op Java, met uitzondering van aardolie, kolen en ertsen. Verslagen Mededeelingen Indische delfstoffen en hare toepassingen, Dienst Mijnbouw Nederlandsch-Indie, Bandung, 22, p. 1-87.
(online at: https://resolver.kb.nl/resolve?urn=MMKB24:078915000:pdf)
('Economic minerals on Java, with the exception of oil, coal and metals'. Review of occurrences of gas, barite, phosphate, sulfur, iodine, quartz sand, marble, building materials, etc., on Java and Madura)

Anshori, C. (2007)- Petrogenesa basalt Sungai Medana Karangsambung, berdasarkan analisis geokimia. J. RISET Geologi dan Pertambangan (LIPI)) 17, 1, p. 37-50.
(online at: http://jrisetgeotam.com/index.php/jrisgeotam/article/viewFile/143/pdf_9)
('Petrogenesis of Medana River basalt, Karangsambung, based on geochemical analysis'. Several basaltic volcanic rocks at Karangsambung melange complex, generally associated with ophiolite and identified as oceanic rocks. However Medana River basalt not associated with gabbro, peridotite or chert. Geochemistry analysis suggest silica-saturated basalt of tholeiitic normal mid oceanic ridge basalt (NMORB))

Ansori, A.Z.A. & D.H. Amijaya (2014)- Proses pengendapan dan lingkungan pengendapan serpih Formasi Nanggulan, Kulon Progo, Yogyakarta, berdasarkan data batuan inti. Proc. Seminar Nasional Kebumian 7, Dept. Teknik Geologi, Gadjah Mada University, Yogyakarta, p. 708-720.
(online at: https://repository.ugm.ac.id/135165/1/708-720%20M4O-03.pdf)
('Depositional processes and setting of shales of the Nanggulan Formation, Kulon Progo, Yogyakarta, based on core data'. Depositional environment of Nanggulan Fm upward deepening, from fluvial to tide-dominant estuarine to shallow marine)

Ansori, C. (2010)- Model mineralisasi pembentukan opal Banten. Jurnal Geologi Indonesia 5, 3, p. 151-170.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/272)
('Model of mineralization of Banten opal'. Precious opal at Lebak Regency, W Java, is opal-CT. Associated with Late Pliocene- Pleistocene folding, weathering, and silica leaching from volcanic glass. Host rock is dark grey claystone below polymict conglomerate, >8m deep)

Ansori, C., S. Godang, D. Hastria & Isyqi (2019)- Protolith oceanic island arc dari granitoid Tipe M dan I di Karangsambung, Kebumen, Jawa Tengah. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 20, 4, p. 249-262.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/485

('Oceanic Island Arc protolith of M- and I-type granitoids at the Karangsambung area, Kebumen, C Java' Granitoid rocks in Luk Ulo melange complex formerly considered as either plagiogranite formed at mid-ocean-ridge, leucogranite formed from continental collision, or as arc-related granitoid. Karangsambung granitoids M- and I-type formed at ~20-30 km depth, from differentiation of magma at K-enriched oceanic island arc)

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(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/406/394)
('Igneous Rock types in the Gabon Formation in the Karangbolong High, Kebumen'. Karangbolong High in S Mountains of Java dominated by Late Oligocene- E Miocene Gabon Fm volcanics: mainly pyroxene andesite, basaltic andesite and some olivine basalt. To N igneous rocks more acid (calc-alkaline), in S slightly island arc tholeiite. Tectonic position of Gabon Fm in island arc plate margin)

Ansori, C., P.D. Raharjo, A. Setianto, I W. Warmada & N.I. Setiawan (2020)- Geomorphology and iron sand potential at coastal sediment morphology, Kebumen Regency. Proc. 1st Geosciences and Environmental Sciences Symposium (ICST 2020), UGM, Yogyakarta (virtual), E3S Web of Conferences 200, 06004, p. 1-7.
(online at: https://www.e3s-conferences.org/articles/e3sconf/pdf/2020/60/e3sconf_icst2020_06004.pdf)
(In Kebumen District, S Java, 33 landform units identified. Potential iron sand found in Young Coastal Sediment (M.4; 765 ha area) and Old Coastal Sediment (M.5; 590 ha area). Old Coastal Sediment (M.5) down to 30m depth in W and 60m in E. "With lowest Fe content of 60.72%, total Fe content in iron sand is estimated to reach 629,696,799 tons" (unrealistic precision?; JTvG)).

Ansori, C., N.I. Setiawan, I.W. Warmada & H. Yogaswara (2022)- Identification of geodiversity and evaluation of geosites to determine geopark themes of the Karangsambung-Karangbolong National Geopark, Kebumen, Indonesia. Int. J. Geoheritage and Parks 10, p. 1-15.
(online at: https://www.sciencedirect.com/science/article/pii/S2577444122000016)
(Overview of 41 significant geosites in Karangsambung-Karangbolong National Geopark (KKNG) in Kebumen, C Java. N part of KKNG subtheme is Cretaceous ocean floor and subduction zone metamorphic rocks, and S part is Karangbolong conical karst landscape of M Miocene Wonnosari limestones, and outcrops of 'Old Andesites (25-16Ma). Geopark best record of plate tectonics in SE Asia)

Ansori, C., Sujatmiko & H. Permana (2000)- Giok Jawa dari wawasan Karangsambung, Kebumen, Jawa Tengah, dan pemanfaatannya. Proc. 29th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 157-163.
('Java jade from the Karangsambung area, Kebumen, Central Java, and its utilization'. Boulders of green jade from Lokidang River, Kalitengah and Kebondalem, associated with Luk Ulo melange complex)

Ansori, C., W. Warmada, N.I. Setiawan & H. Yogaswara (2023)- Geospatial analysis of the distribution of the megalithic to colonial cultural features at the Karangsambung- Karangbolong National Geopark, Kebumen, Indonesia and its surrounding area. Int. J. Geoheritage and Parks 11, p. 407-432.
(online at: https://www.sciencedirect.com/science/article/pii/S2577444123000473)
(11 megalithic era cultural sites, 12 Hindi- Buddist sites, 31 Islamic sites, and 83 colonial sites in Geopark)

Anugrahadi, A., Y. Surachman D., S. Mulyono, E. Triarso, D. Muljawan, S. Hidayat, A. Lesanpura et al. (1999)- Oblique subduction zone in the southern West Java offshore. In: I. Busono & H. Alam (eds.) Developments in Indonesian tectonics and structural geology, Proc. 28th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 1, p. 73-82.
(onlne at: https://www.iagi.or.id/web/digital/63/7.pdf)
(In Indonesian. Some results of BGR SONNE cruise 1998-1999)

Anwar Maruyani, Khoiril (1998)- Pola sebaran foraminifera dalam hubungannya dengan stratigrafi sikuen (studi kasus: daerah Blora dan sekitarnyaldaerah lintang rendah). Proceedings Institut Teknologi Bandung (ITB) 30, 3, p. 1-16.
(online at: https://journals.itb.ac.id/index.php/jmfs/article/view/9395)

('Foraminifera distribution patterns within sequence stratigraphy; a case study in Blora and surrounding areas'. Age, paleobathymetry and sequences identification at Braholo, Guwo, Ledok and Ngliron River sections of NE Java. Ngrayong Sst Fm generally age N9-N10)

Apotria, T., M.A. Weidmer, D. Walley, A. Derewetzky & D. Millman (2009)- Mass wasting and detrital carbonate deposition, Cepu Block, East Java. Proc. 33rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA09-G-143, p. 1-9.
(On detrital carbonate aprons around Oligo-Miocene buildups in Cepu Block, as penetrated by Jambaran 2)

Aoki, Y. & T.P. Sidiq (2014)- Ground deformation associated with the eruption of Lumpur Sidoarjo mud volcano, east Java, Indonesia. J. Volcanology Geothermal Research 278-279, p. 96-102.
(Ground deformation associated with eruption of Lumpur Sidoarjo mud volcano between 2006 and 2011 studied from Synthetic Aperture Radar images. Marked subsidence observed West of, and around vent)

Aprilana C., Premonowati, Hanif I.S., Choirotunnisa, A. Shirly, M.K. Utama, Y.R. Sinulingga & F Syafitra (2018)- New prespective paleogeography of East Java Basin; implication respond to oil and gas eksploration at Kujung Formation carbonate reservoar. Proc. 41st HAGI Annual Conv. Exhib. 2016, IOP Conference Series: Earth and Environmental Science 132, 012006, p. 1-8.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/132/1/012006/pdf)
(Six paleogeographic maps of NE Java: E Paleocene (P5-56-55 Ma), M Eocene (P14-41 Ma), Late Oligocene (P22-25.5 Ma), E Miocene (N7-16.5 Ma), M Miocene (N9-14.5 Ma) and Pleistocene (NN19-1.5 Ma); (unfortunately maps printed much too small; JTvG.)

Arai, S. & N. Abe (1996)- Detrital chromian spinels of fore-arc mantle origin in meta-conglomerate from a pre-Tertiary metamorphic complex of Jiwo Hills, Central Java, Indonesia. In: H. Noda & K. Sashida (eds.) Professor H. Igo Commemorative volume on Geology and Paleontology of Japan and Southeast Asia, Gakujyutsu Tosho Insatsu, Tokyo, p. 217-224.
(Pre-Eocene meta-conglomerates from Jiwo Hills with clasts of poorly sorted sandstones and volcanics and common chromian spinel grains derived from mantle peridotites. Conglomerate possibly fill of Marianas-type trench, where peridotites were exposed and sediments and volcanics were supplied from arc)

Arai, S., D.A.D. Sujatna, K. Hardjadinata & N. Niitsuma (1981)- Metamorphic and related rocks from Jiwo hills near Yogyakarta, Java. In: T. Saito (ed.) Micropaleontology, petrology and lithostratigraphy of Cenozoic rocks of the Yogyakarta region, Central Java. Publ. Yamagata University, p. 7-14.

Ardhana, W. (1993)- A depositional model for the Early Miocene Ngrayong Formation and implications for exploration in the East Java Basin. Proc. 22nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 396-443.
(Ngrayong Fm regressive-transgressive cycle with coarse sands in lower part, fine clastics and limestones towards top. Five facies: tidally-influenced cross-bedded sandstones, sandy turbidites, contourites, hemipelagic mudstones and carbonates. Cross-bedded sandstones, capped by thin bioclastic carbonates, widely distributed in shelf- upper slope area in N of study area. Contemporaneous turbidites, contourites and hemipelagic slope-basinal mudstones to S. Basement architecture controlled Oligocene-Miocene paleogeography and Ngrayong deposition. Sandy turbidite facies most productive and primary exploration target. Cross-bedded sandstones produced gas in NW, but no hydrocarbons elsewhere Main reason is destruction of traps by exposure and erosion. Deep marine carbonate contourites tested hydrocarbons in Tuban Block and form secondary target)

Ardhana, W., P. Lunt & G.E. Burgon (1993)- The deep marine sand facies of the Ngrayong Formation in the Tuban Block, East Java Sea. Indonesian Petroleum Association (IPA) Sandstone Core Workshop, Jakarta 1993, p. 117-175.
(Early M Miocene Ngrayong Fm quartz sands most productive reservoir onshore E Java. Fields near Cepu and outcrops to N and W show thickly bedded, m-grained, cross-bedded sandstones. Three wells drilled further S (Tuban JOB; Ngasin 1, Gondang 1, Grigis Barat 1) silt to fine sand, with some m-grained quartz. Paleontology suggests bathyal facies. Sediments thinly bedded and locally good flow rates. Gondang-1 tested 538 BOPD from

25' sandy pelagic carbonate. Deposition mainly from deep sea currents (contourites). Grigis Barat-1 with features indicative of distal turbidite)

Ardhito, Y. (2013)- Biostratigrafi nannofossil gampingan, lintasan Gunung Temas dan Gunung Lanang Kecamatan Bayat, Kabupaten Klaten, Propinsi Jawa Tengah. S1 Thesis, Universitatas Gadjah Mada, p. 1-143.
(Unpublished; see also Akmaluddin and Ardito 2014))
(parts online at: http://etd.repository.ugm.ac.id/...)
('Biostratigraphy of calcareous nannofossils of the Mount Temas and Gunung Lanang sections, Bayat District, Klaten Regency, Central Java'. Oyo Fm at Gunung Lanang section 4 zones (NN7- NN10), Gunung Temas two zones (NN10- NN11) (= Late Miocene). Paleoclimate: overall cooling, with four warming-cooling events)

Ardhito, Y. & Akmaluddin (2013)- Biostratigrafi nannofossil gampingan, lintasan Gunung Temas, Kecamatan Bayat, Kabupaten Klaten, Propinsi Jawa Tengah. Proc. Seminar Nasional Kebumian 6, Universitas Gajah Mada, Teknik Geologi, Yogyakarta 2013, BPS08, p. 82-96.
(online at: https://www.academia.edu/40355862/Prosiding_Seminar_Nasional_Kebumian_ke_6)
('Biostratigraphy of calcareous nannofossils, Mount Temas section, Bayat District, Klaten Regency, Central Java'. Oyo Fm in SouthernMountains zone NN10-NN11 (Late Miocene), i.e. younger than most earlier reports)

Ardine, J.E., S.U. Pratomo, C. Prasetyadi, A. Rizky, Y.C. Kristanto & I N.A.D. Manggala (2023)- Depositional environment characteristic of the Late Miocene Kerek Formation in Kendeng Basin: a case from Cipluk Area, Kendal Regency, Central Java. J. Earth and Marine Technology (JEMT) 4, 1, p. 41-48.
(online at: https://ejurnal.itats.ac.id/jemt/article/view/4830/3442)
(Miocene Kerek Fm in Kendeng Basin in C Java characterized by turbidite deposits. Upper Miocene section in Cipluk area with rel. distal, lower fan turbidites, bathyal benthic foraminifera. Not much new)

Ariani, N.P., Akmaluddin & W. Rahardjo (2017)- Paleoclimatic change during Late Miocene based on planktonic foraminifera in the Sentolo Formation- Kulon Progo. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), 80, Malang, p. 1-5.
(online at: https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_Paleoclimatic-Change-During.pdf)
(Planktonic foraminifera assemblages in Late Miocene (N16-N17; ~8.6-6.1 Ma) part of Sentolo Fm in Jurang-Banjarharjo and Kalibawang sections, W Progo Hills, C Java, suggest paleoclimate fluctuations: Zone I warm (>~8.6 Ma); zone II cooling around ~7-8.6 Ma (cold peak at ~8 Ma); Zone III warming around ~6.1- 7 Ma (warm peak ~7 Ma) and Zone IV re-warmed to cool down at <~6.1 Ma. Pattern comparable to observations in Kepek Fm (S Mountains) on, Kerek Fm (Kendeng Zone) and ODP 806 in Pacific Ocean)

Aribowo, S., L. Husson, D.H. Natawidjaja, C. Authemayou, M.R. Daryono, A.R. Puji, P.G. Valla et al. (2022)- Active back-arc thrust in North West Java, Indonesia. Tectonics 41, 7, e2021TC007120, p. 1-23.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/full/10.1029/2021TC007120)
(Java back-arc thrust runs E-W through entire back-arc area of Java Island. West Java back-arc thrust has been active from Pliocene- Recent, but lateral variations. Tectonic activity sustained for long time in E, in W Java back-arc thrust broke through Jakarta Basin possibly only since Late Pleistocene (and partitions into network of immature transpressive structures)

Arifin, L., S. Hakim, K. Tamaki, K. Kisimoto, T. Yokokura & Y. Okuda (1987)- Seismic reflection of the Sunda Trench in Western Java. CCOP, Technical Bulletin 19, p. 13-23.
(online at: https://ncloud.dotdream.co.th/index.php/s/xCwHAtAFYxzBtC9)

Arisbaya, I. & L. Handayani (2018)- Beneath the scaly clay and clay breccia of Karangsambung area. Proc. Global Colloquium on GeoSciences and Engineering, Bandung 2017, IOP Conference Series: Earth and Environmental Science 118, 012005, p. 1-6.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/118/1/012005/pdf)
(Brief review of complex geology of Karangsambung area, C Java. ENE trending Late Cretaceous ophiolitic blocks surrounded by E-W trending Eocene- Oligocene sedimentary melange formation)

Arisbaya, I., H. Lestiana, M.M. Mukti, L., Handayani, H. Grandis & P. Sumintadireja (2021)- Garsela Fault and other NE-SW active faults along the southern part of Java Island. Proc. Int. Conf. on the Ocean and Earth Sciences, Jakarta 2020, IOP Conference Series: Earth and Environmental Science 789, 12065, p. 1-8.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/789/1/012065/pdf)
(About possible NE-SW trending, seismically active faults in South Garut area, W Java)

Arisbaya, I., E. Wijanarko, P. Sumintadireja, Warsa & H. Grandis (2024)- Deformation under a young volcanic covered area in Southern Garut, Indonesia: Insight from 3D gravity nodelling. J. Mathematical Fundamental Sciences (ITB) 55, 3: p. 239-253.
(online at: https://journals.itb.ac.id/index.php/jmfs/article/view/20477)

Ariyanto, P., A.I. Maulana & A. Suardiputra (2008)- The application of balancing cross-section and sandbox modeling for imbricate thrust system characterization in the Sumedang Area of West Java. Proc. 32nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA08-SG-043, p. 1-10.

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(W Central Java poorly explored area with oil seeps)

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('Environmental transition between Nglanggran Formation to Sambipitu Formation, Ngalang River, Karanganyar Hamlet, Ngalang Village, Gunung Kidul District, etc.'. Transition between two basal Miocene volcanoclastic formations: Nglanggran andesite breccia proximal facies. Overlying Sambipitu Fm more distal with Thalassinoides and Chondrites trace fossils, possibly upper submarine fan facies on flank of volcano; with zone N4- N5 planktonic foraminifera)

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(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/159/154)
('Sedimentology of the Paleogene Worawari Fm in the North Serayu Mountains'. New name Worawari Fm for M Eocene- Oligocene deep marine turbidites and olistostrome deposits ENE and NW of Banjarnegara, C Java. Turbidites at base with abundant radiolaria and deep water benthic forams (Bathysiphon, Cyclammina), develop into olistostrome of claystone matrix with blocks up to 10s of m, and polymict conglomerates, sandstones and include Nummulites limestones)

Bachri, S., E. Slameto & I. Nurdiana (2010)- Stratigrafi dan sedimentologi endapan dataran pasang-surut di Kali Tulis, Banjarnegara. Jurnal Sumber Daya Geologi (JSDG) 20, 3, p. 169-176.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/170/166)
('Stratigraphy and sedimentology of tidal flat deposits at Kali Tulis, Banjarnegara' Merawu Fm in Kali Tulis. Lower part mainly mudstone, interpreted as mud flat, and reportedly with E-M Miocene (N8-N14) planktonic foraminifera (= open marine; do not support mud flat facies interpretation; JTvG). Upper part sand-rich, interpreted as sand flat and with common volcanic rock fragments, suggesting provenance from volcanic arc)

Bahar, A., D. Santoso, F. Hakiki, S. Widiyantoro & Y. Surachman (2006)- Seismic identification and characterization of gas hydrates in Central Sunda margin- Indonesia. Proc. 8th SEGJ Int. Symposium, Kyoto 2006, p. 1-5.
(Significant hydrate accumulation interpreted from Bottom Simulating Reflector on BGR seismic lines in central Sunda margin (forearc region off SW Java- S Sumatra))

Baharuddin & S. Permanadewi (2012)- Indikasi batuan adakitik di Pacitan, Jawa Timur. Jurnal Sumber Daya Geologi (JSDG) 22, 4, p. 209-215.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/120/114)
('Indications of adakitic rocks in Pacitan, East Java'. Late Oligocene- E Miocene 'Old Andesites' volcanic and intrusive rocks from Pacitan area in Southern Mountains of E Java basaltic-andesite to rhyolite of island arc affinity. Several samples adakite-like, with high Sr and low Y, Yb)

Barianto, D.H., E. Aboud & L.D. Setijadji (2009)- Structural analysis using Landsat TM, gravity data, and paleontological data from Tertiary rocks in Yogyakarta, Indonesia. Mem. Faculty of Engineering, Kyushu University, 69, 2, p. 65-77.
(online at: https://qir.kyushu-u.ac.jp/dspace/bitstream/2324/14900/1/paper4.pdf)
(Development of NE-SW trending Yogyakarta graben. Two major faults divide area into three parts. Different uplift rates created depressed block between two faults. Foraminifera suggest all blocks in shallow marine environment in zone N9 (~15 Ma). Pliocene uplift after deposition of Kepek and U Sentolo marls, followed by extension since Pleistocene. W part uplifted >590m, central part <120m, E part uplifted above 170-300m)

Barianto, D.H., A.F. Faza, M.I. Novian & S. Husein (2015)- Stratigrafi karbonat Formasi Seloredjo Anggota Dander di Sungai Banyurejo Kecamatan Bubulan Kabupaten Bojonegoro, Jawa Timur, Indonesia. Proc. Seminar Nasional Kebumian 8. Jurusan Teknik Geologi FT UGM, Yogyakarta, p. 249-254. *(online at: https://www.researchgate.net/publication/283122034_Stratigrafi_Karbonat_Formasi_Seloredjo_Anggota_Dander_di_Sungai_Banyurejo_Kecamatan_Bubulan_Kabupaten_Bojonegoro_Jawa_Timur_Indonesia)*
('Carbonate stratigraphy of the Dander Member of the Seloredjo Formation in the Banyurejo River, Bubulan District, Bojonegoro Regency, East Java')

Barianto, D.H., A. Harijoko & K. Watanabe (2009)- The Tertiary volcanic rocks distribution in Yogyakarta and its vicinity, Indonesia. Proc. Earth Sciences International Conference, Manila 2009, p.

Barianto, D.H., P. Kuncoro & K. Watanabe (2010)- The use of foraminifera fossils for reconstructing the Yogyakarta graben, Yogyakarta, Indonesia. J. Southeast Asian Applied Geology (UGM) 2, 2, p. 138-143.
(online at: https://journal.ugm.ac.id/jag/article/view/7256/5689)
(Yogyakarta region, C Java, NE-SW-trending central depression bordered by two parallel faults. Based on foraminifera observations, depression and bordering blocks were in same depositional environment (inner neritic) during N9 (M Miocene). Present positions indicate W part uplifted higher than others (>590m), Central part uplifted <120 mm, E part >170-300m)

Barizi, A.R.F., C. Prasetyadi, M.A.S. Janukusuma & M.N. Setiawan (2024)- Sedimentary facies and depositional environments of the Halang Formation in the North Serayu Basin: Insights from outcrop study in Bantarbolang, Pemalang, Central Java. Berita Sedimentologi 50, 1, p. 1-9.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/447/431)
("Micropaleontological analysis suggests an inner to outer bathyal environment at depths ranging from 283.65 to 713.7 meters" (nonsensical depth range, concluded from one planktonic and one misspelled non-diagnostic benthic foram in 5m thick turbiditic section). Age believed to be E Pliocene, different from generally accepted Late Miocene age, based on one non-diagnostic and one possibly misidentified planktonic foram species Globigerina riveroae (candidate for worst paper of the year; JTvG?)).

Basuki, A., D.A. Sumanagara & D. Sinambela (1994)- The Gunung Pongkor gold-silver deposit, West Java, Indonesia. In: T.M. van Leeuwen et al. (eds.) Indonesian mineral deposits- Discoveries of the past 25 years. J. Geochemical Exploration 50, p. 371-391.
(Gunung Pongkor gold-silver deposit in W Java several steeply dipping epithermal quartz-veins, associated with Neogene calc-alkaline volcanism. K/Ar dates of mineralization 8-9 Ma. Production started in 1994)

Basuki, A., E. Suparka & Y. Sunarya (1999)- Gold deposit in the Cikidang area, West Java, Indonesia. In: G.H. Teh (ed.) Proc. 9th Regional Congress Geology Mineral Energy Resources of SE Asia (GEOSEA '98), Kuala Lumpur 1998, Bull. Geological Society Malaysia 43, p. 251-259.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1999025.pdf)
(Epithermal gold deposit at NE side of Bayah Domain in SW Java. Associated with Plio-Pleistocene intrusion, hosted in Late Oligocene- E Miocene 'Old Andesite' and Cimapag Fm volcanics. Age of mineralization probably same as at Pongkor, where dated as 2.1- 1.5 Ma)

Basuki, N.I. (2009)- A petrographic study on diagenesis of reef-associated Rajamandala carbonate rocks, Padalarang area, West Java, Indonesia: In: 11th Regional Congress Geology Mineral Energy Resources of SE Asia (GEOSEA 2009), Kuala Lumpur, p. 44-45. *(Abstract only)*
(online at: https://gsm.org.my/articles/702001-101669/)

Basuki, N.I. & S.A. Wiyoga (2012)- Diagenetic pattern in the Citarate carbonate rocks, Cilograng Area, Lebak Regency, Banten Province. Jurnal Geologi Indonesia 7, 3, p. 137-144.
(online at: http://jgi.bgl.esdm.go.id/index.php/JGI/article/view/30/22)
(E Miocene Citarate Fm in Cilograng, 10 km NW of Pelabuhan Ratu, displays 9 phases of diagenetic events,

Basuki, N.I., S. Prihatmoko & E. Suparka (2012)- Gold mineralization systems in Southern Mountain Range, West Java. In: N.I. Basuki (ed.) Proc. Annual Conv. Indonesian Soc. Economic Geologists (MGEI). Malang 2012, Banda and Eastern Sunda arcs, p. 85-100.

Baumann, P. (1975)- The Middle Miocene diastrophism: its influence on the sedimentary and faunal distribution of Java and the Java Sea Basin. Bull. of National Institute Geology and Mining (NIGM) 5, 1, p. 13-28.
(online at: http://pustaka.geotek.lipi.go.id/wp-content/uploads/2016/02/NIGM-5-1.pdf)
(Widespread evidence of M Miocene deformation and regression across much of Indonesia. Faunal composition and rapid diversification of larger foraminifera (species of Miogypsina, Lepidocyclina) may be response to fast changing environments. In NE Java basin Ngrayong sandstones unconformably overlie Upper Orbitoiden Limestone (OK), a hiatus spanning planktonic foram zones upper N9-lower N11. May also be time of overthrusting of allochthonous terranes of Timor, rise of Barisan Mountains in Sumatra)

Baumann, P. (1982)- Depositional cycles on magmatic and back arcs: an example from Western Indonesia. Revue Institut Francais Petrole (IFP) 37, 1, p. 3-17.
(Four main sedimentary cycles on Java-Sumatra-Sunda Shelf, each starting with transgression and each ending with a phase of volcanism and tectonism: (1) M Eocene- E Oligocene, (2) Late Oligocene- E Miocene, (3) E-M Miocene (missing in many places under M Miocene erosional surface, (4) M-Late Miocene, (5) Pliocene- Recent)

Baumann, P., P. de Genevraye, L. Samuel, Mudjito & S. Sajekti (1973)- Contribution to the geological knowledge of Southwest Java. Proc. 2nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 105-108.
(Summary of geology and stratigraphy of SW Java)

Baumann, P.H., H. Oesterle, Suminta & Wibisono (1972)- The Cenozoic of Java and Sumatra. Proc. 1st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 31-42.

Bazzacco, M. (2001)- Revision of a Middle Eocene mollusc assemblage of Nanggulan (Java, Indonesia), with discovery of a new species of Solen and proposal of a new name for a *Ptychocerithium* species. Memorie di Scienze Geologiche, Padova, 53, p. 29-35.

(Listings of M Eocene mollusc assemblages from Nanggulan, W of Yogyakarta, studied earlier by Boettger 1883 and Martin 1914, 1931. Of 74 mollusc species, 16 also found in other Tethys basins, while 35 others have affinities with European Eocene species)

Beach, A., J.L. Brown, P.J. Brockbank, S.D. Knott et al. (1997)- Fault seal analysis of SE Asian basins with examples from West Java. In: A.J. Fraser, S.J. Matthews & R.W. Murphy (eds.) Petroleum Geology of Southeast Asia, Geological Society (London) Special Publ. 126, p. 185-194.

Beets, C. (1943)- Uber *Puruninella permodesta* (Martin) aus dem javanischen Obereozan von Nanggulan. Geologie en Mijnbouw 5, 11-12, p. 92-93.
(online at: https://drive.google.com/file/d/1O4CV_zUaki3dQOBEe8iaNPEyrDoJK8DV/view)
('On Puruninella permodesta (Martin) from the Upper Eocene of Nanggulan, Java'. Brief description of new Eocene gastropod genus from Kali Puru)

Beets, C. (1944)- Die gattung *Buccinulum* im Altmiozan der Insel Madura (O.-I.). Geologie en Mijnbouw 6, 1-2, p. 14-16.
(online at: https://drive.google.com/file/d/1_LVQpNkwGwj2hy30DwNbBHSNCC1xuYIc/view)
('The species Buccinulum in the Early Miocene of the island Madura'. Descriptions of two new Rembangian (M Miocene?) gastropod species of Buccinulum from Madura in Martin collection: B.madurense and B. teschi)

Behrens, T.H. (1880)- Beitrage zur Petrographie des Indischen Archipels. I. Mikroskopische beschrijving van gabbro en serpentijn, augietandesieten, basalt en tachylyt, benevens tertiaire conglomeraten uit de omgeving der Tjiletoek-baai. Verhandelingen Koninklijke Akademie van Wetenschappen, Amsterdam, Afd. Natuurkunde, 20, p. 1-80.
('Contributions to the petrography of the Indies Archipelago. I. Microscopic descriptions of gabbro, serpentine, augite andesites, basalts, tachylyt and Tertiary conglomerates from the surroundings of Ciletuh Bay'. Petrographic details of rocks in Delft collection, collected by Junghuhn, Van Diest, Jonker and Verbeek. One of first descriptions of rocks from the Ciletuh, SW Java, melange complex)

Behrens, T.H. (1882)- Beitrage zur Petrographie des Indischen Archipels. 2. Die Gesteine der Vulkane von Java. Verhandelingen Koninklijke Akademie van Wetenschappen, Amsterdam, Natuurkunde, 23, p. 1-71.
('Contributions to the petrography of the Indies Archipelago. Part 2- The rocks of the volcanoes of Java'. Petrographic study of volcanic rocks from Java collected by Junghuhn)

Bellon, H., M. Polve, H. Pringgoprawiro, B. Priadi, R.C. Maury & R. Soeria-Atmadja (1989)- Chronologie 40K-40Ar du volcanisme Tertiaire de Java Central (Indonesie): mise en evidence de deux episodes distincts de magmatisme d'arc. Comptes Rendus Academie Sciences, Paris, Ser. II, 309, 19, p. 1971-1977.
('40K-40Ar chronology of the Tertiary volcanism in Central Java: evidence for two subduction-related magmatic events'. Two Tertiary subduction-related volcanic events in C Java: Eocene- E Miocene (40-19 Ma) and late M Miocene- Pliocene (11-3 Ma) (initiation of modern Sunda arc). Not clear why gap in volcanism from 19-11 Ma. See also Soeria-Atmadja et al. 1994)

Bellon, H., R. Soeria-Atmadja, R.C. Maury, E. Suparka & Y.S. Yuwono (1989)- Chronology and petrology of back-arc volcanism in Java. In: B. Situmorang (ed.) Proc. 6th Regional Conference Geology mineral hydrocarbon resources Southeast Asia (GEOSEA VI), Jakarta 1987, IAGI, p. 245-257.
(On Miocene-Pleistocene volcanism on Java Sea islands Bawean, Karimunjawa (Late Miocene- Pliocene basalts, 6.5-3.7 Ma; different from subduction-related volcanics; extension-related?) and Java N coast (Lasem (1.6-1.1Ma), Ungaran, Muria). Pleistocene volcanoes (1.6- 0.3 Ma) increasing K2O content away from trench)

Beltz, E.W. (1935?)- Report on the oil possibility of North Bantam and West Batavia. Badan Geologi, Bandung, File E31-1, p. 1-18.
(Unpublished report in Geological Survey-Bandung library, presumably by Stanvac geologist in 1930's)

Benaron, N. (1982)- A geophysical study of the forearc region South of Java, Indonesia. Master Thesis, University of San Diego, CA, p. 1-83. *(Unpublished)*

Berghuis, H.W.K., S.R. Troelstra & Y. Zaim (2019)- Plio-Pleistocene foraminiferal biostratigraphy of the eastern Kendeng Zone (Java, Indonesia): the Marmoyo and Sumberingin sections. Palaeogeogr. Palaeoclim. Palaeoecology 528, p. 218-231.
(online at: https://www.sciencedirect.com/science/article/pii/S0031018219300999)
(Plio-Pleistocene foram biostratigraphy of the eastern Kendeng Zone, E Java, Indonesia)

Bernando N., H. (2019)- Paleo-environment reconstruction of Halang Formation and its implication for hydrocarbon exploration in Central Java Area. Proc. 43rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA19-G-433, p. 1-15.
(M Miocene Halang Fm in Banyumas subbasin, C Java, is turbidite system with provenance fron N to S. With paleogeographic reconstruction of submarine fan complex)

Bernando N., H. (2020)- Abnormal pressure delineation in the East Java Basin and its implication for hydrocarbon exploration. Proc. Digital Technical Conference 2020, Indonesian Petroleum Association (IPA), IPA20-G-125, p. 1-23.
(Pressure data from 90 wells in NE Java basin allow distinction into 19 pressure segments: Five normal pressure segments (mainly in N part of basin); 6 low overpressure segments (areas between normal and high areas); and 8 high overpressure segments (mainly in S part of basin))

Bijaksana, S., L.O. Ngkoimani, C.I. Abdullah & T. Hardjono (2003)- Reconstructing Cenozoic Java using paleomagnetic data. Proc. 32nd Annual Conv. Indonesian Association Geologists (IAGI) and 28th HAGI Annual Convention, Jakarta, p. 1-4.
(Abstract only. See also Ngkoimani et al. 2006)

Boachi, A. (1855)- Onderzoek naar de kolen gevonden langs het strand van de Meeuwenbaai. Natuurkundig Tijdschrift voor Nederlandsch-Indie 9, p. 49-52.
(online at: www.biodiversitylibrary.org/item/121455#page/61/mode/1up)
('Investigation of the coal found along the beach of Peucang Bay'. On occurrences of coal at far W point of Ujung Kulon Peninsula, facing Sunda Straits. Several thin layers of lignite in area with common petrified and coalified wood. No figures (see also report on chemical analyses of coals by Croockewit))

Boachi, A. (1856)- Bijdragen tot de geologische en mineralogische kennis van Nederlandsch Indie, XVI. Onderzoek naar het aanwezen van steenkolen in het terrein aan de Tjiletoekbaai, Residentie Preanger Regentschappen. Natuurkundig Tijdschrift voor Nederlandsch-Indie 11, p. 461-464.
('Contributions to the geological and mineralogical knowledge of the Netherlands Indies, XVI. Investigation of the presence of coal in the terrane on the Ciletuh Bay, SW Java'. One of few reports by African Prince and Delft-trained mining engineer Ir. Akwasi Boachi. Ciletuh Bay partly surrounded by serpentine hills, overlain by sandstone. Although unfossiliferous quartz sandstones present, no outcrops of coal were found (these are Middle Eocene sandstones with rare Nummulites; JTvG))

Boehm, J. (1922)- Arthropoda. In: Die Fossilien von Java auf Grund einer Sammlung von Dr. R.D.M. Verbeek und von anderen bearbeitet durch Dr. K. Martin. Sammlungen Geologischen Reichs-Museums Leiden (N.F.) 1, 2, 3, p. 521-535.
(online at: www.repository.naturalis.nl/document/552452)
(Eocene and Miocene crab fossils from Java (Priangan, Yogyakarta and Rembang) from collections of Verbeek and Martin. Incl. U Eocene Scylia laevis n.sp. and Martinocarcinus ickeae n.sp. from Kali Puru, Nanggulan, Scyllarus junghuhni n.sp., Myra, Nucia and Calianassa from E Miocene of W Progo, Raninellopsis javana n.sp. from E Miocene of Rembang, Neptunus from Nyalindung, Callianassa frangens n.sp. from Ci Lalang, etc.)

Boettger, O. (1883)- Die Mollusken der Oligocaenen Schichten vom Bawang-Flusse, Res. Djokdjakarta, Insel Java. In: R.D.M. Verbeek et al. (1883) Die Tertiarformation von Sumatra und ihre Thierreste, II Theil, Palaeontographica Supplement 3, 10-11, p. 125-148.
('The molluscs of the Oligocene beds of the Bawang River, Residency Yogyakarta, Java'. Molluscs from marls above andesite in North Serayu Mts. (= Early Miocene?; JTvG))

Boettger, O. (1883)- Die Mollusken der Oligocaenen Schichten vom Bawang-Flusse, Res. Djokdjakarta, Insel Java. Jaarboek Mijnwezen 1883, Wetenschappelijk Gedeelte, p. 225-266.
('The molluscs of the Oligocene beds of the Bawang River, Residency Yogyakarta, Java'. Reprint of Boettger (1883))

Bohm, M., C. Haberland & G. Asch (2013)- Imaging fluid-related subduction processes beneath Central Java (Indonesia) using seismic attenuation tomography. Tectonophysics 590, p. 175-188. *(manuscript online at: https://gfzpublic.gfz-potsdam.de/rest/items/item_246414_2/component/file_246413/content)*
(Earthquake data used to build 3-D image of seismic attenuation in crust and upper mantle beneath C Java. Prominent zone of increased attenuation below and N of modern volcanic arc down to 15 km related to Eocene-Miocene Kendeng Basin. Enhanced attenuation also in upper crust near recent volcanoes pointing to zones of partial melts)

Bolli, H.M. (1966)- The planktonic foraminifera in well Bodjonegoro-1 of Java. Eclogae Geologicae Helvetiae 59, 1, p. 449-465.
(online at: http://dx.doi.org/10.5169/seals-163383)
(Classic study of E Miocene (G. insueta zone) to Pliocene (Gr. menardii zone) planktonic foraminifera, based on continuous core samples from 1934 BPM well Bodjonegoro 1. (Showed validity of then new 'global' E Miocene-Pliocene planktonic foram zonation in Indonesia. Deep water benthic forams from same well described by Boomgaart, 1949; JTvG))

Bolliger, W. & P.A.C. de Ruiter (1975)- Geology of the South Central Java Offshore area. Proc. 4th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 75-81.
(1971-1974 Shell work on South Java forearc basin exploration. Two dry wells in Miocene carbonate targets, Borelis 1 and Alveolina 1. Alveolina 1 with E-M Miocene carbonate section. Both wells TD in pre-Miocene volcanic agglomerates and basalt)

Boomgaart, L. (1949)- Smaller foraminifera from Bodjonegoro (Java). Doct. Thesis, University of Utrecht, p. 1-175. *(Unpublished)*
(Classic study of E Miocene- Pliocene smaller benthic foraminifera in continuously cored Bojonegoro 1 well (BPM, 1934), E of Cepu. One of first examples of use of benthic foraminifera for paleobathymetry interpretation. Entire late Early Miocene- Pliocene section is in bathyal facies)

Boomgaart, L. & J. Vroman (1947)- Smaller foraminifera from the marl zone between Sonde and Modjokerto (Java). Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 39, 3, p. 419-425.
(online at: https://dwc.knaw.nl/DL/publications/PU00016873.pdf)
(Distribution of benthic foraminifera in samples from Late Pliocene- Pleistocene sediments from eastern Kendeng zone near Mojokerto, E Java. Mainly shallow marine miliolids, rotalids. No location maps, stratigraphy)

Bosch, A.G. et al. (1891)- Steenkolen-mijnveld Tanisari (Soekaboemi-Preanger). Tijdschrift Nijverheid en Landbouw Nederlandsch-Indie 52, June-July, p. 309-379.
(online at: https://books.google.com/books?id=mUUZAQAAIAAJ&pg=PA309&lpg=PA309&dq=Steen Etc.)
('The coal field Tanisari (Sukabumi, Priangan)'. Review of Eocene Gunung Walat coals in Sukabumi-Cibadak area, W Java, by concession owner since 1887, A.G. Bosch, who called it anthracite. With related documents on chemical analyses, 1887 quality tests in steam engines, etc., and field evaluations of surface coal seams by Australian mining engineers Howard Newton, John W. James and Alfred Chapple in 1890. Some Chinese locals exploited coal for fuel in nearby lime kilns (Same area investigated by Hooze (1882) of Mijnwezen, who deemed

coal exploitation G. Walat coals non-commercial. Coals were deemed to be of adequate calorific quality, but coal seams later deemed to be too thin and faulted and too steeply dipping (40-70°) for exploitation))

Bothe, A.C.D. (1929)- Djiwo Hills and Southern Range. Fourth Pacific Science Congress, Java 1929, Excursion Guide C1, p. 1-14.
(Elegant guidebook for' classic' Pretertiary and Eocene outcrops in Jiwo Hills, E of Yogyakarta, Central Java. Pretertiary metamorphics (mainly phyllites and serpentinites), Cretaceous (meta-)limestones with Orbitolina (only found as eroded pebbles in Neogene conglomerate). Unconformably overlain by two levels of Eocene Nummulites limestones:(1) late Middle Eocene (Ta3) Wungkal limestone, with large Nummulites javanus, N. bagelensis, large Assilina cf. spira, Discocyclina (Ta3), etc., (identifications by H. Gerth, who suggested the lower assemblage is perhaps the oldest Eocene microfauna of Java) and (2) Late Eocene (Tb) Gamping Beds, with Nummulites bagelensis, N. pengaronensis, Discocylina javana, Pellatispira, etc.,but no Assilina)

Bothe, A.C.D. (1934)- Geological map of Java, Sheet 82 Klaten, 1:100,000. Dienst van het Mijnwezen, Bandung *(Unpublished)*.

Boudagher-Fadel, M.K. & S. Lokier (2005)- Significant Miocene larger foraminifera from South Central Java. Revue de Paleobiologie, Geneve, 24, 1, p. 291-309.
(online at: https://discovery.ucl.ac.uk/40307/1/Boudagher-fadel_significant_RdP_2005.pdf)
(M Miocene Tf1-Tf2 larger forams from Wonosari Fm in Gunung Sewu area, S Mountains of C Java. See also comments by Renema (2006))

Braga, G. (2001)- Occurrence of Cenozoic bryozoa in Nanggulan and elsewhere in the Indonesian Archipelago. Memorie di Scienze Geologiche, Padova, 53, p. 61-64.
(Brief review. No bryozoa found in samples from Eocene Nanggulan section on S Central Java. Does mention E Miocene bryozoa reported from Lombok .S Sulawesi (Thalamoporella sulawesiensis) and Misool Archipelago (paper part of co-operation project University of Padova and UPN Veteran University in Yogyakarta))

Bramanto, B., K. Prijatna, A.M. Pahlevi, D.A. Sarsito, D. Dahrin, E.D. Variandy & R.I.S. Munthaha (2021)- Determination of gravity anomalies in Java, Indonesia, from airborne gravity survey. Terrestrial Atmospheric Oceanic Sciences (TAO) 32, 5, II, p. 781-795.
(online at: http://tao.cgu.org.tw/index.php/articles/archive/geophysics/item/1765-2021060401ggap)
(Mainly about acquisition and processing of Geospatial Information Agency of Indonesia (BIG) airborne gravity survey; not much on results)

Bronto, S. (2003)- Gunungapi Tersier Jawa Barat: identifikasi dan impliksinya. Majalah Geologi Indonesia (IAGI) 18, 2, p. 111-135.
('Tertiary volcanoes of West Java: identification and implications'. Ten Oligo-Miocene volcanoes in W Java, mostly close to S coast. Fifteen Mio-Pliocene volcanoes in central-northern part, roughly same zone as Quaternary belt. Eocene-Oligocene volcanics more rare and widely scattered)

Bronto, S. (2008)- Tinjauan geologi gunung api Jawa Barat- Banten dan implikasinya. Jurnal Geoaplika 3, 2, p. 47-61.
('Overview of the volcanic geology of Banten, W Java, and its implications'. Most of W Java and Banten areas covered by volcanoes and their products. Six groups: Dano and Cibaliung volcanic complex, Bayah Pongkor, Sukabumi-Southern Mountains, Bogor-Cianjur, Purwakarta and Bandung areas. Ages of volcanoes Paleogene-Quaternary, indicating superimposed volcanic episodes. Width of volcanic arc in W Java and Banten ~80-100km)

Bronto, S. (2009)- Merapi volcano and the Southern Mountains, Yogyakarta: volcanoclastic rocks for petroleum geologist. Indonesian Petroleum Association (IPA), Fieldtrip guidebook, p. 1-48.

Bronto, S. (2009)- Fosil gunung api di Pegunungan Selatan Jawa Tengah. Proc. Workshop Geologi Pegununungan Selatan, Yogyakarta 2007, Pusat Survei Geologi, Bandung, Special Publ. 38, p. 171-194.

('Fossil volcanoes in the Southern Mountains of Central Java'. 24 Oligo-Miocene paleo-volcanic centers identified in W part of S Mountains of C Java. Four groups: Parangtritis- Sudimoro, Baturagung- Bayat, Wonogiri-Wediombo and Karangtengah- Pacitan. General stages of volcanic evolution: (1) Oligocene basaltic pillow lavas in Kebo-Butak and Watupatok Fms; (2) first construction of andesitic cones of Mandalika and Wuni Fms; (3) destruction of composite volcanoes to form calderas and pumice-rich Semilir Fm, and (4) second phase of construction of andesitic cones of E Miocene Nglanggran Fm)

Bronto, S. (2010)- Identifikasi gunung api purba Pendul di Perbukitan Jiwo, Kecamatan Bayat, Kabupaten Klaten-Jawa Tengah. Jurnal Sumber Daya Geologi (JSDG) 20, 1, p. 3-13.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/157/152)
('Identification of the ancient Pendul Volcano in the Jiwo Hills, Bayat, Klaten Regency, C Java'. Gunung Pendul is composed of microgabbro (K-Ar age 32.8 ± 6.6 Ma in Surono 2006). At E flank outcrop of pillow basalt lava flows, probably deposited on ocean floor. In- and extrusives probably remnants of eroded ancient volcano. Ages of volcanism at Pendul volcano in Bayat in particular and in S Mountains into four periods: Paleocene, Late Eocene- E Oligocene, E and M Miocene. S Mountains volcanism may be continuous from Late Eocene-E Miocene)

Bronto, S., P. Asmoro & M. Efendi (2016)- Gunung api lumpur di daerah Cengklik dan sekitarnya, Kabupaten Boyolali Provinsi Jawa Tengah. Prosiding Seminar Nasional Aplikasi Sains Teknologi, Yogyakarta (SNAST 2016), Jurnal FTI IST AKPRIND 1, 1, p. 17-27.
(online at: http://journal.akprind.ac.id/index.php/fti/article/view/742/470)
('Mud volcanoes in Cengklik and surrounding areas, Boyolali District, Central Java Province'. In Boyolali district mud volcanoes in E-W zone 20km long and 3-5 km wide, from Lake Cengklik to Solo River. With andesite basalt skoria in Gununglondo)

Bronto, S., P. Asmoro & M. Efendi (2017)- Gunung api lumpur di daerah Cengklik dan sekitarnya, Kabupaten Boyolali Provinsi Jawa Tengah. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 18, 3, p. 147-159.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/269/291)
('Mud Volcanoes in Cengklik and surrounding area, Boyolali Districts Central Java Province'. Same paper as Bronto et al. 2016)

Bronto, S., S. Bijaksana, P. Sanyoto, L.O. Ngkoimani, G. Hartono & S. Mulyaningsih (2005)- Tinjauan volkanisme Paleogen Jawa (Preliminary study of Jawa Paleogene volcanism). Majalah Geologi Indonesia (IAGI) 20, p. 195-204.
('Review of Paleogene volcanism of Java'. 12 occurrences of Paleogene volcanic deposits in Java (Jatibarang, Cikotok, Pongkor, Pangandaran, Karangsambung, Kulon Progo, Watuadeg, Kali Ngalang, Bayat, etc.)

Bronto, S., E. Budiadi & G. Hartono (2006)- A new perspective of Java Cenozoic volcanic arcs. Proc. Jakarta 2006 International Geoscience Conference Exhib., Indonesian Petroleum Association (IPA), Jakarta06-OT-09, p. 1-4. *(Extended Abstract)* *(online at: https://repository.itny.ac.id/id/eprint/2571/1/8_A%20NEW%20PERSPECTIVE%20OF%20JAVA%20CENOZOIC%20VOLCANIC%20ARCS.pdf)*
(Volcanic arcs of Late Cretaceous, Paleogne (Late Eocene- E Miocene), Neogene and Quaternary were superimposed, and among them intra-arc basins developed)

Bronto, S., R. Ciochon, Y. Zaim, R. Larick, A. Wulff, Y. Rizal, S. Carpenter, A. Bettis, Sudijono & Suminto (2004)- Studi petrologi basal sebagai indikasi volkanisme di daerah Grumbulpring, Sangiran- Jawa Tengah. Jurnal Sumber Daya Geologi (JSDG) 14, 2, p. 37-50.
('Petrological study of basalt as an indication of volcanic activity in the Grumbulpring area, Sangiran, C Java'. Young Basalt outcrop S of Sangiran. Possible relation to mud volcano of Sangiran?)

Bronto, S., G. Hartono & B. Astuti (2004)- Hubungan genesa antara batuan beku intrusi dan ekstrusi di Perbukitan Jiwo, Kecamatan Bayat, Klaten, Jawa Tengah. Majalah Geologi Indonesia (IAGI) 19, 3, p. 147-163.
(online at: https://repository.itny.ac.id/id/eprint/2563/1/3_HUBUNGAN%20GENESA%20ANTARA Etc.)

('Genetic relationships between intrusive and extrusive rocks, Jiwo Hills, C Java'. Intrusive gabbro of Mt. Pendul at Jiwo Hills and nearby basaltic lava flows in Kebo-Butak Fm both with age of ~30 Ma, basic composition, etc. suggest genetic relationship)

Bronto, S., G. Hartono & S. Mulyaningsih (2008)- Peninjauan kembali Formasi Nglanggran serta implikasinya terhadap mula jadi dan penamaan satuan batuan resmi di Kabupaten Gunungkidul, Yogyakarta. Proc. 37th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 269-284.
(Review of Late Oligocene Nglanggran Fm volcanic breccias and agglomerates of S Mountains, C Java)

Bronto, S., G. Hartono & D. Purwanto (1998)- Batuan longsoran gunungapi Tersier di Pegunungan Selatan, studi kasus di Kali Ngalang, Kali Putat dan Jentir, Kab. Gunung Kidul, Yogyakarta. Proc. 27th Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 3 (Geodin., Magmat. Volkanologi), p. 44-49.
('Tertiary volcanic gravity slide rocks in the S Mountains near Yogyakarta; special study at Ngalang, Putar rivers and Jentir'. E Miocene volcanic rocks in Southern Mountains in volcanic debris avalanche facies)

Bronto, S. & U. Hartono (2006)- Potensi sumber daya geologi di daerah cekungan Bandung dan sekitarnya. Jurnal Geologi Indonesia 1, 1, p. 9-18.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/160)
(On energy and minerals potential of the Bandung basin, W Java)

Bronto, S. & D.Z. Herman (2012)- Geologi Gunung Padang dan sekitarnya, Kapubaten Cianjur- Jawa Barat. Proc. 41st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2012-GD-01, p. 1-4.
('Geology of Gunung Padang and surroundings, Cianjur District, West Java'. Volcanic complex, E Oligocene andesite age (32.3 ± 0.3 Ma). Basal andesite columnar structure, used for megalithic site Punden Beruntak)

Bronto, S., A. Koswara & K. Lumbanbatu (2006)- Stratigrafi gunung api daerah Bandung Selatan, Jawa Barat. Jurnal Geologi Indonesia 1, 2, p. 89-101.
(online at: http://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/12/12)
('Volcanic stratigraphy of the South Bandung region, West Java'. South Bandung mountaineous area, high plain of Pangalengan and Bandung city eleven Pliocene- Quaternary rock units (nine volcanic) over subsurface Miocene volcanic rocks)

Bronto, S. & B.S. Langi (2016)- Geologi Gunung Padang dan sekitarnya, Kabupaten Cianjur- Jawa Barat. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 17, 1, p. 37-49.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/28/28)
('Geology of Mt Padang and surrounding area, Cianjur District, West Java'). Mt Padang Megalithic site SE of Sukabumi built from local columnar jointed lavas)

Bronto, S., S. Mulyaningsih, G. Hartono & B. Astuti (2008)- Gunung api purba Watuadeg: sumber erupsi dan posisi stratigrafi. Jurnal Geologi Indonesia 3, 3, p. 117-128.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/225)
(Oligocene? pillow basalt lava flows exposed at Opak River, W of Watuadeg Village, Sleman- Yogyakarta. Small hill ~15m high and 150m away from river to W was eruption source. Lavas overlain by pumice-rich Semilir Fm volcaniclastic rock (Early Miocene), probably unconformable over basaltic pillow lavas)

Bronto, S., S. Mulyaningsih, G. Hartono & B. Astuti (2009)- Waduk Parangjoho dan Songputri: alternatif sumber erupsi Formasi Semilir di daerah Eromoko, Kabupaten Wonogiri, Jawa Tengah. Jurnal Geologi Indonesia 4, 2, p. 79-92.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/243)
(Two alternative eruption centers for pumice-rich acid volcanics of E Miocene Semilir Fm in Eromoko area, S of Wonogiri, S Mountains, SE Java)

Bronto, S., S. Pambudi & G. Hartono (2002)- The genesis of volcanic sandstones associated with basaltic pillow lavas: a case study at the Djiwo Hills, Bayat area (Klaten, Central Java). Jurnal Sumber Daya Geologi (JSDG) 12, 131, p. 2-16.
(Same as paper below)

Bronto, S., S. Pambudi, G. Hartono & D. Purwanto (2002)- The genesis of volcanic sandstones associated with basaltic pillow lavas: a case study at the Jiwo Hills, Bayat area (Klaten, Central Java). Proc. 31st Annual Conv. Indonesian Association Geologists (IAGI), Surabaya, 2, p. 788-806.
(online at: https://www.iagi.or.id/web/digital/18/THE-GENESIS-OF-VOLCANIC-SANDSTONES-ASSOCIATED-WITH-BASALTIC-PILLOW-LAVAS;-A-CASE-STUDY-AT-THE-JIWO-HILLS,-BAYAT-AREA-(KALTEN-%E2%80%93-CENTRAL-JAVA.pdf)
(Late Oligocene Kebo-Butak Fm at Baturagung escarpment, Jiwo, S Mountains, >650m thick, composed of volcanic sandstones and calcareous sediments, deposited in submarine fan environment. Associated with pillow basalts and hyaloclastites. Sandstone composed of very angular volcanic glass grains, probably products of nearby submarine volcano. Interbedded deep marine limestone with planktonic foraminifera, incl. Globigerina tripartita, G. binaiensis, Globorotalia kugleri (assemblage age should be Lower N4, latest Oligocene; not N5 as suggested?; JTvG))

Bronto, S., A. Ratdomopurbo, P. Asmoro & M. Adityarani (2014)- Longsoran raksasa Gunung Api Merapi Yogyakarta- Jawa Tengah. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 15, 4, p. 165-183.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/56)
('Giant landslide at the Merapi volcano, Yogyakarta-Central Java'. In Godean area, Sleman, area of hummocky topography represents large landslide from Merapi volcano,~ 30-35 km long, To S, landslide material became laharic deposits extending 50 km away from Merapi)

Brontodihardjo, A.P.P. (1984)- Batugamping kalkarenit Juwangi dan masalah penggunaannya sebagai Batu Bahan Urugan bendungan Kedung Ombo di Jawa Tengah. Proc. 13th Annual Conv. Indonesian Association Geologists (IAGI), p. 161-188.
(On Juwangi calcarenitic limestones near Kedung Ombo, C Java)

Brotopuspito, K.S., R.D. Indriana & M. Nukman (2006)- Sedimentary rock thickness at Kendeng- Rembang zone, Central Java- Indonesia, as constructed based on regional Bouguer gravity anomaly map. Proc. Jakarta 2006 Int. Geosciences Conf. and Exhib., Indonesian Petroleum Association (IPA), OT-44, p. 1-5. *(Extended Abstract)*
(Sediment thickness below Kendeng-Rembang zones 11,000- 13,000m, with Kendeng deeper than Rembang)

Brouwer, H.A. (1915)- Geologische overzichtskaart van den Nederlandsch-Indische Archipel, schaal 1:1 000 000. Toelichting bij Blad XVII (Oost Java, Madoera, Bali, Lombok, Soembawa). Jaarboek Mijnwezen Nederlandsch Oost-Indie 44 (1915), Verhandelingen 2, p. 3-54.
(Geological overview map and explanation from E Java to Sumbawa; sheet 17 of 1:1 million map series. All islands on this map Neogene sediments and young volcanics only)

Brouwer, J. (1957)- Stratigraphy of the younger Tertiary in North-East Java and Madura. Bataafse Int. Petroleum Maatschappij (BPM), The Hague, Report EP-37680, p. 1-41. *(Unpublished)*

Budhitrisna, T. (1992)- Geologic map of Salatiga Quadrangle, 1408-6, scale 1:100,000. Geological Research Development Centre (GRDC), Bandung.

Budhitrisna, T. (1987)- Geologic map of Tasikmalaya Quadrangle, scale 1:100,000. Geological Research Development Centre (GRDC), Bandung.

Budiarto R. (1976)- Sunda Strait, a dividing line between Tertiary structural patterns in Sumatra and Java islands. Majalah Geologi Indonesia (IAGI) 3, p. 11-20.

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(online at: https://digital.library.adelaide.edu.au/dspace/bitstream/2440/110285/2/02whole.pdf)

Budiman, I. (1996)- The causative body of the old Ungaran volcano based on a gravity data model. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 6, 60, p. 9-15.

Budiman, I. (2000)- Main fault structure of Karangsambung area based on gravity model. Geological Research Development Centre (GRDC), Geoph. Ser. 1, p. 1-6.
(Interpretation of N-S gravity profile of Karangsambung area, C Java. Gravity high interpreted as basement high, possibly Eocene sandstones. No ties to surface geology)

Budisantoso Pendowo (1991)- Geology of the Besuki Quadrangle, Java, Explanatory notes and map. Geological Research Development Centre (GRDC), Bandung, p.

Budiyani, S., D. Priambodo, B.W. Haksara & P. Sugianto (1991)- Konsep ekplorasi hidrokarbon untuk Formasi Parigi di Cekungan Jawa Barat Utara. Proc. 20th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 180-198.
('Hydrocarbon exploration concepts for the Parigi Fm in the NW Java Basin'. M Miocene Parigi limestone gas-bearing reservoir in several fields. Max. thickness 400m. Distribution pattern follows N-S trending basement highs)

Budiyani, S. & A. Mukmen (1994)- Penyebaran Formasi Ngrayong sebagai penghasil hidrokarbon di daerah Gondang dan sekitarnya cekungan Jawa Timur. Proc. 23rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 1, p. 140-154.
('Distribution of Ngrayong Formation as a producer of hydrocarbons in Gondang and surrounding areas of East Java basin. Study of M Miocene Ngrayong Fm sandstone around Gondang-1 well (Pertamina- Trend 1991), NE Java Basin. In submarine fan facies. Gondang 1 tested 779 BOPD and 4.4MMSCF gas/day from Ngrayong Fm. With log cross-sections and examples of seismic mounding)

Buning, F. (1922)- Het voorkomen en de ontginningswijze van natuurasphalt in verband met de asphalt-exploitatie te Cheribon. Indisch Bouwkundig Tijdschrift 25, 18, p. 330-335.
(online at: http://colonialarchitecture.eu/islandora/object/uuid%3A0628d403-571e-487c-80d0-4825dc5742af/datastream/PDF/view)
(On the occurrence and exploitaton of natural asphalt in Kromong Mts, between G. Gedong en G. Pagemitan, near Cirebon, with some chemical- technical analyses. Bitumen content of Cirebon asphalt ~38.5%, melting point 52°C. No geology, no figures.3 Estimated asphalt reserves 1500-2000 tons. See also Mannhardt 1920, Pringgoprawiro et al. 1977)

Burckle, L.H. (1982)- Diatom biostratigraphy of Late Miocene and Pliocene sediments of eastern Java (Indonesia). Marine Micropaleontology 7, p. 363-368.
(Marine diatoms from Late Miocene- Pliocene Njepung section, Kendeng zone, E Java. Foraminifera studied by Saint-Marc & Suminta,1979. Lower part of Globigerina marls in Late Miocene- E Pliocene Thalassiosira convexa zone, middle part M Pliocene Nitzschia jousea zone. Open oceanic environment with strong upwelling suggested by presence of Thalassiosira nitzschioides, especially in lower part of section)

Burgon, G., P. Lunt & T. Allan (2002)- IPA Fieldtrip to Eastern Java, 2002. Indonesian Petroleum Association, Field trip Guide Book, p. 1-33.
(Semarang-Surabaya route, generally N of most E Java fieldtrips, with stops at Kali Lutut, documenting Early Miocene? uplift event, etc.)

Burgon, G.E. & P. Willumsen (1995)- Indonesian Petroleum Association East Java Fieldtrip October 13-15, 1995. Indonesian Petroleum Association (IPA), Fieldtrip guidebook, p. 1-68.
(3-day trip to Sekarkorong, Ngepon, Mudi, Bromo, Kalipanjang)

Burhan, R.Y.P., Y. Zetra & Y.A. Amini (2020)- Paleoenvironmental and maturity indicator of Cepu Block Oil, Wonocolo Formation, East Java, Indonesia, Jurnal Teknologi (UTM) 82, 5, p. 173-182.
(online at: https://journals.utm.my/jurnalteknologi/article/view/14428/6700)
(Geochemical study of biomarkers in oil samples from M-L Miocene Wonocolo Fm in old wells in Cepu Block, NE Java, indicates source of oil mainly from higher plants (angiosperms, some gymnosperms and bacteria), with contributions of lacustrine and marine materials. Moderate to high maturity of generation)

Burhanudin, B. & Y. Prakarsa (2000)- Remodeling geology of Parigi reservoir at Tugu Barat- a structure, North West Java Basin. Proc. 29th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 141-150.

Burhannudinnur, M. (2012)- Komplek mud volcano Kradenan. Proc. 41st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2012-EG49, p. 305-309.
(online at: https://www.iagi.or.id/web/digital/9/2012_IAGI_Yogyakarta_Komlek-Mud-Volcano-Kradenan.pdf)
('The Kradenan mud volcano complex'. Java. Probably fed from overpressured Early Miocene Tawun Fm)

Burhannudinnur, M. (2013)- Pengaruh tektonik dan laju sedimentasi dalam pembentukan gunung lumpur (mud volcano) di zona Kendeng dan Rembang Cekungan Java Timur. Doct. Thesis S3, Institut Teknologi Bandung (ITB), NIM: 32007301, p. 1-305. *(Unpublished)*
(online at: https://digilib.itb.ac.id/index.php/gdl/view/18976)
('Tectonics and rate of sedimentation effect in mud volcano generation in the Kendeng and Rembang zones, East Java Basin'. Mud volcanoes are surface expressions of extruing overpressured formations or shale diapirs. E Java mud volcanoes grouped into four models, i.e. Kuwu, Crewek Medang and Lusi. Mud volcanoes caused by contractional tectonic deformation, sedimentation rate (>280m/My), deep burial (>1000m) and dominance of shale (>85%). If mud volcano system is at critical pressure phase, drilling will cause rapid explosion of mud volcano. If mud volcano system is in near critical phase, explosion will start when drill pipe is deepened. Overpressured mud zone has potential for unconventional gas reservoir with high gas storage capacity)

Burhannudinnur, M. (2014)- Pergerakan sedimen bawah permukaan (PSBP) di Jawa Timur. Bul. Ilmiah Mineral dan Energi (MINDAGI; Trisakti) 7, 1, p. 9-34.
('Subsurface sediment movement (PSBP) in East Java'. Review of mud volcanoes, etc., from overpressure)

Burhannudinnur, M. (2019)- Karakteristik gunung lumpur zona Rembang dan implikasinya lapangan migas di Jawa Timur. Lembaran Publikasi Minyak dan Gas Bumi (Lemigas) 53, 3, p. 123-149.
(online at: https://journal.lemigas.esdm.go.id/index.php/LPMGB/article/view/432)
('Characteristics of mud volcanoes in the Rembang zone and their implications for oil and gas fields in East Java'. Results of field and subsurface data studies at 7 mud volcanoes Kuwu, Crewek, Cangkringan, Medang, Banjarlor, Kesongo (at Gabus oil field) and Kesongo. Foraminifera in mud mainly Late Oligocene- E Miocene age)

Burhannudinnur, M. (2019)- Mud gas play. Proc. 4th Annual Applied Science and Engineering Conf. (AASEC), Bali 2019, Journal of Physics: Conference Series 1402, 066022, p. 1-7.
(online at: https://iopscience.iop.org/article/10.1088/1742-6596/1402/6/066022/pdf)
(On gas content of NE Java basin mud volcanoes. Gas seepage from overpressured Tawun Fm in Kesongo and Kradenan mud volcanoes 65-80% thermogenic methane)

Burhannudinnur, M. (2020)- The potentials prediction of Kradenan and Kesongo mud volcano systems in East Java. Int. J. Advanced Science Technology 29, 5, p. 533–541. *(online at: http://www.karyailmiah.trisakti.ac.id/uploads/kilmiah/dosen/04_SimCek_The_Potentials_Prediction.pdf)*

Burhannudinnur, M., Benyamin & Y. Prakasa (2000)- Remodeling geology of Parigi reservoir at Tugu Barat Field, West Java. Proc. 29th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 143-147.

(Tugu Barat A is oil field in onshore NW Java basin, in Parigi reefal limestone reservoir. Initially view as single pool, but composed of multiple reservoir layers with different Gas-Oil and Oil-Water contacts. Porosities 7-44%. Revised oil reserve estimate 11 MBO)

Burhannudinnur, M. & W.T. Koesmawardani (2021)- Karakteristik gunung lumpur (mud volcano) di permukaan daerah Jawa Timur. Universitas Trisakti, Media Sains Indonesia, p. 1-97. *(online at: http://www.karyailmiah.trisakti.ac.id/uploads/kilmiah/dosen/31_SimCek_Karakteristik_Gunung_Lumpur.pdf)*
('Characteristics of mud volcanoes on the surface of East Java')

Burhannudinnur, M. & W.T. Koesmawardani (2021)- The determination of Kesongo mud volcano system zone using seismic interval velocity at potential overpressure in the Tawun Formation, "F" Field, NE Java Basin. Aceh Int. J. Science Technology 10, 3, p. 196-205.
(online at: http://jurnal.unsyiah.ac.id/AIJST/article/view/23649)
(Kesongo mud volcano on axis of Ledok Anticline, W of Cepu, NE Java basin. Ledok and Mundu Fms outcrop at surface. Mud diapyrism caused drilling problems. Seismic interval velocities and well data used for determination of extent of overpressure. Low-velocity anomaly at depth 400-2000m, in Tawun Fm)

Burhannudinnur, M. & D. Noeradi (2021)- Understanding mud volcano system using Hele-Shaw (H-S) experiment: seismic confirmation at East Java mud volcano. J. Geoscience Engineering Environment Technology (JGEET) 6, 4, p. 206-216.
(online at: https://journal.uir.ac.id/index.php/JGEET/article/download/7889/3828/)
(Results of lab experiments to create mud diapirs)

Burhannudinnur, M., D. Noeradi, B. Sapiie & D. Abdassah (2012)- Karakter mud volcano di Jawa Timur. Proc. 41st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2012-EG49, p. 300-304.
('Character of mud volcanoes in East Java'. Mud volcanoes of Randublatung zone, NE Java basin, contain variety of gases: biogenic gas, petroleum gas, dry condensate gas. Mud probably sourced from Tawun Fm)

Burhannudinnur, M. & A. Prsesetyo (2012)- Kradenan mud volcano complex between prospect and its exploration risk. Proc. Annual Conv. HAGI-PIT HAGI, Palembang, p. .

Cahyo, F.A., I. Fardiansyah, O. Malda & C. Prasetyadi (2011)- 3D modeling of Kerek turbidite sand bodies based on outcrop study in Kedungjati area, Central Java: an analog for sandy Miocene Formation in western Kendeng Zone. Proc. 35th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA11-SG-036, p. 1-18.
(Outcrop study of Late Miocene Kerek Fm calcareous sandstone turbidites in measured sections in Kedungjati area, W Kendeng zone. Depositional environment interpreted as lower submarine fan system. Paleocurrent directions from flute casts suggest main sediment supply from NW (opposite of presumed southern origin of volcanic provenance in Ngawi area?; JTvG))

Cahyo, F.A., O. Malda, I. Fardiansyah & C. Prasetyadi (2013)- Three-dimensional facies modeling of deepwater fan sandbodies: outcrop analog study from the Miocene Kerek Formation, Western Kendeng Zone (North East Java Basin). Berita Sedimentologi 26, p. 19-25.
(online at: www.iagi.or.id/fosi/files/2013/05/BS26-Java.pdf)
(Similar to Cahyo et al. (2022) paper, above)

Cahyono, A., A. Shirly, F. Syafitra, Premonowati, H. Ibadurrahman & Y.R Sinulingga (2016)- Ngimbang clastics & carbonate Kujung distribution based on paleogeography recontruction. Proc. 14th Regional Conference Geology and Mineral Resources of SE Asia (GEOSEA XIV) and 45th Annual Conv. Indonesian Association Geologists (IAGI) (GIC 2016), Bandung, p. 432-438. *(online at: https://www.academia.edu/35891149/Ngimbang_Clastics_and_Carbonate_Kujung_Distritrution_Based_On_Paleogeography_Recontruction)*
(Paleogeographic maps of M Eocene Ngimbang Fm clastics source rock and Oligocene- E Miocene Kujung Fm carbonate reservoir facies in NE Java basin. Ngimbang clastics in series of NE-SW trending grabens)

Cahyono, A.B. & C.F. Burgess (2007)- Cepu 3D seismic- variations in Oligo-Miocene carbonate buildup morphology. Proc. 31st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA07-G-116, p. 561-567.
(Carbonate build-up morphologies in Cepu Block vary from steep, narrow pinnacles to broad platform deposits. Buildups developed on isolated platform that began to form in E Oligocene. Through Late Oligocene- E Miocene, carbonate deposition ceased over parts of platform while other areas continued to grow, resulting in isolated carbonate buildups, drowning at different times, with morphologies related to underlying extensional faults and subsidence rates. Buildups up to 2 km thick. Thicker buildups drown in E Miocene and are covered by M Miocene clastics of low seal quality. Other areas of Cepu platform drowned in Oligocene. These carbonates have different morphology, lower reservoir quality and more clay-rich seals and commonly contain large gas columns)

Carlile, J.C., I.L. Price & S. Prihatmoko (2005)- The Cibaliung gold deposit, Banten: discovery to decision to mine. In: S. Prihatmoko et al. (eds.) Indonesian mineral and coal discoveries, Indonesian Association Geologists (IAGI) Special Issue, Jakarta, p. 45-57.
(Cibaliung low sulphidation epithermal Au-Ag deposit at SW tip of Java. First discovered in 1992, decision to mine in 2004. Miocene-age mineralization (~10 Ma), formed at shallow depths (250-300m), hosted in Neogene volcanics. Site possibly influenced by NW-SE Sumatra Fault system, creating small pul-apart basin (see also Harijoko et al. 2004, 2007)

Carnell, A. (1996)- The Rajamandala limestone of the Sukabumi area of West Java. Society of Petroleum Engineers (SPE) Indonesia Branch, Field Trip Guide Book, p. 1-46. *(Unpublished)*

Carnell, A. (2000)- The Rajamandala limestone at Sukabumi; can it be considered a field analogue for the Baturaja limestone, Proc. American Assoc. Petroleum Geol. (AAPG) Int. Conf., Bali, p. A13-A14.
(Late Oligocene Rajamandala reefal limestone of W Java outcrops between Cibadak in W and Bandung in E. Deposition interpreted as series of small coral islands, surrounded by foraminiferal/algal dominated shelf sediments. Rajamandala Fm often regarded as analogue for oil-productive Batu Raja Lst of S Sumatra and NW Java, but they are not direct age equivalents (Batu Raja Fm age is of Early Miocene age; JTvG))

Carthaus, E. (1911)- Zur Geologie von Java, insbesondere des Ausgrabungsgebietes. In: M.L. Selenka & M. Blankenhorn, Die *Pithecanthropus*-Schichten auf Java, Geologische Ergebnisse der Trinil-Expedition (1907-1908), Engelmann, Leipzig, p. 1-33.
('On the geology of Java, in particular the excavation area'. Mainly on Plio-Pleistocene deposits around Trinil excavation area of Selenka Expedition, C Java)

Caudri, C.M.B. (1932)- De foraminiferen-fauna van eenige *Cycloclypeus*-houdende gesteenten van Java. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 9, p. 171-204.
('The foraminiferal fauna from some Cycloclypeus-bearing rocks of Java'. Miocene larger forams from Java localities, collected by H. Gerth in 1929 in Popoh Bay (S Kediri;common Cycloclypeus annulatus with Miogypsina spp.; lower Tf), S. Priangan (C. carpenteri; Tg) and Purwakarta, plus other material from Leiden collections. Little or no stratigraphy context or locality information)

Caudri, C.M.B. (1939)- Lepidocyclinen von Java. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 12, p. 135-257.
('Lepidocyclinids from Java'. Descriptions of 26 Lepidocyclina species from Oligo-Miocene samples from C and W Java and Madura, collected by Gerth (probably too much 'splitting' of morphotypes; many species names probably synonyms?; JTvG))

Caughey, C.A.J., N.J. Dyer, A. Kohar, L. Haryono et al. (eds.) (1995)- Seismic atlas of Indonesian oil and gas fields II: Java, Kalimantan, Natuna, and Irian Jaya. Indonesian Petroleum Association (IPA), Jakarta, Seismic Atlas 2, p.

Chan, J.S.L. (2015)- High-sulfidation epithermal Cu-Ag-Au deposit, Kluwih, Eastern Java, Indonesia- alteration and implications for potential porphyry Cu mineralisation. Proc. PACRIM 2015 Congress, Hongkong, Australasian Institute of Mining and Metallurgy (AusIMM), Melbourne, Publ. Ser. 2/2015, p. 213-218.
(Cu-Ag-Au mineralisation at Kluwih prospect in E Java, Indonesia related to high-sulfidation hydrothermal system within dacitic volcanic dome. Mineralisation mainly in steeply dipping quartz-enargite-pyrite veins in porphyritic dacite and breccia of dome and in underlying andesite with zircon U-Pb age of 11.5 Ma. Probability of underlying porphyry copper system. No location info)

Chandra, B.Y., A.T. Rahardjo & Dardji Noeradi (2013)- Sequence stratigraphy of Bayah Formation at Banten area based on Core of DDH-1 Well and DDH-2 well: palynological and palynofacies approach. Proc. Joint Convention 38th Indonesian Association Geophysicists (HAGI) - 42nd Conv. Indonesian Association Geologists (IAGI), Medan, JCM2013-0005, p. 1-4.
(online at: https://www.iagi.or.id/web/digital/8/2013_IAGI_Medan_Sequence-Stratigraphy-of-Bayah.pdf)
(Sequence stratigraphy of Middle-Late Eocene Bayah Fm on Bayah High, Banten Province, SW Java, based on palynology data from onshore cores DDH-1 (242m) and DDH-2 (315m). Seven late M Eocene- Late Eocene depositional sequences, with depositional environments varying from fluvial plain to estuarine. Sequences 1-3 lateM Eocene, with Proxapertites operculatus, Spinizonocolpites echinatus and Acrostichum aureum. Sequence 4 basal Late Eocene with FAD Cicatricosisporites dorogensis and Proxapertites operculatus)

Chandra, B.Y., A.T. Rahardjo & Dardji Noeradi (2014)- Palynofacies analysis of the Eocene Bayah Formation in Bayah High, Banten Block, SW Java. Berita Sedimentologi 29, p. 80-94.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/145
(Description of palynofacies of Eocene Bayah Formation from cores of wells DDH-1 and DDH-2)

Choi, S.G., C.S. So, S.H. Choi & J.K. Han (1995)- Genetic environments of hydrothermal vein deposits in the Pacitan District, East Java, Indonesia. Economic and Environmental Geology (Korean Soc. Economic Environmental Geology) 28, 2, p. 109-121.
(online at: https://www.kseeg.org/journal/view.html?pn=search&uid=1039&vmd=Full)
(Hydrothermal vein deposits in Tertiary rocks in Pacitan District, S Mountains of E Java. Kasihan, Jompong and Gempol mineralized areas primarily copper-zinc deposits, also lead and gold mineralization. Depth of mineralization from pressuredata from fluid inclusions estatimated between ~1200-1600m or 450-650m)

Choiriah, S.U. (1999)- Paleoclimatic interpretation using calcareous nannoplankton, Solo River Ngawi area, Indonesia. Abstract, AAPG Foundation Grants-in-Aid Recipients 1999, American Assoc. Petroleum Geol. (AAPG) Bull. 83, 11, p. 1896 *(Abstract).*
(Late Miocene to M Pleistocene of Kendeng zone shows climate changes in nannoplankton. Twelve alternating warm- cold zones. Kerek Fm Zone 1 and 2 warm zone and cold zone of lower NN12 and NN12-NN13 respectively. Kalibeng Fm: transitional zone 3 (NN13-NN14), Zone 4 warm (NN14-NN15), Zone 5 (cold, NN15), Zone 6 (warm, NN16), Zone 7 (cold zone, NN16), Zone 8 (warm, NN16), Zone 9 (transitional, NN16), and Zone 10 (warm, NN16-NN18). Klitik Fm: zone 11 cold, NN18, zone 12 warm zones, 12a,b, NN19 and NN20, with barren zone between 12a and 12b)

Choiriah, S.U. (2023)- Rate of sedimentation based on biostratigraphy of the Kendeng Zone in Kalibeng river of Kedungringin, Plandaan Area, Jombang, East Java. Proc. 4th Int. Conference on Earth, Science, Mineral and Energy (ICEMINE 2021), Sleman, AIP Conference Proceedings 2598, 020003, p.
(Nannofossil analyses of Late Miocene- Pleistocene of Kalibeng- Sonde Formations in Kalibeng river section, Plandaan, Kendeng Zone, E Java)

Choiriah, S.U., I.P. Haty & E.Y. Kaesti (2021)- Aplikasi biostratigrafi untuk interpretasi kecepatan sedimentasi di Zona Rembang. Teknik Geologi, UPN 'Veteran', Yogyakarta, p. 1-57. *(online at: http://eprints.upnyk.ac.id/26632/1/4a.Buku%20ISBN_Aplikasi%20Biostratigrafi%20untuk%20Interpret%20Kec.Sedimentasi.pdf)*
(Application of biostratigraphy for interpretation of sedimentation rates in the Rembang Zone'. Overview booklet of Rembang zone stratigraphy (Ledok-Mundu-Lidah Fms). 11 nannofossil biozones in Late Miocene- Pleistocene.

Highest sedimentation rates in E Pliocene/ NN14-NN15/ CNPL3, within Mundu Fm (would expect more uniform sedimentation rates in hemipelagic section?; JTvG))

Choiriah, S.U., I.P. Haty & E.Y. Kaesti (2023)- Sedimentation rate during Miocene to Pleistocene related with nannofossil biostratigraphy, in Banyuurip, Kedewan, Rembang Zone, East Java Basin, Indonesia. Indonesian J. on Geoscience (IJOG) IJOG) 10, 3, p. 349-361.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/826/433)
(Late Miocene- Pleistocene sedimentation rates for formations in NE Java basin 1.5-34 cm/ky (ages constrained by nannofossils))

Choiriah, S.U., I.P. Haty, B. Tribowo, A. Subandrio, Y. Rizkianto & M. Maha (2019)- Penghumi Tebing Breksi yang tidak kasat mata. UPN "Veteran", Yogyakarta, p. 1-89.
(online at: http://eprints.upnyk.ac.id/26622/1/1a.%20Buku%20ISBN_Penghuni%20Tebing%20Breksi.pdf)
('The invisible inhabitants of the Breccia Cliff'. Popular guide to marine microfauna in tuffaceous breccias in 'Tebing Breccia', E of Yogyakarta, a stone quarry turned into tourist park with large stone carvings. Foraminifera and calcareous nannofossils suggest E Miocene age and bathyal depositional environment ('Semilir Formation))

Choiriah, S.U. & R. Kapid (1999)- Nannoplankton biozonation in Bengawan Solo River, Ngawi. Proc. 28th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 3, p. 35-45.
(In Indonesian. Nannofossils from samples from Kerek Fm (NN12-NN13; Late Miocene), Kalibeng Fm (NN13-NN18; end Miocene- Early Pliocene) and Sonde/ Klitik Mb (NN19-NN20; E- M Pleistocene) of Solo River section, Kendeng zone, N of Ngawi. Results suggest younger ages than concluded by earlier authors (e.g. Van Gorsel and Troelstra 1981, Theodoridis 1984))

Choiriah, S.U., R. Kapid & H. Pringgoprawiro (2000)- Interpretasi paleotemperatur berdasarkan nannoplankton lintasan S. Bengawan Solo, Ngawi, Jawa Timur. Proc. 29th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 4, p. 47-59.
('Interpretation of paleotemperatures based on nannoplankton in the Solo River section, Ngawi, East Java'. Nannofossil species and diversity from Late Miocene- Pliocene (zones NN11-NN20) in Solo River section in Kendeng Zone, suggest 12 alternating warm-cold zone)

Choiriah, S.U., R. Kapid & W. Rahardjo (2001)- The Pliocene/Pleistocene boundary, based on calcareous nannofossils, and related palaeoclimatic implications, Solo River section, Ngawi region, East Java, Indonesia. J. Nannoplankton Research, London, 23,1, p. 15-19.
(online at: http://ina.tmsoc.org/JNR/online/23/Choiriah%20et%20al.%202001%20JNR%2023-1%20Plio-Q%20Java%20[%C2%A7N2027].pdf)
(Analysis of calcareous nannofossils of samples from Solo River section, Ngawi Region, East Java. Plio-Pleistocene boundary determined based on Top Discoaster and simultaneous Base Gephyrocapsa)

Choiriah, S.U., C. Prasetyadi, R. Kapid & D.F. Yudiantoro (2018)- Diversity model of Pliocene-Pleistocene nannofossil of Kendeng Zone. Proc. Int. Conf. Earth Science, Mineral, and Energy, Yogyakarta 2018, IOP Conference Series: Earth and Environmental Science 212, 012038, p. 1-11.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/212/1/012038/pdf)
(Quantitative analyses of Pliocene-Pleistocene calcareous nannofossils in four river sections (Ngawi (Solo River), Bojonegoro, Nganjuk, Jombang) in Kendeng Zone suggests decrease in diversity from Pliocene to Pleistocene)

Choiriah, S.U., C. Prasetyadi, R. Kapid & D.F. Yudiantoro (2020)- Nannofossil distribution and age of Kendeng Zone in Kalibeng river section of Kedungringin, Plandaan Area, Jombang, East Java. Indonesian J. on Geoscience (IJOG) 7, 1, p. 15-24.
(online at: http://ijog.bgl.esdm.go.id/index.php/IJOG/article/view/365/296)

(Kalibeng River section abundant nannofossils. Age of Marl Unit of Kalibeng is NN10-NN18 (M Miocene-Pliocene). Calcareous Sandstone Unit of Sonde is NN19-NN20 (Pliocene-Pleistocene) and Calcareous Claystone Unit of Sonde is NN20-NN21 (Pleistocene)).

Choiriah, S.U., C. Prasetyadi, R. Kapid, D.F. Yudiantoro & M. Syaifudin (2020)- Paleotemperature interpretation based on calcareous nannoplankton of Kedung Sumber River section, Soko, Bojonegoro, East Java. Journal Techno (UPN) 6, 1, p. 1-14.
(online at: http://jurnal.upnyk.ac.id/index.php/teknoslppm/article/view/4226/3150)
(Paleoclimate interpretation of marine Late Miocene- Pleistocene in Kedung Sumber River section at Soko in Kendeng zone, based on calcareous nannofossils. 32 zones identified)

Choiriah, S.U., C. Prasetyadi, D.F. Yudiantoro, R. Kapid & N.A. Nurwantari (2020)- Pliocene-Pleistocene calcareous nannoplankton biostratigraphy, section Banyuurip, Rembang Zone, East Java Basin, Indonesia. Int. J. Geology and Earth Sciences (IJGES) 6, 4, p. 44-49.
(online at: http://new.ijges.com/uploadfile/2020/1224/20201224043235138.pdf)
(Calcareous nannofossils from Banyuurip (Pertamina oilfield) area, NE Java (no locality information). Stratigraphy: Ledok Fm calcarenite, Mundu Fm marl and Lidah Fm calcareous claystone. 9 zones (NN12-NN21; Late Miocene-Pleistocene)

Choiriah, S.U., C. Prasetyadi, D.F. Yudiantoro, R. Kapid & N.A. Nurwantari (2020)- Miocene to Pleistocene biostratigraphy of Rembang Zone based on nannofossil, Nglebur River section, Blora, Central Java. Proc. 2nd Int. Conf. Earth Science, Mineral, and Energy (ICEMINE 2019), Yogyakarta, AIP Conference Proceedings 2245, 030004, p. 1-12.
(online at: www.researchgate.net/publication/342789686_Miocene_to_pleistocene_biostratigraphy_ Etc.)
(Calcareous nannofossils from Nglebur River section, Jiken, Rembang Zone, NE Java Basin, show M Miocene Wonocolo Fm marls (NN9-NN10), Late Miocene Ledok Fm limestones (NN10-NN12), Pliocene Mundu Fm marls (NN12-NN18) and Pleistocene Lidah Fm calcareous sandstones (NN18-NN19))

Choiriah, S. Umiyatun, B. Prastistho, R.E. Jati Kurniawan & Surono (2006)- Foraminifera besar pada satuan batugamping Formasi Gamping- Wungkal, Sekarbolo, Jiwo Barat, Bayat, Klaten, Jawa Tengah. Proc. Annual Conv. Indonesian Association Geologists (IAGI), Pekanbaru, PIT IAGI2006-072, p. 1-11.
(online at: https://www.iagi.or.id/web/digital/15/2006_IAGI_Pekan-Baru_-Foraminifera-Besar-Pada.pdf)
(Abundant M-L Eocene (Ta3-Tb; P9-P14) larger foraminifera in Gamping-Wungkal Formations at Jiwo- Bayat area (20 species of Nummulites, Assilina, Discocyclina, Pellatispira, Asterocyclina, Spiroclypeus vermicularis, etc.). Associated sandstone units planktonic foram zones P9-P14 (E-M Eocene);.mudstone unit nannoplanktion zonse NP18-NP19 (Late Eocene))

Choiriah, S.U., B. Prastistho, R.E. Jati Kurniawan & Surono (2006)- Foraminifera besar pada satuan batugamping Formasi Gamping- Wungkal, Sekarbolo, Jiwo Barat, Bayat, Klaten, Jawa Tengah. Jurnal Ilmu Kebumian Teknologi Mineral (UPN) 19, 1, p. 1-8.
(online at: http://eprints.upnyk.ac.id/22097/)
(Same paper as above?))

Choiriah, S.U., A. Subandrio, Y. Rizkianto, I. Paramitahaty, D.K. Isnani, N.A. Nurwantari et al. (2023)- Trace fossils of the Selorejo Formation, Rembang Zone, North East Java Basin, Indonesia. J. Geoscience Engineering Environment Technology (JGEET) 8, 3, p. 183-188.
(online at: https://journal.uir.ac.id/index.php/JGEET/article/view/10454/5599)
(Diverse shallow marine trace fossils in Late Pliocene-Pleistocene glauconitic foraminiferal grainstone-packstone of Selorejo Fm in NE Java Basin: Planolites, Helminthopsis, Thalassinoides, Conichnus, etc.)

Choiriah, S.U. & J. Setiawan (2001)- The claystone age of Wungkal Formation based on calcareous nannofossils in Gunung Pendul area, Bayat Klaten, Central Java. Proc. 30th Annual Conv. Indonesian Association Geologists (IAGI) and 10th GEOSEA Conv., Yogyakarta, p.

Choiriah, S.U. & B. Triwibowo (2002)- Studi biozonasi nannoplankton daerah Gunung Pendul Formasi Wungkal, Bayat Klaten, Jawa Tengah. In: Sumberdaya Geologi daerah Istimewa Yogyakarta dan Jawa Tengah, Ikatan Ahli Geologi (IAGI) Pengurus Daerah DIY-Jateng, p. 41-53.
('Nannoplankton biozonation of the Wungkal Fm in the Gunung Pendul area, Bayat, Klaten, C Java')

Chotin, P., A. Giret, J.P. Rampnoux, Sumarso & Suminta (1980)- L'ile de Java, un enregistreur des mouvements tectoniques a l'aplomb d'une zone de subduction. Comptes Rendus Somm. Societe Geologique France, 22, 5, p. 175-177.
('Java island, a record of tectonic movements up a subduction zone'. Java fault systems N30°, N70°, N90°, N135° and N165°. Left-lateral strike slip faults at N70° offset Quaternary intra-arc and volcanic chain)

Chotin, P., A. Giret, J.P. Rampnoux, L. Rasplus, Suminta & S. Priyomarsono (1984)- Etude de la fracturation dans l'ile de Java, Indonesia. Bull. Societe Geologique France 26, 6, p. 1325-1333.
('Study of the fracturing on Java island'. Java fault systems determine locations of volcanoes along N 000 and N 045 tension gashes. N 070 strike slip zone marks boundary between western subduction system and eastern collision-subduction Australian system)

Chotin, P., L. Rasplus, J. Rampnoux, Suminta & N. Hasjim (1984)- La sedimentation associee a une structure decrochante majeure dans la partie centrale de l'Ile de Java (Indonesie). Bull. Societe Geologique France 26, 6, p. 1259-1268.
('The sedimentation associated with a major strike-slip fault zone in the central part of the island of Java, Indonesia'. N70E strike-slip fault is reactivation of pre-Neogene Sundaland margin)

Clements, B. (2008)- Paleogene to Early Miocene tectonic and stratigraphic evolution of West Java, Indonesia. Ph.D. Thesis Royal Holloway, University of London, p. 1-431. *(Unpublished)*
(Eocene arc S of Java, mostly submerged; rarely did its products reach Java. Arc became emergent during Late Oligocene- E Miocene and volcanic activity probably increased. M Miocene carbonates deposited above arc rocks. Late Miocene resumption of volcanism N of Paleogene arc. Another arc jump since Late Miocene and modern Sunda Arc volcanoes now on deformed Late Miocene arc products. Paleogene quartz sandstones sourced from Sundaland granitic and metamorphic rocks. Zircons from M Eocene record contributions from Cretaceous arc and post collisional volcanic rocks. New structural model for W Java suggests major thrusting in S Java has previously been overlooked. Paleogene and Late Miocene arcs have thrust northwards by >50 km and are now thrust onto shelf sequences that formed on Sundaland continental margin. In C Java eeper structural level is exposed and arcs have been removed by erosion. Age of thrusting Late Miocene or Pliocene)

Clements, B. & R. Hall (2006)- Provenance of Paleogene sediments in West Java, Indonesia. Proc. Jakarta 2006 Int. Geosciences Conf. and Exhib., Indonesian Petroleum Association (IPA), p. 1-5.
(Eo-Oligocene quartz-rich sediments in W Java from multiple sources, from North. Much of quartz is from low-grade metamorphics)

Clements, B. & R. Hall (2007)- Cretaceous to Late Miocene stratigraphic and tectonic evolution of West Java. Proc. 31st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA07-G-037, p. 87-104.
(online at: http://searg.rhul.ac.uk/pubs/clements_hall_2007%20West%20Java%20evolution_IPA.pdf)
(Cretaceous-Late Miocene paleogeographic maps W Java)

Clements, B. & R. Hall (2008)- U-Pb dating of detrital zircons from West Java show complex Sundaland provenance. Proc. 32nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA08-G-115, p. 1-19.
(online at: http://searg.rhul.ac.uk/pubs/clements_hall_2008_IPA%20Java%20zircons.pdf)
(Ages of zircons from M Eocene volcanoclastic Ciletuh Fm indicate Late Cretaceous- E Paleogene local volcanic arc source. M Eocene- Oligocene quartzose formations sourced from Sundaland, with wide zircon age ranges (Proterozoic- Eocene). M Eocene Ciemas Fm zircons mainly Permo-Triassic ages, and derived from Malay Peninsula and Tin Islands granites, Late Eocene Bayah Fm higher contribution of E-M Cretaceous granites from Borneo Schwaner Mts)

Clements, B., R. Hall, H.R. Smyth & M.A. Cottam (2009)- Thrusting of a volcanic arc: a new structural model for Java. Petroleum Geoscience 15, 2, p. 159-174.
(online at: http://searg.rhul.ac.uk/pubs/clements_etal_2009%20java%20structure.pdf)
(Java apparently simple structure with E-W physiographic zones broadly corresponding to structural zones. Simplicity complicated by structures inherited from Cretaceous subduction, by extension related to development of volcanic arcs, extension related to development of Makassar Straits, Late Cenozoic contraction, and active cross-arc extensional faults. Major thrusting in S Java displaced Early Cenozoic volcanic arc rocks N-wards by 50km or more. C Java displays deepest structural levels of N-directed thrusts, with Cretaceous basement exposed; overthrust arc largely removed by erosion. In W and E Java overthrust volcanic arc still preserved. W Java arc now thrust onto shelf sequences that formed on Sundaland continental margin. In E Java volcanic arc thrust onto thick volcanic/sedimentary sequence formed N of arc in basin due largely to volcanic arc loading)

Clements, B., I. Sevastjanova, R. Hall, E.A. Belousova, W.L. Griffin & N. Pearson (2012)- Detrital zircon U-Pb age and Hf-isotope perspective on sediment provenance and tectonic models in SE Asia. In: E.T. Rasbury et al. (eds.) Mineralogical and geochemical approaches to provenance, Geological Society of America (GSA), Special Paper 487, p. 37-61.
(online at: https://www.researchgate.net/publication/266851541_Detrital_zircon_U-Pb_age_and_Hf-isotope_perspective_on_sediment_provenance_and_tectonic_models_in_SE_Asia)
(U-Pb age populations of zircons in Paleogene formations in W Java: 80-50 Ma (Late Cretaceous-Paleogene), 145-74 Ma (Cretaceous), 298-202 Ma (Permian-Triassic), 653-480 Ma and 1290-723 Ma. Late Cretaceous and Paleogene zircons derived from two volcanic arcs in Java and W Sulawesi, respectively. Java arc was active before microcontinent collision, and W Sulawesi arc developed later, on newly accreted crust at SE Sundaland margin. Collision age is ~80 Ma. Zircons older than ~80 Ma have continental Sundaland provenance. Mid-Cretaceous zircons in U Eocene- Lw Oligocene derived from granites of Schwaner Mts of SW Borneo, Permian-Triassic zircons from granites in SE Asian Tin Belt. Older zircons from allochthonous basement and sedimentary rocks deposited prior to rifting of continental blocks from Gondwana in E Mesozoic)

Condon, W.H., L. Pardyanto &, K.B. Ketner (1975)- Geologic map of the Banjarnegara and Pekalongan Quadrangles, Java. Geological Research Development Centre Bandung, scale 1:100,000, p. 1-5. *(also 2nd edition 1996)*
(Map of C Java Dieng Plateau, Sundoro volcano, N Serayu Mts folds and at S border Cretaceous ophiolitic basement and melange outcrops of Lok Ulo)

Cook, P., D. Jayson, S.Y. Ritha, P.J. Nichols, D.W. Ellis & J. Zwaan (2003)- Quantifying geohazards through advanced visualisation and integration in the Terang-Sirasun development, Kangean PSC, Indonesia. Proc. 29th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 1-17.
(Terang-Sirasun reservoir Plio-Pleistocene Paciran Fm Globigerina calcarenites. Development of 1 TCF GIIP complicated by shallow gas in overburden and faults, some with seabed expression. Sirasun fewer faults and little shallow gas but near shelf-slope break, with potential mass flow features. Little geology info)

Cottam, M., R. Hall, L. Cross, B. Clements & W. Spakman (2010)- Neogene subduction beneath Java, Indonesia: slab tearing and changes in magmatism. Geophysical ReseEGU General Assembly 2010, Vienna, p. 12437.
(Abstract only) (online at: http://meetingorganizer.copernicus.org/EGU2010/EGU2010-12437.pdf)
(Java island complex history of volcanism and unusual subduction characteristics, consistent with subduction of a hole in downgoing slab. Episode of Late Miocene thrusting at ~7 Ma observed throughout Java linked to N-ward movement of volcanic arc. In E Java gap in seismicity between ~250-500 km and seismic tomography shows hole in slab. Explained by tearing of subducting slab when buoyant oceanic plateau arrived at trench S of E Java at ~8 Ma (Kundu & Gahalaut 2011 suggest slab detachment under E Java between 10-20 Ma))

Courteney, S. (1996)- The future hydrocarbon potential of Western Indonesia. In: C.A. Caughey, D.C. Carter et al. (eds.) Proc. Int. Symposium on Sequence Stratigraphy in SE Asia, Jakarta 1995, Indonesian Petroleum Association (IPA), p. 397-415.

(Over 3000 exploratory wells drilled in W Indonesia and ~750 discoveries reported. W Indonesia mature province with >300 fields producing in 12 basins. A further 100 fields abandoned or shut-in. Framework based on sequence stratigraphy established for productive basins)

Courteney, S., P.J. Cockroft, R. Miller, R.S.K. Phoa & A.W.R. Wight (1989)- Introduction. Indonesia Oil and Gas Fields Atlas, 4, Java. Indonesian Petroleum Association (IPA), Jakarta, p. 1-13, A1-A4.

Coxall, H.K., T.D. Jones, A.P. Jones, P. Lunt, I. MacMillan, G.I. Marliyani, C.J. Nicholas, A. O'Halloran, E. Piga, P. Sanyoto, W. Rahardjo & P.N. Pearson (2021)- The Eocene-Oligocene transition in Nanggulan, Java: lithostratigraphy, biostratigraphy and foraminiferal stable isotopes. J. Geological Society, London, 178, jgs2021-006, p. 1-30.
(online at: https://jgs.lyellcollection.org/content/jgs/178/6/jgs2021-006.full.pdf)
(Nanggulan section in S-C Java Eocene-Oligocene age open marine sediments and volcanics that accumulated in >400m deep marginal basin within young Sunda Arc. New borehole across complete Eocene-Oligocene Transition (EOT). Increasing δ18O and δ13C isotopes in basal Oligocene allow correlation to global records and warm temperatures and relatively high nutrients along SE Java margin. 10 m-thick basaltic lava and ash recovered in borehole constrained by biostratigraphy to planktonic foraminifera Zones O1-O2 (nanno zone CNO3), with age of 30.5-33 Ma, recording some of earliest volcanic activity in Oligo-Miocene Sunda margin subduction and demonstrates Old Andesite volcanic activity from Early Oligocene rather than Late Oligocene)

Crie, M.L. (1888)- Recherches sur la flore Pliocene de Java. Sammlungen Geologischen Reichs-Museums Leiden, ser. 1, 5, p. 1-21.
(online at: www.repository.naturalis.nl/document/552405)
('Investigations on the Pliocene flora of Java'. Plant fossils from tunnel drilled in volcanic terrains of Gunung Kendang, E of Sukabumi and SW of Cianjur, W Java. With Naucleoxylon spectabile (also in Jaarboek Mijnwezen 17 (1888), p. 49-71))

Croockewit, J.H. (1854)- Scheikundig onderzoek naar kolen afkomstig van de westpunt van Java, nabij de Meeuwenbaai. Natuurkundig Tijdschrift voor Nederlandsch-Indie 6, p. 85-88, 123-130.
('Chemical investigation of coal from the west point of Java, near Peucang Bay'. Coal sample from SW Java (collected by A. Boachi?) with ~7% ash, 5% sulfur)

Cunningham, M.J.M., M. Muharam, L. Damanik, E. Hermawan & J. Widjaja (2015)- Structural controls on the localisation of low-sulfidation epithermal mineralisation in West Java, Indonesia. Proc. PACRIM 2015 Congress, Hongkong, Australasian Institute of Mining and Metallurgy (AusIMM), Melbourne, Publ. Ser. 2/2015, p. 227-235. *(Extended Abstract)*
(In SW Java low-sulfidation epithermal gold mineralisations in series of extensional and strike-slip faults that cut Miocene-Pliocene calc-alkaline volcanic rocks intruded by shallow-level plutons. Discussion of epithermal mineralisation at Mt Subang, Cianjur region, SW Java)

Dahrin, D. (1993)- Etude bathymetrique et gravimetrique de Detroit de la Sonde et du volcan Krakatau (Indonesie): implications geodynamiques et volcanologiques. Doct. Thesis Universite de Paris VII, p. 1-335.
(online at: http://horizon.documentation.ird.fr/exl-doc/pleins_textes/pleins_textes_6/TDM/42325.pdf)
('Bathymetric and gravimetric study of Sunda Straits and Krakatau volcano (Indonesia): geodynamic and volcanological implications'. Sunda Straits characterized by extensional tectonics ('pull-apart basin'). Krakatau volcano bimodal basalt-dacite volcanics and is different from volcanoes of Java and Sumatra)

Dam, M.A.C. (1990)- Detailed geologicl research in the Bandung Basin. Proc. 29th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 57-90.
(online at: https://www.iagi.or.id/web/digital/48/19th-(11-13-Des-1990)-Book-II-67-78.pdf)
(Brief review of project on geology of Bandung Basin, with focus on Quaternary and groundwater resources)

Dalimunthe, H.L., Y. Aribowo, A. Kurniasih, W.B. Khorniawan, R. Setyawan, N. Qadaryati et al. (2025)- Provenance study from petrography of the sandstone of Kerek Formation, Sojomerto, Kendal, Central Java. Proc.

7th Int. Conf. on Earth Science, Mineral and Energy (ICEMINE 2024), Yogyakarta, IOP Conference Series: Earth and Environmental Science 1486, 012006, p. 1-7.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1486/1/012006/pdf)
(Petrography of M-L Miocene Kerek Fm sandstones in Sojomerto, Kendal, western Kendeng zone. Mainly lithics (48-63%; mainly volcanics?), matrix (2-16%) and quartz (1-24%). Classified as lithic arenite and lithic wacke. Provenance from volcanic activity to S of area)

Dam, M.A.C. (1994)- The Late Quaternary evolution of the Bandung Basin, West Java, Indonesia. Ph.D. Thesis, Vrije Universiteit, Amsterdam, p. 1-252. *(Unpublished)*

Dam, M.A.C. & P. Suparan (1992)- A Late Quaternary sedimentary sequence from the Bandung Basin, West Java, Indonesia. Proc. Quaternary stratigraphy of Asia and the Pacific, IGCP 296 Conf. (1989), ESCAP, New York, p. 49-67.
(online at: https://repository.unescap.org/bitstream/handle/20.500.12870/6110/ESCAP-1991-RP-Quaternary-stratigraphy-IGCP-296-1989.pdf)
(Bandung basin is 15 x 35 km long intramontane basin at altitude of ~660-675 m in central part of W-Java At least three seperate lake sequences alternating with paleosol levels recognised, the most recent one dated at ~35.000-15.000 years BP)

Dam, M.A.C. & P. Suparan (1992)- Geology of the Bandung Basin. Geological Research Development Centre (GRDC), Bandung, Special Publ. 13, p. 1-77.
(Results of 1986 -1990 survey by GRDC and Free University (VUA) on Late Quaternary (last 50k years) development of the Bandung Basin. Four lake phases, etc.)

Dam, M.A.C., P. Suparan, J.J. Nossin & R.P.G.A. Voskuil (1996)- A chronology for geomorphological developments in the greater Bandung area, West-Java, Indonesia. J. Southeast Asian Earth Sciences 14, 1-2, p. 101-115.
(online at: www.researchgate.net/publication/292106109_Geomorphologic_development_of_the_Sun Etc.)
(Bandung area large intramontane basin surrounded by volcanic highlands, which developed during Middle-Late Quaternary, in particular since 125 kyr B.P. Cataclysmic eruptions of Tangkuban Perahu complex around 105 ka and 50-35 ka caused voluminous sediment inflow in NW basin)

Dames, T.W.G. (1955)- The soils of East Central Java. Contr. General Agricultural Research Station, Bogor, 141, p. 1-155.
(1:250,000 scale map of soils in part of Central Java, from Muria volcano in N to Solo, Yogyakarta, Southern Mountains region in S)

Dana, C., A. Idrus, I. Setiawan, E. Handayani, F. Yurniadi, I.A. Meak & C.K. Lai (2021)- Geology, vein textures, and fluid inclusions of the Cibeber low-intermediate sulfidation epithermal Au-Ag orefield, Western Java. Indonesian J. on Geoscience (IJOG) 8, 2, p. 157-175.
(online at: http://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/739)
(Cibeber area part of Bayah Dome Complex in SW Java, which hosts several Au-Ag deposits (Pongkor, Cibaliung, Cikotok). Cibeber mineralization hosted in quartz veins in volcanic breccia/tuff and andesitic lava of U Eocene- Oligocene Cikotok Fm, structurally controlled by NE-trending faults. Four stages of mineralization/veining. Both low-sulphidation and intermediate-sulphidation mineralization)

Danes, J.V. (1910)- Die Karstphanomene im Goenoeng Sewoe auf Java. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap, ser. 2, 27, p. 247-260.
(online at: https://babel.hathitrust.org/cgi/pt?id=mdp. 39015078113373;view=1up;seq=703;size=150)
('The karst phenomena in Gunung Sewu on Java'. Brief summary of early study of famous cone karst of Southern Mountains of C and E Java, by Czechoslovak botanist-geographer. No illustrations; published in more detail in 1915)

Danes, J.V. (1915)- Das Karstgebiet Goenoeng Sewoe in Java. Sitzungsberichte Koningl. Boehmische Gesellschaft Wissenschaften in Prag, Math.-Naturwissenschaftliche Klasse, Prague, 21, p. 1-90.
('The Gunung Sewu karst region of Java'. Classic Southern Mountains karst study around Wonosari, Pacitan, etc. See also review by Hol (1918))

Danio, H., B. Sapiie, Aurioerdi, A.M. Dzar, T. Tsuji & K. Kitamura (2023)- Lithofacies, mineralogical, petrophysical and mechanical properties analysis of reservoir and seal rocks for Carbon Capture Storage (CCS) system: pilot study in Gundih Field, Central Java, Indonesia. Bulletin of Geology (ITB) 6, 3, p. 1052-1063.
(online at: https://buletingeologi.com/index.php/buletin-geologi/issue/view/17/PR63-3)
(Study of M Miocene Ngrayong Sandstone in outcrop and shallow coreholes for suitability for CCS reservoir in NE Java basin. Ngrayong Fm adequate reservoir for CO_2 storage. Overlain by a Bulu Limestone seal layer)

Danny, R., Sutarto, C. Prasetyadi & S. Putranto (2013)- Model erupsi Gunung Gajahmungkur yang membawa fragmen batuan tua berumur Pra-Tersier hingga Tersier di daerah Selogiri, Wonogiri, Jawa Tengah. Proc. Seminar Nasional Kebumian 6, Universitas Gajah Mada, Teknik Geologi, Yogyakarta 2013, M-02, p. 188-197.
(online at: https://www.academia.edu/40355862/Prosiding_Seminar_Nasional_Kebumian_ke_6)
('Model of the eruption of Mount Gajahmungkur which brought old rock fragments from Pre-Tertiary to Tertiary in the Selogiri area, Wonogiri, C Java'. Selogiri area near Wonogiri with outcrops of Oligo-Miocene volcanic rocks. One is Mt Gajahmungkur, with last destructive eruption phase of coignimbrite breccia with old rock xenoliths with similarities to rocks in Jiwo Hills, Bayat (M Eocene Nummulites Limestone, Pretertiary metamorphics). Jiwo stratigrphy thus extends E-ward from Jiwo (by ~30km?))

Dardji, Noeradi (1997)- Evolusi cekungan Paleogen di daerah Ciletuh Jawa Barat Selatan. Buletin Geologi (ITB) 27, p. 27-42.
('Evolution of the Paleogene basin in the Ciletuh area, SW Java')

Dardji, N., E.A. Subroto, H.E. Wahono, E. Hermanto & Y. Zaim (2006)- Basin evolution and hydrocarbon potential of Majalengka-Bumiayu transpression basin, Java Island, Indonesia. AAPG 2006 Int. Conf. Exhib., Perth. *(Abstract only)*
(NW-SE zone from Majalengka to Bumiayu characterised by fold belt of Neogene sediments.Zone is between two majors NE-SW lineaments i.e. Cimandiri and N70E fault zones. Both indicate left lateral movement and place Majalengka-Bumiayu folded zone in transpression zone. Stratigraphy complicated, composed of Oligo-Miocene to Pleistocene rocks. Distal turbidite system in lower part, shallowing upward to coarser turbidites and to fluvial-shallow marine clastics in Plio-Pleistocene. At least twelve oil seeps, ten suspected gas seeps and one discovery well in E-M Miocene turbiditic sandstones)

Dardji, N., T. Villemin & J.P. Rampnoux (1994)- Paleostresses and strike-slip movement: the Cimandiri Fault Zone, West Java, Indonesia. J. Southeast Asian Earth Sciences 9, 1-2, p. 3-11.
(Cimandiri FZ sinistral strike-slip zone)

Darman, H. (1996)- Studi provenance batupasir Formasi Halang, kaitannya dengan paleogeografi Miosen daerah Bantarkawung, Brebes, Jawa Tengah. Berita Sedimentologi (Indonesian Sedimentologists Forum) 3, p. 4-13.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/311/280)
('Provenance study of Halang Fm sandstones and implications for Miocene paleogeography of the Bantarkawung area, Brebes, C Java'. Late Miocene- E Pliocene Fm sandstones mainly composed of feldpars and volcanic lithics. Quartz <5%. Provence source probably volcanic arc in South of Java)

Darman, H. S. Abigail, L.C. Lamba, D.R. Wulandari, A. Ascaria & L. Prasetya (2025)- East Java Basin carbonate reservoirs: time control on reservoir character. Berita Sedimentologi 51, p. 19-36.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/462/448)
(Review of Eocene- Miocene carbonate reservoirs in oil-gas fields in E Java Basin, exploring links between carbonate age, fossil assemblages and reservoir characteristics. Oldest reservoir, Ngimbang Fm dominated by larger foraminifera and interbedded shales,with limited vertical growth potential. Oligo-Miocene Kujung Fm

rich in coral reefs contains bulk of basin's hydrocarbon content. Pliocene Globigerina grainstones offer excellent reservoir quality, but distribution is limited)

Darman, H., B. Muljana & J.T. van Gorsel (2013)- Short note: mineral composition of Eocene and Miocene sandstones in Java Island. Berita Sedimentologi 26, p. 33-37.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/viewFile/167/137)
(Quartz-rich sandstones common in Eocene across Java and in Miocene of N part of Java Island. Feldspar and volcanic rock fragments more dominant in most other Miocene sandstones of Java. Sandstones from Late Miocene Halang Fm in NW Java dominated by feldspar and volcanic rock fragments)

Darmoyo, A.B. & S.P.C. Sosromihardjo (1999)- The sedimentology of the Plio-Pleistocene volcanoclastic in the Lapindo Brantas block, East Java. In: H. Darman & F.H. Sidi (eds.) Tectonics and sedimentation of Indonesia, FOSI-IAGI-ITB Regional Seminar to commemorate 50th anniversary of Van Bemmelen's Geology of Indonesia, Bandung 1999, p. 51-52. *(Extended Abstract)*
(Plio-Pleistocene Pucangan Fm volcanoclastic reservoirs in 1994 Wunut gas discovery, E Java. Sediments derived from volcanic arc in S)

Darmoyo, A.B., S.P.C. Sosromihardjo & B. Satyamurti (2001)- The sedimentology of Pleistocene volcanoclastic in the Lapindo Brantas block, East Java. Majalah Geologi Indonesia (IAGI) 16, 1, p. 15-38.
(Pleistocene volcanoclastics gas-bearing in Wunut field, E Java. Pleistocene overall regressive marine to non-marine sequence prograding to N in E Pleistocene, more to NE and E in Late Pleistocene- Holocene. Five higher order sequences in 1.5 My of Pleistocene- Holocene; tied to Mitchum 1993 cycle chart)

Daryono & H. Pandita (2015)- Identifikasi umur dan lingkungan pengendapan Formasi Kepek di Desa Kepek 2, Kecamatan Kepek, Kabupaten Gunung Kidul. Prosiding Seminar Nasional ReTII ke-10 (STTNAS), Yogyakarta, p. 1-8.
(online at: https://journal.sttnas.ac.id/ReTII/article/view/161/130)
('Determination of age and depositional environment of the Kepek Formation at Kepek village, Gunung Kidul'. Kepek Fm marls overlie Wonosari Lst and are youngest sediments in Southern Mountains of C Java. Relatively gentle slope (<10°), thickness <200m. With common open marine foraminifera, incl. planktonic species Globoqudrina dehiscens, Globorotalia plesiotumida (indicating zone N17, Late Miocene))

Daryono, M.R., D.H. Natawidjaja, B. Sapiie & P. Cummins (2019)- Earthquake geology of the Lembang Fault, West Java, Indonesia. Tectonophysics 751, p. 180-191.
(Lembang Fault major 29 km long fault in W Java that skirts N edge of Bandung. No historic large earthquakes, but geomorphologic evidence of recent activity and sinistral movement of 1.9- 3.5 mm/yr. Fault could produce a Mw 6.5-7.0 earthquake)

Datun, M. (1982)- Penelitian asal pasir Ngrayong, Jawah Tengah. Majalah Geologi Indonesia (IAGI) 9, 2, p. 71-78.
('Investigation of Ngrayong sandstone provenance, Central Java'. Measured sections of 590m thickness in Candi and Todanan areas show M Miocene (N11-N12) Ngrayong sandstones composed of quartz (71-87%), clay minerals (0-11%), glauconite (0-11%), opaque mineral and plagioclase (0-2.2%), biotite (0- 0.2%). Quartz types: metamorphic 64.4%, plutonic 28.3%, reworked sedimentary 7.1% and vein quartz 0.2%. Ngrayong provenance mainly metamorphic and granitic plutonic rocks)

Datun, M., Sukandarrumidi, B. Hermanto & N. Suwarna (1996)- Geological map of the Ngawi Quadrangle, Jawa, 2nd Ed. (Quad. 1508-4), 1:100,000. Geological Research Development Centre (GRDC), Bandung.
(Kendeng Zone and W Cepu zone folded M Miocene- Pliocene sediments)

Datun, M., B. Toha & Widiasmoro (1985)- Fieldtrip guidebook Sangiran Dome and Southern Mountains, Central Java. Gadjah Mada University, p. 1-29. *(Unpublished)*

Datun, M. & A. Priyantoro (1998)- Pengaruh tekstur dan diagenesa terhadap porositas dan permeabilitas Batupasir Formasi Jatibarang dan Cibulakan di daerah Cirebon Jawa Barat. Teknik Geologi UGM, p.
('Effects of texture and diagenesis on porosity and permeability of sandstones of the Jatibarang and Cibulakan Formations in the Cirebon area')

Davies, R.J. (2018)- The cause of the 2006 Lusi mud volcano (Indonesia): please let's not rewrite history. Marine and Petroleum Geology 95, p. 344.
(Brief commentary of Mauri et al. (2017) paper, which fails to mention that mud eruption started ~150m from drill site of gas exploration well (Banjar Panji-1), and is possible trigger of mud volcano eruption. See also Davies et al. (2008))

Davies, R.J., M. Brumm, M. Manga, R. Rubiandini, R. Swarbrick & M. Tingay (2008)- The East Java mud volcano (2006 to present): an earthquake or drilling trigger? Earth Planetary Science Letters 272, p. 627-638.
('Lusi' active mud volcano in E Java probably caused by drilling of nearby Banjar Panji-1 exploration well)

Davies, R.J., M. Manga, M. Tingay, S. Lusianga & R. Swarbrick (2010)- Discussion: Sawolo et al. (2009) The LUSI mud volcano controversy: was it caused by drilling? Marine and Petroleum Geology 27, p. 1651-1657.
(online at: http://seismo.berkeley.edu/~manga/daviesetal2010.pdf)
(Disagree with the Sawolo et al. (2009) conclusion that drilling was not cause of E Java Lusi mud volcano)

Davies, R.J., S.A. Mathias, E. Swarbrick & M. Tingay (2011)- Probabilistic longevity estimate for the LUSI mud volcano, East Java. J. Geological Society, London, 168, 2, p. 517-523.
(Estimate of duration of LUSI mud volcano in E Java, assuming carbonates at 2500-3500m are water source, with area 100-600 km^2, thickness 0.2-1.0 km, porosity 15-25%, initial pressure 13.9-17.6 MPa, and separate, shallower source of mud. Time for flow to decline to <0.1 Ml/day is 26 years. Can continue to flow at lower rates for 1000s of years. Land surface subsidence of ~95-475 m can be expected within 26 year time)

Davies, R.K., D.A. Medwedeff, G.P. O'Donnell et al. (1996)- Regional and reservoir scale analysis of fault systems and structural development of Pagerungan gas Field, East Java Sea, Indonesia. American Assoc. Petroleum Geol. (AAPG) Annual Conv., San Diego, Abstracts, 5, p. A33. *(Abstract only)*
(Pagerungan gas field complexly faulted and folded anticline N of Sakala-Paliat Fault System, offshore Bali. Eocene clastic reservoir affected by two generations of faults: Eocene normal and Neogene compressional)

Davies, R.J., R.E. Swarbrick, R.J. Evans & M. Huuse (2007)- Birth of a mud volcano: East Java, 29 May 2006. GSA Today 17, 2, p. 4-9.
(Mud eruption appears triggered by drilling of overpressured porous and permeable limestones at ~2830m in Banjar Panji 1 exploration well)

Davis, R.C. (1995)- Analysis of oil and gas seeps from Central Java, results of field survey. Multi-client study. PT Geoservices, Jakarta, p. 1-130.
(Incl. observation that N Serayu Mts 'classic' oil seep of Reerink 1865 contains mixed terrestrial-marine biomarkers, but significantly different isotope ratios from 'Cepu' oils)

De Beaufort, L.F. (1928)- On a collection of Miocene fish-teeth from Java. Wetenschappelijke Mededeelingen Dienst Mijnbouw Nederlandsch-Indie 8, p. 3-6.
(Fish teeth (incl. shark) and teeth of ?crocodile and Cetacea (whales) in agglomerate at base of manganese ore seam in Kleripan mine, Kulun Progo, Yogyakarta district. Seam is between Miocene limestones, possibly with Lepidocyclina flexuosa. Kleripan fish fauna similar to that of oil-bearing limestone in Ngembak described by Martin 1919, presumably with Cycloclypeus annulatus (= M Miocene))

De Boer, P.L., C.G. Langereis, J.D.A. Zijderveld, A.J.T. Romein et al. (1987)- Beryllium-10 data from redeposited Late Miocene pelagic sediments (East Java, Indonesia). Nuclear Instruments and methods in Physics Res. B29, p. 322-325.
(online at: https://dspace.library.uu.nl/handle/1874/16106)

(10Be measurements from M Mio- Pliocene sediments of Solo River section, Kendeng zone, E Java, used for estimating rate of sedimentation. Large variations reflect short term variations and downslope mass transport of units previously deposited higher on submarine slope)

De Creve, W.H. (1865)- Aardolie en haar voorkomen in Nederlandsch Indie. Tijdschrift Nijverheid Landbouw Nederlands-Indie 1865, 6. 4, p.
('Petroleum and its occurrence in Netherlands Indies'. Early paper on occurrence of oil seeps on Java)

De Genevraye, P. & L. Samuel (1972)- The geology of Kendeng Zone (East Java). Proc. 1st Annual Conv. Indonesian Petroleum Association (IPA), p. 17-30.
(Classic BEICIP Kendeng zone summary paper)

De Haan, W. (1954)- Tertiaire ertsgangtektoniek in Zuid-Bantam (Java). Geologie en Mijnbouw 16, p. 84-87.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0RmhTbFhyUkk4dFE/view)
('The Tertiary ore vein tectonics in South Banten, Java'. Joint systems in metalliferous areas of South Banten mainly trending ESE-WSW and SE-NW (N115° E). One prominent gold-silver vein at Cikotok strikes WNW-ESE, explained by formation along contact with andesite intrusive body)

De Jongh, A.C. (1912)- Titaanijzerzand (op Java). Tijdschrift voor Nijverheid en Landbouw in Ned.-Indie 84 (1912), p. 63 and 86 (1913), p. 43
('Titanium-iron sand on Java'. Critical discussion of proposed efforts of renewed large-scale exploitation of black iron sands along S Coast of Central Java)

Deighton, I., P. Conn & C. LeRoy (2010)- New seismic in the Java forearc basin: implications for plate tectonic reconstructions. Proc. HAGI-SEG Int. Geosciences Conf., Bali 2010, IGCE10-OP-167, p. 1-8.
(New long-offset 2D seismic along S Java forearc basin images basement under mid-late Tertiary forearc fill. W sector of offshore S Java Basin heterogeneous basement with no significant internal reflectivity over large areas but some low angle dipping reflector sequences. This and sharp rugose basement interface suggest oceanic or transitional crust. E sector of offshore S Java relatively thin Miocene- younger sediments, underlain by 3+ seconds of block-faulted parallel-bedded sedimentary section, similar in seismic character to Mesozoic from Australian NW Shelf, and possibly fragment of Gondwanaland ('Argo Land'). Underlying basement too deep to image. Two basin sectors separated by a prominent structural high)

Deighton, I., T. Hancock, G. Hudson, M. Tamannai, P. Conn & K. Oh (2011)- Infill seismic in the Southeast Java forearc basin: implications for petroleum prospectivity. Proc. 35th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA11-G-068, p. 1-14.
(More new, deep 2D seismic lines along E part of Java forearc, imaging >3 seconds TWT of unexpected block-faulted parallel-bedded sediments, with similarities in seismic character to Mesozoic sections from Australian NW Shelf, buried under >2 seconds TWT of mid-late Tertiary forearc deposits. Also map of M Miocene reef complexes)

Den Berger, L.G. (1927)- Unterscheidungsmerkmale von rezenten und fossilen Dipterocarpaceen Gattungen. Bulletin du Jardin botanique de Buitenzorg, Ser. 3, 8, p. 495-498.
('Characteristics of recent and fossil Dipterocarp species'. With descriptions of fossil wood species from West Java, incl. Dryobalanoxylon javanicum, D. tobleri, etc.Genus Dryobalanops not present on Java today, but was very common in Neogene)

Dengler, L. (1893)- Ueber einige neue Erdole aus Java. Thesis Technische Hochschule, Karlsruhe, p. 1-51.
('On some new crude oils from Java'. Early chemical analyses of crude oils from five NE Java wells: Koeti 4, Koeti 20, Berbek 2, Gogor and Roengkoet. Oils mostly naphtene, followed by paraffins. Gogor and Roengkoet oils very heavy and no paraffins)

Dermawan, I.A., A.S. Subandrio, A. Rudyawan, A.D. Sanjaya, R. Maharief, K. Anditya, R. Hasnur et al. (2020)- Structural control related with medium-to-very high Au grade at Pit B East and B West, Tujuh Bukit mine, East Java. Bulletin of Geology (ITB) 4, 1, p. 456-473.
(online at: https://buletingeologi.com/index.php/buletin-geologi/article/download/74/35)
(Tujuh Bukit area in SE Java mainly Batuampar Fm Late Oligocene-M Miocene volcanics. Pliocene Au high sulfidation epithermal mineralization system mainly along strike-slip system)

Devi, E.A., F. Rachman, A.H. Satyana, Fahrudin & R. Setyawan (2018)- Paleofacies of Eocene Lower Ngimbang source rocks in Cepu Area, East Java Basin based on biomarkers and Carbon-13 isotopes. Proc. Global Colloquium on GeoSciences and Engineering, Bandung 2017, IOP Conference Series: Earth and Environmental Science 118, 012009, p. 1-7.
(online at: http://iopscience.iop.org/article/10.1088/1755-1315/118/1/012009/pdf)
(Eocene Lower Ngimbang carbonaceous shales from Kujung-1 and Ngimbang-1 wells in Cepu area. C-13 isotope data suggest transitional/ deltaic source facies in Kujung-1 to marginal marine in Ngimbang-1)

Devi, E.A., F. Rachman, A.H. Satyana, Fahrudin & R. Setyawan (2018)- Geochemistry of Mudi and Sukowati oils, East Java Basin and their correlative source rocks: biomarker and isotopic characterization. Proc. 42nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA18-271-SG, p. 1-23.
(Oils from Kujung Fm reservoirs in Mudi and Sukowati fields, NE Java, from one oil family with deltaic- marginal marine source facies. Oils correlated to Eocene Lower Ngimbang shales. Mixed deltaic (vitrinite macerals type III) and marginal marine (liptinite and alganite macerals type II). Source richness fair- excellent. Top oil window (Ro 0.6) between 1900-2850m depth)

Devi, E.A., F. Rachman & A.H. Satyana (2018)- Geochemistry of oil fields, East Java Basin: Biomarker characterisation. Academic J. of Polymer Science (AJOP) 2, 1. p. 10-15.
(online at: https://juniperpublishers.com/ajop/pdf/AJOP.MS.ID.555578.pdf)
(Brief general discussion about biomarkers. No specifics on wells, fields, formations, etc.))

De Vogel, H.A.F. (1859)- Kajangan-api of vuurwellen van Bodjonegoro. Natuurkundig Tijdschrift voor Nederlandsch-Indie 16, p. 320-324.
(online at: https://ia600203.us.archive.org/32/items/natuurkundigtijd16koni/natuurkundigtijd16koni.pdf)
(Brief communication from local government controleur De Vogel, no figures. Early description of long-lived, burning Kayangan Api ('fire-spirit' or 'eternal fire') gas seep(s) in teak forest near Dander village, 25 km SSW of Bojonegoro, NE Java. With occasional sulfurous odor)

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(Samples from of E Tertiary Jatibarang Fm shale of unnamed wells dominantly type III kerogen)

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(New data confirm NW displacement of fore-arc sliver plate, causing extension in Sunda Straits that is related to rifting and accretion in Andaman Sea. Deformation of forearc sliver can explain why only 50-70 km of opening in Sunda Strait and 460km of accretion in Andaman Sea)

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(11 bryozoan species from M Miocene (Langhian–Serravallian), from fine sand in Tawun Fm, 3km SW of Sedan town, C Java)

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(online at: http://digilib.itb.ac.id/files/disk1/36/jbptitbpp-gdl-grey-2002-dwiharsonu-1775-2002_gl_-1.pdf)
(NE Java Tertiary sediments two transgression-regression (TR) supercycles. Early transgression at P15 (Upper Eocene), and maximum transgression during N19-N20 (Pliocene), with maximum regression at N11 (Middle Miocene). First TR Supercycle P15 to N11 (Upper Eocene-M Miocene). Maximum transgression at N7, marked by middle-neritic marl, part of Tuban Fm. Second TR supercycle N11- N22 (Pliocene). Maximum transgressive during N19-N20, the biggest transgression in Tertiary, marked by upper-bathyal Mundu Fm marls, or Paciran

Fm shelfal limestones. Evolution of sedimentation from Kujung Fm up to Lidah Fm indicated relationship between sediment supply, local tectonic and relative sea-level fluctuation or transgression-regression)

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(Distinctive cidaroid echinoid spines from M Miocene Bulu Fm, 5 km NNW of Sale, along Rembang- Bojonegoro road, E Java. Described as Goniocidaris paraplu n.sp. Associated with Katacycloclypeus annulatus, Nephrolepidina, Miogypsina, etc.)

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(M Eocene- E Oligocene Nummulites from Gerth Java collections from Lok Ulo (Kali Guha), Nanggulan (Gamping, Kali Songgo), Jiwo (Gamping, G. Wungkal, Padasan, Guha), S Bantam (Tji Djengkol, etc.), etc. Taxonomic descriptions of Nummulites species (here called Camerina) and Assilina; with determination table of 22 species. No locality maps, limited stratigraphy)

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(E Java Basin three main intervals of carbonate platform and mound growth: Kujung (carbonate mound and off-mound, ~28-22 Ma), Tuban (mixed carbonate mounds-siliciclastics,~22-15 Ma), and Wonocolo (Bulu limestone, ~13-12 Ma). Each interval multiple generations of carbonate growth and demise. Geometries of platform and mound margins vary through time and interval from steep and aggradational to gradual and progradational and do not have consistent windward-leeward direction)

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('Geological map of Java, 1:100,000 scale- Explanatory notes of Sheet 110 (Mojokerto)'.In North of map E-W trending Kendeng Hills with Poetjangan (Pucangan) - Kedengwaru anticlinal trend. Most of map in Brantas River alluvial plain. Also unpublished English translation of text in Geological Survey-Bandung files)

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(Map online at: https://digitalcollections.universiteitleiden.nl/view/item/815278)
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('Comparison between content of foraminifera (plankton and benthos) and mollusks in shallow marine depositional environments, Case study on the Cimandiri Formation, Sukabumi, West Java'. Shallow marine Cimandiri Fm sediments of late Middle Miocene age (N12-N15). Locally abundant molluscs (Turritella angulata assemblage of Oostingh 1938), particularly infaunal species)

Ediyanto & Basuki Rahmad (2002)- Perkembangan lingkungan pengendapan Formasi Cimandiri Bagian Tengah pada penampang Sungai Cijarian, Sukabumi Jawa Barat, berdasarkan paleontologi moluska. Proc. 31st Annual Conv. Indonesian Association Geologists (IAGI), Surabaya, p. 822-844.
(online at: https://www.iagi.or.id/web/digital/18/PERKEMBANGAN-LINGKUNGAN-PENGENDAPAN-FORMASI-CIMANDIRI-BAGIAN-TENGAH-PADA-PENAMPANG-SUNGAI-CIJARIAN,-SUKABUMI-JAWA-BARAT,-BERDASARKAN-KAJIAN-PALEONTOLOGI-MOLUSKA.pdf)
('The development of depositional environment of the middle part of the Cimandiri Formation in the Cijarian River section Sukabumi, West Java, based on the paleontology of molluscs'. 14 genera of M Miocene? gastropods and pelecypods in Cimandiri Fm at Cijarian river. Lower interval mainly sandstone, middle part silt and fine sandstone, at top coarse sandstones. Depositional environments interpreted as: inlet-tidal estuarine- surf-shallow marine - inlet- surf)

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(online at: https://vsi.esdm.go.id/gallery/picture.php?/96/category/11)
('Geologic map of the Anak Krakatau volcano, Lampung Province'. Map of Quaternary Krakatau volcano complex in Sunda Straits, with active Anak Krakatau cone within large caldera formed in 1883)

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(Electrical prospecting for zones of manganese mineralisation in areas of historic manganese mining activities at Kliripan and Anjir, Kulon Progo District)

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(On reservoir properties of Eo-Oligocene Jatibarang Fm fractured volcanoclastics in NW Java basin)

Everwijn, R. (1874)- Iets over aardolie in de residentie Cheribon op Java. Jaarboek Mijnwezen Nederlandsch Oost-Indie 1874, 1, p. 167-171.
('Something about petroleum in the Residency Cirebon on Java'. Brief report about oil recovered through shallow well drilling in 1872 by Cirebon-based Dutch entrepreneur Jan Reerink)

Fadhliah, A., Y. Zetra, A. Wahyudi & R.Y.P. Burhan (2021)- Biomarka sebagai indikator sumber asal usul senyawa organik minyak mentah Blok Cepu, Formasi Wonocolo, Bojonegoro, Jawa Timur. Jurnal Sains dan Seni ITS, Surabaya, 9, 2, p. 37-42.

('Biomarkers as indicators of the origin of organic compounds in crude oil in the Cepu Block, Wonocolo Formation, Bojonegoro, East Java')

Fadlin, F., S. Godang & W.N. Hamzah (2018)- Magmatisme tholeitik pada Active Continental Margin (ACM) di Serayu bagian utara dan selatan- Banyumas, Jawa Tengah. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 19, 1, p. 15-30.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/385/334)
('Active Continental Margin (ACM) origin of tholeiitic magmatism in northern and southern Serayu-Banyumas, Central Java'. Significant amounts of Eocene- Miocene basaltic lavas in Serayu Mountains)

Fadlin, S. Godang, N. Ariyanti, W.N. Hamzah & M.R. Aditama (2021)- Tholeiitic basalt in Banyumas Basin (Kebasen, Central Java): the evidence of sedimentary recycling input and the contribution of oceanic slab on fore-arc active continental margin (ACM) magmatism. Indonesian J. on Geoscience (IJOG) 8, 2, p. 233-253.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/638/338)
(Arc tholeiitic basalts generally associated with island-arc volcanism. Tholeiitic Kebasen pillow lava in Halang Fm in Banyumas Basin/S Serayu Mountains generated from geotectonic forearc active continental margin and involvings sediment recycling. Formed at depth of ~56km (probably Miocene, but no ages mentioned; JTvG))

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(Volcaniclastic turbidites of E Miocene Sambipitu Fm are distal turbidite facies on slope to basin floor. Repeated common development of Zoophycos and Nereites trace fossils in all fine-grained beds suggest quiet conditions between turbidite deposition events)

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(Epiclastic sediments in Wonosari area (Sambipitu Fm) deposited in N7-N8 zones (late E Miocene), but at Kulon Progo (lower Jonggrangan Fm) and Punung (Jaten, Wuni, and Nampol Fms) deposited in M Miocene)

Fallahi, M.J., A. Obermann, M. Lupi, K. Karyono & A. Ma (2017)- The plumbing system feeding the Lusi eruption revealed by ambient noise tomography. J. of Geophysical Research: Solid Earth 122, 10, p. 8200-8213.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/full/10.1002/2017jb014592)
(Ambient seismic noise data from area of Lusi mud eruption shows hydrothermal plume, rooted at >6 km depth and reaching surface at Lusi site. Lusi eruption fed at depth by migration of fluids originating from volcanic complex interacting with organic-rich sediments present at 4.5 km depth)

Fardiansyah, I., A. Budiman, M.N. Yulianto, R. Galena & C. Prasetyadi (2013)- Control of syn-contractional sedimentation of Kendeng fold thrust belt: new perspective analogue to evaluate risk associated with trap formation. Proc. 37th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA13-G-076, p. 1-11.

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(online at: https://jrisetgeotam.lipi.go.id/index.php/jrisgeotam/article/view/1218/pdf)
(Apparent 15km separation of M Miocene Oyo Fm carbonate outcrop at northern Jiwo Hills from its platform (in Southern Mountains?) interpreted as indication of thrust faulting)

Faturrakhman, M.L., E. Sukiyah & Jamal. (2023)- Morphogenetics of Rembang anticlinorium based on tectonic geomorphology characteristics in Watuputih, Central Java, Indonesia. Songklanakarin J. Science Technology (SJST) 45, 2, p. 219-227.
(online at: https://sjst.psu.ac.th/journal/45-2/8.pdf)
(Rembang Anticlinorium series en-echelon folds with E-W orientation, formed from Late Neogene tectonism. Folds in Watuputih named Ngiono, Pakel, Gaplokan, Bulu and Brama. Tectonics and weathering play main roles in shaping landforms of Rembang Anticlinorium with erosional forces having greater impact)

Faurine, N.R., Winantris & M.F. Rosana (2021)- Paleoflora pada batubara Cihara Formasi Bayah. Bull. Scientific Contribution (UNPAD) 19, 3, p. 205-211.
(online at: https://journal.unpad.ac.id/bsc/article/view/37586/pdf)
('Paleoflora in the Cihara coal of the Bayah Formation'. Palynological analysis of coal in Cihara, Lebak, SW Java, shows presence of Proxapertites operculatus, P. psilates, Palmaepollenites kutchensis and Florschuetzia trilobata, indicating Late Eocene age and fluvial-deltaic to brackish swamp environment)

Fauzi, A., H. Permana, S. Indarto & E.Z, Gaffar (2015)- Regional structure control on geothermal systems in West Java, Indonesia. Proc. World Geothermal Congress 2015, Melbourne, Australia, p. 1-14 *(online at: https://www.academia.edu/19678453/Regional_Structure_Control_on_Geothermal_Systems_in_West_Java_Indonesia)*
(Indonesia has large geothermal potential. Resources distributed across 256 geothermal areas (40 in W Java)

Fauzielly, L., L. Jurnaliah & R. Fitriani (2018)- Paleobatimetri Formasi Jatiluhur berdasarkan kumpulan foraminifera kecil pada lintasan Sungai Cileungsi, Kabubaten Bogor, Jawa Barat. J. RISET Geologi dan Pertambangan (LIPI) 28, 2, p. 157-166.
(online at: https://jrisetgeotam.lipi.go.id/index.php/jrisgeotam/article/view/660)
('Paleobathymetry of the Jatiluhur Formation based on a collection of small foraminifera from the Cileungsi River section, Kabubaten Bogor, West Java'. Paleobathymetry of Miocene Jatiluhur Fm interpreted to vary between inner neritic- upper bathyal, based mainly on planktonic/benthic ratios)

Fauzielly, L., Winantris, L. Jurnaliah, Solihin & R. Fitriani (2019)- Ostrakoda Miosen dari Formasi Cimandiri Sukabumi Jawa Barat. Bull. Scientific Contribution: Geology (UNPAD) 17, 2, p. 85-90.
(online at: https://jurnal.unpad.ac.id/bsc/article/view/22735)
('Miocene ostracodes from the Cimandiri Formation, Sukabumi, West Java'. Fifteen species of ostracoda from M Miocene Cimandiri Fm in Cimerang River section, Sukabumi, West Java. Abundant ostracods are Hemicytheridea ornata, Cytherella hemipuncta, Hemicytheridea reticulata, Cytherelloidea excavata, Keijella carrirei., etc. Depositional environment shallow marine)

Faylona, M.G.P.G. (2019)- The Early Pleistocene aquatic palaeoecology and palaeoclimate in Central Java, Indonesia as recorded in mollusc assemblages from the Kalibeng and Pucangan layers of Sangiran Dome. Thesis Ferrara University (Italy) and Museum National d'Histoire Naturelle, Paris, p. 1-166.
(online at: https://iris.unife.it/handle/11392/2488269)
(Extensive study of >15,000 Late Pliocene- E Pleistocene mollusc shells from 19 samples in Sangiran Dome, from Upper Kalibeng shallow marine Blue Clay, fresh-brackish water Corbicula Bed, Lower Lahar to estuarine-lacustrine Lower Pucangan Black Clay Fm. 61 species, from shallow marine taxa at base (44 species) to freshwater species towards top (16 species, mainly gastropods). Shell δ18O record indicates E Pleistocene climate was dry, interspersed with occasional periods of precipitation. Between 2.2 and 1.8 Ma (upper Blue Clay) warm-wet climate, becoming increasingly dry, driest in Lower Lahar. Between 1.8-1.6 Ma (basal Pucangan Black Clay) conditions were wet with high precipitation. Fluvial Kabuh Fm (~0.9-0.8 Ma; with most hominid/mammal fossils) not studied here, but rel. dry and cool open forest/savannah)

Faylona, M.G.P.G., P. Lozouet, A.M. Semah, F. Semah & M. Adityas (2020)- The Sangiran fossil shell assemblages catalogue. Amerta (J. Archeological Research Development), 38, 2, p. 93-114.
(online at: https://jurnalarkeologi.kemdikbud.go.id/index.php/amerta/article/view/750)

(61 taxa of fossil molluscs in Plio-Pleistocene U Kalibeng and Lower Pucangan series of Sangiran dome. Mollusc assemblages from Lower Lahar and Black Clay Pucangan pure freshwater shells. No plates)

Faylona, M.G.P.G., A.M. Semah, F. Semah, P. Lozouet & M. Adityas (2022)- The early Pleistocene aquatic palaeoecology in Central Java, Indonesia, as recorded in mollusc assemblages from the Puren and Sangiran layers of the Sangiran Dome. Palaeontographica, Schweizerbart, A, 322, 5-6, p. 125-152.
(Summary of thesis above. Mollusc assemblages from Upper Puren to Lower Sangiran layers of Sangiran Dome, C Java (Blue Clay Puren, Corbicula Bed, Lower Lahar, and Black Clay). 61 mollusc taxa)

Febriani, F. (2014)- Subsurface structure of the Cimandiri Fault Zone, West Java, Indonesia. Thesis Chiba University, p. 1-154.
(online at: http://mitizane.ll.chiba-u.jp/metadb/up/thesis/SGA_0071.pdf)
(Gravity and magnetotelluric modeling around WSW-ENE trending Cimandiri Fault Zone, which runs between Bandung and Pelabuhan Ratu. Preferred model is N-directed thrust fault)

Febriani, F., K. Hattori, D.S. Widarto, P. Han, C. Yoshino, B. Nurdiyanto, N. Effendi, I. Maulana & E. Gaffar (2014)- Audio frequency magnetotelluric imaging of the Cimandiri Fault, West Java, Indonesia. Indonesian J. Geophysics 14, 1, p. 131-143.

Fehse, D. & Z. Vician (2021)- New Miocene Cypraeids (Mollusca: Gastropoda: Cypraeidae) from Indonesia. Conchylia 51, 3-4, p. 35-53.
(Two new species of E-M Miocene cowries in genera Naria and Pustularia, N of Wonosari, Yogyakarta area)

Felix, J. (1913)- Die fossilen Anthozoa aus der Umgegend von Trinil. Palaeontographica 6, 5-6, p. 311-365.
(online at: https://www.biodiversitylibrary.org/item/149468#page/5/mode/1up)
('The fossil corals from the surroundings of Trinil', Central Java. Probably Late Pliocene- E Pleistocene age corals from thin limestones in Upper Kalibeng Fm (?), collected by Selenka Expedition. From 4 localities near Trinil, mainly from around Pengkol village N of Trinil)

Fermin, P.G.H.A. (1951)- Mangaanertsen op Java. Geologie en Mijnbouw 13, 2, p. 68-79.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0eEtkandqNGZwODA/view)
('Manganese ores on Java'. (1) Kulon Progo, SW of Yogya: probably weathering products of andesitic breccias; in production 1921-1945; (2) E Priangan, S of Tasikmalaya: pyrolusite in thin layers and lenses in E Miocene Jampang series andesitic volcanoclastics and younger beds)

Fernando, Y., I. Syafri & M.A. Jambak (2015)- Fasies dan lingkungan pengendapan batugamping Formasi Parigi di daerah Pangkalan, Karawang, Jawa Barat. Bull. Scientific Contribution (UNPAD) 13, 1, p. 29-43.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8384/3898)
('Facies and depositional environment of the Parigi Formation limestone, in the Pangkalan area, Karawang, West Java')

Firdaus, M., A.P. Putra, A. Yogi, R.A. Fadhilah, I.S. Gumilar, E.H. Nugroho & A. Hamzah (2023)- Fasies sedimen laut dalam di Formasi Cinambo (Miosen Awal – Tengah): pengamatan dari Singkapan di sebagian Sungai Cilutung, Majalengka, Jawa Barat, Indonesia. Lembaran Publikasi Minyak dan Gas Bumi (Lemigas) 57, 1, p. 27-38.
(online at: https://journal.lemigas.esdm.go.id/index.php/LPMGB/article/view/1333/1230)
('Deep-sea sedimentary facies in the Cinambo Formation (Early- Middle Miocene): observations from outcrops in part of the Cilutung River, Majalengka, West Java, Indonesia'. Six turbiditic facies associations in outcrop SW of Majalengka, W of G. Ciremai. TOC 0.46-1.27%, highest in shale in the Channel Branch Fan Facies)

Firmansyah, M.H., A. Kano, T. Iizuka & Y. Kakizaki (2019)- Depositional and diagenetic history of limestones and dolostones of the Oligo-Miocene Kujung Formation in the Northeast Java Basin, Indonesia. Island Arc 28, 6, e12326, p.

(283 m thick outcrop section of Late Oligo- E Miocene platform carbonates at Kranji in NE Java is subdivided into three lithological units: limestone unit 1, dolostone unit 2, and limestone unit 3, in ascending order. Oldest Unit 1 low-porosity limestone, with two subaerial exposure horizons. Unit 2 dolomitic rock, calcitic grains and cross-stratified structure, likely deposited in shoal setting (M-L Miocene dolomitization?). Unit 3 of Aquitanian-Burdigalian age high porosity and low δ13C and δ18O values indicating meteoric diagenesis)

Flathe, H. & D. Pfeiffer (1965)- Grundzuge der Morphologie, Geologie und Hydrogeologie im Karstgebiet Gunung Sewu (Java, Indonesien). Geologisches Jahrbuch B 83, p. 533-562.
('Fundamentals of the morphology, geology and hydrogeology in the Gunung Sewu karst area, Java'. On tropical karst in massive reef limestone of Miocene Wonosari beds of Gunung Sewu region along S part of C and E Java. Limestone gently folded and dips slightly to SE. Terrain here called sinus karst because of sinusoidal contour of rounded hills which rise 30-70m above floor. Drainage mainly subsurface)

Fokkens, F. (1886)- Goud- en zilvermijnen op Java. Kolff & Co., Batavia, p. 1-44.
('Gold and silver mines on Java'. Report by Dutch government official of remnants of old silver mines around volcano ruins of Gunung Parang near Krawang, W Java. Silver was also mined briefly here by Dutch East indies Company (VOC) in the 1720s and by Chinese miners)

Franchino, A., E. Bellini & S. Dario (1990)- Preliminary notes on the age of Miocene limestones from South East Java to Sumbawa, Indonesia. Buletin Geologi (ITB) 20, p. 14- .

Franchino, A., E. Robba & D. Sartorio (1991)- Remarks on the age of the limestones of southeastern Java (Indonesia). Rivista Italiana Paleontologia Stratigrafia 97, 3-4, p. 629-638.
(online at: https://riviste.unimi.it/index.php/RIPS/article/download/8964/8529)
(Age of Wonosari Lst in eastern Southern Mountains of SE Java is early Middle Miocene, with Flosculinella bontangensis, Miogypsina thecidaeformis, Lepidocyclina (N.), etc. (= Lower Tf larger foram stage). Occasional planktonic foraminifera, incl. Orbulina, probably zone N9- basal N10 equivalent)

Fukushima, Y., J. Mori, M. Hashimoto & Y. Kano (2009)- Subsidence associated with the LUSI mud eruption, East Java, investigated by SAR interferometry. Marine and Petroleum Geology 29, p. 1740-1750.
(Using satellite data to detect subsidence around E Java Lusi mud volcano, active since May 2006)

Gaffar, E.Z. (1998)- Kemagnetan purba daerah Ciletuh, Jawa Barat pada Mesozoikum Akhir: studi pendahuluan untuk rekonstruksi kemagnetan purba daerah Jawa Barat. Proc. 27th Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 3, p. 10-15.
(online at: https://www.iagi.or.id/web/digital/56/51.pdf)
('Paleomagnetism of the Ciletuh area, W Java at end-Mesozoic; study for paleomagnetic reconstruction of the W Java area'. Paleomagnetic work on Mesozoic outcrops in Ciletuh area, SW Java. Results not clear?)

Gafoer, S. (2000)- Penampang geologi sepanjang Jawa Tengah- Kalimantan Barat. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 10, 111, p. 17-32.
('Geological cross section from Central Java to West Kalimantan')

Gafoer, S. & N. Ratman (1998)- Geological map of western part of Java, 1:500,000, 2nd ed., Geological Research Development Centre (GRDC), Bandung.

Gani, R.M.G., Y. Firmansyah & S.F. Pamekas (2020)- Stratigraphic analysis of Rajamandala Formation and Citarum Formation based on outcrops data. J. Geological Sciences Applied Geology (UNPAD) 4, 1, p. 40-47.
(online at: https://jurnal.unpad.ac.id/gsag/article/view/29112/13920)
(Foraminiferal analysis shows Rajamandala Fm formed in Late Oligocene (Lower Te/P20- P22/N1- N3) and overlying Citarum Fm marine clastics formed in M Miocene (N9-N13), suggestng gap of time from N3- N9 (but contact between formations not observed; may be faulted))

Gani, R.M.G., Y.A. Senjadja, J. Hutabarat, S.P. Yoana & M.H. Ghifari (2023)- The provenance of sedimentary rocks for Jatiluhur formation at Middle Miocene- Late Miocene era in the Cipamingkis river pass, Bogor Basin, West Java, Indonesia. Proc. 7th Annual Applied Science and Engineering Conference 2022 (AASEC), J. Engineering Science and Technology (JESTEC), Taylor's University, Malaysia, Special Issue 4, p. 131-137.7.
(online at: https://jestec.taylors.edu.my/Special%20Issue%20AASEC2022/RPI_SI_2023_18.pdf)
(M Miocene Jatiluhur Fm (N13-N16), W Java, provenance of zones N15-N16 from plutonic rocks. Provenance of N13- N14 zones two tectonic settings: Continental and Transitional Continental- Magmatic Arc)

Ganie, B.M., Syaifudden, A. Superman & E. Honza (1987)- Geomorphological features in the Eastern Sunda Trench. CCOP, Technical Bulletin 19, p. 7-12.
(online at: https://ncloud.dotdream.co.th/index.php/s/xCwHAtAFYxzBtC9)

Garrard, R.A., D.M. Schiller, C.T. Siemers & J.T. van Gorsel (1990)- IPA Post-Convention fieldtrip- South-West Java 1990. Indonesian Petroleum Association (IPA), Fieldtrip guidebook, p. 1-86.
(4-day fieldtrip to Eocene- Miocene outcrops of Cibadak, Bayah, Ciletuh and Pelabuhan Ratu areas, SW Java)

Genna, A., M. Jebrak, E. Marcoux & J.P. Milesi (1996)- Genesis of cockade breccias in the tectonic evolution of the Cirotan epithermal gold system, West Java. Canadian J. Earth Sciences 33, p. 93-102.
(Pliocene Cirotan gold deposit up to 25m thick and hosted by Pliocene microdiorite (4.5 Ma) that cuts Miocene volcano-sedimentary series with rhyolitic ignimbrite (9.5 Ma); K-Ar age of adularia of Cirotan vein 1.7±0.1 Ma. Good example of mineralized cockade breccia, in right-lateral strike-slip fault that evolved to normal fault at end of development. Breccia formation of hydrothermal origin, in active, self-organizing system in fault zone)

Geological Survey of Indonesia (1963/1977)- Geological map of Java and Madura, scale 1:500,000. Sheet I, West Java. Bandung.

Geological Survey of Indonesia (1963/1977)- Geological map of Java and Madura, scale 1:500,000. Sheet II, Central Java. Bandung.

Geological Survey of Indonesia (1963/1977)- Geological map of Java and Madura, scale 1:500,000. Sheet III, East Java. Bandung.

Gerth, H. (1921)- Coelenterata-Anthozoa. In: Die Fossilien von Java auf Grund einer Sammlung von Dr. R.D.M. Verbeek und von anderen bearbeitet durch Dr. K. Martin. Sammlungen Geologischen Reichs-Museums Leiden (N.F.) 1, 2, p. 387-445.
(online at: www.repository.naturalis.nl/document/552457)
(Part of K. Martin (1891 and later) series on Tertiary fossils of Java. Eocene (Nanggulan) and Miocene-Pliocene corals from collections of Verbeek, Martin, Rutten and others. Rajamandal Limestone W of Bandung with only Coeloria singularis Martin (= only Late Oligocene corals known from Java?) Typical Pacific assemblages. With 3 plates)

Gerth, H. (1922)- Echinodermata- Echinoidea. In: Die Fossilien von Java auf Grund einer Sammlung von Dr. R.D.M. Verbeek und von anderen bearbeitet durch Dr. K. Martin. Sammlungen Geologischen Reichs-Museums Leiden (N.F.) 1, 2, 3, p. 497-520.
(online at: www.repository.naturalis.nl/document/552456)
(Tertiary echinoids chapter in K. Martin's 'Fossils of Java' series, with descriptions of ~42 species of Eocene-Pliocene echinoids from Java collections of Junghuhn, Verbeek, Martin, etc. With one plate)

Gerth, H. (1929)- The stratigraphical distribution of the larger foraminifera in the Tertiary of Java. Proc. 4th Pacific Science Congress, Java, IIB, p. 591-599.
(Good, short review paper with larger foram distribution table, but no maps, figures)

Gerth, H. (1930)- Ein neues Eocaen-Vorkommen bei Djokja auf Java. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 33, 4, p. 392-395.

(online at: https://dwc.knaw.nl/DL/publications/PU00015901.pdf)
('A new Eocene locality near Yogyakarta on Java'. Outcrops of light-colored limestone at Gunung Gamping, 4 km W of Yogyakarta. First described and illustrated by Junghuhn (1850) and thought to be of Miocene age by Verbeek and Fennema (1896) and Martin (1914).However, abundant Pellatispira and some Nummulites demonstrate Late Eocene age. Typical reefal limestone with common corals, i.e. different facies from nearby Nummulites limestone localities of Jiwo and Nanggulan)

Gerth, H. (1931)- Der geologische Bau Javas. Geologische Rundschau 22, 3-4, p. 188-200.
('The geologic framework of Java'; in German. Java island only three areas of Pretertiary outcrop, below thick cover of Tertiary sediments. Unconformities between Pretertiary and Paleogene and between Paleogene and Neogene reflect Tertiary orogenic phases: main phase at end of Neogene. Today's active volcanoes appeared in Quaternary. With cross-sections, stratigraphic columns and tables)

Gerth, H. (1932)- De geologische bouw van Java. Geologie en Mijnbouw 10, 21, p. 226-230.
(online at: https://drive.google.com/file/d/1uYNezebGm6OBQulBNtLRdXeoUX7YZxwt/view)
('The geologic framework of Java'; in Dutch. Abbreviated version of Gerth (1931), mainly on stratigraphy)

Gerth, H. (1933)- Neue Beitrage zur Kenntnis der Korallenfauna des Tertiars von Java. I. Die Korallen des Eocaen und des alteren Neogen. Dienst Mijnbouw Nederlandsch-Indie, Wetenschappelijke Mededeelingen 25, p. 1-45.
('New contributions to the knowledge of the coral fauna of the Tertiary of Java. I. The corals of the Eocene and older Neogene'. Descriptions of four species of solitary corals from Nanggulan, W of Yogyakarta (Bathyactis, Sphenotrochus, Astrocoenia, etc.), and species from Oligo-Miocene of Rajamandala in W Java and Serayu and Rembang areas in C and E Java. Little stratigraphy and locality information)

Gerth, H. & W.F.F. Oppenoorth (1929)- The Upper Eocene Nanggoelan beds. Fourth Pacific Science Congress, Java 1929, Excursion D1, p. 1-7.

Ghofur, D.H., M. Maha & H. Riswandi (2017)- Geologi dan studi biostratigrafi Formasi Kerek dan Kalibeng daerah Bengle dan sekitarnya, Kecamatan Wonosegoro, Kabupaten Boyolali, Provinsi Jawa Tengah. Jurnal Ilmiah Geologi Pangea (UPN) 4, 1, p. 49-58.
(online at: https://jurnal.upnyk.ac.id/index.php/jig/article/view/5181)

Gibran, A.K., R. Setijadi, E.B Purwasatriya, D.R. Ananda & M.I. Nabil (2022)- Biostratigrafi dan sedimentologi Plio-Pleistosen daerah Bumiayu- Tonjong, Jawa Tengah. J. Geologi Kelautan 20, 1, p. 57-66.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/738/551)
('Biostratigraphy and sedimentology of Plio-Pleistocene sedimentary rocks of the Bumiayu- Tonjong area, Central Java'. M. Pliocene (N20) marine Kalibiuk Fm, Late Pliocene Kaliglagah Fm (shallow marine small benthics only), E Pleistocene transitional MenggerFm (no microfossils; indeterminate) and Late Pleistocene fluvial Gintung Fm. Sediment volcanoclastic, sourced mainly from WNW (N Serayu Mts))

Goad, S.T. (1816)- Miscellaneous observations on the volcanic eruptions at the islands of Java and Sumbawa, with a particular account of the mud volcano at Grobogar: The Journal of Science and the Arts (Royal Institute Great Britain, London), 1, 2, XIV, p. 245-258.
(online at: https://books.googleusercontent.com/books/content Etc))
(Brief account of events during and after major eruption(s) of Mt Tambora ('Tomboro') on Sumbawa in 1815, of which the sounds were heard and ensuing darkened skies and ash falls were seen and felt across Java and beyond. Also probably the first publicshed description of 'an extraordinary natural phenomenon' of a Java mud eruption or mud volcano, at Grobogan, NE of Solo, C Java. Natives collect water from salty mud for salt extraction for the Emperor of Solo. No figures)

Gomez, C., M. Janin, F. Lavigne, R. Gertisser, S. Charbonnier, P. Lahitte, S.R. Hadmoko, M. Fort, P. Wassmer, V. Degroot & H. Murwanto (2010)- Borobudur, a basin under volcanic influence: 361,000 years BP to present. J. Volcanology Geothermal Research 196, 3, p. 245-264. *(online at: www.researchgate.net/publication/257428333_The_geological_evolution_of_Merapi_volcano_Central Etc.)*

(Borobudur basin N of Yogyakarta City, surrounded by three andesitic volcanoes: Merapi, Merbabu and Sumbing. Volcanic activity strongly influenced evolution of basin. Two major volcanic deposition events up to tens of meters thick at ~119,000 years BP and ~31,000 years BP in S part of basin. Several generations of paleolakes in Borobudur basin and Borobudur Temple probably stood by water body. Borobudur temple never buried under volcanic material in historic times)

Goppert, H.R. (1854)- Die Tertiarflora der Insel Java, nach den Entdeckungen des Herrn Fr. Junghuhn beschrieben und erortert in ihrem Verhaltnisse zur Gesammtflora der Tertiarperiode. C.W. Mieling, The Hague, p. 1-169.
(online at: http://books.google.com/books/)
('The Tertiary flora of the island of Java, after discoveries of Mr Fr. Junghuhn, described and placed in context of total flora of the Tertiary period'. First description of Tertiary plant leaves and petrified wood fragments from Java, collected by Junghuhn. Mainly from 3 localities. With 14 color plates. German author name also spelled as Göppert or Goeppert)

Goppert, H.R. (1864)- Uber die Tertiarflora von Java. Neues Jahrbuch Mineralogie Geologie Palaontologie 1864, p. 177-186.
(online at: https://www.zobodat.at/pdf/Neues-Jb-Min-Geol-Palae_1864_0177-0186.pdf)
('On the Tertiary flora of Java'. Summary of Goppert (1854) on plant fossils from Java, collected by F. Junghuhn. Author name also spelled as Göppert or Goeppert. No figures?)

Grandesso, P. (2001)- Contribution to biostratigraphy of the Nanggulan Formation (Java) based on planktonic foraminifera. Memorie di Scienze Geologiche, Padova, 53, p. 23-28.
(Nanggulan section W of Yogya: lower part (Kalisonggo Mb, 200m) with planktonic foram assemblages of zones P11- P14 (M Eocene), upper part (Seputih Mb, 60m) zones P15-P19 (Late Eocene-Early Oligocene))

Grandjean, J.B. & T. Reinhold (1933)- De diatomeeenaarde van Darma in Cheribon. De Mijningenieur 14, 3, p. 40-46.
('The diatomaceous earth of Darma in Cirebon'. Plains of Darma, S of Ciremai volcano, S of Darma, SW of Kuningan, with lake deposits with interbedded fine Ciremai tuffs and ~15-40cm thick beds of white diatom earth. Composed mainly of fresh-water diatoms Cymbella, Melosira, Synedra, Navicula, Nitzschia and Gomphonema; age probably Pliocene. Used in Java sugar industry for filtration raw cane sugar solutions and insulation of pipes)

Greenwood, P.G. & R.B. Evans (1974)- Regional gravity survey of the island of Java, Indonesia. British Geological Survey (BGS) Overseas Division, Report WK/AG/71/9, 1 p. *(map + brief explanation)*
(online at: https://resources.bgs.ac.uk/PublicationPDFs/21539019.pdf)
(Bouguer anomaly contour map Java and Madura (no colors). Mainly E-W trending anomalies, in W Java beding to NW-SE, in E Java NE-SW; Also published by Geological Survey of Indonesia as Publikasi Teknik- Seri Geofisika No. 4)

Gross, O.P., R.J. Drevet, A. Sulaeman, E.M. Johnstone, J.G. McPherson, J. Stevens & D.C. Johnstone (2006)- A new look at the East Java Basin using a genetic basin analysis approach. Proc. AAPG/ IPA Int. Geoscience Conference, Jakarta 2006, Indonesian Petroleum Association (IPA), p. 1-5.
(Extended abstract summarizing ExxonMobil NE Java basin study)

Gultaf, H., B. Sapiie, M. Syaiful, A. Bachtiar & A.P. Fauzan (2015)- Paleostress analysis of Grindulu Fault in Pacitan and surrounding area its implication to regional tectonic of East Java. Proc. 39th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA15-G-059, p. 1-34.
(Analysis of Cretaceous- Recent paleostress history along SW-NE trending Grindulu Fault in Pacitan District in Southern Mountains of E Java. With plate reconstructions of Sundaland- East Java Microplate since Cretaceous (80 Ma))

Gunarsih, D., M. Abdurrachman & I.A. Kurniawan (2024)- Morphometry, petrography, and geochemistry analysis of pillow lava in Karangsambung (Indonesia): implication for geologic setting of Karangsambung. In: F. Lucci et al. (eds.) Selected studies in geomorphology, sedimentology, and geochemistry, Proc. 3rd Conf. Arabian J. Geosciences (CAJG 2020), Springer, p. 23-28. *(online at: https://www.researchgate.net/publication/377434126_Morphometry_Petrography_and_Geochemistry_Analysis_of_Pillow_Lava_in_Karangsambung_Indonesia_Implication_for_Geologic_Setting_of_Karangsambung)*
(In Karangsambung area, C Java, pillow lava outcrops at Muncar River, Mandala River and Susu River. Formed in mid-ocean ridge tectonic setting (no ages mentioned(Cretaceous?) JTvG). With varying pillow dimensions, suggesting different water depths, slope settings and cooling times)

Gunawan, E. & S. Widiyantoro (2019)- Active tectonic deformation in Java, Indonesia inferred from a GPS-derived strain rate. J. Geodynamics 123, p. 49-54.
(Active tectonic deformation in Java suggested by GPS velocity data in 2008 -2013. Velocities obtained from continuous GPS observations suggest that parts of Java experience dominant extensional strain in S Banten, S Jakarta, central W Java, etc. Large compressional dilatation rates estimated along dip-slip faulting mechanisms of Cimandiri and Cipamingkis faults. Large maximum shear strain along Wongsorejo fault, Montong fault and Kendeng fault from central C Java E-ward to Madura Strait)

Guntur, A., Sriwijaya, A. Ruswandi & Y. Setyoko (2011)- Potensi hidrokarbon di sub-cekungan Banyumas, Jawa Tengah bagian selatan. Proc. 36th HAGI and 40th IAGI Annual Convention, Makassar, JCM2011-474, p. 1-20.
(online at: https://www.iagi.or.id/web/digital/10/2011_IAGI_Makassar_Potensi-Hidrokarbon-di-Sub-Cekungan.pdf)
('Hydrocarbon potential of Banyumas sub-basin, S part of C Java'. Banyumas Sub-basin numerous oil and gas seeps. Several wells drilled, but unsuccessful. Source rock identified includes Paleogene of Nanggulan and Late Miocene of Halang Formations. Oil from seeps of fluvio-deltaic kerogen origin)

Guo, D., S. Li, H. Permana, Y.M. Lai & I. Setiawan (2023)- Petrogenesis of two Cretaceous granitoid episodes in the Luk Ulo region, Central Java, Indonesia, and its implication for the tectonic evolution of the easternmost Neo-Tethys. Geological Society of America (GSA) Bull. 136, 5-6, p. 1846-1862.
(First zircon U-Pb geochronology, Hf-O isotope and other geochemistry data from (monzo-)granites from easternmost Neotethys zone in C Java. Luk Ulo River granites formed in two Cretaceous episodes: ~115 Ma (~Aptian-Albian) and ~70 Ma (~Maastrichtian). Both exhibit arc geochemical signatures. Older granites contain indications of contribution of ancient crust; younger (~70 Ma) granites mainly derived from juvenile crust with negligible supracrustal involvement.Data suggest change in magma source from ancient to juvenile in response to rollback of Neo-Tethys ocean after ~90 Ma)

Guppy, H.B. (1889)- Preliminary note on the geological structure of the Sindang-barang district, on the South coast of Java. Scottish Geographical Magazine 5, 2, p. 73-76.
(online at: https://books.googleusercontent.com/books/content?req=AKW5Qado8xYllC56dFmJc7D9 Etc.)
(Early geological observations on geology of South coastal area, (around time when Verbeek and Fennema did their monumental Java work, but before their 1896 publication). British surgeon/ geologist/naturalist Henry B. Guppy walked 2 x 50 miles from railway station Tjibeber (S of Cimahi, near SE base of Gede-Panggrango volcano complex) to Sindang-barang on S coast of Java (SW of Bandung). With one regional geological cross-section, showing mainly S-dipping foraminiferous muds and tuffaceous sandstones and implying 2000' or more of post-Tertiary uplift in this part of Java (but no uplifted coral reefs)

Haanstra, U. & E. Spiker (1932)- Uber Fossilien aus dem Altmiozan von Rembang (Nord Java). Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam 35, 8, p. 1096-1104.
(online at: https://dwc.knaw.nl/DL/publications/PU00016326.pdf)
('On fossils from the Early Miocene of Rembang, N Java'. Study of molluscs collected by J. Erb from Ngrayong Beds at N side Lodan saddle. Grey and brown-grey clays interbedded with Lepidocyclina limestones, marls and quartz sandstones. Molluscs 47 species, of which 17% Recent)

Haberland, C., M. Bohm & G. Asch (2014)- Accretionary nature of the crust of Central and East Java (Indonesia) revealed by local earthquake travel-time tomography. J. Asian Earth Sciences 96, p. 287-295.
(Seismic travel time data confirms accretionary nature of crust in C Java segment of Sunda subduction zone (109.5-111.5E). Images show asymmetrical crustal structure and can be interpreted to show low-velocity continental fragment or remnant of Woyla Arc in south coastal area (E of 110°E), which has been accreted to Sundaland margin. Central part of Java crust lower than average crustal velocities, likely reflecting ophiolitic, arc rocks and metamorphic rocks of Meratus assemblage subduction melange)

Hadi, T., L. Samuel & H. Widodo (1982)- Field trip guide book Prupuh- Karren carbonate rocks. Joint ASCOPE/ CCOP workshop on hydrocarbon occurrence in carbonate formation, Surabaya 1982, p. 1-9.
(Descriptions of Early Miocene Prupuh and late Miocene Karren limestone formations for 1-day fieldtrip)

Hadimuljono, J.S. & D. Yensusminar (2021)- Heavy oil seapage characteristic in Cipari Area, Banyumas Central Java. Scientific Contributions Oil and Gas (SCOG), Lemigas, 44, 3. p. 161-171.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/709/489)
(Cipari oil seep near hot springs in Segaralangu village has been known since Dutch days. Aso Besuki and Jatilawang oil seeps in Banyumas basin. Heavy oil (12° API gravity), biodegraded. Derived from higher land plant organic matter, presumably in Paleogene fluvio-deltaic facies)

Hadiwisastra, S. (2001)- Calcareous nannoplankton biostratigraphy of the Nanggulan Formation, Central Java-Indonesia. Jurnal Teknologi Mineral (ITB) 8, 4, p.
(Calcareous nannoplankton zonation of Nanggulan Fm, C Java, zones CP 13- CP 16 (M- L Eocene) (see also Jatiningrum et al. 2022))

Hadiwisastra, S. & H. Kumai (2000)- Calcareous nannoplankton of Paleogene sediment from the Bayat area, Central Java. J. Geological Society Japan (Chishitsugaku Zasshi) 106, 10, p. 651-658.
(online at: www.jstage.jst.go.jp/article/geosoc1893/106/10/106_10_651/_pdf)
(First paper on calcareous nannofossils of ~70m thick section of Wungkal Fm, E side of Gunung Pendul, Bayat area (Jiwo Hills, 20km E of Yogyakarta). Range from Late Eocene/CP 14- Early Oligocene/CP 16c. Eocene-Oligocene boundary recognized by last occurrence of Discoaster saipanensis, Discoaster barbadiensis and Cribrocentrum reticulatum. Subzone CP 16c in upper part of section identified by co-occurrence of Reticulofenestra umbilicus, Cyclicargolithus floridanus and Reticulofenestra bisecta)

Hadiwisastra, S. & H. Kumai (2000)- Biostratigraphy of calcareous nannofossils in the Paleogene chaotic sediments in the Karangsambung area, Central Java, Indonesia. J. Geosciences, Osaka City University, 43, 2, p. 21-31.
(online at: https://www.i-repository.net/contents/osakacu/kiyo/DB00010785.pdf)
(Paleogene of Loh Ulo mainly olistostromes with mudstones and scaly clays with exotic blocks. Lower part (Karangsambung Fm) with late M Eocene NP16-NP17 and reworked Upper Cretaceous nannofossils; upper part (Totogan Fm) Oligocene age)

Hadiwisastra, S., S. Siregar, E.P. Utomo & Suwijanto (1994)- Depositional setting and distribution of carbonate facies of Wonosari Formation, Central Java. Proc. Int. Symposium Neogene Evolution of Pacific Ocean Gateways, Inter-University Seminar House of Kansai, Kobe, Japan, IGCP-355, p. 137-144.

Hadiwisastra, S., S. Suparka, K.H. Thio & S. Siregar (1979)- Suatu tinjauan mengenai batuan metamorf di daerah Cihara, Bayah, Jawa Barat. J. RISET Geologi dan Pertambangan (LIPI) 2, 1, p. 1-6.
('Some views on the metamorphic rocks in the Cihara area, Bayah, W Java'. Actinolite chlorite schist, hornblende schist, mica schist exposed N of Cihara granodiorite. Associated rocks are basalt, graywacke and brecciated tuff, black shale, granodiorite and dacite in E-W trending, 750m wide zone of cataclastic rocks, thought to be horizontal fault zone (metamorphic core complex?))

Hadiyat, A. (1982)- Geologi dan kemungkinan-kemungkinan minyak dan gas bumi daerah Wangon Jeruklegi Jawa Tengah. Thesis Institute Teknologi Bandung (ITB), p.

('Geology and oil and gas possibilities of the Wangon Jeruklegi area, Central Java')

Hafiz, S.D., H. Firman, A. Ramadhan & W.T. Koesmawardhani (2021)- Lithofacies association of fluvial deposit, Walat Formation in Cibadak Area West Java. Proc. 2nd Int. Conference Earth science and energy, Kuala Lumpur 2020, IOP Conference Series: Earth and Environmental Science 819, 012018, p. 1-7.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/819/1/012018/pdf)
(Sedimentology of E Oligocene Walat Fm at Gunung Walat, S of Cibadak, W Java))

Hafiz, S.D., M.A. Jambak, B. Wijaya, M. Meirawaty, C.P. Ryandhani, W.T. Koesmawardani et al (2023)- Karakteristik batugamping Formasi Wonosari di daerah Bunder dan sekitarnya, Wonosari, Gunungkidul: J. Geoscience Engineering Energy (JOGEE) 4, 2, p. 116-122
(online at: https://www.e-journal.trisakti.ac.id/index.php/jogee/article/download/17301/10010)
('Characteristics of the Wonosari Formation limestone in the Bunder Village area and its surroundings, Wonosari, Gunungkidul'. 200m thick M Miocene limestone. Not much detail)

Hainim, I.M.K. (2023)- Perkembangan fasies dan lingkungan pengendapan batugamping di daerah Bayah dan Gunung Walat, hubunggannya dengan aktivitas tektonik Oligo-Miosen di Jawa Barat. Doctoral Dissertation Institut Teknologi Bandung, ~200 p. *(Unpublished)*
('Development of carbonate facies and depositional environment in the Bayah and Gunung Walat areas, its relationship with Oligo-Miocene tectonic activity in West Java'. Facies studies of Late Oligocene - Early Miocene limestone exposed in locations in West Java, known as the Rajamandala (Padalarang, Walat-Sukabumi), Cijengkol, and Citarate (Bayah) and Saraweh (Rangkasbitung Basin subsurface) Formations. With paleogeographic maps, etc.)

Hainim, I. (2024)- Microfacies and paleodepositional setting interpretation of the latest Oligocene to earliest Miocene carbonate of Citarate Fm., Bayah High, West Java. Berita Sedimentologi 50, 1, p. 10-25.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/451/432)
(Latest Oligocene - earliest Miocene (Lower Te) carbonate outcrops of Citarate Fm in Bayah High area, W of Pelabuhan Ratu, SW Java, with 14 carbonate microfacies. N-S facies trends parallel underlying paleo-high. Facies deepening from reefal-back reef in W, to slope deposits in E)

Hakiki, F., F. Musgrove, Y. Xiao & U. Handyastuti (2013)- Understanding Oligo- Miocene carbonate drilling losses causes and achieving zonal isolation. Proc. 37th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA13-G-193, p. 1-17.
(Losses of drilling mud while drilling Oligo-Miocene carbonates in Banyu Urip Field mostly in tight rock of drowning cap of carbonate reservoir, which is characterized by fractures and hydrothermal leaching, and also in basal 50' of clastic section above top carbonate, which is carbonate-cemented and brittle)

Hakiki, F., F. Musgrove, P. Varnai, A. Ditya & D. Sapardina (2015)- Banyu Urip field development- result of drilling 32 wells. Proc. 39th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA15-G-228, p. 1-15.
(New development wells at Banyu Urip carbonate platform field, NE Java refined shape of M Miocene Drowning Cap. Excellent pressure connectivity throughout reservoir from carbonate reservoir to overlying clastic section. Average porosity in carbonate platform interior 27%, with low porosity rim of ~8-9% (a gradual diagenetic transition caused by less fresh-water dissolution)

Hakiki, F., R.P. Sekti, T. Simo, S.M. Fullmer & F. Musgrove (2012)- Oligo-Miocene carbonate reservoir quality controls- deposition and diagenesis study of Banyu Urip Field, onshore East Java. Proc. 36th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA12-G-037, p. 1-13.
(Oligo-Miocene carbonates of Banyu Urip Field almost 1000m aggrading phase composed of repeated 50m thick shallowing-upward cycles. Drowning phase up to 300m thick, dominated by red algae. Early diagenesis associated with exposure to fresh water at sequence boundaries creates cementation and dissolution over 50m cycle. Late burial diagenesis also important, demonstrated by vugular dissolution that cross cuts stylolites)

Hakim, A., C. Idham A. & D. Nugroho (2014)- Analisis umur batugamping Formasi Bojonglopang dan hubungan stratigrafi batugamping Formasi Bojonglopang dengan breksi Formasi Jampang. Buletin Geologi (ITB) 41, 1, p.
('Age analysis of limestone of the Bojonglopang formation and stratigraphic relationship between the Bojonglopang limestone and the Jampang Formation breccia'. ?M Miocene limestone in W Java)

Hakim, A.Y.A. & B. Sulistijo (2013)- Integrated exploration method to determine Cu prospect in Seweden District, Blitar, East Java. Procedia Earth Planetary Science 6, p. 64-69.
(On polymetallic mineralization in Seweden district, S Mountains of Java. Presence of sulphides, incl. pyrite, chalcopyrite, galena and sphalerite, also malachite. Not much detail)

Hakim, F., Y.S. Nugroho, C.D.P. Dana & A.D. Titisari (2019)- Geology and petrogenesis of igneous rocks from Batur Paleovolcano, Gunungkidul, Yogyakarta: evidence from their textures, mineralogy, and major elements geochemistry. J. Applied Geology (UGM) 4, 1, p. 32-42.
(online at: https://jurnal.ugm.ac.id/jag/article/view/48739/25195)
(Batur paleovolcano in Wediombo Beach area, Gunungkidul Regency, Yogyakarta, part of Miocene Wuni Fm (13.2 Ma). Andesitic lava flow, autoclastic breccia and volcanic breccia, associated with diorite intrusions. Two phases of formation: (1) andesite lava in island arc tholeiitic tectonic setting, (2) diorite intrusion in calc-alkaline basalts tectonic setting)

Hall, R., B. Clements, H.R. Smyth & M.A. Cottam (2007)- A new interpretation of Java's structure. Proc. 31st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA07-G-035, p. 1-23.
(online at: http://searg.rhul.ac.uk/pubs/hall_etal_2007%20Java%20Structure_IPA.pdf)
(Paleogene arc volcanoes acted as load which caused flexural basin to develop between Sunda Shelf and S Mountains Arc. Thrusting in S Java displaced Paleogene volcanic arc rocks N by >50 km and eliminated flexural basin in W Java. Amount of thrusting diminishes from W to E Java. Three distinct structural sectors in Java, W, Central and E. C Java displays deepest structural levels of N-directed thrusts, and Cretaceous basement is exposed; overthrust volcanic arc largely removed by erosion. In W and E Java overthrust arc preserved. In W Java arc thrust onto shelf sequences of Sundaland margin. In E Java volcanic arc thrust onto thick volcanic/sedimentary sequence formed N of arc in flexural basin due largely to arc loading. Traps beneath overthrust arc offer new hydrocarbon exploration possibilities, particularly in W Java)

Hamilton, P.J., H. Smyth, R. Hall & P.D. Kinny (2006)- Zircon age constraints on the basement in East Java, Indonesia. Geochimica Cosmichim. Acta 70, 18, Suppl. 1, p. A225 (Goldschmidt Conference Abstract)
(Inherited zircon U-Pb dates in E Java volcaniclastics mixed populations, reflecting recycling from earlier eruptions. Inherited dates peaks at: (1) Cretaceous- restricted to W and NW of E Java, close to Cretaceous basement exposures (2) Cambrian-Archean (500-750 Ma, 900-1250 Ma and 2500-2700 Ma) - confined to S Mountains Arc. Peaks in distribution of dates similar to E Gondwana basement ages and Permo-Triassic- modern sediments from W Australia, suggesting S Mountains volcanoes sampled deep crust of continental Gondwanan origin beneath E Java, different from Cretaceous accretionary basement of W and N Java)

Han, J.K. & S.H. Choi (2011)- Geochemical exploration for metallic mineral resources on the Pacitan District, East Java, Indonesia. Economic and Environmental Geology (Korean Soc. Economic Env. Geol.) 44, p. 1-10.
(online at: www.koreascience.or.kr/)
(Pacitan district in S Mountains of E Java, exploration for metallic mineral found anomalous zones in Gempol for Cu; Jompong for Au; Kasihan for Cu-Pb-Zn)

Han, J.K. & S.H. Choi (2012)- Ore geology of skarn ore bodies in the Kasihan Area, East Java, Indonesia. Economic and Environmental Geology (Korean Soc. Economic Environmental Geology) 45, p. 1-8.
(online at: http://ocean.kisti.re.kr/downfile/volume/kseeg/JOHGB2/2012/v45n1/JOHGB2_2012_v45n1_1.pdf)
(Copper-zinc-bearing skarns in Kasihan area (Pacitan District, S Mountains, near E and C Java border), in limestone layers of Late Oligocene Arjosari Fm)

Han, J.K. & S.H. Choi (2015)- Stable isotopes of ore bodies in the Pacitan mineralized district, Indonesia. Economic and Environmental Geology (Korean Soc. Economic Envirnmental Geology) 48, 1, p. 15-24.

(online at: https://www.kseeg.org/journal/view.html?uid=1744)
(Extensive base-metal and/or gold bearing ore mineralizations in Pacitan mineralized district of SW parts of E Java. Metallic ore bodies two main types: (1) skarn type replacement; (2) fissure filling hydrothermal (proximal porphyry style Cu-Zn-bearing stockworks and distal Pb-Zn(-Au) bearing fissure filling veins)

Handayani, L (2010)- Thermal structure of subducting slab along the Java Arc and its significance to the volcanoes distribution. ITB J. Science 42 A, 2, p. 127-134.
(online at: https://journals.itb.ac.id/index.php/jmfs/article/view/66/62)
(On thermal modeling of subducting plate below Java and tectonics of overriding plate. Age of subducting lithosphere under Java increases from W to E, from ~90 Ma to 120 Ma. Volcanoes of W Java generally closer to trench (~240 km) than volcanoes of E Java (~290 km), possibly related to differences of thermal structure of subducting plate)

Handayani, L., I. Arisbaya, M.M. Mukti & Y. Sudrajat (2021)- Determining the origin of volcanic rocks in the melange complex of Karangsambung based on the electrical resistivity imaging. Island Arc 30, 1, e12377, p.
(manuscript online at: https://rinarxiv.lipi.go.id/lipi/preprint/view/41)
(ENE-WSW-trending basalt-diabase outcrop along SE margin of Luk Ulo Melange Complex suggested as intrusive rocks into Paleogene Totogan-Karangsambung formations. However, volcanics dated as older than sedimentary formations, so intrusion theory less likely. Electrical resistivity surveys suggest more likely as fragments in olistostrome, transported from original location)

Handoyo, B.C. Ronlei, A.S. Wibowo, Fatkhan, A.S. Sigalingging, E.Y. Nathania, A. Erdi, P. Avseth, R. Carbonell et al. (2025)- Reservoir characterization of Ngrayong Formation, Sandstone with carbonate intercalation, using a geostatistical approach based on petrophysical parameters, Northeast Java Basin, Indonesia. Scientific Contributions Oil and Gas (SCOG), Lemigas, 48, 3, p. 237-251.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/1828/1489)
(Geostatistical modeling in M Miocene Ngrayong Formation sandstone-limestone in LEI and RON wells in NE Java Basin)

Hanif, M., L. Handayani, I. Arisbaya, A.N. Aulia & K.L. Gaol (2021)- Analysis of gravity anomaly decomposition and depth to basement, case study: Cenozoic Bogor Basin, Indonesia. J. Geoscience Engineering Environment Technology (JGEET) 6, 1, p. 51-57.
(online at: https://journal.uir.ac.id/index.php/JGEET/article/view/5400/3126)
(Gravity data suggest deepest sediment in Cenozoic Bogor basin 9 km deep)

Hanifa, N.R., T. Sagiya, F. Kimata, J. Efendi, H.Z. Abidin & I. Meilan (2014)- Interplate coupling model off the southwestern coast of Java, Indonesia, based on continuous GPS data in 2008-2010. Earth Planetary Science Letters 401, p. 159-171.
(Three-year GPS observation on SW Java suggest coastal uplift of uplift of 1.4- 14 mm/yr, and horizontal slip deficits, indicating potential of rupture propagation to shallow part of plate interface and generation of large tsunami)

Hansen, G.D. (1964)- A tektite-fall pattern at Sangiran Dome area in Central Java. Laporan Kongres Ilmu Pengetahuan Nasional Kedua (Proc. 2nd National Scientific Congress), Yogyakarta, October 1962, B, 4, MIPI, Jakarta, p. 432-441.
(see also Hansen, 1965)

Hansen, G.D. (1965)- A tektite-fall pattern at Sangiran Dome area in Central Java. Indonesian J. Geography 5, 9, p. 37-45.
(Reprint of Hansen (1964). Tektites found in Sangiran Dome area of C Java generally on flat gravel covered benches at top of Kabuh layers or at base of Notopuro Fm (at "erosional surface separating Kabuh layers and Notopuro breccias'; Von Koenigswald 1935). Local collectors estimate >3000 tektites found since 1936, one as large as man's fist. Intact (whole) specimens found N of Tjomoro river while fragmented specimens S of river)

Hantoro, W.S. (1979)- Turbidit pada Formasi Kerek. J. RISET Geologi dan Pertambangan (LIPI) 2, 1, p. 22-31.
(online at: http://pustaka.geotek.lipi.go.id/wp-content/uploads/2016/02/Riset-Vol.2-No.1-2-2-.pdf)
('Turbidites of the Kerek Formation', C Java. Kerek Fm of NE Java Kendeng zone M Miocene turbiditic volcanoclastics, overlain by Late Miocene turbiditic limestones)

Hantoro, W.S. (1980)- Kendali stratigrafi terhadap penyebaran batubara dan serpih bitumen di Karangbolong, Jawa Tengah. J. RISET Geologi dan Pertambangan (LIPI) 3, 2, p. 27-44.
(online at: http://pustaka.geotek.lipi.go.id/wp-content/uploads/2016/02/Riset-Vol.3-No.2-2.pdf)
('Stratigraphic control on the distribution of coal and oil shale in Karang Bolong, Central Java'. In Argosari area thin oil shale (45-150cm) at top of Old Andesite Fm, formed in continental environment (originally discovered by Keil, 1932; unpublished). At younger horizon E Miocene coal, at transition from underlying non-marine to overlying marine facies)

Hanzawa, S. (1930)- Note on foraminifera found in the *Lepidocyclina*-limestone from Pabeasan, Java. Science Reports Tohoku University, ser. 2 (Geology), 14, 1, p. 85-96.
(online at: http://ci.nii.ac.jp/naid/110004624567/en)
(Late Oligocene larger forams collected by Yabe in 1929 from limestone cliff at N foot of Pasir Pabeasan, W of Tagogapu, W Java (Rajamandala Lst). With Lepidocyclina (N), Eulepidina, Heterostegina borneensis, Borelis pygmaea n.sp. (This assemblage, with absence of Spiroclypeus and Miogypsinoides more likely Te1/ Early Chattian?; JTvG))

Haq, H.N., M.F. Rosana, C. Endyana, K.S.A. Nugraha & I. Alamsyah (2023)- Geochemistry of igneous rocks of Citirem Formation and Its implications for the tectonic setting in Ciletuh- Palabuhanratu UNESCO Global Geopark area. J. Geoscience Engineering Environment Technology (JGEET) 9, 1, p. 58-68.
(online at: https://journal.uir.ac.id/index.php/JGEET/article/view/14367/6290
(Pretertiary igneous rocks of Ciletuh Bay area, SW Java, include basalt, andesite, dacite and gabbro. Magma types divided into low-K medium-K, high-K, and shoshonite magma series. Some interpreted as island arc tholeiite, within plate tholeiitic and within plate alkali. Some rocks similarities with supra-subduction zone ophiolite rocks, some show similarities with patterns from OIB and E-MORB)

Haqqi, A.S.F., H. Pratama, A.P. Indra, Abbas & V. Arnoldy (2015)- 3D modeling of Miocene Cinambo turbidite sandstone based on surface data in Cadasngampar Area, Sumedang District, West Java. Proc. 39th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA15-SG-145, p. 1-13.
(E-M Miocene Cinambo Fm submarine fan deposit in Bogor Basin. Paleocurrents mainly NW to SE)

Harbowo, D.G., Aswan, Y. Zaim, S.K. Chaerun, R.I. Chaerun, W. Astuti & T. Sato (2024)- Microanalytical approaches on the silicifcation process of wood fossil from Jasinga, West Java, Indonesia. Nature Scientifc Reports 14, 19101, p. 1-15.
(online at: https://www.nature.com/articles/s41598-024-69681-0)
(Study of Pliocene silicified wood from Genteng Fm tuffaceous clastics near Jasinga, West Java. Fossil wood taxa mainly of Dipterocarpaceae family. Detailed analyses suggest that ‘”wood silicification was controlled by infiltration of silica from the host rock into the spaces of the wood structure” (what else could it be?; JTvG))

Hardiyono, A., (2023)- New consideration of origin of the Gunung Badak basaltic lava, Ciletuh area, Indonesia. Proc. 7th Annual Applied Science and Engineering Conference 2022 (AASEC), J. Engineering Science and Technology (JESTEC), Taylor’s University, Malaysia, Special Issue 4, p. 1-7.
(online at: https://jestec.taylors.edu.my/Special%20Issue%20AASEC2022/RPI_SI_2023_1.pdf)
(Outcrop of pillow lava at Gunung Badak in Ciletuh, SW Java, associated withh peridotitic Ciletuh melange. Previous studied assumed it was Cretaceous ocean floor basalt, but geochemistry suggests subduction-related lavas in island arc setting, and new K-Ar radiometric age of 22.4 Ma (early Miocene) (but overlain by Eocene turbiditic sandstones?; JTvG))

Hardjadinata, K. & I. Saefudin (1994)- Studi batuan volkanik dan plutonik Tersier di daerah Pacitan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 4, 34, p. 2-19.

('Study of Tertiary volcanic and plutonic rocks in the Pacitan area', S Mountains, SE Java. Volcanic rocks NE of Pacitan in S Mountains of E Java part of 'Old Andesites' island arc volcanics. Include picrite basalt- andesite in Lower Pacitan Fm, dated as ~30.8 Ma, and Upper Pacitan Fm basalt-andesite-dacite dated as ~17.4 Ma (17.392 ± 1.976 Ma!))

Harijoko, A., Y. Ohbuchi, Y. Motomura, A. Imai & K. Watanabe (2007)- Characteristics of the Cibaliung gold deposit: Miocene low-sulfidation-type epithermal gold deposit in Western Java, Indonesia. Resource Geology 57, 2, p. 114-123.
(M-L Miocene (11.2-10.6 Ma) epithermal gold mineralization in Cibaliung area, SW Java, hosted by M Miocene Honje Fm andesitic- basaltic lavas (11.4 Ma) and covered by Pliocene Cibaliung tuff (4.9 Ma))

Harijoko, A., K. Sanematsu, R.A. Duncan, S. Prihatmoko & K. Watanabe (2004)- Timing of the mineralization and volcanism at Cibaliung Gold Deposit, Western Java, Indonesia. Resource Geology 54, 2, p. 187-195.
(Cibaliung low-sulfidation epithermal gold deposit at ~70 km W of Bayah dome. Gold-bearing quartz veins hosted by Late Miocene Honje Fm basaltic andesite, comparable to gold host rocks at Bayah dome. 40Ar/39Ar dating show mineralization ages from 11.2-10.7 Ma; K-Ar dating shows age of andesite and Cibaliung tuff 11.4±0.8 Ma and 4.9± 0.6 Ma, respectively. Cibaliung deposit is oldest epithermal gold deposit yet discovered in W Java)

Harijoko, A., R. Uruma, H.E. Wibowo, L.D. Setijadji, A. Imai & K. Watanabe (2010)- Long-term volcanic evolution surrounding Dieng geothermal area, Indonesia. Proc. World Geothermal Congress 2010, Bali, p. 1-6.
(Dieng Volcanic Complex in C Java on back side of Java Quaternary arc. Large collapse structure with 17 post intra-caldera eruptive centers. Oldest rocks erupted at ~3.6 Ma, youngest 0.07 Ma. Volcanic edifices grouped into 3 stages: pre-caldera (~3 Ma), post-caldera I (~2- 1 Ma) and post-caldera II (<1 Ma). Magmas cyclically evolved from basaltic to dacitic composition)

Haris, A., A. Riyanto, R. Syahputra, A. Gunawan, M.J. Panguriseng, S. Nuratmaja & Adriansyah (2019)- Integrating a microtremor survey and time reverse modeling over a hydrocarbon reservoir: a case study of Majalengka field, West Java Basin, Indonesia. J. Geophysics and Engineering 16, p. 16-29.
(Microtremor survey over a hydrocarbon reservoir in Majalengka field (1871), in E part of Majalengka Basin, East Bogor Trough, West Java)

Hariyadi, D. Kristanto & J. Setiawan (2016)- Sistem petroleum struktur antiklin Kawengan. Proc. Seminar Nasional Kebumian 11, UPN, Yogyakarta, p. 194-207.
(online at: http://eprints.upnyk.ac.id/11265/1/Sistem%20Petroleum%20Struktur%20Antiklin%20Kawengan.pdf)
('The petroleum system of the Kawengan anticline'. Rather generic discussion of stratigraphy of area of Kawengan oil field in NE Java, discovered in 1894 and continues to produce today. Anticlinal structure. Main reservoir sands in M Miocene Ngrayong Fm)

Harjanto, A. (2008)- Magmatisme dan mineralisasi di daerah Kulonprogo dan sekitarnya. Dokt. Dissertation Institut Teknologi Bandung (ITB), p. 1- . *(Unpublished)*
('Magmatism and mineralization in the Kulunprogo area and surroundings', C Java. Volcanic rocks in Kulon Progo part of Oligocene-Miocene (~29.6-22.6 Ma) Sunda magmatic arc. Calk-alcaline series with chemistry of transtisional oceanic island arc and active continental margin. Three stages of alteration-mineralization, with gold, galena, sphalerite, chalcopyrite, molybdenite, etc. mineralizations. Quartz veins NE-SW trending)

Harjanto, A. (2011)- Petrologi dan geokimia batuan volkanik di daerah Kulunprogo dan sekitarnya daerah istimewa Yogyakarta. J. Ilmiah Magister Teknik Geologi (UPN) 4, 1, p. 1-27.
(online at: http://jurnal.upnyk.ac.id/index.php/mtg/article/view/274/237)
('Petrology and geochemistry of volcanic rocks in the area of Kulon Progo and surroundings, Yogyakarta region'. Oligocene-Miocene volcanic rocks in Kulon Progo ('Old Andesite Fm') consist of interbedded volcanic breccia, tuff, andesite, dacite and diorite. Compositions basalt, andesite to dacite from low-K to calc-alkaline series. Typical island arc affinities)

Harjanto, A. (2011)- Vulkanostratigrafi di daerah Kulon Progo dan sekitarnya, Daerah Istimewa Yogyakarta. J. Ilmiah Magister Teknik Geologi (UPN) 4, 8, p. 30-45.
(online at: http://eprints.upnyk.ac.id/19294/1/B5.%20Volkanostratigrafi%20MTG%202011.pdf)
('Volcanostratigraphy of the Kulon Progo area and surroundings, Special Region of Yogyakarta'. Kulon Progo volcanics are part of Oligo-Miocene 'Old Andesite Fm'. Three members: Sigabug, Jonggrangan and Ijo)

Harjanto, A., E. Suparka, S. Asikin & Y.S. Yuwono (2011)- Endapan emas epitermal berumur Neogen daerah Kulon Progo dan sekitarnya, daerah istimewa Yogyakarta. J. Ilmu Kebumian Teknologi Mineral 22, 2, p. 133-143.
(online at: http://eprints.upnyk.ac.id/351/1/Paper%20JIK%20UPN%20Des%202009.pdf)
('Neogene epithermal gold deposits in the Kulon Progo area and surroundings, Yogyakarta special region' In S mountains W of Yogyakarta, C Java, intrusions of Late Oligocene- E Miocene diorite, andesite, and dacite of Kaligesing/Dukuh Fm (K/Ar age ~8.1 Ma??), associated with epithermal quartz veins with gold mineralization)

Harjono, H., D. Dahrin & S. Wirasantosa (1995)- Neogene opening of the Sunda Strait: constraint from gravity data. In: S. Nishimura & R. Tsuchi (eds.) Proc. Oji Seminar on Neogene evolution of Pacific Ocean Gateways, Kyoto, IGCP-355, p. 57-61.

Harjono, H., M. Diament, J. Dubois, M. Larue & M.T. Zen (1991)- Seismicity of the Sunda Strait: evidence for crustal extension and volcanological implications. Tectonics 10, 1, p. 17-30.
(online at: https://www.researchgate.net/publication/248816299_Seismicity_of_the_Sunda_Strait_Evidence_for_crustal_extension_and_volcanological_implications)
(Sunda Strait between Java frontal subduction and Sumatra oblique subduction. Microearthquake survey recorded 300 local events. Crustal earthquakes in the Sunda Strait area occurs in three main areas: (1) beneath the Krakatau complex, (2) in graben in W part of strait; and (3) in diffused zone to S of Sumatra. Sunda Strait is in extensional tectonic regime as result of NW movement of Sumatra sliver plate along Semangko fault zone)

Harjono, H., M. Diament, L. Nouaili & J. Dubois (1989)- Detection of magma bodies beneath Krakatau volcano (Indonesia) from anomalous shear waves. J. Volcanology Geothermal Research 39, p. 335-348.
(Seismograms for ray paths under Krakatau complex show diminution of amplitude of S waves. Attenuating body in two zones, probably disconnected: upper zone ~9 km deep, probably reflecting irregular pockets of magma, and lower zone at least 22 km deep, related to extensional nature of Sunda Strait)

Harjono, H., M. Diament & M. Sabrier (1993)- Correction and addition to "Seismicity of the Sunda Strait; evidence for crustal extension and volcanological implications" by Hery Harjono et al. Tectonics 12, 3, p. 787-790.
(Corrected Table 3 of Sunda Strait earthquake focal mechanisms in Harjono et al. 1991)

Harley, M.M. & R.J. Morley (1995)- Ultrastructural studies of some fossil and extant palm pollen, and the reconstruction of the biogeographical history of subtribes Iguanurinae and Calaminae. Review Palaeobotany Palynology 85, p. 153-182.
(On palm-like pollen types from M Eocene lignite in lower Nanggulan Fm at Watupuru River, Kalisonggo, Nanggulan, C Java. Two monosulcate forms (Iguanurinae) are compared to fossil form-genus Palmaepollenites kutchensis and Palmaepollenites sp.,India/Gondwana-derived palm-like species that thrived during M-L Eocene, then was much reduced during more seasonal, or arid climates in W Indonesia during Oligocene. Third pollen type referred to Dicolpopollis malesianus (*Calaminae). Also present in E Java Sea, W Sulawesi and India subcontinent)*

Harloff, C.E.A. (1929)- Voorloopige mededeeling over de geologie van het Praetertiair van Loh Oelo in Midden-Java. De Mijningenieur 10, 8, p. 172-177.
('Preliminary note on the geology of the Pre-Tertiary of Luk Ulo in Central Java'. Likely presence of nappe structures with 15km or more displacement. Cretaceous limestone with Orbitolina and radiolarites 'intruded' by dynamo-metamorphically altered gabbrodioritic intrusive, 18km long/ 800m wide, also containing peridotite/ serpentinite. Complex overthrust by two complexes of crystalline schists (with glaucophanite, eclogite, marble,

schists, etc.), with mylonitized thrust surfaces. Thrust direction from S to N. Sediment complex isoclinally folded, almost all dipping to South. Likely age of thrusting Late Cretaceous. Cretaceous and igneous-metamorphic complex unconformably overlain by M Eocene and younger sediments)

Harloff, C.E.A. (1929)- Over radiolarienhoudende gesteenten in het Praetertiair van Loh Oelo (Midden Java). De Mijningenieur 10, p. 240-242.
('On radiolarian-bearing rocks in the Pre-Tertiary of Lok Ulo, Central Java'. Part of series of short papers on radiolarian-bearing rocks of 'Sundaland': Sumatra by J. Nash, Borneo by L. Krol and Tan Sin Hok, Java by C. Harloff on Java, and Malay Peninsula by J. Scrivenor. In Central Java In Loh Ulo area of C Java thin beds of red-brown chert with radiolarians in deep water (but not abyssal) limestone, in isoclinally folded Pretertiary sediments. Small fragments of this chert also in unconformably overlying Middle Eocene clastics)

Harloff, C.E.A. (1929)- Loh Oelo. Fourth Pacific Science Congress, Java 1929, Excursion Guide C1, p. 1-18.
(One of early descriptions of classic Lok Ulo area, after Verbeek and Fennema. With oldest rocks on Java: Cretaceous metamorphic basement, Paleo-Eocene accretionary-wedge like sediment, folded Eo-Oligocene sediments, etc.)

Harloff, C.E.A. (1933)- Geologische kaart van Java, Toelichting bij Blad 67 (Bandjarnegara), 1:100 000. Dienst Mijnbouw Nederlandsch-Indie, Bandung, p. 1-47.
(Text online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:041772000:00049)
(Map online at: https://digitalcollections.universiteitleiden.nl/view/item/812860)
('Geological map of Java, 1:100,000; Banjarnegara sheet'. Map sheet covering South Serayu Mountains. With core of Pretertiary rocks of Luk Ulo (Karangsambung) complex, composed of crystalline schists, phyllites, serpentinite, greywackes, red radiolarites, and two small occurrences of limestones with common mid-Cretaceous Orbitolina. Eocene sandstones with limestone lenses with Nummulites, Discocyclina, Pellatispira, etc., unconformable on crystalline schists, radiolarian chert, etc., with clasts of glaucophane schist and other metamorphics, granite, etc. Thick Miocene tuffaceous marls with Miogypsina and andesites unconformable on Eocene)

Harloff, C.E.A. & A.J. Pannekoek (1940)- De omgeving van den Boroboedoer. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 57, p. 13-23.
('The surroundings of the Borobudur'. No evidence found for postulated presence of Quaternary lake around Borobudur temple complex)

Harrison, R. (2012)- The geology, alteration and mineralization of the Tumpangpitu porphyry Cu-Au and high-sulfidation epithermal Au-Ag deposit. In: N.I. Basuki (ed.) Proc. Annual Conv. Indonesian Soc. Economic Geologists (MGEI). Malang 2012, Banda and Eastern Sunda arcs, p. 273-278.
(New copper-gold porphyry discovery in East Java)

Harrison, R.L. (2017)- The Tumpangpitu porphyry gold-copper-modlybdenum and high-sulfidation epithermal gold-silver deposit, Tujuh Bukit, Southeast Java, Indonesia. Ph.D. Thesis, CODES ARC Centre of Excellence in Ore Deposits, University of Tasmania, p. 1-368.
(online at: https://eprints.utas.edu.au/28602/1/Harrison_whole_thesis.pdf)

Harrison, R.L., A. Maryono, M.S. Norris, B.D. Rohrlach, D.R. Cooke, J.M. Thompson, R.A. Creaser & D.S. Thiede (2018)- Geochronology of the Tumpangpitu porphyry Au-Cu-Mo and high-sulfidation epithermal Au-Ag-Cu deposit: evidence for pre- and postmineralization diatremes in the Tujuh Bukit District, Southeast Java, Indonesia. Economic Geology 113, 1, p. 163-192.
(manuscript online at: https://eprints.utas.edu.au/26232/3/124585%20-%20Geochronology%20of%20the%20tumpangpitu%20porphyry%20-%20Author%20version.pdf)
(Tumpangpitu porphyry and high-sulfidation epithermal deposit in Tujuh Bukit district, SE Java. Porphyry resource 1.9 Gt @ 0.45% Cu and 0.45 g/t Au, with additional resource in epithermal mineralization. At least 8 discrete intrusions. Tujuh Bukit district floored by Miocene sediments and andesites. Volcanic-hydrothermal activity at Tujuh Bukit began with weakly altered Tanjung Jahe diatreme complex (U-Pb zircon ages ~8.8- -8.5

Ma). Mineralization preceded by large, dioritic batholith (~5.8-5.1 Ma). Syn- to late-mineralization porphyries emplaced in E Pliocene (~5.40- 3.9 Ma). High-sulfidation Au-Ag ± Cu lithocap ~4.3 Ma)

Harsolumakso, A.H. (1999)- Diabas di daerah Karangsambung, Luk Ulo, Kebumen, Jawa Tengah: apakah bentuk kelompok batuan basaltik berupa tubuh intrusif? Pros. Seminar Nasional Sumberdaya Geologi, 40 Tahun (Pasca Windu) 1998, Jurusan Teknik Geologi, Universitas Gadjah Mada, Yogyakarta, p. 1-6. *(online at: https://www.researchgate.net/publication/308491316_Diabas_di_daerah_Karangsambung_Luk_ulo_Jawa_Tengah_Apakah_bentuk_kelompok_batuan_basaltik_berupa_tubuh_intrusif)*
('Diabase in the Karangsambung area, Luk Ulo, Kebumen, Central Java: What formed the basaltic rock group in the form of intrusive bodies?'. Diabase at Karangsambung village exposed as isolated hill surrounded by clay and clay breccias of Karangsambung and Totogan Formations. Late Eocene-Oligocene K/Ar ages (~26-38 Ma, island-arc tholeitic affinity and product of submarine volcanism. Now as tectonic slice in SSW verging thrust systems, deformed in Oligo-Miocene)

Harsolumakso, A.H. & D. Noeradi (1996)- Deformasi pada Formasi Karangsambung di daerah Luk Ulo, Kebumen, Jawa Tengah. Buletin Geologi (ITB) 26, 1, p. 45-54. *(online at: www.researchgate.net/profile/Agus-Harsolumakso/publication/312282805_Deformasi_pada_Form Etc.))*
('Deformation of the Karangsambung Fm in the area of Luk Ulo, Kebumen, C Java'. Eocene Karangsambung Fm overlies Late Cretaceous-Paleocene melange complex. Scaly clay with limestone (with Nummulites, Discocyclina) and conglomerate blocks not olistostrome, but highly folded and thrusted, probably in Oligocene-E Miocene. Folds trend ENE-WSW and indicate SSE vergent thrust system)

Harsolumakso, A.H., D. Noeradi, A. Rudyawan, D. Amiarsa, S. Wicaksono & A.A Nurfarhan (2019)- Geology of the eastern part of the volcanic Kendeng Zone of East Java: stratigraphy, structures and sedimentation review from Besuki and Situbondo areas. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 20, 3, p. 143-152.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/465/405)
(Late Miocene-Pliocene rel. deep marine succession with volcanoclastics in Situbondo area)

Harsolumakso, A.H., C. Prasetyadi, B. Sapiie & M.E. Suparka (2006)- The Luk Ulo-Karangsambung Complex of Central Java, Indonesia: from subduction to collision tectonics. Proc. Persidangan Bersama Geosains UKM-ITB, Langkawi, Malaysia, p. 1-6. *(Extended Abstract)*
(online at: https://www.researchgate.net/publication/308477672_The_Luk_Ulo-Karangsambung_Complex_of_Central_Java_from_Subduction_to_Collisional_Tectonics)
(Late Cretaceous-Paleocene Luk Ulo Melange Complex in C Java formed in subduction zone. Shift from NE-SW Cretaceous subduction trend to E-W trend in Oligocene due to collision of micro-continent. Luk Ulo Paleogene three units: (1) metasediments with E Eocene Nummulites; (2) tectonized pebbly mudstones with blocks containing Discocyclina and Asterocyclina; (3) deformed Late Eocene turbidite sandstones and shales (indicating late Eocene- Oligocene deformation during microcontinent collision). These differ from Bayat and Nanggulan areas, with rel. undeformed transgressive Eocene sequence (margin of microcontinent))

Harsolumakso, A.H., E. Puswanto & I.G.B.E. Sucipta (2019)- Batupasir "Bulukuning" pada lempung bersisik di daerah Banjarnegara, Jawa Tengah; studi petrologi, provenan dan implikasi tektonik. Bulletin of Geology (ITB) 3, 2, 333-343.
(online at: https://buletingeologi.com/index.php/buletin-geologi/article/view/63)
("Bulukuning" sandstone in scaly clay in the Banjarnegara area, Central Java; petrology, provenance and tectonic implications'. Bulukuning greywacke sandstones in Luk Ulo Melange Complex, formerly believed to be E Cretaceous-Paleocene in age. Sandstones lightly metamorphosed and occur as exotic blocks in scaly clay melange matrix. Contains Paleo-Nummulites and nannofossils suggesting M-L Eocene (NP15-16) age. Often with boudinage structures. Scaly clay matrix illite crystallinity suggests deformation T of ~206-223 °C. Deposited in foreland basin. Provenance suggests recycled orogens, related to East Java microcontinent collision with SE margin of Sundaland during Late Eocene-E Oligocene. Collision followed by exhumation of Karangsambung accretion complex, older volcanic rocks and several Sundaland blocks)

Harsolumakso, A.H., A. Rudyawan, S.M. Kartanegara, E.Marshal, E. Puswanto, & R. Indrayudha (2018)- Collision tectonics of the Luk Ulo melange complex, Central Java, Indonesia; a hint of Cenozoic collision of the SE Asia margin. In: 15th Annual Meeting Asia Oceania Geoscience Soc. (AOGS), Honolulu 2018, 1p. *(Poster)*

Harsolumakso, A.H., B. Sapiie, Z. Tuakia & R.I. Yudha (2016)- Luk Ulo melange complex, Central Java, Indonesia; characteristics, origin and tectonic significance. In: 13th Annual Meeting Asia Oceania Geoscience Soc. (AOGS), Beijing 2016, SE21-A030, 1p. *(Poster presentation) (online at: https://www.researchgate.net/publication/308478790_Luk_Ulo_Melange_Complex_Central_Java_Indonesia_Characteristics_Origin_and_Tectonic_significance)*
(Luk Ulo melange is tectonic melange as result of Cretaceous- Paleocene? subduction, and with younger melange resulting from Eo-Oligocene collision event of E Java microcontinent. Blocks of ultramafic rocks, schists, pillow basalts, pelagic sediments, granodiorites, limestones and sandstones in matrix of claystones often with scaly and phyllitic texture suggestive of diagenesis at depths up to 4-8 km)

Harsolumakso, A.H., M.E. Suparka, D. Noeradi, R. Kapid, N.A. Magetsari & C.I. Abdullah (1996)- Status olistostrom di daerah Luk Ulo, Jawa Tengah: suatu tinjauan stratigrafi, umur dan deformasi. Proc. Seminar Nasional Peran Sumberdaya Geologi Dalam PJP II, p. 101-121.
('Status of the olistostrome in the Luk Ulo, C Java: a review of the stratigraphy, age and deformation')

Harsolumakso, A.H., M.E. Suparka, D. Noeradi, R. Kapid, Y. Zaim, N.A. Magetsari & C.I. Abdullah (1996)- Karakteristik struktur melange di daerah Luk Ulo, Jawa Tengah. In: Sampurno et al. (eds.) Pros. Seminar Nasional Geoteknologi III, LIPI, Bandung, p. 422-441.
('Characteristics of melange structure in the Luk Ulo, Central Java'. U Cretaceous- Paleocen melange complex with metamorphic and ultramafic rocks. Common boudinage structures)

Harsolumakso, A.H., M.E. Suparka, Y. Zaim, N. Magetsari, R. Kapid, D. Noeradi, C.I. Abdullah & C. Ansori (1995)- Karakteristik satuan melange dan olistostrom di daerah Karangsambung, Jawa Tengah: suatu tinjauan ulang. In: Y. Kumoro et al. (eds.) Proc. Seminar Sehari Geoteknologi dalam indistrialisasi, Hasil-hasil Penelitian Puslitbang Geoteknologi LIPI, p. 190-215.
('Review of the characteristics of melange and olistostrome units in the Karangsambung area, C Java'. Upper Cretaceous- Paleocene Luk Ulo melange complex, overlain by Eocene Karangsambung Fm and Oligocene Totogan Fms, both with locally common large clasts)

Harsolumakso, A.H., E. Suparka & N.A. Magetsari (1998)- Struktur melange dan asosiasi ofiolit daerah Luk Ulo, Kebumen, Jawa Tengah, serta implikasinya terhadap tektonik jalur pertemuan lempeng. Laporan Penelitian DIK-ITB, p. 1-18. *(Unpublished ITB Research report)*
('Melange structure and ophiolite association of the Luk Ulo area, Kebumen, Central Java, and the implications for tectonic plate subduction'. On Luk Ulo tectonic melange of mafic-ultramafic rocks (ophiolite). Rocks highly deformed, fractured and brecciated, as blocks or boudinage structure in similar rocks or on other rocks)

Harsono Pringgoprawiro (1968)- On the age of the Sentolo Formation based on planktonic foraminifera. Institute of Technology Bandung, Dept. Geologi Contribution 64, p. 5-21.
(Sentolo Fm overlying 'Old Andesites' in W Progo Mts are Burdigalian- Pliocene in age)

Harsono Pringgoprawiro (1983)- Biostratigrafi dan paleogeografi cekungan Java Timur Utara suatu pendekatan baru. Doct. Thesis Institute of Technology Bandung, p. 1-239. *(Unpublished)*
(NE Java basin biostratigraphy and paleogeography)

Harsono Pringgoprawiro & Baharuddin (1980)- Biostratigrafi foraminifera plangton dan beberapa bidang pengenal Kenozoikum akhir dari sumur-sumur Tobo, Cepu, Jawa Timur. Geologi Indonesia (IAGI) 7, 1, p. 21-31.
(Planktonic foraminifera study in shallow wells Tobo 5, 6, 8 near Cepu. Deepest well Tobo 5 penetrated Late Miocene Ledok sands-shales between 412-451 m, overlain by rel. thin (60m?), but complete Pliocene Mundu marl section. Entire section apparently deep water with rich planktonic foram faunas)

Harsono Pringgoprawiro & B. Riyanto (1988)- Formasi Andesite Tua: suatu revisi. Proc. 16th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, and Geologi Indonesia 13, 1, p. 1-21.
('Old Andesite Formation- a revision'. Review of Late Oligocene- E Miocene 'Old Andesites' of S Mountains of Java)

Harsono Pringgoprawiro, N. Soeharsono & F.X. Sujanto (1977)- Subsurface Neogene planktonic foraminifera biostratigraphy of North-West Java Basin. Proc. 2nd Working Group Meeting Biostratigraphic datum-planes of the Pacific Neogene, Geological Research Development Centre (GRDC), Bandung, Special Publ. 1, p. 125-165.
(Miocene- Pliocene planktonic foram zonation, based on 7 Pertamina wells in NW Java)

Harsono Pringgoprawiro & Sukido (1992)- Geologic map of the Bojonegoro Quadrangle, Jawa (1500-5), 1:100,000. Geological Research Development Centre (GRDC), Bandung, p. 1-23.

Harsono Pringgoprawiro, S. Suwito P. & Roskamil (1977)- The Kromong carbonate rocks and their relationship with the Cibulakan and Parigi Formation. Proc. 6th Annual Conv. Indonesian Petroleum Association 1, p. 221-240.
(Kromong carbonate 20 km W of Cirebon, W Java, at N tip of Kromong complex which consist mostly of andesitic intrusive rocks. Limestone belongs to Miocene Cibulakan and Parigi formations. Age of Upper Cibulakan Fm E-M Miocene Tf 1-2, Parigi limestone is Late Miocene Tf3. Plio-Pleistocene andesitic and dacitic rocks intruded carbonates. Oil and asphalt seeps found along faults in N part of area (N.B. Praptisih et al. (2012) show Parigi Lst is Early-Middle Miocene age (Te5-Tf1-2), not Late Miocene; JTvG)

Harting, A. (1929)- Tagogapoe. A short geological description of the mountain Tagogapoe and Tjitaroem. Fourth Pacific Science Congress, Java 1929, Bandung, Excursion Guide C1, p. 1-14.
('Eocene' quartz sandstones with Nummulites fichteli-intermedia (=Lower Oligocene, Tcd), overlain by 'Miocene' Lepidocyclina limestone (= Late Oligocene-Te4) outcrops in Rajamandala area, W of Bandung)

Hartmann, E. (1920)- Verslag over eene verkenning van de Sadjira antiklinaal en omgeving in Bantam. Jaarboek Mijnwezen Nederlandsch Oost-Indie 47 (1918), Verhandelingen I, p. 141-149.
('Report on a reconnaissance of the Sajira anticline and surroundings, Banten', W Java. Structurally complex area S of Rangkasbitung. Includes mention of thin coal beds in M Palembang Fm, traces of oil in Lower Palembang Fm and nearby gas seeps named Kaboel (96% CO_2; Fennema 1891) and burning gas at Kedjaban)

Hartono, B.M., D. Pradipta, Z. Sausan, Y. Adhika, U. Muhadi & W. Mussofan (2022)- Depositional model of Middle Eocene Ciletuh Formation: new field findings from Kunti Island, Ciletuh, West Java. Proc. 51st Annual Conv. Indonesian Association Geologists (PIT IAGI 51), Makassar 2022, 90, p. 1-6.
(online at: https://www.iagi.or.id/web/digital/71/PITIAGI-22-P-Abs-052.pdf)
(M Eocene Ciletuh Fm on Pulau Kunti several horizons of polymict breccia (with clasts of low-metamorphic rocks, peridotite, basalt, chert,turbiditic sandstones, etc.), intercalated with submarine fan channel sandstones. Ciletuh Fm is mass-flow deposit in deep marine submarine fan settings, not some kind of tectonic melange, deposited unconformably above Pre-Tertiary melange complex))

Hartono, G. (2000)- Studi gunung api Tersier: sebaran pusat erupsi dan petrologi di Pegeunungan Selatan Yogyakarta. Magister Thesis, Institut Teknologi Bandung, p. 1-139.
(online at: https://digilib.itb.ac.id/gdl/view/20131)
('Tertiary volcanic studies: distribution of eruption centers and petrology in the Southern Mountains of Yogyakarta'. Six Paleocene- E Miocene (~53- 24 Ma) volcanic centers identified in Southern Mountains between Parangtritis in W and Wonogiri in E: Parangtritis, Sudimoro-Mangunan, Panggung, Wediombo, Baturagung-Bayat and Gajah Mungkur-Wonogiri. Basalt and andesite during construction phases of volcano, andesite to dacite pumice-rich volcanoclastics indicate explosive caldera forming eruptions. Etc.)

Hartono, G. & S. Bronto (2007)- Asal-usul pembentukan Gunung Batur di daerah Wediombo, Gunungkidul, Yogyakarta. Jurnal Geologi Indonesia 2, 3, p. 143-158.

(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/198)
(Southern Mountains Wediombo 'Old Andesite' lavas and breccias associated with Batur intrusive rock probably remnants of one paleovolcano)

Hartono, G., S. Pambudi, M. Arifai, A. Yusliandi & S. Agung P. (2014)- Vulkanisme dan sebaran sumber daya non hayati di Pegunungan Selatan Yogyakarta dan Wonogiri, Jawa Tengah. Majalah Geologi Indonesia (IAGI) 29, 1, p. 37-47.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/843)
('Volcanism and distribution of non-biologic resources in Southern Mountains of Yogyakarta and Wonogiri, C Java'. S Mountains of C Java consists of Oligocene- E Miocene volcanic rock, with Baturagung Volcano High in W and Gajahmungkur Volcano in E. Paleovolcanic eruption centers at Parangtritis, Imogiri, Pilang, Karangdowo, Patuk, Bayat, Tenong, Panggung, and Wediombo. Non-economic metal and nonmetal deposits)

Hartono, G., A. Sudrajat & I. Syafri (2008)- Gumuk gunung api purba bawah laut di Tawangsari- Jomboran, Sukoharjo- Wonogiri, Jawa Tengah. Jurnal Geologi Indonesia 3, 1, p. 37-48.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/218)
('The Gumuk ancient underwater volcano at Tawangsari-Jomboran, Sukoharjo Wonogiri, C Java'. Description of Oligo-Miocene 'Old Andesite' submarine basaltic breccias and pillow lavas in S Mountains, E of Bayat, grouped in Mandalika Fm (also in IAGI 36th Annual Conv. 2007, p. 307-320))

Hartono, G. & I. Syafri (2007)- Peranan Merapi untuk mengidentifikasi fosil gunung api padi 'Formasi Andesit Tua': studi kasus di daerah Wonogiri. Geologi Indonesia 33, 2, GRDC Special Publ., p. 63-80.
(Merapi modern volcano used as model to interpret Oligo-Miocene 'Old Andesite' volcanic centers and volcanic cycles in the Wonogiri area, Southern Mountains, C Java)

Hartono, H.G. & S. Bronto (2009)- Analisis stratigrafi awal kegiatan gunung api Gajahdangak di daerah Bulu, Sukoharjo; implikasinya terhadap stratigrafi batuan gunung api di Pegunungan Selatan, Jawa Tengah. Jurnal Geologi Indonesia 4, 3, p. 157-165.
(online at: www.bgl.esdm.go.id/dmdocuments/jurnal20090301.pdf)
('Stratigraphic analysis of early activity of Gajahdangkak volcano in the Bulu area: implications for stratigraphy of volcanic rocks in the Southern Mountains, C Java'. Late Oligocene- E Miocene volcanism in S Mountains generally starts with basaltic pillow lavas, followed by construction of composite volcanoes consisting of basaltic to andesitic lava flows, breccias and tuffs (' Mandalika Fm'), followed by destructive phase with high silica pumice-rich pyroclastic breccias and tuffs (Semilir Fm'). Illustrated by stratigraphy of Gajahdangak Volcano W of Wonogiri)

Hartono, H.G., S. Pambudi, M. Arifai, A. Yusliandi T. & S. Agung P. (2013)- Volkanisme dan sebaran bahan non hayati di Pegunungan Selatan Yogyakarta. Proc. 8th Seminar Nasional, Sekolah Tinggi Teknologi Nasional, Rekayasa Teknologi Industri dan Informasi, p. G24-G31.
('Volcanism and distribution of non-biological materials in the Southern Mountains, Yogyakarta')

Hartono, H.G. & A. Sudradjat (2017)- Nanggulan Formation and its problem as a basement in Kulonprogo Basin, Yogyakarta. Indonesian J. on Geoscience (IJOG) 4, 2, p. 71-80.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/373/239)
(Eocene Nanggulan Fm oldest clastic rock sequence exposed in E flank of Kulonprogo Mts, Yogyakarta. M-L Eocene marine and marginal marine sediments, <200m thick. Underlies Late Oligocene- E Miocene 'Old Andesite' volcanics, as exposed in Kulunprogo Mountains)

Hartono, H.G. & A. Sudradjat (2018)- Karakteristik geomorfologi gunung api aktif dan gunung api padam kasus G. Merapi & G. Gajahmungkur, Daerah Istimewa Yogyakarta dan Jawa Tengah. Bull. Scientific Contribution (UNPAD) 16, 2, p. 109-116.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/18383/pdf)

('The geomorphological characteristics of active and dormant volcanoes: case study of Merapi and Gajahmungkur volcanoes, Yoyyakarta Special Province and Central Java'. On volcano morphology and volcanological facies)

Hartono, H.G. & A. Sudradjat (2025)- Penerapan sandi stratigrafi Indonesia dalam pemetaan geologi gunung api di Kulunprogo. Bull. Scientific Contribution (UNPAD) 23, 1, p. 109-116.
(online at: https://jurnal.unpad.ac.id/bsc/article/view/59526/pdf)
('Application of Indonesian stratigraphic codes in geological mapping of volcanoes in Kulunprogo'. Late Oligocene- E Miocene Kulonprogo volcano 'supergroup' in south C Java (part of 'Old Andesites volcanic arc) with three main bathotlihs: Ijo, Gajah and Menoreh, arranged in SW-NE direction, presumably representing eruption centers of three volcanoes. Each batholith contains multiple conduits/ eruption centers)

Hartono, H.G., A. Sudradjat & O. Verdiansyah (2017)- Caldera of Godean, Sleman, Yogyakarta: a volcanic geomorphology review. Forum Geografi 13, 1, p. 1-10.
(online at: https://journals.ums.ac.id/index.php/fg/article/view/2821/3299)
(Godean Hills 10 km W Yogyakarta, include remains of 6km wide volcanic caldera of Late Oligocene- E Miocene 'Old Andesite Formation')

Hartono (1960)- *Hantkenina* in the Nanggulan area. Direktorat Geologi Indonesia, Publikasi Teknik- Seri Paleontologi 1, p. 1-8.
(First record from Java of Late Eocene planktonic foram Hantkenina from shallow corehole along Kali Progo, 6 km N of Nanggulan, W of Yogyakarta. Associated with larger forams Nummulites Discocyclina, Pellatispira)

Hartono, H.M.S. (1965)- The stratigraphic position of the Karren Limestone in the Tuban area, East Java. Bull. Geological Survey Indonesia 2, 1, p. 27-30.
(Plio- Pleistocene Karren Lst present in Rembang-Madura zone, thickness 120m or more. Dips gently to N and unconformably overlies different Miocene formations, incl. Late Miocene? Mundu Fm Globigerina marls)

Hartono, H.M.S. (1969)- *Globigerina* marls and their planktonic foraminifera from the Eocene of Nanggulan, Central Java. Contr. Cushman Foundation Foraminiferal Research 20, 4, p. 152-159.
(online at: https://cushmanfoundation.allenpress.com/portals/_default/files/pubarchive/CCFFR/20ccffr4.pdf)
(Late Eocene planktonic foraminifera from Globigerina marls above Discocyclina and Axinea layers and below 'Old Andesite' breccias in Nanggulan area, C Java. Including Hantkenina nanggulanensis n.sp., H. alabamensis, Globorotalia centralis, G. ampliapertura, Hastigerina micra, etc.)

Hartono, H.M.S. (1973)- Geologic map of the Tuban Quadrangle, Java, Quad. 12/XIII, scale 1:100,000. Geological Survey Indonesia, Bandung.

Hartono, H.M.S. & Suharsono (1997)- Geologic map of the Tuban quadrangle, Java. Sheet 1509-3, scale 1:100,000. Geological Research Development Centre (GRDC), Bandung.

Hartono, T. (2001)- Formasi Kerek: fasies turbidit kipas bawah (lower fan) di daerah Dadapayam, Salatiga-Jawa Tengah. Jurnal Teknologi Mineral (ITB) 8, 3, p.
(Kerek Fm of C Java intermittent calcareous sandstone, claystone and thin marl layers (5-200 cm), deposited in deep marine lower fan turbiditic facies. Presence of Bulimina marginata, B. strata, Dentalina sp., Planulina sp. and Gyroidina soldanii suggest deposition in middle- lower bathyal zone. Age Middle -Upper Miocene (N14-N16), based on presence of Globorotalia siakensis and Gr. acostaensis)

Hartono, T. (1995)- Biostratigrafi daerah Dadapayam, Salatiga- Jawa Tengah. J. RISET Geologi dan Pertambangan (LIPI) 1, 1, p. 33.
(online at: http://pustaka.geotek.lipi.go.id/wp-content/uploads/2016/02/Riset-Vol.1-No.1-1995-.pdf)
('Biostratigraphy of the Dadapayam area, Salatiga, Central Java'. Planktonic foraminifera from ~1000m thick Late Miocene turbiditic series NNE of Salatiga, SE of Semarang, composed of Kerek Fm below (zone N15-N16) and more tuffaceous sand-rich Banyak Fm above (N17-N18))

Hartono, U. (ed.) (2012)- Geologi Pegunungan Selatan bagian Timur, Kabupaten Bantul, Gunung Kidul, Klaten dan Wonogiri. Centre for Geological Survey (PSG), Bandung, Special Publ., p.
('Geology of the eastern part of the Southern Mountains, districts Bantul, Gunung Kidul and Wonogiri')

Hartono, U., Baharuddin & K. Brata (1992)- Geology of the Madiun Quadrangle, Java, 1:100,000, 1508-2. Explanatory notes and map, Geological Research Development Centre (GRDC), Bandung, p. 1-22.

Hartono, U., H. Panggabean et al. (eds.) (2009)- Prosiding Workshop geologi Pegunungan Selatan 2007. Geol. Survey Inst., Bandung, Special Publ. 38, p. 1-233.
(Collection of papers on geology of Southern Mountains, C and E Java, from 2007 Yogyakarta workshop)

Hartono, U., I. Syafri & R. Ardiansyah (2008)- The origin of Cihara granodiorite from South Banten. Jurnal Geologi Indonesia 3, 2, p. 107-116.
(online at: ttps://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/52/52)
(Late Oligocene Cihara granodiorite N of Bayah, SW Java, originated from magma of continental origin in subduction zone environment. Two possibilities of parental magmas: basaltic/ or andesitic magma of Cikotok Fm or crustal melting magma from subduction process (E Miocene radiometric age; Safudin 1995))

Haryanto, H., E. Yogapurana & A. Kusuma (2016)- Intricate seismic time-frequency analysis in Kujung patch reef, Northeast Java Basin. Proc. 40th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA16-59-G, p. 1-9.
(Attenuation/ spectral decomposition of N Madura Platform seismic to determine fluid composition)

Haryanto, I. (2004)- Tektonik sesar Baribis-Cimandiri. Proc. 33rd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, p. 60-66.
('Tectonics of the Baribis- Cimandiri Fault'. W Java E-W Baribis fault is Plio-Pleistocene thrust. SW-NE Cimandiri fault older, sinistral strike-slip fault)

Haryanto, I. (2005)- The collided tectonic plates of Java Island: A re-interpretation of the position of subduction in Java. Bull. Scientific Contribution (UNPAD) 3, 1, p.

Haryanto, I. (2006)- Struktur geologi Paleogen dan Neogen di Jawa Barat. Bull. Scientific Contribution (UNPAD) 4, 1, p. 87-95.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8118/3694)

Haryanto, I. (2013)- Struktur sesar di Pulau Jawa bagian barat berdasarkan hasil interpretasi geologi. Bull. Scientific Contribution (UNPAD) 11, 1, p. 1-10.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8283/3830)
('Fault structure in the western part of Java Island based on the results of geological interpretations'. Brief review of four major fault trends in Tertiary of W Java. E-W trending faults most common and mainly reverse faults, and of late Tertiary age and formed in N-S directed compressional system. Other faults (N-S, NW-SE and NE-SW) formed simultaneously with thrust fold belt structures, generally as strike slip faults or oblique transtensional or transpressional faults)

Haryanto, I. (2014)- Tectonic evolution of Western part of Java Island, during Cenozoic. Dissertation, Padjadjaran University, Bandung, p. *(Unpublished)*

Haryanto, I. (2015)- Struktur sesar di Pulau Jawa bagian Barat berdasarkan hasil interpretasi geologi. Bull. Scientific Contribution (UNPAD) 11, 1, p. 1-10.
(online at: https://jurnal.unpad.ac.id/bsc/article/view/8283/3830)
('Fault structure in the western part of Java Island based on the results of geological interpretation'. F our major fault trends in Tertiary sediments in W Java: (1) E-W (mainly reverse faults); (2) N-S, NW-SE and NW-SE

secondary faults formed simultaneously with fold-thrust belt structures, generally strike-slip faults. Faulting started in late Tertiary, under N-S trending compressional regime)

Haryanto, I., A.H. Harsolumakso & S. Asikin (2002)- Tectonics of Baribis Fault. Proc. 31st Annual Conv. Indonesian Association Geologists (IAGI), Surabaya, 2, p. 858-869.
(Baribis Fault in W Java continuation of E Java Kendeng zone N-directed thrust fault zone. Older than Plio-Pleistocene tectonics(?))

Haryanto, I., J. Hutabarat, A. Sudrajat, N.N. Ilmi & E. Sunardi (2017)- Tektonik sesar Cimandiri, Provinsi Jawa Barat. Bull. Scientific Contribution (UNPAD) 15, 3, p. 255-274.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/15103/pdf)
('Tectonics of the Cimandiri Fault, West Java'. WSW-ENE trending Cimandiri fault from Pelabuhan Ratu to Jampang to Rajamandala, etc. Formed at end of M Eocene, initially as thrust fault that developed paleo high and uplifted Ciletuh Formation in forearc basin. Evolved into normal fault today)

Haryanto, I., N.N. Ilmi, J. Hutabarat, B. Gumelar, Adhiperdana, L. Fauzielly, Y.A. Sendjaja & E. Sunardi (2020)- Tectonic and geological structures of Gunung Kromong, West Java, Indonesia. Int. J. of GEOMATE (Japan) 19, 74, p. 185-193.
(online at: https://geomatejournal.com/geomate/article/view/1877/1729)
(Gunung Kromong complex is solitary, circular hill in NW Java coastal plain zone, N of Ciremai volcano (good example of 'the more authors, the less new information'- JTvG))

Haryanto, I., Nurdradjat & I. Saputra (2015)- Identifikasi struktur geologi berdasarkan aspek morfologi, stratigrafi, pola jurus lapisan batuan dan sebaran batuan: studi kasus daerah Bantarujeg- Majalengka, Provinsi Jawa Barat. Bull. Scientific Contribution (UNPAD) 13, 2, p. 140-151.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8400/3908)
('Identification of geological structures based on aspects of morphology, stratigraphy, deformation and distribution of rock layers: a case study in the Bantarujeg- Majalengka area, W Java'. Zone of NNE-directed thrusting N of Bantarujeg (SE of Ciremai volcano))

Haryanto, I., A. Ramadian & F. Helmi (2009)- Tektonik batuan pra-Tersier Jawa Barat Indonesia. Bull. Scientific Contribution (UNPAD) 7, 2, p. 82-90.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8235/3783)
('Tectonics of pre-Tertiary rocks of West Java, Indonesia'. Ciletuh Pre-Tertiary melange oldest rocks outcrop in W Java. Outcrop mechanism in this area due to uplift, thrusting and folding, followed by sliding)

Haryanto, I. & A. Sudradjat (2018)- On the geomorphology and tectonic position of Ciletuh-Jampang Area, West Java, Indonesia. Universal J. of Geoscience 6, 2, p. 47-54.
(online at: https://www.hrpub.org/download/20180430/UJG3-13911463.pdf)
(Geomorphology of Ciletuh-Jampang area in W part of Southern Mountains of W Java (S flank of E-W trending main anticline of W Java). Two remnants of main plateau in Ciletuh-Jampang area: Bentang Plateau and Jampang Plateau. Annual rate of uplift on Java Island since Pliocene most likely 5.0-5.4cm)

Haryanto, I., E. Sunardi, A. Sudradjat, Abdurrokhim & Jamal (2014)- Plate tectonic and regional structural geology in West Java. In: 1st Int. Conf. Geoscience for Energy, Mineral Resources, and Environment, p. 1-10.
(online at: http://seminar.ftgeologi.unpad.ac.id/wp-content/uploads/2016/11/FULLPAPER_Iyan-POSTER.pdf)
(Two major fault patterns in Java: (1) NE-SW trending, related to Cretaceous subduction activity and (2) E-W trending, associated with Tertiary subduction. NE-SW trending faults caused formation of highs and basins, like Biliton Basin, Bawean Basin, Karimun High, etc; E-W fault pattern caused formation of fore arc basins, volcanic ridges and back arc basins. Tertiary subduction reactivated Cretaceous fault patterns and produced N-S faults, forming highs and lows like Sunda Basin, NW West Java Basin, Tanggerang High, Ujungkulon Basin and High, Bayah High, etc.)

Haryanto, I., E. Sukiyah, N. Nurul Ilmi, Y. A. Sendjaja & E. Sunardi (2017)- Tectonics activity and volcanism influence to the Garut and Leles basins configuration and the implication on environmental geology. Int. J. Science and Research (IJSR) 6, 1, p. 2287-2292.
(online at: https://www.ijsr.net/archive/v6i1/ART20164646.pdf)
(Garut and Leles basins located in Quaternary Volcanic mountain chain of W Java. Tectonic basins, controlled by two major NE-SW strike-slip faults)

Haryanto, I., E. Sunardi, A. Sudradjat & Suparka (2014)- Hipotesis mengenai sejarah tumbukan lempeng zaman Kapur di Indonesia bagian barat. In Proc. Seminar Nasional Fakultas Teknik Geologi, Geologi untuk meningkatkan kesejahteraan masyarakat, UNPAD, Bandung, p. 47-55.
(online at: http://seminar.ftgeologi.unpad.ac.id/wp-content/uploads/2015/03/HIPOTESIS-MENGENAI-SEJARAH-TUMBUKAN-LEMPENG-ZAMAN-KAPUR.pdf)
('Hypotheses about the history of the Cretaceous plate collision in western Indonesia'. Cretaceous subduction along Java and SE Kalimantan started by double subduction. Eurasian and Australian-origin plates with subduction under both margins were separated by narrow oceanic plate. Late Cretaceous collision produced Ciletuh, Rajamandala, Billiton, Bawean and Meratus highs)

Haryono, E. (2013)- Uplift evidence from karst morphology: preliminary evidence from Blambangan Peninsula karst, Indonesia. Proc. 16th Int. Congress of Speleology, Brno 2013, Czech Republic, 3, p. 90-93.
(online at: https://digitalcommons.usf.edu/cgi/viewcontent.cgi?article=1013&context=kip_talks)
(Karst in M-L Miocene Punung Fm limestones on Blambangan Peninsula at SE tip of Java documents three major uplift episodes with formation of terraces)

Haryono, E. & M. Day (2004)- Landform differentiation within the Gunung Kidul Kegelkarst, Java, Indonesia. J. Cave and Karst Studies 66, 2, p. 62-69.
(online at: https://caves.org/wp-content/uploads/Publications/JCKS/v66/cave_66-02-fullr.pdf)
(Gunung Kidul/ Gunung Sewu three karst subtypes: labyrinth-cone, polygonal, and residual cone karst. Labyrinth-cone subtype in central Gunung Kidul karst where hard, thick limestones have undergone intensive deformation. Polygonal karst in western perimeter on hard but thinner limestone beds. Residual cone subtype in weaker and more porous limestones (wackestones or chalks), despite considerable bed thickness)

Haryono, E., S.T. Putro, Suratman & Sutikno (2017)- Polygonal karst morphology of Karangbolong area, Java-Indonesia. Acta Carsologica 46, 1, p. 63-72.
(online at: https://ojs.zrc-sazu.si/carsologica/article/view/3589/4746)
(Karangbolong karst in Southern Mountains of C Java, where Miocene limestone was uplifted and underwent karstification since Late Pliocene. Karst characterized by conical hills on ridges, separated by aligned valleys, coinciding with underlying structural pattern, and indicating formation through preferential dissolution of joints. Residual hills conical karst morphology with sharp peaks, resulting from tight joint spacing)

Haryono, E., S. Sunarto, I.M. Susmayadi, H. Reinhart, T.H. Purwanto, S.Suratman & S. Sutikno (2018)- The morpho-chronology of the Blambangan Peninsula karst, Java-Indonesia. Cave & Karst Science 45, 2, p. 83-92.
(online at: https://acadstaff.ugm.ac.id/karya_files/the-morpho-chronology-of-the-blambangan-peninsula-karst--java-indonesia-dcfcd07e645d245babe887e5e2daa016/fac73c6b-6511-11eb-8284-e4434b0aade8)
(Karst area of Blambangan Peninsula at SE tip of Java three different morphologies:(a) conical karst hills with corrosion plain (T1); (b) upper terrace (T2) and (c) lower terrace (T3). During development of T1, peninsula may have been small carbonate island. Three chronological stages: (1) Late Pliocene or E Pleistocene uplift, followed by long stable, period at ~200–122 ka (MIS 9–5e) with T2 formation and severe T1 karstification, resulting in conical karst and corrosion plain; (2) uplift of T2 (~122 ka BP), followed by formation of T3; (3) uplift of T3 (18-5 ka BP) during late glacial drop of sea level with deposition of fluvio-volcanic material)

Hasibuan, F. (2004)- Biostratigrafi Kenozoikum moluska di Jawa, Indonesia. In: Stratigrafi Pulau Jawa, Geological Research Development Centre Bandung, Special Publ. 30, p. 71-86.
('Biostratigraphy of Cenozoic molluscs in Java, Indonesia'. Review of Eocene- Pliocene mollusc biostratigraphy of Java. With extensive reference list)

Hasibuan, F. (2006)- *Ostrea (Turkostrea) doidoiensis* Hasibuan from the Bayah Formation, West Jawa: a new find. Jurnal Sumber Daya Geologi (JSDG) 16, 1 (151), p. 16-29.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/350)
(M Eocene oyster species from lower part of Bayah Fm at Cibobos Bay, W of Bayah, Banten, SW Java. In sandstone with shallow marine trace fossils and crab fossils. Species originally described from SW Sulawesi Malawa Fm and may also be present in Nanggulan Fm of C Java (O. jogjacartensis of Martin (1914-1915))

Hastuti, D.E.W., E. Suparka, S. Asikin & A.H. Harsolumakso (2003)- Miocene volcanism related to hydrothermal alteration in Ponorogo, East Java, Indonesia. In: B. Ratanasthien et al. (eds.) Pacific Neogene paleoenvironments and their evolution, 8th Int. Congress on Pacific Neogene Stratigraphy, Chiang Mai, 2003, p. 418-425.

Hastuti, E.D.W. (2017)- The study of ore minerals parageneses in Ponorogo area, East Java. In: Sriwijaya Int. Conf. Engineering, Science and Technology (SICEST 2016), MATEC Web of Conferences 101, 04018, p. 1-6.
(online at: www.matec-conferences.org/articles/matecconf/pdf/2017/15/matecconf_sicest2017_04018.pdf)
(Mineralisation in Oligocene-E Miocene rocks in Ponorogo District, S Mountains at least two stages: (1) early hypogene processes, with pyrite-sphalerite-chalcopyrite-magnetite-galena; (2) later supergene enrichment with pyrite-sphalerite-covelite-bornite-limonite. Assemblages probably formed at ~100-360°C)

Hayat, D.Z. (2003)- Analisis data gayaberat dalam permodelan struktur geologi bawah permukaan serta kaitannya dengan cebakan hidrokarbon di daerah Subang dan sekitarnya. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 13, 141, p. 20-31.
('Analysis of gravity data in modeling of subsurface geological structure and its relation to hydrocarbon deposits in Subang and the surrounding area'. Gravity showing up to 2km deep Tertiary basinal areas in Pamanukan-Subang area, N of Bandung, W Java)

Hehuwat, F. & M.S. Siregar (2004)- Nanggulan-Bayat Eocene and Southern Mountains Miocene carbonate sedimentation models from the Yogyakarta area. LIPI Indonesian Inst. Sciences, 2 vols.
(Fieldtrip guidebook Southern Mountains)

Hehuwat, F., Suparka & Suwijanto (1974)- NE-SW lineaments on Java as observed from ERTS-1 images. Tectonophysics 23, p. 425. *(Abstract only)*
(C and E Java NE-SW trending lineaments, few 10 km long. Direction of lineaments corresponds to Meratus trend. Unpaired terraces, linear scars, morphological unconformities, different land-use patterns across lineament, and coastline configurations, strongly suggest fault-origin of lineaments)

Heide, F. (1939)- Uber Tektite von Java. Zentralblatt Mineralogie Geologie Palaontologie, 1939 A, p. 199-206.
('About tektites from Java')

Heidrick, T.L. & Gayatri I. Marliyani (2006)- Nanggulan tectonostratigraphy. *(Unpublished)*
(Online at: www.michel.web.ugm.ac.id/sedimentology/nanggulan%20by%20gayatri/...)

Helbig, K. (1935)- Bau und Bild der Insel Java. Zeitschrift Gesellschaft Erdkunde Berlin, 1935, p. 102-125.
(online at: https://www.digizeitschriften.de/id/391365657_1935%7CLOG_0031)
('Structure of the island Java' Brief review of geology and geography of Java. In German)

Hendriyanto, N. & H. Amijaya (2008)- Organic geochemistry, petrography and mineralogy of Wungkal-Gamping mudstone in Bayat Area, Klaten, Central Java. Proc. 37th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 630-637.
(Dark grey Eocene Wungkal-Gamping Fm mudstones E of Pendul Hill, Bayat, have 0.16-0.42% TOC, showing no hydrocarbon source potential. Sporinite color orange to red or brown, equivalent of Ro of ~0.65- 1.1% (peak mature- late mature). High maturity may be local due to proximity to Pendul igneous intrusion. Dark grey color of mudstone not caused by organic material but is mainly chlorite)

Hendrizan, M. (2016)- Nutrient level change based on calcareous nannofossil assemblages during Late Miocene in Banyumas Subbasin. Indonesian J. on Geoscience (IJOG) 3, 3, p. 173-183.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/332/225)
(Late Miocene of Kali Pasir outcrop section, Banyumas, C Java, with abundant Discoaster (D. brouweri) and large Reticulofenestra in muddy facies of early Late Miocene (NN8-NN10a) representing deep thermocline. Decreasing Discoaster and small Reticulofenestra in turbiditic section of later part of Late Miocene (NN10b-NN11) indicate shallow thermocline/ nutricline. Strong eutrophication in Kali Pasir section probably driven by increased nutrient-rich terrestrial material, related to onset of Indian monsoon in Late Miocene/8-9 Ma)

Hendrizan, M. (2018)- A review of biostratigraphic studies in the olistostrome deposits of Karangsambung Formation. Proc. Global Colloquium on GeoSciences and Engineering, Bandung 2017, IOP Conference Series: Earth and Environmental Science 118, 012011, p. 1-5.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/118/1/012011)
(Age of Karangsambung Fm olistostrome deposits in C Java Oligocene, based on calcareous nannofossils from matrix. Older reported ages (M-L Eocene, etc.- Paltrinieri et al, 1976?) deemed to be probably reworked)

Hendrizan, M., R. Kapid & Djuhaeni (2014)- Biostratigraphy of the Late Miocene Halang Formation in the Loh Pasir succession, Banyumas, Central Java. Berita Sedimentologi 30, p. 32-43.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/133)
(Biostratigraphic study nannofossils from 1.4 km thick outcrop section of Late Miocene Halang Fm at Loh Pasir, C Java. 121 samples with 57 species, divided into five Late Miocene biozones: Discoaster brouweri, D. hamatus, D. bollii, D. prepentaradiatus and D. quinqueramus)

Hendrizan, M., Praptisih & P.S. Putra (2009)- Kajian terbaru lingkungan pengendapan Formasi Batuasih berdasarkan kandungan foraminifera: studi kasus daerah Sukabumi, Propinsi Jawa Barat. Proc. 38th Annual Conv. Indonesian Association Geologists (IAGI), Semarang, p. 1-12.
(online at: https://www.iagi.or.id/web/digital/26/2009_IAGI_Semarang_Kajian-Terbaru-Lingkungan.pdf)
('A recent study on the depositional environment of the Batuasih Formation based on foraminifera content: a case study in the Sukabumi area, West Java Province'. Batuasih marls with E Oligocene planktonic foraminifera. Same as Hendrizan et al. 2012, below))

Hendrizan, M., Praptisih & P.S. Putra (2012)- Depositional environment of the Batuasih Formation on the basis of foraminifera content: a case study in Sukabumi Region, West Java Province, Indonesia. Jurnal Geologi Indonesia 7, 2, p. 101-112.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/403)
(Batuasih Fm overlies (Late Eocene?) Walat Fm and grades upwards into latest Oligocene Rajamandala Lst. Outcrops in 3 sections W of Sukabumi: Batuasih village, 36m; Cibatu River, 113m; Padalarang, 2.6m. Mainly marine black shaly claystone, with limestone intercalations in upper part. Foraminifera poorly preserved black benthic and planktonic foraminifera, deposited in shelfal marine environment in E Oligocene (zone P19, with Globorotalia opima, Globigerina tripartita, etc.))

Herdiansyah, F., A.H. Hamdani, B. Muljana, M. Burhannudinnur, A. Jambak, D. Syavitri & P.D.A. Adistayana (2024)- Depositional system of Halang Formation from Ci Mande and Panaruban River outcrop: an interpretive based on lithofacies and trace fossil. Proc. 6th Int. Conference on Earth Science, Mineral, and Energy, Yogyakarta, 2023, IOP Conference Series: Earth and Environmental Science 1339, 012007, p. 1-9.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1339/1/012007/pdf)
(Submarine fan facies in M-L Miocene sediments in Banyumas area (especially Halang Fm), C Java)

Herklots, J.A. (1854)- Fossiles de Java. Description des restes fossiles d'animaux des terrains Tertiaires de l'ile de Java, receuillis des lieux par M. Fr. Junghuhn, docteur-es-sciences, publies par ordre de S.M. le Roi des Pays Bas. E.J. Brill, Leiden, p. 1-24.
(online at: www.archive.org/details/fossilesdejava00herk)

('Fossils of Java, Description of animal fossils from the Tertiary terrains of Java, collected by Dr F. Junghuhn, published by order of the King of the Netherlands'. Early description of Tertiary echinoid fossils from Java (see also revision of Herklots' identifications by Martin (1880))

Hetzel, W.H. (1935)- Geologische kaart van Java 1:100.000, Toelichting bij blad 54 (Madjenang). Dienst Mijnbouw Nederlandsch-Indie, p. 1-53.
(Text online at: https://resolver.kb.nl/resolve?urn=MMKB31:041776000:pdf)
(Map online at: https://digitalcollections.universiteitleiden.nl/view/item/816830)
('Geological map of Java 1: 100,000, Explanatory notes of Sheet 54 (Majenang)'. Map sheet in E Priangan-Banyumas Regencies of W and C Java (W of Bumiayu sheet). Mainly folded Neogene sediments. M-L Miocene: from old to young: Pemali, Rambatan, Lawak and Halang series (possibly partly facies equivalents). Pemali series Globigerina marls with Lower Tf limestone intercalations (M Miocene Cycloclypeus annulatus). Pliocene: Kumbang series (unfossiliferous andesitic volcanics), Tapak, Kalibiuk and Glagah series. With oldest mammal fossil of Java? (rhinoceros tooth Aceratherium boschi Von Koenigswald 1933, in late Miocene or E Pliocene limestone? Oil seep in Halang series near Tjisenti in NE part of map sheet)

Hidayat, E., D. Muslim, Z. Zakaria, H. Permana & D.A. Wibowo (2021)- Tectonic geomorphology of the Karangsambung area, Central Java, Indonesia. Rudarsko-geolosko-Naftni Zbornik (Mining-Geology-Petroleum Engineering Bulletin), Zagreb, Croatia, 36, 4, p. 85-105.
(online at: https://hrcak.srce.hr/ojs/index.php/rgn/article/view/17149/10331)
(IAT geomorphological analysis shows Karangsambung area in C Java morphology more influenced by tectonic activity than erosion. Uplifted and deformed river terrace outcrops show neotectonic activity)

Hidayat, H., A.D. Nugraha, A. Priyono, Marjiyono, J.H. Setiawan, D.P. Sahara, S. Winardhi et al. (2021)- Travel time tomography to delineate 3-D regional seismic velocity structure in the Banyumas Basin, Central Java, Indonesia, using dense borehole seismographic stations. Frontiers in Earth Science 9, 639271, p. 1-16.
(online at: https://www.frontiersin.org/articles/10.3389/feart.2021.639271/full)

Hidayat, H., S. Subagio & Z.S.A. Praromadani (2020)- Interpretasi struktur geologi bawah permukaan berdasarkan Updating Data gaya berat Cekungan Banyumas, Jawa Tengah. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 21, 3, p. 111-118.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/524)
('Subsurface geological structure interpretation based on updating gravity data of Banyumas Basin, Central Java'. Paleogene-Neogene Banyumas Basin in S of C Java with oil and gas seepages in several localities around NW-SE trending Cipari Anticline, separating Majenang subbasin in NE and Citanduy sub-basin in SE)

Higasinaka, H., S. Asikin & R. Soebedo (1969)- Geological and geophysical investigations of the Kliripan manganese field, central Java. Bull. of National Institute Geology and Mining (NIGM), Bandung, 2, 1, p. 25-36.
(online at: https://jrisetgeotam.brin.go.id/index.php/NIGM/article/view/166)
(Magnetic anomaly survey around Krengseng manganese mine in Kliripan field, SE West Progo Mts, C Java, Mining activities in area took place since 1912 around three fields, Kliripan, Andjir and Kembang. Manganese mainly as concretions in or on top of Miocene reef limestone, formed by dissolution of limestone)

Higasinaka, H., M.T. Zen & S. Soemarno (1968)- Magnetic prospecting at the Tjikotok gold mine, West Java. Bull. of National Institute Geology and Mining (NIGM), Bandung, 1, 1, p. 47-56.
(online at: https://jrisetgeotam.brin.go.id/index.php/NIGM/article/view/47-59/158)
(Magnetic survey in November-December 1967 at Tjiparaj in area of Tjikotok- Tjirotan gold mines, 63km W of Sukabumi in SW Java (Tjikotok or Cikotok gold-silver mine operational since 1936. Several anomalies)

Hirawan, A., A.S.V. Bangun, R.B. Pratiwi & A.D Titisari (2017)- Characteristics of basaltic pillow lava in Jarum Village, Bayat: magma evolution and petrogenetic model. Proc. Seminar Nasional Kebumian 10, Dept. Teknik Geologi, Universitas Gadjah Mada (UGM), Yogyakarta, OVK-08, p. 1395-1413.
(Oligocene submarine basaltic pillow lava at base of Kebo-Butak Fm)

Hirooka, K., Y.I. Otofuji, S. Sasajima, S. Nishimura, Y. Masuda et al. (1980)- An interim report of paleomagnetic study in Jawa Island. Physical Geology of the Indonesian Island Arcs, Kyoto University Press, p. 67-71.

Hoffmann, J., M. Brocker, N.I. Setiawan, R. Klemd, J. Berndt, A. Maulana & H. Baier (2019)- Age constraints on high-pressure/low-temperature metamorphism and sedimentation in the Luk Ulo Complex (Java, Indonesia). Lithos 324-325, p. 747-762.
(online at: https://www.sciencedirect.com/science/article/pii/S0024493718304407)
(Eclogite, epidote-glaucophane schists and epidote amphibolite in Luk Ulo Complex, C Java, with Cretaceous (Aptian) Rb-Sr ages of 119-117 Ma (± 0.6-0.8 Ma), most likely time of High-P metamorphism. Ages slightly younger than similar rocks from W Sulawesi. Zircons of associated clastic metasediments dominated by Jurassic-Carboniferous ages (~320-180 Ma), with distinct Permo-Triassic peak (~270-200 Ma). Less pronounced Paleozoic age peak (450-380 Ma). Youngest zircon grains of unambiguous detrital origin ~160 Ma, indicating Late Jurassic maximum depositional age. Additional detrital zircon data for Barru Complex (SW Sulawesi) with complex age spectrum, with youngest zircons indicating maximum depositional age of ~255-250 Ma. Luk Ulo and Barru complexes linked to different source terrains and depositional systems)

Hoffmann-Rothe, A., O. Ritter & V. Haak (2001)- Magnetotelluric and geomagnetic modelling reveals zones of very high electrical conductivity in the upper crust of Central Java. Physics Earth Planetary Interiors 124, 3-4, p. 131-151.
(Modelling of magnetotelluric and geomagnetic data from C Java. Two zones of extremely high conductivity best explained as geothermal activity in vicinity of active volcanism (Mt. Merapi))

Hol, J.B.L. (1918)- Danes' verhandeling over den Goenoeng Sewoe. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 35, p. 414-421.
(Review of Danes (1915) detailed report on cone karst of Southern Mountains, South Central Java)

Honza, E. & B. Ganie (1987)- Formation of accretionary wedge in the eastern Sunda Trench. CCOP, Technical Bulletin 19, p. 119-124.
(online at: https://ncloud.dotdream.co.th/index.php/s/xCwHAtAFYxzBtC9)
(Brief discussion of multichannel seismic profiles across accretionary prism and forearc basin of E Java- Bali)

Honza, E., M. Joshima, A. Setiya Budhi & A. Nishimura (1987)- Sediments and rocks in the Sunda forearc. Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas, CCOP, Technical Bull. 19, p. 63-68.
(online at: https://ncloud.dotdream.co.th/index.php/s/xCwHAtAFYxzBtC9)
(Three piston cores up to 7.5m long in forearc off C and E Java at water depths between 3212-442m all Late Quaternary clays with ash beds. No evidence of turbidites)

Hooze, J.A. (1876)- Warme bron te Palimanang. Natuurkundig Tijdschrift voor Nederlandsch-Indie 36, p. 57-65.
(online at: https://ia800304.us.archive.org/33/items/natuurkundigtijd36koni/natuurkundigtijd36koni.pdf)
('Hot springs at Palimanang'. Hot springs near oil drilling operations of J. Reerink near Madja/ Cirebon, some with brown-black oil, gas or warm H2S-bearing water in aea of Late Tertiary limestones. Water rich in Ca and NaCl. Oil believed to have formed from subsurface coal that underwent heating from nearby Ciremai volcano)

Hooze, J.A. (1882)- Onderzoekingen in het kolenterrein bij Soekaboemi, benevens eene mededeeling omtrent de aardlagen aangetroffen in den spoorwegtunnel bij Tjimenteng in de Preanger Regentschappen. Jaarboek Mijnwezen Nederlandsch Oost-Indie 11 (1882), Wetenschappelijk Gedeelte, p. 5-65.
('Investigations in the coal terrain near Sukabumi, with a report on the beds encountered in the railway tunnel near Cimenteng in the Preanger Regency'. Geological map and survey of Eo-Oligocene coal beds W and SW of Sukabumi. Main coal bed at Gunung Walat about 40 cm thick, good quality coal, dipping ~35° to SE. Potential for exploitation not favorable)

Horner, L. (1837)- Verslag van eene mineralogische reis door de residentie Bantam Verhandelingen Bataviaasch Genootschap Kunsten Wetenschappen 17, 1, p. 31-59. *(online at: https://ia801900.us.archive.org/35/items/verhandelingenv171839bata/verhandelingenv171839bata.pdf)*
('Report of a miniraologal voyage through the Banten Residency'. One of the earliest reports of a geolical survey, mainly after coal, by Swiss member of the Commission of Natural Science)

Horsfield, T. (1816)- On the mineralogy of Java. Essay I. Account of the island from its western extremity to the mountain of Sumbing, situated near the longitude of Semarang. Verhandelingen Bataviaasch Genootschap Kunsten Wetenschappen 8, 4, p. 1-47.

Horsfield, T. (1816)- Essays of the geography, mineralogy and botany of the western portion of the territory of the native princes of Java. Verhandelingen Bataviaasch Genootschap Kunsten Wetenschappen 8, 6, p. 175-312.
(online at: http://bhl.ala.org.au/item/107941page/1/mode/1up)
(Early geographic descriptions with basic geological observations on Central Java by American naturalist Horsfield. Reporting mainly volcanics ('basalts', lava, tuff), 'pudding stones' (=conglomerates/ breccias) and sandstones. No figures)

Hotz, W. & L. Rutten (1915)- Ein Jod und Oel produzierendes Feld bei Soerabaja auf Java. Zeitschrift fur Praktische Geologie 23, p. 162-167.
(online at: https://babel.hathitrust.org/cgi/pt?id=njp. 32101076808086;view=1up;seq=186)
('An iodine and oil-producing field near Surabaya on Java'. Boeloe-Petikan anticline of Oriental Petroleum Company, SSW of Surabaya and S of Dordtsche Petroleum Maatschappij oil fields, with iodine bearing salt water and in deeper horizons also oil)

Htun, M.M., S.S. Surjono & J. Setyowiyoto (2017)- Reservoir quality of Ngrayong Sandstone in Tempuran Village area, Rembang Zone, western part of North East Java Island, Indonesia. Proc. 10th AUN/SEED-Net Regional Conference on Geological and Geo-Resource Engineering, Phnom Penh 2017, p. 148-160.
(online at: https://repository.ugm.ac.id/274958/1/45-2017-Htun-Surjono.pdf)
(Early M Miocene Ngrayong Fm at S flank of Pakel Anticline near Tempuran Village loose, clean quartz sandstone. Reservoir quality: good to excellent porosity(~20-30%) and excellent permeability)

Hughes-Clarke, M. (1976)- Carbonate build-ups on volcanic highs South of Java. Proc. IPA Carbonate Seminar, Jakarta 1976, Indonesian Petroleum Association (IPA), Special Volume, p. 120. *(Abstract only)*
(Mid-Oligocene volcanic arc S of Java. Axis of volcanic activity progressively shifted N in E-M Miocene, with carbonates on remnant volcanic highs. Carbonates drowned and capped by younger deepwater sediments)

Huguenin, J.A. (1861)- Onderzoek naar mangaanerts, voorkomende te Tjikangkareng, regentschap Soekapoera, Residentie Preanger Regentschappen. Natuurkundig Tijdschrift voor Nederlandsch-Indie 22, 1861, p. 218-227.
(Evaluation of manganese ore deposit in Ciberem River, near Kankareng, Sukapura regency, Priangan. Manganese veins in 'felsite-porphyry' and breccia, associated with clays containing Miocene molluscs. Deposits deemed too small to be commercially attractive. No maps or figures)

Huguenin, J.A. (1878)- Verslag naar het onderzoek van kolenafzettingen in de Preanger Regentschappen- 1. Verslag over de natuur der steenlagen, waardoor men de spoorweg-tunnel moet drijven, bij Tjimenteng, Afdeeling Soekaboemi, Residentie Preanger-Regentschappen. Jaarboek Mijnwezen Nederlandsch Oost-Indie 7 (1878), 2, p. 96-116.
('Report on the survey of coal deposits in the Priangan Regencies-1. Report on the nature of the rocks through which a railway tunnel has to be built near Cimmenteng, Sukabumi District'. Early evaluation of Eo-Oligocene coal deposits near Sukabumi, W Java. Deemed non-commercial)

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(online at: https://repository.ugm.ac.id/135210/1/474-489%20S03.pdf)
('Stratigraphic control and gravity structure at the Sijenggung hydrocarbon seepage, North Serayu Basin'. N Serayu basin of C Java with many oil and gas seeps, indicative of active petroleum system. In Sijenggung Village (Banjarmangu District) surface seepage in outcrop of E-M Miocene Rambatan Fm. Dominant deformation of Rambatan Fm is gravity sliding to NNE in extensional regime)

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(online at: https://repository.ugm.ac.id/135434/1/GEO41%20MEKANISME%20PERLIPATAN%20EN%...)
('En echelon folding mechanism in the North Rembang Anticlinorium'. Folds in Rembang zone controlled by movement along ENE-WSW oriented basement fault, producing en echelon arrangement of folding. Braholo Anticline, 10 km N of Blora, deformed in two phases, NW-SE trending compression in Late Pliocene, followed by relaxation)

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('Genesis of the joint system in Semen, Bayat, Central Java and implications for Southern Mountains deformation history'. Kebo-Butak Fm near Nengahan village, Bayat District, with two types of fractures, early extensional, signifying stress in N30°E direction and later (E Miocene?) shear stress in N300°E direction, possibly caused by Australia- Sepik Arc collision)

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(online at: https://www.iagi.or.id/web/digital/14/2008_IAGI_Bandung_Tegalrejo-Thrust-Fault.pdf)
(Baturagung Range of S Mountains SE of Yogya is SE-dipping cuesta with of 1600m of Oligocene- E Miocene volcanoclastic turbidites, previously interpreted as extensional fault or remnant of eroded anticline flank. NE-SW trending thrust fault in Tegalrejo River at break of slope of Baturagung escarpment, suggesting range formed under compressive tectonic regime, not block faulting or normal faulting)

Husein, S. & M.I. Novian (2014)- Guide book Geological excursion to Bayat, Central Java - October 2014. Dept. of Geological Engineering Universitas Gadjah Mada (UGM), p. 1-12.
(online at: www.researchgate.net/publication/285593222_Guide_Book_of_Geological_Excursion_ Etc.)
(Guidebook to Jiwo Hills, organized for Santos Petroleum. Basement complex mixture of phyllites, metavolcanics and marbles (Late Cretaceous metasediments with Orbitolina; 98 Ma K-Ar age; Prasetyadi 2007). Unconformably overlain by M-L Eocene Wungkal-Gamping Nummulites limestones, overlain by Late Oligocene-E Miocene Kebo-Butak volcanics, etc. Intruded by Pendul diabase, etc.)

Husein, S. & M. Nukman (2015)- Rekonstruksi tektonik mikrokontinen Pegunungan Selatan Jawa Timur: sebuah hipotesis berdasarkan analisis kemagnetan purba. Proc. Seminar Nasional Kebumian 8, Dept. Teknik, Geologi Universitas Gadjah Mada (UGM), Yogyakarta 2015, p. 235-248.

(online at: https://repository.ugm.ac.id/135435/1/GEO42%20REKONSTRUKSI%20TEKTONIK%)
('Microcontinent tectonic reconstruction of the Southern Mountains of East Java: a hypothesis based on analysis of ancient magnetism'. Old zircon ages in Miocene volcanics of S Mountains suggest SE Java is fragment of Gondwana that collided with Sundaland at end-Cretaceous. Seismic tomography study does not show extent of microcontinent, and paleomagnetic studies indicate paleolatitude in Eocene age is at 16°S of current position. Collision occurred in Late Oligocene- M Miocene, accommodated by double subduction and transform fault which later became Progo-Muria Fault and trapped oceanic crust under Kendeng basin)

Husein, S., M. Sakur & A. Setianto (2016)- Sebaran perlipatan en echelon pada antiklinorium Rembang. In: R. Hidayat et al. (eds.) Proc. Seminar Nasional Kebumian 9, Dept. Teknik Geologi, Gadjah Mada University, Yogyakarta, p. 70-82.
(online at: https://repository.ugm.ac.id/273465/)
('Distribution of en echelon folding on the Rembang anticlinorium'. N Rembang anticlinorium of NE Java composed of E-W trending inverted folds arranged in ENE-WSW en echelon pattern, indicating reactivation of ENE-WSW trending basement fault. Two tectonic phases: (1) N-S compression (Pliocene), causing en-echelon folds and NE-SW sinistral shear; (2) NW-SE directed extension, causing formation of normal faults)

Husein, S. & R. Sari (2011)- Sedimentasi terpicu gaya-berat di bagian bawah Formasi Kebo, Mojosari, Bayat, Jawa Tengah: sebuah hasil sementara. Proc. Seminar Nasional Kebumian 4, Dept. Teknik Geologi, Gadjah Mada University, Yogyakarta 2011, p. 119-140. *(online at: https://www.researchgate.net/profile/Salahuddin-Husein/publication/282679720_Sedimentasi_Terpicu_Gaya-Berat_di_Bagian_Bawah_Formasi_Kebo_Mojosari_Bayat_Jawa_Tengah Etc.)*
('Gravity-driven sedimentation processes at the Lower Kebo Formation, Mojosari, Bayat, C Java: a preliminary result'. Mid-Oligocene bathyal turbiditic volcanoclastic deposits near base of Baturagang scarp (onset of 'Old Andesite' volcanic arc of S Java- JTvG)

Hutabarat, J. (1999)- Potassic and ultra-potassic rocks petrology of Gunung Ringgit, Situbondo-Bondowoso, East Java. In: I. Busono & H. Alam (eds.) Developments in Indonesian tectonics and structural geology, Proc. 28th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 1, p. 103-112.
(online at: https://www.iagi.or.id/web/digital/63/10.pdf)
(Leucite-bearing high-K volcanic rocks of Ringgit volcano of E Java grouped into potassic and ultra-potassic rocks)

Hutabarat, J. (2011)- Karakteristik geokimia dan petrologi batuan volkanik Jatibarang di Jawa Barat Utara serta implikasinya terhadap sistem volkanisme Paleogen. Doct. Thesis Institut Teknologi Bandung (ITB), p. 1-184.
('Geochemical and petrological characteristics of Jatibarang volcanic rocks in NW Java and its implications for the Paleogene volcanic system'. Jatibarang Fm composed of basalt, andesite and tuff, formed in NE-SW tranding continental arc subduction system. Pb isotopes suggest magma source with mixed oceanic and sediments components. K-Ar ages show two volcanic stages: (1) ~57.8- 50.3 Ma (Late Paleocene), dominated by tuffs; (2) 47- 39.2 Ma (M Eocene), lava-dominated in terrestrial environment. Calc-alkaline, potassic calc-alkaline to shoshonitic affinity)

Hutabarat, J. (2016)- Geokimia batuan volkanik Formasi Cikotok di segmen utara kubah Bayah, Banten. Bull. Scientific Contribution (UNPAD) 14, 2, p. 195-204.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/10963/pdf)
('Geochemistry of the Cikotok Formation volcanic rocks in the northern segment of the Bayah dome, Banten'. Cikotok Fm volcanics of Bayah Dome, SW Java, part of mid-Tertiary 'Old Andesites'. Geochemistry of andesite and basalt lavas suggests formation in island arc setting: SiO2 48-58%, Al2O3 12.5-17.2%, TiO2 0.5- 0.81%)

Hutabarat, J. & Ismawan (2015)- Tinjauan keterdapatan batuan ultramafik dalam komplek ofiolit Ciletuh di daerah Ciletuh, Jawa Barat. Bull. Scientific Contribution (UNPAD) 13, 3, p. 213-220.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8408/3915)

('Review of ultramafic rocks in the Ciletuh ophiolite complex in the Ciletuh area, West Java'. Ultramafic rocks in outcrops of Ciletuh area are scattered NE-SW trending 'pockets' in Ciletuh Fm. Associated with gabbro and pillow basalts. Interpreted as relics of oceanic crust, dismembered during emplacement on microcontinent)

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(See also Harjono et al. 1991)

Hutubessy, S. (2007)- Konfigurasi batuan alas cekungan hidrokarbon berdasarkan gaya berat dan magnet di daerah Randablatung, Cepu, dan sekitarnya Jawa Tengah dan Jawa Timur. In: Geologi Indonesia: dinamika dan produknya, Geological Research Development Centre (GRDC), Bandung, Special Publ. 33, 2, p. 27-61.
(On basement configuration of E Java basin in Randublatung, Cepu, and surrounding areas, based on gravity, magnetics. Series of interpreted N-S and E-W profiles)

Hutubessy, S. (2008)- Pola cekungan dan struktur bawah permukaan detinjau dari hasil analisa gaya berat dan magnet di daerah Banjarnegara, Jawa Tengah bagian selatan. Jurnal Sumber Daya Geologi (JSDG) 18, 4, p. 265-278.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/248/228)
('Basin patterns and subsurface structure from gravity-magnetic data in the Banjarnegara area, south C Java'. Gravity-magnetic dta shows igneous diorite intrusions, basinal areas of different orientations, strike slip and thrust faults)

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('Update of gravity anomaly data of the Madiun Quadrangle, East Java')

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(online at: https://www.iagi.or.id/web/digital/54/34.pdf)
('Relation between tectonics and hydrocarbon migration in the NW Java basin')

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Iddings, J.P. & E.W. Morley (1915)- Contributions to the petrography of Java and Celebes. Journal of Geology 23, p. 231-245.
(Brief petrographic and geochemical analyses of lavas and crystalline rocks of Bulu Saraung (Maros Peak), SW Sulawesi, and Pleistocene Muria volcano NE Java)

Idrus, A., C.D. Dana, L.D. Setijadji, Sutarto, Ernowo, G.A. Sakellaris & T. van Leeuwen (2023)- Nature of magma and ore-forming conditions at the Randu Kuning porphyry Cu-Au deposit, Indonesia: a comparative study with other Cu-Au deposits in the region. International Geology Review 66, 13, p. 2365-2383.
(online at: https://drive.google.com/file/d/1xWQjuHteGzRqavUrBFDgOcCZtHZ3Z-Ai/view)
(Recently discovered Randu-Kuning porphyry Cu-Au deposit in Selogiri area of Southern Mountains of E Java, in area dominated by Eocene-Miocene volcanic and intrusives known as 'Old Andesite Formation, overlain conformably by Miocene carbonate. Randu Kuning deposit significantly older(U-Pb zircon ages ~13 Ma; M Miocene) than other E Sunda porphyries to E, Three sequential dioritic intrusions make up igneous complex (two barren and third mineralized). Cu-Au mineralization primarily in extensional veins controlled by left-lateral NNE-SSW faults and regional right-lateral NW-SE strike-slip faults Etc,))

Idrus, A. & E. Handayani (2017)- Geology and characteristics of low sulphidation epithermal vein in Senepo area, East Java. Indonesian Mining J. 20, 2, p. 93-103.
(online at: http://jurnal.tekmira.esdm.go.id/index.php/imj/article/view/274/266)

(Senepo epithermal mineralization prospect in Southern Mts of C Java. Low sulphidation epithermal quartz vein, hosted by Oligo-Miocene andesite. Veins N-S-trending, 1-2m thick, with low Au, Ag, chalcopyrite, sphalerite, galena, hematite, covellite and malachite, etc. Probably originated at 300-425m paleodepth)

Idrus, A., G. Kaneko, R. Takahashi, F. A. Aldan, T. Rahmalia & H. Sato (2024)- Geological characteristics and ore-forming conditions of the Tasikmadu porphyry Cu-Au prospect in Trenggalek, East Java, Indonesia. Geological Journal 59, 11, p. 2990-3016.
(Tasikmadu new porphyry Cu-Au prospect in E Java. Area with three calc-alkaline diorite porphyry intrusions, with high Sr/Y values. Part of Oligo-Miocene Southern Mountains Arc with intrusive complexes of Oligocene-Pliocene age. Ore mineralization in quartz veins and veinlet stockwork, dominated by chalcopyrite and bornite. Potassic-altered rocks with secondary biotite without/rare secondary K-feldspar reflect lack of magma contamination by continental crustal components. Potential of deeper Cu-Au mineralization underneath)

Idrus, A., I.A. Sinugroho & I.W. Warmada (2024)- The Gunung Gupit high- and low-sulfidation epithermal gold mineralization in Menoreh, Central Java, Indonesia. In: F. Lucci et al. (eds.), Selected studies in geomorphology, sedimentology, and geochemistry. In: F. Lucci et al. (eds.) Selected studies in geomorphology, sedimentology, and geochemistry, Proc. 3rd Conf. Arabian J. Geosciences (CAJG 2020), Springer Advances in Science Technology & Innovation, p. 49-53.
(Neogene Gunung Gupit volcano in Menoreh Range in C Java, with hornblende basaltic andesite, hornblende dacitic andesite porphyry and microdiorite are exposed in half-circular depression. Hydrothermal alteration and high-sulfidation epithermal-type ore mineralization)

Idrus, A., I.W. Warmada, L.D. Setijadji, Widiasmoro & A.D. Titisari (2009)- Potensi sumberdaya mineral bijih hidrotermal di Pegunungan Selatan. Proc. Workshop Geologi Pegununungan Selatan, Yogyakarta 2007, Pusat Survei Geologi, Bandung, Special Publ. 38, p. 135-143.
('Potential of hydrothermal ore mineral resources in the Southern Mountains'. Brief review of potential of epithermal gold deposits, polymetallic (Zn-Pb-Cu-Au) deposits, porphyry copper-gold and skarn deposits in S Mountains of C Java)

Idrus, A., I.W. Warmada, I. Setiawan, B. Raditya & M.Kurnia (2008)- Studi mineralisasi dan mikrotermometri pada endapan logan dasar Pb-Zn daerah Tirtomoyo, Kabupaten Wonogiri, Propinsi Jawa Tengah. Proc. 37th Annual Conv. Indonesian Association Geologists (IAGI),Bandung, p. 428-438. *(online at: https://www.iagi.or.id/web/digital/14/2008_IAGI_Bandung_Studi-Mineralisasi-dan-Mikrotermometri.pdf)*
('Mineralization and microthermometry studies on Pb-Zn base metal deposits in the Tirtomoyo area, Wonogiri Regency, Central Java Province'. Galena-sphalerite veins mineralization from dacite intrusion in volcanic breccia and andesite lava in latest Oligoecne- E Miocene Nglanggrang or Semilir Formations)

Ikhram, R., A. Hardiyono, I. Syafri & M.F. Rosana (2018)- Petrological study of metamorphic rocks in melange complex of Ciletuh area, West Java, Indonesia. Int. J. Earth Science and Engineering (IJEE, India) 11, 2, p. 146-152.
(Melange Complex of Ciletuh with exposed Cretaceous ophiolites and metamorphic rocks. Metamorphic rock outcrops found in several places, consisting of amphibolite, greenschist, phyllite and quartzite.Metamorphic rocks formed by regional metamorphism, in the form of subduction process and orogenic event)

Ikhram, R., T. Hoshide, T. Ohba, M.F. Rosana & A. Hardiyono (2025)- Origin and evolution of serpentinized peridotite from the Ciletuh Melange in Sunda Arc, Indonesia: Evidence from petrography, mineralogy, and geochemistry. L. Asian Earth Sciences: X, 13, 100188, p. 1-27.
(online at: https://www.sciencedirect.com/journal/journal-of-asian-earth-sciences-x/vol/13/suppl/C)
(Eocene Ciletuh' melange' in SW Java features widespread serpentinized peridotite. Variations in geochemical signatures, along with evidence of melt influence, suggest formation in supra-subduction zone)

Ikhram, R., I. Syafri & M.F. Rosana (2019)- Petrological characteristic and whole rock geochemistry of metamorphic rocks in melange complex of Ciletuh area, West Java, Indonesia. Int. J. Advanced Science Engineering Information Technology (IJASEIT) 9, 6, p. 1798-1806.

(online at: http://insightsociety.org/ojaseit/index.php/ijaseit/article/view/8735/pdf_1239)
(Metamorphic rocks in Ciletuh area, SW Java, schistose amphibolite, greenschists, phyllite and quartzite. Protoliths metasediments (pelitic, psammitic, calc-silicate sediment) and meta-igneous rocks (gabbro, basalt). Provenance of metasediments from volcanic arc environment. Metabasalts formed in Island Arc tectonic environment)

Ikhram, R., I. Syafri & M.F. Rosana (2023)- Petrology, geochemistry and K-Ar dating of metamorphic rock in Ciletuh Melange Complex, West Java Indonesia. RISET Geologi dan Pertambangan (LIPI) 33, 1, p. 1-15.
(online at: https://jrisetgeotam.lipi.go.id/index.php/jrisgeotam/article/view/1054/pdf_1)
(Ciletuh Melange Complex in W Java provides evidence of Eocene subduction. Samples collected exhibit variety of metamorphic facies (zeolites, greenschist, epidote amphibolite). Protoliths metasedimentary rocks, originated from volcanic arc; metabasalt originated from island arc setting. K-Ar dating indicates age range of 55.2- 38 Ma (Eocene). Metamorphic rocks formed through island arc subduction and formation of accretionary prisms. Retrograde metamorphism signifies uplift or accretion processes after tectonic activity)

Ilmi, N.N., R. Fakhruddin, A.A. Budiman, B.G. Adhiperdana, N. Suzuki & E. Sunardi (2024)- Organic geochemical characterization of the seeped oils and Paleogene source rocks in the Southwest Java Basin (SWJ), Indonesia; tectonostratigraphic consideration on oil to source rock correlation. Marine and Petroleum Geology 165, 106862, p.
(Review of oil seeps across onshore West Java (not including SW Java): Maja, Kromong and Ciseti near Cirebon, Cipari in Banyumas, Bojongmangu S of Rangkasbitung, etc.). All correlated with Paleogene source rocks. Three oil families, different from offshore NW Java Basin.)

Ilmi, N.N. & A. Ramadian (2018)- Karakteristik geokimia batuan induk Formasi Walat, Kabupaten Sukabumi, Provinsi Jawa Barat. Buletin Sumber Daya Geologi 13, 1, p. 31-43. *(online at: http://buletinsdg.geologi.esdm.go.id/index.php/bsdg/article/view/BSDG_VOL_13_NO_1_2018_3/pdf)*
('Geochemical characteristics of source rocks of the Walat Formation, Sukabumi Regency, West Java'. On hydrocarbon source potential of Late Eocene- E Oligocene Walat Fm, S of Bogor. Formation currently in mature stage (Tmax 439-458 °C), with fair-very good organic matter richness (TOC up to 3.7%) and mainly Type III gas-prone kerogen)

Imai, A., J. Shinomiya, M.T. Soe, L.D. Setijadji, K. Watanabe & I.W. Warmada (2007)- Porphyry-type mineralization at Selogiri area, Wonogiri Regency, Central Java, Indonesia. Resource Geology 57, 2, p. 230-240.
(online at: https://onlinelibrary.wiley.com/doi/pdf/10.1111/j.1751-3928.2007.00019.x)
(Selogiri area in Wonogiri regency one of several gold prospecting areas in Southern Mountains Range in South Java. Dioritic-andesitic rocks intruded into Eocene Wungkal Fm, with K/Ar ages of 21.7 Ma and 11.9 Ma, with probable porphyry type mineralization. Small-scale mining of N-S-trending quartz veins for gold associated with base metal sulfides)

Indah, M.S., M. Natsir, F. Suwidiyanto, B. Parikesit & D. Kadar (2017)- Reconstruction chronostratigraphy for carbonate reservoirs surrounding wrench fault zone of RMKS, Sakala sub-basin, East Java Basin, Indonesia. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, p. 1-5.
(online at: https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_Reconstruction-Chronostratigraphy-For-Carbonate-Reservoirs.pdf)
(Pertamina summary of biostratigraphic correlation project around Rembang-Madura- Kangean- Sakala wrench fault zone. Not much detail)

Indah, M.S., M. Natsir, F. Suwidiyanto, B. Parikesit & D. Kadar (2018)- Reconstruction last appearance fossil for carbonate reservoirs surrounding wrench fault zone of RMKS, Sakala Sub Basin East Java Basin, Indonesia. Proc. 5th Int. Conference Geological and Environmental Sustainability, Bali 2018, Journal of Geology & Geophysics, 1 p. *(Abstract Only)*
(online at: https://www.longdom.org/conference-abstracts-files/2381-8719-C1-018-002.pdf)
(Summary of Pertamina correlation project across NW and NE Java/ Java Sea, similar to Indah et al. (2017). (title of paper somewhat misleading; not one fossil name mentioned. Figures reduced beyond recognition-JTvG))

Indarto, S. (1985)- Lingkungan pengendapan anggota Tajum Formasi Halang di daerah Gumelar, Banyumas, Jawa Tengah. J. RISET Geologi dan Pertambangan (LIPI) 6, 1, p. 7-19.
(Depositional environment of the Tajum member of the Halang Formation in the Gumelar area, Banyumas, Central Java'. Latest Miocene- E Pliocene turbiditic volcanic greywacke series)

Indranadi, V.B. (2012)- Petrography of Sambipitu Sandstone, Southern Mountains: implications for tectonic setting and paleogeography. Proc. 41st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2012-GD-30, p. 13-19.
(https://www.iagi.or.id/web/digital/9/2012_IAGI_Yogyakarta_Petrography-of-Sambipitu-Sandstone.pdf)
(Late Early- early M Miocene Sambipitu Fm volcaniclastic sandstone exposed in Gedangsari area, Gunungkidul, SE of Yogyakarta. Mainly feldspathic litharenites with up to 85% rock fragments (all volcanics), 13-62% feldspars and <6.5% quartz grains (monocrystalline). Matrix 4-28%, composed of silica, carbonate and minor iron oxides. Sourced from 'undissected magmatic arc '(Old Andesite Fm). One thin section also shows planktonic foram and Lepidocyclina)

Indranadi, V.B., C. Prasetyadi & B. Toha (2010)- Pemodelan geologi sub-cekungan Yogyakarta. Proc. 39th Annual Conv. Indonesian Association Geologists (IAGI), Lombok, PIT-IAGI-2010-047, p. 1-12.
(online at: https://www.iagi.or.id/web/digital/12/2010_IAGI_Lombok_Pemodelan-Geologi-Sub-Cekungan.pdf)
('Geological model of the Yogyakarta sub-basin'. Modeled as NE-SW trending pull-apart basin)

Indranadi, V.B., C. Prasetyadi & B. Toha (2011)- Yogyakarta pull-apart basin. Proc. 36th HAGI and 40th IAGI Annual Conv., Makassar, JCM2011-081, p. 1-19.
(online at: https://www.iagi.or.id/web/digital/10/2011_IAGI_Makassar_Yogyakarta-Pull-Apart-Basin.pdf)
(Yogyakarta depression is releasing bend of pull-apart basin, formed as response of sinistral transtensional strike-slip movement along NE-SW Opak-Muria Fault. Fault activity started and controlled basin configuration and facies in M Miocene- Pliocene. S Mountains Zone regional uplift as response of compressional tectonic regime since M Miocene. Peak of this event is in Pliocene (~5 Ma). Yogyakarta earthquake in 2006 shows Opak-Muria Fault still active to present-day)

Indriyanto, I.B., B. Nurdiyanto, F. Syaifuddin & I.K.A.A. Permana (2022)- Exploration re-treat: new opportunity to unlock the hidden Oligo-Miocene carbonates reefal-buildup play, An integration of seismic and gravity data-a case study from East Tuban Area. Proc. 47th Annual Scientific Meeting Himpunan Ahli Geofisika Indonesia (HAGI), Malang, p. 1-9.
(online at: https://library.hagi.or.id/wp-content/uploads/2024/01/41.pdf)
(On feasibility of deep Oligo-Miocene carbonate play in E Tuban area in easternmost NE Java basin)

Indriyanto, I.B., P.T. Setyobudi, I. Prayitno, R. Sari, R. Fikri & K. Andika A.P (2022)- High resolution biostratigraphy approach: an implication to the understanding of Oligo-Miocene depositional environtment & exploration opportunity in Northern Mudi Area, North East Java Basin. Proc. 51st Annual Conv. Indonesian Association Geologists (IAGI), Makassar, 87, p. 1-13.
(online at: https://www.iagi.or.id/web/digital/71/PITIAGI-22-P-Abs-036.pdf)
(Mudi Field in onshore NE Java Basin (50 MMBOE oil produced), with main proven reservoir in E Oligocene-E Miocene carbonate reefal buildu). Summary of biostratigraphy (foram-nanno plankton) analysis results of new and old wells and nearby outcrops. Age of top of carbonate in Mudi field is 18 Ma (E Miocene))

Inguaggiato, S., A. Mazzini, F. Vita & A. Sciarra (2018)- The Arjuno-Welirang volcanic complex and the connected Lusi system: geochemical evidences. Marine and Petroleum Geology 90, p. 67-76.
(Geochemical data indicate that plumbing system of the Lusi mud eruption site is connected at depth with the Arjuno-Welirang volcanic complex (research from the Italian-Norwegian team that insists on not recognizing the seemingly more plausible link between the Lusi mud eruption and 2006 Lapindo oil well drilling; JTvG)

Irkamni, A. Hendratno & U. Hartono (2007)- Petrologi batuan gunung api Kecamatan Tugu dan sekitarnya, Kabupaten Trenggalek, Jawa Timur. In: Geologi Indonesia: dinamika dan produknya, Geological Research Development Centre (GRDC), Bandung, Special Publ. 33, 2, p. 207-218.
('Petrology of volcanic rocks of the Tugu District and surrounding areas, Trenggalek Regency, East Java'. Oligocene- E-Miocene Mandalika Fm basalts, andesites and dacites from Tugu district in Southern Mountains are subduction related magmas)

Irwansyah (2011)- Aplikasi metoda kuantitatif unitary associations terhadap kelimpahan foraminifera besar pada sumuran di cekungan Java Timur Utara untuk optimalisasi korelasi biostratigrafi. Proc. 43rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 1-12.
(https://www.academia.edu/9870222/APLIKASI_METODA_BIOSTRATIGRAFI_KUANTITATIF_UNITARY_ASSOCIATIONS_TERHADAP_KELIMPAHAN_FORAMINIFERA_BESAR_PADA_SUMURAN_DI_CEKUNGAN_JAWA_TIMUR_UTARA_UNTUK_OPTIMALISASI_KORELASI_BIOSTRATIGRAFI)
('Application of the quantitative biostratigraphic method of unitary associations to the abundances of larger foraminifera in wells in the NE Java Basin for the optimalisation of biostratigraphic correlations'. On Oligocene-Miocene larger foram assemblages in two unnamed East Java Sea wells. Not much detail)

Irwansyah, Khoiril Anwar M & N.I. Basuki (2011)- Karakterisasi batuan karbonat Formasi Rajamandala berdasarkan foraminifera besar di daerah Padalarang, Jawa Barat. Proc. Joint. 36th HAGI and 40th IAGI Annual Conv., Makassar, JCM2011-103, p. 1-24.
(online at: https://www.iagi.or.id/web/digital/10/2011_IAGI_Makassar_Karakterisasi-Batuan-Karbonat.pdf)
('Characterization of Rajamandala Fm carbonate rocks based on larger foraminifera in the Padalarang area, West Java'. Cluster analysis shows larger foram biofacies: (1) open sea shelf: planktonic foraminifera; (2) deep shelf margin: planktonic foraminifera, Cycloclypeus, Operculina, Heterostegina, Amphistegina, Spiroclypeus; (3) foreslope: Lepidocyclina, Miogypsinoides, Pararotalia and Spiroclypeus; (4) organic buildup: coral; (5) open platform: Quinqueloculinids and Austrotrillina, Pararotalia, coral and algae; (6) restricted platform/ lagoon: Quinqueloculinids, Austrotrillina, Borelis)

Irzon, R. (2018)- Comagmatic andesite and dacite in Mount Ijo, Kulonprogo: a geochemistry perspective. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 19, 4, p. 221-231.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/185/366)
(Mount Ijo in S part of Menoreh Mountains, Kulonprogo, SW of Yogyakarta. With both andesite and dacite, probably co-magmatic ('Old Andesites?). Geochemistry shows calc-alkaline volcanic arc setting)

Ishlah, T., M.R. Parningotan, R.S. Nugraha, T. Handayani, H. Zahra & Ernowo (2024)- Mineralogy and provenance of Titanium-Vanadium bearing iron sand deposits from Purworejo-Kebumen, and Cilacap, Central Java. J. Mathematical Fundamental Sciences (JMFS), ITB, 56, 1, p. 48-57.
(online at: https://journals.itb.ac.id/index.php/jmfs/article/view/23462/6782)
(Iron sand deposits on Java S coast at Purworejo-Kebumen and Cilacap. Mineral assemblage mainly pyroxene-amphibole, also heavy minerals (hematite, ilmenite, magnetite), quartz, plagioclase, and lithic fragments. Mafic igneous provenance in arc setting.Potential for extraction of iron, titanium and vanadium

Isjudarto, A., T. Darijanto & B. Sulistyo (1999)- Mineralization characteristics along Cikidang-Cirotan-Cikotok traverse, Bayah, West Java. Proc. 28th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 2, p. 173-180.
(online at: https://www.iagi.or.id/web/digital/65/12.pdf)
(In Indonesian. Epithermal low sulphide mineralization in SW Java, with wide range of mineralization from Low Base Metal (Cikidang) to High Base Metal (Cirotan))

Islamadina, B. & I.W. Warmada (2022)- Mineralogy and geochemistry of Kliripan manganese ore deposit, Hargorejo Village, Kokap District, Kulonprogo Regency. Proc. 13th AUN/SEED-Net Regional Conference Geological and Geo-Resource Engineering (RCGEOE), Yogyakarta 2021, IOP Conference Series: Earth and Environmental Science 1071, 012026, p. 1-14.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1071/1/012026)

(Manganese deposits in Kliripan area, Kulunprogo, C Java, mined since Dutch era and abandoned in 1970s. Manganese mineralization in jasper and Miocene Sentolo Fm limestone, overlying 'Old Andesites'. Manganese minerals pyrolusite, manganite, rhodochrosite and lithiophorite. Manganese deposits formed by diagenetic process in reducing water. Rhodochrosite formed where dilute manganese solution reacted with CO_2 from limestone. Kliripan manganese ores both hydrothermal and diagenetic origin)

Ismayanto, A.F., J.V. Rowland & J.D. Eccless (2016)- Structural characteristics of geothermal fields in West Java, Indonesia; insight from regional dataset analysis. Proc. 38th New Zealand Geothermal Workshop, Auckland, p. 1-6.

Ismiyati (2021)- Studi petrografi batupasir Formasi Walat daerah Cibadak, Sukabumi: implikasinya terhadap tipe provenan. INTAN Jurnal Penelitian Tambang 4, 1, p 54-58.
(online at: https://jurnal-intan.ac.id/index.php/intan/article/view/82/66)
('Petrographic study of Walat Fm sandstone in Cibadak area, Sukabumi: implications for provenance type'. Petrography of Walat sandstones, S of Gunung Walat, W Java (here viewed as Early Oligocene age), mostly lithic arenite and lithic-graywacke. QFL compositions suggest all sandstones come from 'recycled orogenic' provenance, with quartz 78-98%, feldspar 0 -1% and lithics 2.3 -21%).

Isnaniawardhani, V. (1997)- Biostratigrafi nannoplankton Formasi Batuasih serta korelasinya dengan biostratigrafi foraminifera plankton. Proc. 26th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 326-341.
(online at: https://www.iagi.or.id/web/digital/64/26.pdf)
(Nannoplankton biostratigraphy of the Batuasih Formation and correlation with planktonic foraminifera biostratigraphy'. Biostratigraphy of Batuasih Fm marls, underlying Rajamandala Limestone, near Cibadak in W Java, suggests Late Oligocene (Globorotalia opima and Sphenolithus distentus- S. ciperoensis zone) to earliest Miocene age (Catapsydrax dissimilis and D. druggi- Triq. carinatus zone)

Isnaniawardhani, V., B.G. Adhiperdana & Nurdrajat (2012)- Late Miocene planktic foraminifera biostratigraphy of Central Bogor Through, Indonesia. UNPAD, Bandung, p. 1-14. *(online at: https://pustaka.unpad.ac.id/wp-content/uploads/2013/05/pustaka_unpad_late_miocene_plankticpdf.pdf)*
(Late Miocene planktonic foraminifera (zones N15-N18) from Cinambo and Halang Fms in three river sections in C Bogor Trough, E of Bandung, W Java)

Isnaniawardhani, V., B.G. Adhiperdana, A. Sudradjat & N. Sulaksana (2018)- The dynamics of the developing Calcarenite Member of Pamutuan Formation in Cintaratu Area, Pangandaran, West Java. Int. J. Advanced Science Engineering Information Technology (IJASEIT) 8, 2, p. 453-462.
(online at: http://insightsociety.org/ojaseit/index.php/ijaseit/article/view/4656)
(Calcarenite Mb of Pamutuan Fm (overlying Old Andesites volcanics) in SE part of Java Southern Mountains represent early M Miocene reef complex (N9 with Orbulina, Gr. peripheroronda, Katacycloclypeus annulatus). Overlain by mid-M Miocene planktonic foram packstone (N10, with Gr. fohsi) marking regional transgression phase in SE Asia. Late M Miocene regressive calcarenites with Tf2 larger forams in shallower environment)

Isnaniawardhani, V., F. Helmi & F. Muhammadsyah (2015)- Stratigraphy and structural geology of Ciuyah mud volcanoes in Ciniru Area, West Java. Int. J. Science and Research (IJSR) 4, 4, p. 3223-3226.
(online at: https://pdfs.semanticscholar.org/9c6c/5888a8dcac3c3a32ae179fa89199a3842337.pdf)

Isnaniawardhani, V., F. Muhamadsyah & A. Sudrajat (2018)- Foraminifera assemblages as a marker of mud eruption source in Ciuyah, Ciniru- Kuningan, West Java. J. RISET Geologi dan Pertambangan (LIPI) 28, 2, p. 239-249.
(online at: https://jrisetgeotam.com/index.php/jrisgeotam/article/view/509/pdf)
(Mud eruption in Ciuyah area, surrounded by M-L Miocene deep marine deposits of Pemali and Halang Fms. Foraminifera from mud eruption samples with mixed Middle and Late Miocene faunas from these formations))

Isnaniawardhani, V. & Nurdrajat (2015)- Miocene planktonic foraminiferal biodatum of the Jatiluhur sections in Northwest Java Basin. In: ICG 2015, 2nd Int. Conference and 1st Joint Conference Faculty of Geology Universitas Padjaran and University of Malaysia Sabah, p. 111-115.
(online at: http://seminar.ftgeologi.unpad.ac.id/wp-content/uploads/2016/02/Miocene-Planktonic-Foraminiferal-Biodatum-of-the-Jatiluhur-Sections.pdf)
(Five planktonic foraminiferal biodatums identified in sections at Ciherang, Cikeo, Cigajah, etc. rivers and Jatiluhur reservoir: Orbulina suturalis (E-M Miocene boundary; N9); Top Globigerinoides subquadratus (M Miocene; near top N13); Base Globorotalia acostaensis (near base Late Miocene; N16); Base Globorotalia plesiotumida (Late Miocene; N17); and B Globorotalia margaritae (Miocene-Pliocene boundary; N18))

Isnaniawardhani, V., R. Rinawan & B. Prianggoro (2012)- The fossil assemblage features of limestones and clastic sedimentary rock in Lulut area, Cileungsi District, Bogor, West Java. Bull. Scientific Contribution (UNPAD) 10, 2, p. 96-107.
(online at: https://jurnal.unpad.ac.id/bsc/article/view/8281/3828)
(In Lulut area N of Bogor, W Java, M Miocene shallow marine Jatiluhur Fm clastics interfingers with Klapanunggal Fm limestone, rich in corals and algae. Planktonic foraminifera of Jatiluhur Fm zones N9-N14. Little detail: no sample localities, distribution charts, etc.)

Isnaniawardhani, V., M. Rivaldy, Ismawan, R.I. Sophian & A.S. Andyastiya (2020)- The Miocene (25.2- 5.6 million years ago) climate changes recorded by foraminifera and nannofossils assemblages in Bogor Basin, Western Java. Proc. 2nd Int. Conf. Interdisciplinary research on green environmental approach for sustainable development, Java 2020, IOP Conference Series: Earth and Environmental Science 575, 012222, p. 1-11.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/575/1/012222/pdf)
(Paleoclimate trends observed in Miocene of Bogor basin, from foraminifera and nannofossils. Warm zones characterized by high abundance and diversity of tropical foraminifera and nannofossil marker species, mainly dextral coiling directions and larger size of planktonic foraminifera. Warmest climate in Middle Miocene (16-13.8 Ma. Multiple cooling events in Late Miocene).)

Isnaniawardhani, V. & E. Sunardi (2014)- Middle Miocene to Early Pliocene nannofossil biostratigraphy on Jatiluhur area, Bogor Through, Indonesia. Proc. Seminar Nasional Fakultas Teknik Geologi, Geologi untuk meningkatkan kesejahteraan masyarakat, UNPAD, Bandung, p. 298-308.
(online at: http://seminar.ftgeologi.unpad.ac.id/wp-content/uploads/2015/03/Middle-Miocene-to-Early-Pliocene-Nannofossil-Biostratigraphy.pdf)
(Upper Cibulakan, Parigi and Cisubuh Fms exposed near Jatiluhur reservoir dated as M Miocene-E Pliocene (NN5/CN4- NN13-CN10)

Isnawan, D. & I.W. Sumarinda (1996)- Pengaruh proses diagenesis terhadap perkembanganan porositas batupasir; studi kasus batupasir Formasi Wungkal, Bayat, Jateng. Proc. 25th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 160-168.
('The effect of diagenetic processes on development of sandstone porosity, a study of the Wungkal Formation sandstone, C Java'. On Eocene sandstone porosity)

Istadi, B.P., A. Kadar & N. Sawolo (2008)- Analysis and recent study results on East Java mud volcano. In: Subsurface sediment remobilization and fluid flow in sedimentary basins Conference, London 2008, Geological Society, London, 1p. *(Abstract only)*
(Solids in LUSI mud eruption are marine U Kalibeng Fm blue-grey clay of Pleistocene age, based on mud samples and from Banjarpanji-1 well from between 4000'- 6000' (with Globorotalia truncatulinoides and nanno fossil index Gephyrocapsa). Source of fluids deeper. Underground blowout in Banjarpanji-1 not believed to be trigger for LUSI mudflow disaster (= a 'minority opinion'?; JTvG))

Istadi, B.P., G.H. Pramono, P. Sumintadireja & S. Alam (2009)- Modeling study of growth and potential geohazard for LUSI mud volcano, East Java, Indonesia. Marine and Petroleum Geology 26, 9, p. 1724-1739.
(online at: http://seismo.berkeley.edu/~manga/istadi2009.pdf)

(LUSI mud eruption prediction of future mudflow. Model predicts June 2010 peak of mud volcano at 26m above original ground level, and maximum subsidence 63m below original ground level)

Istadi, B.P., H.T. Wibowo, E. Sunardi, S. Hadi & N. Sawolo (2012)- Mud volcano and its evolution. In: I.A. Dar (ed.) Earth Sciences, InTech, Chapter 17, p. 375-434.
(online at: https://cdn.intechopen.com/pdfs/27601/InTech-Mud_volcano_and_its_evolution.pdf)
(Includes general discussion of mud volcanoes, evolution of 2006 Lusi mud eruption in E Java, etc.))

Isyqi & C. Ansori (2021)- Petrography and geochemistry preliminary study of Pucangan serpentinite geosite Karangsambung-Karangbolong Geopark Central Java, Indonesia. Proc. Int. Conf. Geological Engineering and Geosciences, Yogyakarta 2021, IOP Conference Series: Earth and Environmental Science 851, 012027, p. 1-7.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/851/1/012027)
(Serpentinite in Pucangan Village, in Luk Ulo melange complex in C Java. Minerals 95% antigorite, 4% magnetite. Fractured. Formed due to metasomatic process during subduction in Pre-Tertiary)

Isyqi, C. Ansori, D. Hastria, F.A. Wardhani, M. Al'Afif, E. Hidayat & E. Puswanto (2019)- Petrologi dan geokimia batuan dasit Komplek melange Luk Ulo. J. RISET Geologi dan Pertambangan (LIPI) 29, 1, p. 27-41.
(online at: https://jrisetgeotam.lipi.go.id/index.php/jrisgeotam/article/view/968/pdf)
('Petrology and geochemistry of dacite rocks in the Luk Ulo melange complex'. Porphyritic dacite blocks in melange with high SiO2 (66-72%) and low K2O content, indicating tholeiitic magma affinity. K-Ar dating suggests age of 65 - 48 Ma. Luk Ulo dacite apparently formed in Late Cretaceous- E Eocene island arc)

Isyqi, N.I. Setiawan & F. Anggara (2024)- Preliminary study of the graphite phyllite rock from the Luk Ulo Melange Complex, Central Java, Indonesia. Proc. 2nd Int. Conf. Geological Engineering and Geosciences (ICGOES), Yogyakarta 2022, IOP Conference Series: Earth and Environmental Science 1378, 012029, p. 1-15.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1378/1/012029/pdf)
(Phyllite rocks with graphite minerals exposed in six locations, as blocks in Luk Ulo Cretaceous Melange Complex, C Java. Associated with basalt-chert, scaly clay, etc. Main minerals graphite, muscovite, quartz, and chlorite)

Jacobson, M.I. (1989)- Beta-quartz from Ciemas Kampung, Indonesia and other mineralogical finds. Mineral News 5, 11, p. 4-5.
(Geology and mineralogy of common 6-25mm diameter hexagonal dipyramidal quartz crystals in dacite from Ciemas Village, SE of Pelabuhan Ratu, Jampang Plateau, W Java)

Jamal, J., I. Sanjaya, D.H. Saputro & A. Suteja (2024)- Geological structures in the formation of the Kendal Plains: insights from remote sensing imagery. Jurnal Geologi Dan Sumberdaya Mineral, 25, 4, p. 217-223.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/827/567)
(E-W trending young thrust faults in Kendal northern coastal area of C Java, between Pekalongan and Semarang)

Jambak, M.A. (2016)- Microfacies and diagenetic history of Miocene carbonate rocks in the onshore region North West Java Basin, Doctoral Thesis, Universitas Padjadjaran, Bandung, p.

Jambak, M.A. (2014)- Analisis facies dan sejarah diagenesa batuan karbonat Formasi Rajamandala, Padalarang, Jawa Barat. Proc. Seminar Nasional Fakultas Teknik Geologi, Geologi untuk meningkatkan kesejahteraan masyarakat, UNPAD, Bandung, p. 3-16.
(online at: http://seminar.ftgeologi.unpad.ac.id/wp-content/uploads/2015/03/ANALISIS-FACIES-DAN-SEJARAH-DIAGENESA-BATUAN-KARBONAT-FORMASI.pdf)
('Facies analysis and diagenetic history of carbonate rock formations Rajamandala, Padalarang, West Java'. Reef, back-reef, fore-reef and open shelf facies in Latest Oligocene Rajamandala Lst. Early and late diagenesis resulted in relatively tight rock, suitable for exploitation as marble)

Jambak, M.A., S.D. Hafiz, R.R.S.A. Heriadi, M. Meirawaty, M. Burhannudinnur & Benyamin (2024)- Diagenesis and paragenesis in Miocene-aged carbonate reservoir rocks in the North West Java Basin. Int. J. Multidisciplinary Research and Publications (IJMRAP) 6, 9, p. 48-53.
(online at: https://ijmrap.com/wp-content/uploads/2024/02/IJMRAP-V6N9P38Y24.pdf)
(Diagenesis of Miocene Parigi Fm and Upper Cibulakan Fm carbonates in outcrop and subsurface of W Java)

Jambak, M.A., Ovinda & U.P. Nababan (2014)- Assosiasi fosil dan paleoekologi batuan karbonat Formasi Rajamandala, Padalarang, Jawa Barat. Bul. Ilmiah Mineral dan Energi (MINDAGI), Trisakti U., 8, 2, p. 1-12.
(online at: www.trijurnal.lemlit.trisakti.ac.id/index.php/mindagi/article/view/73/73)
('Fossils and paleoecological associations of carbonate rocks of the Rajamandala Formation, Padalarang, West Java')

Jambak, M.A., I. Syafri & V. Isnaniawardhani (2014)- Evaluasi stratigrafi batuan karbonat pada cekungan Jawa Barat Utara. Bul. Ilmiah Mineral dan Energi (MINDAGI), Trisakti U., 7, 1, p. 35-43.
('Evaluation of stratigraphy of carbonate rocks in the NW Java basin'. Review of carbonates of Early Miocene (Baturaja, U Cibulakan), M Miocene (Mid-Main), and Late Miocene (Parigi Fm) of W Java)

Jambak, M.A., I. Syafri, V. Isnaniawardhani, B. Benjamin & H. Rodriguez (2015)- Facies and diagenetic level of the Upper Cibulakan and Parigi Formation, in Randegan and Palimanan Area. Indonesian J. on Geoscience (IJOG) 2, 3, p. 157-166.
(online at: http://ijog.bgl.esdm.go.id/index.php/IJOG/article/view/202/199)
(Study of core and outcrop samples of M Miocene U Cibulakan and Parigi Fm limestones (with Miogypsina, Katacycloclypeus). U Cibulakan Fm deposited locally; Parigi Fm limestone deposited evenly and continuously. Local uplifts likely caused by intrusion of igneous rocks, like in Kromong Complex. Presence of residual hydrocarbon in surface limestone samples suggests potential of subsurface hydrocarbon traps)

Jatiningrum, R.S., R. Saputra, G. Phang & T. Sato (2022)- Sedimentation rates and calcareous nannofossil biostratigraphy of the Nanggulan Formation, Kulun Progo, Indonesia. Bulletin of the Marine Geology 37, 1, p. 21-38.
(online at: http://ejournal.mgi.esdm.go.id/index.php/bomg/article/view/766)
(Nanggulan Fm in E part of southern C Java Basin. Two outcrop sections divided into five zones upper Zone NP16- lower NP18, upper Zone NP22- lower NP23 (M Eocene -E Oligocene). Decrease of oligotrophic (Sphenolithus) and increase of eutrophic taxa (Reticulofenestra) around 41 Ma. Enhanced eutrophication coincides with increasing terrigenous input, providing nutrients to surface water (no mention of the classic associated larger foraminifera assemblages; JTvG)

Jatu, C. & Adventino (2020)- The Grobogan mud volcano complex: an identification to reveal the opportunity of hydrocarbon exploration. Proc. Digital Technical Conference 2020, Indonesian Petroleum Association (IPA), IPA20-SG-362, p. 1-8.
(Grogogan mud volcano complex in C Java eight mud volcanoes, with evidence of thermogenic gas and oil seepage. Source of mud marine Ngimbang and Tawun Fms (M Eocene- E Miocene))

Jauhari, U. & B. Toha (2005)- High resolution sequence stratigraphy and diagenesis in carbonate rocks, Wonosari Formation, Yogyakarta: an outcrop analog for modeling chalky limestone distribution. Proc. 30th Annual Conv. Indonesian Petroleum Association (IPA) 1, p. 297-315.
(M Miocene Wonosari Fm reefal carbonates in S Mountains show four periods of relative sea level fall, which exposed carbonate platform and resulted in alteration of hard limestone to porous and friable chalky limestone)

Jaya, I., B.N. Airlangga, Kosasih, Taufiqurahman & F. Chaerudin (2003)- Is the fluvial system in the Walat Formation (Eocene) of Southwest Java attributed to changes in accommodation? Proc. 32nd Annual Conv. IAGI and 28th Annual Conv. HAGI, Jakarta, p. 1-9.
(Eocene Walat Fm clastics near Sukabumi, W Java subdivided into upper anastomosed and lower sandy braided fluvial systems. No figures)

Jayanti, A.G.R., R.A. Permana Sari & U.P. Wibowo (2017)- The Tertiary mollusk dispersion on the southern part of Cirebon area. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, p. 1-3. *(online at: https://www.researchgate.net/profile/Unggul-Wibowo-2/publication/321026420_THE_TERTIARY_MOL etc.)*
(Calcareous sandstones and claystones of Pliocene Kalibiuk Fm in Cijurey area, S Cirebon area, W Java, with 80 species of shallow marine and transitional environment molluscs (Turritella, Natica, etc.). Shallowing-upward succession (previously described as 'Chirebonian Stage' by Oostingh 1933, 1938). Not much detail)

Jayanti, A.G.R., U.P. Wibowo, I.Y.P. Suhariyogi & R.A. Permana Sari (2021)- Distribution of freshwater mollusk fossils on Bumiayu paleontological site, Central Java. p. 1-3. Proc. Joint Convention HAGI-IAGI- IAFMI- IATMI (JCY 2019), Yogyakarta, p. 1-3.
(online at: https://www.researchgate.net/publication/351096258_Distribution_of_Freshwater_Mollusk_Fossils_on_Bumiayu_Paleontological_Site_Central_Java)
(Freshwater molluscs from Plio-Pleistocene Kaliglagah Fm in classic vertebrate-bearing site of Bumiayu. Twelve species, dominated by Thiaridae family. Most common species is Tarebia granifera Martin)

Jebrak, M., E. Marcoux & D. Fontaine (1996)- Hydrothermal silica-gold stalactites formed by colloidal deposition in the Cirotan epithermal gold deposit. The Canadian Mineralogist 34, 5, p. 931-938.
(online at: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.524.7749&rep=rep1&type=pdf)
(Hydrothermal stalactites with gold-rich sulfide bands in caves? in deepest level of Cirotan mine Plio-Pleistocene epithermal gold deposit. Fluids of meteoric origin, with possible local input of magmatic gas. Cirotan closed in 1994)

Jeffrey, B.M. & D. Lehrmann (2008)- Facies characterization and mechanism of termination of a Tertiary carbonate platform; Rajamandala Formation, West Java. Geological Society of America, North-Central Section, 42nd Annual Meeting, Abstracts with Programs, Geological Society of America (GSA), 40, 5, p. 76. *(Abstract only)*
(Oligocene Rajamandala Fm of SW Java exposed along N-verging thrust. Located N of Oligocene volcanic arc, facing deep-marine back-arc basin to N. Presence of sandstone layers at base and presence of quartz sand in reef and lagoon facies suggest it formed as shelf attached to southerly arc. Top Rajamandala changes to dark brown argillaceous foram packstone followed upward by siliciclastic turbidites of Citarum Fm)

Jene, M.O. & S. Sugiarto (2018)- Textural analysis of bioturbated sediment: an outcrop study of Sambipitu Formation as an analogue to understand biogenic influence on reservoir quality. Proc. 2nd Research Forum 2018 Indonesian Society of Petroleum Geologists (ISPG), Depok 2018, p. 1-16. *(online at: www.researchgate.net/publication/325225386_Textural_Analysis_Of_Bioturbated_Sediment_An_Outc Etc.)*
(Common bioturbation of ichnogenera Palaeophycus, Ophiomorpha and Chondrites in E Miocene Sambipiyu Fm volcanoclastic turnbidites reduce porosity of the host sediment)

Jenkins, H.M. (1864)- On some Tertiary Mollusca from Mount Sela, in the island of Java. Quarterly J. Geological Society, London, 20, p. 45-73.
(online at: https://www.biodiversitylibrary.org/ia/quarterlyjourna201864geolpage/7/mode/1up)
(Miocene gastropods from Gunung Sela, S of Ciremai volcano, Kunigan District, Cirebon. Probably the first paper on fossil molluscs from Java)

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(Nanggulan Fm in cores drilled W of Yogyakarta. ~60m of marine clays and claystones in Corehole NKK1 near-continuous Eocene-Oligocene section, through interval of global cooling. Late Eocene- Early Oligocene coccolithophore assemblages with 115 species with two new species, Coccolithus aspida and Reticulofenestra nanggulanensis. Depositional hiatus at ~38.5-36 Ma)

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(C Java Lok Ulo Cretaceous accretionary-collision complex with tectonic slabs of dismembered ophiolites, sedimentary rocks, schists and gneisses in black-shale matrix. High-P eclogite and blueschist in thin zone between low-grade schists and serpentinite zone. Eclogites subducted to ~70 km depth at geothermal gradient of ~6 C°/km. Different P-T paths explained by metamorphism in subduction channel. Low geothermal gradient probably due to high rate of subduction of cold oceanic plate)

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(Metamorphic rocks in C Java Luk-Ulo Early Cretaceous accretionary complex two types of protoliths, with different P-T evolution: (1) 'oceanic plate protolith' metabasites- metapelites, associated with serpentinite, chert, red limestone, some undergone high P metamorphism (blueschist, eclogite), and (2) 'continental crustal protolith' metapelites, calc-silicate rocks and metagranites (gneiss, quartzite, marble). Metamorphics not simply result of oceanic subduction metamorphism along Sundaland craton margin, but early involvement of continental crust during collisional event in Karangsambung area)

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(Gravity survey in onshore NW Java Basin, which is mostly covered by young volcanics. Gas fields of Jatirangon and Cicauh areas exist on flank of nose structure of Pangkalan-Bekasi High, while oil/gas field of N Cilamaya is on flank of nose structure of Cilamaya-Karawang High)

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(Pre-Eocene of Lokulo area, C Java, sedimentary rocks (clastics, red radiolarian chert, limestone), partly of E Cretaceous age (with Late Aptian-Albian Orbitolina (R.C. Douglass), overthrust by sheared, chaotic melange. Sediments possibly large blocks in melange. Melange with metamorphics (schist with K-Ar age 117 Ma, phyllite with Rb-Sr age 85 Ma, quartzite and marble) and quartz porphyry with fission-track age of 65 Ma, granite, basalt, gabbro, peridotite, pyroxenite, and serpentinite. Both formations unconformably overlain by Eocene conglomerates (with glaucophane schist). Pre-Eocene of Jiwo Hills mainly unfossiliferous metamorphics (schist, gneiss, amphibolite), also serpentinite and radiolarian chert and reworked Cretaceous Orbitolina limestone in Tertiary conglomerate. W Java Ciletuh area Letu River with hilltops of peridotite/ gabbro, etc.)

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(Rajamandala Fm limestone outcrops along Bandung- Jakarta road, ~600m thick, dips 40-60° to S, ENE-WSW strike, asymmetric folding-thrusting to N. Graded granular facies represent turbidite toe of slope, foraminiferal algal facies are fore-reef; coral-algal bafflestone- boundstones are reef ramparts (quarried as marble). Possible milliolid limestone facies with isolated patch reefs represents lagoonal back reef)

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(map online at: https://digitalcollections.universiteitleiden.nl/view/item/814111)
(Extensive explanatory notes of the Geological Map of Java 1:100,000, map sheet 14 (Bayah), SW Java. Oldest sediments of Eocene age (Bayah Beds) with Nummulites, Discocyclina, Assilina, Pellatispira, etc., in marine and coal-bearing facies. Eocene quartz-rich sands derived from granite-schist terrain, changing to andesitic-rich sands in E Oligocene. Both Eocene and Miocene coal deposits present, Commercial gold-silver deposirs at Cikotok and Cipicung. Etc.)

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Koomans, C.M. (1938)- A tourmaline-zoisite rock from Loh-Oelo, Java. Leidsche Geologische Mededelingen 10, p. 104-109.
(online at: www.repository.naturalis.nl/document/549446)
(Metamorphic rocks collected by Harloff from Luk Ulo area, C Java, with tourmaline, muscovite and zoisite (= medium-grade, derived from Ca-rich metasediment?; JTvG))

Kopp, H. (2002)- BSR occurrence along the Sunda margin: evidence from seismic data. Earth Planetary Science Letters 197, p. 225-235.
(Sunda margin BSR occurrences restricted to areas of upward migration conduits for methane-laden fluids)

Kopp, H. (2011)- The Java convergent margin: structure, seismogenesis and subduction processes. In: R. Hall, M.A. Cottam & M.E.J. Wilson (eds.) The SE Asian gateway: history and tectonics of the Australia-Asia collision, Geological Society, London, Special Publ. 355, p. 111-137. *(online at: https://earthjay.com/earthquakes/20171215_java/kopp_2011_java_structure_seismogenesis_subduction.pdf)*
(Java S margin characterized by distinct variation in lower to upper plate material transfer and recurring catastrophic tsunamogenic earthquakes, linked to subduction of oceanic basement relief and resulting in varying degrees of fore-arc deformation. Shallow subduction processes governed by sediment supply in trench and nature of oceanic lithosphere. Shallow upper plate crust-mantle transition along Java margin section. Off C Java, high relief oceanic basement features potentially act as asperities or barriers to seismic rupture)

Kopp, H. (2013)- The control of subduction zone structural complexity and geometry on margin segmentation and seismicity. Tectonophysics 589, p. 1-16.
(General paper on subduction zones and seismic activity, with examples from S Java- SW Sumatra forearc)

Kopp, H., E.R. Flueh, C.J. Petersen, W. Weinrebe, A. Wittwer & Meramex Scientists (2006)- The Java margin revisited: evidence for subduction erosion off Java. Earth Planetary Science Letters 242, p. 130-142.
(High-resolution bathymetry suggests tectonic erosion of frontal accretionary prism by underthrusting of oceanic basement relief such as seamounts and ridges)

Kopp, H., D. Hindle, D. Klaeschen, O. Oncken, C. Reichert & D. Scholl (2009)- Anatomy of the western Java plate interface from depth-migrated seismic images. Earth Planetary Science Letters 288, p. 399-407.
(W Java forearc segmentation into discrete mechanical domains. W Java margins subducting plate interface shows irregular morphological relief of subducted seamounts and thicker than average patches of underthrust sediment)

Kopp, H., D. Klaeschen, E.R. Flueh, J. Bialas & C. Reichert (2002)- Crustal structure of the Java margin from seismic wide-angle and multichannel reflection data. J. of Geophysical Research 107, B2, 2034, p. 1-24.
(Seismic data across subduction zone yield used to build cross section of subduction zone, confirmed by supplementary gravity modeling. Sunda accretionary margin has massive accretionary prism, >110 km wide between trench and forearc basin. It is composed of frontal wedge and fossil part behind present backstop structure which constitutes outer high. Moderate seismic velocities indicate sedimentary composition of outer high. Subducting oceanic slab traced down to almost 30 km underneath accretionary prism. Adjacent forearc domain with pronounced basin, possibly underlain by remnant fragments of oceanic crust)

Kopp, H. & N. Kukowski (2003)- Backstop geometry and accretionary mechanics of the Sunda margin. Tectonics 22, 6, doi:10.1029/2002TC001420, p. 1-16.
(Convergent Sunda margin off Indonesia is accretion-dominated subduction zone. New seismic reflection data off SE Sumatra- SW Java allows mapping of backstop regimes. Initially, outer high evolved as material was pushed against static rigid arc framework backstop underlying forearc basin. Increasing lithification of outer high formed dynamic backstop, which controls accretion today. Out-of-sequence thrust marks transition from recent active frontal accretionary prism to outer high. Existence of static and dynamic backstop controls forearc geometry and segmentation of forearc. Mass balance calculations indicate accretionary processes since late Eocene. Accretion is associated with low values of basal friction)

Koswara, M., J. Negre & L. Hendrata (1990)- The integration of geophysical, geological and petrophysical data: a case study in North West Java, Indonesia. Proc. 8th Offshore South East Asia Conference, Singapore, SE Asia Petroleum Exploration Society (SEAPEX), Proc. 9, p. 100-111.
(Evaluation of two onshore NW Java wells ~60km E of Jakarta, drilled in 1988-1989, in >500m thick Late Miocene/Tf3 Parigi Fm carbonate buildups)

Koulakov, I., M. Bohm, G. Asch, B.G. Luehr, A. Manzanares, K.S. Brotopuspito, P. Fauzi et al. (2007)- P- and S-velocity structure of the crust and the upper mantle beneath Central Java from local tomography inversion. J. of Geophysical Research B08310, p. 1-19.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1029/2006JB004712)
(Local source tomographic inversion used to obtain 3-D models of crust and mantle wedge beneath C Java. Clearly image of shape of subduction zone. Slab dip increases gradually from near-horizontal to ~70°. Double seismic zone in slab between 80-150 km depth. Low-velocity anomaly in crust, just N of volcanic arc (Merapi-Lawu anomaly; MLA), with 30-36% lower velocities than fore arc at 10 km. This shows probable high content of fluids and partial melts in crust (more likely deep sedimentary basin ?; JTvG). Inclined low-velocity anomaly in upper mantle links cluster of seismicity at 100 km with MLA and may reflect ascending fluids paths)

Koulakov, I., A. Jakovlev & B.G. Luehr (2009)- Anisotropic structure beneath central Java from local earthquake tomography. Geochem. Geophysics Geosystems 10, 2, Q02011, p. 1-31.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1029/2008GC002109)
(New tomographic data from local seismicity. Crust and upper mantle velocity structure beneath C Java strongly anisotropic. Forearc area between S coast and volcanoes heterogeneous, explained by complex block structure of crust. Beneath volcanoes faster velocities in vertical direction, probably channels, dykes. In crust beneath middle part of C Java, N to Merapi and Lawu large slow anomaly with E-W zone of fast velocity, probably caused by regional extension)

Kraeff, A. (1955)- Preliminary report of the quartz sand deposits in the area West of Tuban. Pusat Sumber Daya Geologi, Bandung, p. *(Unpublished Report?)*
(Report of June-July 1957 survey)

Krausel, R. (1923)- Uber einen fossilen Baumstammm von Bolang (Java). Ein Beitrag zur Kenntnis der fossilen flora Niederlandisch-Indiens. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 25, p. 9-16.
(online at: https://dwc.knaw.nl/DL/publications/PU00014846.pdf)

('On a fossil tree trunk from Bolang, Java; a contribution to the knowledge of the fossil flora of Netherlands Indies'. Bolang locality has silicified tree trunks up to 2m long, 60 cm in diameter. Age of deposits uncertain. Specimen from dipterocarp tree family, deemed to be new species named Dipterocarpoxylon javanense (= Dryobalanoxylon javanense according to Den Berger, 1927; JTvG)

Krausel, R. (1926)- Uber einige Fossile Holzer aus Java. Leidsche Geologische Mededelingen 2, 1, p. 1-8.
(online at: www.repository.naturalis.nl/document/549486)
('On some fossil woods from Java'. Petrified wood from Late Tertiary deposits of Bandung and Batavia belongs to Dipterocarpaceae. Naucleoxylon spectabile of Crie (1888) re-assigned to Dipterocarpoxylon (Den Berger 1927 re-assigned to Dryobalanoxylon; JTvG))

Krisnabudhi, A., B. Rahmanto, S.E. Hapsoro, H.I. Sulaeman, M.G. Rachman & R.I.R.Pratama (2015)- Tectonic event trailing based on fragments of Waturanda Formation, Wadasmalang, Karangsambung, Central Java. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI, Balikpapan 2015, p. 1-6.
(online at: www.academia.edu/16724899/TECTONIC_EVENT_TRAILING_BASED_ON_FRAGMENTS Etc.)
(E Miocene Waturanda Fm in Karangsambung complex is breccia with autochthous ('Old Andesite' volcanics) and allochthonous clasts (Pre-Tertiary basement metamorphic rocks) (not sure what the tectonic event here is?; JTvG))

Kristanto, A.S., F.D. Erdanto, M. Fadli, D.W. Widiyanto, Y. Nusantara & T. Diharja (2018)- A venture into Early-Middle Miocene clastics: an exploration opportunity in the western part of the East Java Basin. Proc. 42nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA18-107-G, p. 1-14.
(E-M Miocene shallow-marine clastic play in Tuban (Burdigalian) and Tawun Fms (Langhian) in Alas Dara Kemuning PSC (NW part of Cepu Block), NE Java basin. Coarsening-upward packages. Oil and gas-condensate in recent N-1 well (inversion structure?) and nearby NU-2 and NU-4 wells. Reservoirs moderate-good porosity, low permeability (carbonate cement), except in Ngrayong sands)

Kundanurdoro, P. (2009)- Studi sikuen stratigrafi endapan berumur Oligosen atas- Miosen bawah (P22- N6) Cekungan Jawa Timur Utara di daerah Tuban, Jawa Timur. J. Ilmiah Magister Teknik Geologi (UPN) 2, 2, p. 1-14.
(online at: http://jurnal.upnyk.ac.id/index.php/mtg/article/view/194/156)
('Study of sequence stratigraphy of U Oligocene- Lower Miocene sediments (P22- N6) in NE Java Basin in Tuban area, East Java'. Six sequences distinguished in open marine marls and limestone (calciturbidites?) in four outcrop sections in Rembang zone E of Tuban. Apparently good planktonic foram age control from Top Gr. opima zone (P21) Gr. kugleri to above top Ga binaiensis (N6). Prupuh Lst = upper N4- lower N5)

Kundanurdoro, P., B. Triwibowo & Ediyanto (2007)- Studi sikuen stratigrafi endapan Miosen Tengah pada Formasi Sentolo bagian bawah di Kali Tretes, Kecamatan Giri Mulyo, Kulon Progo, daerah Istimewa Yogyakarta. Proc. 32nd HAGI, 36th IAGI, and 29th IATMI Annual Conv. and Exhibition, Bali, p. 231-234. *(online at: https://www.iagi.or.id/web/digital/28/2007_IAGI-Bali_Studi-Sikuenstratigrafi-Endapan-Miosen-Tengah.pdf)*
('Sequence stratigraphic study of Middle Miocene deposits in the Lower Sentolo Formation in Tretes River, Giri Mulyo District, Kulon Progo, Special Region of Yogyakarta'. Lower Sentolo Fm = M Miocene (N11), etc. No figures)

Kundu, B. & V.K. Gahalaut (2011)- Slab detachment of subducted Indo-Australian plate beneath Sunda arc, Indonesia. J. Earth System Science 120, 2, p. 193-204.
(online at: www.ias.ac.in/jess/apr2011/193.pdf)
(Patterns of seismicity, seismic tomography and geochemistry of arc volcanoes reflect horizontal slab tear in subducted Indo-Australian slab beneath Java segment of Sunda arc (105°E -116°E) at depth of 300-500 km. Interaction of spreading center with Sunda arc in E Tertiary probably nucleated small horizontal tear on slab and slab detachment process dominated beneath Java arc after 20 Ma (E Miocene) but before 10 Ma (Late Miocene), well before collision of Australian continental mass (further East))

Kupper, H. (1941)- Bijdrage tot de stratigraphie van het Tagogapoe- Gn. Masigit gebied (Noord Priangan, Java). De Ingenieur in Nederlandsch-Indie (IV) 8, 12, p. IV.105- IV.109.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1941-12.pdf)
('Contribution to the stratigraphy of the Tagogapu- Gn Masigit area (N Priangan, Java). Early paper on latest Oligocene-age Rajamandala Limestone, W of Bandung. Limestones with common Lepidocyclina (Eulepidina), Spiroclypeus, Miogypsinoides complanata, etc. Age viewed as Aquitanian; Te)

Kurniasih, A., I. Adha, H.L. Dalimunthe, R. Setyawan, W.B. Khorniawan, N. Qadaryati et al. (2023)- Biostratigraphic interpretation of Lutut Beds, Kerek Formation, based on foraminifera fossils. J. Geoscience Engineering Environment Technology (JGEET) 8, 2, p. 105-111.
(online at: https://journal.uir.ac.id/index.php/JGEET/article/view/12462/5307)
(Lutut sandstone beds exposed in Kali Lutut, at NW margin of Kendeng Basin. With metamorphic-and recycled sedimentary quartz, lithics and reworked bioclasts. Also frequent reworked Eocene- E Oligocene larger foraminifera (Nummulites, Discocyclina). Age of Lutut Beds E-M Miocene, based on presence of Miogypsina and Miogypsinoides (but transported?). Planktonic foraminifera suggest late M Miocene- Pliocene age (but is age of overlying beds?). Deposited in upper-middle bathyal zone (Remarkably, authors do not mention Lutut Beds studies by P. Lunt (2000, 2013), who concluded a late EarlyMiocene age- JTvG)

Kurniasih, A., I. Adha, H. Nugroho & P. Rachwibowo (2018)- Petrogenesis batuan metamorf di perbukitan Jiwo Barat, Bayat, Klaten, Jawa Tengah. J. Geosains dan Teknologi (UNDIP) 1, 1, p. 1-7.
(online at: https://ejournal2.undip.ac.id/index.php/jgt/article/view/2503/1494)
('Petrogenesis of metamorphic rocks in the West Jiwo Hills, Klaten, Central Java')
(Bayah Complex metamorphic rocks low grade greenschist facies, associated with Eocene Nummulites limestones, serpentinite/ gabbro. Schist-phyllite from protolith of continental origin siltstone, claystone))

Kurniawan, E., A. Bachtiar, C. Irawan & D. Apriadi (2003)- Facies and reservoir characteristics of shallow marine deposit at Cipamingkis River. Proc. 32nd Annual Conv. IAGI and 28th Annual Conv. HAGI, Jakarta, p. 1-23.
(Detailed sedimentological study of M Miocene Cibulakan Fm outcrops of glauconitic sands and shales along riverbed of Cipamingkis River, SE of Jakarta. Analog of age-equivalent hydrocarbon zones in offshore NW Java Basins. Twelve facies distinguished, interpreted as lower shoreface to offshore environments. Reservoir geometries mainly sheet-like, some patchy, mounded geometry. In Indonesian)

Kurniawan, R., H.I. Sulaeman, R.A. Kristianto, Z. Fanani & C. Prasetyadi (2012)- Analisa struktur dan stratigrafi terhadap keterdapatan rembesan minyak dan gas berdasarkan data permukaan di Formasi Kerek, Wonosegoro, Boyolali, Jawa Tengah. Proc. 41st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2012- E-13, p. 1-5.
(online at: https://www.iagi.or.id/web/digital/9/2012_IAGI_Yogyakarta_Analisa-Struktur-dan-Stratigrafi.pdf)
(On structure, stratigraphy and oil and gas seeps and outcrop data of Kerek Formation in W Kendeng zone, Boyolali area, C Java. Many of the seeps tied to faults)

Kurniawati, E., N.I. Setiawan & S. Husein (2023)- Petrology and geochemistry of microgabbro in Watugajah Area, Gedangsari, Southern Mountains. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 24, 3, p. 163-171.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/715)
(55m high outcrop of intrusive microgabbro with columnar joint structure in Watugajah area, Gedangsari, Gunung Kidul Regency, in W part of Southern Mountains of Java. Part of Baturagung Subzone of Van Bemmelen, which belongs to (Oligocene) Kebo Fm. Tied to subduction magmatism

Kurnio, H. (2006)- Coastal characteristics of iron sand deposits in Cilacap Central Java.Proc. 35th Annual Conv. Indonesian Association Geologists (IAGI), Pekanbaru 2006, p. 1-12.
(online at: https://www.iagi.or.id/web/digital/15/2006_IAGI_Pekan-Baru_-Coastal-Characteristics-Of.pdf)
(On mineable recent iron sand deposits in Cilacap in southern coastal area of C Java. Derived from denudation of young andesites and "Old Andesite Formation". Enriched in magnetite and ilmenite. Deposits almost depleted)

Kurnio, H. (2007)- Review of coastal characteristics of iron sand deposits in Cilacap, Central Java. Bulletin of the Marine Geology 22, 1, p. 35-49.
(online at: http://ejournal.mgi.esdm.go.id/index.php/bomg/article/view/4/4)
(Mineable magnetite-bearing iron sand deposits in Cilacap, S coast of C Java. Coastal area successive sandy beach ridges separated by marshy valleys, typical of prograded coasts. Iron sand deposits derived mainly from denudation of Oligocene- E Miocene 'Old Andesite Fm' in hinterland. Serayu River main agent of sediment supply to coast (see also Sarmili et al. 1999))

Kurnio, H., Y. Dahlan & J. Kanily (2023)- Gold placer characteristics in marine sediments of Bayah, West Java, Indonesia. Australian J. Earth Sciences 70, 5, p. 741-750.
(Placer gold deposits with silt-size gold flakes in Recent marine sediments in Bayah coastal waters, SW Java)

Kurnio, H. & T. Naibaho (2011)- Pematang Pantai Purba sebagai perangkap gas biogenik di pesisir Indramayu Provinsi Jawa Barat suatu kajian pendahuluan. Jurnal Sumber Daya Geologi (JSDG) 21, 5, p. 275-281.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/154/151)
('Pematang Pantai Purba as a biogenic gas trap on the coast of Indramayu West Java Province a preliminary study'. Biogenic gas seepage at beach sands along N coast of Java near Indramayu)

Kurnio, H., T. Naibaho & M.A. Mustafa (2010)- Karaktertistik pantai Indramayu dengan keberadaan gas biogenik. Jurnal Sumber Daya Geologi (JSDG) 20, 1, p. 33-40.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/160/155)
('Characteristic of Indramayu Beach with presence of biogenic gas'. Indamayu coast at N coast of W Java with sandy coastal dunes between mangroves. Biogenic gas from mangroves may accumulate in dune sands)

Kusuma, H.D., H. Ramadhani, M.I. Novian, M.A. Furqon, Y. Arimawan & I.A. Citra (2019)- Fasies dan lingkungan pengendapan Formasi Jonggrangan pada jalurlintasan Sentul-Gunung Jonggol, Pegunungan Kulon Progo Bagian Timur. J. RISET Geologi dan Pertambangan (LIPI) 29, 2, p. 141-152.
(online at: http://jrisetgeotam.lipi.go.id/index.php/jrisgeotam/article/view/1002/pdf)
('Facies and depositional environment of the Jonggrangan Formation along Sentul- Gunung Jonggol road, Eastern Kulon Progo Mountains'. E-M Miocene Jonggrangan Fm limestone facies)

Kusumahbrata, Y. (1994)- Sedimentology and stratigraphy of the Bayah, Walat and Ciletuh Formations, SW Java basin, Indonesia. Ph.D. Thesis University of Wollongong, NSW, p. 1-253.
(online at: http://ro.uow.edu.au/theses/1404/)
(Bayah, Walat and Ciletuh Fms M Eocene quartz-rich sequences in SWJava Basin, today located in fore-arc region of (younger?) Sunda Arc system. Bayah and Walat Fms fluvial- deltaic, Ciletuh Fm submarine fan. Volcanic rock fragments rare in most samples from Bayah and Walat Fms, but more common in parts of Ciletuh Fm. Paleocurrent data of Bayah and Walat Fm suggest sediment mainly derived from NNE. Ciletuh submarine fan mainly E to W paleocurrent directions? Provenance analysis suggest rel. quartz-rich 'recycled orogen' type)

Kusumahbrata, Y. (1994)- Sedimentary petrographic study of the Bayah, Walat and Ciletuh Formations, Southwest Java: its importance for interpreting provenance and petrographic correlation. Proc. 23rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 1, p. 41-54.
(online at: https://www.iagi.or.id/web/digital/62/4.pdf)
(SW Java Eocene-Oligocene sandstones quartz-rich 'recycled orogen' (sub-) litharenites, dominated by various types of quartz and chert, probably derived from mix of metamorphic, granitic, volcanic (rel. rare) and sedimentary and metasedimentary rocks. Provenance area to N or NE. Upward decrease in feldspars and volcanics and increase of polycrystalline quartz in some sequences consistent with uncovering of magmatic arc through erosion (NB: little evidence of active arc volcanism in these rocks?- JTvG))

Kusumastuti, A., A.B. Darmoyo, W. Suwarlan & S.P.C. Sosromihardjo (2000)- The Wunut Field: Pleistocene volcaniclastic gas sands in East Java. Proc. 27th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 195-215.

(Lapindo 1994 gas discovery in Pleistocene Pucangan Fm volcanoclastics in E Kendeng zone, S of Surabaya. Reservoirs part of NE prograding volcanoclastic wedge from modern arc. 17 gas sands between 500-3000'; most reserves in deepest zone. Porosity 25-35%. Closure formed in Late Pleistocene (gravity-driven detachment related to uplift in volcanic arc?). Gas charge probably leakage from underlying Miocene Porong Reef)

Kusumayudha, S.B., D. Kaesmetan & H.S. Purwanto (2019)- Hubungan batugamping Formasi Sentolo dan breksi vulkanik Kulon Progo: sebuah koreksi stratigrafi studi kasus di daerah Wonotopo, Kecamatan Gebang, Kabupaten Purworejo, Jawa Tengah. J. Mineral Energi Lingkungan 3, 1, p. 1-10.
(online at: http://jurnal.upnyk.ac.id/index.php/JMEL/article/view/2102/2466)
('The relationship of the Sentolo Formation limestones and the Kulon Progo volcanic breccia: a stratigraphic correction of a case study in the Wonotopo area, Gebang District, Purworejo Regency, Central Java'. Base of ?Middle-Late Miocene Sentolo limestone interfingers and conformably overlies Oligocene- E Miocene Kulon Progo 'Old Andesite' volcanic breccias)

Kusumayudha, S.B. & H. Murwanto (1994)- Penentuan tektonogenesis komplek bancuh Karangsambung berdasarkan analisis kekar gerus. Proc. Seminar Geologi dan Geotektonik Pulau Jawa sejak Akhir Mesozoik hingga Kuarter, Geology Department Gadjah Mada University, Yogyakarta, p. 101-120.
(Structural analysis of C Java Karangsambung-Luk Ulo melange and olistostrome complex)

Kusumayudha, S.B. & H.S. Purwanto (2020)- Enormous mass movements, and gravitational tectonics model of the North Serayu Mountains, Karangkobar area, Banjarnegara Regency, Central Java, Indonesia. Int. J. Geology and Earth Sciences (IJGES) 6, 1, p. 1-8.
(online at: https://new.ijges.com/uploadfile/2020/0618/20200618042453485.pdf)
(Landslide features in North Serayu Mts, C Java))

Landau, B.M., A.G. Beu, A. Breitenberger & A.M. Dekkers (2020)- Middle Miocene tonnoidean gastropods from near Wonosari, Yogyakarta, Java, Indonesia. Basteria, Leiden, 84, p. 10-25.
(online at: https://natuurtijdschriften.nl/pub/1001531/BAST2020084001002.pdf)
(Well-preserved M Miocene gastropod collection at Naturhistorisches Museum in Vienna, presumably collected by K. Martin from around Wonosari, Gunung Kidul Regency, 40 km SE of Yogyakarta. Exact locality unknown, but age determined as NN5, Langhian, from calcareous nannofossils in matrix sediment)

Lassal, O., P. Huchon & H. Harjono (1989)- Extension crustale dans le detroit de la Sonde (Indonesie). donnees de la sismique reflexion (Campagne Krakatau). Comptes Rendus Academie Sciences, Paris, 309, ser. 2, p. 205-212. *(online at: https://www.researchgate.net/profile/Philippe-Huchon/publication/261573052_Extension_crustale_dans_le_detroit_de_la_Sonde_Indonesie Etc.)*
('Crustal extension in Sunda Straits (Indonesia), based on seismic reflection data (Krakatau campaign)'. 1985 French seismic campaign shows N-S trending normal faults bordering Sunda Straits. Sunda Strait opening in last 5 Myrs response to oblique extension, related to Sumatra right-lateral strike-slip fault)

Laufer, F. & A. Kraeff (1951)- Result of investigation by core drilling of the Pliocene limestone near Gresik. Geological Survey, Bandung, p.
(Evaluation report of limestone near Surabaya. Concludes surveyed limestone deposit sufficient to supply cement plant with 250 thousand tons per year, for 60 years)

Lee, J.H. & I.J. Kim (2003)- Geologic, fluid inclusion, and sulfur isotopic studies of hydrothermal deposit in the Tanggueng District, West Java, Indonesia. Economic and Environmental Geology (Korean Soc. Economic Environmental Geology) 36, 5, p. 321-328.
(online at: https://www.kseeg.org/journal/download_pdf.php?spage=321&volume=36&number=5)
(Epithermal gold and base metal deposits around S margin of Mt. Subang in Tanggeung district, SW Java, consists of four major veins: Celak, Cigodobras, Cilangkap and Pasirbedil). Veins occur within fractures cutting the crystal and lithic tuff of Oligo-Miocene Jampang Fm. Ore mineralization characterized by pyrite, sphalerite, galena, chalcopyrite, and small amounts of bornite and Fe-oxides)

Lehmann, H. (1936)- Morphologische Studien auf Java. Geographische Abhandlungen, Stuttgart, Ser. 3, 9, p. 1-114.
('Geomorphologic studies on Java'. Mainly on Southern Mountains SE of Yogya and NE Java Kendeng-Rembang zones around Cepu, by Herbert Lehmann from Berlin. Introduction of term 'cone-karst')

Lehmann, H. (1937)- Uber eiszeitliche Krustenbewegungen im Sunda Archipel. Frankfurter Geographische Hefte 11, p. 75-80.
('About ice-age crustal movements in the Sunda Archipelago'. About various lines of evidence of Pleistocene deformation and uplift on Java, Sulawesi and Timor by German geomorphologist H. Lehmann)

Lehner, P., H. Doust, G. Bakker, P. Allenbach & J. Guenau (1983)- Active margins 3, Java Trench. In: A.W. Bally (ed.) Seismic expression of structural styles- a picture and work atlas, American Assoc. Petroleum Geol. (AAPG), Studies in Geology 15, 3, p. 45-80.
(Two profiles across Java Trench P7 and N508 show subduction of Late Jurassic- E Cretaceous descending Indian Ocean crustt, overlain by imbricated accretionary wedge of sediment. Uppermost portion of basement, probably pillow basalts, structurally deformed and partly imbricated. Thrusts steepening away from trench. Individual imbrications may bend over toward trench in uppermost part, probably triggering submarine slides and turbidity flows. Sediment fill of fore-arc basins Late Oligocene/E Miocene- Recent. Offshore wells in fore-arc basin Oligocene volcaniclastics below base Miocene unconformity. Reefs on unconformity indicates fore-arc basin subsided to present depth after Oligocene orogenic pulse. Neogene transgressive-regressive cycle with basal marine sandstones and limestones. Doming and fracturing of entire island arc region during Oligocene was followed by Miocene regional subsidence and tectonic quiescence. Compressional folding and basin inversion began in Late Miocene and appears to have been continuous into Recent time)

Lelgemann, H., M.A. Gutscher, J. Bialas, E.R. Flueh, W. Weinrebe & C. Reichert (2000)- Transtensional basins in the western Sunda Strait. Geophysical Research Letters 27, 21, p. 3545-3548.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1029/2000GL011635)
(On crustal structure and evolution of Sunda Strait, based on 1999 seismic survey. Transtensional character of the area shown by faulted blocks of arc basement and active normal faults on both sides of large graben at W entrance to Sunda Strait. Over 6 km of graben fill sediment, associated with substantial crustal thinning. S part of region 50 km from trench and Moho of downgoing plate is at depth of 28 km)

Lelono, E.B. (2000)- Palynological study of the Eocene Nanggulan Formation, Central Java, Indonesia. Ph.D. Thesis, Royal Holloway, University of London, p. 1-457. *(Unpublished)*
(Nanggulan Fm age diagnostic Middle and Late Eocene faunas and palynomorph assemblages. Many palynomorphs affinity with Indian forms, suggesting plant migration into SE Asia following plate collision in E Tertiary. Distribution of similar M Eocene palynomorph assemblages suggests Sundaland extended from Java to SW Sulawesi. Podocarpidites pollen in upper unit indicates cooling, probably equivalent to M-L Eocene boundary event recorded elsewhere. Nanggulan Fm is transgressive sequence)

Lelono, E.B. (2000)- The use of palynology in sequence stratigraphy analysis. A case study: the Eocene Nanggulan Formation. Lemigas Scientific Contributions 23, 3, p. 2-14.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/download/882/pdf)
Eight eustatic sea level sequences in late Middle- early Late Eocene Nanggulan Fm, C Java, based mainly on proportions of mangrove versus freshwater pollen, with high mangrove abundance tied to rising sea levels. Correlated to 49.5-36.0 Ma cycles of Haq et al. (1988) cycle chart))

Lelono, E.B. (2001)- Sea level changes during Middle-Late Eocene in the Nanggulan Formation, Central Java. Lemigas Scientific Contributions 24?, 1, p. 8-15.

Lelono, E.B. (2002)- Palynology of the Lower Kalipucang Formation Tlogosari, Central Java. Lemigas Scientific Contributions 25, 2, p. 2-7.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/878/pdf)

(First study of M Miocene (N13-N14?) palynology of 3m thick Lower Kalipucang Fm, Banyumas area, 25km W of Kebumen. Basal conglomerates overlain by sands-shales, with 1-2cm thick lignitic layers. Presence of Florschuetzia meridionalis and F. trilobata indicate F. meridionalis zone, M Miocene. And abundant mangrove pollen (Zonocostites ramonae, Camptostemon, etc.) indicate mangrove swamp environment)

Lelono, E.B. (2007)- Gondwanan palynomorphs from the Paleogene sediments of East Java?; the evidence of earlier arrival. Proc. Joint Convention 32nd HAGI, 36th IAGI, and 29th IATMI, Bali, JCB2007-010, p. 40-47.
*(online at: https://www.iagi.or.id/web/digital/28/2007_IAGI-Bali_Gondwanan-Palynomrphs-From-the-Paleogene.pdf)_*
(In E Java wells, occurrence of pollen Meyeripollis naharkotensis and spore Cicatricosisporites dorogensis in the upper well sections suggests Meyeripollis naharkotensis palynozone (Oligocene) Occurrence of pollen Proxapertites operculatus and spore Cicatricosisporites eocenicus in lower section indicates Proxapertites operculatus zone (Eocene). Appearance of Gondwanan/ Australian pollen, including Dacrydium and Casuarina, in Late Eocene- Oligocene of wells in N Madura- E Java Sea is unusual, as these are generally first recorded only in E Miocene of NW Java Sea, S Sumatra, C Java, S Sulawesi and Natuna, after collision of Australian plate and Sundaland in latest Oligocene. This may indicate earlier arrival of Gondwanan/ Australian fragment in E Java area than in other areas of Indonesia)

Lelono, E.B. (2007)- Gondwanan palynomorphs from the Paleogene sediments of East Java?; the evidence of earlier arrival. Lemigas Scientific Contributions Oil and Gas 30, 2, p. 1-12.
(online at: www.researchgate.net/publication/301549538_Gondwanan_Palynomorphs_From_The_Pale Etc.)
(also online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/864)
(Same paper as Lelono (2007), above)

Lelono, E.B. (2012)- Oligocene palynology of onshore West Java. Scientific Contributions Oil and Gas (SCOG), Lemigas, 35, 2, p. 67-82.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/779)
(Palynological studies of Oligocene in (unnamed) onshore wells in Ciputat sub-basin, W Java. Generally poor pollen assemblages. Unlike equivalent beds offshore NW Java, lacustrine elements rare, suggesting absence of lake deposit. Oligocene defined by presence of Oligocene marker Meyeripollis naharkotensis. Depositional environment transition non-marine- shallow marine. Common brackish pollen of Zonocostites ramonae and Spinizonocolpites echinatus indicate mangrove/ back-mangrove environment)

Lelono, E.B. (2016)- Cooling event in the boundary of Middle/Late Eocene of Java. Modern Environmental Science and Engineering 2, 11, p. 729-736.
(online at: http://www.academicstar.us/UploadFile/Picture/2017-3/20173221185285.pdf)
(Eocene palynomorphs in Nanggulan Fm, C Java: M Eocene abundant and diverse lowland/rain forest elements suggesting warm-wet conditions with Palmaepollenites kutchensis, Retitricolporites equatorialis, Campnosperma sp., Marginipollis concinus and Dicolpopollis malesianus. Late Eocene marked by regular grass pollen and reduction of rainforest elements, indicating development of savanna in cool-dry climate condition (also recorded in Toraja Fm of S Sulawesi and Late Eocene of Makassar Strait. First occurrence of hinterland pollen Podocarpidites spp. marks M-L Eocene boundary)

Lelono, E.B. & R.J. Morley (2011)- Oligocene climate changes of Java. Lemigas Scientific Contributions 34, 3, p. 169-176.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/803)
(E Oligocene of E Java Sea characterized by common rainforest elements, suggesting everwet rainforest climate at that time. Early part of Late Oligocene much reduced rainforest elements, and presence of regular Gramineae pollen, suggesting more seasonal climate, whereas in latest Late Oligocene rainforest (and peat swamp) elements return in abundance, suggesting very wet rain forest climate)

LEMIGAS/ BEICIP (1974)- Geology of the Kendeng zone (Central and East Java), p. *(Unpublished Report)*
(Extensive study of stratigraphy and structure of Kendeng zone outcrop geology at S margin of NE Java basin))

LeRoy, L.W. (1941)- Small foraminifera from the Late Tertiary of the Netherlands East Indies. 3. Some small foraminifera from the type locality of the Bantamien substage, Bodjong beds, Bantam Residency, West Java. Quarterly Colorado School Mines 36, 1, p. 107-132.
(47 species of mainly shallow marine smaller foraminifera from Bojong Beds, type locality of Bantamian substage in W Java, here considered to be of Late Pliocene, possibly Pleistocene age (Bantamian defined as marine clastics unconformably overlain by thick Pleistocene volcanics by Oostingh (1938) and viewed as E Pleistocene; HvG))

LeRoy, L.W. (1944)- Miocene foraminifera from Sumatra and Java, Netherlands East Indies. 2. Small foraminifera from the Miocene of West Java, Netherlands East Indies. Quarterly Colorado School Mines 39, 3, p. 70-113.
(Descriptions of 107 species of small benthic foraminifera from Miocene marls at Tjijarian bridge, E of Pelabuhan Ratu, W Java)

Li, X.Y., Z.W. Zhang, C.Q. Wu, J.H. Xu & Z.R. Jin (2019)- Geology and geochemistry of Gunung Subang gold deposit, Tanggeung, Cianjur, West Java, Indonesia. Ore Geology Reviews 113, 103060, p. 1-19.
(Gunung Subang gold deposit near Cianjur, W Java, associated with basalt-andesite rocks of Miocene Koleberes and Bentang Fm. Zircons from volcanic rocks mean U-Pb age of 17.0 ± 0.4 Ma, with some inherited zircons from Precambrian (887-2379 Ma). Ore-forming material related to Miocene- Pliocene volcanic rocks. Gold mainlyt as Au-Ag-telluride minerals. Eepithermal gold deposit related toM Miocene magmatism)

Lintjewas, L., Y.M. Lai, I. Setiawan, S.L. Chung, A. Al Kautsar, H.Y. Lee, L.X. Quek & Y. Iizuka (2025)- New age and geochemical constraints on the "Old Andesite" and Middle Miocene adakites from Pacitan, East Java, Indonesia. Lithos 494-495, 19, 107943, p.
(preprint online at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=502597
("Old Andesite" magmatic activity in Pacitan at S coast of E Java began in Late Oligocene rather than Eocene as commonly believed. Three stages: Late Oligocene (26.7-26.0 Ma) and Early Miocene (~20 Ma) (Sunda subduction) and M Miocene (13.4- 11.4 Ma; adakitic; onset of ridge subduction?))

Listyaningrum, R., F. Muhlis; J. Soesilo & I.R. Palupi (2017)- Subduction zone in Java Island using primary wave tomography from Jacobian relocation method based on ak135 velocity model. Proc. 6th Annual Symposium Earthquake and related Geohazard Research for Disaster risk reduction, Bandung, AIP Conference Proceedings 1857, 020011, p. 1-6. *(online at: www.academia.edu/55505343/Subduction_zone_in_Java_Island_using_primary_wave_tomography Etc.)*
(Interesting set of tomographic profiles across Sunda Arc subduction zone, from S Sumatra to E Java, from relocated earthquake hypocenters and P-wave data)

Liu, Z., J. Li & F. Kong (2023)- Topographic variations of mantle transition zone discontinuities in the Java subduction zone and adjacent regions from receiver function analyses. Tectonophysics 849, 229723, p. 1-14.
(On lateral variations of the Mantle Transition Zone (MTZ) thickness in Java subduction zone and adjacent regions, where subducted slab segments reached base of MTZ. Abnormally thin MTZ in vicinity of Lombok and Sumbawa indicates high T anomaly, which probably results from thermal upwelling adjacent to MTZ)

Lodar, J.G., A.H.F. Rizqi & Winarti (2025)- Age and depositional environment Investigation of the Nanggulan Formation's distribution of mudstone in the Kalibawang area and surroundings, Kulon Progo District, Yogyakarta. In: J.T.S. Sumantyo & P. Razi (eds.) Advances in Geoscience and Remote Sensing Technology. Proc. 2nd Int. Conf. Geoscience and Remote Sensing Technology (IC-GEOREST 2024), Padang, Springer Singapore, p. 208-221.
(Quote:"The distribution and lithological variations of the mudstone units in the Nanggulan Formation have never been studied by researchers, especially in the study of age and depositional environment" (What??? Except in last 130+ years!; JTvG),

Lokier, S.W. (1999)- Volcaniclastic controls on carbonate sedimentation within the Gunung Sewu area, south area, South Central Java, Indonesia. Proc. 1st FOSI-IAGI Regional Seminar, Tectonics and sedimentation of

Indonesia and 50th Anniversary Memorial of R.W. van Bemmelen's Book- The Geology of Indonesia, p. 50 *(Abstract only)*

Lokier, S.W. (1999)- The development of the Miocene Wonosari Formation, South Central Java. Proc. 27th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 217-222.
(M Miocene Wonosari/Punung Fm of south C Java active volcanic setting with carbonate development. S of E Miocene island-arc a moderate to high-energy carbonate platform developed. Calcareous algae and larger foraminifera packstone dominate; corals and other biota as tertiary elements. N of carbonate platform deep (~200-400m) fore-arc basin, with volcaniclastic sedimentation from arc in N and carbonates from shallow platform to S. Some interdigitation of sediment types. Periodic inputs of marine volcaniclastics in carbonate environment. Sustained periods of volcaniclastic sedimentation resulted in decrease in species but increased numbers of individuals, attributed to increase in nutrients, lack of competitors and changes in substrate)

Lokier, S.W. (2000)- The Miocene Wonosari Formation, Java, Indonesia: volcaniclastic influences on carbonate platform development. Ph.D. Thesis, University of London, p. 1-648. *(Unpublished)*
(Regional study of Middle Miocene Wonosari Limestone in Southern Mountains of C and E Java)

Longley, I., C. Kenyon, A. Livsey & J. Goodall (2016)- A methodology for future exploration in mature Indonesian basins- why play mapping integrated with well failure analysis matters- an example from the East Java Basin, Indonesia. Proc. IPA 2016 Technical Symposium, Indonesia exploration: where from- where to, Indonesian Petroleum Association (IPA), Jakarta, 25-TS-16, p. 1-10.
(E Java Basin in back-arc geological setting onshore and offshore E Java. 380 exploration wells drilled, with ~90 discoveries. Seven main charge cells identified: Muriah, Cepu, Central Deep, N Madura, S Madura, Kangean and Southern Basin. Etc.)

Lorie, J. (1879)- Bijdrage tot de kennis der Javaansche eruptiefgesteenten. Doct. Thesis Rijksuniversiteit Utrecht, Wyt & Zonen, Rotterdam, p. 1-269.
(online at: http://hdl.handle.net/1874/242450)
('Contribution to the knowledge of Javanese volcanic rocks'. First mineralogic-petrographic descriptions of volcanic rocks from 31 volcanoes on Java, collected by Junghuhn, and now in Naturalis, Leiden. Mainly hornblende andesites, augite andesites and basalt lavas. No figures (see also Behrens 1880))

Loth, J.E. & J. Zwierzycki (1926)- De kristallijne schisten op Java ouder dan Krijt. De Mijningenieur 7, 2, p. 22-25.
('The crystalline schists on Java are older than Cretaceous'. Mid-Cretaceous limestones with Orbitolina concavata near village of Karang Tengah in Loh Ulo river area, C Java, are not intercalated with serpentinite and chlorite schist as argued by Verbeek & Fennema (1896, p. 352), but are in interbedded marl-limestone series ~20m above 'Cenomanian transgressive conglomerate ' with common quartz pebbles on top of chlorite schist. Beds consistently and steeply S-dipping, probably isoclinally folded. Schists at higher levels and thrusted over Cretaceous sediments (from S to N). (Cretaceous limestones quarried for limestone kilns; not much left in outcrop in area today?; JTvG))

Lowell, J.D. (1980)- Wrench vs. compressional structures with application to Southeast Asia. Proc. SE Asia Petroleum Exploration Society (SEAPEX) 5, Singapore, p. 63-70.
(Example from NE Java basin oil field structures: look compressional, not wrench-controlled. C. Sumatra Pungut and Tandun oil fields do have indications of wrenching)

Lowenstern, J.B., V. van Hinsberg, K. Berlo, M. Liesegang, K. Iacovino, I.N. Bindeman & H.M. Wright (2018)- Opal-A in glassy pumice, acid alteration, and the 1817 phreatomagmatic eruption at Kawah Ijen (Java), Indonesia. Frontiers in Earth Science 6, 11, p. 1-21.
(online at: https://www.frontiersin.org/articles/10.3389/feart.2018.00011/full)
(Opal-replaced phenocrysts within glassy low-silica dacite pumice and particles in lahar sediments of 1817 eruption at Kawah Ijen volcano, E Java)

Luan, X. & P. Lunt (2021)- Occurrence in space and time of the *Globigerina*-sands of eastern Java; their stratigraphy, and controls on reservoir quality. Marine and Petroleum Geology 133, 105311, p. 1-19.
(In E Java two distinct periods of deposition of plankton-micritic carbonates, rich in Globigerina planktonic foraminifera: (1) around Oligo-Miocene boundary ('Prupuh Limestone') and (2) in E Pliocene ('Mundu Fm'). Both units tested gas at commercial rates. Main reference units in Madura Straits)

Lubis, H., S. Prihatmoko & Y. Herryurianto (2012)- Geology and exploration for low sulfidation epithermal gold-silver mineralization in Kerta, Banten. In: N.I. Basuki (ed.) Proc. Banda and Eastern Sunda arcs, Indonesian Soc. Economic Geologists (MGEI) Annual Conv., Malang, 2012, p. 39-72.

Ludwig, O. (1933)- Geologische kaart van Java 1:100,000. Toelichting bij blad 30 (Poerwakarta). Dienst Mijnbouw Nederlandsch-Indie, Batavia, p. 1-45.
(text online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:041771000:00001)
(map online at: https://digitalcollections.universiteitleiden.nl/view/item/812160)
('Geological map of Java 1:100,000- Explanatory notes of Sheet 30, Purwakarta'. With chapter on agrogeology by J. Szemian)

Ludwig, O. (1934)- Geological map of Java, scale 1:100,000. Explanatory note to Sheet 26 (Sagaranten). Geological Survey Indonesia.
(Unpublished Sagaranten sheet of 1:100,000 geologic map of Java)

Luehr, B.G., I. Koulakov, W. Rabbel, J. Zschau, A. Ratdomopurbo, K.S. Brotopuspito, P. Fauzi & D.P. Sahara (2013)- Fluid ascent and magma storage beneath Gunung Merapi revealed by multi-scale seismic imaging. J. Volcanology Geothermal Research 261, p. 7-19.
(3D seismic velocity structure of Merapi volcano provided image of lithosphere and subduction zone beneath C Java. Dip of subducting slab steepens from nearly horizontal (0-150 km from trench), through 45° (150- 250 km), to 70° (>250 km). Active volcanoes of Merapi, Sumbing, and Lawu are located at edge of large low velocity body that extends from upper crust to upper mantle beneath C Java. Detected strong anomaly beneath C Java is unique in size and amplitude. This segment of arc has high magma flux)

Lunt, P. (1991)- The Neogene geological history of East Java, some unusual aspects of stratigraphy. Proc. 20th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 26-36.
(online at: https://www.iagi.or.id/web/digital/49/20th-(10-12-Des-1991)-2.pdf)
(NE Java. New interpretation of early M Miocene (N11-N12) Ngrayong Fm quartz sandstones: deep marine deposit, not fluvio-deltaic, based mainly on presence of deep-water foram Cyclammina (but these are also common in age-equivalent deltaic beds of the Mahakam Delta and were probably reworked from uplifted deepwater Paleogene deposits of Upper Kutai Basin; JTvG). Erosional unconformity identified at end-Miocene (Tuban Uplift; base of Ledok Fm and age-equivalent Karren Fm limestones)

Lunt, P. (2000)- A draft review of the Lutut Beds in the type area. AAPG Bali 2000 Int. Convention/ IPA fieldtrip-Appendix, p. 1-13.
(Lutut sands in thrust belt SW of Semarang are E Miocene (N6-N7, NN4) immature erosional products of metamorphic basement, radiolarian chert and Eo-Oligocene sediments, apparent product of mid-E Miocene orogenic event. Very different from M Miocene Ngrayong Fm mature quartz sands)

Lunt, P. (2013)- The sedimentary geology of Java. Indonesian Petroleum Association (IPA), Special Publ., p. 1-340.
(Comprehensive, milestone book on sedimentary geology, stratigraphy, biostratigraphy, etc. of Java. Major tectonic events affecting sedimentation: (1) Late Mesozoic accretion of Paternoster microplate. Rembang Line is N edge of accreted 'Woyla Terranes'; (2) Mid-Eocene onset of sedimentation, but no clear backarc basins; (3) Early Oligocene half-graben extension; (4) Late Oligocene- E Miocene' Old Andesite' volcanic arc in S Java, simultaneous with widespread carbonates in N Java; 20/21 Ma marks end of 'Old Andesite' volcanism; (5) 20-12 Ma tectonically quiescent; possible effect of 18 Ma S Central Kalimantan uplift; 15 Ma is max. flood over Sundaland; (6) M Miocene/12 Ma fault inversion/ widespread subsidence phase; (7) Late Miocene/ 8 Ma:

inversion of 'Woyla terranes'; main phase Rembang-Madura-Kangean zone uplift; (8) mid-Pliocene-Pleistocene thrusting episodes)

Lunt, P. & G. Burgon (2003)- State of the art or state of decay?- the role of classic geological skills in 21st century exploration. Proc. 2003 SE Asia Petroleum Exploration Society (SEAPEX) Exploration Conference, Singapore, p. 1-11.
(Examples of application of classic geology in hydrocarbon exploration on Java. Early Miocene sediments show major tectonic event during quiet sag phase of previous workers. Sag phase Oligo-Miocene carbonates show complex distribution, suggesting local tectonic controls more important than assumed eustatic trends. Occurrence of Late Paleocene forams Miscellanea and Ranikothalia in Jatibungkus Limestone from C Java Karangsambung melange (the only documented Late Paleocene in Indonesia?; see also Accordi et al., 2010))

Lunt, P., G. Burgon & A. Baky (2009)- The Pemali Formation of Central Java and equivalents: indicators of sedimentation on an active plate margin. J. Asian Earth Sciences 34, p. 100-113.
(C Java clastics sections near Bumiayu with record of intra-Late Miocene/ ~7 Ma tectonic event. Pemali Fm originally interpreted as "early Miocene" but here shown to be latest Miocene-Pliocene in age)

Lunt, P., R. Netherwood & O.F. Huffman (1998)- IPA Field Trip to Central Java, 1998, Indonesian Petroleum Association (IPA), Fieldtrip guidebook, p. 1-63.
(Guidebook with details on Karangsambung, Baturagung/ Jiwo Hills and Sangiran Dome outcrops)

Lunt, P., D.M. Schiller & T. Kalan (1996)- IPA East Java geological field trip guide book. Indonesian Petroleum Association (IPA), Fieldtrip guidebook, p. 1-57.
(S. Mountains, Kendeng zone and Rembang zone outcrops descriptions)

Lunt, P. & H. Sugiatno (2007)- The Bagelen Beds, Central Java. Jurnal Sumber Daya Geologi (JSDG) 17, 5 (161), p. 336-356.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/312/272)
(Bagelen Beds of C Java ~10 km N of Lok Ulo deep marine clay olistostrome deposit of earliest Oligocene (~32.5 Ma), possibly latest Eocene age. No indication of being tectonized. Probably with blocks of M Eocene (Ta) nummulitid limestone, similar to Lok Ulo. Mix of basement and Eocene boulders in Sangiran Dome possibly from underlying similar E Oligocene olistostrome)

Lunt, P. & H. Sugiatno (2003)- A review of the Eocene and Oligocene in the Nanggulan area, South Central Java, p. 1-34. *(Unpublished)*
(Middle- Late Eocene clastics overlain by 'middle' Oligocene deep marine Tegalsari marls, overlain by Late Oligocene-Early Miocene 'Old Andesites')

Lunt, P. & H. Sugiatno (2007)- A report on fieldwork in the Rajamandala- Citarum area, West Java. Geological Research Development Centre (GRDC), Bandung, p. 1-27. *(Unpublished Manuscript)*
(Rajamandala Limestone Late Oligocene age. Underlying quartz-rich clastics are Early Oligocene in age)

Lunt, P., H. Sugiatno & T. Allan (2000)- A review of the Lutut Member in the type area, North Central Java. *(Unpublished report)*

Lupi, M., P. De Gori, L. Valoroso, P. Baccheschi, R. Minetto & A. Mazzini (2022)- Northward migration of the Javanese volcanic arc along thrust faults. Earth Planetary Science Letters 577, 117258, p. 1-12.
(online at: www.sciencedirect.com/science/article/pii/S0012821X21005148)
(Unlikely model, which looks like it was designed to support the Mazzini et al.groups' long-running mission of connecting the Java volcanic arc to drilling accident that caused the ' Lusi' mud eruption S of Surabaya. Most of the larger volcanic complexes on Java actually display a recent S-ward migration of eruption centers during Quaternary; JTvG))

Luthfan, M.R., A. Haris, D. Hernadi & R.M. Zainal (2022)- 3D facies modelling of Tuban Formation, North East Java Basin. Proc. 18th European Conference Mathematics of Geological Reservoirs (ECMOR 2022), The Hague, p. 1-12.
(Pertamina geological modeling of 'S Field' (= Sukawati?), an oil field in Tuban Fm, NE Java Basin. E Miocene isolated carbonate build-up)

Maha, M. & U. Choiriah (2012)- Biozonasi foraminifera plankton pada Formasi Ledok daerah Singanegara, Kabupaten Blora, Provinsi Jawa Tengah. Proc. Seminar Nasional Aplikasi Sains dan Teknologi (SNAST 2012), Yogyakarta, Akprind, B, p. 228-233. *(online at: https://www.researchgate.net/publication/392693250_BIOSTRATIGRAFI_DAN_BIODATUM_FORAMINIFERA_PLANKTONIK_SUMUR-95_DI_DAERAH_CEPU_KABUPTEN_BLORA_JAWA_TENGAH)*
('Biozonation of planktonic foraminifera in the Ledok Formation, Singanegara area, Blora Regency, C Java Province'. Age of rel. sand-rich marine Ledok Fm in NE Java is latest Miocene- earliest Pliocene(N17-N18))

Maha, M., B. Rahmad & H. Widiyanto (2007)- Facies dan petrografi batubara Formasi Nanggulan daerah Kalisonggo, Kecamatan Girimulyo, Kabupaten Kulon Progo, Daerah Istimewa Yogyakarta. Proc. Joint Convention 32nd HAGI, 36th IAGI and 29th IATMI, Bali 2007, p. 593-616.
(online at: https://www.iagi.or.id/web/digital/28/2007_IAGI-Bali_Facies-dan-Petrografi-Batubara.pdf)
('Facies and petrography of Nanggulan formation coal of the Kalisonggo area, Girimulyo Subdistrict, Kulon Progo Regency, Special Region of Yogyakarta'. Coal bed 0.53m thick in M-L Eocene Nanggulan Fm W of Yogya, with vitrinite 57-69%, lignite grade (vitrinite Rv max 0.34-0.44%))

Maha, M. & S. Sanyoto (2000)- Biodatum dan zonasi foraminifera bentik kecil serta hubungannya dengan foraminifera planktonik Sumur-95 daerah Cepu, Kab. Blora, Jawa Tengah. Proc. 29th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 4, p. 247-258.
('Datum levels and zonation of smaller benthic forams and their relations with planktonic foraminifera in well 95, Cepu area, C, Java'. Shallow well W of Cepu, TD 340m, penetrating Late Pliocene- Pleistocene Mundu, Selorejo and Lidah Fms. Calcarina calcar restricted to Pleistocene (planktonic foram zones N22-N23), Pseudorotalia indopacifica basal occurrence near base zone N20) (see also Sanyoto (2009) for planktonic foraminifera from the same well)

Mahfi, A. (1984)- A paleomagnetic study of Miocene and Eocene rocks from Central Java, Indonesia. M.A. Thesis, University of California, Santa Barbara, p. 1-186. *(Unpublished)*
(Paleomagnetic results from Bayat, Kalissongo and Karang Sambung show mixture of rotated and unrotated sites; Fuller 1999. Paleolatitude determinations: Bayat Eocene limestone -22.9 ± 9 °S, Yogya Oligo-Miocene basalt -11.6 ± 4.3°S, Kulunprogo Oligo-Miocene andesite -8 ± 2 °S))

Malod, J.A., K. Karta, M.O. Beslier & M.T. Zen (1995)- From normal to oblique subduction: tectonic relationships between Java and Sumatra. J. Southeast Asian Earth Sciences 12, 1-2, p. 85-93. *(online at: https://www.academia.edu/3171662/From_normal_to_oblique_subduction_Tectonic_relationships_between_Java_and_Sumatra)*
(Oblique subduction beneath Sumatra induces strike-slip faults in Sumatra. Subduction perpendicular to trench SW of Java. Cimandiri FZ of W Java continues out to sea. Sinistral activity on land may be conjugate of dextral strike-slip along NW-SE prolongation of Sumatra strike-slip fault in forearc. Structural transition is S of Pelabuhan Ratu Gulf. To W, oblique subduction induces partitioning into convergent motion and NW strike-slip motion. To E subduction is normal and typical forearc basin develops)

Malvoisin, B., A. Mazzini & S.A. Miller (2018)- Deep hydrothermal activity driving the Lusi mud eruption. Earth Planetary Science Letters 497, p. 42-49.
(open manuscript online at: https://www.sciencedirect.com/science/article/abs/pii/S0012821X18303455)

Manaf, N.A. & Yarmanto (2016)- Integrating data sets and applying new approaches is the key to the exploration success in the North West Java area. Proc. IPA 2016 Technical Symposium, Indonesia exploration: where from-where to, Indonesian Petroleum Association (IPA), Jakarta, 36-TS-16, p. 1-17.

(Review of hydrocarbon plays in onshore and offshore NW Java sub-basins and 125 years of exploration history)

Mandang, Y.I. & N. Kagemori (2004)- A fossil wood of Dipterocarpaceae from Pliocene deposit in the West region of Java Island, Indonesia. Biodiversitas 5, 1, p. 28-35.
(online at: www.unsjournals.com/D/D0501/D0501pdf/D050106.pdf)
(Giant silicified dipterocarp tree trunk 28m long from Lower Pliocene near Leuwidalang, Banten, W Java, described as Dryobalanoxylon lunaris)

Mandang, Y.I. & D. Martono (1996)- Keanekaragaman fosil kayu di bagian barat pulau Jawa. Buletin Penelitian Hasil Hutan 14, 5, p. 192-203.
(online at: http://ejournal.forda-mof.org/ejournal-litbang/index.php/JPHH/article/view/3709)
('Fossil wood diversity in the western part of Java Island'. Of 199 wood fossils from 5 localities in W Java, 81% belong to family Dipterocarpaceae (Dryobalanoxylon, Shoreoxylon, Hopeoxylon, Anisopteroxylon, etc.). In past, tree diversity in W Java similar to Sumatra and Kalimantan, where dipterocarp trees are common)

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(online at: http://onlinelibrary.wiley.com/doi/10.1029/2007EO180009/epdf)

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('Report on the occurrence of asphalt and phosphate deposits at the base of the Kromong Mountains, Palimanan District, Residency Cirebon'. Four small asphalt deposits/ oil seeps in Miocene limestone ~20 km W of Cirebon, just SW of Palimanan village, known since Verbeek & Fennema 1896. Associated with hot springs and phosphate around Kromong/ Gunung Gundul andesite-cored anticline. With 1:20,000 scale map. Stratigraphy description see also Harsonon Pringgoprawiro et al. (1977))

Mansfeldt, H.A. (1876)- Verslag over een onderzoek naar den stand van de particuliere aardolie-ontginning in de Residentie Cheribon, met eenige mededeelingen betreffende de mogelijkheid om aardolie te vinden in de residentie Soerabaja. Jaarboek Mijnwezen Nederlandsch Oost-Indie 5 (1876), 2, p. 183-206.
('Report on an investigation of the private petroleum exploitation in the residency Cirebon, with some notes on the possibilities of finding petroleum in the Surabaya Residency'. Report on 1875 government geologist visit to first (minor) Java oil production W of Cirebon, encountered here by J. Reerink in shallow 'Tjibodas wells near Madja oil seep (5 at Cibodas, 1 at Madja, 1 near Tjipinang). Hilly terrain. First wells drilled in 1871 and 1872 with numerous drilling problems due to borehole instabilities. Operator went to USA in 1873 for more efficient 'Canada' drilling equipment. Producing oil at Cibodas since 1874. Additional oil seeps at Ajer Panas near Palimanang. Oil and gas indications in surface seeps (Gunung Sahari) and in water wells near Surabaya, but not deemed commercially viable by author (later proven wrong byIr. A. Stoop). No maps or figures)

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(online at: http://ro.uow.edu.au/theses/2647/)
(Gunung Limbung W of Bogor base metal mineralization one of several such deposits in W Java. Area with argillite, tuffaceous sandstone and volcanic breccia-lava, intruded by diorite formed in volcanic arc. Four types of sulphide ores)

Marcoux, E. & J.P. Milesi (1994)- Epithermal gold deposits in West Java, Indonesia: geology, age and crustal source. In: T.M. van Leeuwen et al. (eds.) Indonesian mineral deposits- discoveries of the past 25 years, J. Geochemical Exploration 50, 1-3, p. 393-408. *(online at: https://www.academia.edu/90020887/Epithermal_gold_deposits_in_West_Java_Indonesia_geology_age_and_crustal_source)*
(Epithermal gold mineralization in SW Java hosted by Miocene and Pliocene intrusions and volcanics. Most ore deposits of Bayah Dome related to extensive Pliocene magmatism dated as 5.7- 2.0 Ma. Mineral deposits

localised by structural controls, in particular a strike-slip fault reactivated as normal fault. Lead isotopes suggest existence of underlying Precambrian crust in W Java)

Marcoux, E., J.P. Milesi, T. Sitorius & M. Simandjuntak (1996)- The epithermal Au-Ag-(Mn) deposit of Pongkor (West Java, Indonesia). Indonesian Mining J. 2, p. 1-17.

Marcoux, E., J.P. Milesi, S. Sohearto & R. Rinawan (1993)- Noteworthy mineralogy of the Au-Ag-W (Bi) epithermal ore deposit of Cirotan, West Java, Indonesia. The Canadian Mineralogist 31, p. 727-744.
(Pliocene age (1.7 Ma) Cirotan Au-Ag ore deposit of Cikotok District, SW Java, producing since 1955. Considered as hybrid deposit transitional between low-level adularia-sericite epithermal type and porphyry-tin type of deposit)

Mardianza, A., A.O. Dewi, B. Rahmad & S.K. Daryono (2016)- Geochemical study of Jatibarang Formation source rock and oil in onshore area, North West Java Basin. Proc. 9th International Conference on Petroleum Geochemistry in the Africa-Asia Region, Bandung 2016, p. 1-6.
(online at: https://www.academia.edu/38603127/Geochemical_Study_Of_Jatibarang_Formation_Source_Rock_And_Oil_In_Onshore_Area_North_West_Java_Basin)
(similar to Dewi et al. (2016. In NW Basin basin main oil source believed to be Talang Akar Fm, but underlying Jatibarang Fm may also contribute. Most samples poor in organic matter and dominantly Type III kerogen,derived from higher plant source. Mature to postmature)

Mardianza, A. & C. Dianita (2018)- Korelasi geokimia antara batuan induk dan rembesan minyak dan gas di zona Kendeng bagian Barat, Jawa Tengah. Lembaran Publikasi Minyak dan Gas Bumi 52, 2, p. 67-77.
(online at: https://journal.lemigas.esdm.go.id/index.php/LPMGB/article/view/341)
('Geochemical correlation between source rock and oil and gas seepage in the western part of the Kendeng Zone, Central Java'. In W Kendeng zone S of Semarang geochemical evaluations show Kerek and Pelang Fm potential source rocks with kerogen Type III. Galeh oil (from Klepu 1 and Pelantang (Suruh) 1 wells drilled by Biting Petroleum Maatschappij in 1930) better correlation with Pelang Fm. Gas sample thermogenic, generated at Ro 1-1.2%. Gas of Kendil Hill correlates with Pelang Fm)

Mariana, D. & I. Maura (2019)- Revealing hydrocarbon contacts: An essential approach managing Banyu Urip reservoir dynamics. Proc. 43rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA19-G-160, p. 1-10.
(Banyu Urip field in Cepu Block, NE Jav, original Gas-Oil Contact was at ~4000' TVDSS, original Oil-Water Contact at ~5000' TVDSS

Marks, P. (1956)- Smaller foraminifera from well No. 1 (Sumur 1) at Kebajoran, Djakarta. Djawatan Geologi (Indonesia Geol. Survey), Publikasi Keilmuan 30, Seri Paleontologi, Bandung, p. 25-47.
(Study of foraminifera in water well drilled to 255m in 1950 at S side of Jakarta. Mainly barren, non-marine section with 3-4 thin intervals with shallow marine microfauna (Asterorotalia, Pseudorotalia, Elphidium, etc.). Uppermost samples rich in reworked planktonic forams. Age of section latest Pliocene- Pleistocene)

Marliyani, G.I. (2016)- Neotectonics of Java, Indonesia: crustal deformation in the overriding plate of an orthogonal subduction system. Ph.D. Thesis Arizona State University, p. 1-392.
(online at: https://repository.asu.edu/attachments/170517/content/Marliyani_asu_0010E_16033.pdf)
(Analysis of seismicity and active faulting on Java, particularly Cimandiri and Pasuruan Faults and volcano morphology)

Marliyani, G.I., J.R. Arrowsmith & H. Helmi (2019)- Evidence for multiple ground-rupturing earthquakes in the past 4,000 years along the Pasuruan Fault, East Java, Indonesia: documentation of active normal faulting in the Javan backarc. Tectonics 38, 4, p. 1489-1506.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2018TC005255)

(Recent geological activity along Pasuruan Fault, (high-angle normal fault), expressed as prominent ~13-km-long scarps cutting Pleistocene sediments on N coast of E Java. Fault near W end of Bali-Flores back-arc basin. Late Holocene activity along fault shows ongoing extensional faulting)

Marliyani, G.I., J.R. Arrowsmith & K.X. Whipple (2016)- Characterization of slow slip rate faults in humid areas: Cimandiri fault zone, Indonesia. J. of Geophysical Research: Earth Surface 121, 12, p. 2287-2308.
(Active Cimandiri fault zone in W Java six segments with predominant reverse motion. Segmentation of fault, led to smaller maximum earthquakes)

Marliyani, G.I., H. Helmi, J.R. Arrowsmith & A. Clarke (2020)- Volcano morphology as an indicator of stress orientation in the Java volcanic arc, Indonesia. J. Volcanology Geothermal Research 400, 106912, p. 1-19.
(Morphometric analysis of 141 Quaternary volcanoes and volcanic fields in Java suggest direction of maximum horizontal compressive stress in W part of Java is NE-SW (also alignment of volcano complexes?), and gradually rotates to NW-SE in E)

Martha, A.A., P. Cummins, E. Saygin, S. Widiyantoro & Masturyono (2017)- Imaging of upper crustal structure beneath East Java-Bali, Indonesia with ambient noise tomography. Geoscience Letters 4, 14, p. 1-12.
(online at: https://link.springer.com/content/pdf/10.1186%2Fs40562-017-0080-9.pdf)
(Ambient Noise Tomography used to image upper crustal structure under E Java- Bali. Main result of study is thickness of sediment cover. Kendeng basin dominated by very low velocities)

Martha, A.A., S. Widiyantoro, P. Cummins, E. Saygin & Masturyono (2016)- Investigation of upper crustal structure beneath eastern Java. Proc. 5th Int. Symposium on Earth hazard and disaster mitigation, Bandung, AIP Conference Proceedings 1730, 020011, p. 1-7.
(Ambient Noise Tomography method used to detect structure under E Java. N Rembang zone and most of S Mountains zone areas of high gravity anomaly and high velocity zones. Kendeng zone and most of basin in Rembang zone associated with low velocity zones)

Martin, K. (1879-1880)- Die Tertiarschichten auf Java, nach den Entdeckungen von Fr. Junghuhn, Palaeontologischer Teil (1879-1880). E.J. Brill, Leiden, p. 3-164.
('The Tertiary beds of Java, after the discoveries of Fr. Junghuhn; paleontological part'. First of many Martin publications on Tertiary fossils from Java. With descriptions of many new species, incl. Cycloclypeus annulatus from Citarum valley, W Java. Chapter on corals p. 132-146, mainly from Miocene of Nyalindung area, W Java)

Martin, K. (1880)- Revision of the fossil Echini from the Tertiary strata of Java. Notes from the Leyden Museum 2, p. 73-84.
(online at: www.repository.naturalis.nl/document/551344)
(Brief revisions of 19 species of echinoids originally described by Herklots (1854). Most of these are not new species as proposed by Herklots and many of them are still living today. No figures or locality information)

Martin, K. (1880)- Untersuchungen uber die Organisation von *Cycloclypeus* Carp. und *Orbitoides* D'Orb. Niederlandisches Archiv fur Zoologie 5, 2, p. 185-206.
('Investigations on the organization of Cycloclypeus and Orbitoides'. Early descriptions of Miocene Java larger foraminifera Cycloclypeus (C. annulatus, C. communis, C. neglectus) and Lepidocyclina (here still called Orbitoides; including new species radiata, carteri, gigantea))

Martin, K. (1881)- Tertiaerversteinerungen vom ostlichen Java, nach Sammlungen Junghuhn's und der Indischen Bergbeambten. Sammlungen Geologischen Reichs-Museums Leiden, Ser. 1, 1, p. 105-130.
(online at: www.repository.naturalis.nl/document/552410)
('Tertiary fossils from East Java, from collections of Junghuhn and Indies mining engineers'. Incl. descriptions of Eocene larger foraminifera Nummulites djokjokartae n.sp. and Discocyclina (Orbitoides dispansa) from Yogyakarta area, echinoids (Pleurechinus javanus, etc.), bivalves, gastropods, etc. With 4 plates)

Martin, K. (1882)- Tertiaerversteinerungen vom ostlichen Java, nach Sammlungen Junghuhn's und der Indischen Bergbeambten. Jaarboek Mijnwezen Nederlandsch Oost-Indie 1882, Wetenschappelijk Gedeelte p. 253-280.
('Tertiary fossils from East Java, from collections of Junghuhn and Indies mining engineers', Same as Martin (1881) paper above)

Martin, K. (1883)- Nachtrage zu den 'Tertiarschichten auf Java', 1er Nachtrag: Mollusken, nach Sammlungen der Indischen Bergbeambten, Junghuhn's und Reinwardt's. Sammlungen Geologischen Reichs-Museums Leiden, Ser. 1, 1, E.J. Brill, p. 194-270.
(also in Jaarboek Mijnwezen Nederlandsch Oost-Indie 1883, Wetenschappelijk Gedeelte p. 285-358)
(Continuation of 'The Tertiary beds of Java', part 1, molluscs. Descriptions of 71 species)

Martin, K. (1883-1887)- Palaontologische Ergebnisse von Tiefbohrungen auf Java, nebst allgemeineren Studien uber das Tertiar von Java, Timor und einiger anderer Inseln. Sammlungen Geologischen Reichs-Museums Leiden, Ser. 1, 3, p. 1-380.
(online at: www.repository.naturalis.nl/document/552425)
('Paleontological results of deep wells on Java, and more general studies on the Tertiary of Java, Timor and some other islands'. Descriptions of Tertiary fossils from outcrops and from water wells on Java (Grissee (=Gresik)- NE Java, Batavia, Ngembak- W of Purwodadi), mainly collected by Van Dijk of Geological Survey. Mainly on gastropods and bivalves, also fish teeth, crabs. With 15 plates)

Martin, K. (1883)- Palaontologische Ergebnisse von Tiefbohrungen auf Java, nebst allgemeineren Studien uber das Tertiar von Java, Timor und einiger anderer Inseln- 1. Jaarboek Mijnwezen Nederlandsch Oost-Indie 12 (1883), Wetenschappelijk Gedeelte, p. 371-412.
('Paleontological results of deep wells on Java, and more general studies on the Tertiary of Java, Timor and some other islands'. Part 1 of Martin (1883) paper above)

Martin, K. (1884)- Palaontologische Ergebnisse von Tiefbohrungen auf Java, nebst allgemeineren Studien uber das Tertiar von Java, Timor und einiger anderer Inseln- 2. Jaarboek Mijnwezen Nederlandsch Oost-Indie 13 (1884), Wetenschappelijk Gedeelte, p. 77-216.
('Paleontological results of deep wells on Java, and more general studies on the Tertiary of Java, Timor and some other islands'. Part 2 of Martin (1883) paper above)

Martin, K. (1885)- Palaontologische Ergebnisse von Tiefbohrungen auf Java, nebst allgemeineren Studien uber das Tertiar von Java, Timor und einiger anderer Inseln-3. Jaarboek Mijnwezen Nederlandsch Oost-Indie (1885), Wetenschappelijk Gedeelte, p. 5-108.
('Paleontological results of deep wells on Java, and more general studies on the Tertiary of Java, Timor and some other islands'. Part 3 of Martin (1883) paper above)

Martin, K. (1887)- Palaontologische Ergebnisse von Tiefbohrungen auf Java, nebst allgemeineren Studien uber das Tertiar von Java, Timor und einiger anderer Inseln-4. Jaarboek Mijnwezen Nederlandsch Oost-Indie (1887), Wetenschappelijk Gedeelte 2, p. 253-342.
('Paleontological results of deep wells on Java, and more general studies on the Tertiary of Java, Timor and some other islands'. Part 4 of Martin (1883) paper above)

Martin, K. (1891)- Die Fossilien von Java, auf Grund einer Sammlung von R.D.M. Verbeek und von anderen, Band I, Gasteropoda. Sammlungen Geologischen Reichs-Museums Leiden, N.F., 1, 1-2, p. 1-132.
(online at: www.repository.naturalis.nl/document/552454)
(Reprinted in Jaarboek Mijnwezen Nederlandsch Oost-Indie 1896, Wetenschappelijk Gedeelte, p. 43-328)
('The fossils of Java, based on a collection of R.D.M. Verbeek'. First of series of papers by Martin and collaborators on fossils of Java, published between 1891-1922. Volume 1: mainly extensive taxonomic descriptions of Tertiary gastropods. With 20 plates)

Martin, K. (1891)- Die Fossilien von Java, auf Grund einer Sammlung von R.D.M. Verbeek, Mollusken Heft 5-7. Sammlungen Geologischen Reichs-Museums Leiden, N.F., 1, 1-2, p. 133-332.

(online at: www.repository.naturalis.nl/document/552458)
(Second continuation of Martin (1891) monograph on Tertiary gastropods of Java. Includes 19 species of Turritella, also Purpura, Triton, Acanthina, Ranella, Cassis, Strombus, Potamides, etc. With 45 plates)

Martin, K. (1891)- Die Foraminiferen fuhrenden Gesteine, Studien uber *Cycloclypeus* und *Orbitoides*. Appendix in Die Fossilien von Java, auf Grund einer Sammlung von R.D.M. Verbeek, Sammlungen Geologischen Reichs-Museums Leiden, N.F., 1, p. 1-12.
(online at: www.repository.naturalis.nl/document/552466)
('The foraminifera-bearing rocks- Studies on Cycloclypeus and Orbitoides'. Early summary paper on W, C and E Java larger foraminifera (mainly species of Cycloclypeus))

Martin, K. (1895)- Neues uber das Tertiar von Java und die mesozoischen Schichten von West-Borneo. Sammlungen Geologischen Reichs-Museums Leiden, E.J. Brill, ser. 1, 5, 2, p. 23-51.
(online at: www.repository.naturalis.nl/document/552400)
('News on the Tertiary of Java and the Mesozoic beds of West Borneo'. Mainly listings of Tertiary gastropods from various localities of Java. No maps, no illustrations)

Martin, K. (1900)- Die Eintheilung der Versteinerungs-fuhrenden Sedimente von Java. Jaarboek Mijnwezen Nederlandsch Oost-Indie 29 (1900), p. 59-168.
('The classification of the fossiliferous rocks of Java' Overview of fossils and discussion of probable ages of formations from various parts of Java and Madura. Very 'wordy'; no maps, tables or other illustrations)

Martin, K. (1900)- Die Eintheilung der Versteinerungs-fuhrenden Sedimente von Java. Sammlungen Geologischen Reichs-Museums Leiden, Ser. 1, 6, p. 135-244.
(online at: https://repository.naturalis.nl/pub/509507/SGRM1S1899006001005.pdf)
('The classification of the fossiliferous rocks of Java' Same paper as Martin (1900), here published in Leiden. No figures)

Martin, K. (1907)- Eine Altmiocane Gastropodenfauna von Rembang, nebst Bemerkungen uber den stratigraphischen Wert der Nummuliden. Sammlungen Geologischen Reichs-Museums Leiden, Ser. 1, 8, p. 145-152.
(online at: www.repository.naturalis.nl/document/552421)
('An Early Miocene gastropod fauna from Rembang, with comments on stratigraphic value of nummulitids'. Listing of 40 gastropod species from Sedan and Gunung Butak, Rembang District, NE Java, only 6 species still known from recent faunas. Fauna held for Early Miocene (but associated with Cycloclypeus annulatus, so more likely Middle Miocene age, probably Bulu Limestone; JTvG). No figures)

Martin, K. (1907)- Systematische Ubersicht uber die Gastropoden aus Tertiaren und jungeren Ablagerungen von Java. Neues Jahrbuch Mineralogie Geologie Palaontologie 1907, 2, p. 151-162.
(online at: https://www.zobodat.at/pdf/Neues-Jb-Min-Geol-Palae_1907_2_0151-0162.pdf)
('Systematic overview of Tertiary and younger gastropods from Java'. Listing of 648 gastropod species names. No illustrations, ranges, descriptions, etc.)

Martin, K. (1908)- Das Alter der Schichten von Sonde und Trinil auf Java. Verslagen Koninklijke Akademie van Wetenschappen, Amsterdam, Afd. Wis. Natuurkunde, 30 Mei 1908, 17, p. 7-16.
('The age of the Sonde and Trinil beds on Java'. Commentary on some of the age conclusions by the Selenka Expedition (Carthaus). Listing of molluscs from the Sonde marls: 126 species, 56% still living, suggesting Pliocene age. Overlying terrestrial beds with vertebrate fossils of Pleistocene age)

Martin, K. (1909)- Die Fossilien von Java, auf Grund einer Sammlung von R.D.M. Verbeek, Lamellibranchiata. Sammlungen Geologischen Reichs-Museums Leiden, N.F., 1, 2, p. 333-386.
(online at: www.repository.naturalis.nl/document/552467)
(Second continuation of Martin (1891) monograph on Java Tertiary fossils:. Tertiary bivalves, incl. Ostrea, Placuna, Pecten, Arca, etc. With 12 plates)

Martin, K. (1911)- Enkele beschouwingen over de geologie van Java. Verslagen Koninklijke Akademie van Wetenschappen, Amsterdam, Afdeling Wis. en Natuurkunde, p. 19-23.
('Some considerations on the geology of Java'. Observations from Martin's 1910 travels in Priangan and Yogyakarta area)

Martin, K. (1911)- Vorlaufiger Bericht uber geologische Forschungen auf Java- 1 Teil. Sammlungen Geologischen Reichs-Museums Leiden, E.J. Brill, Serie 1, Serie 1, Beitrage zur Geologie Ost-Asiens und Australiens 9, 1, p. 1-76.
(online at: https://repository.naturalis.nl/pub/509501)
('Preliminary report on geological investigations on Java- part 1'. Includes chapters on geology and fossils of Preanger (1: Nyalindung (p. 5-24), 2. Kalksteine von Radjamandala: 'Old Miocene' Rajamandala limestone with Alveolina, Heterostegina many Lepidocyclina (p. 24-29), and Yogyakarta areas (p. 56-76))

Martin, K. (1912)- Vorlaufiger Bericht uber geologische Forschungen auf Java- 2 Teil. Sammlungen Geologischen Reichs-Museums Leiden, Serie 1, Beitrage zur Geologie Ost-Asiens und Australiens, 9, 1, p. 108-200.
(online at: https://repository.naturalis.nl/pub/509508/SGRM1S1911009001004.pdf)
('Preliminary report on geological investigations on Java- part 2'. Includes chapters on (1) folded Eocene beds of Kali Puru nearNanggulan, with Nummulites, Orthophragmina (= Discocyclina), 108 species of gastropods and molluscs and overlain by andesites; (2) two limestone hills, both named 'Gunung Gamping', one near Nanggulan with E Miocene Miogypsina and Lepidocyclina and one just W of Yogyakarta, of possible Miocene age, with some gastropods of Eocene affinity; (3) localities in Rembang zone, NE Java: Ngandang- Ngampel, with widespread M Miocene Cycloclypeus annulatus limestones and 72 species of gastropods; (4) Pliocene beds of Candi near Semarang)

Martin, K. (1912)- Verdere beschouwingen over de geologie van Java. Verslagen Koninklijke Akademie van Wetenschappen, Amsterdam, Wis- Natuurkundige Afdeeling, p. 1151-1158.
('Further considerations on the geology of Java' Mainly on Eocene- Miocene rocks and fossils around Yogyakarta. No illustrations))

Martin, K. (1913)- Einige allgemeinere Betrachtungen uber das Tertiar von Java. Geologische Rundschau 4, 3, p. 161-173.
(online at: https://www.zobodat.at/pdf/Geologische-Rundschau_4_0161-0173.pdf
('Some general considerations on the Tertiary of Java'. Early overview of Java stratigraphy, with ages of formations dated by percentages of Recent mollusc species)

Martin, K. (1914)- Die Fauna des Obereocans von Nanggulan auf Java. Sammlungen Geologischen Reichs-Museums Leiden, Serie 2, 4-5, p. 107-222.
(online at: www.repository.naturalis.nl/document/552460)
('The fauna of the Upper Eocene of Nanggulan, C Java'. Descriptions of well- preserved fossils from classic U Eocene locality of Nanggulan, W of Yogyakarta. Chapters: A. Gastropoda, B. Scaphopoda, C. Lamellibranchiata, D. Rhizopoda (foraminifera incl. Nummulites djokdjokartae, N. pengaronensis, Discocyclina dispansa, D. fritschi) and E. General part. With 8 plates)

Martin, K. (1916)- Die Altmiocane Fauna des West-Progogebirges auf Java. A. Gastropoda. Sammlungen Geologischen Reichs-Museums Leiden, N.F., 2, 6, p. 223-261.
(online at: www.repository.naturalis.nl/document/552451)
('The Early Miocene fauna of the West Progo Mountains on Java, A. Gastropods'. Conus, Mitra, Potamides, etc. from E Miocene SW of Yogyakarta)

Martin, K. (1917)- Die Altmiocane Fauna des West-Progogebirges auf Java. B. Scaphopoda, C. Lamellibranchiata, D. Rhizopoda. Sammlungen Geologischen Reichs-Museums Leiden, N.F., 2, 7, p. 261-296.
(online at: www.repository.naturalis.nl/document/552451)

(‘The Early Miocene fauna of the West Progo Mountains on Java- Scaphopoda, Lamellibranchiata, Foraminifera'. Continuation of Martin (1916), with descriptions of shallow marine fossil assemblages of E-M Miocene of S Mountains, SW of Yogyakarta:B. Scaphopoda (Dentalium), C. Lamellibranchiata (Arca, Cardium, etc.), D. Rhizopoda (larger forams Miogypsina thecidaeformis, Lepidocyclina, Cycloclypeus, Flosculinella globulosa, Orbiculina))

Martin, K. (1918)- On the Miocene fauna of the West Progo Mountains in Java. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 20, 6, p. 800-804.
(online at: https://dwc.knaw.nl/DL/publications/PU00012270.pdf)
(Rich Miocene macrofossils from right bank of Progo River, W of Yogyakarta, Main localities: marls at Gunung Spolong and clay Kembang Sokkoh (well preserved, still some shine and color). Shallow marine Indo-Pacific mollusc assemblage, 103 species, only 7% still alive today. Associated with Miogypsina thecidaeformis. Most likely age Early Miocene)

Martin, K. (1919)- Unsere palaeozoologische Kenntnis von Java mit einleitenden Bemerkungen uber die Geologie der Insel. Brill, Leiden, p. 1-158.
(online at: https://www.zobodat.at/pdf/MON-GEO_0271_0001-0158.pdf)
('Our paleozoological knowledge of Java, with introductory remarks on the geology of the island'. Extensive overview of Cretaceous- Recent fossil localities, mainly with molluscs and larger foraminifera, with introduction to Java geology. Tertiary mollusc species in Indonesia different from Paris Basin and other European localities, suggesting absence of open-sea connection between Far East and Europe as far back as Late Eocene. With four plates of bivalve molluscs)

Martin, K. (1921)- The age of the Tertiary sediments of Java. Proc. First Pan-Pacific Science Congress, Honolulu 1920, Bernice P. Bishop Museum, Special Publ. 7, 3, p. 754-765.
(Brief review of Martin' s stratigraphic- paleontological work on Java. Age determinations based mainly on molluscs (% of living species) and orbitoidal foraminifera. None of Eocene mollusc species still living)

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(online at: https://repository.naturalis.nl/pub/509593/SGRMNF1909001002003.pdf)
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(Three magmatic arcs in Java: Late Cretaceous- Eocene in N (Java Sea; 87-52 Ma), M Oligocene- E Miocene in S (Indian Ocean) and modern arc along axis of Java. Northern 'Shelfal basin (Java Sea and NW Java shelf, N of

Bogor Trough) underlain by Jurassic-Cretaceous metamorphics (213-125 Ma) and younger granites. Bogor Basin underlain by Cretaceous-Eocene accretionary crust and is backarc basin during most of Tertiary. Miocene turbidite fans in Bogor Basin progressively younger to N (associated with episodic N-migrating/ loading by thrust sheets?). Gravity suggest NW-SE basement grain across W Java ('Sumatra trend'))

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(Benthic faunas and planktonic foraminiferas in seven sections in Plio-Pleistocene of Rembang Zone of NE Java. Abrupt changes of paleobathymetry from bathyal Mundu Fm Globigerina marls (Pliocene, N19-N20) to nearshore in Late Pliocene (base N21 = ~2.6Ma; JTvG) base of glauconitic globigerinid sands of Selorejo Fm with Gr. tosaensis, Gr. crassaformis, etc., and common reworked forams, with incised valley at base. Overlying E Pleistocene Tambakromo Mb blue shales restricted marine, also with common reworked Pliocene)

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(Dinoflagellate cysts from Eocene Nanggulan Fm at Kali Puru section, 3.5 km NW of Nanggulan village, W of Yogyakarta, C Java, incl. 13 species of Paleogene dinoflagellate cysts belonging to nine genera of Gonyaulacales group. Four new species; Glaphyrocysta circularis and G. dentata of Ceratioid Lineage and Exochosphaeridium reticulatum and E. brevispinosum of Gonyaulacoid Lineage)

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petroleum system. Mantle He from Lusi suggests deep magmatic intrusions from Arjuno-Welirang volcano. Lusi is not mud volcano but sediment-hosted hydrothermal system)

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(Kalang Anyar mud volcano NE of Lusi/ Sidoarjo, along this left-lateral strike-slip system. Emitted gases methane-dominated with smaller amounts of heavier hydrocarbons and CO_2. Mixed-thermogenic origin of methane is coupled with geothermal anomalies, as indicated by He and CO_2 isotopic values ($\delta 13C$ CO_2 as high as − 4‰) that suggest input of mantle-derived gas. Chemosymbiotic marine bivalves (oysters?) ~2000 years old indicate Kalang Anyar MV area was below sea level, and microbially-mediated precipitation of carbonates was ongoing during subaqueous methane seepage at crater site)

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(online at: https://www.researchgate.net/publication/225555919_Pongkor_west_Java_Indonesia_A_Pliocene_supergene-enriched_epithermal_Au-Ag-Mn_deposit)
(Pongkor large 1988 gold-silver discovery, 80km SW of Jakarta. Low-sulfidation epithermal deposit, with 2.05 Ma 40Ar/39Ar age of adularia samples. Four main mineralized quartz veins, steeply dipping, close to internal rim of caldera. Lead isotopes suggests source of mineralization and associated volcanics is underlying ancient continental crust that melted and remobilized in Pliocene (as applicable to entire Bayah Dome))

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(High-P metamorphic rocks in Karangsambung part of Cretaceous Luk-Ulo subduction complex, with fault-bounded slices of shale, sandstone, chert, basalt, limestone and ultrabasic rocks. Pelitic schists dominate and have late E Cretaceous K-Ar ages. Minor eclogite, glaucophane rock, garnet-amphibolite and jadeite-quartz-glaucophane rock as tectonic blocks in sheared serpentinite. P-T conditions indicate rock subducted to ~80 km at T gradient 7.0°C/ km. Rock formed by metamorphism of cold oceanic lithosphere subducted to upper mantle depths. Exhumation from upper mantle to lower-middle crustal depths by buoyancy. K-Ar (exhumation?) ages of micas in associated quartz-mica schist all 110-117 Ma= Aptian-Albian)

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(Reservoir model of Jambaran gas field, Cepu Block, E Java. Oligo-Miocene carbonate buildup with >1400' gas column and thin oil column)

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(online at: https://www.e-periodica.ch/digbib/view?pid=egh-001:1948:41#343)
('Spiroclypeus and Flosculinella in limestones of the coastal ranges between Pacitan and Blitar, SE Java' Southern Mountains. Suggests Aquitanian age for Spiroclypeus limestone and Burdigalian age for Flosculinella-bearing limestones)

Mohler, W.A. (1949)- Das Alter des Eozan-Kalkes von Gunung Gamping westlich Djokjakarta, Java. Eclogae Geologicae Helvetiae 42, p. 519-521.
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('The age of the Eocene limestone of Gunung Gamping West of Yogyakarta, Java'. Limestone of Gamping outcrop W of Yogyakarta is Late Eocene, not Lower Eocene, and represents reef deposit formed at same time as upper Nanggulan limestones farther East (the basal part of Gn. Gamping outcrop was already identified as Late Eocene Pellatispira limestone by Gerth 1930; JTvG))

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(online at: https://ncloud.dotdream.co.th/index.php/s/xCwHAtAFYxzBtC9)

Morgenroth, P., A.T. Rahardjo & K. Anwar Maruyani (2008)- Dinoflagellate cysts from Miocene outcrops on Java island, Indonesia. Palaeontographica, B 278, 4-6, p. 111-137. *(online at: https://www.researchgate.net/publication/286674403_Dinoflagellate_cysts_from_Miocene_outcrops_on_Java_Island_Indonesia)*
(Dinoflagellate cysts in three Miocene surface sections in West and C Java: Cipimangkis River near Jatiluhur (Late Miocene Cisubuh Fm), Kali Jaya NNE of Kebumen (around E-M Miocene boundary) and Cijarian River along Bogor- Pelabuhan Ratu road (M Miocene Cimandiri Fm). Most samples common dinoflagellate cysts. 29 species, 15 new, from genera Achomosphaera, Dilabidinium, Edwardsiella, Hystrichosphaeropsis, Javadinium, Lejeunecysta, Operculodinium, Spiniferites, etc.)

Morgenroth, P., A.T. Rahardjo & K. Anwar Maruyani (2011)- Dinoflagellate cysts from two Oligocene surface sections on Java island, Indonesia. Palaeontographica, B 284, 4-6, p. 125-157. *(manuscript online at: https://www.researchgate.net/publication/298851952_Dinoflagellate_cysts_from_two_Oligocene_surface_sections_on_Java_Island_Indonesia)*
(Two Oligocene surface sections studied in W Java, Batuasih Fm near Cibadak and equivalent section near Padalarang, both marine claystones overlain by Rajamandala Fm limestones. Foraminifera and nannoplankton date Batuasih section around Early-Late Oligocene boundary. Dinoflagellate cysts in phosphatic nodules heavily affected by thermal metamorphism. Padalarang section planktonic foraminifera indicative of zones P20-P21, also around Early- Late Oligocene boundary. Dinoflagellate cysts may indicate slightly younger age than Batuasih. Twenty-six dinoflagellate species found, including three new species)

Morina, H., I. Syafri & L. Jurnaliah (2014)- Lingkungan pengendapan satuan batulempung sisipan batupasir pada Formasi Kerek daerah Juwangi dan sekitarnya, berdasarkan karakteristik litologi, analisis struktur sedimen, dan kandungan fosil bentonik. Bull. Scientific Contribution (UNPAD) 12, 3, p. 147-154.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8375/3891)
('Depositional environment of the sandstones-claystones of the Kerek Formation in the Juwangi area and surroundings, based on lithology, structure analysis of sediment and benthic fossil content'. Foraminifera interpreted as outer neritic)

Morley, R.J., E.B. Lelono, L. Nugrahaningsih & Nur Hasjim (2000)- LEMIGAS Tertiary palynology project: aims, progress and preliminary results from the Middle Eocene to Pliocene of Sumatra and Java. Geological Research Development Centre (GRDC), Bandung, Paleontology Series 10, p. 27-47.
(Summary of palynology work in Java (Eocene of Nanggulan and Bayah), Sumatra (E Oligocene Pematang Fm, Late Oligocene Talang Akar Fm, E Miocene Gumai Fm, M Miocene Air Benakat Fm)

Moscariello, A., D. do Couto, F. Mondino, J. Booth, M. Lupi & A. Mazzini (2018)- Genesis and evolution of the Watukosek fault system in the Lusi area (East Java). Marine and Petroleum Geology 90, p. 125-137.
(Seismic structural interpretation in area around Lusi mud eruption in E Java. Watukosek fault originated as extensional lineament and evolved into sinistral shear zone in post-Miocene)

Muchsin, N., R. Ryacudu, T.W. Kunto, S. Budiyani, B. Yulihanto, B. Wiyanto, A. Nurjayadi et al. (2002)- Miocene hydrocarbon system of the Southern Central Java region. Proc. 31st Annual Conv. Indonesian Association Geologists (IAGI), Surabaya, 1, p. 58-67. *(online at: https://www.iagi.or.id/web/digital/17/MIOCENE-HYDROCARBON-SYSTEM-OF-THE-SOTHERN-CENTRAL-JAVA-REGION.pdf)*
(E Miocene NW-SE trending grabens in S C Java region, with Miocene unconformable on volcanic arc rocks ('Old Andesites'; Gabon Fm; K-Ar age ~25-26 Ma). M Miocene Kalipucang Fm carbonate platform and time equivalent Pemali Fm shales, overlain by M-L Miocene deepwater Rambatan and Halang Fms. Etc.)

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Muhaimin, R. & S. Alam (2012)- The tide-influenced fluvial facies architecture analysis of the Walat Formation, Bogor Trough. Proc. 41st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2012-SS-18, p. 1-7. *(online at: https://www.iagi.or.id/web/digital/9/2012_IAGI_Yogyakarta_The-Tide-Influenced-Fluvial-Facies.pdf)*
(Study of outcrop sections of E Oligocene (?) Walat Fm quartz sandstone in Cibadak, W of Sukabumi. Interpreted as multistory high-sinousity fluvial channels in lower coastal-plain, influenced by tides. With Scoyenia and Skolithos ichnofacies. Paleocurrents showing bimodal dispersal pattern (no data included; JTvG). Petrographic analysis shows arkosic arenite with quartz 69%, feldspar 21% and rock fragments ~10%)

Muhammad, W.N., N.I. Setiawan, S. Husein & M. Nukman (2021)- A preliminary study of geology and skarn of Cemorosewu Area, Bayat, Central Java, Indonesia. Proc. Int. Conf. Geological Engineering and Geosciences, Yogyakarta 2021, IOP Conference Series: Earth and Environmental Science 851, 012045, p. 1-9.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/851/1/012045/pdf)
(First report of garnet, etc., skarn rocks in E Jiwo Hill, as large boulder along Kluwihan creek. Skarn formed by contact metamorphism of marble lenses in E Cretaceous metasediments by Oligo-Miocene microdiorite intrusion (marble lenses result of older ductile boudinage phase during metamorphism).

Muhar, A. (1957)- Micropaleontological examination of samples from the geological survey in Tuban. BPM Report SB1770, p. 1-14. *(Unpublished)*
(English translation of BPM report on NE Java basin stratigraphy and foraminiferal zonation)

Muin, A. (1985)- Contribution a la geologie du basin nord-oriental de l'ile de Java, Indonesie: sedimentologie d'un bassin d'arriere arc. Doct. Thesis, Universite de Grenoble, p. 1-335. *(Unpublished)*
(online at: https://tel.archives-ouvertes.fr/tel-00711880/document)
(NE Java backarc basin mobile zones of both great subsidence and lateral displacements, tied to plate motions. Tertiary basin evolution placed in paleogeographic context, characterized by 5 megasequences, each starting with transgressive, ending with regressive phase. Sedimentological studies of turbiditic facies of Kerek Fm in Kendeng zone and Ngrayong Fm in Rembang zones (Ngepon, Prantakan, Gegunung, etc.). Principal paleocurrent direction of Ngrayong Sst from N to S and NE to SW. M Miocene Kerek Fm derived from mainly volcanic source in S. Etc.)

Mukti, M.M., C. Armandita, H.B. Maulin & M. Ito (2008)- Turbidites depositional systems of the lower part of Halang Formation, stratal architecture of slope to basin floor succession. Proc. 37th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 162-176.
(online at: https://www.iagi.or.id/web/digital/14/2008_IAGI_Bandung_Turbidites-Depositional-System.pdf)
(M-Late Miocene Halang Fm volcanoclastics in W part North Serayu Basin, C Java,350m thick, paleocurrents downslope from W to E- SE)

Mukti, M.M., M. Hendrizan Praptisih & M.S. Siregar (2009)- Carbonate depositional environment in the East Pacitan area. In: L.D. Setijadji et al. (eds.) Proc. International Seminar on Geology of Southern Mountains, Int. Conference Earth Science Technology, Yogyakarta 2009, p. 65-68.
(online at: http://lib.ugm.ac.id/digitasi/upload/2994_MU.121000006-mmmukti.pdf)
(Carbonate sedimentological study of M - Late Miocene Wonosari Fm in E Pacitan, SE Java. Include coral boundstone facies, foraminifera packstone-wackestone, larger foram packstone, coral- larger foram rudstone, and algal-foram packstone facies, representing reef-associated carbonate platform. Back reef-inner shelf environment interpreted to S of Pacitan area)

Mukti, M.M. & M. Ito (2010)- Discovery of outcrop-scale fine-grained sediment waves in the Lower Halang Formation, an upper Miocene submarine-fan succession in West Java. Sedimentary Geology 231, p. 55-62.
(On fine-grained sand waves in muddy overbank deposits of channel deposits in lower Halang Fm turbidite system in Late Miocene Bogor Trough back-arc basin, W Java)

Mukti, M.M., M. Ito & C. Armandita (2009)- Architectural elements of a longitudinal turbidite system: the upper Miocene Halang Formation submarine-fan system in the Bogor Trough. West Jawa. Proc. 33rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA09-G-168, p. 1-14.
(Lower part of volcanogenic U Miocene Halang Fm S of Kuningan, W Java re-interpreted as longitudinal turbidite system downsloping in E along axis of Bogor Trough)

Mukti, M.M., M.S. Siregar, Praptisih & N. Supriatna (2005)- Carbonate depositional environment and platform morphology of the Wonosari Formation in the area East of Pacitan. J. RISET Geologi dan Pertambangan (LIPI) 15, 2, p. 29-38.
(online at: https://jrisetgeotam.lipi.go.id/index.php/jrisgeotam/article/download/193/pdf_62)
(M-U Miocene Wonosari Fm carbonates represent reefal or outer shelf facies, with slope environments to the North of the reef zone and back reef- inner shelf environment to S and W (see also Siregar et al.2004)

Mulhadiyono (1973)- Petroleum possibilities of the Banyumas area. Proc. 2nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 121-129.
(Pertamina work in S part of C Java with oil seeps and hydrocarbon shows in shallow BPM wells. Stratigraphic column showing oldest rocks Late Oligocene marls, overlain by earliest Miocene Gabon volcanics (= 'Old Andesites'), E-M Miocene Penanjung 'flysch', M Miocene Kalipucang Limestone. No geology map. Most prospective interval deemed to be M-L Miocene turbiditic reservoirs)

Muljana, B. (2012)- Hydrocarbon generation in Middle-Late Miocene turbidite successions in the Majalengka back arc basin, West Java, Indonesia. Ph.D. Thesis, Kyushu University, Fukuoka, Japan, p. 1-126.

Muljana, B., U. Mardiana, A. Hardiyono, N. Sulaksana, D.J. Setiadi, L. Jurnaliah & Nurdrajat. (2021)- Lithofacies and ichnofacies of turbidite deposits, West Java, Indonesia. Fossil Imprint (National Museum, Prague) 77, 1, p. 1-10.
(online at: http://fi.nm.cz/wp-content/uploads/2021/12/1_Muljana-1.pdf)
(On folded M-L Miocene deep marine turbiditic deposits in Majalengka area, East Bogor Trough, W Java. Trace fossils in all stratigraphic levels consist of Thalassinoides, Chondrites, Cruziana and Planolites. Sediment delivery into basin was from N (page 7; typo?; sediment from S in other Muljana papers; JTvG)))

Muljana, B. & D. Noeradi (2009)- Provenance of volcanogenic turbidite in Majalengka, West Java, Indonesia. Proc. Int. Symposium Earth Science and Technology (CINEST), Fukuoka 2009, Kyushu University, p. 253-258.

Muljana, B. & K. Watanabe (2011)- Sandstone composition and provenance of the Cinambo and Halang Formations in Majalengka, West Java, Indonesia. Proc. International Symposium on Earth Science and Technology, Fukuoka 2011, Kyushu University, p. 427-428.

Muljana, B. & K. Watanabe (2012)- Modal and sandstone composition of the representative turbidite from the Majalengka Sub-Basin, West Java Indonesia. Journal of Geography and Geology (JGG) 4, 1, p. 3-17.
(online at: https://ccsenet.org/journal/index.php/jgg/article/view/14122)
(Majalengka sub-basin in NW Java (E part of Bogor Basin) with ~ 4 km thick M-L Miocene turbidite-sequence. Three formations: Cisaar, Cinambo and Cantayan (with Halang and Bantarujeg Fms) Fms. Sandstones mainly recycled orogen (from developing thrust-fault belts) and magmatic arc provenance from Oligocene magmatic arc at Southern Mountains of Java. No evidence for source from continental terrain. Quartz mainly from recycled sediment. Lithic fragments mainly andesitic grains)

Muljana, B., K. Watanabe & M.F. Rosana (2011)- Sandstone composition of the turbidite series of the Middle to Late Miocene of Majalengka sub-basin, West Java, Indonesia. Proc. Int. Symposium on Earth Science and Technology, Fukuoka 2011, p. 429-434.
(online at: https://www.academia.edu/67381678/Sandstone_composition_of_the_turbidite_series_of_the_middle_to_late_Miocene_of_Majalengka_sub_basin_West_Java_Indonesia?uc-g-sw=98134666)
(M-L Miocene sedimments in Majalengka sub-basin are turbiditic sand-shale intercalations. Sands typically quartz-poor greywacke (quartz 11-17%.) Sandstone rich in volcanic lithics of calc-alkaline- tholeiitic type (andesite- dacite))

Muljana, B., K. Watanabe & M.F. Rosana (2012)- Source rock potential of the Middle to Late Miocene turbidite in Majalengka sub-basin, West Java, Indonesia: related to magmatism and tectonism. J. Novel Carbon Resource Science (Kyushu University) 6, p. 15-23.
(online at: https://ncrs.cm.kyushu-u.ac.jp/assets/files/JNCRS/JNCRS_Vol6_15-23.pdf)
(Hydrocarbon source potential in M-L Miocene turbiditic series in Majalengka Basin dominated by immature to mature gas-prone terrestrial Type III kerogen)

Muljana, B., K. Watanabe & M.F. Rosana (2012)- Petroleum system in back arc basin Majalengka sub-basin Indonesia. World Academy of Science, Engineering and Technology 62, p. 1792-1800.
(Same paper as above. Analyses of outcrop samples from M-L Miocene turbidites tend to suggest mainly gas prone kerogen Type III, with immature to mature values)

Mulyana, A. (2014)- Studi sekuen stratigrafi Formasi Parigi Lapangan C, Cekungan Jawa Barat Utara, Kabupaten Subang, Jawa Barat. J. Ilmiah Magister Teknik Geologi (UPN) 7, 1, p. 1-18.
(online at: http://jurnal.upnyk.ac.id/index.php/mtg/article/view/271/234)
(Sequence stratigraphy study of the Parigi Formation in Field C, NW Java Basin, Subang Regency, West Java'. M-L Miocene Parigi Fm reefal limestone buildups in NW Java basin with 3 electro-lithofacies)

Mulyaningsih, S. (2016)- Volcanostratigraphic sequences of Kebo-Butak Formation at Bayat geological field complex, Central Java Province and Yogyakarta Special Province, Indonesia. Indonesian J. on Geoscience (IJOG) 3, 2, p. 77-94.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/236/207)
(Bayat Complex in C Java with Late Oligocene Kebo-Butak Fm, with basalt, pumice tuff and shale, indicative of volcanic arc complex. Basalt composed of labradorite, olivine, clinopyroxene and volcanic glass. Black pumice and tuff contain clinopyroxene, olivine, and volcanic glass. Feldspathic tuff and pumice tuff are crystal vitric tuffs with more feldspar, quartz and amphibole than glass. Zeolite and chlorite alteration. Two deep submarine paleovolcanoes: Tegalrejo (basaltic) and Baturagung (mainly pyroclastic material))

Mulyaningsih, S., M. Muchlis, N.W.A.A.T. Heriyadi & D. Kiswiranti (2019)- Volcanism in the Pre-Semilir Formation at Giriloyo region; allegedly as source of Kebo-Butak Formation in the Western Southern Mountains. J. Geoscience Engineering Environment Technology (JGEET) 4, 3, p. 217-226.

(online at: https://journal.uir.ac.id/index.php/JGEET/article/view/2262/2094)
(Kebo-Butak Fm volcanoclastic rocks and calcareous sediments oldest volcanic rocks in lower Baturagung Hills, Gunungkidul Regency. Locally also pillow basalts. Volcanic rocks exposed in Giriloyo probably submarine paleo-volcano, with black tuffs with fragments of volcanic bombs of basalt composition, interbedded with thin basaltic lava and calcareous claystone with zone N5-7 (Early Miocene) age (N.B. planktonic foraminifera identified more likely suggest zone latest Oligocene N4?; JTvG). Part of Kebo-Butak Fm)

Mulyaningsih, S., R. Putong, A. Prima, R.A. Hidayah & D. Kiswiranti (2024)- Volcanic evolution of the Southern Mountain Neogene magmatic belt in Baturagung Range Central Java, Indonesia. J. Geoscience Engineering Environment Technology (JGEET) 9, 4, p. 400-419.
(online at: https://journal.uir.ac.id/index.php/JGEET/article/view/18461/7389)
(Extensive review of Baturagang escapment part of the Latest Oligocene- E Miocene andesitic volcanic arc in Southern Mountains of C Java. Formations formed by activities of multiple volcanoes. Many deposits in submarine facies. Final volcanic explosive phase in Semilir Fm, around 20-19 Ma. Interpreted as continental margin arc)

Mulyawan, R.S. & S. Husein (2014)- Kompleks sesar Trembono sebagai gravitational structures. Proc. Seminar Nasional Kebumian 7, Dept. Teknik Geologi, Gadjah Mada University, Yogyakarta, P4P-01, p. 676-689.
('The Trembono fault complex as gravitational structures'. Trembono fault complex in Gunung Kidul Regency, S Mountains, formed in late Oligocene- E Miocene Kebo-Butak Fm volcanoclastics in extensional regime with NE-SW extension direction. Timing of formation unclear. Possible gravitational structure. See also Nugraha et al. 2016)

Muller, A. & V. Haak (2004)- 3-D modeling of the deep electrical conductivity of Merapi volcano (Central Java): integrating magnetotellurics, induction vectors and the effects of steep topography. J. Volcanology Geothermal Research 138, 3-4, p. 205-222.

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(online at: https://www.techscience.com/energy/v122n8/63079/pdf)
(University of Lampung study of unconventional hydrocarbon deposits in NE Java basin(?))

Munasri, S.S., H. Permana & S. Djoehanah (2000)- Karakteristik melange di daerah Ciletuh, Jawa Barat dan studi deformasi batuan ofiolit. Laporan Penelitian Puslitbang Geoteknologi (LIPI) Tahun Anggoran 1999/2000, p. 10-29.
(LIPI study of Ciletuh melange, SW Java)

Murwanto, H., Y. Gunnell, S. Suharsono, S. Sutikno & F. Lavigne (2004)- Borobudur monument (Java, Indonesia) stood by a natural lake: chronostratigraphic evidence and historical implications. The Holocene 14, 3, p. 459-463.
(online at: https://www.researchgate.net/publication/236341703_Borobudur_temple_stood_by_a_lake_chronostratigraphic_evidence_and_historical_implications)
(9th century Borobudur Buddhist temple built on promontory extending into a now dried-out lake (as previously suggested by Harloff & Pannekoek (1940)). Fluctuating life history of lake spanned at least 20,000 years)

Murwanto, H. & A. Purwoarminta (2019)- The ancient Borobudur lake, history, and its evidences to develop geo-archeotourism in Indonesia. Indonesian J. on Geoscience (IJOG) 6, 1, p. 103-113.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/430/280)
(Traces of Borobudur ancient lake environment history include lacustrine sediments (geology), geomorphology, hydrology, toponym, and reliefs sculpted on Borobudur temple))

Murwanto, H., A. Subandrio, A. Rianto & Suharsono (2000)- Study of the trace of ancient Solo River in the South Wonogiri. Proc. 29th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 4, p. 265-271.

(Canyon crossing S Mountains limestone terrane to Sadeng Bay, SE of Yogya, is ancient course of Solo River. River originates on S slope of Lawu volcano, and was forced to find northern outlet after M Pliocene uplift of Southern Mountains)

Murwanto, H., Sutikno & A. Subandrio (1998)- The ancient lake environment in the Borobudur area, Central Java. Proc. 27th Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 3 (Geodinamika, Magmat. Volkanologi), p. 84-93.
(online at: https://www.iagi.or.id/web/digital/56/61.pdf)
(Area surrounding Borobudur hills once formed Quaternary lake environment. With black clays containing plants and pollen fossils of lake community vegetation. Former lake filled by lahar and pyroclastic deposits)

Musgrove, F. & M. Sun (2012)- Developing a large carbonate buildup field- Banyu Urip, Cepu Block. Proc. 36th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA12-G-035, p. 1-12.
(Banyu Urip Field >1 Billion BBL oil in place. High relief Oligo-Miocene isolated carbonate buildup, rising ~3000' above surrounding carbonate platform. 150' thick cycles of shallow water carbonate, exposed to fresh water leaching to form high quality reservoir rock with average 26% porosity and 100 mD permeability in interior. Edges of platform heavily cemented)

Musgrove, F.W. & M. Sun (2013)- Developing the largest carbonate oil field in SE Asia- Banyu Urip, Cepu Block. Proc. Petroleum Geology Conference Exhibition (PGCE), Kuala Lumpur 2013, O22, p. 1-4. *(Extended Abstract)*
(Short version of 2012 paper above)

Muslih, Y.B. & A.F. Putra (2018)- Subsidence mechanisms in offshore South Java and its comparison to onshore geology: extensional and flexural tectonics. Proc. 42nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA18-168-G, p. 1-15.
(online at: www.researchgate.net/publication/338913427_SUBSIDENCE_MECHANISMS_IN_OFFSH Etc.)
(Offshore S Java displays extensional structures in fore-arc position, with structures trending mainly NE-SW to ENE-WSW. NE-SW structural trends continue into onshore S Java (unlike N-S faults in N Java))

Musliki, S. (1988)- The Pliocene Selorejo Formation and its hydrocarbon prospect in Cepu, North East Java, Indonesia. M.Sc. Thesis, University of New South Wales, Sydney, p. *(Unpublished)*

Musliki, S. (1989)- Seismic stratigraphy applied to the Northeast Java Basin. Proc. 18th Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, p.

Musliki, S. (1990)- The Pliocene Selorejo Formation and its hydrocarbon prospects in Cepu and surrounding areas. Proc. 19th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 379. *(Abstract only)*
(online at: https://www.iagi.or.id/web/digital/47/19th-(11-13-Des-1990)-Book-I-373-387-15.pdf)
(Late Pliocene Selorejo Fm distributed in belt of 10km wide, 100km long, from Pati in NW to Dander in SE in NE Java basin. Composed of bedded limestones and foraminiferal sandstones (calcarenites), 0-130m thick. Deposited unconformably over Pliocene Mudu Fm after main Plio-Pleistocene tectonic phase. Gas-bearing in Balun structure near Cepu (age latest Pliocene N21 according to Djuhaini & Martodjojo 1990))

Musliki, S. (1991)- The effect of structural style to the hydrocarbon accumulation in the Northeast Java Basin. Proc. 20th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 86-96.
(online at: https://www.iagi.or.id/web/digital/49/20th-(10-12-Des-1991)-5.pdf)
(NE Java basin up to 6000m of Tertiary sediments, in three zone: (1) Rembang anticlinorium in N, (2) Randublatung in middle (gently deformed; most prospective) and (3) Kendeng foldbelt in S (deep basement, detached folds; least prospective for oil-gas, although with oil seeps). All known oil-gas fields in structural traps. All structural traps identified and most of them drilled; future discoveries expected in stratigraphic traps like reefs, facies changes, buried highs, etc. Steep gravity gradient suggest boundary between Randublating and Kendeng zones is fault zone)

Musliki, S. (1992)- Depositional cycles of the Northeast Java Basin and their relation to the hydrocarbon potential. Proc. International Symposium on Neogene, Northeast Pacific Area, Bandung, October, p. 19-22.

Musliki, S. (1994)- The Neogene Kalimu, Kalinges and Kanopu Formations in the Northeast Java basin. Proc. 23rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 1, p. 55-66.
(online at: https://www.iagi.or.id/web/digital/62/5.pdf)
(Proposing new formation names for existing Neogene formations of NE Java basin: (1) Kalimu Fm for Late Miocene- Pliocene marls of Kalibeng Fm (Kendeng zone), GL Formation (Randublatung zone) and Mundu Fm (Rembang zone); (2) Kalinges Fm for Late Pliocene carbonates of Klitik/ Ngepung Mb (Kendeng zone), and Selorejo Fm (Randublatung and Rembang zones); (3) Kanopu Fm for Pleistocene volcanoclastics facies of Pucangan- Kabuh- Notopuro Fms (Kendeng zone) and Trinil Mb (Randublatung and Rembang zones))

Musliki, S. (1996)- Palaeogeographic interpretation based on lithostratigraphic units and relative sea level changes during the Plio-Pleistocene period in the Northeast Java Basin. In: B. Ratanasthien & S.L. Rieb (eds.) Proc. Int. Symposium on Geology and Environment, Chiang Mai, Thailand, p. 147-158.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/1996/)

Musliki, S. (1997)- Possible hydrocarbon accumulation within Eocene coarse clastic reservoir in the Northeast Java Basin. Proc. 26th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 22-35.
(Comparison of NE Java basin with S Sumatra and E Kalimantan suggests Eocene- Oligocene Ngimbang Fm clastics should have hydrocarbon potential. Clastics in exploration wells in NE Java generally poor reservoir quality and no hydrocarbons. Offshore NE Java good quality basal clastics in KE6, JS14-A1, Pagerungan 2, JS5-1 and some had hydrocarbons).

Musliki, S. (1999)- The development of stratigraphic interpretation and its implication to the success of hydrocarbon exploration in the Northeast Java Basin. Proc. 28th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 3, p. 131-138.
(online at: https://www.iagi.or.id/web/digital/57/13.pdf)
(Discussion of NE Java basin exploration since 1870s. Suggest that 1990s modern sequence stratigraphic concepts led to increased hydrocarbon exploration activity and discoveries))

Musliki, S. (2000)- The effect of Middle Miocene tectonic phase to the paleogeography, sedimentary processes and hydrocarbon prospect in the Northeast Java basin. Proc. 29th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 151-159.
(M Miocene N11-N12 Ngrayong Fm sandstone main reservoir in 25 oil fields of NE Java basin. Ngrayong Fm unconformably overlain by different Late Miocene- Pliocene formations, supposedly reflecting end-M Miocene orogeny/ global sea level drop at ~12-13 Ma. Overlying Bulu Lst generally dated as zone N13 or N14. All structural closures probably drilled, but still stratigraphic traps potential)

Musliki, S. & Suratman (1996)- A Late Pliocene shallowing upward carbonate sequence and its reservoir potential, Northeast Java basin. Proc. 25th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 43-54.
(Late Pliocene Klitik-Ngepung-Selorejo Fms carbonate facies widely distributed in NE Java, with outcrops mainly in Kendeng- Kembang zones. Late Pliocene carbonates interpreted as shallowing- upward sequence starting in Late Pliocene, ~2.9 Ma. Marls of Kalibeng- Mundu Fm followed by Globigerina Marl, Globigerina Lst, Reefal Limestone, Limestone Debris and Mollusc Limestone facies, covered by Lidah Fm clays. Best reservoirs Globigerina Lst facies: high porosity- permeability, composed of sand- size planktonic foraminifera. Significant gas (Balun field) and oil (Lidah, Kruka, Kuti, Metatu, Bogomiring fields) produced from this facies)

Muthi, A., I.G. Basten, I.G.M. Suasta & N.E.W. Litaay (2013)- Characteristics of alteration and mineralization at Randu Kuning- Wonogiri Project. Majalah Geologi Indonesia (IAGI) 28, 1, p. 15-28.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/717)

(Randu Kuning gold-copper porphyry prospect in Wonogiri/ Selogiri property with sheeted Cu-Au bearing quartz veins. Main lithologies diorites and breccias. Mineralization in quartz veins in and adjacent to microdiorite intrusion tied to large eroded volcanic center in N-migrating Oligocene- Miocene volcanic arc)

Muttaqy, F., A.D. Nugraha, J. Mori, N.T. Puspito, P. Supendi & S. Rohadi (2022)- Seismic imaging of lithospheric structure beneath Central-East Java Region, Indonesia: relation to recent earthquakes. Frontiers in Earth Science 10, 756806, p. 1-19.
(online at: https://www.frontiersin.org/articles/10.3389/feart.2022.756806/full)
(Re-interpretation of P- and S-arrivals of 1488 earthquakes in 2009-2017 recorded at 27 BMKG stations)

Muttaqy, F., A.D. Nugraha, N.T. Puspito, D.P. Sahara, Zulfakriza, S. Rohadi & P. Supendi (2023)- Double-difference earthquake relocation using waveform cross-correlation in Central and East Java, Indonesia. Geoscience Letters 10, 5, p. 1-16.
(online at: https://geoscienceletters.springeropen.com/articles/10.1186/s40562-022-00259-2)
(1529 earthquakes inC and E Java 2009-2017. Relocated 1,127 events with waveform cross-correlation data in the double-diference algorithm. Seismicity mainly in S Java. Also shallow clustered earthquakes along active inland faults (Opak Fault, Kendeng Trust Fault, and Rembang-Madura-Kangean-Sakala Fault Zone))

Muttaqy, F., A.D. Nugraha, Syuhada, J. Mori. N.T. Puspito, A.T. Sasmi, P. Supendi & S. Rohadi (2023)- Anisotropy variations in the continental crust of Central- East Java region, Indonesia from local shear wave splitting. J. Asian Earth Sciences 249, 105632, p. 1-14.
(Shear wave splitting analysis of local earthquakes data on Java identifies variations in horizontal stress and stress orientations)

Muttaqy, F., Syuhada, J. Mori. N.T. Puspito, A.T. Sasmi, P. Supendi & S. Rohadi (2023)- Lithospheric mantle dynamics in Central and East Java Region, Indonesia from local shear wave splitting measurements. J. Geodynamics 158, 101998, p. 1-16.
(Local shear wave splitting of 30-300 km depth earthquakes from 38 BMKG stations in 2009-2020 to determine upper mantle dynamics beneath the C and E Java)

Myaing, Y.Y., A. Idrus & A.D. Titisari (2018)- Fluid inclusion study of the Tumpangpitu high sulfidation epithermal gold deposit in Banyuwangi District, East Java, Indonesia. J. Geoscience Engineering Environment Technology (JGEET) 3, 1, p. 8-14.
(online at: http://journal.uir.ac.id/index.php/JGEET/article/download/1039/784)
(Tumpangpitu epithermal Cu-Au-Ag deposit at S coast of SE Java, in area with Late Oligocene- M Miocene low-K calc-alkaline to alkaline andesitic volcanics and volcaniclastics and with low-K intermediate intrusions. Mineralization style high-sulfidation epithermal gold-copper system typically associated with deeper gold-rich porphyry copper system. Paleodepth of mineralization determined from fluid inclusions 650m- 1220m)

Nachrowi, T.Y. & Y.P. Koesoemo (2003)- A geological trip to Cepu area for non-geoscientist personnel. Indonesian Petroleum Association Field Trip Guidebook, p. 1-51.
(Very basic write-up of NE Java basin geology)

Nahrowi, Baharuddin & Aminuddin (1979)- Stratigrafi Paleogene muda- Neogen Tua daerah Tuban, Paciran dan Panceng, Jawa Timur. Presentation 8th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 1-47.
('Stratigraphy of the late Paleogene- early Neogene in the Tuban, Paciran and Panceng areas, East Java')

Naibaho, N.E., A.H. Sasoni, R.R. Putra, T.A.A. Kristiono & I.V. Rumende (2012)- Geological field mapping: to identify a structural pattern in Talagadatar as a thrust fold belt based on surface data and tectonic setting into Sumedang, West Java. Proc. 41st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2012-GD-12, p. 1-5. *(online at: https://www.iagi.or.id/web/digital/9/2012_IAGI_Yogyakarta_Geological-Field-Mapping-to-Identify.pdf)*

(Fieldwork in Sumedang area at Talagadatar, NE of Bandung, shows six thrusts and four anticlines and synclines, forming fold-thrust system with two periods of activity, Late Miocene- E Pliocene and Late Pliocene- E Pleistocene)

Nainggolan D.A. (2008)- Struktur bawah permukaan daerah Semarang dan sekitarnya dari metode gaya berat dan magnet. Jurnal Sumber Daya Geologi (JSDG) 18, 3, p. 185-202.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/265/245)
(Sub-surface structure of Semarang and surroundings from gravity and magnetic methods'. Semarang area mainly covered by young volcanic rocks. Cipluk oil field, S of Kendal already closed in 1930. Structures in area mainly E-W and N-S directions)

Nainggolan D.A. (2009)- Struktur geologi bawah permukaan daerah Pekalongan dan sekitarnya berdasarkan analisis anomali gaya berat dan magnet. Jurnal Sumber Daya Geologi (JSDG) 19, 2, p. 127-138.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/200/191)
('Sub-surface geological structures of Pekalongan and surrounding areas based on gravity and magnetic anomaly analysis')

Napitupulu, H. (1998)- Organic geochemistry and thermal maturity modeling of hydrocarbon generation in the NW Java Basin, Indonesia. Ph.D. Thesis University of Texas at Dallas, p. 1-250. *(Unpublished)*
(Analyses of 22 oils with API gravities from 17.8° to 53°. Two groups oft oils derived from fluvial-deltaic Talang Akar Fm. One sample suggesting carbonate source. Widespread post-generation alteration of oils. Thermal modeling suggests Talangakar reached max. depth in Pliocene. Oil generation from 6- 1.6 Ma)

Napitupulu, H., L. Ellis & R.M. Mitterer (2000)- Post-generative alteration effects on petroleum in the onshore Northwest Java basin, Indonesia. Organic Geochemistry 31, p. 295-315. *(online at: http://directory.umm.ac.id/Data%20Elmu/jurnal/O/Organic%20Geochemistry/Vol31.Issue4.2000/9351.pdf)*
(NW Java Basin on-and offshore oils mainly derived from Oligocene fluvial-deltaic Talangakar Fm, with API gravities 17°-53°. In shallow reservoirs heavy biodegraded oils (API <22°). Post-generative alteration processes widespread. Pristane to phytane biomarker ratios affected by evaporative fractionation. Isotope and biomarker data identified two oil families: (1) marine influenced delta front-prodelta settings and (2) from higher plant-rich delta plain- delta front environment)

Napitupulu, H., R.M. Mitterer & J.A. Morelos-Garcia (1997)- Differentiation of oils from the NW Java Basin into three oil types based on biomarker composition. In: J.V.C. Howes & R.A. Noble (eds.) Proc. Int. Conference Petroleum Systems of SE Asia and Australasia, Jakarta 1997, Indonesian Petroleum Association (IPA), p. 667-679.
(Three source rock facies in NW Java Basin based on biomarker composition of oil: (1) deltaic withtypically high concentration of oleanane, etc. (2) probably lacustrine with abundant botryococcane, etc. and (3) two oils with intermediate-high sulfur content suggestive of marine carbonate depositional setting, although high pristane/phytane, etc. conflict with this interpretation; may be mixed with oil from a non-carbonate source)

Naranjo, J.C. (2007)- Tertiary basin initiation and sedimentation; East Java Basin, Indonesia. Masters Thesis, University of Wisconsin, Madison, p. 1-70. *(Unpublished)*
(Majority of proposed E Java Basin formation mechanisms back-arc related, but onshore part of basin appears to be constructed on pre-existing basement structural grain, not tectonic or fault-initiated. Passive basin fill of initial Eocene-Oligocene Ngimbang Fm clastic-dominated sedimentation suggesst pronounced paleo-basement topography. Mounded geometries of shallow-water carbonates, continuing into Kujung time (Oligocene-Miocene), on NE-SW basement highs. Mild initial subsidence during Eocene increases with time)

Naranjo, J.C., J.A. Simo, E. Dragan & A.R. Carroll (2007)- Tertiary basin initiation and sedimentation; East Java Basin, Indonesia. AAPG 2007 Annual Conv., 1p. *(Abstract only)*
(Seismic isochron mapping shows axis of Eocene-Oligocene E Java basin trended NE-SW. Oligocene-Miocene isochron map shows change to WNW-ESE orientation. Subsidence rates increased at this time, inconsistent with rift origin for earlier basin history. Prolific carbonate accumulations formed in areas with ~500m or less

Oligocene-M Miocene subsidence; areas with greater subsidence (up to 900m) became sediment-starved deeps. Major carbonate platform formed in N part of basin. Two SW-trending projections from platform represent buildups formed on paleohighs, corresponding to areas of lesser Eocene-Oligocene subsidence)

Nas, C. (1986)- Geologi endapan batubara daerah Cibobos-Cimandiri, Banten Selatan, Jawa Barat. Thesis Sarjana, Institut Teknologi Bandung, p. 1-238. *(Unpublished)*
('Geology of coal deposits in the Cibobos-Cimandiri area, South Banten, West Java')

Nash, J.M.W. (1931)- Enige voorlopige opmerkingen omtrent de hydrogeologie de Brantasvlakte. Handelingen 6e Nederlands-Indisch Natuurwetenschappelijk Congres, September 1931, Bandung, Sectie Geologie-Geografie, p. 680-689.
('Some preliminary remarks on the hydrogeology of the Brantas plain'. Seven E-W trending anticlines in Brantas River flood plain/ delta in E Java, still growing today. Mud volcanoes may have been active in area during Majapahit empire (see also Satyana 2008))

Natawidjaja, D.H. (1993)- Geological structures of Penosogan area Kebumen, Central Java: the significance of slump structures and extensional faults. Proc. 22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 137-146.
(Microtectonic analysis of Penosogan area, E of Karangsambung. NE-SW directed M Miocene syndepositional slump structures in turbiditic deep-water deposits, post M Miocene extensional structures Latest deformation is N-S compression)

Natawidjaja, D.H. & M.R. Daryono (2016)- Present-day tectonics and earthquake history of Java, Indonesia. Proc. 14th Regional Conference Geology and Mineral Resources of SE Asia (GEOSEA XIV) and 45th Annual Conv. Indonesian Association Geologists (IAGI) (GIC 2016), Bandung, p. 365-374.
(Java fewer major earthquakes than Sumatra, and focused along many smaller active faults (left-lateral Lembang fault, Cimandiri reverse fault, Baribis reverse fault, Opak fault, Lasem fault and others)

Natawidjaja, D.H., B. Sapiie, A. Pamumpuni, G.I. Marliyani & M.R. Daryono (2017)- Baribis-Kendeng thrust-fold zone of Java, Indonesia: new evidences of active back-arc tectonics and their implications to seismic hazards. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 164, p. 1-5.
(online at: https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_Baribis-Kendeng-Thrust-Fold-Zone.pdf)
(Geologic studies and earthquake records suggest E-W trending Baribis (W Java) - Semarang Thrust- Lasem Thrust and Kendeng (C-E Java) thrust belts in back-arc zone are aligned and still active fold-thrust belt. Connects further E to Flores Sea back thrust)

Natori, H. (1978)- Foraminifera from West Jawa. In: M. Untung & Y. Sato (eds.) Gravity and geological studies in Jawa, Indonesia. Indonesia- Japan Joint Research Program on Regional Tectonics of Southeast Asia, Geological Research Development Centre (GRDC), Bandung, Special Publ. 6, p. 81-89.

Natori, H., D. Kadar, Sudiyono, P. Siregar & F. Hasibuan (1978)- Foraminifera from Central Jawa. In: M. Untung & Y. Sato (eds.) Gravity and geological studies in Jawa, Indonesia. Indonesia- Japan Joint Research Program on Regional Tectonics of Southeast Asia, Geological Research Development Centre (GRDC), Bandung, Special Publ. 6, p. 89-101.

Nawawi, A., A. Suseno & A. Heriyanto (1996)- East Java Basins. Pertamina BPPKA, Jakarta, p. 1-107.

Nayoan, G.A.S. (1972)- Correlation of the Tertiary lithostratigraphic units in the Java Sea and adjacent areas. Proc. First Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 11-30.
(Brief overview of principal basins of Java Sea from S Sumatra to N Madura/ Barito, with correlation of stratigraphic successions)

Nehlig, P. & E. Marcoux (1992)- Le gisement d'or epithermal de Cirotan (Ouest Java, Indonesie): contraintes microthermometriques. Comptes Rendus Academie Sciences, Paris 315, Ser. II, p. 821-827.

('The epithermal god deposit of Cirotan, W Java; microthermometric constraints'. Microthermometric study of fluid inclusions from Cirotan epithermal gold deposit in Citotok Mining District, SW Java, suggest mineralization under rel. high salinities. Mineralized fractures tied to Pliocene quartz-microdiorite (4.5 Ma), intrusive in rhyolitic ignimbrites dated as 9.5 Ma. Absence of phase separation suggests minimal erosion of 410m since mineralization)

Ngkoimani, L.O., S. Bijaksana & C.I. Abdullah (2006)- Paleomagnetic and geochronological constraints on the Cretaceous- Miocene tectonic evolution of Java. Proc. Jakarta 2006 Int. Geosciences Conf. and Exhib., IPA, SOT-11, p. 1-4. *(Extended Abstract)*
(Paleomagnetic study of area of 'Old Andesites' from Kulon Progo and other sites near near Yogyakarta suggests paleolatitudes of C Java moved from 16-21°S in Cretaceous-Eocene (~76-47 Ma) to between 12-13°S in Oligocene (~30-25 Ma), 10-11° S in Miocene (6-11 Ma), to 7°-8° S today, supporting hypothesis that C and E parts of Java formed microcontinent that collided with Sundaland in Late Cretaceous-Eocene (but: collision should be younger if continued to move N after Eocene?; JTvG))

Ngkoimani, L.O., S. Bijaksana, M. Mahrizal & C.I. Abdullah & T.H. Liong (2005)- Magnetic properties of igneous rocks from Banyuwangi, East Java and their reliability for paleomagnetic study. Indonesian J. Physics 16, 2, p. 33-41.
(online at: http://www.ijphysics.com/index.php/ijp/article/download/120/120)
(Paleomagnetic investigation of two igneous intrusions (no absolute age known) in Gunung Nangkajajar at E tip of Java near Banyuwangi. Paleolatitude of these intrusions was~30° S, well S of present position)

Niethammer, G. (1909)- Die Eruptivgesteine von Loh Oelo auf Java. Inaugural Dissertation, Universitat Basel, Tschermaks Mineralogischen Petrographischen Mitteilungen 28, 3, p. 205-273. *(online at: https://books.google.com/books/about/Die_eruptivgesteine_von_Loh_ollo_auf_Jav.html?id=leUTAQAAIAAJ)*
('The volcanic rocks from Lok Ulo on Java'. Petrographic descriptions of Cretaceous and Tertiary volcanic and metamorphic rocks, collected during 3-day visit by Tobler in July 1902. Includes discussions of Cretaceous Orbitolina limestone (folded within serpentinite?), first record of quartzose glaucophane schist, diabase, amphibolite, Tertiary hornblende andesite, etc. Oldest Tertiary sediments of Eocene age, unconformable over steeply dipping Cretaceous)

Nilsen, T.H. (2002)- Summary report on outcrop geology and general setting of the Banyumas Block, South-Central Java, Indonesia. Report for Coparex Banyumas, Jakarta, p. 1-31. *(Unpublished)*
(Lunt 2007, p. 147: M-L Eocene in Banyumas area is rel. deep water facies with slope channel sands and slumped Nummulites limestone blocks)

Ningrum, H.N.R. & Abdurrokhim (2016)- Study of paleoenvironmental changes based on lithofacies and foraminifera analysis in Padalarang Area, West Bandung Regency, West Java Province. Proc. 14th Regional Conference Geology and Mineral Resources of SE Asia (GEOSEA XIV) and 45th Annual Conv. Indonesian Association Geologists (IAGI) (GIC 2016), Bandung, p. 524-532.
(Summary of Oligocene- M Miocene (bio-)stratigraphy of Padalarang area, W of Bandung. Oldest rocks deep marine M Oligocene (N2) Batuasih Fm shale. Overlain by Late Oligocene (N3-N4)Rajamandala Lst, overlain by E Miocene outer neritic- bathyal clastics (N5-N13), etc. (No references to many earlier papers on this area))

Nishimura, S., H. Harjono & S. Suparka (1992)- The Krakatau islands: the geotectonic setting. GeoJournal 28, 2, p. 87-98.
(Sunda Strait transitional zone between Java frontal and Sumatra oblique subduction modes. W Java and Sumatra geologically continuous. Krakatau at intersection of two graben zones and N-S active, shallow seismic belt (fracture zone with fissure extrusion of alkali basaltic rocks commencing at Sukadana and continuing S as far as Panaitan island through Rajabasa, Sebuku and Krakatau). Paleomagnetic studies suggest Sumatra rotated CW relative to Java from at least 2.0 Ma to present at 5-10h/ Ma, so opening of Sunda Strait may have started before 2 Ma. W Sumatra has been moving N along Semangko fault and S part Sunda Strait pulled apart. Assuming perpendicular component (58 mm/y) of oblique subduction has not changed, subduction started at 7-10 Ma.

Sunda Strait under tensional regime as result of CW rotation along continental margin and N-ward movement of Sumatra sliver plate along Semangko fault zone)

Nishimura, S., J. Nishida, T. Yokoyama & F. Hehuwat (1986)- Neotectonics of the Strait of Sunda, Indonesia. J. Asian Earth Sciences 1, p. 81-91.
(online at: https://www.academia.edu/106831576/Neo_tectonics_of_the_Strait_of_Sunda_Indonesia)
(Sunda Strait rapidly subsiding trough, with thick U Pliocene- Quaternary clastics from Lampung to Krakatau fracture zone. Krakatau complex at intersection of two graben zones and N-S active seismic belt. Gravity anomalies in (1) N of Ujung Kulon, indicating existence of low gravity caldera, from which Malingping and Banten tufts were ejected 0.1 Ma ago, and (2) area of Kotaagung, where graben structure was observed and ignimbrite eruption occurred at 1 Ma. Paleomagnetic studies suggest Sumatra rotated clockwise relative to Java from 2.0 Ma- present at 5-10°/ My. Difference in strike of Java and Sumatra exceeds 20 °, so rotation of Sumatra and opening of Strait Sunda might have started before 2 Ma)

Nishimura, S., K.H. Thio & F. Hehuwat (1980)- Fission-track ages of the tuffs of the Pucangan and Kabuh Formations and the tektite at Sangiran, Central Java. In: S. Nishimura (ed.) Physical geology of Indonesian island arcs, Kyoto University Press, p. 72-80.

Nishimura, S., K.H. Thio & F. Hehuwat (1980)- Fission-track ages of tephras and tuffs from Bayat and Karansambung, Central Jawa. In: S. Nishimura (ed.) Physical Geology of Indonesian Island Arcs, Kyoto University Press, Kyoto, p. 81-87.

Noble, R.A., K.H. Pratomo, K. Nugrahanto, A.M.T. Ibrahim, I. Prasetya et al. (1997)- Petroleum systems of Northwest Java, Indonesia. In: J.V.C. Howes & R.A. Noble (eds.) Proc. Conf. Petroleum Systems of SE Asia and Australasia. Indonesian Petroleum Association (IPA), Jakarta, p. 585-600.
(online at: https://www.academia.edu/72168684/Petroleum_Systems_of_Northwest_Java_Indonesia)
(NW Java at least ten active petroleum systems and 150 oil and gas fields. Expected EUR >4 BBOE from ~14 BBOE in-place. Onshore sub-basins Ciputat, Kepuh, Pasir Bungur, Cipunegara/E15 and Jatibarang. Oil and gas originating here migrated through structural high in N direction towards offshore. Offshore petroleum systems S Ardjuna, C Ardjuna, Sunda, Yani/N Seribu Trough and Asri systems. Ten systems characterized in terms of source rock type, migration/ carrier bed system, major reservoir and seal, and style of entrapment)

Noble, R.A., C.H. Wu & C.D. Atkinson (1991)- Petroleum generation and migration from Talang Akar coals and shales offshore N.W. Java, Indonesia. Organic Geochemistry 17, 3, p. 363-374.

Noeradi, Dardji (1994)- Contribution a l'etude geologique d'une partie occidentale de l'Ile de Java, Indonesie. Stratigraphie, analyse structurale, et etude quantitative de la subsidence des bassins sedimentaires Tertiaires. Approche de la geodynamique d'une marge continentale active au droit d'une zone de subduction. Doct. Thesis Universite de Chambery, p. 1-253.
(online at: http://edytem.univ-savoie.fr/archives/lgham/dardji/Dardji-Noeradi-these-1994+.pdf)
('Contribution to the geological study of a western part of Java island: stratigraphy, structural analysis and quantitative subsidence modeling, etc.'. Late Cretaceous- Paleocene oblique subduction, with Indo-Australian plate moving N-S. Creation of NE-SW oriented volcanic arc and intra-arc basin with sinistral faults trending N30°-40°E. This marginal basin closes in M Eocene (43 Ma), with ultrabasic basement uplift and block melange deposition of Ciletuh Fm. Closure coincides with start of pivoting of SE Asian continent to SW after India collision. New E-W trending volcanic arc forms in Late Oligocene- E Miocene in S part of island. Volcanism continues until end M Miocene (14 Ma). In NW Java rapid subsidence started in Late Oligocene (23 Ma), with formation of horsts and grabens. In Late Miocene speed of Indo-Australian Plate increases from 4 to 7 cm/yr, causing N-ward movement of volcanic arc axis to present-day position and deformation in Cimandiri-Bayah and NW Java basin. Regional compression N25°-30°E reactivates old N70°-80°E faults. Creation of pull-apart basin in Gulf of Pelabuhan Ratu in Late Miocene (10 Ma) with rapid subsidence)

Noeradi, Dardji, T. Villemin & J.P. Rampnoux (1991)- Cenozoic fault systems and paleostress along the Cimandiri Fault Zone, West Java, Indonesia: In: E.P. Utomo, H. Santoso & J. Sopaheluwakan (eds.) Proc. Silver

Jubilee Symposium on the dynamics of subduction and its products, Yogyakarta-Karangsambung 1991, Research Development Centre Geotechnology, Indonesian Institut of Sciences (LIPI), Bandung, p. 245-270.

Noeradi, Dardji, E.A. Subroto, H.E. Wahono, E. Hermanto & Y. Zaim (2006)- Basin evolution and hydrocarbon potential of Majalengka-Bumiayu transpression basin, Java Island, Indonesia. Proc. AAPG International Conference Exhib., Perth., AAPG Search and Discovery 90061, 1.p. *(Abstract only) (online at: https://www.searchanddiscovery.com/pdfz/abstracts/pdf/2006/intl_perth/abstracts/ndx_noeradi.pdf.html)*
(NW-SE structural zone from Majalengka to Bumiayu, Java, between two major lineaments (NE-SW Cimandiri and N70E fault zones) characterised by fold belt of Neogene sediments (transpression zone). Oligo-Miocene-Pleistocene stratigraphy starts with distal turbidite system, grading upward into coarser turbidites, and fluvial-shallow marine deposits. At least twelve oil seeps, ten suspected gas seeps and one discovery well)

Nolf, D. & S. Bajpai (1992)- Marine Middle Eocene fish otoliths from India and Java. Bull. Inst. Royal Sciences Naturelles Belgique, Sciences de la Terre, 62, p. 195-221.
(online at: www.vliz.be/imisdocs/publications/276754.pdf)
(Two comparable M Eocene marine fish otoliths associations from India and Java. Nine clayey glauconitic sand samples from Nanggulan area, C. Java, with 24 neritic teleost species, dominated by apogonids. New species Apogon townsendoides, Lactarius nonfungus, Percoideorum sciaenoides, etc. Associated nannofossils upper Zone NP16, E Bartonian age)

Norris, M., B.D. Rohrlach & A. Maryono (2011)- The discovery of the Tujuh Bukit porphyry epithermal copper-gold-silver deposits, East Java, Indonesia. Proc. NewGenGold 2011 Conference, Case histories of discovery, Perth, p. 201-211.
(Tujuh Bukit group of telescoped epithermal and porphyry copper-gold-silver deposits in E Java, ~205 km SE of Surabaya. Cluster of deposits, including Tumpangpitu, Candrian, Katak and Gunung Manis in area of ~5 km diameter. Tumpangpitu comprises high sulphidation Cu-Au-Ag epithermal mineralisation that is telescoped onto large underlying Au-rich porphyry Cu-Au-Mo system, associate with young tonalite intrusives)

Nossin, J.J., M.C.J. Damen & R.P.G.A. Voskuil (1992)- Morphostructural relationships in the Lembang fault area, West Java, Indonesia. Zeitschrift fur Geomorphologie 84, p. 185-201.
(also in ITC Journal 2)

Nossin, J.J. & C. Voute (1986)- The geomorphology of the Borobudur plain, its archaeology and history (Central Java, Indonesia). Int. Institute Aerospace Survey and Earth Sciences (ITC) Journal 4, p. 280-289.
(Borobudur Plain was a lake in second half of Quaternary, with deposits up to 10m thick)

Nossin, J.J. & C. Voute (1986)- Notes on the geomorphology of the Borobudur Plain (central Java, Indonesia) in an archaeological and historical context. Proc. 7th Int. Symposium Remote sensing for resources development and environmental management, Enschede 1986, 2, p. 857-863.

Notosiswoyo, S. & S.B. Kusumayuda (1999)- Hydrogeology of the Gunung Sewu karstic area, Central Java, Indonesia: a conceptual model. In: G.H. Teh (ed.) Proc. 9th Regional Congress Geology Mineral Energy Resources of SE Asia (GEOSEA '98), Kuala Lumpur 1998, Bull. Geological Society Malaysia 43, p. 351-358.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1999035.pdf)
(Hydrogeologic models for karst terrane of M Miocene Gunung Sewu Gp carbonates, S Mountains, C Java)

Noujaim, A.K. (1976)- Drilling in a high temperature and overpressured area, Sunda Straits, Indonesia. Proc. 5th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 211-214.
(1973 Aminoil C-1SX well few km from Krakatau volcano very high temperature. Well TD at 9860' with formation Temp >450° F, after penetrating >8000' U Pliocene (volcano-)clastics)

Novian, M.I., P.K.D. Setiawan & S. Husein (2007)- Stratigrafi Formasi Semilir bagian atas di Dusun Boyo, Desa Ngalang, Kecamatan Gedang Sari, Kabupaten Gunung Kidul, DIY: pertimbangan untuk penamaan anggote Buyutan. Proc. 36th IAGI, 32nd HAGI and 29th IATMI Annual Conv. Exhib., Bali 2007, p. 846-850.

(online at: https://www.iagi.or.id/web/digital/28/2007_IAGI-Bali_Stratigrafi-Formasi-Semilir-Bagian-Atas-di-Dusun-Boyo.pdf)
(Same paper as Novian et al. (2009), below)

Novandaru, N. (2019)- Evolusi filogenetik foraminifera besar Miogypsinidae Oligosen Formasi Rajamandala lintasan Tagogapu. M.Sc. Thesis, Institut Teknologi Bandung (ITB), p. *(Unpublished)*
('Phylogenetic evolution of Oligocene Miogypsinidae larger foraminifera of the Rajamandala Formation in the Tagogapu section'. "In the Java region, there have been no published studies on the evolution of the Miogypsinidae family" (in reality, miogypsinids evolution was first documented in Bandung from Java samples, in six papers by Tan Sin Hok in 1936-1939; JTvG). Stratigraphic section in Tagogapu (Cikamuning area, W Java) shows large foraminifera zones Te 2-3 and Te 4 and planktonic foraminifera zone P22 or older, both diagnostic of Late Oligocene. Evolutionary studies on Neorotalia mecatepecensis and its descendants, Paleomiogypsina boninensis, Miogypsinella bornea, Miogypsinoides complanata and Ms formosensis)

Novandaru, N., K. Anwar Maryunani, R.D.W. Ardi & E.M. Nurhidaya (2025)- Biostratigrafi dan analisis paleobatimetri berdasarkan kumpulan foraminifera di daerah Cirahab, Kabupaten Banyumas, Jawah Tengah. Bulletin of Geology (ITB) 9, 1, p. 28-41.
(online at: https://www.buletingeologi.com/index.php/buletin-geologi/article/download/459/116)
(Stratigraphic section measurements in Kali Karangtengah, Cirahab area, N of Cilacap, 110 m long, composed of deep marine uppermost Halang and Tapak Formations. Four foram zones (N17-N21; latest Miocene- Late Pliocene). Paleobathymetric analysis indicates transgression in Late Miocene-Early Pliocene and one regression in Pliocene to Pleistocene)

Novandaru, N., K. Anwar Maryunani, R. Kapid, Aswan & W.B. Khorniawan (2025)- Phylogenetic evolution of *Neorotalia mecatepecensis* to Miogypsinidae from Rajamandala Formation, West Java, Indonesia. Palaeoworld 34, 5, 200961, p.
(Evolutionary trends in latest Oligocene miogypsinid larger benthic foraminifera from Rajamandala Limestone at Tagogapu. Observed series from Neorotalia mecatepecensis to Paleomiogypsina to Miogypsinella bornea to Miogypsinoides complanatus and Miogypsinoides formosensis)

Novian, M.I., P.K.D. Setiawan & S. Husein (2007)- Stratigrafi Formasi Semilir bagian atas di Dusun Boyo, Desa Ngalang, Kecamatan Gedang Sari, Kabupaten Gunung Kidul, DIY: pertimbangan untuk penamaan anggote Buyutan. Proc. Joint Convention 32nd HAGI, 36th IAGI, 29th IATMI, Bali 2007, p. 846-850.
(online at: https://www.iagi.or.id/web/digital/28/2007_IAGI-Bali_Stratigrafi-Formasi-Semilir-Bagian-Atas-di-Dusun-Boyo.pdf)
(Similar to 2009 paper below)

Novian, M.I., P.K.D. Setiawan, S. Husein & W. Rahardjo (2009)- Stratigrafi Formasi Semilir bagian atas di Dusun Boyo, Desa Ngalang, Kecamatan Gedang Sari, Kabupaten Gunung Kidul, DIY: pertimbangan untuk penamaan anggote Buyutan. Proc. Workshop Geologi Pegunungan Selatan, Yogyakarta 2007, Pusat Survei Geologi, Bandung, Special Publ. 38, p. 195-208.
('Stratigraphy of the Upper Semilir Formation in Hamlet Boyo, Ngalang Village, District Gedang Sari, Gunung Kidul, with considerations for naming the Buyutan Member'. Semilir Fm dominated by tuffs, volcanic breccias and volcanic sandstones. Measured sectons and facies analysis, interpreted mainly as deltaic environments (Semillir Fm usually viewed as E Miocene deeper marine turbiditic volcanoclastic deposits? Nothing about age (JTvG))

Novian, M.I., P.P. Utama & S. Husein (2013)- Penentuan batuan sumber Gununglumpur di sekitar Purwodadi berdasarkan kandungan fosil foraminifera. Pros. Seminar Nasional Kebumian 6, Jurusan Teknik Geologi Universitas Gadjah Mada, Yogyakarta 2013, S06, p. 518-533.
(online at: https://www.academia.edu/40355862/Prosiding_Seminar_Nasional_Kebumian_ke_6)
('Determination of source rock of the mud mounds near Purwodadi from fossil foraminifera content'. Samples from Kesongo and Crewek 'mud volcanoes' in Randublatung zone of NE Java basin with planktonic foraminifera of zones N18-19, N14/N12 and N7-N9 and E Miocene large foraminifera (Miogypsina, etc.). Mud volcanoes

probably sourced from oldest material, i.e. late E Miocene bathyal marine Tawun Fm, but also incorporated rocks of younger formations (Ngrayong, Wonocolo, Ledok, etc.))

Novianto, A. (2022)- Model struktur geologi Cekungan Kendeng dengan pendekatan metoda geofisika: implikasinya terhadap potensi migas. Doct. Thesis UPN "Veteran" Yogyakarta, p. 1-278. *(online at: http://eprints.upnyk.ac.id/29611/4/6.%20Draft%20Disertasi%20Ardian%20%28Revisi-Maret%29.pdf)*
('Model of the geological structure of the Kendeng Basin using geophysical methods: implications for oil and gas potential'. Kendeng zone in NE Java deep Tertiary basin, now fold-thrust belt, interpreted to be controlled by decollement that extends from Southern Mountains to Kendeng Basin. Basement exposed at surface in Jiwo-Bayat interpreted as first compressional decollement surface. Second decollement surface is Wonosegoro Fault, third decollement Juwangi fault, bringing Pelang Fm to surface. Youngest fault is Ngrahu Fault, the boundary of Kendeng Basin with basin in N. Eocene rocks equivalent to Jiwo Bayat present in material of mud volcanoes. Kendeng Basin controlled by E-W faults. Sangiran high located above Eocene rift basin, 4-5 mm deep. Oil in Kendeng Basin seeps from marine-deltaic organic material, and late mature maturation)

Novianto, A., Sutanto, Suharsono, C. Prasetyadi & W. Hidayat (2022)- Mud volcano: revealing the stratigraphy of Kendeng Basin, Indonesia. Open J. Yangtze Oil and Gas 7, p. 48-64.
(online at: https://www.scirp.org/pdf/ojogas_2022010514021881.pdf)
(Clasts from inactive Boyolali mud volcano complex in western Kendeng Basin (~50 km NE of Jiwo Hills; not far from Sangiran Dome?)) include M Eocene Nummulites limestones, conglomerates and quartz sandstones (older than oldest exposed sediments in Kendeng zone, E Miocene Pelang Fm), revealing subsurface stratigraphy. Nummulites limestones similar to Jiwo-Bayat rocks and associated with Eocene planktonic foraminifera foraminifera Morozovella aragonensis and Globigerinatheka mexicana barri (= M Eocene). Also shallow marine M Miocene limestones. No details on location or forams in Nummulites limestones- JTvG)

Novianto, A., Sutanto, Suharsono, C. Prasetyadi & T. Setiawan (2022)- Structure boundary separating using gravity data for Central and Southern parts of the East Java Basin beneath the Quaternary volcanic deposits. Iraqi Geological J. 55, 1B, p. 1-13.
(online at: https://igj-iraq.org/igj/index.php/igj/article/view/695/766)
(Gravity data SE of Yogyakarta show major E-W fault sytem, separating high Bouguer anomaly area in S from large negative area in N. Interpreted as high-angle, S-facing fault at S side of Quaternary volcanic range (N margin of Southern Mountains). Result of compressive tectonics that formed fold-thrust belt system)

Novianto, A., Sutanto, Suharsono, C. Prasetyadi & T. Setiawan (2020)- Structural model of Kendeng Basin: a new concept of oil and gas exploration. Open J. Yangtze Oil and Gas 5, 4, p. 200-215.
(online at: https://www.scirp.org/pdf/ojogas_2020090713433971.pdf)
(Kendeng Basin in NE Java interpreted from BouguerGravity Anomaly, shows flexural basin pattern formed during Neogene. E-W trending Eocene? horst-graben structures, reactivated during Plio-Pleistocene compression)

Novianti, S., S. Al Ayyubi & M. Abdurrachman & (2018)- Alteration and mineralization model in sediment-hosted indication at Kebonagung District, South Pacitan, East Java, Indonesia. GEOSEA XV Conference, Hanoi 2018, p. 169-184.
(online at: https://www.researchgate.net/publication/329238774_Alteration_and_Mineralization_Model_in_Sediment-hosted_Indication_at_Kebonagung_District_South_Pacitan_East_Java_Indonesia)
(Arsenic anomaly in stream sediments of Kebonagung District, S Pacitan, E Java, caused by realgar-orpiment mineralization, hosted mainly in E Miocene Campurdarat Fm-limestone. Possibly Carlin-type deposit)

Novita, D. (2012)- Asalmuda jadi batupasir vulkaniklastik Formasi Kebo-Butak daerah Mojosari dan Kalinampu, Bayat Jawa Tengah. Proc. 41st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2012-SS-06, p. 1-3.
('Origin of Kebo Formation volcanoclastic sandstones, Butak Mojosari area and Kalinampu, Bayat, C Java'. Outcrop sections of Eocene at Mojosari and Kalinampu show Kalinampu with rel. high feldspar content and with

polycrystalline and volcanic quartz. Mojosari more common volcanic quartz and no or rare feldspar. Interpreted as marine slope deposits)

Novita, D., D.H. Barianto & M.I. Novian (2013)- Biozonasi Formasi Kebo bagian bawah jalur Kalinampu-Sendangrejo, Bayat Jawa Tengah. J. Teknik Geologi (UGM) 2, 1, p. 1-5.
(online at: http://lib.geologi.ugm.ac.id/ojs/index.php/geo/article/view/20)
('Biozonation of the lower part of the Kebo Formation near Kalinampu-Sendangrejo, Bayat, C Java'. Area contains Oligocene Nampurejo pillow lava. Three measured sections with nine facies. Kalinampu-Sendangrejo section 13 M Eocene to E Miocene foraminifera biozones (P11-N5). Sumberan-Mojosari section 7 Late Eocene-Oligocene biozones (P14-N2). Depositional environment bathyal)

Novita, D., D.H. Barianto & M.I. Novian (2014)- Planktonic foraminifera biozonation of the Middle Eocene-Oligocene Kebo Formation, Kalinampu area, Bayat, Klaten, Central Java. Berita Sedimentologi 31, p. 70-81.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/125/95)
(Identification of 12 Middle Eocene (P11)- EarlyMiocene (N5) planktonic foraminifera zones with diverse assemblages in lower Kebo Butak Fm of S Mountains of C Java. With Eocene pillow lavas. Depositional environments bathyal marine (unique documentation of continuous M Eocene- E Oligocene deep marine pelagic sedimentation, preceding the Kebo-Butak etc. 'Old Andesites' arc volcanic episode; JTvG))

Novita, D., B. Muljana & H.M. Zajuli (2023)- Geokimia dan analisis lingkungan pengendapan batugamping Pliosen Formasi Paciran di daerah Watuputih, Kabupaten Rembang, Provinsi Jawa Tengah. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 24, 2, p. 79-88.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/729)
('Geochemistry and paleoenvironmental analysis of Pliocene Paciran Limestone in the Watuputih Area, Rembang Regency, Central Java Province'. Microfacies and chemistry of outcrop samples of Pliocene Paciran Limestone, NE Java Basin)

Novita, D., B. Muljana & M.H.H. Zajuli (2023)- Distribusi foraminifera bentonik besar sebagai penentu lingkungan pengendapan karbonat Pliosen dari Formasi Paciran bagian bawah. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 24, 4, p. 173-180.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/748)
('Distribution of the Larger Benthic Foraminifera as indicators of the Pliocene carbonate depositional environment from the Lower Paciran Formation'. Pliocene lower Paciran Fm limestone in C Rembang area. Six genera of large foraminifera: Amphistegina, Alveolina, Cycloclypeus, Heterostegina, Lepidocyclina and Operculina. Presence of Lepidocyclina in basal Paciran Fm indicates limestone formed in Early Pliocene (N.B.:figures of Lepidocyclina not convincing; if present, indicates Miocene JTvG). Foraminifera suggest deposition in open platform environment, then shallowing end deepening again to open platform)

Novita, D., D.R. Wirawan, S. Rijani & U. Hermawan (2022)- Pola perubahan iklim purba pada umur Pliosen dengan proksi foraminifera: studi kasus Formasi Sentolo, Yogyakarta. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 23, 3, p. 133-140.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/703/482)
('Paleoclimate change pattern in the Pliocene with foraminifera proxies: case study of the Sentolo Formation, Yogyakarta'. Sentolo Fm marls in Kulon Progo area 39m thick. Age range N19 (E Pliocene) and N20 (Late Pliocene), depositional environment from lower bathyal to outer neritic. Cooling pattern in E Pliocene and warming pattern in Late Pliocene)

Noya, Y. (1994)- Geology and mineralization of the Cikotok area, West Java, Indonesia. M.Sc. Thesis Curtin University of Technology, Perth, West Australia, p. 1-219. *(Unpublished)*
(Cikotok gold-silver deposits discovered in 1936 in Bayah Dome of S Banten, ~200 km SW of Jakarta. Gold production from 1940-1992 ~7704 kg and associated siilver 218,853 kg. Pliocene-age mineralization in quartz veins, formed at low T, hosted in Oligo-Miocene felsic volcanics ('Old Andesite Fm'). Small andesitic and granodioritic intrusive rocks emplaced in M-L Miocene. High silver content occurs as fine-grained argentite and possibly as electrum. Ore minerals in large sulphide (chalcopyrite, sphalerite and galena) - bearing quartz veins

and in hydrothermal breccias. Three zones. Epithermal origin, with average formation T 245°C. Depth below surface ~200 m at time of formation)

Noya, Y., T.C. Amin & N. Suwarna (1999)- Petrology of gold and silver-bearing volcanic rocks from Cikotok area, West Java. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 9, 95, p. 16-26.
(Gold-bearing host rocks of Cikotok Gold Mine area, SW Java, in hydrothermally altered andesitic, basaltic and rhyo-dacite lavas of Oligocene- E Miocene 'Old Andesites/ Cikotok Fm, intruded by M Miocene(?) granodiorite and andesitic dykes)

Noya, Y., D. Sukarna & S. Andi Mangga (1994)- The nature of mineralization at the Cikotok area, West Java. Proc. 23rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 2, p. 981-1000.
(Cikotok high-silver/ minor gold mineralization in SW Java large epithermal sulphide-quartz veins and in hydrothermal breccias. Host rocks Oligo-Miocene 'Old Andesite' volcanics. Ag-Au in sulphide minerals sphalerite, galena and chalcopyrite. Formed at 200m below surface (exploited from 1936-2008))

Noya, Y., T. Suwarti, Suharsono & L. Sarmili (1992)- Geology of the Mojokerto Quadrangle, Jawa (1508-6), 1:100,000. Geological Research Development Centre (GRDC), Bandung, p. 1-12. + map.
(Eastern Kendeng and Rembang zones)

Noya, Y., S.A. Wilde, S.A Mangga & D. Sukarna (1999)- A study of fluid inclusions at the Cikotok Gold Mine, West Java. In: G.H. Teh (ed.) Proc. 9th Regional Congress Geology Mineral Energy Resources of SE Asia (GEOSEA '98), Kuala Lumpur 1998, Bull. Geological Society Malaysia 43, p. 307-319.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1999030.pdf)
(Cikotok gold-silver deposits of SW Java, ~200 km SW of Jakarta, are Pliocene mineralization hosted in Oligo-Miocene 'Old Andesite' volcanics, forming part of Bayah Dome Complex. Fluid inclusions homogenisation temperatures between 184-306°C, mean 245°C, trapping pressure equivalent to depth of 210m, all typical of low salinity epithermal gold deposits)

Nugraha, A., F. Pambudi, V.S. Sundari, S. Sugiarto & S. Hussein (2014)- Karakteristik deformasi struktur pada sistem kompleks sesar mendatar Terombo di dusun Sumberan, Kecamatan Ngawen, Kabupaten Gunung Kidul. Proc. Seminar Nasional Kebumian 9, Dept. Teknik Geologi, Gadjah Mada University, Yogyakarta, P4P-01, p. 21-33.
(online at: https://repository.ugm.ac.id/137862/1/DOB-01.pdf)
('Characteristics of structural deformation in the Terombo horizontal fault complex in Sumberan village, Ngawen sub-district, Gunung Kidul regency'. Trembono fault complex NE-SW trending strike-slip faults in Tertiary rocks in S Mountains near Sumberan, deforming Kebo-Butak submarine volcaniclastic rocks)

Nugraha, A.D., S. Widiyantoro, A. Gunawan & G. Suantika (2013)- Seismic velocity structures beneath the Guntur Volcano Complex, West Java, derived from simultaneous tomographic inversion and hypocenter relocation. J. Mathematical Fundamental Sciences (ITB) 45, 1, p. 17-28.
(online at: https://journals.itb.ac.id/index.php/jmfs/article/view/789/470)
(Tomographic inversion results show low velocity anomalies beneath Guntur summit at depth of 6-8 km and Gandapura caldera at 7-9 km depth. Probably associated with melt-filled pores of the rock)

Nugraha, A.M.S., A. Ditya, M. Zamzam, Y. Hernawati & B. Sapiie (2009)- Fracture characteristics within carbonate rocks facies and its implication to reservoir characterization, case study Rajamandala Formation, West Java. Proc. 38th Annual Conv. Exhib. Indonesian Association Geologists (IAGI), Semarang, p. 1-18.
(online at: https://www.iagi.or.id/web/digital/26/2009_IAGI_Semarang_Fracture-Characterirtics-Within.pdf)
(Fractures distribution in Late Oligocene Rajamandala Fm, Padalarang, W Java. Fractures intensity increases near fault or fractured zone. Different types of fracture generated in the different carbonate facies)

Nugraha, A.M.S. & R. Hall (2012)- Cenozoic history of the East Java forearc. Proc. 36th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA12-G-028, p. 1-21.
(online at: https://www.academia.edu/109486490/Cenozoic_History_of_The_East_Java_Forearc)

(E Java forearc stratigraphy 6 tectono-stratigraphic units with 3 major unconformities. Lowest unit with continuous strong reflectors may be Paleogene or Mesozoic and is absent under C and W Java. M Eocene- Lower Oligocene deposited above M Eocene unconformity during extensional phase, followed by U Oligocene- Lw Miocene deposition with arc volcanism. Localized contraction of Lower Miocene and older units prior to termination of arc activity. Extensive carbonate deposition above E-M Miocene unconformity during quiet period with reduced volcanism. Significant subsidence began in Late Miocene. Deformation at S side of forearc after deposition of U Miocene, interpreted to be caused by arrival of buoyant plateau at subduction margin)

Nugraha, A.M.S. & R. Hall (2013)- Cenozoic history of the East Java forearc. Berita Sedimentologi 26, p. 5-40.
(online at: www.iagi.or.id/fosi/files/2013/05/BS26-Java.pdf)
(similar to 2012 !PA paper above)

Nugraha, A.P.S. & F.M.H. Sihombing (2021)- Karakteristik batu bara di daerah Bayah bagian selatan, Provinsi Banten berdasarkan analisis proksimat, ultimat, dan maseral. Jurnal Geosains Terapan 4, 1, p. 51-58.
(online at: https://geosainsterapan.id/index.php/id/article/view/32)
('Coal characteristics in the southern part of Bayah area, Banten Province, based on proximate, ultimate and maceral analysis'.Coal in S Bayah area dominated by vitrinite (82-99%; desmocollinite and telocollinite) and inertinite (0-9%))

Nugraha, C., L. Fauzielly & L. Jurnaliah (2024)- Ostrakoda Formasi Bentang-Formasi Koleberes Cimaragang, Cianjur, Jawa Barat. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 25, 3, p. 151-159.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/878/561)
('Ostracoda from the Bentang and -Koleberes Formations, Cimaragang, Cianjur, West Jawa'. M Miocene- E Pliocene marine ostracods from Cimaragang area in Cianjur District, W Java. 13 genera, with key genera Lankacythere and Keijella)

Nugraha, K., I. Haryanto, Faisal Helmi & M.F. Rosana (2016)- Gravity collapse- structural model of Ciletuh Amphiteatre, West Java, Indonesia. Proc. Asia Oceania Geoscience Conference, p.
(Ciletuh amphitheatre is Pliocene - Pleistocene gravitational failure, forming amphitheatre that now exposes Eocene quartz sandstone unit and Cretaceous melange rock)

Nugrahadi, A., Y. Suracman, S. Mulyono, D. Muljawan, A. Lesanpura, J.P. Hutagaol & Kusnadi (1999)- Oblique subduction zone in the Southern West Java offshore. Proc. 28th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 1, p. 73-82.

Nugrahini, A., V. Isnaniawardhani, A. Sudradjat & N. Sulaksana (2019)- Characteristics of Semilir Formation in relationship with the period of volcanic activity. Int. J. of Geomate 16, 53, p. 154-162.
(online at: https://geomatejournal.com/geomate/article/view/2824/2399)
(E Miocene Semilir Fm in Baturagung area of Southern Mountains Zone, C Java, overlying Kebo-Butak volcanic rock succession. Deeper marine volcanoclastic formation with measured thickness 694m, with turbidites, tuff, lapilli and pumice breccia, rich in volcanic glass and quartz. Semilir Fm records 84 episodes of volcanic eruptions in 14 periods, some forming calderas (paper does not acknowledge key older work, like of H. Smyth et al. 2011, etc.; (JTvG))

Nugrahini, A., V. Isnaniawardhani, N. Sulaksana & A. Sudradjat (2017)- The first period of volcano activity in Semilir Formation of Southern Mountain of Java Basin. Proc. 2nd Joint Conference of Utsunomiya University and Universitas Padjadjaran, p. 256-261.

Nugroho, D. (2016)- Evolusi sedimentasi batugamping Oligo-Miosen Formasi Rajamandala di daerah Padalarang, Jawa Barat. Ph.D. Thesis, Institut Teknologi Bandung (ITB), p. 1- . *(Unpublished)*
('Evolution of sedimentation of the Oligo-Miocene Rajamandala Formation limestone in the Padalarang area, West Java')

Nugroho, D., T. Simo, D. Noeradi, S.M. Fullmer, M.K. Hicks, S.E. Kaczmarek, C. Liu, J.T. Van Gorsel et al. (2009)- Significance of the sedimentology and stratigraphy for the evolution and demise of the Oligocene Rajamandala Limestone, Padalarang, West Java, Indonesia. Proc. 33rd Annual Conv. Indonesian Petroleum Association, IPA09-G-161, p. 11-24.
(Rajamandala Limestone Chattian carbonate platform, prograding to NE, drowned at end-Chattian)

Nugroho, D., H. Sulaiman & F.Nizar Ahmady (2017)- System tract and sea level change analysis on carbonate turbidite and debrite of Oligo-Miocene Rajamandala limestone (Rajamandala formation), Padalarang area, West Java. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, p. 1-4.
(online at: https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_System-Tract-and-Sea-Level-Change-Analysis-on-Carbonate-Turbidite_compressed.pdf)
(Rajamandala Fm in Padalarang Area is largest OligoMiocene carbonate outcrop in Java, with most diverse facies types, incl. carbonate debrites and calci-turbidites. Carbonate platform margin and slope changed at least two times from steep margin to gentle margin and back to relatively steep margin and slope)

Nugroho, K.S.A., I. Setiawan & T. Winarno (2021)- Comparison of granitoid characteristics West Kalimantan and Karangsambung based on mineralogical and geochemical aspects. J. Geoscience Engineering Environment Technology (JGEET) 6, 3, p. 152-163.
(online at: https://journal.uir.ac.id/index.php/JGEET/article/view/7417/3571)
(Cretaceous granite from W Kalimantan Calc-High K calc-alkaline affinity (I- and S-type granites), formed in Continental arc granite and Continental collision granite environments. Karangsambung granite Calc-High K calc-alkaline affinity, magma (I-type granite), formed as volcanic arc granite)

Nuraini, S. & L. Hakim (2021)- Regression proccess of marine hardground in Nanggulan FM., Kulon Progo Mountain, Yogyakarta. Proc. 2nd Int. Conf. Industrial and Technology and Information Design (ICITID 2021), Yogyakarta 2021, 9p.
(online at: https://eudl.eu/pdf/10.4108/eai.30-8-2021.2311536)
(Discussion of several Fe_2O_3-enriched horizons in marine M Eocene Nanggulan Beds, southern C Java, interpreted as hardground horizons/submarine exposure surfaces)

Nuraini, S., I. Syafri, B. Muljana & A. Sudradjat (2024)- Ichnofossil of Nanggulan deltaic system: case study of Watupuru cross section in Kulon Progo, Central Java, Indonesia. Indonesian J. on Geoscience (IJOG) 11, 2, p. 295-312.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/1011/475)
(M-L Eocene deltaic-shallow marine Nanggulan Fm in Kulon Progo, C Java. Rich in trace fossils (17 ichnogenera) and including Nummulites banks))

Nurhandoko, B.E.B., R. Kurniadi, Susilowati, K. Triyoso, S. Widowati, M.R.A. Hadi et al. (2019)- Integrated subsurface temperature modeling beneath Mt. Lawu and Mt. Muriah in the Northeast Java Basin, Indonesia. Open Geosciences 11, 1, p. 341-351.
(online at: https://www.degruyter.com/document/doi/10.1515/geo-2019-0027/html)
(Subsurface temperatures along N-S profile Muriah- Lawu, East Java basin. Rel. low T below extinct Muriah volcano, high below Lawu volcano)

Nurhandoko, B.E.B., S. Widowati, R. Kurniadi, M.R. Abda, A.D. Purnama, R. Martha, Susilowati, E. Fatiah & M.R. Asmarahadi (2016)- Integrated subsurface Temperature modeling: case study of East Java Basin. Proc. 40th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA16-723-G, p. 1-9.
(Subsurface temperatures along N-S profile in E part of East Java basin. Similar to paper above)

Nur Hasjim (1988)- Le Neogene marin du Nord-Est de Java, Indonesie; etude biostratigraphique (foraminiferes et nannoplancton). Geomedia Memoir 1, p. 1-129.
('The marine Neogene of NE Java; biostratigraphic study'. Foraminifera and nannofossils listings from several classic Tertiary outcrop sections in NE Java)

Nursecha, M.A.Q., J. Jyalita & S. Husein (2014)- Tectonic control on hydrocarbon seepages of Sijenggung, North Serayu Basin, Central Java. Proc. 38th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA14-SG-021, p. 1-13.
(N Serayu Basin, N of Karangsambung in C Java has number of hydrocarbon (mainly gas?) seeps. North Serayu Basin back-arc basin with major subsidence in M Miocene- E Pliocene with Halang Fm volcanic arc deposits in Late Miocene, intense N-S compressional folding in (Late?) Pliocene and reactivation of volcanism in Pleistocene. Pekacangan river section with Sijenggung gas seep in deep marine E-M Miocene Rambatan Fm. Multiple thrust faults/ folds with >200% shortening believed to be responsible for hydrocarbon seepage)

Nutt, W.L. & J. Sirait (1985)- Application of offset seismic profiles in the Jatibarang volcanic reservoir. Proc. 14th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 385-398.

Obermann, A., Karyono, T. Diehl, M. Lupi & A. Mazzini (2018)- Seismicity at Lusi and the adjacent volcanic complex, Java, Indonesia. Marine and Petroleum Geology 90, p. 149-156.
(Ongoing seismic events in E Java mainly nucleate at 8-13 km depths below Arjuno-Welirang volcanic complex. Practically no seismicity in sedimentary basin hosting Lusi mud eruption. Focal mechanisms indicate mainly sinistral strike-slip faulting SW of Lusi and suggesting Watukosek fault system extends from volcanic complex to NE of Java)

Okada, H. (1981)- Calcareous nannofossils of Cenozoic formations in Central Java. In: T. Saito (ed.) Micropaleontology, petrology and lithostratigraphy of Cenozoic rocks of the Yogyakarta region, Central Java. Special Publication Dept. Earth Sciences, Yamagata University, Japan, p. 25-34.
(Nannofossils from M Eocene- M Oligocene Nanggulan Fm, E Miocene Sentolo Fm, etc. 'Old Andesites' underlain by mid Oligocene Sphenolithus distentus, overlain by middle E Miocene S. belemnos zone CN2. Upper part of Sentolo Fm may be E Pliocene age)

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(Historical seismograms, modeling, etc. suggest 1921 earthquake with minor tsunami at Cilacap occurred at depth of 30 km, as an intraplate earthquake in outer rise, showing mostly strike-slip mechanism and tensional stress parallel to direction of convergence)

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(Brown shale clast in Paleogene breccia in Karangsambung with Campanian tropical radiolarians not seen in coeval Campanian assemblages from blocks in Luk-Ulo melange, suggesting juxtaposition of material from different paleolatitudes in Late Cretaceous, but juxtaposed before deposition of Paleogene)

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(online at: https://www.esdm.go.id/assets/media/content/content-dinamika-geologi-selat-sunda.pdf)
('Geological dynamics of the Sunda Strait in sustainable development'. Overview of Sunda Strait geodynamics, Krakatau volcano, etc.))

Oktariani, H., Winantris & L. Fauzielly (2018)- Fosil kayu *Dryobalanoxylon* sp. pada Formasi Genteng di Kabupaten Lebak Provinsi Banten dan paleofitogeografinya di Indonesia. Bulletin of Geology (ITB) 2, 1, p. 175-196.
(online at: https://buletingeologi.com/index.php/buletin-geologi/issue/view/4/Paper-5%20vol.%202%20no.%201)
('Fossil wood Dryobalanoxylon sp. in the Genteng Formation in Lebak Regency, Banten, and its paleophytogeography in Indonesia'. E Pliocene fossilized wood of dipterocarp family in Genteng Fm tuff in Sindangsari Village, W Java. Genus known from Miocene- Pleistocene of Sumatra, W Java and Kalimantan)

Oktariani, H., Winantris, L. Fauzielly & R. Damayanti (2017)- *Dryobalanoxylon* sp.: a fossil wood preserved in the Genteng Formation from Lebak Regency, Banten Province, Indonesia. J. Geological Sciences Applied Geology (UNPAD) 2, 3, p. 119-126.
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(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/459/397)

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Oostingh, C.H. (1934)- Aanteekeningen over eenige bivalven uit het Neogeen van Java. De Ingenieur in Nederlandsch-Indie (IV) 1, 1, p. IV.19- IV.22.
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('Notes on some bivalves from the Neogene of Java'. On Mio-Pliocene Metis and Cardilia from various localities on Java. First of a long series of short mollusc papers in 'De Ingenieur in Nederlandsch-Indie' by Oostingh)

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(online at: https://www.stichtingblauwelijn.nl/assets/files/1934-02.pdf)
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Oostingh, C.H. (1934)- Die Cardiiden aus dem Cheribonien von Bentasari in Tegal, Java. De Ingenieur in Nederlandsch-Indie (IV) 1, 5, p. IV.76- IV.78.
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Oostingh, C.H. (1935)- Einige neue Gastropoden aus dem Miocan von Mittel-Bantam (Java). De Ingenieur in Nederlandsch-Indie (IV) 2, 9, p. IV.79- IV.83.
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Oostingh, G.H. (1935)- Die Mollusken des Pliozaens von Boemiajoe (Java). Wetenschappelijke Mededeelingen Dienst Mijnbouw Nederlandsch-Indie, Bandung, 26, p. 1-247.
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Oostingh, C.H. (1938)- Die Mollusken des Pliocaens von Sud-Bantam in Java, III (2. Fortsetzung). De Ingenieur in Nederlandsch-Indie (IV) 5, 4, p. IV.49- IV.60.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1938-04.pdf)

('Molluscs from the Pliocene of South Bantam, Java'; part 3 (2nd continuation)'. Descriptions of species of gastropod family Terebridae)

Oostingh, C.H. (1938)- Die Mollusken des Pliocaens von Sud-Bantam in Java, IV (3. Fortsetzung). De Ingenieur in Nederlandsch-Indie (IV) 5, 7, p. IV.105- IV.115.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1938-07.pdf)
('Molluscs from the Pliocene of South Bantam, Java'; part 4'. Descriptions of species of gastropod families Volutacea, Olividae, Harpidae)

Oostingh, C.H. (1938)- Die Mollusken des Pliocaens von Sud-Bantam in Java, V (4. Fortsetzung). De Ingenieur in Nederlandsch-Indie (IV) 5, 8, p. IV.119- IV.129.
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('Molluscs from the Pliocene of South Bantam, Java'; part 6 (5th continuation)'. Descriptions of species of gastropod family Mitridae)

Oostingh, C.H. (1939)- Die Mollusken des Pliocaens von Sud-Bantam in Java, VII (6. Fortsetzung). De Ingenieur in Nederlandsch-Indie (IV) 6, 4, p. IV.43- IV.51.
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('Molluscs from the Pliocene of South Bantam, Java'; part 7 (6th continuation)'. Descriptions of species of gastropod group Mitra, Vexillum, etc.)

Oostingh, C.H. (1939)- Die Mollusken des Pliocaens von Sud-Bantam in Java- part VIII (7. Fortsetzung). De Ingenieur in Nederlandsch-Indie (IV) 6, 8, p. IV.103- IV.119.
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('Molluscs from the Pliocene of South Bantam, Java'; part 8 (7th continuation)'. Descriptions of species of gastropod family Fasciolariidae, Melongenidae, Buccinidae, etc.)

Oostingh, C.H. (1939)- Die Mollusken des Pliocaens von Sud-Bantam in Java, IX (8. Fortsetzung). De Ingenieur in Nederlandsch-Indie (IV) 6, 12, p. IV.163- IV.187.
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(On correlations of Pliocene formations in Cirebon, Bumiayu and Kendeng regions)

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Oostingh, C.H. (1941)- Three new species of gastropods from the Pliocene of Semarang (Central Java). De Ingenieur in Nederlandsch-Indie (IV) 8, 7, p. IV.63- IV.64.
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(New Pliocene gastropod species Siphonalia (Pseudoneptunea) inflata, Terebra (Strioterebrum) hetzeli and Turris (Gemmula) bemmeleni)

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(Overview of geology and fauna of ~200m thick Middle Eocene section of Nanggulan, ~20 km W of Yogyakarta. Three levels: basal quartz sandstone (>80m; marine transgression; Axinea= Glycymeris Beds) with a 1m thick coal bed and layers rich in Nummulites (Djokdjokartae Beds), overlain by marls with Discocyclina and tuffs (Discocyclina Beds), overlain by andesitic sandstone, also with Discocyclina. Eocene intruded and overlain by E Miocene 'Old Andesites')

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Osberger, R. (1954)- Jungtertiare Korallen von Java, Teil I. Neues Jahrbuch Geologie Palaontologie, Abhandlungen 100, 1, p. 119-158.
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(Overview of W Indonesia Cenozoic stratigraphy and paleogeography. In W Indonesia two phases of sedimentation, Eocene- to early M Miocene and late M Miocene- Late Pliocene. Three major orogenic events: early Tertiary, early M Miocene, Plio-Pleistocene)

Paltrinieri, F., S. Sajekti & Suminta (1976)- Biostratigraphy of the Jatibungkus section (Lokulo area) in Central Java. Proc. 5th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 195-204.
(Jatibungkus section (Karangsambung Fm) with continuous M Eocene (P 14)- earliest Oligocene (P 17) marine section with planktonic foraminifera. Jatibungkus Mb is ~80m thick reefal limestone in middle of M-L Eocene section between pF zones P14-P15, and with Late Eocene larger foraminifera Discocyclina and Pellatispira spp (Larger Foram zone Tb) (no Nummulites?). This is relatively coherent package within overall chaotic

olistostrome complex. Late Eocene faulting/ uplift event, tied to S-ward shift of subduction zone, caused period of non-deposition, with sedimentation resuming in Late Oligocene (zone N2) clay-breccia formation. Succession almost normal, although probably part of Eocene olistostrome complex)

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('Neogene molluscan paleontology of the genus Turritella from Java as basis for development of a Turritella biozonation')

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(online at: https://journal.uir.ac.id/index.php/JGEET/article/view/6780/3573)
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(online at: https://journal.uir.ac.id/index.php/JGEET/article/view/2682/1833)
(Re-identification of location of mollusk-rich West Progo Beds of Martin (1919). Two locations in Kembang Soka and Spolong Hill. Stratigraphic position Early Miocene, part of Jonggrangan Formation)

Pandita, H. & H.G. Hartono, S. Pambudi & Winarti (2021)- Depositional model of volcaniclastic-carbonate facies of Sentolo Formation at Miocene. Proc. 2nd Int. Conf. Industrial and Technology and Information Design, ICITID 2021, Yogyakarta, p. 1-10.
(online at: https://eudl.eu/pdf/10.4108/eai.30-8-2021.2311527)
(Facies models of interbedded carbonate and volcaniclastic rocks in M Miocene Sentolo Fm of Kulonprogo area, S-C Java)

Pandita, H. & S. Pambudi (2007)- Study trace fossil at Sambipitu Formation in Nglipar Area. Proc. Joint Convention 32nd HAGI, 36th IAGI, and 29th IATMI, Bali, JCB2007-014, p. 1-9.
(Study of trace fossils of M Miocene (N12-N13) turbiditic Sambipitu Fm in two sections in Nglipar Area, S Mountains. Common trace fossils, including Chondrites, Rhizocorallium and Thalassinoides. Three facies: Cruziana, Zoophycos and Cruziana-Skolithos facies. Cruziana facies present in Kedungkeris section in E, but not in Ngalang section in W, suggesting deeper paleoenvironment of lower part of Sambipitu Fm in West)

Pandita, H. & A.H.F. Risqy (2024)- Evolution of *T. simplex*, Jenkins from the Middle Miocene to the Early Pliocene and its chances of becoming a distinct subspecies. J. Geoscience Engineering Environment Technology (JGEET) 9, 2, p. 151-155.
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Pandita, H., S. Sukartono & A. Isjudarto (2016)- Geological identification of seismic source at Opak Fault based on stratigraphic sections of the Southern Mountains. Forum Geografi 30, 1, p. 77-85.

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(online at: http://retii.sttnas.ac.id/wp-content/uploads/2015/08/RETII2009.pdf)
('Palaeoecology of the Pucangan Formation in the Kabuh area based on fossil molluscs content'. E Pleistocene deposits of E Kendeng zone, NE Java, with two paleoecologically significant mollusc assemblages: Corbula-Ostrea (brackish-marine lower delta plain) and Arca- Ostrea (marine lower delta plain))

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(Turritellidae gastropods studied in 5 localities in W Java (type localities of Martin 1919 and Oostingh 1938). Two consistent groups: small size in U Miocene- Lower Pliocene and large shells in Pliocene-Pleistocene)

Pandito, R.H.B., R.M Zainal, I. Rahman & A. Haris (2017)- New perspective for exploration: hydrocarbon potential of Ngimbang Formation- Northeast Java Basin. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, p. 1-4.
(online at: https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_New-Perspective-for-Exploration.pdf
("S" well tested gas in Late Oligocene limestone in 2013 (In W Tuban block? Not real well name? Should be Lower Kujung Fm?; JTvG)

Panigoro, H. (1981)- Geologi dan asosiasi ofiolit daerah Ciletuh, Kabupaten Sukabumi, Jawa Barat. Thesis, Institut Teknologi Bandung (ITB), p. 1-132. *(Unpublished)*
('Geology and ophiolite association of the Ciletuh area, Sukabumi, West Java')

Panjaitan, J.P. & B.D. Sugihartoko (2007)- Porosity development and diagenetic study at Parigi Formation, Well JPP-14 "Karina Field" North West Java Basin based on wireline log and petrography data. Proc. 31st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA07-SG-020, p. 1-6.
(Characterization of porosity and diagenesis of Parigi Fm carbonate in JPP-14 well, 'Karina Field (not real name)', onshore NW Java basin)

Panjaitan, S. (2009)- Aplikasi metode gaya berat untuk identifikasi potensi hidrokarbon di dalam cekungan Jakarta dan sekitarnya. Jurnal Sumber Daya Geologi (JSDG) 19, 6, p. 341-350.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/218/208)
('Application of gravity methods for identification of hydrocarbon potential in the Jakarta basin and beyond'.)

Panjaitan, S. (2010)- Prospek migas pada Cekungan Jawa Timur dengan pengamatan metode gayaberat. Buletin Sumber Daya Geologi 5, 3, p. 168-181.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/480)
('Oil and gas prospects in the East Java Basin using gravity data'. Bouguer Anomalies in E Java basin three types: (1). High gravity anomaly formed by limestone high; (2) Medium gravity anomaly formed by sedimentary rock basin and (3) Low gravity anomaly formed by Kendeng Zone)

Panjaitan, S. & N. Astawa (2010)- Studi potensi migas dengan metode gayaberat di lepas pantai utara Jakarta. J. Geologi Kelautan 8, 1, p. 23-35.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/183/173)
('Study of the oil and gas potential off the north coast of Jakarta with gravity methods'. N-S normal faults and E-W reverse faults shown on gravity model)

Pannekoek, A. (1936)- Beitrage zur Kenntnis der Altmiocenen Molluskenfauna von Rembang (Java). Ph.D. Thesis University of Amsterdam, p. 1-80.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB21:038802000:00095)

('Contributions to the knowledge of the Early Miocene mollusc fauna of Rembang (Java)'. Doctorate thesis under Prof. H. Gerth, with descriptions of Early Miocene molluscs, mainly from Sedang oil concession, Rembang zone, NE Java. Little or no stratigraphy)

Pannekoek, A.J. (1938)- De geomorphologie van het West-Progo gebergte. Jaarverslag Topographische Dienst Nederlandsch- Indie, Batavia, 1938, 34, p. 109-138.
('The geomorphology of the W Progo Mountains', C Java)

Pannekoek, A.J. (1946)- Geomorfologische waarnemingen op het Djampang-Plateau in West Java. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 63, 3, p. 340-367.
(Geomorphology of Jampang Plateau, SW Java. Eocene with quartz sandstones but no volcanics, strongly folded before deposition of widespread Miocene volcanoclastic sediments. Folded E-M Miocene (E Miocene Jampang series andesitic breccias and tuffs and M Miocene Cimandiri series) unconformably overlain by Late Miocene volcanoclastics). Uplift and tilting of Jampang region in M Pleistocene)

Pannekoek, A.J. (1948)- Enige karstterreinen in Indonesie. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 66, p. 209-214.
('Some karst terrains in Indonesia', including Central-East Java Southern Mountains)

Pannekoek, A.J. (1949)- Outline of the geomorphology of Java. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2) 66, p. 270-326.
(Rel. extensive discussion of geomorphologic zones and features of W, C and E Java)

Panuju & R. Kapid (2007)- Revisi biostratigrafi nanoplangton Miosen Awal bagian bawah (Zona NN1-NN2) di Cekungan Jawa Timur Utara. Proc. Joint Convention 32nd HAGI, 36th IAGI and 29th IATMI, Bali 2007, JCB2007-097, p. 617-628. *(online at: https://www.iagi.or.id/web/digital/28/2007_IAGI-Bali_Revisi-Biostratigrafi-Nanoplangton-Miosen.pdf)*
('Revision of the basal Early Miocene nannoplankton zonation (zones NN1-NN2) in the NE Java Basin'. Basal Miocene zone NN1 zone, characterized by Top Helicosphaera recta at bottom and Base Discoaster druggii at top, can be sudivided into 3 subzones by Top Clausiococcus fenestratus and Top Cyclicargolithus abisectus or Sphenolithus delphix. Zone NN2, characterized by Base Discoaster druggii at base Top Triquetrorhabdulus carinatus at top, can be subdivided by Top Ilselithina fusa (based on Rembang zone outcrop samples?))

Panuju, G. Rahmat, A. Priyantoro, E. Wijaksono & B. Wicaksono (2017)- Analisis sikuenstratigrafi untuk identifikasi kompartmentalisasi reservoir karbonat Formasi Ngimbang Blok Suci, Cekungan Jawa Timur Utara. Lembaran Publikasi Minyak dan Gas Bumi (Lemigas) 51, 3, p. 145-157.
(online at: https://journal.lemigas.esdm.go.id/index.php/LPMGB/article/view/26)
('Sequence stratigraphic analysis for identification of carbonate reservoir compartmentalization of the Ngimbang Formation in the Suci Block, NE Java Basin'. Study of wells and seismic sections indicates Ngimbang carbonate reservoirs deposited in Late Eocene- E Oligocene in inner neritic- upper bathyal environments: shallow in W (KMI-1) to deeper in E (Suci- 2). Three separate units: Late Eocene carbonate platform facies around Suci-2, Eocene- basal Oligocene carbonate platform facies around KMI-1 and Suci 2 and upper E Oligocene reef facies around Suci 1 well. Gas accumulation only in Suci-1)

Park, R.K. (2003)- A modern carbonate environment and model for hydrocarbon exploration and development: Pulau Seribu Field Trip, May 17-20, 2003. Indonesian Petroleum Association (IPA), Jakarta, p.

Park, R.K., A. Matter, P.C. Tonkin (1995)- Porosity evolution in the Batu Raja carbonates of the Sunda Basin-windows of opportunity. Proc. 24th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 163-184.
(Much of E Miocene Batu Raja carbonate porosity of meteoric freshwater leaching origin, assssociated with 4th and 5th order cycles of sea level change. Composite LBR facies map Krisna-Yvonne area)

Park, R.K., C.T. Siemers & A.A. Brown (1992)- Holocene carbonate sedimentation, Pulau Seribu, Java Sea- the third dimension. In: C.T. Siemers, M.W. Longman et al. (eds.) Carbonate rocks and reservoirs of Indonesia: a Core workshop. Indonesian Petroleum Association (IPA), Jakarta, p. 2-1 to 2-39.
(Shallow core holes on Thousand Islands off Jakarta show ~30m of coral-dominated carbonate, formed mainly between 10,000- 4500 yrs BP. Overall cementation limited. Porosities- permeabilities very high in relatively unaltered Holocene carbonate sediment, especially in coral-rudstone rampart deposits)

Parkinson, C.D., K. Miyazaki, K. Wakita, A.J. Barber & D.A. Carswell (1998)- An overview and tectonic synthesis of the pre-Tertiary very-high-pressure metamorphic and associated rocks of Java, Sulawesi and Kalimantan, Indonesia. The Island Arc 7, 1-2, p. 184-200.
(online at: www.academia.edu/26104720/An_overview_and_tectonic_synthesis_of_the_pre_Tertiary Etc.)
(High-P metamorphic rocks in Cretaceous accretionary complexes of Java, Sulawesi and SE Kalimantan. Predominantly low-intermediate metamorphic grade and 110-120 Ma K-Ar radiometric ages. Metamorphic rocks exhumed from greater depths include eclogite and jadeite-glaucophane-quartz rock in Luk Ulo, C Java. Many metamorphic rocks recrystallized in N-dipping subduction zone at margin of Sundaland craton in E Cretaceous. Exhumation possibly facilitated by collision of Gondwanan continental fragment with Sundaland margin at ~120-115 Ma)

Partakusuma, A. & M. Effendi (1977)- Production of Jatibarang volcanic rock. Proc. First Asean Conference, p. 377-384.

Patmosukismo, S. & I. Yahya (1974)- The basement configuration of the Northwest Java area. Proc. 3rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 129-152.
(Onshore NW Java basin basement penetration in wells include granitoids, with K-Ar ages 94 Ma, 65 Ma (Jatibarang) and 58 Ma (Tangerang). Also metamorphic argillite at Pamanukan dated as ~213 Ma (Late Triassic))

Patonah, A. (2011)- Lingkungan tektonik ofiolit komplek melange Ciletuh Jawa Barat berdasarkan pendekatan petrologi. Bull. Scientific Contribution (UNPAD) 9, 3, p. 139-151.
(online at: http://journals.unpad.ac.id/bsc/article/view/8270)
(Petrology/ geochemistry of partly metamorphosed ophiolite sequence in Ciletuh melange complex, SW Java. Composed of serpentinite, hartzburgite, dunite, gabbro and pillow basalt)

Patonah, A., Haryadi & B. Priadi (2009)- Petrology of high pressure metamorphic rocks from Luk Ulo Melange Complex, Karangsambung, Central Java-Indonesia. Bull. Scientific Contribution (UNPAD) 7, 1, p. 1-6.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8228/3776)
(Glaucophane schist from Luk Ulo melange complex at Lamuk. GOA and Kalimuncar with glaucophane, crossite, albite, quartz, rare lawsonite. Formed at 500-580 °C and 4- 14.5 kbar, in lower interval of subduction zone. With some retrograde metamorphism. Radiometric age of mica schist ~85-102 Ma (Suparka 1987))

Patonah, A., F. Helmi, J. Prakoso & T. Widiaputra (2015)- Basement komplek Bayah, Kabupaten Lebak, Propinsi Banten. Bull. Scientific Contribution (UNPAD) 13, 3, p. 182-191.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8405/3912)
('Bayah basement complex, Lebak District, Banten Province'. Metamorphic rocks believed to be basement of Bayah complex in SW Java exposed at reverse fault, together with younger rocks (Eocene Bayah Fm and Oligocene Cihara granodiorite). With foliation, boudinage and crenulation structures. Multiple types of metamorphic rocks (mica schist, amphibolite schist), low-high grade metamorphism and different protoliths, interpreted as result of intermediate pressure metamorphism)

Patonah, A. & H. Permana (2010)- Petrologi amfibolit komplek melange Ciletuh, Sukabumi, Jawa Barat. Bull. Scientific Contribution (UNPAD) 8, 2, p. 69-77.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8245)
(Amphibolite in Ciletuh melange complex associated with serpentinite, harzburgite, dunite, gabro and basalt. Dominated by amphibole, andesine and rare quartz. Formed at P 5-6 kbar, T 640-660°C. Amphibolites result of

ophiolite obduction, with retrograde metamorphism to amphibolites epidote during accretion and uplift in Late Oligocene)

Patonah, A. & H. Permana (2018)- Basement characteristic western part of Java, Indonesia: case study in Bayah Area, Banten Province. Int. J. Advanced Science Engineering Information Technology (IJASEIT) 8, 5, p. 2135-2141.
(online at: http://ijaseit.insightsociety.org/index.php?option=com_content&view=article&id=9)
(Bayah Complex, 20 km W of Ciletuh Melange Complex, SW Java, with metamorphic rocks interpreted as basement of Java. Overlain by Eocene Bayah Fm clastics. Dominated by mica schist from pelitic-psammitic protolith. Also amphibolite, epidote amphibolite and actinolite schist, metamorphosed from mafic rock protolith. Metamorphic rocks orogenic style, associated with subduction and collision. Possibly uplifted to surface due to intrusion of Cihara Granodiorite)

Patonah, A., H. Permana & F. Alamsyah (2020)- Characteristics of volcanic rock Cikotok Formation at Cihara and surrounding area, Lebak District, Banten Province. J. Geological Sciences Applied Geology (UNPAD) 4, 1, p. 10-16.
(online at: http://journal.unpad.ac.id/gsag/article/viewFile/29044/13918)
(Volcanic rocks of Cikotok Fm in S part of Bayah Dome, known as 'Old Andesites' are arc volcanics and one of parent rocks of gold and base metal mineralization. Originated from shallow eruptions and relatively rapid cooling characterized by trachytic to porphyritic texture, embayment, and amygdaloidal structure. Altered rocks related to Oligo-Miocene deformation that caused weak zone so hydrothermal fluid could pass through)

Patonah, A., H. Permana & I. Syafri (2021)- The transitional gabbroic rocks in Bayah geological complex, Western part of Java, Indonesia, inferred from XRF, ICP-MS, and microprobe analysis. J. Geoscience Engineering Environment Technology (JGEET) 6, 4, p. 177-183.
(online at: https://journal.uir.ac.id/index.php/JGEET/article/view/7189)
(Gabbro is fossil remnant of oceanic crust. Gabbroic rocks at Bayah and Ciletuh Melange Complex, SW Java, from different magma sources, one formed by partial melting of depleted upper mantle, the other by partial melting of mantle wedge with active participation of subducted slab in arc tectonic setting, suprasubduction zone in U Cretaceous- Eocene. Both had retrograde metamorphism to epidote amphibolite facies)

Patonah, A. & I. Syafri (2014)- Karakteristik batuan metamorf Bayah di Desa Cigaber, Kabupaten Lebak, Provinsi Banten. Bull. Scientific Contribution (UNPAD) 12, 2, p. 92-98.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8369/pdf)
('Characteristics of Bayah metamorphic rocks in Cigaber village, Lebak, Banten Province'. Metamorphic rocks in Bayah Complex dominated by biotite schist, some actinolite schist, hornblende schist and chlorite schist. Regional metamorphism with retrograde metamorphism, probably during Eocene- Oligocene uplift)

Patria, A. & A.N. Aulia (2020)- Structural and earthquake evaluations along Java subduction zone, Indonesia. J. RISET Geologi dan Pertambangan (LIPI) 30, 1, p. 65-79.
(online at: http://jrisetgeotam.lipi.go.id/index.php/jrisgeotam/article/view/1072/pdf)
(Seismicity along Java subduction zone mainly concentrated in near-trench area and in forearc basin area. Many observable fault solutions normal faults, located beneath accretionary wedge and associated with plate-bending. Thrust faulting mainly beneath forearc basin, related to plate interface deformation. Two thrust activities now considered as deformation in lower plate. Several strike-slip solutions, mainly in lower plate. Thrust fault activities in accretionary wedge decreased to E)

Patriani, E.Y. (2011)- Studi biofasies formasi foraminifera berumur Miosen Tengah pada batuan karbonat di Pegunungan Selatan, daerah Wonosari, D.I.Yogyakarta. M.Sc. Thesis, Institut Teknologi Bandung (ITB), p. *(Unpublished)*
('Study of foraminifera biofacies in the Middle Miocene carbonate formations in the Southern Mountains, Wonosari area, D.I. Yogyakarta')

Patriani, E.Y., S. Rijani & D. Sundari (2016)- Perubahan biofasies foraminifera pada batugamping di Pantai Baron dan Serpeng, Provinsi D.I. Yogyakarta. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 17, 2, p. 61-71.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/19/18)
('Foraminifera biofacies change in the limestone at Baron Beach and Serpenge, Yogyakarta Province'. E-M Miocene Wonosari Fm limestones at Baron Beach and Serpeng area of S Mountains. Two groups of carbonate facies: (1) at base basinal, with planktonic foraminifera, (2) overlain by foreslope, with Cycloclypeus, Katacycloclypeus annulatus and Amphistegina. Also Lepidocyclina and Miogypsina)

Patriani, E.Y., D. Yurnaldi & R.Setyawan (2021)- Peninjauan kembali keragaman fosil foraminifera untuk penentuan umur Batugamping Formasi Karangbolong. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 22, 2, p. 67-79.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/555/451)
('Foraminifera fossil diversity re-evaluation to determine the age of the Karangbolong Formation Limestone' Limestone in Banyumas Basin, S Java, associated with "Old Andesites" arc volcanics. Oldest fauna Early Oligocene with small Nummulites fichteli and Lepidocyclina (= zone Td). With supposedly reworked Eocene Planorotalites palmerae (but may be Oligocene Pararotalia/Neorotalia?; JTvG) and Cretaceous Ticinella (?)).

Pendowo, B. & H. Samodra (1997)- The geology of the Besuki quadrangle, East Java (Quadrangle 1600-3), scale 1: 100,000, 2nd Ed., Geological Research Development Centre (GRDC), Bandung, p. 1-10.
(Second edition of 1991 map in E Java. Folded Late Miocene- Pliocene sediments with zircon-bearing tuff of 7.3Ma age. Late Pliocene- Recent volcanics. Late Pliocene (2 Ma) leucite-bearing volcanics of G. Ringgit unconformably overlain by Pleistocene volcanics of Ringgit, Argopuro, Old Ijen, etc.)

Perdana, L.A., Amrizal & I.G.B.E. Sucipta (2008)- The P-T path of metamorphic rocks from Karangsambung area, Kebumen, Central Java. Proc. 37th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 139-147.
(online at: https://www.iagi.or.id/web/digital/14/2008_IAGI_Bandung_The-P-T-Path-of-Metamorphic.pdf)
(Lok Ulo Cretaceous tectonic melange complex consists of dismembered ophiolites, sedimentary rocks, and schists and gneisses as tectonic slabs in black-shale matrix. High pressure metamorphism in Karangsambung area produced metamorphic rock between glaucophane blueschist and eclogite, formed at depth of ~35-50 km. Eclogites were subducted to ~70 km depth at geothermal gradient of ~6 C°/km)

Perdana, R., M. Haikal, W.K. Hidajat & Fahrudin (2016)- 3D strike-slip Fault model in Kendeng Zone using data combination of structural geological mapping and analogue sandbox modeling: a case study of the Kedungjati Fault, Grobogan District, Central Java Province. Proc. 40th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA16-288-SG, p. 1-17.
(Structural interpretation of area S of Kedungjati, W Kendeng zone, C Java. E-W trending thrust faults of M Miocene- younger sediments and younger N-S trending dextral strike-slip faults)

Permadi, R. & U.M. Saputra (2014)- Studi palinologi untuk sikuen stratigrafi di lintasan A Formasi Tapak, Cekungan Banyumas. Proc. 43rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, PIT IAGI 2014-279, p. 1-5.
(online at: https://www.iagi.or.id/web/digital/6/2014_IAGI_Jakarta_Studi-Palinologi-Untuk.pdf)
('Palynology study for sequence stratigraphy of track A, Tapak Formation, Banyumas Basin'. Palynology of 166 samples from 3 areas in Banyumas basin, C Java: Kedung Randu, Mount Tugel and Bunkanel. All with Stenochlaeniidites papuanus and within Late Pliocene Dacrycarpidites australiensis- Podocarpus imbricatus palynozone. Depositional environments from back-mangrove to mangrove. Three sequences identified. No samples location map)

Permana, A.K. (2007)- Studi sikuen stratigrafi anggota atas formasi Cibulakan, Cekungan Jawa Barat Utara. In: Geologi Indonesia: dinamika dan produknya, Geological Research Development Centre (GRDC), Bandung, Special Publ. 33, 2, p. 219-231.
(Sequence stratigraphy study of short cored interval in Cibulakan Fm of well 'M-13', NW Java Basin)

Permana, A.K., R. Setiawan, Marjiyono, G.M.L. Junursyah, Hidayat, D. Yurnaldi, E.Y. Patriani & A. Setiawan (2024)- Review of geological framework and hydrocarbon potential of the Banyumas Basin. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 25, 4, p. 249-257.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/872/571)
(Numerous oil and gas seeps along the Pamanukan-Cilacap Fault Zone of Banyumas Basin indicate active petroleum system. Thick volcanic cover responsible for poor seismic data quality. Biomarker analysis of oil seeps indicates oil generation from Late Cretaceous-Eocene sedimentd deposited in fluvial-deltaic environment. Gravity data shows two sub basins, Majenang and Citanduy. NW-SE regional structural trend)

Permana G.A. & R. Kapid R. (2001)- Analisis fosil nannoplankton dan foraminifera dalam penentuan biostratigrafi dan paleotemperatur pada satuan batuan Paleogen daerah Sampang, Kebumen, Jawa Tengah. Buletin Geologi (ITB) 33, 2, p. 79-95.
('Analysis of nannoplankton and foraminifera fossils in determining biostratigraphy and paleotemperature in Paleogene rock units of the Sampang area, Kebumen, Central Java'.)

Permana, G.A., M.A. Nurwibowo, R. Kapid & A.H. Harsolumakso (2004)- Paleogeographic evolution of the North-West Kebumen sub-basin, Central Java, Indonesia. Proc. Int. Symposium on the Geologic evolution of East and Southeast Asia, Chulalongkorn University, Bangkok 2004, p.

Permana, H., E.Z. Gaffar, Sudarsono, H. Nurohman & S. Indarto (2015)- Struktur dan tektonik lereng selatan 'kaldera purba Garut-Bandung', Garut Selatan, Jawa Barat. In: H. Harjono et al. (eds.) Pros. Pemaparan Hasil Penelitian Geoteknologi 2015, Pusat Penelitian Geoteknologi (LIPI), Bandung, p. I51-I62.
(online at: http://pustaka.geotek.lipi.go.id/wp-content/uploads/2016/04/Prosiding-2015.pdf)
('Structure and tectonics of the southern slope of the 'Garut-Bandung ancient caldera', South Garut, W Java')

Permana, H., Munasri, M.M. Mukti, A.U. Nurhidayati & S. Aribowo (2018)- The origin of oceanic crust and metabasic rocks protolith, the Luk Ulo melange complex, Indonesia. Proc. Global Colloquium on GeoSciences and Engineering (GCGE2017), Bandung 2017, IOP Conference Series: Earth and Environmental Science 118, 012004, p. 1-5.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/118/1/012004/pdf)
(Luk Ulo Paleocene-Eocene melange complex composed of tectonic slices of rocks (serpentinite, gabbro, eclogite, blueschist, amphibolite, granite, chert, etc.) in scaly clay matrix. Metamorphic rocks formed in E Cretaceous (101-125 Ma) at 70-100 km depth and ~6°C/km thermal gradient. Basalt of subducted oceanic crust Cretaceous age (130-81 Ma) comparable to ages of cherts (Early-Late Cretaceous). Metabasic rocks (eclogite, blueschist, amphibolite) possibly originated as part of edge of microcontinent that merged as part of melange during collision with Eurasian margin)

Permana, H., P.S. Putra, A.F. Ismayanto, I. Setiawan, M. Hendrizan & M.M. Mukti (2010)- Perkembangan cekungan antar-busur di daerah Majalengka- Banyumas: sejarah tektonik kompleks di wilayah batas konvergensi. Proc. 39th Annual Conv. Indonesian Association Geologists (IAGI), Lombok, PIT-IAGI-2010-232, p. 1-8.
('Intra-arc basin development in the region of Majalengka-Banyumas: complex tectonic history in convergent margin'. Majalengka - Banyumas area M- L Miocene intra-arc basin with E-W and NW-SE structural grains parallel to postulated intra-arc basin, which could be responsible for development of sub-basins and volcanic products through splay or duplex fault or pull apart related to oblique subduction. Middle-Late Miocene submarine-fan complex. Basin now inverted and forms mountain range)

Permana, H., P.S. Putra, A.F. Ismayanto, I. Setiawan, M. Hendrizan & M.M. Mukti (2011)- Perkembangan cekungan antar-busur di daerah Majalengka- Banyumas: sejarah tektonik kompleks di wilayah batas konvergensi. Jurnal Sumber Daya Geologi (JSDG) 21, 2, p. 77-90.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/137/134)
(Same paper as Permana et al. 2010 above)

Permanadewi, S. & K. Hardjadinata (1992)- Batuan metasedimen daerah Banjarnegara, Jawa Tengah. Bull. Geological Research Development Centre (GRDC), Bandung, 15, p. 45-57.

('Metasedimentary rocks of the Banjarnegara area, Central Java'. Rocks in Luk Ulo melange commonly affected by low grade metamorphism, especially feldspathic and arkosic greywackes)

Pertamina BPPKA (A. Kohar et al.) (1996)- Petroleum geology of Indonesian basins; principles, methods and application. Vol. 3, West Java Sea Basins, 132p.

Pertamina BPPKA (C.V. Ponto et al.) (1996)- Petroleum geology of Indonesian basins- principles, methods and application. Vol 4, East Java basins. Jakarta, p. 1-107.

Peterson, E. (2006)- Interactive digital field mapping and Neogene tectono-stratigraphic evolution of the Kendeng and Rembang deformed zones East-Central Java. Indonesia. M.Sc. Thesis, San Diego State University, p. 1-82. *(Unpublished)*

Pfeiffer, J.P. & F.C. van Heurn (1928)- Eenige tot dusver niet beschreven fossile houtsoorten van Java: Verslag vergadering Afd. Natuurkunde, Koninklijke Akademie van Wetenschappen, Amsterdam 37, 5, p. 469-475.
('Some previously undescribed fossil wood species from Java'. Silicified wood from Bolang estate, 35km W of Bogor, dominated by Dipterocarpaceae family: Dipterocarpoxylon and Dryobalanoxylon, also Sapindoxylon and Parinarioxylon)

Piccoli, G. (ed.) (2001)- New studies on the Cenozoic fossil fauna of Nanggulan (Java Indonesia). Memorie di Scienze Geologiche, Padova, 53, p. 15-65.
(Collection of ten short papers by Italian students on Middle Eocene stratigraphy and molluscs of Nanggulan section, 20km W of Yogyakarta. Results of co-operation project in Java and SW Sulawesi between University of Padova, Italy, and UPN Veteran University in Yogyakarta))

Piccoli, G. & Premonowati (2001)- New studies about molluscs from Eocene of Nanggulan (Java Indonesia). Memorie di Scienze Geologiche, Padova, 53, p. 17-22.
(Nanggulan exceptionally rich M Eocene mollusc faunas, known since Verbeek & Fennema (1896). 300m thick mudstone-dominated section, subdivided into Axinea Beds at base, (Nummulites) Djokjokartae Beds in middle and Discocyclina Beds at top, and mainly of Middle Eocene age)

Piccoli, G. & E. Savazzi (1983)- Five shallow benthic faunas from the Upper Eocene (Baron, Priabona, Garoowe, Nanggulan, Takashima). Boll. Societa Paleontologica Italiana 22, 1-2, p. 31-47.
(online at: https://www.paleoitalia.it/wp-content/uploads/2023/06/04_Piccoli-Savazzi.pdf)
(Comparison of five shallow marine benthic mollusc faunas from U Eocene of Tethys domain, incl. Nanggulan in C Java. Martin (1914-1931) created many new species names for molluscs from Nanggulan, considering them as endemic, but many are synonyms of S European species of same age. Eocene molluscs at Nanggulan are equatorial assemblages)

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(Two recent commercial biogenic gas discoveries in NW part of E Java Basin (Bawean Arch): Lengo (1998) and Mustika (2015). Also in JS15-1/ Kepodang field (1971). Gas reservoir in Miocene Kujung I carbonate platform; sourced from coal and carbonaceous shales of Kujung III Fm in Muriah Trough, <7000' deep and low geothermal gradient. Many wells in area with very high CO_2 gas. Lengo-1 biogenic gas 68% methane, 12% CO_2 and 20% Nitrogen)

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(Palynological studies of Late Quaternary of Lake Bandung, M Pleistocene of Trinil and U Pliocene of Bumiayu (South C Java))

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Polhaupessy, A.A. (2009)- Polen Paleogen- Neogen dari daerah Nanggulan dan Karangsambung, Jawa Tengah. Jurnal Sumber Daya Geologi (JSDG) 19, 5, p. 325-332.
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('Paleogene- Neogene pollen from the Nanggulan and Karangsambung areas, Central Java'. Study of pollen from Nanggulan area suggest Eocene- Oligocene age. Karangsambung pollen from M Eocene (Karangsambung Fm) to Pliocene age (Halang Fm). Pollen deposited in littoral environments(?))

Polhaupessy, A.A. & Sudijono (1985)- Palynological study of Quaternary formations in the Solo and Madiun areas. Geological Research Development Centre (GRDC), Bandung, Special Publ. 17, p. 109-117.
(Pollen analyses of Pucangan, Kabuh and Setri Formations. Predominance of Graminae pollen suggest widespread grass-dominated swamp and possibly savannah in all formations, suggesting Late Pliocene-Pleistocene climates more seasonal than today)

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Pozzobon, M. (1997)- Le malacofaune Cenozoiche di Nanggulan e di Panggang presso Yogyakarta (Giava, Indonesia); inquadrate nelle fauna della Tetide. Thesis University of Padova, p. 1-151.
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Pozzobon, M. (2001)- Some Eocene molluscs from Nanggulan and a new species of *Cyclina* (Bivalvia) in the Miocene mollusc assemblage from Panggang (Java, Indonesia). Memorie di Scienze Geologiche, Padova, 53, p. 36-40.
(Listings of mollusces from M Eocene of lower Nanggulan Fm at Kalisonggo (14 gastropod species; 21% in common with Tethys) and from Early Miocene 'back-reef' limestones of lower Wonosari Fm at Panggang, 21 km SSW of Yogyakarta (17 gastropod, 14 bivalve species; no Tethyan connections; all Indo-West Pacific))

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(online at: https://www.iagi.or.id/web/digital/14/2008_IAGI_Bandung_Karakteristik-Geokimia-Rembesan.pdf)

('Oil seeps in Bantal area, 35 km SE of Semarang, at W end of Kendeng zone'. Geochemical analysis shows n-alkane high in C8-C15 and C25-C28, pristane/phytane ratio >1, etc. Oil from mixed algal and higher plant kerogens, deposited in lacustrine environment. Oil degraded. Possible source rock is shale below Pelang Fm (see also Amijaya & Pameco, 2017))

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(online at: https://www.academia.edu/50252415/Neogene_and_Quaternary_fault_kinematics_around_the_Sunda_Strait_area_Indonesia)
(Sunda Strait transition zone from orthogonal subduction off Java to oblique subduction off Sumatra. Opening of Sunda Strait consequence of right lateral movement of Sumatran Fault System-SFS. Two main kinematics on faults around Sunda Strait area: dextral strike-slip and normal. Strike-slip deformations in Miocene or older rocks, Pliocene and younger formations only normal faulting. Dextral slip on SFS began during M Miocene and normal faulting prevailed in Sunda Strait since 5 Ma, controlling bathymetry of Sunda Strait)

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(Tomography results show Bandung Basin has thick layer of sediment. Along N, E and S mountains surrounding basin high-velocity structure, except to W of Tangkuban Parahu volcano, where massive low-velocity structure extending throughout upper crust may indicate presence of fluids or partial melts)

Praptisih (2016)- Karakteristik batuan induk hidrokarbon dan hubungannya dengan rembesan minyak di lapangan minyak Cipluk, Kabupaten Kendal, Provinsi Jawa Tengah. Buletin Sumber Daya Geologi 11, 2, p. 93-101.
(online at: http://buletinsdg.geologi.esdm.go.id/index.php/bsdg/issue/archive)
('Characteristics of hydrocarbon source rock and its relation to oil seepage in the Cipluk oil field, Kendal Regency, Central Java province'. Oil from seep S of Sojomerto near abandoned Cipluk oil field, WSW of Semarang, is mature and from estuarine-shallow lacustrine source rocks, with organic material derived from land plants. Does not correlate to nearby gas-prone Kerek and Penyatan Fms)

Praptisih (2016)- Fasies, lingkungan pengendapan dan sifat fisik (kesarangan dan kelulusan) batuan karbonat Formasi Parigi di daerah Pangkalan Karawang, Jawa Barat. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 17, 4, p. 205-215.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/13/6)
('Facies, depositional environment and physical properties (porosity and permeability) of the Parigi Formation carbonate rocks in area Pangkalan Karawang area, West Java'. Facies and facies distribution of M-L Miocene Parigi Fm limestones in Pangkalan area, NW Java. Porosity up to 25.8%, permeability up to 21.2 mD)

Praptisih (2016)- Fasies batuan karbonat di daerah Bojongmangu Bekasi, Jawa Barat. In: R. Delinom et al. (eds.) Pros. Geotek Expo 2016, Pusat Penelitian Geoteknologi (LIPI), Bandung, p. 255-264.
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('Facies of carbonate rocks in Bojongmangu area, Bekasi, West Java'. M Miocene Parigi Fm outcrops in Bojongmangu- Bekasi area. With Lepidocyclina (Trybliolepidina) rutteni, and N17 planktonics. Four reef slope facies)

Praptisih (2016)- Studi batuan sedimen Formasi Cinambo di daerah Sumedang, Jawa Barat. In: R. Delinom et al. (eds.) Pros. Geotek Expo 2016, Pusat Penelitian Geoteknologi (LIPI), Bandung, p. 265-276.
(online at: http://pustaka.geotek.lipi.go.id/index.php/2017/10/05/prosiding-2016/)
('Study of sediments of the Cinambo Formation in the Sumedang area, West Java'. Age of Cinambo Fm upper bathyal marine turbiditic series in Sumedang area is M Miocene, based on presence of Globorotalia peripheroacuta, Gr. praefohsi, Gr. fohsi, etc.)

Praptisih (2017)- Geokimia batuan induk hidrokarbon Formasi Cinambo di dearah Sumedang, Jawa Barat. Buletin Sumber Daya Geologi 12, 3, p. 144-153. *(online at: http://buletinsdg.geologi.esdm.go.id/index.php/bsdg/article/view/BSDG_VOL_12_NO_3_2017_1/pdf)*
(Geochemistry of the Cinambo Formation hydrocarbon rocks in the Sumedang area, West Java'. 16 samples of claystone from Miocene Cinambo Fm with TOC 0.32-1.5% (low hydrocarbon potential). Organic matter mainly gas-prone Type III kerogen. Biomarkers suggest no correlation with oil seepage in Majalengka area)

Praptisih (2018)- Biomarker characteristics of source rock and oil seepage correlation in Central Java. Proc. Global Colloquium on GeoSciences and Engineering, Bandung 2017, IOP Conference Series: Earth and Environmental Science 118, 012008, p. 1-7.
(online at: http://iopscience.iop.org/article/10.1088/1755-1315/118/1/012008/pdf)
(Oil seepage in different parts of C Java. Biomarkers of rocks and oils suggest oil seepage in Banjarnegara derived from Totogan Fm; Bayat oil derived from Wungkal Fm; Cipluk oil deposited in estuarine facies, therefore not from Kerek Fm. Oils in Kedungjati and Bantal areas not from Kerek and Pelang Fms)

Praptisih (2018)- Karakteristik batuan induk hidrokarbon di Cekungan Bogor, Jawa Barat. Pusat Penelitian Geoteknologi, Lembaga Ilmu Pengetahuan Indonesia (LIPI), LIPI Press, Jakarta, p. 1-97.
(online at: http://penerbit.lipi.go.id/data/naskah1530235889.pdf)
('Characteristics of hydrocarbon source rocks in the Bogor Basin'. Elegant overview of key Oligo-Miocene outcrops in Bogor Basin, from Sukabumi/ Cianjur/Bogor in W to Majalengka in E, and geochemical analyses)

Praptisih, (2022)- Karakteristik geokimia organik pada Formasi Cibulakan di daerah Cirebon, Jawa Barat. Lembaran Publikasi Minyak dan Gas Bumi (LPMGB; Lemigas, Jakarta) 56, 2, p. 123-135.
(online at: https://journal.lemigas.esdm.go.id/index.php/LPMGB/article/view/1176)
('Organic geochemistry characteristics of the Cibulakan Formation in the Cirebon area, West Java')

Praptisih (2023)- Karateristik biomarker batuan induk hidrokarbon pada Formasi Jatiluhur di daerah Karawang, Jawa Barat. Lembaran Publikasi Minyak dan Gas Bumi (LPMGB; Lemigas, Jakarta) 57, 2, p. 19-28.
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('Biomarker characteristics of hydrocarbon source rocks in the Jatiluhur Formation in the Krawang area, West Java'. Geochemistry of M Miocene Jatiluhur Fm samples from area NW of Jatiluhur Lake indicate immaturity, end terrestrial and algal kerogens)

Praptisih & Kamtono (2002)- Fasies turbidite pada Formasi Halang di daerah Cilacap Utara, Jawa Tengah. Buletin Geologi (ITB), 34, 3, Special Edition (Prof. Soejono Martodjojo volume), p. 133-140.
('Turbidite facies of the Halang Formation in the North Cilacap area, Central Java')

Praptisih & Kamtono (2011)- Fasies turbidit Formasi Halang di daerah Ajibarang, Jawa Tengah. Jurnal Geologi Indonesia 6, 1, p. 13-27.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/299)
('Turbidite facies of the Halang Fm in the Ajibarang area, C Java'. M Miocene- E Pliocene Halang Fm turbidites N of Cilacap deposited in middle fan setting of submarine fan system. Clastic source from SSW)

Praptisih & Kamtono (2012)- Studi potensi batuan induk Formasi Jatiluhur di daerah Bogor, Jawa Barat. Proc. 41st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2012-E-03, p. 1-5.
(online at: https://www.iagi.or.id/web/digital/9/2012_IAGI_Yogyakarta_Studi-Potensi-Batuan-Induk.pdf)
(Study of source rock potential of Miocene Jatiluhur Fm in Bogor area. Suggest only minor gas potential)

Praptisih & Kamtono (2014)- Carbonate facies and sedimentation of the Klapanunggal Formation in Cibinong, West Java. Indonesian J. on Geoscience (IJOG) 1, 3, p. 175-183.
(online at: http://ijog.bgl.esdm.go.id/index.php/IJOG/article/view/198/185)
(Miocene Klapanunggal Fm (=Parigi Fm) limestone well exposed in and near Cibinong, W Java. Carbonates in four facies (1) reef front to reef crest boundstone, (2) slope, and back-reef lagoon packstones, (3) reef front

rudstone and (4) lower slope limestone breccia. Reef front and slope facies in N-NE, reef crest and back reef lagoon to S-SW)

Praptisih & Kamtono (2016)- Potensi batuan indik hidrokarbon pada Formasi Cinambo di daerah Majalengka, Jawa Barat. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 17, 1, p. 1-11.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/25/25)
('Hydrocarbon source rock potential of the Cinambo Formation in the Majalengka area, West Java'. Clays of Late Miocene Cinambo Fm S of Majalengka E of Bandung mainly Type III kerogen, oil and gas prone)

Praptisih, Kamtono, P.S. Putra & M. Hendrizan (2009)- Karakteristik batuan sumber (source rock) hidrokarbon pada Formasi Batuasih di daerah Sukabumi, Jawa Barat. Jurnal Geologi Indonesia 4, 3, p. 167-175.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/250)
('Characteristics of hydrocarbon source rocks of the Batuasih Formation in the Sukabumi area, West Java'. Oligocene Batu Asih Fm marine claystone in Sukabumi area poor to fair organic richness and gas prone)

Praptisih, Kamtono & M.S. Siregar (2007)- The hydrocarbon source rock potential of the Rambatan Formation in the Banjarnegara area, S Central Java. Proc. Joint Convention 32nd HAGI, 36th IAGI and 29th IATMI, Bali 2007, p. 692-703.
(online at: https://www.iagi.or.id/web/digital/28/2007_IAGI-Bali_The-Hydrocarbon-Source-Rock-Potential.pdf)
(E-M Miocene Rambatan Fm in N of Banjarnegara, S Central Java, potential for generating small amounts of oil and gas. Area with oil and gas seeps)

Praptisih, Kamtono, M.S. Siregar & E.A. Subroto (2007)- Studi batuan induk pada sub cekungan Serayu Utara, Banjarnegara dan sekitarnya, Jawa Tengah. In: A. Tohari et al. (eds.) Pros. Seminar Geoteknologi Kontribusi ilmu kebumian dalam pembangunan berkelanjutan, Puslitbang Geotekn. (LIPI), Bandung, p. 1-6.
(online at: http://pustaka.geotek.lipi.go.id/index.php/2016/01/20/prosiding-2007/)
('Study of source rock in the North Serayu sub-basin, Banjarnegara and surroundings, Central Java'. Totogan Fm TOC up to 2.1%, Tmax 405-489°C. Hydrogen Index (HI) 16-86 mg HC/TOC, indicating minor gas potential. Rambatan Fm up to 1.6% TOC, Tmax: 435-458°C and HI 47-163 mg HC/TOC, show minor oil and gas potential. Most organic material land-derived (oleanane, resin))

Praptisih, Kamtono, P. Sulastya & M. Hendrizan (2010)- Studi batuan induk di daerah Padalarang dan sekitarnya, Jawa Barat. Proc. 39th Annual Conv. Indonesian Association Geologists (IAGI), Lombok, PIT-IAGI-2010-325, p. 1-8. *(online at: https://www.iagi.or.id/web/digital/12/2010_IAGI_Lombok_Studi-Btuan-Induk-di-Daerah-Padalarang.pdf)*
('Study of source rocks in the Padalarang area'. Oligocene claystone Member of Rajamandala Fm shows TOC value 0.50- 1.17%, fair- good for hydrocarbons. T max 422- 524°C, indicating one mature sample and 10 immature. Rock Eval analysis shows HI values from 63- 113 mg HC/g)

Praptisih, Kamtono, P. Sulastya & M. Hendrizan (2009)- Batuan induk (source rock) hidrokarbon di sub cekungan Bogor bagian Selatan, Jawa Barat. In: I. Setiawan et al. (eds.) Pros. Pemaparan Hasil Penelitian Geoteknologi 2009, Pusat Penelitian Geoteknologi (LIPI), Bandung, p. 183-192.
(online at: http://pustaka.geotek.lipi.go.id/index.php/2016/01/20/prosiding-2009/)
('Hydrocarbon source rocks in the southern part of the Bogor Basin, West Java'. Oligocene Batuasih Fm claystones from Gunung Walat area near Sukabumi potential hydrocarbon source rocks. TOC 0.49-1.72%. Level of maturity. between 424- 524° C)

Praptisih, Y.A. Sendjaja, V. Isnaniawardani & A.T. Mursito (2021)- Karakteristik dan potensi batuan sumber hidrokarbon dari conto permukaan di daerah Pemalang, Jawa Tengah. Lembaran Publikasi Minyak dan Gas Bumi (Lemigas) 55, 1, p. 107-113.
(online at: https://journal.lemigas.esdm.go.id/index.php/LPMGB/article/view/572)
('Characteristics and hydrocarbon source potential of surface samples in the Pemalang area, C Java')

Praptisih, Y.A. Sendjaja, V. Isnaniawardhani, A.T. Mursito, P.S. Putra, S.H. Nugroho (2022)- Geochemistry and potential hydrocarbon source rocks of Rambatan Formation in Karangkobar area, Central Java. Indonesian J. of Chemistry (UGM) 22, 6, p. 1512-1522.
(online at: https://jurnal.ugm.ac.id/ijc/article/view/73162/34893)
(Marine turbiditic E-M Miocene Rambatan Fm in Karangkobar area, C Java, with claystone poor-fair organic richness, HI 15 - 163 mg HC/g TOC. Kerogens type II and III. Samples thermally immature- mature. Organic material derived from open marine and plankton environment)

Praptisih, Y.A. Sendjaja, V. Isnaniawardani, A.T. Mursito, T. Ramli, M.M. Mukti & R.Fakhruddin (2024)- Geochemistry of Totogan Formation as potential source rock and its relationship with oil seepage manifestations in the Banjarnegara areas, Central Java, Indonesia. Heliyon 10, 21, e40010, p. 1-16.
(online at: https://www.cell.com/heliyon/pdf/S2405-8440(24)16041-0.pdf)
(N Serayu Basin in C Java with many oil and gas seeps. Geochemistry of Oligocene Totogan Fm suggests estuary/ bay deposits with mainly higher plant organic matter, and open marine deposit with mainly algae organic matter. Positive oil-source rock correlation between seeps and Totogan Fm based on biomarker data)

Praptisih & M.S. Siregar (2002)- Petrografi dan fasies batugamping Formasi Wonosari di daerah Bayat, Jawa Tengah. Proc. Sumberdaya geologi daerah istimewa Yogyakarta dan Jawa Tengah, Ikatan Ahli Geologi Indonesia (IAGI), Pengda DIY-Jateng, p. 32-40.
('Petrography and limestone facies of the Wonosari Fm in the Bayat area, C Java')

Praptisih & M.S. Siregar (2011)- Fasies carbonat Formasi Campurdarat di daerah Tulungagung, Jawa Timur. Proc. Joint 36th HAGI and 40th IAGI Annual Conv., Makassar, JCM2011-236, p. 1-9.
(online at: https://www.iagi.or.id/web/digital/10/2011_IAGI_Makassar_Fasies-Carbonat-Formasi.pdf)
('Carbonate facies of the Campurdarat Formation in the Tulungagung area, E Java'. Facies of E-M Miocene limestone in S Mountains. Larger forams Lepidocyclina and Miogypsina suggestive of Zone Te (could be Lower Tf?; JTvG). Interpreted as E Miocene barrier reef system)

Praptisih & M.S. Siregar (2012)- Fasies karbonat Formasi Campurdarat di daerah Tulungagung, Jawa Timur. Jurnal Sumber Daya Geologi (JSDG) 22, 2, p. 65-72.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/107/99)
(Same paper as Praptisih and Siregar (2011) above)

Praptisih, M.S. Siregar, M. Hendrizan & P.S. Putra (2009)- Fasies batuan karbonat di daerah Klapanunggal, Bogor. In: I. Setiawan et al. (eds.) Pros. Pemaparan Hasil Penelitian Geoteknologi 2009, Pusat Penelitian Geoteknologi (LIPI), Bandung, p. 173-181.
(online at: http://pustaka.geotek.lipi.go.id/index.php/2016/01/20/prosiding-2009/)
('Facies of carbonate rocks in the Klapanunggal area, Bogor'. M? Miocene Parigi Fm reefal limestones commonly called Klapanunggal Fm in Cibinong area. Four facies associations)

Praptisih, S. Siregar & Kamtono (2004)- Studi fasies batugamping di daerah Tasikmalaya dan sekitarnya, Jawa Barat. Proc. 33rd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, p. 52-59.
(online at: https://www.iagi.or.id/web/digital/16/2004_IAGI_Bandung_Studi-Fasies-Batugamping.pdf)
(M and Late Miocene reefal limestone in Tasikmalaya area; not much stratigraphic detail)

Praptisih, S. Siregar & Kamtono (2008)- Study fasies batugamping Eosen di daerah Banjarnegara, Jawa Tengah. Proc. 37th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 208-211.
('Study of Eocene limestone facies in the Banjarnegara area, C Java'. Late Eocene limestone at Gunung Karang in Wora-Wari area >10m thick olistolith in Oligocene Totogan Fm. Foraminiferal packstone-grainstone and boundstone facies with Nummulites, Asterocyclina, Discocyclina, Spiroclypeus, Pellatispira, red algae, etc., deposited in fore-reef facies)

Praptisih, M.S. Siregar, Kamtono, M. Hendrizan & P.S. Putra (2012)- Fasies dan lingkungan batuan karbonat Formasi Parigi di daerah Palimanan, Cirebon. J. RISET Geologi dan Pertambangan (LIPI) 22, 1, p. 33-43.

(online at: www.geotek.lipi.go.id/riset/index.php/jurnal/article/viewFile/44/6)
('Facies and environment of Parigi Fm carbonates in the Palimanan area, Cirebon'. Outcrop of Parigi Fm in the anticlinal structure of Kromong carbonate complex, Palimanan area. Seven facies, including boundstones, foraminiferal packstones, etc. Depositional environment reef and associated facies, with reef front in NE and back reef in SW. Foraminifera believed to indicate Early Miocene age (but faunal list includes mixture of E Miocene (Te5; Spiroclypeus, Miogypsinoides) and M Miocene (Tf1-2; Cycloclypeus annulatus); JTvG)

Praptisih, M.S. Siregar, Kamtono & A. Rachmat (2002)- Studi fasies batugamping Formasi Kalipucang di daerah Kedung Glunggung Karangbolong, Gombong, Jawa Tengah. Proc. 31st Annual Conv. Indonesian Association Geologists (IAGI), Surabaya, 2, p. 850-857.
('Facies study of limestone of the Kalipucang formation in the Kedung Glunggung area, Karangbolong, Gombong, Central Java'. Lepidocyclina packstone facies in S Mountains of C Java interpreted as foreslope of M Miocene Karangbolong reef system)

Prasetyadi, C. (2007)- Evolusi tektonik Paleogen Jawa Bagian Timur. Doct. Thesis Institut Teknologi Bandung (ITB), p. 1-323. *(Unpublished)*
('Paleogene tectonic evolution of East Java'. Luk Ulo melange complex of latest Cretaceous- Paleocene age. Luk Ulo Pretertiary structural grain NE-SW or NNE-SSW. K-Ar ages of ophiolite-associated schist 110-125 Ma (block), siliceous shale 90-115 Ma)

Prasetyadi, C. (2008)- Provenan batupasir Eosen Jawa bagian Timur. Proc. 37th Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 80-97.
(online at: https://www.iagi.or.id/web/digital/14/2008_IAGI_Bandung_Provenan-Batupasir-Eosen.pdf)
('Eocene sandstone provenance in East Java'. Eocene sediments in E half of Java at Luk Ulo-Karangsambung, Nanggulan, Bayat and in E Java basin. 37 outcrop samples range from arkosic to arenitic sst, with quartz as dominant component (av. 65% range 35-98%), feldspar 2-27%, lithics 2-45%. Metamorphic rock grains dominate in most samples. Data suggest two different provenance areas: recycled orogen in Karangsambung and craton interior in Nanggulan, Bayat and E Java basin. Karangsambung lies in accretionary basement area, Nanggulan-Bayat in continental basement area (E margin of E Java microcontinent?))

Prasetyadi, C. (2008)- Exploring Jogja geoheritage: the lifetime of an ancient volcanic arc in Java. p. 1-10.
(online at: https://www.academia.edu/76058048/Exploring_Jogja_Geoheritage_The_Lifetime_of_an_Ancient_Volcanic_Arc_in_Java)
(Fieldtrip guide E/SE of Yogyakarta, exploring the story of Late Oligocene- E-Miocene 'Old Andesite' volcanic arc, which forms S part of Java Island. Starting with Oligocene Berbah pillow lava, etc.)

Prasetyadi, C., A.H. Harsolumakso, B. Sapiie & J. Setiawan (2002)- Tectonic significance of pre-Tertiary rocks of Jiwo Hill, Bayat and Luk Ulo, Karangsambung areas in Central Java: a comparative review. Proc. 31st Annual Conv. Indonesian Association Geologists (IAGI), Surabaya, 2, p. 680-700.
(online at: https://www.iagi.or.id/web/digital/18/TECTONIC-SIGNIFICANCE-OF-PRE-TERTIARY-ROCKS-OF-JIWO-HILL,-BAYAT-AND-LUK-ULO,-KARANGSAMBUNG-AREAS-IN-CENTRAL-JAVA--A-COMPARATIVE-REVIEW.pdf)
(Pretertiary rocks in Karangsambung (Luk Ulo subduction melange) and Bayat areas similar metamorphic rocks and SE-NW (WSW-ENE?) 'Meratus' structural trends. Karangsambung more 'ocean plate stratigraphy', with ultrabasic rocks and mid-Cretaceous pelagic cherts in sheared clay matrix (mainly in N), and with boudinage features in (Eocene) sandstone beds in S part. Jiwo/ Bayat area possibly more continental, without 'block-in-matrix' structure, with (undated) Pretertiary phyllites and schists, overlain by M Eocene clastics and Nummulites limestones, overlain by Oligo-Miocene (mainly marine) arc volcanics ('Old Andesites'). Karangsambung probably closer to trench than Bayat)

Prasetyadi, C. & M. Maha (2004)- Jiwo Hills, Bayat-Klaten: a possible Eocene-origin paleohigh. Jurnal Ilmu Kebumian Teknologi Mineral (JIK TekMin) (UPN, Yogyakarta) 17, 2, p. 61-64.

Prasetyadi, C., M.G. Rachman, S.E. Hapsoro, A. Shirly, A. Gunawan & I. Purwaman (2016)- Seismic-based structural mapping of RMKS fault zone: implication to hydrocarbon accumulation in East Java Basin. Proc. 14th Regional Conference Geology and Mineral Resources of SE Asia (GEOSEA XIV) and 45th Annual Conv. Indonesian Association Geologists (IAGI) (GIC 2016), Bandung, p. 104-107.
(Rembang-Madura-Kangean-Sakala (RMKS) Fault zone in NE Java and further East is sinistral slip fault which started to develop in M Miocene. E-W trending)

Prasetyadi, C., A. Subandrio, M. Gazali Rachman, A.R.F. Barizi & G.S. Putro (2021)- Subvolcanic rock petroleum system potential in the South Malang Region, East Java, Indonesia. Open J. Yangtze Oil and Gas 6, p. 146-160.
(online at: https://www.scirp.org/pdf/ojogas_2021101816480147.pdf)
(Study of South Malang area in SE part of Java Southern Mountains subvolcanic arc suggests potential for petroleum system, indicated by presence of source (M Miocene Nampol Fm) and potential reservoir rock)

Prasetyadi, C., A. Subandrio, M. Gazali Rachman, A.R.F. Barizi & M. Muslim (2022)- Source rock potential of Nampol Formation Sumbermanjing area, Malang, East Java, Indonesia based on geochemistry analysis of the selected sample. Scientific Contributions Oil and Gas (SCOG), Lemigas, 45, 1. p. 53-63. *(also in IAGI JCB 2021)*
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/924/717)
(Geochemistry of M Miocene Nampol Fm, S of Malang, in S Mountains of E Java. Calcareous claystone, siltstone, clastic limestone, and black shale potential hydrocarbon source rock, but generally immature)

Prasetyadi, C., I. Sudarno, V.B. Indranadi & Surono (2011)- Pola dan genesa struktur geologi Pegunungan Selatan, provinsi daerah Istimewa Yogyakarta dan provinsi Jawa Tengah. Jurnal Sumber Daya Geologi (JSDG) 21, 2, p. 91-107.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/138/135)
('The pattern and genesis of geological structure of the Southern Mountains, provincial areas of Yogyakarta and Central Java province'. S Mountains structures dominated by faults, mainly oriented NE-SW (16) and N-S (14) and mainly sinistral, some reactivated as normal faults. Others oriented NW-SE (3) and E-W (3) and mainly dextral and normal faults)

Prasetyadi, C., E.R. Suparka, A.H. Harsolumakso & B. Sapiie (2005)- Eastern Java basement rock study: preliminary results of recent field study in Karangsambung and Bayat areas. Proc. 34th Conv. Indonesian Association Geologists (IAGI), Surabaya, p. 310-321.
(Karangsambung basement mid-Cretaceous- Paleocene subduction complex, characterized by tectonic block-in matrix structure. Melange structural dip mostly to S-SE, opposite of expected for NW-dipping subduction zone, therefore interpreted as overturned. With M Cretaceous limestone blocks with Orbitolina. Melange overlain by Eocene clastics. Bayat basement mostly phyllite and schists of unknown age, unconformably overlain by Eocene and M Miocene sediments)

Prasetyadi, C., E.R. Suparka, A.H. Harsolumakso & B. Sapiie (2006)- An overview of Paleogene stratigraphy of the Karangsambung area, Central Java: discovery of new type of Eocene rock. Proc. Int. Geoscience Conf. Exhib., Indonesian Petroleum Association (IPA), Jakarta 2006, 06-PG-09, p. 1-4.
(First record of Early Eocene larger forams and M-L Eocene limestone blocks in metamorphosed tectonic melange of Larangan area in N part of Luk Ulo melange complex, suggesting Late Eocene (collisional?) deformation after Cretaceous- Paleocene subduction-related deformation. E Eocene metasedimentary unit generally dips to S)

Prasetyadi, C., E.R. Suparka, A.H. Harsolumakso & B. Sapiie (2006)- The occurrence of a newly found Eocene tectonic melange in Karangsambung area, Central Java. Proc. 35th Conv. Indonesian Association Geologists (IAGI), Pekanbaru, p. 1-16.
(online at: https://www.iagi.or.id/web/digital/15/2006_IAGI_Pekan-Baru_The-Occurrence-Of.pdf)
(Discovery of M Eocene Asterocyclina-bearing limestone blocks in polymict Larangan Complex at N side of Luk Ulo Melange complex indicates age of tectonic melange not only Cretaceous-Paleocene, but also M-L Eocene. Shifting of NE-SW Cretaceous subduction trend to Oligocene E-W trend due to collision of microcontinent. Two

deformation phases prior to onset of 'Old Andesite' subduction-related volcanism: Cretaceous-Paleocene subduction-related and Late Eocene post subduction (collisonal?) deformation)

Prasetyadi, C., E.R. Suparka, A.H. Harsolumakso & B. Sapiie (2006)- The Larangan Complex: a newly found Eocene tectonic melange rock in Karangsambung area, Central Java, Indonesia. Proc. 17th International Geological Congress, Fukuoka, 1p. *(Abstract only)*
(Karangsambung melange complex does not only include Cretaceous-Paleocene Luk Ulo Complex, but also Eocene Larangan complex with M Eocene Asterocyclina-bearing limestone in melange)

Prasetyanto, I.W., Widodo & D. Wintolo (1997)- Mineralisasi logam mulia di Kecamatan Selogiri, Kabupaten Wonogiri, Propinsi Jawa Tengah. Proc. 17th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 865-869.
('Mineralization of precious metals in Selogiri, Wonogiri District, Central Java')

Prasetyo, A., J. Romora S., Yeftamikha, Fransiskus L.B & I.S. Nugroho (2016)- A petrographical review of metamorphic rocks from Ciletuh Complex in West Java and their related metamorphism in Central Indonesia region. In: R. Hidayat et al. (eds.) Proc. Seminar Nasional Kebumian 9, Dept. Teknik Geologi, Gadjah Mada University, Yogyakarta, p. 624-633.
(online at: https://repository.ugm.ac.id/273596/)
(Ciletuh Cretaceous subduction complex in SW Java. Metamorphic rocks in Gunung Badak area consist of Grt-Ms-Qz schist, Ms phyllite, quartzite and serpentinite. In Tegal Pamidangan area Ms-Qz phyllite and slate (greenschist-facies). Protoliths of metamorphic rocks pelitic, ultramafic and quartz-rich rocks. No blueschist or eclogite-facies rocks recognized (but reported by Endang Suhaeli et al. 1977). Presence of serpentinite among low-grade metamorphic rocks indicates metamorphic environment associated with oceanic crust/ mantle. Similar to Jiwo Hills, C Java, metamorphics)

Prasetyo, U., Aswan, Y. Zaim & Y. Rizal (2012)- Perubahan lingkungan pengendapan pada beberapa daerah di Pulau Jawa selama Plio-Plistosen berdasarkan kajian paleontologi moluska. Jurnal Teknologi Mineral (ITB) 19, 4, p. 173-180.
('Changes in depositional environment in some areas of Java during the Plio-Pleistocene based on paleontological studies of mollusks'. Three areas studied in W and C Java (in Bogor, N Serayu and Bobotsari Basins), all showing transition from shallow marine facies (with Turritella) in Late Pliocene to marginal marine (with Melanoides, Sulcospira, Tellina, Paphia) and non-marine (no molluscs) in Pleistocene (also as U.P. Wibowo ITB S2 Masters Thesis, 2009))

Pratiwi, R. (2021)- Source rock characterization and oil grouping in the NW Java, Central Java and NE Java Basins, Indonesia. Berita Sedimentologi 47, p. 48-66.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/324/295)
(In NW and NE Java basins 6 groups of crude oils: 1, 2, and 6 oils from deltaic source rocks, 3 and 4 from marine source rocks, and Group 5 is from lacustrine and/or fluvio-lacustrine source rocks.

Pratiwi, R., J. Shima & R. Lumbantoruan (2012)- The turbidite characteristics of Miocene Kerek Formation based on outcrops and description of petrography in Kalibade River, Bawen Area, Semarang, Central Java. Proc. 41st Annual Conv. Indonesian Association Geologists (IAGI) (PIT IAGI 41), Yogyakarta 2012, p. 1-4.
(online at: www.researchgate.net/publication/323200031_The_Turbidite_Deposit_Characteristics_of_M_Etc.)
(Kerek Fm SW of Semarang, C Java, comprises bathyal turbidite sediments of M Miocene age. Tuffaceous sandstones. Outcrops along Kalibade River3 facies: lower fan channel, shale interval, and lower fan lobe. Notmuch detail)

Pratiwi, S.D., S. Chiyonobu & M.F. Rosana (2022)- Identifikasi umur Formasi Jampang Anggota Cikarang berdasarkan kumpulan nannofosil gampingan di Sungai Cikarang, Geopark Ciletuh Pelabuhanratu. Bull. Scientific Contribution: Geology (UNPAD) 20, 2, p. 137-142.
(online at: https://jurnal.unpad.ac.id/bsc/article/view/44145/pdf)

('Age identification of the Jampang Fm in the Cikarang River section based on calcareous nannofossils'. Calcareous nannofossils from Jampang Fm along Cikarang River, Ciletuh area, SW Java, suggest 4 Early Miocene Zones, NN1- NN 4 (22.6 Ma 18 Ma))

Pratiwi, S.D., V. Isnaniawardhani & T. Sato (2022)- Identifikasi umur Batupasir Formasi Bentang di Pangandaran berdasarkan kumpulan nannofosil gampingan. Bull. Scientific Contribution: Geology (UNPAD) 20, 1, p. 43-48.
(online at: https://jurnal.unpad.ac.id/bsc/article/view/39353/pdf)
('Identification of the age of the Bentang Formation sandstone in Pangandaran based on a collection of calcareous nannofossils'. Calcareous sandstones of Bentang Fm in Babakan area of Pangandaran Regency, S Java, show 5 nannofossil events. Age of Bentang Fm Late Miocene (zones NN8- NN11).

Pratiwi, S.D., Nurdradjat, F.M. Pratiwy & S. Chiyonobu (2024)- Short Communication: Calcareous nannofossil assemblages and age determination in Leuwi Kenit, Ciletuh Palabuhanratu Geopark, Indonesia. Biodiversitas 25, 7, p. 3200-3207.
(online at: https://smujo.id/biodiv/article/view/16877/7889)
(Calcareous nannofossils in Leuwi Kenit section of Cikarang Mb of Jampang Fm in Ciletuh Geopark in SW Java resulted in identification of seven nannofossil zones NP23-NN4, indicative of latest Oligocene-E Miocene age (24.3- 17.7 Ma))

Pratomo, K.H., A. Sudjai, A. Bachtiar, M. Syaiful, D. Rahayu, P.H. Narendra, A. Krisyunianto & B. Sunarto (2009)- Tuban and Camar troughs (East Java basin) revival: new insight. Proc. 38th Annual Conv. Indonesian Association Geologists (IAGI), Semarang, PITIAGI2009-189, p. 1-4.
(Tuban and Camar Troughs in Offshore NE Java Basin surrounded by dry holes and generally condemned as lean, shallow and inadequate hydrocarbon kitchens. Recent well post-mortem re-evaluation and remapping of kitchens modifies understanding of petroleum system. Oil shows present in Tuban-1 and other dry holes may also have oil- gas show. Re-mapping of Tuban and Camar kitchen area better understanding of development of Pre-CD lacustrine-fluvial-deltaic source rock in these lows)

Pratomo, S.U. (2024)- Paragenesis mineral bijih pada endapan epitermal sulfidasi tinggi area Gunung Budheg, Kabupaten Tulungagung, Provinsi Jawa Timur. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 25, 2, p. 65-72.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/772)
('Ore mineral paragenesis of high-sulfidation epithermal deposits in the Mount Budheg Area, Campurdarat District, Tulungagung Regency, East Java Province'. Epithermal Au-Cu mineralization at Mt Budheg in eastermost Java Southern Mountains)

Pratomo, S.U., A.D. Titisari & A. Idrus (2020)- Hydrothermal alteration of high sulfidation epithermal deposits in Secang Area, Tulungagung, East Java, Indonesia. J. Applied Geology (UGM) 5, 2, p. 73-83.
(online at: https://jurnal.ugm.ac.id/jag/article/view/55235/30347)
(Cu-bearing hydrothermal alteration hosted by Late Oligocene- E Miocene Mandalika Fm andesitic volcanics in Southern Mountains of E Java.)

Prawiranegara, D.A.R. & F.E. Saputra (2015)- A new insight to gliding tectonic of North Serayu Basin and its implications to hydrocarbon seepage: case study Watukumpul, Pemalang, Central Java. Proc. Joint Convention HAGI-IAGI-IATMI-IAFMI, Balikpapan 2015, p. 1-7.
(online at: www.academia.edu/36085515/A_NEW_INSIGHT_TO_GLIDING_TECTONIC_OF_NORTH Etc.)
(Hydrocarbon seepage at Watukumpul, E of Slamet volcano. Situated in M Miocene Rambatan Fm, on anticlinal structure that started forming during Pliocene N-S compression, modified by Quaternary gliding tectonics driven by volcanic load of Mt Slamet. Leaky hydrocarbon system in N Serayu basin)

Prawiranegara, D.A.R., F.E. Saputra, F. Raseno, B.H. Utomo, A. Sani & A. Wahid (2016)- Understanding the petroleum system of North Serayu Basin: an integrated approach from geology, geophysics and geochemistry. Proc. 40th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA16-63-SG, p. 1-27.
(online at: www.academia.edu/44934808/Understanding_The_Petroleum_System_of_North_Serayu_Basin_An_Integrated_Approach_from_Geology_Geophysics_and_Geochemistry?email_work_card=title)

(Review of N Serayu basin NE of Slamet volcano in C Java. Many oil seeps and all elements of viable petroleum system, but no comercial hydrocarbons. Rambatan and Halang Fms potential reservoirs of magmatic arc provenance. Volcanic gravity tectonics in Pleistocene considerable influence on petroleum play)

Prayoga, O.A. J.I. Swandi, D.A. Alvrida, Purwoko, J.E.L. Hutabarat, M.N. Faizin, A. Yusliandi & H.D. Kusuma (2017)- Volcanic reservoir characterization using sedimentology, paleontology, ichnology, and petrographycal analysis of Miocene Sambipitu volcaniclastic: Implication to reservoir potential in volcanic submarine fan deposit. Proc. Joint Convention HAGI- IAGI- IAFMI- IATMI (JCM 2017), Malang, p. 1-10.
(online at: https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_Volcanic-Reservoir-Characterization.pdf)
(E Miocene Sambipitu Fm in Southern Mountains of C Java composed of mixed volcaniclastic-siliciclastic turbidites (submarine fan). Intense bioturbation may have improved reservoir quality. Low diversity trace fossil assemblages in lower part (mainly vertical burrowing types Thallasinoides, Skolithos, Beaconites and Psilonichus). In middle part also Diplocraterion, Planolites, Ophiomorpha, Cruziana, and Chondrites. In upper part Zoophycos, Asterosoma, Subphyllochorda and Anconichus (Cruziana ichnofacies))

Premonowati, I. (1990)- Pliocene mollusca from Kalibiuk and Damar Formations in Semarang area of Central Jawa, Indonesia. Buletin Geologi (ITB) 20, p. 37-49.

Premonowati (1996)- Biostratigrafi dan spesiesasi koral Formasi Rajamandala, Jawa Barat. Proc. 25th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 31-51.
('Coral biostratigraphy of the Rajamandala Formation'. Late Oligocene, W Java)

Premonowati (1998)- Identifikasi perubahan terumbu terhadap fluktuasi muka laut Formasi Paciran daerah Jawa Timur Utara. Proc. 27th Annual Conv. Indonesian Association Geologists (IAGI), 2 (Sedimentology Paleontology Stratigraphy), Yogyakarta, p. 37-47.
(On identification of sea level fluctuations in Paciran Fm reefal limestones, Tuban area, NE Java. Reef 1 125m above sealevel today, age ~5.4 Ma. Reef 3 157m a.s.l., age 4.2 Ma. Reef 5 194m a.s.l., age 3.4 Ma. Reef 7 50-12.5m a.s.l., age 0.94-2.1 Ma))

Premonowati (2001)- Geologi Formasi Paciran- daerah pantai utara Jawa Timur. Majalah Geologi Indonesia (IAGI) 16, 1, p. 1-14.
('Geology of the Paciran Formation in the area of the East Java north coast'. Facies study of Paciran Fm reefal limestone along N coast of NE Java shows 5 eustatic cycles. Age here shown as Late Miocene- Holocene)

Premonowati (2005)- Stratigrafi terumbu Formasi Paciran daerah Tuban. Ph.D. Thesis Institut Teknologi Bandung (ITB), p. 1-291. *(Unpublished)*
('Reef stratigraphy of the Paciran Formation in the Tuban area'. Plio-Pleistocene Paciran carbonate platform formed since 4 Ma (N19). Twelve reefal units, each 25-50m thick. Reefs 1-9 indicate rhytmic rel. sea level changes; Reef 7 is maximum flooding surface, Reefs 9- 12 indicate sea level drop. Reef 1 deposited in Zone N18, Reef 2 at 5 Ma (Zone N19), and Reef 12 (youngest) 6000 years ago in last interglacial. Tectonic uplift caused Paciran Fm outcrops at 335m above sea level now)

Premonowati, R.P. Koesoemadinata, Harsono Pringgoprawiro & W.S. Hantoro (1999)- Ecological stratification in the Holocene reef of Paciran Formation: a case study from Tanjung Kodok, Lamongan, East Java. Proc. 28th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 3, p. 57-74.
(In Indonesian. Holocene reef at Tanjung Kodok, at NE Java coast, with 5 periods of buildup)

Premonowati, R.P. Koesoemadinata, Harsono Pringgoprawiro & W.S. Hantoro (2000)- Paciran reef stratigraphy, Tuban area, East Java, based on accumulative induction methods approach. Proc. 29th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 4, p. 61-68.
(Large Paciran reef complex of NE Java 5 phases of growth in Pliocene- Recent, based on terrace morphology, paleosoil distribution, etc.)

Premonowati, R.P. Koesoemadinata, Harsono Pringgoprawiro & W.S. Hantoro (2005)- Stratigrafi terumbu Formasi Paciran daerah Tuban. Jurnal Teknologi Mineral (ITB) 12, 1, p.
(Summary of Premonowati thesis work on Pleistocene Paciran limestone, Tuban area, NE Java)

Premonowati, R.P. Koesoemadinata, Harsono Pringgoprawiro & W.S. Hantoro (2004)- Stratigrafi isotop oksigen dan karbon dari Formasi Paciran Jawa Timur. In: I. Zulkarnain et al. (eds.) Proc. Seminar on Nuclear Geology and Mining Resources, Jakarta 2003, p. 208-219.
('Oxygen and Carbon isotope stratigraphy of Paciran Fm, East Java'. Oxygen and carbon isotopes analyzed from 25 samples of unaltered calcite, to determine paleotemperature fluctuations and to validate sea level changes of Reef 1 to Reef 17 units from 4 Ma- now. Early reef formtion (reef 1 to reef 3 between 4- 2.9 Ma. From reef 4 - Reef 8 (2.6- 1.4 Ma) stagnant temperatures and almost warmer condition. After that drastic rise in paleotemperature)

Premonowati, R.P. Koesoemadinata, H. Pringgoprawiro & W.S. Hantoro (2006)- Model of reef development in response to sea level fluctuation and isotope stratigraphy of Paciran Formation, East Java, Indonesia. Proc. 35th Annual Conv. Indonesian Association Geologists (IAGI), Pekanbaru 2006, PITIAGI2006-039, p. 1-7.
(Oxygen and carbon isotope analysis from Paciran limestone Fm to validate sea level changes during Reef 1- Reef 12 formation between 4 Ma- Recent. Reef 1- Reef 3 (4- 2.88 Ma) temperatures warmer, Reef 4 (2.59 Ma) - Reef 8 (1.4 Ma) stagnant temperature and almost warmer. Warmer conditions at reef 8-Reef 10 formation (0.7 Ma). Temperatures fluctuating until Reef 12 (E Holocene))

Premonowati, C. Prasetyadi, S. Rahardjo, J. Sinulingga, Y. Sulistiyana & D. Rukmana (2007)- Subsurface geological models of Semanggi brownfield, Cepu Block, Java. Proc. Simposium Nasional IATMI, UPN 'Veteran', Yogyakarta 2007, TS01, p. 1-6.
(online at: www.iatmi.or.id/assets/bulletin/pdf/2007/2007-01.pdf)
(Semanggi field 1900 BPM discovery, still producing 250 BOD from M Miocene Wonocolo IIIB (zone N8-N9) and M Miocene (N9) Ngrayong VII-VIII sandstones in anticlinal structure. W block more productive than E. Ten sequences in E-M Miocene U Tawun-Bulu interval. Modeled as transgressive-aggradational shallow marine sheet sands)

Premonowati, C. Prasetyadi, S. Rahardjo, J. Sinulingga, Y. Sulistiyana & D. Rukmana (2007)- Subsurface geological models of Semanggi, Cepu Block, Java. Proc. Joint Convention 32nd HAGI, 36th IAGI and 29th IATMI, Bali 2007, p. 714-719.
(Same as Premonowati et al. (2007), above)

Premonowati, B., Prastistho & I.M. Firdaus (2011)- Allostratigraphy of Punung paleoreef based on lithofacies distributions, Jlubang Area, Pacitan region, East Java. Proc. Joint. 36th HAGI and 40th IAGI Annual Conv., Makassar, JCM2011-055, p. 1-8. *(online at: https://www.iagi.or.id/web/digital/10/2011_IAGI_Makassar_Allostratigraphy-of-Punung-Paleoreef.pdf)*
(On M Miocene Punung Fm reefal limestone in S Mountains, E Java. Dominated by red algae. Not much detail)

Premonowati, B., Prastistho & I.M. Firdaus (2012)- Allostratigraphy of Punung paleoreef based on lithofacies distributions, Jlubang Area, Pacitan Region-East Java. Jurnal Geologi Indonesia 7, 2, p. 113-122.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/405)
(Same paper as above on Punung/Wonosari Fm reefal limestones in Jlubang area in Pacitan Regency, S Mountains of E Java. Dominated by red algae and seven phases in paleoreef complex)

Premonowati & W.B. Setyawan (1998)- Lingkungan fasies dan diagenesa batugamping Formasi Rajamandala-Jawa Barat. Proc. 27th Annual Conv. Indonesian Association Geologists (IAGI), 2 (Sedimentology Paleontology Stratigraphy), Yogyakarta, p. 125-139.
(online at: https://www.iagi.or.id/web/digital/56/38.pdf)
('Relationship between facies and limestone diagenesis of the Rajamandala Formation, West Java'. Brief review of latest Oligocene Rajamanda carbonate platform (all figures from Koesoemadinata and Siregar 1984; JTvG).

Four lithofacies: (1) platform interior with abundant miliolidae, (2) platform margin- reef front with corals in growth position, (3) fore-slope rhytmic beds and (4) toe-of-slope rhytmic beds. Etc.)

Premonowati & W.B. Setyawan (1999)- Carbonate facies of Pleistocene reef complex from Rembang basin, East Java. Proc. 28th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 3, p. 47-56.
(online at: https://www.iagi.or.id/web/digital/57/5.pdf)
(In Indonesian. Four carbonate facies types and five stages of reef development in Pleistocene coral reef limestone at Tanjung Kodok near Paciran at NE Java coast)

Premonowati, Sudarmoyo, Agus W., Joko P., Budi E., Arief N. & Eka P. (2009)- Reservoirs of Zone 12, Zone 15 and Zone 16 of the Upper Cibulakan Formation, South Pamanukan Field, Northwest Java Basin- stratigraphic or structural traps? Proc. 38th Annual Conv. Indonesian Association Geologists (IAGI), Semarang, p. 1-13.
(online at: https://www.iagi.or.id/web/digital/26/2009_IAGI_Semarang_Resernoirs-Of-Zone.pdf)
(Late Early Miocene (N7-N8) U Cibulakan Fm in S Pamanukan gas field, onshore NW Java basin, 190m thick, with 3 sandstone reservoir zones 3-9m thick. Possible stratigraphic traps)

Priadi, B. & A.S.S. Mubandi (2005)- The occurrence of plagiogranite in East Java, Indonesia. Proc. Joint Session 30th HAGI- 34th IAGI- 14th PERHAPI Annual Conv., Surabaya, p.

Priadi, B., A.S.S. Mubandi, M.M. Wibawa, D. Osmon & I. Suroto (2005)- Geochemistry of the Tertiary low potassium volcanics in East Java, Indonesia. Buletin Geologi (ITB) 37, 1, p. 15-28.

Priadi, B. & I.G.B.E. Sucipta (1998)- Tholeitic to alkaline Cenozoic magmatism in East Java Indonesia. Proc. 27th Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 3 (Geodin., Magmat. Volkanologi), p. 26-36.
(online at: https://www.iagi.or.id/web/digital/56/53.pdf)
(Oldest tholeiitic volcanic rocks in Java (28.3 Ma, near Pacitan in S Mountains) indicate Late Oligocene volcanic arc magmatism. Gradual enrichment in incompatible elements with time to Quaternary)

Priangga Utama, A., Sukandarrumidi & S. Wiyono (2005)- Genesa bentonit di kecamatan Wonosegoro Kabupaten Boyolalai, propinsi Jawa Tengah, dan rekayasa pemanfaatannya sebagai bahan baku produk keramik. Teknosains 18, 1, p.
('The genesis of bentonite at Wonosegoro district, Boyolali Residency, C Java, and its uses as ceramic material.' Bentonite layer in turbiditic clastics series in W Kendeng Zone fold belt, 40 km N of Boyolali, NE Java. Bentonite originated from devitrivication of pyroclastic volcanic glass)

Pribadi, R. (2006)- Structural pattern and fault seal analysis of a potential hydrocarbon trap, East Java basin. Proc. Jakarta 2006 International Geoscience Conference Exhib., Indonesian Petroleum Association (IPA), Jakarta06-SPG-03, p. 1-3. *(Extended Abstract)*

Prihatmoko (1998)- Prospectivity analysis of Java island for porphyry and epithermal deposits. M. Econ. Geol. Thesis, University of Tasmania, p. 1-73. *(Unpublished)*

Prihatmoko, S., A. Hendratno & A. Harijoko (2005)- Mineralization and alteration systems in Pegunungan Seribu, Gunung Kidul and Wonogiri. Proc. Joint 34th Annual Conv. Indonesian Association Geologists (IAGI), 30th Indonesian Association Geophysicists (HAGI), Surabaya, JCS2005-N090, p. 13-23.
(Two as yet non-commercial mineralization/ alteration systems identified around C Java Southern Mountains, i.e. Selogiri in N and Wediombo at S coast, both hosted by old volcanics and intrusives. Selogiri porphyry system formed at 1-1.5 km deeper than high-sulfidation system of Wediombo, showing N part of Seribu Mts uplifted higher than S part, probably related to development of Quaternary magmatic arc to N)

Prihatmoko, S. & A. Idrus (2020)- Low-sulfidation epithermal gold deposits in Java, Indonesia: characteristics and linkage to the volcano-tectonic setting. Ore Geology Reviews 121, 103490, p. 1-19.

(Characteristics of ten Low-sulfidation epithermal gold deposits in Java: Cibaliung, Kerta, Cisoka, Cikidang, Pongkor, Gunung Peti, Cihar, Cijaringao, Petungkriyono and Dalang Turu. Mineralization between E Miocene and Pleistocene. Six deposits in Bogor Trough back arc rift/ basin, related to Mio-Pliocene arc. Bogor Trough extends to E Java as Kendeng Trough, also reasonably target for exploration. Three in Southern Mountains)

Prihatmoko, S. & A. Idrus (2022)- Gold mineralization in the Ajibarang and Majenang blocks, Central Java, Indonesia: Evidence of mineral fertility of the Banyumas basin. Geological Journal 57, 3, p. 1005-1021.
(Gold and base-metal mineralization recently discovered in Banyumas basin, focusing on the Ajibarang and Majenang blocks, followed by a discussion of the mineral fertility of the basin. Two styles of gold mineralization recognized: (1)carbonate-base metal-gold/intermediate-sulphidation epithermal mineralization hosted by a Halang Fm turbidites in Ajibarang Block and (2) porphyry-style mineralization in Kumbang Fm volcanic and intrusive (diorite) environment in Majenang Block)

Priyanto, B., D. Indrajaya, L.P. Siringoringo & V.A. Herliani (2009)- Miocene carbonate mound of Gunung Maindu, Tuban: an analogue model for prospective carbonate mound hydrocarbon reservoirs in the East Java basin, Indonesia. Proc. 38th Annual Conv. Indonesian Association Geologists (IAGI), PITIAGI2009-047, Semarang, p. 1-11.
(online at: https://www.iagi.or.id/web/digital/26/2009_IAGI_Semarang_Miocene-Carbonate-Mound.pdf)
(Brief discussion of E-M Miocene reefal carbonate mound, up to 300m (?) thick (below Ngrayong Sandstone) at Gunung Maindu (Mahindu), Montong, W of Tuban, E Java. With Lepidocyclina. Not much detail)

Priyanto, B., A. Ramdhani, R. Mardani & V.A. Herliani (2009)- Facies of Ngrayong Sandstone based on outcrop data and petrographic description of the Prantakan River section, Rembang zone, East Java, Indonesia. Proc. 38th Annual Conv. Indonesian Association Geologists (IAGI), Semarang, PITIAGI2009-046, 1p. *(Abstract only)*
(M Miocene Ngrayong sandstone studied in 50m section at Prantakan River, E Java, represents regional influx of quartz sandstones in region. Multiple coarsening-upward packages. Not much detail)

Priyantoro, A. (1997)- Genesa deposit mangaan daerah Kliripan dan sekitarnya kecamatan kokap kabupaten Kulon Progo DIY. Teknik Geologi UGM, p.
('Genesis of manganese deposits in the Kliripan area, Kulon Progo Regency'. (Kliripan was site of pre WW-II manganese mining operation in early 1900's in S Central Java; JTvG))

Priyono, A., G. Suantika, S. Widiyantoro, B. Priadi & Surono (2011)- Three dimensional P-and S-wave velocity structures of Mt. Guntur, West-Java, Indonesia, from seismic tomography. Int. J. Tomography Statistics 16, W11, p. 1-11.
(Tomographic inversion of velocity structures beneath Mt. Guntur volcano complex in W Java shows anomalous low velocities at depth of 1-6 km from the surface topography. Interpreted as area of high temperature H2O-filled pores)

Pulunggono, A. & S. Martodjojo (1994)- Perubahan tektonik Paleogen-Neogen merupakan peristiwa tektonik penting di Jawa. Proc. Seminar Geologi dan Geotektonik Pulau Jawa sejak Akhir Mesozoik hingga Kuarter, Geol. Dept. Gadjah Mada University, Yogyakarta, p. 253-274.
('Paleogene-Neogene tectonic changes are important tectonic events on Java')

Purasongka, N.W., I. Syafri & L. Jurnaliah (2015)- Karakteristik batuan sedimen berdasarkan analisis petrografi pada Formasi Kalibeng Anggota Banyak. Bull. Scientific Contribution (UNPAD) 13, 1, p. 1-15.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8382/3896)
('Characteristics of sedimentary rocks based on petrographic analysis of the Banyak Mb of the Kalibeng Fm'. Petrography of 6 samples from Late Miocene (N16-N17) Banyak Mb of Kalibeng Fm in Kendeng zone from 170m section at Kali Jragung, Semarang District, C Java. Suggest magmatic arc provenance, possibly from Ungaran volcano. No locality map)

Purbo-Hadiwidjojo, M.M. (1964)- On the Tjimanuk River delta. Geological Survey Indonesia Bull. 1, 2, p. 35-38.

Purbo-Hadiwidjojo, M.M. (1965)- An example of gravity tectonics from Central Java. Geological Survey Indonesia Bull. 2, 1, p.

Purnama, Y.S., A. Gunawan, W. Darmawan, R.C. Rohmana, D. Adipradipto, J. Halim, R.N. Julias & B. Rahmanto (2018)- Characters of sedimentology, rock property and geochemistry of the Ngrayong and Tuban Formations in the Pati Trough, onshore North East Java Basin. Proc. 42nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA18-291-G, p. 1-32.
(P1 (2015) and P2 (2016) wells on Plio-Pleistocene Pakel anticline in Rembang zone, NE Java, with gas-condensate in poorly consolidated late E Miocene Tuban and early M Miocene Ngrayong Fm tidal sandstones. Gas samples from P2 well from mixed of biogenic (40%) and thermogenic sources)

Purnama, Y.S., I K.A.A. Permana, R.R. Sofya, R. Sari & W. Darmawan (2022)- Redefining horst and graben distribution in the onshore part of the North East Java Basin and its new exploration opportunity. Proc. 46th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA22-G-97, p. 1-14.
(New distribution map of Paleogene horst and graben in onshore NE Java Basin, (WSW-ENE trending in W, E-W trending in E of NE Java Basin). Three types of crust in area: (1) Sundaland crust in N (bordered by Rembang Line in S), (2) Accreted (means Accretionary?) crust in center (contains Rembang Zone in N and Kendeng Zone in S) and (3) Transitional Crust in S. Many surface anticlines are inverted (half-)grabens. Eocene-Miocene carbonates develop on tops of horst blocks. With seemingly good Eocene- M Miocene paleogeographic maps))

Purnamaningsih Siregar (1981)- Diatom fossils of the Pucangan Formation, Sangiran Area, Central Java. Proc. 10th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, p. 238-247.
(11 samples with diatoms in Pucangan Fm of Sangiran. Lower Puncangan Fm warm shallow marine facies, middle part fresh-brackish water, upper part marine with low diatom productivity. Age Early Pleistocene?)

Purnamaningsih Siregar & Harsono Pringgoprawiro (1981)- Stratigraphy and planktonic foraminifera of the Eocene-Oligocene Nanggulan Formation, Central Java. Publ. Geological Research Development Centre (GRDC), Bandung, Seri Paleontologi 1, p. 9-28.
(Planktonic foram zonation of M Eocene- E Oligocene Nanggulan Fm marine clastic section 20km W of Yogyakarta. With Eocene planktonic foram index species Globorotalia lehneri, G. centralis, G. cerroazulenis, Truncorotaloides rohri, Hantkenina spp., etc. Overlain by Late Oligocene 'Old Andesite Fm')

Purnomo, E., R. Ryacudu, A. Ascaria & T. Kunto (2004)- Pondok Tengah discovery, Indonesia- a new big fish in mature explored basin. In: 66th EAGE Conference & Exhibition, Paris, p. 1-4. *(Extended Abstract)*
(Pondok Tengah 2003 oil discovery in NW Java Basin, 40km E of Jakarta. Hydrocarbon column 205 m thick (175m in Lower Miocene Batu Raju Fm carbonates and 30m in Talang Akar Fm sandstones). Preliminary reserves estimate 233 MBO. Carbonate reservoir N-S tranding low-relief buildup in S part of Rengasdengklok High, bounded to S by Ciputat Low)

Purnomo, E., R. Ryacudu, E. Sunardi & B.G. Adhiperdana (2008)- Paleogene stratigraphy and petroleum potential of largely volcanic play Jatibarang Formation, onshore northwest Java Basin, Indonesia. In: European Association of Geoscientists & Engineers, GEO 2008 Conference, Bahrein, p.
(Lowermost Cenozoic sequence in NW Java basin is Jatibarang Fm, which rests uncomformably on fractured/rubbled Upper Mesozoic basement rocks, and consists of pyroclastics, volcanogenic and sedimentary rocks. Volcanic rocks occur as primary proximal volcanic deposits, inter-layered with tuffs and tuffaceous sand. Jatibarang Fm unconformably overlain by Talang Akar Fm fluvial, deltaic and marine sediments, with tuffs more basaltic in composition and greater amount of subvolcanic lithic fragments)

Purnomo, E., R. Ryacudu, E. Sunardi & R.P. Koesoemadinata (2006)- Paleogene sedimentation of the Jatibarang sub-basin and its implication for the deep play petroleum system of the onshore Northwest Java Basin, Indonesia. Proc. Jakarta 2006 Int. Geosciences Conf. and Exhib., Indonesian Petroleum Association (IPA), Jakarta06-PG-02, p. 1-3. *(Extended Abstract)*

Purnomo, J. & Purwoko (1994)- Kerangka tektonik dan stratigrafi Pulau Jawa secara regional dan kaitannya dengan potensi hidrokarbon. Proc. Geologi dan Geoteknik Pulau Jawa sejak Akhir Mesozoik hingga Kuarter, Jurusan Teknik Geologi, Gadjah Madah University, Yogyakarta, p. 253-274.
('The regional tectonic and stratigraphic framework of Java Island and its relation to hydrocarbon potential'. Java tectonics three main phases: (1) Eocene-Oligocene extensional rifting; (2) Neogene compressional wrench faulting, with shear faults reactivation of Paleogene normal faults; (3) Plio-Pleistocene compressional thrust-folding, creating E-W oriented aniclines)

Purwaningsih, M.E.M. (2002)- Demise of the Oligo-Miocene reefs of the southern East Java Basin. Drowning events on carbonate isolated platforms. Buletin Geologi (ITB) 34, 3, Special Edition (Prof. Soejono Martodjojo volume), p. 117-132.
(Paleohighs on old structural grain became sites of Oligo-Miocene carbonate buildups in E Java Basin. Carbonates on basement highs of southern isolated platform of E Java Basin show similar stages of deposition. In W East Cepu High, Late Oligocene Kujung carbonate buildups shows depositional stages in SW-NE direction. Seismic stratigraphy of carbonates shows four sequences. Carbonates backstepping on previous stages, forming buildup complex within isolated platform. Generally, buildups grew away from southern marine influence. BD Ridge younger carbonates similar history to E Cepu carbonates. E Miocene carbonate buildups followed ENE-WSW paleohigh in Madura Strait. Four depositional units terminated by drowning indicated by condensed section on top of carbonates. Oligo-Miocene buildups on other isolated platforms of the southern E Java Basin similar histories: transgressive stratal pattern with local tectonic influence. Drowning events caused demise of buildups. These events may mark onset of Neogene inversion tectonic episode in this area)

Purwaningsih, M.E.M., A.H. Satyana, S. Budiyani, D. Noeradi & N.M. Halik (2002)- Evolution of the Late Oligocene Kujung reef complex in the Western East Cepu High, East Java Basin: seismic sequence stratigraphic study. Proc. 31st Annual Conv. Indonesian Association Geologists (IAGI), Surabaya, 2, p. 655-671.
(online at: https://www.iagi.or.id/web/digital/18/EVOLUTION-OF-THE-LATE-OLIGOCENE-KUJUNG-REEF-COMPLEX-IN-THE-WESTERN-EAST-CEPU-HIGH,-EAST-JAVA-BASIN--SEISMIC-SEQUENCE Etc.)
(Seismic stratigraphy of E Cepu isolated platform identified 4 sequences in Late Oligocene Kujung Fm carbonates. Deposition of upper sequences contemporaneous with tilting of platform to SW, forming NE-ward backstepping pattern. In mid E Miocene carbonate deposition ended due to clastic sedimentation and more tilting to SW)

Purwanti, Y. & A. Bachtiar (2001)- Analyses of Eocene petroleum kitchen in East Java Basin: implication for prospect ranking. Proc. 30th Annual Conv. Indonesian Association Geologists (IAGI) and 10th GEOSEA Regional Congress on Geology, Mineral Energy Resources, Yogyakarta 2001, p.

Purwanto, H.S. & S.B. Kusumayudha (2020)- Type of gold deposit in Arinem Cisewu and its surrounding Garut Regency, West Java, Indonesia. Int. J. Geology and Earth Sciences (IJGES) 6, 4, p. 39-43.
(online at: http://new.ijges.com/uploadfile/2020/1224/20201224042530527.pdf)
(Cisewu-Arinem area outcrops with mineralization of Cu-Pb-Zn elements (chalcopyrite, sphalerite and galena, with secondary malachite and covellite) in quartz vein system. Can be classified as low sulfidation epithermal)

Purwanto, H.S., Suharsono & A. Puntadewa (2018)- Epithermal Cu-Pb-Zn mineralization in the Cidolog Area, Sukabumi Regency West Java Province, Indonesia. Proc. Int. Conf. Earth Science, Mineral, and Energy, Yogyakarta 2018, IOP Conference Series: Earth and Environmental Science 212, 012028, p. 1-10.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/212/1/012028/pdf)
(Epithermal system of Cu-Pb-Zn deposit in Cidolog area, Sukabumi, structurally controlled by NW-SE trending fractures and faults)

Purwasatria, E.B., A.K. Gibran, M.R. Aditama & G. Waluyo (2021)- Sedimentologi dan tektonostratigrafi Formasi Halang di Cekungan Banyumas serta potensinya untuk reservoir hidrokarbon. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 22, 3, p. 153-163.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/640/460)

('Sedimentology and tectonostratigaphy of the Halang Formation in the Banyumas Basin and its potential as hydrocarbon reservoir'. Reservoir quality of ?age? turbidites) in Banyumas basin)

Purwasatriya, E.B., S.S. Surjono & D.H. Amijaya (2019)- Sejarah geologi pembentukan Cekungan Banyumas serta implikasinya terhadap sistem minyak dan gas bumi. J. Ilmiah Dinamika Rekayasa (UNSOED) 15, 1, p. 25-34.
(online at: https://dinarek.unsoed.ac.id/jurnal/index.php/dinarek/article/view/242/pdf)
('Geological history of the formation of the Banyumas Basin and implication for petroleum systems'. Banyumas Basin in S part of C Java with prolific oil and gas seeps. Five wells drilled (Cipari-1 and Gunung in 1938, Karang Gedang-in 1993, Karang Nangka-1 in 1994 and Jati-1 in 2006) but no economic reserves yet. Originally a deep sea basin, which developed into flexure basin in Late Oligocene, when Southern Mountains emerged. In Miocene, another volcanic arc formed in N of Southern Mountains and continued to move to the N and is now at Gunung Slamet. Banyumas Basin is 'Island arc flexure basin' (= fore-arc basin?; JTvG))

Purwasatriya, E.B., S.S. Surjono, D.H. Amijaya, F.E. Saputra, Hendaryono & S. Said (2018)- Tectonostratigraphy of Banyumas Basin and its correlation to petroleum potential. Proc. 12th SE Asia Technical University Consortium Symposium (SEATUC 2018), Yogyakarta, OS05-16, p. 1-5.
(online at: https://repository.ugm.ac.id/274960/1/49d-2018-Purwasatria-Surjono.pdf)
(Three paleostress regimes in Banyumas Basin since Eocene: (1) NW-SE with transpressive or compressional strike-slip regime in Oligocene, (2) NNW-SSE with pure strike-slip regime in Late Ol-gocene-Miocene and (3) NNE-SSW with pure compressional regime in Pliocene. Generally, the paleostress is rotating clockwise)

Purwasatriya, E.B. & G. Waluyo (2010)- Studi stratigrafi pada rembesan minyak serta hubungannya dengan petroleum system di cekungan Banyumas. Proc. 39th Annual Conv. Indonesian Association Geologists (IAGI), Lombok, PIT-IAGI-2010-308, p. 1-9.
(online at: https://www.iagi.or.id/web/digital/12/2010_IAGI_Lombok_Studi-Stratigrafi-pada-Rembesan.pdf)
('Stratigraphic study of oil seeps and its correlation to petroleum system in Banyumas Basin'. Source of oil seeps in Banyumas basin interpreted to be from Paleogene. Intra formational seals in M Miocene- Pliocene Halang and Rambatan Formations. Etc.)

Purwasatriya, E.B. & G. Waluyo (2012)- Studi potensi minyak dangkal dengan pendekatan metode statistik berdasar data geologi permukaan di Cekungan Banyumas. J. Ilmiah Dinamika Rekayasa (UNSOED) 8, 2, p. 48-55.
(online at: https://dinarek.unsoed.ac.id/jurnal/index.php/dinarek/article/view/103/100)
('Shallow oil potential study with statistical method approach based on surface geological data in Banyumas Basin'. Accidental discovery of shallow oil at ~90 m depth in Tipar Village. Using surface geology and other data, estimated reserves potential of shallow oil in Banyumas basinat 2,181,937 (!) barrels oil)

Puspoputro, B. (1983)- The use of seismic data in predicting the abnormal high pressure zone for exploration drilling in Pertamina Unit E.P. III working area. Proc. 12th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 323-343.

Puspoputro, B. & E. Lubis (1992)- The geophysical case history of Rengasdengklok Area, North West Java. Proc. 21st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 361-378.
(NW Java exploration history. Improved seismic processing lead to discovery well MB-3 and success of subsequent drilling)

Puswanto, E., M. Al Afif, D. Hastria, P.D. Raharjo, D. Arisa & M.Z. Tuakia (2021)- Deformation mechanism of boudin structures at the Bulukuning area, Banjarnegara. Proc. Int. Conference Ocean and Earth Sciences, Jakarta 2020, IOP Conference Series: Earth and Environmental Science 789, 012070, p. 1-7.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/789/1/012070)
(Eocene 'molassic' greywacke sandstone in Bulukuning Fm of Luk Ulo Melange Complex locally with boudin structures, folded and cut by faults in contractional regime. Deformation mechanism of sandstone boudin structures embedded in scaly clay matrix affected by plastic (ductile) by following simple shear)

Puswanto, E., D. Hastria & Ansori (2012)- Petrogenesa andesit amigdaloidal Jatibungkus kaitannya dengan batuan beku mafis kompleks ofiolit Karangsambung. Proc. Pemaparan Hasil Penelitian Pusat Penelitian Geoteknologi LIPI, Bandung 2012, p. 45-53.
('Petrogenesis of amygdaloidal Jatibungkus andesite in connection with the mafic Karangsambung ophiolite'. Jatibungkus basaltic-andesitic pillow lavas interpreted as tholeitic magma formed in mid-ocean ridge. Deformed during formation of Oligocene-Miocene Totogan Fm)

Puswanto, E. & E. Hidayat (2014)- Analisis paleostruktur lava basal-andesitik Kali Mandala dan diabas Gunung Parang. In: H. Harjono et al. (eds.) Pros. Pemaparan hasil penelitian, Puslitbang Geoteknologi (LIPI), Bandung, p. 365-377.
(online at: http://pustaka.geotek.lipi.go.id/index.php/2016/01/20/prosiding-2014/)
('Analysis of paleostructure of basaltic-andesitic lava in Kali Mandala and diabas at Gunung Parang'. Faults in U Cretaceous - Paleogene pillow lavas in Luk Ulo melange, Karangsambung, C Java, affected by common NE-SW trending normal faulting; accompanied by M- L Eocene rift phase.)

Putra, H.Syah (2014)- Storms and volcanoes: preservation of catastrophic events in the Tanjung Layar outcrop, Bayah, Banten, Indonesia. Bull. Earth Sciences Thailand (BEST) 7, 1-2, p. 58-65.
(online at: https://ph01.tci-thaijo.org/index.php/bestjournal/article/view/246635/167659)
(E Miocene (?) shallow marine (shoreface) volcanoclastic sediments exposed along beach at Tanjung Layar, Bayah High area, SW Java.With Ophiomorpha, hummocky bedding, etc. Volcaniclastic conglomerates interpreted as debris flows. Volcanic material consists of feldspar, quartz, plagioclase and lithic fragments)

Putra, M.D., R.A.M. Yudha, O.M.L. Watania & D.A. Wiloso (2025)- Characteristics and paragenesis of porphyry copper deposit in Sidomulyo, Trenggalek, East Java: multiple intrusions, hydrothermal alteration and vein association. Indonesian J. of Economic Geology (IJEG) (MGEI) 1, 1, p. 14-32.
(online at: https://journal.iagi.or.id/index.php/IJEG/article/view/499/440)
(In E Sunda Magmatic Arc in E Java, copper-gold deposits in porphyry to epithermal systems along metallogenic belt from Selogiri, Pacitan, and Trenggalek to Tumpangpitu (all outboard (S) of modern volcanic arc). U-Pb zircon ages at Selogiri 13.2 Ma, Trenggalek 18.7-11.8 Ma and Tumpangpitu 5.2-4.0 Ma. Sidomulyo porphyry system 3 diorite-tonalitic intrusion phases and volcanic sequences as formation rocks (Oligo-Miocene Arjosari volcanics). Distributions of intrusion orebodies controlled by NW-trending stike-slip faults.)

Putra, P.S. & P. Praptisih (2017)- Re-interpretasi Formasi Kerek di daerah Klantung, Kendal, berdasarkan data stratigrafi dan foraminifera. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 18, 2, p. 77-88.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/272/280)
(Outcrops around Cipluk oilfield in northern C Java generally viewed as Kerek Fm, but stratigraphic and micropaleontological studies suggest interbedded marls- sandstones are Pliocene- Pleistocene age, in upper bathyal turbiditic facies and should be viewed as part of Kalibeng Fm. Incl. Globorotalia tosaensis, Pulleniatina, Gr.crassaformis, Neogloboquadrina humerosa, etc.)

Putra, P.S. & P. Praptisih (2020)- Umur relatif batuan asal sedimen olisostrom Formasi Karangsambung, Kebumen, Jawa Tengah. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 21, 1, p. 25-31.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/498/424)
('Relative age of the olistostrome source sediments of the Karangsambung Formation, Kebumen, Central Java'. Karangsambung Fm in Kebumen is olistostrome deposit composed of floating rock fragments in claystone matrix. With M Eocene planktonic foraminifera (incl. Morozovella spp., Truncatulinoides, etc.). Ages of foraminifera in Karangsambung Fm M Paleocene- Oligocene, and facies deep marine. Deformation younger than Oligocene)

Putra, P.S., M. Sapri H. & M.M. Mukti (2007)- Studi sedimentasi laut dalam dan pengaruh tatanan tektonik Cekungan Serayu Utara. In: A. Tohari et al. (eds.) Pros. Seminar Geoteknologi Kontribusi ilmu kebumian dalam pembangunan berkelanjutan, Puslitbang Geoteknologi (LIPI), Bandung, p. 7-18.
(online at: http://pustaka.geotek.lipi.go.id/index.php/2016/01/20/prosiding-2007/)

('Study of marine sedimentation and influence of tectonic structure, North Serayu Basin'. Kali Lutut section with five main tectonically-driven facies/cycles in turbiditic Late Miocene (nanno zones CN7- CN9) sediments. With common (reworked?) E Miocene Miogypsina larger forams)

Putra, P.S. & E. Yulianto (2015)- A reinterpretation of the Baturetno Formation: stratigraphic study of the Baturetno Basin, Wonogiri, Central Java. Indonesian J. on Geoscience (IJOG) 2, 3, p. 125-137.
(online at: http://ijog.bgl.esdm.go.id/index.php/IJOG/article/view/210/197)
(Baturetno Fm black clay of Baturetno Basin S of Wonogiri (N part of S Mountains), formerly believed to be lake deposit, related to shifting course of Bengawan Solo Purba River and Late Pliocene tectonic tilting in S Java. Floating pebbles of andesite, claystone, coral, limestone in clay best explained as mudflow process)

Putra, P.S. & E. Yulianto (2016)- Sedimentological and micropaleontological characteristics of the Black Clay deposit of the Baturetno Formation, Wonogiri, Central Java. Indonesian J. on Geoscience (IJOG) 3, 3, p. 163-171.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/218/217)
(Quaternary Baturetno Fm black clay with freshwater diatoms, but mostly barren of palynomorphs and low TOC. Unlikely to be lacustrine, probably mud-flow deposit. Carbon dating ages ~7000 yrs BP, i.e. much younger than Late Pliocene tilting in S Java)

Putra, P.S., E. Yulianto, Praptisih, N. Supriatna, D. Trisuksmono, Amar, A.U. Nurhidayati, J. Ridwan & J. Griffin (2015)- Studi paleotsunami di selatan Jawa. In: H. Harjono et al. (eds.) Pros. Pemaparan Hasil Penelitian Geoteknologi 2015, Pusat Penelitian Geoteknologi (LIPI), Bandung, p. I95-I101.
(online at: http://pustaka.geotek.lipi.go.id/wp-content/uploads/2016/04/Prosiding-2015.pdf
('Paleotsunami study at the south coast of Java'. 2-3 paleotsunami sandy layers identified along S coast of SW Java (Lebak) and C Java (Pangandaran). Thickness ~3-10cm)

Putra, T.E., R. Ismail, R.A. Pritama, D.P. Sari & M. Natsir (2019)- The new stratigraphic play of Ciputat Sub-Basin, Indonesia: the integrated seismic sequence stratigraphic analysis. AAPG International Conference Exhibition, Cape Town 2018, Search and Discovery Article 11225, p. 1-3. *(Abstract + Posters)*
(online at: https://www.searchanddiscovery.com/documents/2019/11225putra/ndx_putra.pdf)
(Study of potential stratigraphic trapping in Talang Akar Fm in area of 2007 Pondok Makmur field in Ciputat Sub-Basin, W Java)

Putra, S.D.H., Suryantini & W. Srigutomo (2016)- Thermal modeling and heat flow density interpretation of the onshore Northwest Java Basin, Indonesia. Geothermal Energy 4, 12, p. 1-24.
(online at: https://geothermal-energy-journal.springeropen.com/articles/10.1186/s40517-016-0052-x)
(Reportedly first study of heat flow density in onshore NW Java Basin))

Putri, A.A.O., D.G. Augusty, F.M.H. Sihombing & T.L.Indra (2020)- Fabric study in metamorphic rocks in Karangsambung, Kebumen, Central Java. In: Life and Environmental Sciences Academics Forum, Depok 2019, IOP Conference Series: Earth and Environmental Science 538, 1, 012038, p. 1-8.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/538/1/012038/pdf)
(Brief review of metamorphic rock types and foliation in Manunggal Fm, Luk Ulo melange)

Quinif, Y. & C. Dupuis (1985)- Un karst en zone intertropicale: le Gunung Sewu a Java: aspects morphologiques et concepts evolutifs. Revue Geomorphologie Dynamique 34, 1, p. 1-16.
('An intertropical kartst: the Gunung Sewu: morphological and evolutionary aspects'.Discussion of cone karst in Gunung Sewu (Southern Mountains), S Java. Attributed to fluviatile origin?)

Rachmadhan, H.D. (2019)- Biostratigrafi dan paleoklimat menggunakan foraminifera kecil pada jalur Ngiono di Cekungan Rembang. S2 Thesis, Universitas Gadjah Mada, Yogyakarta, p. 1-160. *(Unpublished)*
('Biostratigraphy and paleoclimate using small foraminifera in the Ngiono section in the Rembang Basin'. Ngiono River M Miocene - Pliocene(13-3.8 Ma) section in Rembang Rembang Basin rich in foraminifera. Seven formations: 1) Ngrayong bioturbated sandstone Unit (42m, bathyal, N9-N11); (2) Bulu calcarenite-sandstone

(121 m, bathyal, N12-N13); (3) Wonocolo marl-calcarenite (50m, bathyal, N14); (5) Ledok calcareous sandstone-marl (53 m bathyal), calcareous sandstone-calcilutite (105m, neriic-bathyal, N15-N16); (6) Ledok mollusks sandstone (46m, bathyal); (7)Mundu marl-calcareous sandstone (100m bathyal; N17). Biostratigraphy consists of 10 biozonations (N11- N20) and 6 paleoclimate zones)

Rachmadhan, H.D., M. Rahmat R., Adnan W. et al. (2018)- Biostratigraphy and paleoecology: history of Sambipitu Formation Early-Late Miocene implicated by foraminifera fossil. Proc. 12th SE Asia Technical University Consortium Symposium (SEATUC), Yogyakarta 2018, OS05-01, p. 1-6.
(online at: www.academia.edu/36160980/Biostratigraphy_and_Paleoecology_History_of_Sambipitu_F Etc.)
(Early Miocene planktonic foraminifera from Sambipitu Fm in Southern Mountains, C Java. Unlikely paleobathymetry interpretations and no mention of key earlier papers on same subject, like D. Kadar (1986), Akmaluddin et al. (2012), P. Lunt (2013); JTvG))

Rachmadianti, B.A.N., N.I. Setiawan & Isyqi (2025)- Jadeite jade from Luk-Ulo Complex, Karangsambung, Central Java and its mineralogical characteristics. Proc. 4th Int. Conf. Geological Engineering and Geosciences (ICGOES 2024), Yogyakarta, IOP Conference Series: Earth and Environmental Science 1517, 012039, p. 1-10.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1517/1/012039/pdf)
(Muncar River with 1 x 1.5m boulder-sized float of glaucophane-quarts-jadeite in area of Karangsambung Fm melange breccia in scaly clay. Likely protolith rel. quartz-rich pelitic rock)

Rachman, M.R. & A. Farisan (2023)- The revealing of imbricated thrust system of Jiwo basement at Gunung Gajah area, Bayat, Klaten using drone and smartphone camera as the enhancement tools. Proc. 4th Int. Conference on Earth, Science, Mineral and Energy (ICEMINE 2021), Sleman, AIP Conference Proceedings 2598, 020009, p. 1-. *(preprint at: https://www.researchgate.net/publication/357417316_PRE-PRINT_VERSION_The_Revealing_of_Imbricated_Thrust_System_of_Jiwo_Basement_at_Gunung_Gajah_Area_Bayat_Klaten_Using_Drone_and_Smartphone_Camera_as_the_Enhancement_Tools)*
(Photogrammetry (Digital Outcrop Model) and petrographic analysis in E part of Djiwo Hills show Pre-Tertiary low grade metamorphics (incl. graphite schist) and Eocene limestones both deformed into imbricated thrust stack. Compressional faults in several locations around Jiwo Hills indicate allochthonous block uplifted and piled on younger rocks. Authors suggests Jiwo Hills is Uplifted Basement rather than Basement High)

Rachman, R.S. & Winantris (2022)- Palynostratigraphy Subang, Kaliwangu, and Citalang Formation, from Cikandung River Passage, Sumedang Regency, West Java. J. Geosains dan Teknologi (UNDIP) 5, 3, p. 140-150.
(online at: https://ejournal2.undip.ac.id/index.php/jgt/article/view/13488/0)
(M Miocene and younger palynology of Subang, Kaliwangy and Citalang Fms in Bogor Basin)

Rachman, R.S. & Winantris (2023)- The significance relationship between palynomorph fossil preservation and grain size in rock: case study of Walat and Batuasih Formations, Sukabumi, West Java. Jurnal Geocelebes 7, 1, p. 17-28
(online at: https://journal.unhas.ac.id/index.php/geocelebes/article/view/22746/9272)
(Palynomorphs in Eocene-Oligocene clastics of W Java best preserved in fine-grained sediments)

Rachman, R.S., Winantris & B. Muljana (2020)- A history of floral diversity (pollen, spores and algal) during the latest Holocene in the Bandung basin based on palynological analysis in Cihideung, West Java, Indonesia. Iranian J. Earth Sciences 12, 4, p. 240-249.
(online at: https://ijes.mashhad.iau.ir/article_677473_5faa13faeb4d7e2508f4bd03dff798ab.pdf)
(Palynology of shallow core holes in Bandung basin)

Rachman, R.S., Winantris & B. Muljana (2021)- *Proxapertites* from Walat Formation, Sukabumi, West Java, Indonesia. J. Geoscience Engineering Environment Technology (JGEET) 6, 1, p. 1-8
(online at: https://journal.uir.ac.id/index.php/JGEET/article/view/5583/3118)
(Three types of Late Eocene Proxapertites pollen in Walat Fm in quartz sandstone quarry at Sukadamai village, Bogor Basin, West Java: P. operculatus, P.cursus, P. psilatus)

Rachman, R.S., Winantris & B. Muljana (2021)- Age and depositional environment of Walat Formation based on palynological analysis in Sukabumi Regency, West Java, Indonesia. Pakistan Journal of Geology 5, 1, p. 1-7.
(online at: https://sciendo.com/article/10.2478/pjg-2021-0001)
(Coal-bearing sandstones-claystones of Walat Fm in Bogor Basin W of Sukabumi, W Java equivalent to Bayah Fm of SW Java. Pollen and spores show Late Eocene age, based on zone between first occurrences of Verrucatosporites usmensis and Meyeripollis naharkotensis, and last occurences of Proxapertites operculatus, Proxapertites cursus and Cicatricosisporites eocenicus. Absence of marine palynomorphs suggests fluvial depositional environment (although presence of Spinizonocolpites suggest some Nypa-type mangrove vegetation, and JTvG observed common tidal sedimentary structures in Gunung Walat clastics in 1980s)

Rachman, R.S., Winantris, B. Muljana & N. Sulaksana (2020)- Perubahan iklim Danau Bandung purba berdasarkan analisis palinologi, daerah Cihideung, Lembang, Jawa Barat. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 21, 1, p. 1-8.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/404)
('Bandung paleo-lake climate change based on palynology analysis at Cihideung area, Lembang, West Java'. Holocene climate and humidity changes in Bandung paleo-lake from shallow peat core samples)

Rahardjo, A.T. (1996)- Perubahan iklim dan batas umur Pliosen-Plistosen berdasarkan analisis foraminifera dan palinologi di daerah Mojoroto, Mojokerto Jawa Timur. Buletin Jurusan Geologi ITB 12, p. 10-19.
('Climate change and age limits of Pliocene-Pleistocene based on analysis of foraminifera and palynology in the Mojoroto area, Mojokerto, East Java')

Rahardjo, A.T., A.A. Polhaupessy, S. Wiyono, L. Nugrahaningsi & E.B. Lelono (1994)- Zonasi pollen Tersier Pulau Jawa. Proc. 23rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 1, p. 77-87.
(online at: https://www.iagi.or.id/web/digital/62/7.pdf)
('Pollen zonation for the Tertiary of Java Island'. Eocene- Pliocene zonation of 7 pollen zones, calibrated to planktonic foram zonation. Key zonal species Proxapertites operculatus (Eocene; often with Cicatricosisporites eocenicus, Palmaepolenites kutchensis, etc.)), Meyeripollis naharkotensis (Oligocene, also with with Cicatricosisporites dorogensis, Verrucatosporites usmensis, etc.), Florschuetzia trilobata- levipoli-meridionalis (Miocene), Stenochlaeniidites papuanus (latest Miocene- Pliocene) and Dacrycarpidites australiensis (Late Pliocene- Recent))

Rahardjo, A.T. & E. Yulianto (1998)- Analisa palinologi Formasi Jaten daerah Punung Kabupaten Pacitan, Jawa Timur. Buletin Geologi (ITB) 30, 3, p-13-20.
('Palynological analysis of the Jaten Formation in the Punung area, Pacitan Regency, East Java')

Rahardjo, A.T., E. Yulianto & R. Setijadi (1998)- Palinologi Formasi Nampol dan hubungan stratigrafinya dengan Formasi Punung di daerah Punung, Kabupaten Pacitan-Jawa Timur. Buletin Geologi (ITB) 29, 2, p. 1-9.
('Palynology of the Nampol Formation and its stratigraphic relationship with the Punung Formation in the Punung area, Pacitan Regency, East Java')

Rahardjo, W (1980)- Depositional environment of nummulitic limestones of the Eastern Djiwo Hills, Bayat area, Central Java. Proc. Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, p.
(same as Rahardjo (1982 paper, below)

Rahardjo, Wartono (1982)- Depositional environment of nummulitic limestones of the Eastern Jiwo Hills, Bayat area, Central Java. Geologi Indonesia (IAGI) 9, 1, p. 36-39.
(Lens-like geometries of Nummulite-Assilina packstones in Bayat area and overlying M Eocene turbiditic clastics suggest these are redeposited blocks in deeper water environment. Pre-Tertiary metamorphics with SW-NE trending foliation)

Rahardjo, Wartono (1983)- Paleoenvironment reconstruction of sedimentary sequence of the Baturagung escarpment, Gunung Kidul area, Central Java. Proc. 12th Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, p. 135-140.

(online at: https://www.iagi.or.id/web/digital/37/PIT-1983-Paper-13.pdf)
(Late Oligocene- E Miocene volcanoclastic Kebo Fm (575m), Butak Fm (360m) and Semilir Beds in Baturagung profile, E of Yogyakarta, all deposited in submarine fan environments)

Rahardjo, W. (2004)- Permasalahan pada stratigrafi batuan karbonat (dengan beberapa kasus contoh di Pegunungan Selatan Jawa Tengah). In: Stratigrafi Pulau Jawa, Geological Research Development Centre (GRDC), Bandung, Special Publ. 30, p. 87-92.
('Problems of carbonate stratigraphy, with examples from C Java Southern Mountains')

Rahardjo, W. (2007)- Preliminary result of foraminiferal biostratigraphy of Southern Mountains Tertiary rocks, Yogyakarta Special Province. Proc. Seminar Potensi geologi Pegunungan Selatan dalam pengembangan wilayah, Yogyakarta 2007, p.

Rahardjo, W., Sukandar Rumidi & H.M.D. Rosidi (1977)- Geological map of the Yogyakarta Quadrangle, Java. 1: 100,000. Geological Research Development Centre (GRDC), Bandung.

Raharja, R., T. Ito & I. Meilano (2024)- Evaluation of earthquake potential using a kinematic crustal block motion model in Java, Indonesia, based on GNSS observation. J. Asian Earth Sciences: X, 11, 100171, p. 1-12.
(online at: https://www.sciencedirect.com/science/article/pii/S2590056023000361)
(Analysis of earthquake potential of Java Island. Subduction zone earthquakes in W and E Java potentially up to Mw8.7 and Mw > 7.8 respectively. Inland fault segments indicate potential for Mw7.0 earthquakes)

Rahmad, B. & M. Maha (2010)- Endapan batubara Paleogen Formasi Nanggulan Kulon Progo, Yogyakarta: kajian geologi batubara dan fasies batubara. Proc. 39th Annual Conv. Indonesian Association Geologists (IAGI), Lombok, PIT-IAGI-2010-202, p. 1-20.
(online at: https://www.iagi.or.id/web/digital/12/2010_IAGI_Lombok_Endapan-Batubara-Paleogen.pdf)
(On Late Eocene coal of Nanggulan Fm exposed in Kali Songgo, E flank of Kulon Progo Dome, W of Yogya. Coal thickness 53 cm. Sediments soft and hardly diagenetically altered. Coal rank is lignite, with average vitrinite reflectance 0.27% -0.37%. Nanggulan Fm coal depositional facies is forest swamp (Nanggulan Fm clastics also contain Nummulites djogjakartae and Discocyclina omphalus; "post-rift transgression?))

Rahmad, B., M. Maha & A. Rodhi (2008)- Reflektan vitrinite dan komposisi maseral seam batubara Eosen Formasi Nanggulan daerah Kalisonggo, Kecamatan Girimulyo, Kabupaten Kulon Progo, Daerah Istimewa Yogyakarta. Proc. 37th Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 439-449.
(online at: https://www.iagi.or.id/web/digital/14/2008_IAGI_Bandung_Reflektan-Vitrinit-dan-Komposisi.pdf)
('Vitrinite reflectance and maceral composition of Nanggulan Fm Eocene coal seam, Kalisonggo area, Kulon Progo Regency, Yogyakarta'. Late Eocene coal of Nanggulan Fm deposited in telmatic to forest marsh environment, with slightly dry to wet condition. Vitrinite reflectance 0.27-0.37% (lignite rank), (demonstrating Eocene W of Yogya was never deeply buried; JTvG). Macerals comprise vitrinite texto-ulminite, etc.)

Rahmad, B., P.W. Laksmana, Ediyanto, Y. Rizkianto & M.O.B. Nugroho (2023)- Organic petrology and geochemistry source rock of shale Nanggulan formation, Watupuru river traverse, Banjararum, Kulon Progo, Yogyakarta. Proc. 4th Int. Conference on Earth, Science, Mineral and Energy (ICEMINE 2021), Sleman, AIP Conference Proceedings 2598, 030039, p.
(Two types of hydrocarbon source rocks in Late Eocene- E Oligocene Nanggulan Fm shale in Watupuru River section. All thermally immature)

Rahmawati, D (2019)- Studi biostratigrafi dan paleoekologi foraminifera besar Paleogen pada Formasi Karangsambung, Formasi Nanggulan dan Formasi Wungkal-Gamping di Jawa Tengah dan D.I. Yogyakarta. Thesis Magister Teknik Geologi, Universitas Gadjah Mada, p. 1-242. *(Unpublished)*
('Biostratigraphic and paleoecological study of large Paleogene foraminifera in the Karangsambung Formation, Nanggulan Formation and Wungkal-Gamping Formation in Central Java and D.I. Yogyakarta'. (1) Karangsambung Fm divided into Nummulites javanus zone (end of Ta3 age (Late Lutetian - Early Bartonian) and the Discocyclina dispansa umbilicata zone (Tb). (2)Nanggulan Fm divided into Nummulites djokjokartae

zone (Ta3) and Discocyclina javana (Tb).(3) Wungkal-Gamping Fm in Padasan divided into Planocamerinoides sp. zone (Ta3), Nummulites javanus zone end of Ta3) and Discocyclina dispansa umbilicata zone (Tb). (4) Desa Gamping is in Discocyclina javana zone (Tb). Etc.)

Rahmawati, D., D.H. Barianto & W. Rahardjo (2022)- Analisis mikrofasies batugamping Formasi Wungkal-Gamping jalur padasan, Gunung Gajah, Bayat, Klaten, Jawa Tengah. Jurnal Teknik Geologi: Ilmu Pengetahuan dan Teknologi (Universitas Mulawarman) 5, 1, p. 1-8.
(online at: http://e-journals.unmul.ac.id/index.php/TG/article/view/8065/4398)
(Microfacies analysis of limestones of the Wungkal- Gamping Limestone in Padasan section, Gunung Gajah, Bayat, Klaten, Central Java'. M-L Eocene nummulitic limestones with four microfacies: Nummulites-Planocamerinoides (=Assilina) grainstone and rudstone and Nummulites grainstone-rudstone)

Rahmawati, D., M.I. Novian & W. Rahardjo (2012)- Studi biostratigrafi dan analisis mikrofasies batugamping, Formasi Wungkal Gamping, jalur engukuran Padasan, Gunung Gajah, Bayat, Klaten, Jawa Tengah. Proc. 41st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2012-SS-05, p. 1-5.
(online at: https://www.iagi.or.id/web/digital/9/2012_IAGI_Yogyakarta_Studi-Biostratigrafi-dan-Analisis-Mikrofasies-Batugamping.pdf)
('Biostratigraphic study and carbonate microfacies analysis of the Wungkal Gamping Formation, Padasan section, Gunung Gajah, Bayat, C Java'. Middle and Late Eocene limestones with Nummulites, Assilina, Discocyclina, Asterocyclina, Pellatispira, Tansinhokella (= Spiroclypeus), Alveolina, Operculina, Austrotrillina, Ranikothalia, etc. Five microfacies types)

Rahutama, A. (2021)- Evolusi busur magmatik Pulau Jawa bagian timur sejak Eosen sampai Kuarter, berdasarkan analisis provenance batupasir Formasi Sambipitu. Lembaran Publikasi Minyak dan Gas Bumi (Lemigas) 55, 2, p. 89-101.
(online at: https://journal.lemigas.esdm.go.id/index.php/LPMGB/article/view/607)
('The evolution of the magmatic arc of the eastern part of Java from the Eocene to the Quaternary, based on an analysis of sandstone provenance of the Sambipitu Formation'. Provenance of E Miocene Sambipitu Fm mainly from magmatic arc, some samples recycled orogen. Sourced from Oligo-Miocene magmatic arc in NW. Three magmatic arcs in Java since Eocene, moving progressively N-ward: (1) Eocene islandaArc; (2 and 3) Oligo-Miocene and Quarternary volcanic arcs)

Ramadhan, B., M. Maha, S.E. Hapsoro, A. Budiman & I. Fardiansyah (2015)- Unravel Kendeng petroleum system enigma: recent update from transect surface observation of Kedungjati- Djuwangi- Kerek area, East Java. Proc. 39th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA15-G-065, p. 1-9.
(Kendeng Zone depocenter in E Java and continuing into S Madura Basin with oil seeps and small oil-gas fields. E-M Miocene Kerek Fm sandstones poor reservoir quality (2-10% porosity). Remaining potential in 'Globigerina sands' in E and S parts of Kendeng zone near Ngawi)

Ramadhan, G.C., E.F. Karyanto, M.W. Haidar, Premonowati Hadipramono & S. Widada (2013)- Seismic facies analysis of Oligo-Miocene reef in Rama Field, onshore East Java Basin: impact of fluctuating relative sea-level change to facies development. Proc. 37th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA13-SG-056, p. 1-12.
('Rama Field' (not real name, but probably is Sukowati; JTvG) in NE Java Basin is one of mature oil fields in Oligo-Miocene carbonates of Kujung Fm. Seismic facies analysis showed 5 growth stages: (1) initial Rupelian carbonate aggradation; (2) major sea level drop followed by lowstand deposits in E Chattian; (3) Late Oligocene-E Miocene backstepping carbonates; (4) E Miocene carbonates no longer develop upward, but prograded towards basin; (5) E-M Miocene drowning of platform)

Ramadhan, G.C., I. Saputra, E. Purnamasari, M. Daniar, Y.D. Putra, F.A. Cahyo & C. Prasetyadi (2013)- Organism variety effect on carbonate rock porosity of Jonggrangan Formation: alternative approach to predict porosity complexity. Majalah Geologi Indonesia (IAGI) 28, 1, p. 29-40.
(Facies and porosity of E-M Miocene Jonggrangan Fm of Kulon Progo area, C Java)

Ramadhina, P., R.C. Normana, T.S. Dewi, M. Widyastuti & I.M.D Setiadi (2016)- Investigation of organism heterogeneity and its porosity in limestone based on integrated outcrop data: implication for determining depositional facies of Bulu Formation. In: R. Hidayat et al. (eds.) Proc. Seminar Nasional Kebumian 9, Dept. Teknik Geologi, Gadjah Mada University, Yogyakarta, p. 745-753. *(online at: https://www.academia.edu/85754952/Investigation_of_Organism_Heterogeneity_and_Its_Porosity_Inlimestone_Based_on_Integrated_Outcrop_Data_Implication_Fordetermining_Depositional_Facies_of_Bulu_Formation) (late Middle Miocene Bulu Fm, widespread in North Rembang Anticlinorium (overlying Ngrayong ssst), is larger foraminifera limestone/sandy limestone (N13-N15). Three groups of LF: (1) Amphistegina and Miogypsina; (2) Cycloclypeus (Katacycloclypeus), Lepidocyclina, Operculina, Heterostegina and plankton; (3) Alveolinella, Flosculinella and Calcarina. Porosity 5-25%.)*

Ramdhan, A.M. (2021)- In situ stress and stress regime in the onshore part of the Northeast Java Basin. Scientific Contributions Oil and Gas (SCOG), Lemigas, 44, 2. p. 83-95.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/591/329)

Ramdhan, A.M., F. Hakim, L.M. Hutasoit, N.R. Goulty, W. Sadirsan, M. Arifin et al. (2013)- Importance of understanding geology in overpressure prediction: the example of the East Java Basin. Proc. 37th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA13-G-152, p. 1-13.
(E Java zones of high overpressure in: (1) post-Tuban Fm- low overpressure; (2) Tuban Fm- moderate-high overpressure; (3) Kujung Fm carbonate buildups- hydrostatic pressure)

Ramdhan M., P. Priyobudi, M.M. Mukti, A.S. Putra, E. Hidayat, F. Muttaqy, Syuhada, M Hanif et al. (2025)- Tracing fault systems from subsurface to surface in Yogyakarta and its surroundings, Indonesia. Natural Hazards Research, p. *pre-proof, in press)*
(pre-proof online at: https://www.sciencedirect.com/science/article/pii/S2666592125000666)
(Opak, Ngalang and Nglipar faults SE of Yogyakarta formed NE-trending parallel strike-slip fault network, dipping to NW)

Ratman, N. & G. Robinson (1996)- The geology from Gunung Slamet to the Dieng Plateau, Central Java. Bull. Geological Research Development Centre (GRDC) 20, p. 1-34.
(Brief review of Central Java geology)

Ratman, N. & H. Samodra (2004)- Stratigrafi batuan Eosen di Perbukitan Jiwo, Jawa Tengah. Jurnal Sumber Daya Geologi (JSDG) 14, 3 (147), p. 148-159.
('Stratigraphy of Eocene rocks in the Jiwo Hills, Central Java'. Eocene Nummulites- Assilina limestones and quartz sandstones on metamorphic basement, grading upward into marls with Eocene (P13-P15) planktonics)

Ratman, N. & H. Samodra (2004)- Stratigrafi dan lingkungan lengendapan batuan karbonat, Gunung Sewi di daerah Wonosari dan sekitarnya. In: Stratigrafi Pulau Jawa, Geological Research Development Centre (GRDC), Bandung, Special Publ. 30, p. 181-186.
(' Stratigraphy and depositional environment of carbonate rocks, Gunung Sewu, in Wonosari and surrounding area'. Carbonates of Gunung Sewu three formations: Oyo (upper E Miocene-M Miocene), Wonosari (Late Miocene), and Kepek (Late Miocene-Pliocene. N.B: Oyo-Wonosari Fm probably older; JTvG).

Ratman, N., T. Suwarti & H. Samodra (1998)- Peta Geologi Indonesia Lembar Surabaya, 1: 1,000,000. Geological Research Development Centre (GRDC), Bandung.

Raya, N.R. & B. Sapiie (2003)- Sandbox modeling of thrust-fold belt in Cimanintin area, Sumedang, West Java. Proc. 29th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 371-383.
(Modeling of Plio-Pleistocene WNE-ESE trending 'Majalengka fold-thrust belt', involving steep M-L Miocene bathyal sediments in Sumedang area, between Bandung- Cirebon, W Java suggests 30-40% shortening)

Reerink, J. (1865)- Nota omtrent eene rijke aardoliesoort, voorkomende op Java, in Poerbolinggo, Res. Banjoemas. Tijdschrift Nijverheid Landbouw in Nederlandsch-Indie 11, p. 362-363.

(Very brief, early report on oil seep in stream near villages of Kalian Jattan and Segran, 3 days travel from Purbolingo, Banyumas Residency, C Java)

Refalta, C.F., D.S. Yudha & D.H. Barianto (2022)- Biostratigraphy and paleobathimetry microfossil foraminifera in the Sentolo Formation on the Jambon Line, Bantul Regency, Special Region of Yogyakarta Province. J. Tropical Biodiversity and Biotechnology (JTBB; UGM) 7, 1, jtbb.62239, p. 1-7.
(online at: https://jurnal.ugm.ac.id/jtbb/article/view/62239/33147)
(Ten samples in 11m of Jambon section in Sentolo Fm, Bantul, with Pliocene (N18-N19) bathyal deposits)

Reich, S., F.P. Wesselingh & W. Renema (2014)- A highly diverse molluscan seagrass fauna from the early Burdigalian (Early Miocene) of Banyunganti (South-Central Java, Indonesia). Annalen Naturhistorischen Museums Wien, Ser. A, 116, p. 5-129.
(online at: http://verlag.nhm-wien.ac.at/pdfs/116A_005129_Reich.pdf)
(Study of E Miocene shallow marine mollusc fauna from Jonggrangan Fm near Banyunganti village, Progo Mts., S C Java, in beds transgressive over 'Old Andesite' volcanics. 184 species, including 158 carnivorous and herbivorous gastropods. Age suggested by associated zone Tf1 larger foram fauna ~E Burdigalian; by Sr isotopes ~18.9 Ma. Abundance of gastropods Smaragdia, Bothropoma, Bittiinae points to seagrass environment. Four new gastropod species: Bothropoma mediocarinata, Plesiotrochus hasibuani, Rissoina banyungantiensis and R. reticuspiralis)

Reinhold, T. (1937)- Fossil diatoms of the Neogene of Java and their zonal distribution. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 12, p. 43-132.
(First and most elaborate paper on marine fossil diatoms of Indonesia, from Middle Miocene- Plio/Pleistocene 'Globigerina Marls' and diatomites of C and E Java, by Thomas Reinhold of the Geological Survey of the Netherlands. (Meant to be a pilot study, but was never expanded; JTvG))

Reitsema, T.L. (1930)- Een voorkomen van Nummulieten kalksteen aan den noordrand van het Westelijk grensgebergte, Gouv. Djokjakarta. Natuurkundig Tijdschrift voor Nederlandsch-Indie 90, p. 291-294.
(online at: https://resolver.kb.nl/resolve?urn=MMTEY01:179529006:pdf)
('An occurrence of Nummulites limestone at N edge of the 'Western border mountains', Yogyakarta region'. Dark grey breccious limestone with Nummulites and Lepidocyclina (Discocyclina?; JTvG) below m1 breccia-layers, near villages Gegerbajing and Plana, between Nanggulan and Purworejo, 500m above s.l. (different from m3 limestones of Sentolo-Pengasih to S, which overlie breccia. With map; no rock/fossil photos)

Reitsema, T.L. (1930)- Over een voorkomen van daciet aan de zuidkust van Jogjakarta, in het Goenoeng Sewoe kalksteengebied. Natuurkundig Tijdschrift voor Nederlandsch-Indie 90, p. 295-297.
(online at: https://resolver.kb.nl/resolve?urn=MMTEY01:179529006:pdf)
('On an occurrence of dacite on the S coast of Yogyakarta in the Gunung Sewu limestone area' (= Semilir Fm?; JTvG))

Reka, D.S., K.N. Izah, T.A. Mahdi & M.I. Novian (2020)- Rembang Zone petroleum play, stratigraphic and petrographic analysis of Ngrayong Formation as reservoir, Jamprong Area, Tuban, East Java. Proc. Digital Technical Conference 2020, Indonesian Petroleum Association (IPA), IPA20-SG-326, p. 1-9.

Reksalegora, S., E. Hermanto, Y. Kusumanagara & P. Lowry (1996)- Cipamingkis River outcrop: a contribution to the understanding of "Main" reservoir geometry, Upper Cibulakan Formation, offshore Northwest Java. Proc. 25th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 401-426.

Reksalegora, S.W., Y. Kusumanegara & P. Lowry (1999)- Cipamingkis River field trip: a visit to an outcrop analog of the "Main" Interval, Upper Cibulakan Formation, Offshore Northwest Java. Indonesian Petroleum Association (IPA), Fieldtrip guidebook, p. 1-29.

Reminton, C.H. & U. Pranyoto (1985)- A hydrocarbon generation analysis in Northwest Java Basin using Lopatin's method. Proc. 14th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 121-141.

(NW Java Basin producing from Jatibarang Volcanics, Talang Akar Fm and Baturaja Fm equivalents, Upper Cibulakan (Zones 16, 15, 14, 12), and Parigi Fm carbonates. Top oil window (TTI 15) in Randegan (E part NW Java Basin) at 1800-2000m, in Cilamaya- Pamanuka -Kandanghaur between 2000-2300m. TTI 16 only in Purwakarta-1 in Jatibarang volcanics. Talang Akar in Gantar- N Cilamaya areas mature in S. Baturaja Fm mature in Purwakarta- Gantar and S-ward. Only S of Purwakarta lower part of U Cibulakan Mb sufficiently mature to generate hydrocarbons. CO_2 content believed from dissolving carbonates of Baturaja Fm formed after burial of Talang Akar sediments with high content of carbonaceous materials)

Rendy (2022)- Upper Cenozoic calcareous nannofossil biostratigraphy and basin evolution of the East Java Basin Indonesia. Doct. Dissertation, Akita University, Japan, p. 1-191.
(online at: https://air.repo.nii.ac.jp/record/5803/files/shihakuotsu660.pdf)
(Significant study of calcareous nannofossil biostrat from Oligocene-Pliocene in 7 Pertamina oil wells in onshore NE Java Basin, including NGB-1 (Ngimbang), DDR-1 (Dander), DMW-1 (Dermawu), KTB-1 (Kedung Tuban, Cepu High), TPN-1 (Tapen), JTR-1 (Jatirogo), BEL-1 (Belimbing) and LSM-1 (Lasem). Five significant unconformities identified, with good correlation to global climatic events and tectonic evolution)

Rendy, T. Sato, E. Widianto, D. Syavitri, M. Burhanuddinur, A. Prasetyo &, D. Priambodo (2017)- Unconformities detected by high-resolution calcareous nannofossil biostratigraphy and it's effect on petroleum system in the Northeast Java Basin. *(Poster presentation) (online at: https://www.researchgate.net/profile/Rendy-Rendy-5/publication/359815275_Unconformities_Detected etc.)*
(Calcareous nannofossil study and. biostratigraphic correlation of Late Oligocene- E Pliocene in three NE Java basin wells DDR-1 (Dander), KTB-1 (Kedung Tuban) and TPN-1 (Tapen). Seven unconformities detected and based on correlation with oxygen isotope stratigraphy, all match with global climate events, meaning unconformities related to eustacy fluctuations)

Rendy, R., H. Suzuki, S. Chiyonobu, T. Sato, D. Syavitri, E. Widianto, M. Burhannudinnur, T.E. Putra & R. Raguwanti (2021)- Cenozoic basin history of the Cepu area based on calcareous nannofossil biostratigraphy in Eastern Java, Indonesia. Int. J. Advanced Science Engineering Information Technology (IJASEIT) 11, 5, p. 2017-2081.
(online at: https://insightsociety.org/ojaseit/index.php/ijaseit/article/view/14225/pdf_1924)
(Nannofossil biostratigraphy of wells Lasem-1, Kalijati-1, Kedungtuban-1, and Ngimbang-1 in Cepu area, E Java. Four unconformities in Oligocene-Pliocene: (1) Oligocene-Miocene boundary in all wells (2) early M Miocene (Kedungtuban-1; NN6 absent); (3) early late Miocene; NN8 absent in Kedungtuban-1, Dander-1, and Ngimbang-1); (4) lower Pliocene base biggest unconformity in area. NB: Ngrayong Fm in Lasem 1 well dated as NN14/ E Pliocene:= highly unlikely?; JTvG))

Rendy, R., D. Syavitri, E. Widianto & M. Burhannudinnur (2024)- Quantitative calcareous nannofossil biostratigraphy for detecting unconformities and recontruction chronostratigraphy: a case study from the East Java Basin. Proc. 53rd Annual Conv. Indonesian Association Geologists (IAGI), Balikpapan 2024, 98, p. 1-7.
(online at: https://www.iagi.or.id/web/digital/79/6---Quantitative-Calcareous-Nannofossil-Biostratigraphy-for-Detecting-Unconformities-and-Reconstructing-Chronostratigraphy_-A-Case-Study-from-the-Onshore- Etc.)
(Nannofossil biostrat of 7 onshore East Java Basin wells revealed 27 calcareous nannofossil datums of mid-Oligocene- E Pliocene ages (NP23- NN16). Inconsistencies between correlations of formation boundaries and nannofossil datums noted. Four unconformities identified: Oligocene-Miocene boundary (OMU), M Miocene (MMU), Late Miocene (LMU 1-3; rel. minor), and Miocene-Pliocene (MPU). Stratigraphic evolution of East Java Basin during U Cenozoic primarily influenced by eustatic sea-level changes. Regional tectonics had significant effect on basin evolution from E Miocene- Pliocene)

Reuss, A.E. (1867)- Uber fossile Korallen der Insel Java. In: F. Hochstetter, Reise der Osterreichischen Fregatte Novara um die Erde in den Jahren 1857, 1858, 1859, Geol. Theil 2, Gerold, Staatsdruckerei, Vienna, p. 165-185.
(online at: www.landesmuseum.at/pdf_frei_remote/MON_GEO_0032_0165-0185.pdf)
('On fossil corals from Java Island'. 17 species of Neogene corals collected by Von Hochstetter during the Austrian Novara Oceanographic Expedition in 1857-1859. Main locality Gunung Sela in Tji-Lanang valley, Rongga District. Material stored in Natural History Museum in Vienna)

Riandari,B.L. & S. Wijono (2013)- Biostratigrafi foraminifera plangtonik dan lingkungan sedimentasi Formasi Sentolo Jalur Sungai Niten, Sungai Serang dan Dusun Ngramang Kabupaten Kulon Progo Propinsi Daerah Istimewa Yogyakarta. Proc. Seminar Nasional Kebumian 6, Jurusan Teknik Geologi Universitas Gadjah Mada, Yogyakarta 2013, S05, p. 502-517.
(online at: https://www.academia.edu/40355862/Prosiding_Seminar_Nasional_Kebumian_ke_6)
('Planktonic foraminifera biostratigraphy of and sedimentary environment of Sentolo Formation of Niten River, Serang River and Ngramang Hamlet, Kulon Progo Regency, Special Region of Yogyakarta Province'. E Miocene-Pliocene (N4-N20) zonation of open marine Sentolo Fm in Kulun Progo area.)

Ridha, M., M. Nurdiansyah, J.S. Zamili, P.T. Triwigati, Y.B. Muslih & W.N. Farida (2018)- Banumeneng calciclastic submarine fan (CSF) as a Late Neogene record in the curvature border of Western Kendeng, Java: new insight for exploration target. Proc. 42nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA18-547-SG, p. 1-20.
(Calciturbidites in Dolok River, Banyumeneng, Demak, in Kerek Fm(?) in W Kendeng zone. With M Miocene planktonic foraminifera and bathyal benthic foraminifera and reworked? Eocene larger foraminifera (Discocyclina, Nummulites, Assilina). Paleocurrent (flute cast) suggest sourced from NNW (Sunda Shelf) (?))

Riffo, A.O., G. Mauri, A. Mazzini & S.A Miller (2021)- Tectonic insight and 3-D modelling of the Lusi (Java, Indonesia) mud edifice through gravity analyses. Geophysical J. International 225, 2, p. 984-997.
(online at: https://academic.oup.com/gji/article/225/2/984/6104824)
(Gravity modeling of area around Sidordjo mud eruption.Two fault systems intersecting Lusi: Watukosek strike-slip and the antithetic fault system, etc.)

Rifqi, M.A., A.P. Armia, A. Nugraha, M. Fajar & A. Prasetyo (2014)- Seismic facies analysis of turbidite complex in Ngrayong Formation, East Tuban Area, East Java Basin, Indonesia. Proc. 38th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA14-G-138, p. 1-10.
(M Miocene quartz-rich Ngrayong Fm prolific hydrocarbon reservoir in E Java Basin (>155 MMBO produced from 17 fields). Three main units in Ngrayong Fm, indicating regressive and transgressive phase of depositional cycle. In E Tuban Area Ngrayong Units II-III three cycles of turbidite deposition, each ending with hemipelagic deposition, locally eroded during next turbidite deposition cycle. Seismic facies identified: mounded mass transport complexes, continuous sheet-like deposits and channel-levee features. With Pertamina-Hess paleogeographic map. Sediment provenance from NW)

Rigg, J. (1836)- Sketch of the geology of Jasinga. Verhandelingen Bataviaasch Genootschap 17, p. 120-135.
(Mainly discussion of presence of 'granite' at SW side of Gunung Gede volcano, West Java)

Rinawan, R., J. Sunarja & S. Soeharto (1994)- Ciri mineralisasi emas tipe xenothermal di daerah Cirotan, Jawa Barat. Proc. 23rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 2, p. 981-1000.
(online at: https://www.iagi.or.id/web/digital/54/44.pdf)
('Characteristic of xenothermal-type gold mineralization in Cirotan, West Java'. Cirotan Pliocene Au-Ag deposit in Bayah Dome area, SW Java. Host rocks Eocene- Miocene 'Old Andesites'. Nearby microdiorite intrusion with K/Ar age of 4.5 Ma. Au-Ag mineralization associated with dextral strike-slip fault and dated as Late Pliocene- E Pleistocene (1.7 ± 0.1 Ma). Also contains rel. high T minerals cassiterite and wolframite))

Riswanty, M.A., A.H. Harsolumakso & Y. Rizal R. (2010)- Geologi dan karakterisasi rekahan pada fasies batugamping Formasi Rajamandala daerah Pasir Aseupan dan sekitarnya, Sukabumi, Jawa Barat. Buletin Geologi 40, 3, p. 105-122.
('Geology and characterization of fractures in limestone facies of the Rajamandala Formation in the Pasir Aseupan area and surroundings, Sukabumi, West Java')

Ritter, O., A. Hoffmann-Rothe, A. Muller, E.M. Arsadi, A. Mahfi, I. Nurnusanto, S. Byrdina & F. Echternacht (1999)- A magnetotelluric profile across Central Java, Indonesia. Geophysical Research Letters 25, 23, p. 4265-4268.

(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/1998GL900158)
(Magnetotelluric data at 8 sites along N30°E striking profile in C Java. Conductive features: (1) strong 'ocean effect' at S-most site, (2) zone of very high conductivity in C part of profile (volcanic or geothermal activity?), (3) conductor in N (active fault zone?))

Rizal, Y. (2004)- Neogene lithological formations and fossil remains in the Majalengka area (West Jawa, Indonesia). In: Late Neogene and Quaternary biodiversity and evolution, Proc. 18 International Senckenberg Conference, Weimar, p. 1-3. *(Extended Abstract)*
(online at: http://www.senckenberg.de/fis/doc/abstracts/94_Rizal.pdf)
(Pliocene marine Kaliwangu Fm (N19) locally overlain by E Pleistocene black clay with freshwater molluscs and vertebrate fossils (cervids, proboscideans and crocodiles). Overlain by Pleistocene fluvial Citalang Fm, also with bone and tooth fragments in conglomerates (= Von Koenigswald 1935 fossil locality))

Rizal, Y., Aswan, Y. Zaim, M.R. Pupaningrun, W.D. Santoso & N. Rochim (2019)- Miocene to Pliocene tsunami deposits in Tegal Buleud, South Sukabumi, West Java, Indonesia. Modern Applied Science 13, 12, p. 80-92.
(online at: https://www.ccsenet.org/journal/index.php/mas/article/view/0/41456)
(4 paleotsunami layers as thin intercalations in latest Miocene - E Pliocene (N19) claystone of Bentang Fm at Tegal Buleud, near West Java coast S of Sukabumi. Characterized by disturbed structures (siltstone rip up, clay clasts and flame structures) in normal graded bedding sandstone layer. With mixed inner and middle neritic microfossils. Possibly oldest known tsunami deposits in Java)

Rizal, Y., R. Lagona & W.D. Santoso (2017)- Turbidite facies study of Halang Formation on Pangkalan River, Karang Duren- Dermaji village, Banyumas district, Central Java- Indonesia. In: 2nd Int. Conf. Transdisciplinary research on environmental problems in Southeast Asia (TREPSEA), Bandung 2016, IOP Conference Series: Earth and Environmental Science, 71, 012032, p. 1-15.
(online at: http://iopscience.iop.org/article/10.1088/1755-1315/71/1/012032/pdf)
(M Miocene- E Pliocene Halang Fm in Pangkalan river, Banyumas Basin, with five turbiditic facies associations: proximal channel, distal levee, frontal splay 1, crevasse splay, and frontal splay 2. Mud rich system. ~400m thick Late Miocene Kumbang Fm andesitic volcanic breccia reflects sediment supply change)

Rizal, Y., Pamungkas G.M. & A. Rudyawan (2016)- Sedimentation of the Cantayan Formation in Sirnasari, Bogor, West Java- Indonesia. Int. J. Engineering Sciences and Research Techn. (IJESRT) 5, 11, p. 349-359.
(online at: www.ijesrt.com/issues%20pdf%20file/Archive-2016/November-2016/46.pdf)
(Sedimentation of E Pliocene part of Cantayan Fm along Cibeet River in Bogor Trough in Sirnasari area, SE of Bandung. Classic turbidite facies)

Rizal, Y., W.D. Santoso, A. Rudyawan, R.A. Tampubolon & A.A. Nurfarhan (2018)- Sedimentary facies and hydrocarbon reservoir potential of sand flat in the upper part of Tapak Formation in Banyumas area, Central Java. J. RISET Geologi dan Pertambangan (LIPI) 28, 2, p. 251-263.
(online at: https://jrisetgeotam.lipi.go.id/index.php/jrisgeotam/article/view/835/pdf)
(Pliocene clastics of Tapak Fm along NW-SE trending Cipari Anticline in Banyumas Basin, C Java (with oil seeps). Fining and thinning-upward bedding patterns suggestive of tidal flat facies)

Rizqi A.F. & G.I. Sastrawiguna (2023)- Petrography of quartz sandstone in Nanggulan formation at Sermo area, Kulon Progo Regency, Daerah Istimewa Yogyakarta, Indonesia: implications on provenance and basin origin. Proc. 1st 2022 Int. Conference on Sustainable Environment, Development, and Energy (CONSER 2022), Denpasar 2022, IOP Conference Series: Earth and Environmental Science 1151 012027, p. 1-12.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1151/1/012027/pdf)
(Eocene Nanggulan sandstone in area around Sermo Reservoir, Kokap, Kulon Progo, S Java, with m 77-92% quatz, 5-25% lithics and 1-7% feldspar, suggesting 'Recycled orogen provenance»

Robba, E. (1996)- The Rembangian (Middle Miocene) mollusc-fauna of Java, Indonesia: I. Archaeogastropoda. Rivista Italiana Paleontologia Stratigrafia 102, 2, p. 267-292.
(online at: https://riviste.unimi.it/index.php/RIPS/article/view/5251/5275)

(Langhian archaeogastropods from Burdigalian- Langhian Tawun Fm/ Rembang Beds in Sedan-Tuban area of Rembang anticlinorium, NE Java. 18 species incl. new taxa Ilanga rebjongensis, Ethalia stefanoi, Pareucbelus pannekoeki and Leptothyra laddi)

Robba, E. (2013)- Tertiary and Quaternary fossil pyramidelloidean gastropods of Indonesia. Scripta Geologica 144, p. 1-191.
(online at: www.repository.naturalis.nl/document/479757)
(Descriptions of pyramidelloidean gastropods collected from Rembang anticlinorium (NE Java; mainly Langhian Tawun Fm) and review of collections of Naturalis Biodiversity Center, Leiden. Rembangian (M Miocene) assemblage 89 species, four formerly described (Leucotina speciosa, Megastomia regina, Exesilla, 52 are proposed as new; most undescribed species. Neogene fauna composed almost entirely of extinct species. Most Neogene species endemic to Indonesian Archipelago)

Roberts, K., R.J. Davies, S. Stewart & M. Tingay (2011)- Structural controls on mud volcano vent distributions: examples from Azerbaijan and Lusi, East Java. J. Geological Society, London, 168, 4, p. 1013-1030.
(Vent distributions in Azerbaijan mud volcanoes used to propose what controls distribution of 169 vents at Lusi mud volcano, E Java. Initial eruptions along NE-SW trend, parallel to Watukosek fault, changing to eruptions that follow E-W trends, subparallel to regional fold axes)

Robertson Research-Pertamina (1986)- East Java and Java Sea basinal area, stratigraphy, petroleum geochemistry and petroleum geology. Multi-client Study, 4 vols., p. *(Unpublished)*
(Large, proprietary study of E Java and Java Sea basins)

Robertson Utama Indonesia, PT (2002)- East Java and East Java Sea- a petroleum systems evaluation. Multi-client Study, vol. 1: Text, 95p., vol. 2: Appendices, Vols. 3-6: Enclosures. *(Unpublished)*
(Comprehensive overview of NE Java basin stratigraphy and petroleum geology. With paleogeographic maps Eocene (Ngimbang) to Pliocene (GL marls))

Rohadi, S., S. Widiyantoro, A.D. Nugraha & Masturyono (2013)- Tomographic imaging of P- and S-wave velocity structure beneath Central Java, Indonesia: joint inversion of the MERAMEX and MCGA earthquake data. Int. J. Tomography Simulation 24, 3, p. 1-14. *(online at: www.researchgate.net/publication/288111971_Tomographic_imaging_of_P-_and_S-wave_velocity_str Etc.)*
(Tomographic inversions from combined local and regional earthquake events. Low velocity anomaly at Lawu-Merapi zone. Strong low velocity anomaly zone between Cilacap and Banyumas, probably reflecting large dome of sediment. Low velocity anomaly also in Kebumen, coinciding with extensional oceanic basin toward land. Merapi's magma source comes from S of Merapi. High velocity anomaly pattern beneath W part of C Java may represent subducted Indo-Australian plate)

Rodhi, A., Sutarto, Sutanto & S.K. Daryono (2020)- Doubly thrust fault and superposed fold at Rondonom-Girisono Region, East Jiwo Hill, Bayat Central Java, Indonesia. Proc. 2nd Int. Conference on Earth Science, Mineral, and Energy (ICEMINE 2019), Yogykarta AIP Conference Proceedings 2245, 030011, p. 1-10.
(online at: http://eprints.upnyk.ac.id/28674/1/7.Doulby%20Thrust%20Fault%20and%20Superposed Etc.)
(NE-SW trending Rondonom trust fault zone can be traced in three locations of E Jiwo Hills S Centrl Java: Rondonom, Padasan village and Grabahan hill, and in Konang hill. Two generations of thrusting, (1) late Mesozoic NW compression and (2) likely Late Eocene age (before Oligocene gabbro intrusions) (East Java micro continent Orogeny?))

Rohmana, R.C., F.P. Dewi, S. Wibowo, A. Novadhani & I. Fardiansyah (2013)- Quartz-rich sandy facies behind the Miocene volcanic activity in South East Java: insight from sandstone characteristics within Jaten Formation. Proc. 37th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA13-SG-031, p. 1-9.
(M Miocene sandstones of Jaten Fm in C Java Southern Mountains quartz-rich, but mainly bipyramidal volcanic quartz)

Rohmana, R.C., I. Fardiansyah, L. Taufani, D. Harishidayat (2021)- Karakteristik dan indeks kualitas reservoar hidrokarbon menggunakan metode pemetaan digital pada Formasi Ngrayong, Cekungan Jawa Timur Utara. Lembaran Publikasi Minyak dan Gas Bumi (Lemigas) 55, 3, p. 129-140.
(online at: https://journal.lemigas.esdm.go.id/index.php/LPMGB/article/view/708)
('Characteristics and quality index of hydrocarbon reservoir using digital mapping method in Ngrayong Formation, NE Java Basin'. Digital mapping of M Miocene Ngrayong Sst in Binangun village, Tuban Regency. Nine lithofacies, deposited in tidal environment (tidal bars and tidal flats))

Rohrlach, B. (2011)- The geology of the Tujuh Bukit copper-gold project, East Java, Indonesia. Sydney Minerals Exploration Discussion Group (SMEDG), Presentation 16 June 2011, p. 1-53.
(online at: https://www.smedg.org.au/Rohrlach_Tujuh_Bukit_Copper_Gold.pdf)
(SE-most Java Cu-Au prospects in Bukit Tujuh District, explored since 2007. Main prospects Tumpangpitu Cu-Au-Mo porphyry system and overlying cap of Tumpangpitu Au-Ag oxide System)

Rolando, A. (2001)- The new species *Terebellum olympiae* n.sp. (Gastropoda, Seraphidae) from the Middle Eocene mollusc assemblage of Nanggulan (Yogyakarta province, Java, Indonesia). Memorie di Scienze Geologiche, Padova, 53, p. 41-44.
(Listing of 44 mollusc species, one new, from water well outcrop near Watumarah, 4 km W of Nanggulan, in upper part of Nanggulan Fm. Age late M Eocene, planktonic foram zones P13-P14)

Rosana, M.F. & H. Matsueda (2002)- Cikidang hydrothermal gold deposit in Western Java, Indonesia. Resource Geology 52, 4, p. 341-352. *(online at: https://www.academia.edu/22831736/Cikidang_Hydrothermal_Gold_Deposit_in_Western_Java_Indonesia)*
Cikidang gold deposit discovered in 1991 in Bayah dome gold district (also Pongkor, Cikotok mines). Gold in low-sulfidation quartz-adularia-sericite (-calcite) vein deposits. Host rocks Miocene lapilli tuff and breccia)

Romario, I.F.B., D. Mindasari, R.E. Suprapto & M.A. Yusuf (2015)- Oligo-Miocene tectonic of Java and the implication for flexural basin of Southern Mountain in affecting depositional system in Kerek Formation. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI, Balikpapan 2015, p. 1-6.
(online at: www.academia.edu/19751885/Oligo_Miocene_Tectonic_of_Java_and_The_Implication_for_Etc.)
(Study of M-L Miocene Kerek Fm in Kendeng back-arc basin, C Java. Marine clastics of 'dissected arc' provenance type, reflecting uplift of Southern Mountains volcanic arc (paper low on data, high on general concepts; JTvG)

Romario, I.F.B., R.E. Suprapto, D. Pambudi, R. Chandra, I.H. Pratama, M.I. Fauzan, R.J. Pratama & R. Rachman (2016)- Studi paleogeografi Neogen batas cekungan Kendeng- Serayu Utara: tantangan dan implikasi pada konsep eksplorasi minyak dan gas bumi di tinggian Semarang regional Jawa Tengah bagian utara. In: R. Hidayat et al. (eds.) Proc. Seminar Nasional Kebumian 9, Dept. Teknik Geologi, Gadjah Mada University, Yogyakarta, p. 115-126.
(online at: https://repository.ugm.ac.id/273481/)
('Neogene paleogeographic study of the limits of Kendeng-Serayu basin: challenges and implications for oil and gas exploration concepts at the Semarang regional high, north Central Java'. N-S trending Semarang High at W side of Kendeng zone surrounded by oil seeps and possibly migration focus)

Rosalia, S., S. Widiyantoro, P.R. Cummins, T. Yudistira, A.D. Nugraha, Zulfakriza & A. Setiawan (2022)- Upper crustal shear-wave velocity structure beneath western Java, Indonesia from seismic ambient noise tomography. Geoscience Letters 9, 1, p. 1-4.
(online at: https://geoscienceletters.springeropen.com/articles/10.1186/s40562-021-00208-5)
(Tomographic S-wave velocity model of W Java extends to~20 km depth. Pronounced NE-SW contrast of Vs at depth 1-5 km correlates well with Bouguer anomaly trend. Low Vs in NE part of study area interpreted as alluvial and volcanic products from Sunda Shelf and modern volcanic arc; high Vs in SW part associated with older volcanic arc products. Depth of N Java Basin ~5-6 km, Garut Basin 5 km deep. For greater depths, Vs gradually increases throughout W Java, which refects crystalline basement)

Rosana, M.F., S. Prihatmoko & T. Setiabudi (2014)- Low-sulfidation epithermal Au mineralization in Western Java and Southern Sumatra. In: I. Basuki & A.Z. Dahlius (eds.) Sundaland Resources, Proc. Annual Conv. Indonesian Soc. Economic Geologists (MGEI), Palembang, p. 109-128.
(W Java and S Sumatera split up by Sunda Strait, but geologically similar, in particular volcanic and magmatic events. Three groups of magmatic-volcanic events: Eocene-Early Miocene, Mio-Pliocene and Quaternary, all ranging from basaltic andesite with acidic-intermediate intrusives. Low sulfidation epithermal vein systems grouped into 'low base metal' (Cibaliung, Kerta, Gunung Pongkor, Cikidang, Putih Doh, Kedondong) and 'high base metal' (Cirotan, Ojolali), plus 'high silver' (Way Linggo). Mineralization ages Late Miocene- Pliocene, and all hosted in Mio-Pliocene magmatic-volcanic group)

Rosana, M.F., I. Syafri, U. Mardiana & N. Sulaksana (2006)- Petrology of Pre-Tertiary melange complex of Gunung Badak, Sukabumi, West Java. Proc. Geosains dalam Pembangunan Ekonomi & Kesejahteraan Serantau, Langkawi 2006, p. 1-5. *(online at: http://resources.unpad.ac.id/unpad-content/uploads/publikasi_dosen/1D%20Persidangan%20Geosience%20UKM%20-ITB.pdf)*
(Gunung Badak melange in Ciletuh Bay, SW Java, with ophiolite (peridotite, serpentinite, gabbro, pillow basalt), metamorphics (quartzite, phyllite, schist) and sediments (greywacke, Nummulites lst, black shale, red clay, polymict breccias), overlain by Eocene Ciletuh Fm clastics. Rocks tectonically mixed as result of subduction. Peridotites in small outcrops in N and C part of Gunung Badak, locally serpentinized. Gabbros as dikes with porphyric textures, mostly of hyperstene, labradorite. Pillow basalt-spilitic lavas outcrop in N part. Phyllite, schist and quartzite as fragments of polymict breccias in N flank of Gunung Badak. Sedimentary rocks composed of greywacke in Mandra island, limestone and polymict breccias in Manuk, Kunti islands. Ciletuh Fm provenance from N part of Java, probably granitic Sundaland basement)

Rosana, M.F., E.T. Yuningsih, K.D. Saragih, R. Ikhram & N. Ardiansyah (2015)- Petrologi batuan ofiolit daerah Sodongparat, Kawasan Ciletuh, Sukabumi. Bull. Scientific Contribution (UNPAD) 13, 3, p. 221-230.
(online at: https://jurnal.unpad.ac.id/bsc/article/view/8409)
('Petrology of ophiolite rocks in the Sodongparat area, Ciletuh Region, Sukabumi'. Pretertiary ophiolite in Ciletuh area, SW Java, assemblage of basalt, gabbro and ultramafics, associated with sedimentary-volcanic and metamorphic rocks. Ophiolite sequence incomplete, and emplacement can be equated with 'Cordilleran' ophiolite. Tectonic environmental of gabbro Island Arc Tholeiite (IAT) and Mid-Ocean Ridge, while basalt is Mid-Ocean Ridge Basalt (MORB). Some retrograde metamorphism)

Rothpletz, W. (1943)- Geological map of Nanggulan area, 1:10,000. Geological Survey, Bandung, File E43, p. *(Unpublished historic map)*

Rothpletz, W. (1956)- Gunung Gamping sebelah barat Jogjakarta. Pusat Djawatan Geologi, Bandung, p. 1-5.
('Mount Gamping west of Yogyakarta'. Brief description of Eocene-Miocene limestone outcrop 4 km W of Yogya. Initially viewed as Miocene limestone by Junghuhn, but also Eocene foraminifera at base, as identified by Gerth (1929) and Mohler (1949))

Roza, S.E.V., L. Jurnaliah & Abdurrokhim (2016)- Biostratigraphy correlation of Jatiluhur, Kalapanunggal, and Subang Formation in northern part of Bogor Through. Proc. 14th Regional Conference Geology and Mineral Resources of SE Asia (GEOSEA XIV) and 45th Annual Conv. Indonesian Association Geologists (IAGI) (GIC 2016), Bandung, p. 424-427.
(Summary of biostratigraphy work on M-L Miocene (N13-N17) of Cipamingkis and Cileungsi sections. Klapanunggal Lst of uppermost Jatiluhur Fm with Lepidocyclina spp., Katacycloclypeus annulatus and Flosculinella (equivalent of plankton zones N14-N16?))

Rudolph, M.L., L. Karlstrom & M. Manga (2011)- A prediction of the longevity of the Lusi mud eruption, Indonesia. Earth Planetary Science Letters 308, p. 124-130.

Rudolph, M.L., M. Manga, M. Tingay & R.J. Davies (2015)- Influence of seismicity on the Lusi mud eruption. Geophysical Research Letters 42, 18, p. 7436-7443.
(online at: http://onlinelibrary.wiley.com/doi/10.1002/2015GL065310/epdf)

(Modeling of propagation of seismic waves beneath Lusi mud eruption (E Java) suggests no significant amplification of incident seismic energy in U Kalibeng Fm (source of erupting solids). Hypothesis that Lusi mud eruption was triggered by clay liquefaction after earthquake unlikely. Also other constraints favor nearby drilling activity as trigger of mud eruption)

Rudolph, M.L., M. Shirzaei, M. Manga & Y. Fukushima (2013)- Evolution and future of the Lusi mud eruption inferred from ground deformation. Geophysical Research Letters 40, 6, p. 1089-1092.
(online at: http://onlinelibrary.wiley.com/doi/10.1002/grl.50189/epdf)
(Ground deformation around Lusi mud volcano, E Java, decaying exponentially. Discharge predicted to decrease to 10% of present rate in 5 years)

Rudyawan, A., M.L. Sujatmoko & Y. Rizal (2025)- Geology and structural control on mineralisation of the Arinem area, Garut, West Java. Buletin Sumber Daya Geologi (BSDG) 20, 1, p. 37-46. *(online at: https://buletinsdg.geologi.esdm.go.id/index.php/bsdg/article/view/BSDG_VOL_20_NO_1_2025_3/352)*
(Exploration by PT Aneka Tambang in 1981 identified several mineral prospects in Southern Mountains of W Java, incl. low-sulfidation epithermal Arinem system, 45 km from Garut). N-S trending vein complexes)

Rupert Jones, T. (1872)- Kort bericht over nummulieten in vuursteen gereedschap in Java. Neues Jahrbuch Mineralogie Geologie Palaontologie 1872, p. 865.
(online at: https://www.biodiversitylibrary.org/item/150995#page/889/mode/1up)
('Brief note about nummulites in chert tools in Java'. Yellow flint tool from Java in collections of British Museum contains many small Nummulites (believed to be first Nummulites record for Java by TRJ, but Verbeek (1873) listed earlier discoveries of nummulitids on Java; JTvG.) No figures, locality information, etc.)

Rusmana, E., K. Suwitodirdjo & Suharsono (1991)- The geology of the Serang quadrangle, Jawa (Quadr. 1109-6, 1110-3), 1: 100, 000. Geological Research Development Centre (GRDC), Bandung, p. 1-19.

Rutten, L. (1914)- Studien uber Foraminiferen aus Ost-Asien, 7. Zwei Fundstellen von *Lepidocyclina* aus Java. Sammlungen Geologischen Reichs-Museums Leiden (1), 9, p. 322-324.
(online at: www.repository.naturalis.nl/document/552393)
('Two localities with Lepidocyclina on Java'. W Java limestone belt between Cibadak- Sukabumi- Tagogapu (=Rajamandala Limestone; JTvG) characterized by large Lepidocyclina. Rutten not sure if earliest Miocene or Oligocene)

Rutten, L. (1916)- Vier dwarsprofielen door de Tertiaire mergelzone tusschen Soerabaja en Ngawi. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 3 (Molengraaff-volume), p. 149-152.
(online at: https://ia601908.us.archive.org/30/items/verhandelingenva3191geol/verhandelingenva3191geol.pdf)
('Four cross-sections through the Tertiary marl zone between Surabaya and Ngawi' (Kendeng zone))

Rutten, L. (1918)- On the rate of denudation in Java. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 20, 2, p. 838-848.
(online at: https://dwc.knaw.nl/DL/publications/PU00012275.pdf)
(English version of Rutten (1917) 'Over denudatiesnelheid op Java'. Large amounts of annual sediment discharge in modern rivers suggesting very high denudation rates on Java (~0.5-2.0 mm/year))

Rutten, L. (1918)- 'Old Andesites' and 'brecciated Miocene' to the East of Buitenzorg (Java). Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 20, 1, p. 597-608.
(online at: https://dwc.knaw.nl/DL/publications/PU00012250.pdf)
(Survey E of Bogor suggests Verbeek & Fennema (1896) assertion of presence of 'Old Andesites' in that area is incorrect; only rel. young volcanics and Miocene sediments without volcanic content are found)

Rutten, L.M.R. (1925)- Over de richting der Tertiaire gebergtevormende bewegingen op Java. Koninklijke Akademie van Wetenschappen, Amsterdam, Afd. Natuurkunde, 34, 1, p. 65-78.

('On the direction of Tertiary mountain building movements on Java'. See Rutten 1925 English version below)

Rutten, L.M.R. (1925)- On the direction of the Tertiary mountain-building movements in the Island of Java. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 28, 2, p. 191-203.
(online at: https://dwc.knaw.nl/DL/publications/PU00015144.pdf)
(English version of paper above. Vergence of thrusting not clear in W Java, but, unlike observations of Van Es and Ziegler, obvious N-directed folding in Kendeng zone, E Java)

Rutten, L.M.R. (1925)- On the origin of the material of the Neogene rocks in Java. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 29, 1, p. 15-33.
(online at: https://dwc.knaw.nl/DL/publications/PU00015249.pdf)
(Older Tertiary (~M Miocene and older) sands on Java mostly quartz-rich and from northerly, continental source. Late Tertiary- Quaternary more common volcanoclastics from South)

Rutten, L.M.R. (1927)- Chapters 5-9 on the geology of Java. In: L.M.R. Rutten (1927) Voordrachten over de geologie van Nederlandsch Indie, Wolters, Groningen, p. 54-143.
(online at: https://resolver.kb.nl/resolve?urn=MMKB02:000119126:pdf)
(Review of geology of Java in Rutten's classic lecture series)

Rutten, M.G. (1952)- Geosynclinal subsidence versus glacially controlled movements in Java and Sumatra. Geologie en Mijnbouw 14, 6, p. 211-220.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0S2czQkxZN3B5cE0/view)
(Critical discussion of Smit Sibinga (1949) paper on influence of glacial eustatic movements on E Java and SE Sumatra Plio-Pleistocene stratigraphy. Rutten sees no such influence)

Ryacudu, R. & A. Bachtiar (1999)- The status of the OO-Brebes fault system, and its implication to hydrocarbon exploration in the Eastern Part of North West Java Basin. Proc. 27th Annual Conv. Indonesian Petroleum Association (IPA), p. 1-12.
(E part NW Java basin little exploration success. It is delineated by N-S bounding fault N of Cirebon, W-facing normal fault, which is splay of NW-SE trending OO fault, and E-facing Cirebon fault onshore. Hydrocarbon accumulations (OO, X, Jatibarang, Cemara Fields) adjacent to this boundary. Most hydrocarbons in Paleogene clastic reservoirs. Paleogene deposits good reservoir quality and potential source rock from deltaic- lacustrine Talang Akar and upper Jatibarang Fms. Unsuccessful exploration in E part of NW Java Basin ('E Carbonate Shelf') due to lack of these deposits. N-S trending faults act as releasing double-bend structure of NW-SE right-stepping strike-slip fault system (OO and Brebes Faults), generated by Miocene N-S compressive stress and thought to be extensional regime of Cretaceous- Oligocene Meratus System, rejuvenated in Miocene)

Ryacudu, R., E. Purnomo, E. Sunardi, B.G. Adhiperdana & V. Isnainiwardhani (2006)- Vertical petrographic variation of mixed intrabasinal and extrabasinal detritus Klantung well, North Central Java Basin. Proc. 35th Annual Conv. Indonesian Association Geologists (IAGI), Pekanbaru 2006, 1p. *(Abstract)*
(online at: https://www.iagi.or.id/web/digital/15/2006_IAGI_Pekan-Baru_Vertical-Petrographic-Variation.pdf)
(Results of micropalaeontology and petrographic analyses of ditch cuttings of Klantung 1 well (50- 1360m; Lower Pliocene- Pleistocene) in North Central Java Basin)

Ryacudu. R., E. Purnomo, E. Sunardi, A. Kadarusman, J. Hutabarat, Nurdrajat & B.G. Adhiperdana (2006)- Petrographic compositional distinction between Jatibarang and Talang Akar Formations, Jatibarang sub-basin, North West Java basin. Proc. 35th Annual Conv. Indonesian Association Geologists (IAGI), Pekanbaru 2006, p. 1-8. *(online at: https://www.iagi.or.id/web/digital/15/2006_IAGI_Pekan-Baru_Petrographic-Compositional-Distinction.pdf)*
(Petrographic description of core samples from Eocene-Oligocene volcanoclastic Jatibarang Fm in four wells)

Sadjati, O., A.H.P. Kesumajana & R.P. Koesoemadinata (1999)- The utilization of paleo heatflow to define source rock maturaty: Case study at Ngimbang-01 well, North East Java Basin. Proc. 28th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 2, p. 115-120.

(online at: https://www.iagi.or.id/web/digital/65/8.pdf)
(In area of Ngimbang 1 well source rock may have matured by 34 Ma, using realistic variable heat flow model, whereas constant present-day heat flow predicts onset of maturity at 16 Ma)

Saefudin, I. (1994)- Pentarikhan jejak belah terhadap batuan terobosan dasit dan andesit daerah Pacitan, Jawa timur. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 4, 38, p. 18-25.
('Fission track dating of dacite and andesite intrusive rocks of the Pacitan area, East Java'. Absolute age of altered hornblende dacite at Tegalombo ~25km NE of Paciran: 30.8 ± 2.9 Ma (Late Oligocene). Fresh andesites at Mt Guling and Menteron E of Pacitan ~19.5 and 17.3 Ma (E Miocene))

Saefudin, I., S. Permanadewi & A.Sutarsih (1995)- Umur mutlak granodiorit, Cihara, Lebak, Jawa Barat. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 5, 41, p. 2-8.
('Absolute age of the Cihara granodiorite, Lebak, W Java'. Fission-track dating of zircon from granodiorite in Bayah area, SW Java, suggests E Miocene age (~21-23 Ma). K/Ar analysis of one sample 22.4 Ma ± 0.4 Ma)

Saerina, A.N., I.F. Romario & H. Nugroho (2016)- Central Java hydrocarbon potential: North Serayu petroleum system from source to trap based on geology, geochemistry, and geophysics analysis. Int. Petroleum. Technical Conf. (IPTC), Bangkok 2016, IPTC-18654-MS, p. 1-7.
(N Serayu Basin in C Java with oil seeps at Karangkobar, Majalengka, Suruh, Klantung, Sodjomerto, etc. Outcrop stratigraphy in Banjarnegara, geochemical analysis of rock samples of Totogan-Worawari Fms and oil samples in Klantung and Karangkobar, Cipluk Field, etc.)

Said, Salatun & Windiastuti (2009)- Analisis fasies dan lingkungan pengendapan Formasi Tuban, Jawa Timur Utara. J. Ilmiah Magister Teknik Geologi (UPN) 2, 2, p. 1-14.
(online at: http://jurnal.upnyk.ac.id/index.php/mtg/article/view/188/150)
('Facies analysis and depositional environment of the Tuban Formation, NE Java'. Brief descriptions of E Miocene carbonate (Sr ages ~20.2- 15.2 Ma) in PetroChina wells ANC 1-3 (real name Sukowati?; JTvG). Five major lithofacies facies. Environments lagoon, back reef, reef, and fore reef. With log correlation figure)

Saint-Marc, P. & Suminta (1979)- Biostratigraphy of Late Miocene and Pliocene deep water sediments of eastern Java, Indonesia. J. Foraminiferal Research 9, 2, p. 106-117.
(online at: http://jfr.geoscienceworld.org/content/9/2/106.full.pdf)
(Planktonic foram biostratigraphic study of Late Miocene- Pliocene Globigerina Marls Fm of Ngepung section, ENE of Ngawi, Kendeng zone, E Java. Marls with sandy and tuffaceous intercalations, 640m thick, with abundant planktonic foraminifera. Correlation with Bodjonegoro sequence relatively easy)

Saito T. (ed.) (1981)- Micropaleontology, petrology and lithostratigraphy of Cenozoic rocks of the Yogyakarta region, Central Java. Special Publ. Dept. Earth Science, Yamagata University, Japan, p. 1-61.
(Collection of papers reporting on fieldwork around Yogyakarta. Measured sections and micropaleontologic content at Pereng (E-M Miocene; N8-N12), Niten (E Miocene, N7), Djurang (M Miocene, N14-N15), Kalisonggo/ Nanggulan (Eocene), Oyo River (E-M Miocene, N4-N10) and Bayat (Eocene))

Saito, T. (1981)- Metamorphic and related rocks from Jiwo Hills near Yogyakarta, Java. In: T. Saito (ed.) Micropaleontology, petrology and lithostratigraphy of Cenozoic rocks of the Yogyakarta region, Central Java. Special Publ. Dept. Earth Science, Yamagata University, Japan, p. 7-14.

Samankassou, E., A. Mazzini, M. Chiaradia, S. Spezzaferri, A. Moscariello & D. Do Couto (2018)- Origin and age of carbonate clasts from the Lusi eruption, Java, Indonesia. Marine and Petroleum Geology 90, p. 138-148.
(online at: https://folia.unifr.ch/documents/306655/files/spe_oac.pdf?download)
(Carbonate clasts from Lusi feeder conduit brecciated and mobilized to surface were buried possibly as deep as ~3.8 km. Since deeper carbonate samples erupted in 2006 belong to typically not overpressured Kujung Fm, an additional overpressure may be generated from deeper units (Ngimbang Fm) (dating mainly by Sr-isotopes)).

Samodra, A., W. Waluyo, D.S. Widarto, Sardjito, E. Purnomo & El. Biantoro (2009)- Seismic and magnetotelluric studies of the Kawengan oil field and Banyuasin oil prospect, North East Java Basin, Indonesia. Proc. 9th SEGJ Int. Symposium Imaging and interpretation, Sapporo, p. 1-4. *(Extended Abstract)*
(MT survey supports presence of three Kujung Fm carbonate build-ups in area of Kawengan oilfield and Banyuasin area, C Java)

Samodra, H. (2016)- Batupasir kuarsa Wediwutah: asal kuarsa dan informasi keragaman geologi Formasi Wonosari, Kabupaten Gunung Kidul. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 17, 2, p. 73-84.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/20/19)
('The Wediwutah quartz sandstone: quartz provenance and information of geodiversity of the Wonosari Formation, Gunung Kidul Regency'. Quartz sst in basal part of Wonosari Fm Wediwutah area of S Mountains. Fission-track ages of zircon in quartz sandstones of Wediwutah 12.6 ± 1.2 Ma and from Gombang 24.3 ± 2.9 Ma. Possibly derived from different sources, i.e. Miocene Oyo Fm tuffs and Semilir Fm)

Samodra, H., S. Gafoer & S. Tjokrosapoetro (1992)- Geology of the Pacitan Quadrangle, Jawa, 1507-4. Geological Research Development Centre (GRDC), Bandung, Explanatory Notes 22p. + map.

Samodra, H., Suharsono, S. Gafoer & T. Suwarti (1992)- Geology of the Tulungagung Quadrangle, Jawa, 1507-5. Geological Research Development Centre (GRDC), Bandung, Explanatory notes 16p. + map.

Samodra, H., G.S. Suharsono & T.Suwarti (1992)- Geology of the Tulugagung Quadrangle, Java. (1057-5), 1:100,000. Geological Research Development Centre (GRDC), Bandung.

Samodra, H. & K. Sutisna (1997)- Geologic map of the Klaten (Bayat), sheet Jawa, scale 1:50.000. Geological Research Development Centre (GRDC), Bandung.

Samodra, H. & S. Wiryosujono (1993)- Stratigraphy and tectonic history of the eastern Southern Mountains, Jawa, Indonesia. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 3, 17, p. 14-22.
(Review of S Mountains geology, C Java. Widespread Late Oligocene- E Miocene volcanics (Nglanggran volcanic arc in W, Mandalika arc in E, with more submarine volcanism), with Manda. Eocene-Miocene rocks in S Mountains only slightly folded;in W (Bayat) segment general dips of 15-30° to S; faulting more common. Two continental fragments postulated in S Mountains, Bayat (with pre-Eocene schists and phyllites) and Mandalika)

Sampurno & Samodra (1991)- Geological map of the Ponorogo Quadrangle, Jawa (1508-1), 1: 100,000. Geological Research Development Centre (GRDC), Bandung, p. 1-19.

Sampurno, G., R. Kapid & D.M. Barmawidjaja (1996)- Analisis foraminifera kuantitatif pada kala Pliosen di daerah Ledok Kabupaten Blora, Jawa Tengah. Proc. 25th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 16-30.
('Quantitative analysis of Pliocene foraminifera of the Ledok area, C Java')

Samuel, L. & M. Johannes (1986)- Perlapisan silang-siur sebagai penunjuk arah arus purba di daerah Utara Cepu, Jawa Tengah. Proc. 15th Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta 1986, p. 504-519.
(online at: https://www.iagi.or.id/web/digital/44/PIT-IAGI-1986-Vol-2-Paper-18.pdf)
('Cross-bedding as a guide to ancient current direction of currents in the North Cepu area'. Focused on outcrops of Late Miocene Ledok Formation in Rembang zone, NE Java. All pointing to N to S sand transport)

Sano, S.I. (1978)- Gravity anomalies associated with island arcs. Proc. 3rd Regional Conference on Geology and Mineral Resources of SE Asia (GEOSEA III), Bangkok, Asian Institute of Technology, p. 173-176.
(Volcanic arcs typically associated with positive Bouguer gravity anomalies)

Sano, S.I., M. Untung & K. Fuji (1978)- Some gravity features of island arcs of Jawa and Japan and their tectonic implications. In: M. Untung & Y. Sato (eds.) Gravity and geological studies in Jawa, Indonesia. Geological

Survey Indonesia and Geological Survey of Japan Joint Research Program on Regional Tectonics of Southeast Asia, GRDC Special Publ. 6, p. 183-207.

Santosa, S. & S. Atmawinata (1992)- Geology of the Kediri Quadrangle, Jawa. Quadrangle 1508-3, 1:100,000. Geological Research Development Centre (GRDC), Bandung, p. 1-18.

Santosa, K. & E.A. Subroto (2006)- Revealing undetected geological structure within Ngimbang Formation in the Ngimbang-1 well, Northeast Java Basin, Indonesia, based on vitrinite reflectance data. Proc. 35th Conv. Indonesian Association Geologists (IAGI), Pekanbaru, PITIAGI2006-054, p. 1-8. *(online at: https://www.iagi.or.id/web/digital/15/2006_IAGI_Pekan-Baru_-Revealing-Undetected-Geological.pdf)*
(Maturation studies for several E Java wells. In Ngimbang 1 at ~2500m sudden increase in vitrinite and spore color, suggesting normal fault within Eocene Lower Ngimbang Fm, between Kujung High and Ngimbang low)

Santosa, S. & T. Suwarti (1992)- Geology of the Malang Quadrangle, Jawa (1608-1), 1:100,000. Geological Research Development Centre (GRDC), Bandung, p. 1-25. + map

Santoso, B. (2010)- Petrographic properties of Palaeogene Southern Banten coal seams with regard to geologic aspects. Indonesian Mining J. 13, 2, p. 75-82.
(online at: http://jurnal.tekmira.esdm.go.id/index.php/imj/article/view/530/394)
(Paleogene coal deposits in three fields in Banten, SW Java: (1) Bayah coals in Eocene Bayah Fm mainly vitrinite and subordinate inertinite; sub-bituminous A to high volatile bituminous A (Ro 0.60-0.79%); (2) Cihideung coals in Bayah Fm sub-bituminous A to medium volatile bituminous (Ro 0.53-1.23%), and (3) Cimandiri coals in Oligocene Cijengkol Fm sub-bituminous A and high volatile bituminous A (Ro 0.6- 0.83%). Most coals high pyrite contents, mainly in Bayah coals (2-13%), indicating marine influence during deposition)

Santoso, B. & B. Daulay (2007)- Maceral and mineral analysis of Lebak coals. Indonesian Mining J. 10, 8, p. 1-9.
(online at: https://core.ac.uk/download/pdf/233590778.pdf)
(Coals from Lebak region of SW Java, incl. Paleogene Bayah, Cimandiri and Cihideung coalfields and Neogene Bojongmanik coalfield. Lebak coals dominated by vitrinite, liptinite and minor inertinite and mineral matter. Eocene sediments generally strongly folded, in Cimandiri area coal seam dips up to 90°. Seams seldom >1 m. Vitrinite Reflectance of Paleogene coals (0.53-0.83%), higher than Neogene (0.34-0.41%), due to greater sediment cover and local igneous intrusions. Most obvious trend for Lebak coals is decrease in liptinite and increase in vitrinite from Neogene to Paleogene. Palaeogene coals better quality than Neogene coals. Coals with >1% pyrite tend to be prone to spontaneous combustion)

Santoso, B. & N.S. Ningrum (2003)- Karakteristik batubara Bojongmanik berdasarkan analisis megaskopis, petrografis dan proksimatnya. Pros. Kolokium Energi dan Sumber Daya Mineral 2003, Puslitbang tekMIRA, Bandung, p.

Santoso, B. & N.S. Ningrum (2008)- Petrographic analyses of coal deposits from Cigudeg and Bojongmanik areas with regard to their utilisation. Indonesian Mining J. 11, 2, p. 42-48.
(online at: http://jurnal.tekmira.esdm.go.id/index.php/imj/article/view/594/456)
(Petrography of rel. thin Late Miocene coals in Bojongmanik Fm of W Java. Six seams, 0.2- 1.0m thick, one seam in Bojongmanik 1.5- 2.2m thick. Grade lignite- subbituminous)

Santoso, B., A.D. Zeiza & F.P. Nugroho (2007)- Neogene tectonic and sedimentary control to hydrocarbon generation in Banyumas sub-Basin, South of Central Java. Proc. 31st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA07-SG-002, p. 1-6.
(Review paper; not much new)

Santoso, D., Alfian, L. Hendrajaya, J.S. Watkins, S. Alam & S. Munadi (1995)- Estimation of Parigi reservoir characteristics using seismic attributes, AVO analysis and AVO inversion, and seismic inversion. Soc. Explor. Geophysics (SEG) Annual Meeting, Houston 1995, Expanded Abstracts, p. 577-580. *(Extended Abstract)*

(Seismic imaging and reservoir interpetation of M Miocene Parigi Fm carbonate buildups in NW Java Basin)

Santoso, D. & M.E. Suparka (1994)- Penafsiran gaya berat, magnetik dan geologi kompleks melange Luh Ulo, Jawa Tengah. Jurnal Teknologi Mineral (ITB) 1, 1, p.
('Gravity, magnetic and geological interpretation of Luh Ulo melange complex, Central Java'. Cretaceous-Paleocene melange Complex in Karangsambung area, ~20 km N of Kebumen, C Java, can be divided into two units: Jatisamit Melange and Seboro Melange, differing by less or more abundant exotic blocks. Blocks of sedimentary rocks, metamorphic rocks and ophiolite members such as pillow lava, gabbro and serpentinite, all embedded in sheared clay matrix. Overlain by Eocene olistostromes and younger sediments. Ophiolite Complex in same area interpreted to be from mid-oceanic ridge of Cenomanian age)

Santoso, D. & M.E. Suparka (2001)- Geological interpretation of the melange Complex, Luh Ulo, Central Java based on gravity and magnetic data. In: Selected papers on the geodynamics of the Indonesian regions, Jurnal Geofisika, Special Edition, Indonesian Association Geophysicists (HAGI), p. 1-399.

Santoso, D., E.J. Wahyudi, S. Alawiyah, A.D. Nugraha, S. Widiyantoro, W.G.A. Kadir, P. Supendi, S. Wiyono & Zulkafriza (2017)- Subsurface structure interpretation beneath of Mt. Pandan based on gravity data. In: Southeast Asian Conference on Geophysics, Bali 2016, IOP Conference Series: Earth and Environmental Science 62, 012038, p. 1-6.
(online at: http://iopscience.iop.org/article/10.1088/1755-1315/62/1/012038/pdf)
(Gravity measurements show low density structure beneath dormant Mt. Pandan volcano in E Java. May be interpreted as subsurface magma body, and suggest possibility of magmatic activity below Mt. Pandan)

Santoso, D., E.J. Wahyudi, W.G.A. Kadir, S. Alawiyah, A. D. Nugraha, P. Supendi & W.W. Parnadi (2018)- Gravity structure around Mt. Pandan, Madiun, East Java, Indonesia and its relationship to 2016 seismic activity. Open Geoscience (De Gruyter) 10, p. 882-888.
(online at: https://www.degruyter.com/document/doi/10.1515/geo-2018-0069/pdf)
(Gunung Pandan modern, but currently inactive, volcano in Kendeng zone, NE Java. Gravity survey suggests shallow low density anomaly beneath Mt. Pandan, probably related to magma source. Clusters of small earthquakes at depths of <30 km beneath Mt. Pandan, with focl mechanisms suggesting strike-slip and oblique thrust faulting, probably related to Kendeng Thrust fault segment N of Mt. Pandan)

Santoso, W.D., H. Insani & R. Kapid (2014)- Paleosalinity conditions on Late Miocene- Pleistocene in the North East Java Basin, Indonesia, based on nannoplankton population changes. J. RISET Geologi dan Pertambangan (LIPI) 24, 1, p. 1-11.
(online at: http://jrisetgeotam.com/index.php/jrisgeotam/article/view/77/pdf_21)
(In Rembang zone of NE Java Basin peaks in abundance of nannofossil species Calcidiscus leptoporus and Helicosphaera carteri used to infer rel. hyposaline conditions in Late Miocene Ledok and Late Pliocene-E Pleistocene Selorejo Fms)

Santoso, W.D., H. Insani, Y. Rizal & R. Kapid (2014)- Nannoplankton population as indicator of sea level change in Gunung Panti Area, North East Java Basin. Proc. International Conference Transdisciplinary Research on Environmental Problem in Southeastern Asia (TREPSEA 2014), p. 1-7.
(online at: www.researchgate.net/publication/309391354_Nannoplankton_Population_as_Indicator_ Etc.)

Santy, L.D., A. Koesworo, R. Fakhruddin, R. Setiawan & D. Irawan (2009)- Ichnologi dan sedimentologi untuk pemodelan facies sedimentasi pada Formasi Sambipitu-Oyo, Pegunungan Selatan, Yogyakarta. Proc. Workshop Geologi Pegunungan Selatan, Yogyakarta 2007, Pusat Survei Geologi, Bandung, Special Publ. 38, p. 209-233.
('Ichnology and sedimentology for sediment facies modeling in the Sambipitu-Oyo Formations, Southern Mountains, Yogyakarta'. Sandstones of E-M Miocene Sambipitu and Oyo Fms in Southern Mountains SE of Yogyakarta with locally common trace fossils, incl. Skolithos, Planolites, Chondrites, Thalassinoides, Subphyllochorda and Scolicia. Eight facies associations in Ngalang River, from tidal, shoreface to 'lobe' facies)

Sanyoto, S. (2009)- Biostratigrafi dan biodatum foraminifera planktonic sumur-95 di daerah Cepu, Kabupaten Blora Jawa Tengah. J. Teknologi Technoscientia (AKPRIND) 1, 2, p. 238-246.
(online at: https://journal.akprind.ac.id/index.php/technoscientia/article/view/402)
(Late Pliocene- Pleistocene planktonic foraminifera from Mundu (337-340m; N20), Selorejo (322-337m; N21) and Lidah (3-322m; N22-N23) formations in Cepu well 95. Three biodatums: Globorotalia tosaensis tenuitheca, Gr. truncatulinoides and Globigerina calida (see also Maha & Sanyoto 2000; benthic foraminifera of same well))

Sanyoto, S. (2010)- Zonasi foraminifera planktonik daerah Gunung Kinjeng dan Gunung Gede Kecamatan Sentolo Kabupaten Kulon Progo daerah Istimewa Yogyakarta. J. Teknologi Technoscientia (AKPRIND) 2, 2, p. 239-247.
(online at: https://journal.akprind.ac.id/index.php/technoscientia/article/view/452/336)
('Planktonic foraminifera zonation in the areas of Mount Kinjeng and Mount Gede, Sentolo District, Kulon Progo Regency, Special Region of Yogyakarta'. Partsof Sentolo Fm, M Miocene (N9 and N12-N14). No locality map or stratigraphic section)

Sapardina, D., R. Sekti, F. Musgrove & N. Stephens (2013)- Tight rinds in SE Asia Oligo-Miocene isolated carbonate platforms. Proc. 37th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA13-G-195, p.
(Wells drilled near edge of Oligo-Miocene isolated carbonate platforms in Cepu Block, E Java basin, have low porosity (~8% compared to 20-35% in Platform Interior in most fields). Tight zones ~400' wide, on oceanward and landward edges, and caused by combination of depositional and diagenetic processes, primarily lack of leaching that makes Platform Interior good reservoir. Similar to Malampaya field, Philippines)

Sapei, T., A.H. Suganda, K.A.S. Astadiredja & Suharsono (1992)- Geology of the Jember Quadrangle, Jawa, 1607-6 and 1607-3, scale 1:100,000. Geological Research Development Centre (GRDC), Bandung, p. 1-9.
(Southern Mountains of E Java, with folded Oligo-Miocene sediments and volcanics in S and widespread Quaternary volcanics in North)

Sapiie, B., R. Anshory, S. Susilo & Putri (2007)- Relationship between fracture distribution and carbonate facies in the Rajamandala limestone of West Java region. Proc. 31st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 1-8.
(Fracture characteristics strongly dependent on carbonate facies. Stylolites more common in boundstone facies than in wacke- and packstones. Fracture density also higher in boundstone facies. Fracture density also controlled locally by presence of faults and folds)

Sapiie, B., I. Gunawan, A. Herlambang, M. Rismawaty, A. Rifiyanto, S. Rahardjo, A. Samudra & P.R. Putra (2017)- Problems in conducting fault seal analysis in carbonate reservoir. Proc. 41st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA17-263-G, p. 1-8.
(Fault Seal Analysis study in Rajamandala limestone near Bandung. Faults in carbonates generally leaking)

Sapiie, B., A.H. Harsolumakso & S. Asikin (2006)- Paleogene tectonics evolution and sedimentation of East Java Basin. AAPG International Conference, Perth, p. *(Abstract only)*

Sapiie, B., A. Pamumpuni, E.S. Lanin, I. Janata, D. Nugroho & T. Simo (2011)- Carbonate fractured reservoir characterization using analogue outcrop study of the Rajamandala Carbonate Complex, West Java. Proc. 35th Annual Conv. Indonesian Petroleum Association (IAP), Jakarta, IPA11-G-190, p. 1-16.
(Fracture distribution and characteristics in Late Oligocene Rajamandala Limestone outcrops dependent on carbonate facies)

Sapiie, B., A. Pamumpuni, I.J. Saputra, E. Lanin, A.M. Surya Nugraha, W. Kurniawan, L.A. Perdana, M.A. Riswanty, A. Herlambang & T. Simo (2011)- Structural characterization of the Rajamandala Limestone. In: B. Sapiie & T. Simo, The stratigraphy and structure of the Oligocene (Chattian) Rajamandala Limestone, Bandung, Western Java, Indonesia, Indonesian Petroleum Association Field Trip, p. 1-8.

Sapiie, B., D. Noeradi, A.M. Suryanugraha, W. Kurniawan, T. Simo & D. Nugroho (2010)- Palinspatic reconstructions of Rajamandala carbonate complex as implication of paleogeography in the Western Java, Indonesia. Proc. 34th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA10-G-057 3D, p. 1-12.
(Rajamandala Carbonate Complex N-verging, ENE-WSW trending thrust-fault system, with~50% shortening. Rajamandala platform carbonate complex developed on NNE-SSW regional basement high, with Cimandiri fault acting as shelf edge. Youngest Plio-Pleistocene deformation parallel to pre-existing structure, suggesting basement- involved deformation)

Sapiie, B., A. Shirly & A. Badai (2006)- Fault zone characterization and fault seal analysis in the Gunung Walat area, West Java. Proc. 35th Annual Conv. Indonesian Association Geologists (IAGI), Pekanbaru- Riau 2006, p.
(Abstract Only
(Study of study of fault characterization and sealing capacity in quartz sandstone of (Eocene) Bayah Fm at Gunung Walat, W Java. Lithology, thickness and fault throw are main factors in controlling fault zone thickness. Fault thickness distributed unevenly along fault plane. Fracture density increase closer to fault zone)

Saputra, R. & Akmaluddin (2015)- Biostratigrafi nannofosil gampingan Formasi Nanggulan bagian bawah berdasarkan batuan inti dari Kec. Girimulyo dan Kec. Nanggulan, Kab. Kulon Progo, DI Yogyakarta. Proc. Seminar Nasional Kebumian 8, Dept. Teknik Geologi, Gadjah Mada University, Yogyakarta, p. 400-412.
(online at: https://repository.ugm.ac.id/135460/)
('Calcareous nannofossil biostratigraphy of the Lower Nanggulan Formation based on core from Girimulyo and Nanggulan, Kulon Progo District, DI Yogyakarta'. 175m of UGM-cored section of Songo Beds and Watupuru Beds zones NP15-NP17, Middle Eocene)

Saputra, S.E., A. Amir, A.H. Satyana & N.A. Ascaria (2005)- Sedimentology of the Wonosari carbonates, Southern Yogyakarta: outcrop study and petroleum implications. Proc. Joint Convention 30th HAGI and 34th Annual Conv. Indonesian Association Geologists (IAGI), Surabaya 2005, p.

Saputra, S.E., A.H. Satyana, E. Biantoro & M.I. Novian (2006)- Exploration challenge in Kendeng Zone, Indonesia: outcrop study and petroleum implication to identify a potential deepwater play system. Proc. 35th Annual Conv. Indonesian Association Geologists (IAGI), Pekanbaru, p.

Saputro, A.A. & N.I. Setiawan (2016)- Studi petrologi dan geokimia batuan metamorf jalur Sungai Muncar, Desa Seboro, Kemamatan Sabang, Kabupaten Kebumen, Provinsi Jawa Tengah. In: R. Hidayat et al. (eds.) Proc. Seminar Nasional Kebumian 9, Dept. Teknik Geologi, Gadjah Mada University, Yogyakarta, p. 512-529.
(online at: https://repository.ugm.ac.id/273555/)
(Study of the petrology and geochemistry of metamorphic rocks of the Muncar River, Seboro Village, Sadang District, Kebumen, C. Java'. Metamorphic rocks from Muncar River in Lok Ulo complex low P to high P facies (increasing to N?): greenschist, amphibolite, glaucophane blueschist and eclogite. Reflect orogenic metamorphism in subduction environment. Tourmaline-bearing facies probably derived from MORB basalt, eclogite phengite from oceanic intra-plate basalt (OIB). Also presence of serpentinite, marble)

Sardjono (2006)- Crustal architecture of Java Island, Indonesia- an approach via constrained gravity modeling. Proc. IPA-AAPG Jakarta 2006 International Geoscience Conference and Exhib. OT-16, p. 1-5.
(Gravity modeling along seven N-S transects show Java island composed of continental crust, but in places high gravity anomalies with rel. short wavelengths suggest fragments of upper mantle material close to surface)

Sari, R., I.K. Andika, A. Haris & A. Miftah (2018)- Identification of detrital carbonate in East Cepu High. Proc. 41st HAGI Annual Conv. Exhib. 2016, IOP Conference Series: Earth and Environmental Science 132, 012019, p. 1-6.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/132/1/012019/pdf)
(On seismic expression of detrital carbonates at flanks of Oligo-Miocene carbonate buildups)

Sari, R. & S. Husein (2012)- Sedimentasi gaya berat Formasi Kebo bagian bawah, daerah Mojosari, Kecamatan Bayat, Kabupaten. Proc. 41st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2012-SS-02, p. 1-4.
(online at: https://www.iagi.or.id/web/digital/9/2012_IAGI_Yogyakarta_Sedimentasi-Gaya-Berat-Formasi-Kebo-Bagian-Bawah.pdf)
('Gravity deposition in lower part of Kebo Formation, Mojosari area, Bayat District'. Mid-Oligocene Lower Kebo Fm in S Mountains SE of Yogyakarta is bathyal submarine fan deposit (similar to Husein & Sari, 2011))

Sari, R., I.K.A.A. Permana, R. Fikri & Y. Prakasa (2018)- Understanding Paleogene depositional environment in East Cepu High using geochemistry as an approach for exploration opportunity in North East Java Basin. Proc. 42nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA18-156-G, p. 1-8.
(East Cepu High NE-SW trending Paleogene paleo-high, with several oil-gas fields in Oligo-Miocene carbonate build-ups. Hydrocarbons from Paleogene Ngimbang Fm source rocks, but from different environments. Hydrocarbons in SE from fluvio-deltaic deposits, in NW from deltaic-shelf deposits)

Sari, R.A.P., Winantris, L. Fauzielly, A.G.R. Jayanti, Aswan & U.P. Wibowo (2019)- Depositional environmental changes of Cimanceuri Formation based on mollusk fossil assemblages in Bayah, Banten Province. J. Geoscience Engineering Environment Technology (JGEET) 4, 2, p. 66-75.
(online at: https://journal.uir.ac.id/index.php/JGEET/article/view/2986/1832)
(At least 17 shallow marine- subtidal mollusc associations in 4m thick outcrop of Pliocene Cimanceuri Fm in Bayah area, Banten, SW Java. Age: Sonde Stage of Oostingh (1938), with Turritella bantamensis tjicumpaiensis and Scapharca gedinganensisas as index fossils)

Sarmili, L., U. Kamiludin & R. Suprijadi (2002)- Uplifted coral reef of Paciran Formation in East Java. Bulletin of the Marine Geology 17, 1, p.

Sarmili, L., U. Kamiludin, Supriyadi & Rahadian (1999)- Marine and coastal iron sand (magnetite) distribution in Cilacap region, Central Java. Bulletin of the Marine Geology14, 2, pp. 1-8.

Sarmili, L. & D. Setiady (2015)- Pembentukan prisma akresi di Teluk Ciletuh kaitannya dengan sesar Cimandiri, Jawa Barat. J. Geologi Kelautan 13, 3, p. 173-182.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/272/262)
('The formation of accretionary prisms at Ciletuh Bay in relation to the Cimandiri Fault, West Java'. Series of thrust faults interpreted on (shallow) seismic profiles at Ciletuh Bay, interpreted as accretionary prism)

Sartika, D.N., I.W. Warmada, B.H. Harahap & Widiasmoro Soewondo (2009)- Late Oligocene tholeiitic lava from Kenanga River, Tegalombo, Pacitan, East Java. J. Southeast Asian Applied Geology (UGM) 1, 1, p. 1-8.
(online at: https://jurnal.ugm.ac.id/jag/article/view/6671/5219)
(Late Oligocene pillow basalts at Kenanga River, 5 km SE of Watupatok. Porphyritic- aphyric texture, vesicular-amygdaloidal, with plagioclase and pyroxene phenocrysts in volcanic glass matrix. Geochemical indicates tholeiitic island arc basalt)

Sartono (1961)- Shifting of the coastline and interfingering in the Neogene of the easternmost part of the Gunung Sewu, Punung, Pacitan (East Java). Contributions Department of Geology, Institute of Technology Bandung (ITB) 48, p. 3-19.

Sartono, S. (1964)- Stratigraphy and sedimentation of the easternmost part of Gunung Sewu (East Djawa). Geological Survey Indonesia, Bandung, Publikasi Teknik- Seri Geologi Umum 1, p. 1-95.
(Rel. extensive study of stratigraphy and M Miocene carbonate development in Southern Mountains and W Progo Mountains, S Central Java. 'Thousand Hills limestones interpreted as small reefal bioherms, not 'cone karst' (latter interpretation more prevalent today; JTvG))

Sartono, S. (1984)- Orogenesa intra-Miosen di Indonesia. Proc. 13th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, p.

('Intra-Miocene orogeny in Indonesia')

Sartono, S. (1990)- Extensive slide deposits in Sunda Arc geology, the Southern Mountain of Java, Indonesia. Buletin Geologi (ITB) 20, p. 3-13.

Sartono, S. & H. Murwanto (1987)- Olistostrome sebagai dasar batuan di Jawa. Proc. 16th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, p.
('Olistostrome as basal rock in Java')

Sartono, S. & H. Murwanto & K.A.S. Astadiredja (1986)- Perbukitatan Jiwo, Jawa Tengah: melange poligenetik. Proc. 15th Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, p. 670-691.
(online at: https://www.iagi.or.id/web/digital/44/PIT-IAGI-1986-Vol-2-Paper-28.pdf)
('The Jiwo Hills, Central Java: polygenetic melange'. The Jiwo Hills area yield metamorphic rocks (schist, gneiss, phyllite), Cretaceous Orbitolina metalimestone, Eocene Gamping and Wungkal Fms Nummulites Limestone, with a basal quartz conglomerate. Pretertiary and Eocene rocks now believed to be olistoliths in Eocene melange, here named Jiwo olistostrome. Olistostrome stratigraphically overlain by Miocene limestone. Remarkable absence 'Old Andesites", which are very thick along the Southern Mountains, just to S of Jiwo)

Sasongko, W., F.H.M. Mahendra, F. Buha D & M.R. Legi H (2016)- Kajian tatanan tektonik, asal batuan dan iklim purba pada batupasir Formasi Nanggulan berdasarkan analisis petrografi. In: R. Hidayat et al. (eds.) Proc. Seminar Nasional Kebumian 9, Dept. Teknik Geologi, Gadjah Mada University, Yogyakarta, p. 530-545.
(online at: https://repository.ugm.ac.id/273761/1/C-11.pdf)
('Study of tectonic setting, provenance and paleoclimate of the Nanggulan Formation sandstone based on petrographic analysis'. Petrography of Eocene Nanggulan Fm sst of Kulon Progo Dome, C Java, suggests changes in provenance from lower sands from continental block (granitic rock of E Java microcontinent) followed by recycled orogen (low-grade metamorphics; folding-uplift of E Java microcontinent) to undissected magmatic arc in upper Nanggulan Fm (onset of magmatic arc activity). Climate humid-subhumid)

Sastramihardja, T. (1991)- Pola struktur dan periode deformasi daerah Cihara, Banten Selatan- Jawa Barat. J. RISET Geologi dan Pertambangan (LIPI) 10, 1, p. 42-52.
('Structural pattern and deformation periods of the Cihara area, South Banten, West Java'. SW Java 3 deformation periods: (1) Pretertiary compression with axis of N355°E, (2) Oligo-Miocene compression with N5°E axis and (3) M Miocene NE-SW compression with dextral strike-slip faulting))

Sato, T., Rendy, D. Syavitri, E. Widianto, D. Priambodo, M. Burhannudinnur & A. Prasetyo (2016)- Unconformities detected by high-resolution calcareous nannofossil biostratigraphy and its effect on petroleum system in Northeast Java Basin. Proc. 14th Regional Conference Geology and Mineral Resources of SE Asia (GEOSEA XIV) and 45th Annual Conv. Indonesian Association Geologists (IAGI) (GIC 2016), Bandung, p. 461-466.
(Calcareous nannofossil biostratigraphy of NE Java basin well DDR-1 (Dander 1), interval 110- 2241m (= shale above Ngimbang Lst). Age E Miocene- latest E Pliocene (NN3-NN15). Four unconformities: (1) 1100m (10.54-10.79 Ma); (2) 720m (9.56- 9.67 Ma); (3) 560m (8.52- 8.76 Ma); and (4) 380m (4.0- 7.17Ma). Sedimentation rates 20-40cm/ 1000 years with unconformities. Unconformities correlated to global climatic events such as Asian monsoons intensification (8 -10Ma) and Messinian salinity crisis (5.5Ma) and may be related to global eustacy changes (see also Rendy et al. 2024))

Satria, E.K. S. Surjono & D.H. Amijaya (2019)- Sejarah geologi pembentukan Cekungan Banyumas serta implikasinya terhadap sistem minyak dan gas. Dinamika Rekayasa (DINAREK) (UNSOED) 15, 1, p.:25-34.
(online at: https://www.researchgate.net/publication/336236531_Sejarah_Geologi_Pembentukan_Cekungan_Banyumas_Serta_Implikasinya_Terhadap_Sistem_Minyak_dan_Gas_Bumi)
('Geological history of the formation of the Banyumas Basin and its implication for petroleum systems'. Banyumas Basin in southern onshore of C Java, has common oil and gas seeps. Five wells drilled but no economic discoveries. Basin originally a deep sea, then began to form a flexure basin in Late Oligocene. In Miocene volcanic arc formed N of Southern Mountains and continued to move N to present Mt Slamet. Etc.)

Satyana, A.H. (1989)- Studi petrotektonik kerabat ofiolit pada kompleks melange Gunung Badak, Ciletuh, Kecamatan Ciemas, Kabupaten Sukabumi, Jawa Barat. Thesis Jurusan Geologi, Padjadjaran University, Bandung, p. *(Unpublished)*
(Petrotectonic study of ophiolite members of the Gunung Badak melange complex, Ciletuh, Ciemas District, Sukabumi, West Java')

Satyana, A.H. (2002)- Oligo-Miocene reefs: East Java's giant fields. In: F.H. Sidi & A. Setiawan (eds.) Proc. Giant field and new exploration concepts Seminar, Indonesian Association Geologists (IAGI), Jakarta 2002, p. 45-62. *(online at: https://www.academia.edu/12961914/OLIGO_MIOCENE_REEFS_EAST_JAVA_S_GIANT_FIELDS)*
(On recent discovery of two giant fields in Oligocene- Early Miocene Kujung- Prupuh carbonates in E Java Basin: Bukit Tua-Jenggolo (Gulf/ConocoPhillips, 2001; land-attached platform) and Banyu Urip (ExxonMobil Cepu, 2001; isolated buildup)

Satyana, A.H. (2003)- Deep-water sedimentation of Java: hydrocarbon opportunities and resistance. Indonesian Petroleum Association (IPA) Newsletter, October 2003, p. 8-13.
(Hydrocarbon play potential in deep marine Tertiary basinal areas of Java (Bogor Basin, Serayu, Kendeng, East Java basins)

Satyana, A.H. (2005)- Structural indentation of Central Java: a regional wrench segmentation. Proc. Joint Convention 34th Annual Conv. Indonesian Association Geologists (IAGI) and 30th Annual Conv.HAGI, Surabaya, p. 193-204. *(online at: https://www.academia.edu/12285043/STRUCTURAL_INDENTATION_OF_CENTRAL_JAVA_A_REGIONAL_WRENCH_SEGMENTATION)*
(Indentation of coastlines of N and S Central Java caused by two major Paleogene wrench faults with opposing trends and slips which terminate in southern C Java near Nusa Kambangan: (1) Muria-Kebumen Fault, left-lateral, trending SW-NE (Meratus trend); and (2) Pamanukan-Cilacap Fault, right-lateral, trending NW-SE (Sumatran trend). Maximum uplift of Cilacap-Kebumen exposed basement rocks in Luk Ulo area. S of maximum uplift region submergence of Southern Mountains across southern C Java)

Satyana, A.H. (2005)- Oligo-Miocene carbonates of Java, Indonesia: tectono-volcanic setting and petroleum implications. Proc. 30th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 217-249.
(Java Oligo-Miocene carbonates widely distributed, during time of "Old-Andesite" volcanism. Two trends: (1) North (Cepu-Surabaya-Madura, North Central Java and Ciputat-Jatibarang areas), comprising Kujung, Tuban, Baturaja and M Cibulakan formations and (2) South (Gunung Kidul- Banyumas- Jampang- Bayah- Sukabumi-Rajamandala). N Trend carbonates in back-arc setting, 75-150 km from contemporaneous volcanic arc in S Java. S Trend reefs on ridges in Bayah-Sukabumi-Padalarang areas not contemporaneous with volcanism. Volcanic quiescence across Java from 18- 12 Ma, when sea transgressed many areas in SE Asia, causing abundant reefal carbonates deposition along S Trend. N Trend carbonates prolific petroleum reservoirs. S Trend no hydrocarbons, but inadequately explored)

Satyana, A.H. (2006)- New insight on tectonic of Central Java, Indonesia and its petroleum implications. Abstract AAPG International Conference, Perth 2006. *(Extended Abstract)*
(C Java conspicuous indentation of coastlines compared to W and E Java. Two major Paleogene strike-slip faults with opposing trends and slips responsible for indentation: (1) SW-NE Muria-Kebumen Fault, left-lateral, and (2) NW-SE Pamanukan-Cilacap Fault, right-lateral. Faults caused indentations of N and S coastlines, subsidence of North C Java, uplift of Serayu Range and exposure of pre-Tertiary Luk Ulo melange complex, disappearance of S Mountains in southern C Java due to subsidence, and N-ward shift of Quaternary volcanic arc in C Java)

Satyana, A.H. (2007)- Central Java, Indonesia- a "Terra Incognita" in petroleum exploration: new considerations on the tectonic evolution and petroleum implications. Proc. 31st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA07-G-085, p. 1-22.

(Two major Paleogene strike-slip faults with opposing trends and slips responsible for indentation of Java coastline: (1) SW-NE trending Muria-Kebumen Fault, left-lateral and (2) NW-SE, right-lateral Pamanukan-Cilacap Fault. Faults caused: uplift of Serayu Range and exposure of Luk Ulo melange, subsidence of N part of C Java and indentation of northern coastline, subsidence of S Mountains in southern C Java and indentation of S coastline, and N-ward shifting of Quaternary volcanic arc in C Java. Presence of two opposite regional strike-slip faults crossing each other in southern C Java has configured petroleum geology of C Java)

Satyana, A.H. (2009)- Disappearance of the Java's Southern Mountains in Kebumen and Lumajang depressions: tectonic collapses and indentations by Java's transverse major fault zones. In: International Conference on Java's Southern Mountains, Yogyakarta 2009, Gadjah Mada University, p. 1-8.
(Two 'gaps' in Java Southern Mountains: (1) Kebumen Depression in C Java and (2) Lumajang Depression in SE Java. Two sets of fault zones, trending transversal to Java Island responsible for collapse of S Mountains in these areas)

Satyana, A.H. (2014)- Subvolcanic hydrocarbon prospectivity of Java: opportunities and challenges. Proc. 39th Annual Conv. Indonesian Association Geophysicists (HAGI), Solo, p. 1-4.
(Presence of oil and gas seeps in volcanic areas of Java show presence of active petroleum systems under volcanic covers. This hydrocarbon prospectivity of Java Island so far unexplored. Focus areas for this target suggested here is at border between W Java- C Java, and subsided northern C Java)

Satyana, A.H. (2015)- Subvolcanic hydrocarbon prospectivity of Java: opportunities and challenges. Proc. 39th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA15-G-105, p. 1-15. *(online at: https://tektonesiana.org/wp-content/uploads/2021/06/satyana_subvolcanic_hc_prospectivity_ipa_2015_r.pdf)*
(Expanded version of Satyana (2014). Common oil and gas seeps in volcanic areas of Java show presence of active petroleum systems underneath volcanic cover, but so far unexplored. Areas with prospectivity: Banten Block, Majalengka-Banyumas area and N Serayu area. Seismic imaging and reservoir quality issues)

Satyana, A.H. (2016)- The emergence of Pre-Cenozoic petroleum system in East Java Basin: constraints from new data and interpretation of tectonic reconstruction, deep seismic, and geochemistry. Proc. 40th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA16-573-G, p. 1-30.
(Geochemistry of Sepanjang oil in Eocene reservoir from Kangean area in Java Sea and general East Java oils suggest possible presence of marine Lower Cretaceous-sourced oil, based on low oleanane and sterane content. Deep seismic lines in East Java Sea and South Java forearc suggest possibility of Pre-Eocene section in Australia-derived microcontinent(s) (but: proven oil source rocks on Australian NW Shelf older than Cretaceous, and without any oleanane?; JTvG)

Satyana, A.H. (2019)- Genesis of LUSI eruption, East Java- Debates of drilling accident, regional earthquake trigger, hydrothermal-volcanic system: new evidence from erupted materials. In: F. Anggara et al. (eds.) Overpressured Sedimentary Basins: Petroleum Geology & Hazards, ISPG/ IAGI Memoir 1, Chapter 2, p. 16-37.
(LUSI mud eruption in Porong, Sidoardjo, E Java not pureluy mud volcano, but hybrid of mud volcano and hydrothermal system, connected through deep-seated fault to 6 km deep magmatic body of Arjuna-Welirang volcano. Two main clasts types: grey shale of Upper Kalibeng Fm and black shale of Ngimbang Fm; also Oligo-Miocene carbonates. Drilling of Banjarpanji-1 well not trigger of LUSI eruption (??))

Satyana, A.H. (2019)- Overpressured structures and their releases in the depression of Java to Madura: origins and natures of mud diapirs and mud volcanoes. In: F. Anggara et al. (eds.) Overpressured Sedimentary Basins: Petroleum Geology & Hazards, ISPG/ IAGI Memoir 1, Chapter 5, p. 65-77.
(Review of mud volcanism and mud volcanoes on Bogor-North Serayu- Kendeng-Madura Straits depression zone of Java)

Satyana, A.H. & C. Armandita (2004)- Deepwater plays of Java, Indonesia: regional evaluation on opportunities and risks. In: R.A. Noble et al. (eds.) Proc. Deepwater and Frontier Exploration in Asia and Australasia Symposium, Jakarta, Indonesian Petroleum Association (IPA), p. 293-319.

(Review of Mio-Pliocene deepwater sedimentation in Bogor, North Serayu and Kendeng Zones, across middle of Java. Depressions formed by isostatic subsidence compensating for uplifted volcanic arcs located to S. In Plio-Pleistocene time trough/basins significantly uplifted and deformed, and currently form fold and thrust belts. Deepwater plays viable in Java. Oil seeps and oil fields in N Serayu Trough in turbiditic volcaniclastic sandstones. Oil fields in E Java have reservoirs of Ngrayong sands considered as deepwater deposits on slope of Rembang Zone. Fields in Pliocene-Pleistocene volcaniclastic turbidites of E Kendeng Zone also show prospectivity of deepwater plays in Java. With Ngrayong Fm paleogeography)

Satyana, A.H., C. Armandita, B. Raharjo & I. Syafri (2002)- New observations on the evolution of the Bogor Basin, West Java: opportunities for turbidite hydrocarbon play. Buletin Geologi (ITB), Special Edition (Prof. Soejono Martodjojo volume), 34, 3, p. 101-116.
(Outcrop studies in Sumedang area suggest Bogor Basin also received sediments from N (e.g. upper M Miocene Cinambo, Lower Pliocene Subang and Bantarujeg Fms) not just from S, as suggested by Martodjojo (1984). Most sands deposited in ponded basins on slope area and as submarine fans on basin floor)

Satyana, A.H. & Asnidar (2008)- Mud diapirs and mud volcanoes in depressions of Java to Madura: origins, natures and implications to petroleum system. Proc. 32nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA08-G-139, p. 1-20.
(Numerous mud diapirs and mud volcanoes in Bogor-North Serayu-Kendeng-Madura Strait Zone, an axial depression with rapid deposition of Mio-Pleistocene sediments and subsequently compressed. Oil and gas seeps and producing oil and gas fields in same zone)

Satyana, A.H., E. Biantoro & A. Luthfi (2003)- Gas habitat of the East Java Basin, Indonesia- meets the future demand. Abstract 65th EAGE Conference & Exhibition, Stavanger 2003, p. 1-4. *(Extended Abstract)*
(E Java basin basin rich in gas. Thermogenic gas in two trends: (1) Cepu- Kangean High (in Oligo-Miocene carbonates on Cepu High, Eo-Oligocene Ngimbang carbonate at Suci, Eocene clastics at Pagerunganand W Kangean) and (2) N Madura Platform (Kucung and Rancak carbonate reservoirs at KE, Bukit Tua, Jenggolo, Payang). Gases from Cepu High high-CO_2 gas due to thermal degradation of carbonates. Biogenic gases in two trends: (1) Surabaya- Madura Strait (Wunut, Oyong, Maleo, MDA, Terang-Sirasun-Batur-Kubu), and (2) Muriah- Bawean (Kepodang Field). Reservoirs M Miocene Tawun to E Pliocene Mundu sands and carbonates)

Satyana, A.H. & A. Darwis (2001)- Recent significant discoveries within Oligo-Miocene carbonates of the East Java Basin: integrating the petroleum geology. Proc. 30th Annual Conv. Indonesian Association Geologists (IAGI) and GEOSEA 10th Regional Congress, Yogyakarta, p. 37-41. *(online at: https://www.academia.edu/12235640/RECENT_SIGNIFICANT_DISCOVERIES_WITHIN_OLIGO_MIOCENE_CARBONATES_OF_THE_EAST_JAVA_BASIN_INTEGRATING_THE_PETROLEUM_GEOLOGY)*
(NE Java basin paper describing Oligo-Miocene deposition of carbonate buildups on ENE-WSW trending highs (W Cepu, E Cepu, Porong-BD platform), formed during Eocene rifting, followed by M Miocene and younger inversion)

Satyana, A.H. & M. Djumlati (2003)- Oligo-Miocene carbonates of the East Java Basin, Indonesia: facies definition leading to recent significant discoveries. AAPG International Conference, Barcelona, Spain, Ext. Abstract, p. 1-5.
(online at: https://www.searchanddiscovery.com/abstracts/pdf/2003/intl/extend/ndx_83403.pdf)
(Brief but good overview of Oligo-Miocene carbonates distribution of East Java basin, showing isolated platforms on WSW-ENE trending faulted basement highs, formed during Paleogene rifting. Tectonic inversion started in mid-Miocene and peaked in Pleistocene time)

Satyana, A.H., E. Erwanto & C. Prasetyadi (2004)- Rembang-Madura-Kangean-Sakala (RMKS) Fault zone, East Java Basin: the origin and nature of a geologic border. Proc. 33rd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, p. 1-23.
(online at: www.academia.edu/12962862/REMBANG_MADURA_KANGEAN_SAKALA_RMKS_FAULT Etc.)
(Major E-W left-lateral wrench zone, forming deformed zone 15-40 km wide and 675 km long from Rembang in W through Madura and Kangean Islands to Sakala offshore in E. Fault Zone at hinge or shelf edge between stable

E Sunda Shelf (Paternoster-Kangean micro-continent) in N and deep-water area with different basement lithology in S. Initiation of fault zone in late E Miocene in Sakala area, M Miocene in Rembang area. Flower structures on seismic sections, showing basement-involved, deeply-rooted vertical master faults with upward diverging splays with reverse separations. In map view, these splays are mapped as fold and fault belts trending W-E and WNW-ESE. Extensional component of wrench zone subsided Paleogene rifted blocks like Central Deep and formed normal faults. Tectonic inversion observed. Shale diapirism common S of fault zone in thick shale sequences deposited rapidly to S of RMKS FZ)

Satyana, A.H., A. Prasetyo & M.F. Rosana (2021)- Ciletuh subduction, Southwest Java- New findings: nature, age and regional implications. Proc. 45th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA21-G-29, p. 1-34.
(Ciletuh melange not part of Early Cretaceous subduction like Lok Ulo melange and Meratus, but more likely Eocene in age. Radiometric ages of metamorphic and ophiolitic rocks ~55-37 Ma. Unlike earlier reports, no blueschist, eclogite or radiolarian chert were found)

Satyana, A.H. & M.E.M. Purwaningsih (2002)- Geochemistry and habitats of oil and gas in the East Java Basin regional evaluation and new observations. Proc. 31st Annual Conv. Indonesian Association Geologists (IAGI), Surabaya, 1, p. 68-102.
(online at: https://www.iagi.or.id/web/digital/17/GEOCHEMISTRY-AND-HABITAT-OF-OIL-AND-GAS-IN-THE-EAST-JAVA-BASIN--REGIONAL-EVALUATION-AND-NEW-OBSERVATIONS.pdf)
(Geochemical data from ~100 wells and seeps. Most oils from terrestrial- marginal marine facies. Offshore oils more terrestrial than onshore. Ngimbang, Lower Kujung and Lower Tuban shales sources of oils and thermogenic gases. Biogenic gases from Neogene Tawun- Lidah shales. High CO_2 associated with thermal degradation of Paleogene Kujung carbonates)

Satyana, A.H. & M.E.M. Purwaningsih (2002)- Lekukan struktur Jawa Tengah: suatu segmentasi sesar mendatar. Proc. Conf. Sumberdaya geologi daerah istimewa Yogyakarta dan Jawa Tengah, IAGI Central Java section, Yogyakarta, p. 55-66.
(Indentation of C Java structure by wrench faults. Two wrench zones representing Paleogene tectonic elements of major shears in W Indonesia (NE-SW Sumatran Trend and SW-NE Meratus Trend) meet in C Java)

Satyana, A.H. & M.E.M. Purwaningsih (2003)- Geochemistry of the East Java Basin: new observations on oil grouping, genetic gas types and trends of hydrocarbon habitats. Proc. 29th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 585-607.
(Similar to 2002 paper. Biogenic gas in M Miocene-Pliocene reservoirs in Terang-Sirasun, Oyong, Maleo (Madura straits), Kepodang (Java sea) Wonolelo seep in W Cepu, etc. High CO_2 gas (30-80%) in two areas: Cepu High, offshore Java Sea)

Satyana, A.H. & M.E.M. Purwaningsih (2003)- Oligo-Miocene carbonates of Java: tectonic setting and effects of volcanism. Proc. 32nd Annual Conv. Indonesian Association Geologists (IAGI) and 28th Annual Conv. HAGI, Jakarta, p. 1-27.
(Java Late Oligocene-Early Miocene widespread platform and reefal carbonates. Period also noted for 'Old Andesite' volcanism along S part of Java. Two trends: (1) N Trend, including Cepu-Surabaya-Madura, N Central Java, and Ciputat-Jatibarang areas consists of carbonates of Kujung, Prupuh, Tuban, Poleng, M Cibulakan and Baturaja and (2) S Trend, with Gunung Kidul- Banyumas- Jampang- Bayah- Sukabumi-Rajamandala areas. N Trend developed in back-arc setting, 75-150 km away from Oligo-Miocene volcanic arc in S Java. No volcanic material found in these carbonates. S Trend in intra-arc setting. No reefal carbonates in G. Kidul-Banyumas-Jampang areas. Rajamandala reefs developed prior to E Miocene Jampang volcanism. Volcanic quiescence in Java from 18-12 Ma (M Miocene) resulted in significant reefal carbonates development along S Mountains of Java, like Wonosari/Punung in Gunung Kidul, Jonggrangan in Kulon Progo, Karangbolong/Kalipucang in Banyumas, and Bojonglopang in Jampang areas)

Sawolo, N., E. Sutriono, B.P. Istadi & A.B. Darmoyo (2009)- The LUSI mud volcano triggering controversy: was it caused by drilling? Marine and Petroleum Geology 26, 9, p. 1766-1784.

(online at: http://seismo.berkeley.edu/~manga/sawolo2009.pdf)
(Study suggesting LUSI mud volcano is naturally occurring mud volcano in area prone to mud volcanism. Conclusion disputed by Davies et al. (2010) and Tingay (2009, 2016))

Sawolo, N., E. Sutriono, B.P. Istadi & A.B. Darmoyo (2010)- Was LUSI caused by drilling?- Authors reply to discussion. Marine and Petroleum Geology 27, 10, p. 1658-1675.
(Reply to Davies et al. (2010) discussion, who argued LUSI mud volcano was triggered by drilling)

Sayaf, I.U., V. Isnaniawardhani, A. Hardiyono & N. Natasia (2025)- Facies and petrographic characteristics of Ciletuh Formation in the Mandrajaya area, Ciemas subdistrict, West Java. Bull. Scientific Contribution (UNPAD) 23, 2, p. 151-163.
(online at: https://jurnal.unpad.ac.id/bsc/article/view/65345/pdf)
(M Eocene Ciletuh Fm exposed in Ciletuh-Palabuhanratu UNESCO Global Geopark, deposited in submarine fan complex. Sandstones texturally immature lithic arenites, and conglomerates contain polymictic clasts of gabbro and recycled sandstone. Sourced from "Recycled Orogenic" belt, specifically the uplifted Ciletuh melange complex, in a tectonically active Paleogene fore-arc basin)

Saygin, E., P.R. Cummins, A. Cipta, R. Hawkins, R. Pandhu, J. Murjaya, Masturyono, M. Irsyam, S. Widiyantoro & B.L.N. Kennett (2016)- Imaging architecture of the Jakarta Basin, Indonesia, with transdimensional inversion of seismic noise. Geophysical J. International 204, 2, p. 918-931.
(Shear wave velocity model of Jakarta Basin from seismic noise shows low-velocity basin under most of N Jakarta down to ~1-1.5 km)

Scheibener, E. (1925)- Die Petrographie der Residenz von Bantam, nebst einer Karte 1:200,000, einer Ubersichtstabelle und 2 Tafeln. Mededelingen Algemeen Proefstation Landbouw, Buitenzorg (Bogor) 18, p. 10-152.
(online at: https://resolver.kb.nl/resolve?urn=MMKB24:078441000:pdf)
('The petrography of the Bantam Residency, with a 1:200,000 map, overview table and two tables'. Extensive listings of rock determinations from Banten Residency, W Java, by Swiss geologist Dr. Edmund Scheibener (doctorate University of Bonn, 1913), active as mineralogist/agrogeologist at the soil survey laboratory in Buitenzorg/Bogor from 1919 until 1939. Most of paper is review of older work (L. Rutten, 1925))

Scheibener, E. & T.L. Reitsema (1931)- Een voorkomen van kwartszandsteen, daciet en contactmetamorphe gesteenten in het heuvelterrein nabij Godean, gouvernement Jogjakarta. Natuurkundig Tijdschrift voor Nederlandsch-Indie 91, 2, p. 196-202.
(online at: https://resolver.kb.nl/resolve?urn=MMTEY01:179530002:pdf)
('An occurrence of quartz sandstone, dacite and contact-metamorphic rocks in small hills near Godean, Yogyakarta area', by two agrogeologists from Bogor. Locality of G. Pare, NW of Godean, W of Yogya. Quartz described as polycrystalline, with undulose extinction (= metamorphic quartz?; possibly Eocene sandstone with intrusive younger andesitic volcanics; JTvG))

Scheidecker, W.R. & D.A. Taiclet (1976)- Arjuna B structure: a case history. Proc. 5th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 95-114.
(Second offshore oil discovery in Indonesia, in 1968. Upper Cibulakan Fm and 'Main' and 'Massive' sand reservoirs improve in quality away from crest of structure)

Schilder, F.A. (1937)- Neogene Cypraeacea aus Ost- Java (Mollusca, Gastropoda). De Ingenieur in Nederlandsch-Indie (IV), 4, 11, p. IV.195- IV.210.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1937-11.pdf)
('Neogene Cypraeacea from East Java'. Descriptions of marine cowrie shells from Miocene of Lodan anticline, Pliocene of Solo River and E Pleistocene of Mojokerto region, collected during geological mapping projects of Dienst van het Mijnwezen (Geological Survey), Bandung)

Schilder, F.A. (1939)- Uber einige fossile Cypraeacea aus dem Sunda-Archipel. Beitrage zur Palaontologie des Ostindischen Archipels XVI, Neues Jahrbuch Mineralogie Geologie Palaontologie B, 81, 3, p. 494-500.
('On some fossil Cypraea from the Sunda Archipelago'. New Barycypraea cowrie gastropods from Miocene of Borneo, collected by J. Wanner)

Schilder, F.A. (1941)- The marine mollusca of the Kendeng beds (East Java). Gastropoda, Part 3 (Families Eratoidae, Cypraeidae, and Amphiperaidae). Leidsche Geologische Mededelingen 12, 1, p. 171-194.
(online at: https://repository.naturalis.nl/pub/505674)
(Part of series of papers I-IV on marine molluscs from Kendeng Beds in NE Java by Van Regteren Altena 1938-1950 and Schilder. Gastropods from Upper Kalibeng and Pucangan Fms includes Zoila kendengensis, Volva surajensis n.sp., etc.)

Schiller, D.M., R.A. Garrard & L. Prasetyo (1991)- Eocene submarine fan sedimentation in Southwest Java. Proc. 20th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 125-181.
(Outcrops of M- L Eocene Ciletuh Fm f-vc sandstones and sandy conglomerates, interpreted as sand-dominated submarine fan complex. Two lithofacies: (1) composed of mostly quartz (58-84%) and variety of lithic fragments; (2) less pervasive volcanic facies, composed almost entirely of volcaniclastic sediments. Mesozoic granitic continental crust and Late Cretaceous subduction complex areas to N interpreted to have supplied majority of quartz and lithic fragments, while possible Eocene local volcanic arc is believed to have sourced volcanics. Reservoir quality of quartzose sst poor due to compaction and carbonate cementation).

Schiller, D.M., B.W. Seubert, S. Musliki & M. Abdullah (1994)- The reservoir potential of Globigerinid sands in Indonesia. Proc. 23rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 189-212.
(Porous limestones composed of sand-sized planktonic forams in outcrops and wells with variable reservoir quality and thickness.Up to 30-45% primary porosity, 100-1000 md perm and 30-40m thick. Two types: foram sand "drifts" deposited by bottom currents and foram "turbidites" deposited as submarine channel-fills and fans. "Foram drift" facies more common and best reservoir characteristics. Foram drift deposits in E Java- Madura Strait mostly latest Early Pliocene. Facies development related to tectonic event, partly coinciding with 3.8 Ma global sea level lowstand. Similar globigerinid-rich facies in Late Pliocene Selorejo Fm of C and E Java. E Pliocene drift facies widespread from E-most-C Java to Bali Sea, Late Pliocene examples appear restricted to Rembang Zone of NE Java)

Schipper, J. & C.W. Drooger (1974)- Miogypsinidae from East Java and Madura. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, B77, 1, p. 1-14.
(Three E-M Miocene miogypsinid species assemblages from same samples studied for lepidocyclinids and planktonics by Van der Vlerk and Postuma (1967): rel. long-lived M. globulina (N5-N7?), M. cushmani (~N8?) and M. antillea (Gr. peripheroronda zone; N9))

Schlumberger, C. (1900)- Note sur deux especes de *Lepidocyclina* des Indes Neerlandaises. Sammlungen Geologischen Reichs-Museums Leiden ser. 1, 6, 1, p. 128-134.
(online at: www.repository.naturalis.nl/document/552395)
('Note on two species of Lepidocyclina from the Netherlands Indies'. Lepidocyclina insulae natalis (probably E Miocene Eulepidina; JTvG) from Ngembak well, E Java, and stellate Lepidocyclina martini from Miocene of Madura, collected by Verbeek)

Schluter, H.U., C. Gaedicke, H.A. Roeser, B. Schreckenberger, H. Meyer, C. Reichert, Y. Djajadihardja & A. Prexl (2002)- Tectonic features of the southern Sumatra-Java forearc of Indonesia. Tectonics 21, 5, 1047, p. 11/1-11/15.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2001TC901048)
(Seismic data suggests two units in accretionary wedge off SW Sumatra- SW Java: Paleogene inner wedge and Neogene- Recent outer wedge. Transtensional pull-apart basins formed along W Sunda Strait, etc.)

Schmid, F. & H.W. Walther (1962)- Ein neuer Fundpunkt von Pliozan auf dem Gunung Sadeng bei Puger (Ost-Java) und seine Bedeutung fur das Alter der Manganvererzung. Geologisches Jahrbuch 80, p. 247-276.

('A new Pliocene locality at Gunung Sadeng near Puger (E. Java) and its significance for the age of the manganese mineralization'. Conglomerates with manganese-bearing limestone clasts N of Puger in SE Java, with 14 species of Pliocene gastropods)

Schmid, F. & H.W. Walther (1962)- Uber ein neues Pliozan-Vorkommen auf dem Gunung Sadeng bei Puger (Ost-Java). Palaeontologische Zeitschrift 36, Supplement 1, p. 216-217.
('On a new occurrence of Pliocene on the Gunung Sadeng near Puger (E Java)'. Pliocene in S Mountains of SE Java N of Puger village, SE Java, are E Miocene Old Andesites overlain by M Miocene marls and Wonosari reefal limestones, locally with metasomatic manganese mineralization. At 80m above sea level karstified limestone overlain by thin conglomerates and sands with clasts of manganese impregnated limestone and well-preserved, probably Pliocene-age shallow marine mollusc fauna)

Schuppli, H. (1932)- Kort verslag over de geologische situatie van het Zuid-Rembangsche heuvelland. Jaarboek Mijnwezen Nederlandsch-Indie 59 (1930), Verhandelingen 3, p. 95-121.
('Brief report on the geological situation of the South Rembang hill country'. Early report on Mio-Pleistocene stratigraphy and structure of Kendeng zone by BPM geologist. With analyses of foraminifera and molluscs by Van der Vlerk and K. Martin)

Schuster, J. (1911)- Die Flora der Trinil-Schichten. In: M.L. Selenka & M. Blanckenhorn (eds.) Die *Pithecanthropus*-Schichten auf Java, Geologische und palaontologische Ergebnisse der Trinil-Expedition (1907-1908), Engelmann, Leipzig, p. 235-257.
('The flora of the Trinil Beds'. Central Java Pleistocene plant fossils from Trinil area 52 species, with 21 species no longer present on Java, but known from other parts of SE Asia, often at altitudes of 700-1500m. Lowland tropical species appear to be absent. All suggesting climate cooler than today (possibly ~6-7°C less)). (Flenley 1979, Van Zeist 1984: presence of leaves with entire margins and drip-tips suggest everwet conditions, not monsoonal with pronounced dry season like C-E Java today))

Schuster, J. (1911)- Monographie der fossilen Flora der *Pithecanthropus*-Schichten. Abhandlungen Kon. Bayerischen Akademie Wissenschaften, Munchen, Mathematisch-Physikalische Klasse 25, 6, p. 1-64.
(online at: http://bhl.ala.org.au/bibliography/7643/summary)
('Monograph of the fossil flora of the Pithecanthropus beds'. Same paper as above)

Schweitzer, C.E, R.M. Feldmann & C. Bonadio (2009)- A new family of brachyuran (Crustacea, Decapoda, Goneplacoidea) from the Eocene of Java, Indonesia. Scripta Geologica 138, p. 1-10.
(online at: https://repository.naturalis.nl/pub/301549/SG138_001-010.pdf)
(New family Martinocarcinidae proposed to accommodate fossil crab Martinocarcinus ickeae Boehm 1922 from Late Eocene of Kali Puru, Nanggulan, C. Java)

Scolari, F. (1999)- Middle Eocene molluscs from the eastern and western Tethys; a discussion on shared taxa. In: B. Ratanasthien & S.L. Rieb (eds.) Proc. Int. Symposium Shallow Tethys (ST) 5, Chiang Mai 1999, Chiang Mai University, Thailand, p. 403-414. *(ST5 book online at: https://library.dmr.go.th/elib/cgi-bin/opacexe.exe?op=mmvw&db=Main&skin=S&mmid=19206&bid=17374)*
(Eocene fossil molluscs from Nanggulan, C Java. Two Tethyan molluscs species recorded for first time from Nanggulan. Looks like typical Tethyan fauna)

Scolari, F. (2001)- The new species *Sundabittium shutoi* from the Middle Eocene of Nanggulan (Java, Indonesia). Memorie di Scienze Geologiche, Padova, 53, p. 45-48.
(New gastropod species from M Eocene lower Nanggulan Fm ('Axinea Beds'))

Sebayang, R. (2011)- Play baru, daerah lama, perspektif baru: identifikasi batugamping N11-N14 pada sub cekungan Ngimbang menggunakan data seismik 2D. Proc. Joint. 36th HAGI and 40th IAGI Annual Conv., Makassar, JCM2011-097, p. 1-16.
(online at: https://www.iagi.or.id/web/digital/10/2011_IAGI_Makassar_Play-Baru,-Daerah-Lama.pdf)

('New play, old area, new perspective: identification of N11-N14 limestone in the Ngimbang sub-basin from 2D seismic data'. Interpretation of M Miocene reefal buildups on 2D seismic in onshore E Java basin, E of Cepu block, possible equivalents of Bulu Limestone and limestones in Tapen 1 well between 1475-1760m)

Sebayang, R.I., D. Priambodo, A. Prasetyo & D. Noeradi (2014)- Middle Miocene reefal limestone as a new exploration play in Ngimbang sub basin, East Java, Indonesia- a case study. In: EAGE 6th Int. Conf. and Exhibition- Geosciences, Saint Petersburg, Tu P 12, p. 1-5. *(Extended Abstract) (online at: https://www.academia.edu/22715174/Middle_Miocene_Reefal_Limestone_as_a_New_Exploration_Play_in_Ngimbang_Sub_Basin_East_Java_Indonesia_A_Case_Study)*
(P-1 Well, 30 Km NW of Ngimbang Sub Basin, East Java Basin testing 488 and 744 BOPD from DST in M Miocene reefal limestone in July 2012. Seismic shows presence of reefal limestone reflection patterns at M Miocene (N11-N14) level. Facies map was also made to give a picture of the N11-N14 paleogeography. Growth of Mid Miocene reefal limestone in area related to Miocene uplift event in area of earlier deep marine facies)

Sebrier, M., S. Pramumijoyo & O. Bellier (1993)- Miocene to Recent kinematic evolution around the Sunda Strait and southern end of the Great Sumatra Fault: microtectonic approach. 10th Annual French Indonesian Cooperation in Oceanography, Jakarta, p. 37-40.

Sekti, R.P., F. Hakiki, A.N. Derewetzky, C.J. Strohmenger, S.M. Fullmer, T. Simo, B. Sapiie & D. Nugroho (2011)- Facies analysis and sequence stratigraphy of Tertiary subsurface (Cepu Block) and surface (Rajamandala Limestone) carbonates of Java, Indonesia. Proc. 35th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA11-G-063, p. 1-15.
(Cepu Block late M Eocene- E Miocene subsurface carbonate buildups and associated deeper water calciturbidites and debrites similar range of environments as outcrops of Late Oligocene Rajamandala Lst)

Sembodo (1973)- Notes on formation evaluation in the Jatibarang volcanic reservoir. Proc. 2nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 131-147.
(Log analysis of Eocene Jatibarang volcanic oil-gas reservoir rocks, NW Java)

Sendjaja, P., A. Kusnida, E. Partoyo, Baharuddin, A. Hikmat et al. (2015)- Atlas geokimia Jawa bagian barat. Pusat Survei Geologi, Bandung, p. 1-41.
('Geochemical Atlas of West Java'. Distribution maps of 30 elements in stream samples from W Java: Ag, Al, As, Ba, Ca, Ce, Cl, Co, Cr, Cu, Fe, Hg, etc.)

Septama, E., C. Prasetyadi, A Abdurrokhim, T. Setiawan & P.D. Wardaya (2021)- Java volcanic arc: what lies beneath? Proc. 45th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA21-G-257, p. 1-14.
(Java volcanic arc consists of several volcanic episodes, with N-ward younging trend from Late Oligocene to Recent. (apparently not sure what actually lies beneath: mainly discussion of Bogor Basin and Kendeng Trough; JTvG))

Septama, E., C. Prasetyadi, A Abdurrokhim, T. Setiawan, P.D. Wardaya, R. Raguwanti, R. Ryacudu et al. (2021)- The hidden sedimentary basin underneath the Quaternary volcanic unit in Bogor and Kendeng area. Berita Sedimentologi 47, p. 25-47.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/323/293)

Setiadi, D.J. (2001)- Fluvial facies of the Citalang Formation (Pliocene-Early Pleistocene), West Java, Indonesia. J. Geosciences, Osaka City University, 44, p. 189-199.
(online at: http://dlisv03.media.osaka-cu.ac.jp/infolib/user_contents/kiyo/DB00010811.pdf)
(Pliocene- E Pleistocene Citalang Fm of N Sumedang ~1000m of fluvial deposits, one of thickest non-marine deposits on Java. Twelve facies in four sections. Overall environment interpreted as braided streams)

Setiadi, I. (2017)- Basement configuration and delineation of Banyumas Subbasin based on gravity data analysis. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 18, 2, p. 67-76.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/237/279)

(Gravity data from Banyumas Basin, C Java, suggest six sub-basins with depocenter of 5.5 km, SE-NW strike-slip fault and E-W trending basement highs)

Setiadi, I. & A.W. Pratama (2018)- Pola struktur dan konfigurasi geologi bawah permukaan Cekungan Jawa Barat Utara berdasarkan analisis gayaberat. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 19, 2, p. 59-72.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/345/339)
('Structural pattern and subsurface geological configuration of the North West Java Basin based on gravity analysis'. Gravity analysis suggests average basement depth in NW Java basin is 3.3 km and five subbasins: Bekasi, Rengasdengklok, Cikampek, Subang and Majalengka subbasins)

Setiawan, A., Zulfakriza, A.D. Nugraha, S. Rosalia, A. Priyono, S. Widiyantoro, D.P. Sahara, Marjiyono et al. (2021)- Delineation of sedimentary basin structure beneath the Banyumas Basin, Central Java, Indonesia, using ambient seismic noise tomography. Geoscience Letters 8, 31, p. 1-15.
(online at: https://geoscienceletters.springeropen.com/track/pdf/10.1186/s40562-021-00202-x.pdf)
(Ambient noise tomography to image shear-wave velocity structure in Banyumas Basin, C Java, Indonesia, which has relatively thick volcanic layers)

Setiawan, H. (2011)- Characteristic of turbidite deposits of Halang Formation based on outcrops and thin Section petrography description in Cisanggarung River, Kuningan, West Java. Proc. 35th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA11-SG-005, p. 1-8.
(Descriptions of outcrops and thin sections of M Miocene- E Pliocene Halang Fm upper bathyal turbidites along Cisanggarung River, S of Cirebon/ Kuningan. Formation comprises tuffaceous sandstone, conglomerate, marl and claystone, with andesite breccia in lower part. Low quartz, high feldspar suggest mainly volcanic arc provenance. Paleocurrent direction from N 280°-300°E (or SW?))

Setiawan, J., D. Kristanto & Hariyadi (2021)- The most shallow oil trap in the World of Wonocolo anticline as a beautiful education object. Journal Techno (UPN) 7, 1, p. 55-70. *(online at: http://eprints.upnyk.ac.id/28538/1/%23%233-4847-14769-1-PB%20Journal%20LPPM%202021.pdf)*
(Kawengan anticline/ oilfield, 20 km NE of Cepu, developed by BPM in 1926, then by Pertamina, now mainly by locals. (Mainly review of NE Java basin geology; nothing on Kawengan oilfield or Wonocolo or shallow reservoirs- JTvG))

Setiawan, L.O.B. (2015)- Future exploration play concept in Western Kendeng fold thrust belt: based on comprehensive stratigraphic and geochemical analyses of outcropped Miocene Kerek and Pelang Formation and oil seeps. Proc. 39th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA15-SG-094, p.

Setiawan, N.I., M.I. Novian & M.I.K. Aminuddin (2015)- Petrologi, geokimia dan umur batuan granitoid di Komplek Luk-Ulo, Karangsambung, Kebumen, Jawa Tengah. Proc. Seminar Nasional Kebumian 8, Universitas Gadjah Mada, Yogyakarta, p. 865-880.
('Petrology, geochemistry and age of granitoid rocks in the Luk-Ulo Complex, Karangsambung, Kebumen, Central Java'. Granitoid blocks along upstream Luk-Ulo River four groups, all calk-alkaline, metaluminous types. Zircon ages of granite with graphic texture and hornblende granite all latest Cretaceous (~66-70 Ma); foliated granodiorite and garnet granite / granodiorite with zircon melting ages ~100-120 Ma, with inherited zircons as old as 437± 13 Ma. Cordilleran-type granitoids of Karangsambung normal volcanic arc products, with possibility of post-tectonic collisional granite from partial melting of continental crust)

Setiawan, N.I., Y. Osanai, N. Nakano, T. Adachi, A. Hendratno, W. Sasongko & C. Ansori (2020)- Peak metamorphic conditions of garnet amphibolite from Luk Ulo Complex, Central Java, Indonesia: implications for Medium-Pressure/High-Temperature metamorphism in the Central Indonesian Accretionary Collision Complex. Indonesian J. on Geoscience (IJOG) 7, 3, p. 225-239.
(online at: http://ijog.bgl.esdm.go.id/index.php/IJOG/article/view/647/314)
(Garnet amphibolites (medium-P/high- T) common in Luk Ulo Complex, C Java, associated with high-P/low T eclogite and blueschist. Prograde stage assemblages inclusions in garnet, peak P-T condition garnet rim, magnesiohornblende, zoisite, titanite, quartz, albite and phengite; retrograde stage secondary minerals filling

cracks in garnet and other minerals (chlorite, quartz). Peak P-T conditions for garnet amphibolite 0.9-1.4 GPa and 558- 606 ºC. Peak T higher than previously published gradient geothermal of eclogite and tourmaline-eclogite in Luk Ulo Complex. MP/HT (amphibolite) and HP/LT (blueschist and eclogite) metamorphic rocks could have similar metamorphic ages if both footwall and hanging wall had initially very high thermal gradients and rate of subduction was very slow (10 km/Ma or less))

Setiawan, N.I., Y. Osanai & C. Prasetyadi (2013)- A preliminary view and importance of metamorphic geology from Jiwo Hills in Central Java. Proc. Seminar Nasional Kebumian 6, Dept. Teknik Geologi, Universitas Gadjah Mada, Yogyakarta 2013, BPS02, p. 11-23.
(online at: https://repository.ugm.ac.id/135116/1/11-23%20BPS02.pdf)
(Jiwo Hills E of Yogyakarta with low-grade metamorphic rocks (phyllite, mica schist, calc-silicate schist, marble) with NE-SW foliation trend. Rare epidote-glaucophane schist outcrops near serpentinite exposure in W of complex. Several carbonate rocks converted to garnet-wollastonite skarn under contact metamorphism at diabase intrusion. Epidote-glaucophane schist mainly glaucophane, epidote, quartz, phengite, titanite, and hematite. Presence of blueschist facies confirms Jiwo Hills is one of high-P metamorphic terranes together with Luk Ulo (C Java), Meratus (S Kalimantan) and Bantimala (S Sulawesi). Serpentinites may have facilitated exhumation of blueschist in Jiwo Hills)

Setiawan, N.I., K. Polarman, R. Silitonga, F.A. Makkaratte & C. Ansori (2020)- Determination of Scandium in mafic and ultramafic rocks of ophiolites from Luk Ulo Complex, Karangsambung, Central Java, Indonesia. Proc. 1st Geosciences and Environmental Sciences Symposium (ICST 2020), UGM, Yogyakarta (virtual), E3S Web of Conferences 200, 06003, p. 1-8.
(online at: https://www.e3s-conferences.org/articles/e3sconf/pdf/2020/60/e3sconf_icst2020_06003.pdf)
(Scandium content in Cretaceous ophiolite series in Luk Ulo melange complex, Karangsambung, highest in websterite, (51–54 ppm) in deepest part of ophiolite sequence, lowest in upper ophiolite basalt (24-29 ppm))

Setiawan, N.I., Y.S. Yuwono & E. Sucipta (2011)- The genesis of Tertiary "Dakah Volcanic" in Karangsambung, Kebumen, Central Java. Proc. 36th HAGI and 40th IAGI Annual Conv., Makassar, JCM2011-105, p. 105-121.
(online at: https://www.iagi.or.id/web/digital/10/2011_IAGI_Makassar_The-Genesis-of-Tertiary.pdf) (also in Majalah Geologi Indonesia 26, p. 29-44)
(Late Eocene- E Oligocene island arc tholeiite Dakah volcanics in melange sediments of Karangsambung and Totogan Fm. Tied to Gurung Parang diabase intrusion, previously dated as ~40 +/- 3 Ma (= late M Eocene))

Setiawan, T. (2012)- Petrologi batuan dasar daerah Rengasdengklok, Jawa Barat dan implikasi tektoniknya serta potensi reservoir hidrokarbon. Ph.D. Thesis, Institut Teknologi Bandung (ITB), p. 1- . *(Unpublished)*
('Petrology of basement in the Rengasdengklok area, West Java and implications for tectonics and hydrocarbon reservoirs potential'. NW Java basin N-S trending horsts and grabens. Basement penetrations show fracture porosity and hydrocarbon shows. Pondok Makmur Field in NE Ciputat Basin with basal dolomitic limestone that is fractured and of Eocene- Late Oligocene age)

Setiawati, Y.D., M.I. Novian & D.H. Barianto (2013)- Studi fasies Formasi Wungkal-Gamping Jalur Gunung Gajah, Desa Gunung Gajah, Kecamatan Bayat, Kabupaten Klaten, Provinsi Jawa Tengah. Proc. Seminar Nasional Kebumian 6, Teknik Geologi Universitas Gadjah Mada, Yogyakarta 2013, BPS07, p. 71-80.
(online at: https://repository.ugm.ac.id/135199/1/71-81%20BPS07.pdf)
('Facies study of the Wungkal-Gamping Formation at Desa Gunung Gajah, Bayat District, C Java'. Eocene Wungkal-Gamping Fm at Gunung Gajah village in Bayat area, Southern Mountains, with nine facies types. Deposition begins in E Eocene (P8) to M Eocene (P13). Erosional unconformity between E Eocene (P8) and M Eocene (P10). Lower part of Wungkal-Gamping Fm is debris flow, followed by suspension currents, and traction currents influenced by tides and waves of sea water. Deepening at P10 then shallowing at P11, early P12 deepening, then shallowing until P13)

Setijadi, R. (2008)- Perabahan iklim kala Pliosen-Plistosen daerah Bumiayu ditinjau dari bukti palinologi. J. Ilmiah Dinamika Rekayasa (UNSOED) 4, 2, p. 61-64.
(online at: https://dinarek.unsoed.ac.id/jurnal/index.php/dinarek/article/view/114)

('Pliocene-Pleistocene climate changes in the Bumiayu area based on palynology evidence')

Setijadi, R. & E. Rusmiyanto (2014)- Paleodiversitas Miosen Tengah berdasarkan data palinologi pada Formasi Cimandiri lintasan Sungai Cijarian Sukabumi. J. Ilmiah Dinamika Rekayasa (UNSOED) 10, 2, p. 63-67.
(online at: https://dinarek.unsoed.ac.id/jurnal/index.php/dinarek/article/view/85/82)
('Middle Miocene paleodiversity based on palynology data in the Cimandiri Formation of the Cijarian River Sukabumi'. High plant diversity in M Miocene Cimandiri Fm (with Florschuetzia trilobata, F. levipoli and F. meridionalis. Not much detail))

Setijadi, R., S.W.A. Suedy & R. Rahadian (2022)- The diversity of flora at the Late Pliocene era in the Cisubuh Formation based on palynological data. Jurnal Ilmu Lingkungan (UNDIP) 20, 4, p. 824-828.
(online at: https://ejournal.undip.ac.id/index.php/ilmulingkungan/article/download/45274/pdf)
(Palynology study marine claystone of Cisubuh Fm in Rengasdengklok area, W Java, shows 67 palynomorph taxa. Late Pliocene age indicated by Dacrycarpidites australiensis, without Stenochlaenidites papuanus)

Setijadi, R., S.W.A. Suedy & A.T. Rahardjo (2005)- Sejarah flora dan vegetasi Formasi Kalibiuk dan Kaliglagah daerah Bumiayu ditinjau dari bukti palinologi. Prosiding Seminar Nasional MIPA Universitas Negeri Semarang 2005, p. 1-7.
(online at: https://mbio.fsm.undip.ac.id/v1/wp-content/uploads/2016/06/2005-SEMNAS-MIPA-UNNES.pdf)
('History of flora and vegetation of the Kalibiuk and Kaliglagah Formations in the Bumiayu Region based on palynological evidence'. Palynological study of Late Pliocene-Pleistocene Kalibiuk- Kaliglagah Fms along Cisaat river, Bumiayu area. Extinction of Stenochlaenidites papuanus and change to extreme dry climate at Plio-Pleistocene boundary (1.8Ma). Kalibiuk Fm black clays deposited in mangrove environment; overlying Kaliglagah Fm sands-clays with Late Pliocene vertebrate fossils in terrestrial environment)

Setijadi, R., A. Widagdo & S.W.A. Suedy (2011)- Metode bioprediksi perubahaniklim menggunakan fosil polen dan spora pada kala Pliosen di daerah Banyumas. J. Ilmiah Dinamika Rekayasa (UNSOED) 7, 1, p. 14-16.
(online at: https://dinarek.unsoed.ac.id/jurnal/index.php/dinarek/article/view/42/40)
('Climate change bioprediction method using fossil pollen and spores of Pliocene age in Banyumas'. Pollen and spores in Tapak Fm of indicate Podocarpus imbricatus zone age (Late Pliocene; with Podocarpus imbricatus and Stenochlaenidites papuanus) and 3 hot-cold-hot climate change events)

Setijadi, R., A. Widagdo & J.A. Zaenurrohman (2020)- Limestone facies change of Jonggrangan to Sentolo Formation in the western part of Yogyakarta-Central Java Basin. Proc. Int. Conf. Engineering, Technology and Innovative Researches (ICETIR 2020), Purbalingga, IOP Conference Series: Materials Science Engineering 982, 012044, p. 1-11.
(online at: https://iopscience.iop.org/article/10.1088/1757-899X/982/1/012044/pdf)
(Something on Miocene limestones in Kulun Progo region, southern C Java. Many poor photomicrographs)

Setijadji, L.D. (2005)- Geoinformation of island arc magmatism and associated earth resources: a case study of Java Island, Sunda Arc, Indonesia. Ph.D. Thesis, Kyushu University, Fukuoka, Japan, p. 1-201.
(Java arc volcanism well-defined volcanic belts since Oligocene. Arcs experienced CCW rotation during Cenozoic with W-most Java as rotational pole. Backarc magmatism since latest Miocene- Recent in C and E Java. W Java subducted oceanic crust old (Cretaceous) and cold, avoiding partial slab melting. In C and E Java subducted slab younger (<50 Ma) and warm enough to melt, resulting in adakitic igneous rocks. Backarc magmatism after detachment of subducted slab between 270-500 km depth. Deeper mantle is upwelling through slab window, producing backarc magmas characterized by low 87Sr/86Sr and 143Nd/144Nd values (mantle array). More than 90% of metallic mineral deposits within Tertiary volcanic arc centers)

Setijadji, L.D. (2010)- Segmented volcanic arc and its association with geothermal fields in Java Island, Indonesia. Proc. World Geothermal Congress 2010, Bali 2010, p. 1-12.
(online at: www.geothermal-energy.org/pdf/IGAstandard/WGC/2010/1275.pdf)

(Java has largest geothermal resources in Indonesia, but not uniformly distributed along island. Bigger prospects concentrated in few locations and can be related to geologic segmentation of Quaternary volcanoes. Major geothermal fields associated with magmas of Late Pleistocene ages (~0.5-0.2 Ma))

Setijadji, L.D, A. Harijoko, A. Imai, K. Watanabe, Y. Kohno & R. Uruma (2007)- Migration of subduction in Central Java, Indonesia. Proc. 5th Int. Workshop Earth Science and Technology, Fukuoka, p. 377-384.

Setijadji, L.D, A. Imai, T. Itaya & K. Watanabe (2007)- Geology of metallic deposits in Java island (Indonesia) with a special reference to the island arc magmatism. Proc. Int. Workshop Earth Resources Technology, Fukuoka, p. 33-36.

Setijadji, L.D, A. Imai & K. Watanabe (2007)- Characteristics of mineralized volcanic centers in Javanese Sunda Island Arc, Indonesia. American Geophysical Union, Spring Meeting 2007, Abstract V23B-08, 1p.
(online at: http://adsabs.harvard.edu/abs/2007AGUSM.V23B..08S)
(Distinct volcanic belts related to Java trench subduction only since Oligocene. Metallic deposits in porphyry, high-sulfidation and low-sulfidation epithermal systems, all tied to subaerial volcanism and subvolcanic plutonism. Some volcanigenic massive sulfides deposits show mineralization in submarine environment. Most mineral deposits related to volcanic centers of Tertiary arcs; no mineralization associated with backarc magmatism. Major metallic deposits tied to deep, old crustal structures (strike-slip faults). Existing mines in (1) young (U Miocene- Pliocene) epithermal gold deposits in SW Java; (2) Oligocene-Miocene porphyry Cu-Au deposits, mainly in E Java and probably related to partial melting of subducted slab)

Setijadji, L.D., S. Kajino, Y. Kohno, D.H. Barianto et al. (2005)- Reconstruction of Cenozoic volcanic centers in Java Island (Indonesia): a key for understanding the geodynamic of subduction zone. Proc. 3rd Int. Workshop on Earth Science and Technology, Fukuoka 2005, p. 433-443.

Setijadji, L.D., S. Kajino, A. Imai & K. Watanabe (2006)- Cenozoic island arc magmatism in Java Island (Sunda Arc, Indonesia): clues on relationships between geodynamics of volcanic centers and ore mineralization. Resource Geology 56, 3, p. 267-292.
(online at: https://onlinelibrary.wiley.com/doi/pdf/10.1111/j.1751-3928.2006.tb00284.x)
(Java island multiple events of Cenozoic arc magmatism. Crustal compositions, subducted slabs and tectonics determined spatial-geochemical evolution of magmatism and metallogeny. Backarc-ward migrations of volcanic centers through Tertiary. Post-Miocene-Pliocene roll-back effects of retreating slab, slab detachment, and backarc magmatism in C Java. Increasing K-contents of magmas towards backarc-side and in younger magmas. Oceanic nature of crust and likely presence of hot slab subducting under E Java created adakitic magmas. Deep-seated crustal faults focused locations of overlapping volcanic centers and metalliferous fluids into few major gold districts. Porphyry deposits mostly in Lower Tertiary volcanic centers in E Java; high-grade, low-sulfidation epithermal gold deposits in U Miocene-Pliocene volcanic centers)

Setijadji, L.D. & A. Maryono (2012)- Geology and arc magmatism of the eastern Sunda magmatic arc, Indonesia. In: N.I. Basuki (ed.) Proc. Annual Conv. Indonesian Soc. Economic Geologists (MGEI). Malang 2012, Banda and Eastern Sunda arcs, p. 1-22.

Setijadji, L.D. & K. Watanabe (2009)- Updated age data of volcanic centers in the Southern Mountains of Central-East Java Island, Indonesia. Proc. Int. Seminar Geology of the Southern Mountains of Java, Gajah Mada University, Yogyakarta 2009, 1, p. 125-132.
(online at: http://lib.ugm.ac.id/digitasi/upload/3005_MU.121000017-ldsetijadi.pdf)
(Volcanic centers around Yogyakarta span ~30 Myrs, becoming younger to N: (1) Oldest group Late Oligocene age in S Mountains (~30-24 Ma; Kulon Progo South, Parangtritis, Bayat); (2) late Early- M Miocene cluster (~20-10 Ma; Selogiri, Semin, Wediombo, Menoreh/ Borobudur, Ponorogo) and (3) modern arc volcanoes of last ~2 My. Six Oligocene-Miocene volcanic centers form backbone of S Mountains)

Setyanta, B. (1999)- Stratigrafi kompleks Gunung Wayang, Pathuk, Yogyakarta, dan hubungannya dengan stratigrafi cekungan Pegunungan Selatan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 9, 89, p. 23-30.

(Stratigraphy of the Gunung Wayang complex, Pathuk, Yogyakarta, and relation with stratigraphy of the Southern Mountains'. On E Miocene Gn Wayang volcanic breccia unit between Semilir and Nglanggran Fms))

Setyadji, B., I. Murata, J. Kahar, S. Suparka & T. Tanaka (1997)- Analysis of GPS measurement in West-Java, Indonesia. Annuals Disaster Prevention Research Institute, Kyoto University, 40, B-1, p. 27-33.
(online at: https://repository.kulib.kyoto-u.ac.jp/dspace/bitstream/2433/80196/1/a40s0p05.pdf)
(GPS measurements along Cimandiri and Lembang fault zones, W Java, suggest N part Cimandiri FZ moved to NE and area under NE-SW directed compression)

Setyowati, T.P. & D.H. Amijaya (2016)- Hubungan kekerabatan minyak bumi daerah Wonosegoro dan sekitarnya, Boyolali, Jawa Tengah, berdasarkan data biomarker. In: R. Hidayat et al. (eds.) Proc. Seminar Nasional Kebumian 9, Dept. Teknik Geologi, Gadjah Mada University, Yogyakarta, p. 93-102.
(online at: https://repository.ugm.ac.id/137866/)
('Oil characteristics in Wonosegoro and surrounding areas, Boyolali, Central Java, based on biomarker data'. Biomarkers from oil seeps in Kerek Fm in W Kendeng Zone near Wonosegoro (Gunungsari, Repaking and Kemusu villages). Oils ºAPI 15.8, 29.8, and 18.8, and biodegraded. Probable source rock Ngimbang Fm)

Setyowati, T.P., Y.P. Nusantara, A.B. Wicaksono, A. Yusriani & A. Hidayatullah (2018)- Characteristics of oil seepages Boyolali: where did they come from? Proc. 2nd Research Forum 2018 Indonesian Society of Petroleum Geologists (ISPG), RF181SPG-020-SR, Depok 2018, p. 243-255.
(online at: https://www.researchgate.net/publication/375525229_CHARACTERISTICS_OF_OIL_SEEPAGES_BOYOLALI_WHERE_DID_THEY_COME_FROM)
(Lemigas paper on three oil seeps at Boyolali, in W Kendeng Zone, Central Java, in fault zonein Kerek Fm. Geochemical analysis show oil from Gunungsari seep high level of biodegradation, but oils from Repaking and Kemusu villages minor biodegradation. Biomarkers show oil derived from higher plants. Oils thermally mature. Rock geochem suggests oils not sourced from E Miocene Pelang Fm (oldest formation in outcrop))

Setyowiyoto, J., M. Datun & S. Winardi (2007)- Geologi dan tinjauan petroleum system daerah Bancak, Kabupaten Semarang berdasarkan manifestasi permukaan. Media Teknik (UGM) 29, 1, p. 15-26.
(Geology and review of petroleum system of the Banjak area, Semarang District, C Java. Oil and thermogenic gas seeps near Bata in W Kendeng zone SSE of Semarang, NE of Salatiga)

Setyowiyoto, J., B.E.B. Nurhandoko, A. Samsuri, B. Widjanarko & Thurissina (2007)- Influence of porosity and facies of Baturaja carbonate to the seismic wave velocity: case study of Tambun Field West Java. Proc. 31st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA07-G-102, p. 1-16.
(Strong relationship between seismic velocity and lithology facies)

Setyowiyoto, J. & S.S. Surjono (2003)- Analisis sedimentologi dan fasies pengendapan Formasi Kerek di daerah Biren dan Kerek, Kabupaten Ngawi, Jawa Timur. Media Teknik (UGM) 25, 4, p. 12-17.
(online at: http://i-lib.ugm.ac.id/jurnal/detail.php?dataId=3349)
('Analysis of sedimentology and facies of the Kerek Formation between Biren and Kerek, Ngawi, East Java'. Good outcrops along Solo River. Measured section of 250m of SW dipping Kerek Fm sandstone-claystone turbiditic series. Banyuurip and Sentul Members deposited in middle-outer fan environment; age M- U Miocene (N13-N17). Sediments sourced from N (quartzose material) and southern mountains (andesite and tuff clasts))

Seubert, B.W. & F. Sulistianingsih (2008)- A proposed new model for the tectonic evolution of South Java, Indonesia. Proc. 32nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA08-G-034, p. 1-22.
(New model for tectonic evolution of Java, suggesting several continental fragments, separated by individual subduction zones, docked onto Java and underlie S Mountains. Old Andesites are arc-volcanic product of older subduction phase which predates present-day subduction, and formed above S-dipping subduction zone)

Sharaf, E.F. (2004)- Stratigraphy and sedimentology of Oligocene- Miocene mixed carbonate and siliciclastic strata, East Java basin, Indonesia. Ph.D. Thesis, University of Wisconsin, Madison, p. 1-220. *(Unpublished)*

(Oligocene-Miocene strata of E Java mixed carbonate and siliciclastic sediments. Multiple stages of isolated carbonate mound growth surrounded by deeper marine off-mound sediments or by shallow-marine siliciclastics.Three main intervals: Kujung (~28--22 Ma; carbonate mound and off-mound), Tuban (~22-15 Ma; mixed carbonate-siliciclastic) and Ngrayong (Serravallian,~15--12 Ma; siliciclastic progradion of tidally influenced deltas grading into turbidites, basinal shale, mudstone and chalk)

Sharaf, E.F., M.K. Boudagher-Fadel, J.A. Simo & A.R. Carroll (2006)- Biostratigraphy and strontium isotope dating of Oligocene-Miocene strata, East Java, Indonesia. Stratigraphy 2, 3, p. 239-257.
(Oligocene-M Miocene in E Java grouped into three stratigraphic intervals, Kujung, Tuban and Ngrayong Fms. Larger foraminifera and planktonic foraminifera overlap in occurrence in many localities. Biostratigraphic ranges of larger benthic and planktonic foraminifera tied to the ages from Strontium isotope dating)

Sharaf, E.F., M.K. Boudagher-Fadel, J.A. Simo & A.R. Carroll (2014)- A revision of the biostratigraphy and strontium isotope dating of Oligocene-Miocene outcrops in East Java, Indonesia. Berita Sedimentologi 30, p. 44-58.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/134)
(Updated version of Sharaf et al. (2006, 2006) papers on NE Java basin Miocene biostratigraphy)

Sharaf, E., J.A. Simo, A.R. Carroll & M. Shields (2005)- Stratigraphic evolution of Oligocene-Miocene carbonates and siliciclastics, East Java basin, Indonesia. American Assoc. Petroleum Geol. (AAPG) Bull. 89, p. 799-819.
(Multiple stages of carbonate mound growth in E Java Oligo-Miocene. Three phases (1) Kujung (mound carbonates), (2) Tuban (mixed carbonate-siliciclastic), and (3) Ngrayong (siliciclastic). Kujung unit (~28-22 Ma) limited to few outcrops. At base shallow-marine carbonates that grade laterally into deep-marine calcareous mudstone- chalk (lower Kujung). Lower Kujung sediments covered by chalk and marls. Tuban (~22-15 Ma) shallow-marine mixed carbonate and siliciclastics and marine shale and chalk. At least six cycles of deltaic deposition with episodes of carbonate mound growth. Ngrayong unit (~15-12 Ma) period of regional siliciclastic influx and progradation of tide-influenced deltas and grades into turbidites, basinal shale, mudstone, and chalk. Ngrayong beds truncated by Serravallian-Tortonian Bulu carbonates)

Shields, M.L. (2005)- The evolution of the East Java Basin, Indonesia. Ph.D. Thesis, University of Wisconsin, Madison, p. 1-402. *(Unpublished)*
(E Java Basin originated in Eocene on continental crust, developing NE-SW trending paleo-highs at inception. Paleo-highs separated at wavelength of 80-100 km. Geohistory profiles and low heat flows in wells point to basin origin by lithospheric flexure of continental crust, not rifting. Stratigraphy mainly shelfal carbonates with influx of quartz sandstone in Miocene. Quartzose source from N of basin in Borneo, associated with exposed granites. Only Pliocene-Recent sediments (<5 Ma) sourced from volcanic centers to S. Basin development four stages (1) crustal buckling, starting in M Eocene with sediments in lows on folded continental crust; (2) flexural deepening, starting in Late Oligocene with gradual subsidence until E Miocene; (3) foreland inversion, starting in M Miocene, until M Pliocene; (4) arc convergence in U Pliocene with N-ward vergence of Sunda magmatic arc. During Pleistocene N- verging thrusts on S side of basin initiated reversal of basin symmetry)

Shingo, Y., A. Imai, R. Takahashi, K. Watanabe, A. Harijoko, I.W. Warmada, A. Idrus & P. Phoumephone (2010)- Condition of gold ore formation at Trenggalek Prospects, East Java, Indonesia. Proc. Int. Symposium on Earth Science and Technology, Fukuoka 2020, Japan, p. 411-414.

Shirzaei, M., M.L. Rudolph & M. Manga (2015)- Deep and shallow sources for the Lusi mud eruption revealed by surface deformation. Geophysical Research Letters 42, 10.1002/2015GL06457, p. 1-8.
(Inverse modeling of surface deformation at Lusi mud eruption in E Java suggests volume changes occur in two regions beneath Lusi, at 0.3-2.0 km and at 3.5-4.75 km. Shallow mud source supply ~2-3 times larger than deep source, but additional fluids ascend from >4 km)

Shulgin, A., H. Kopp, C. Muller, L. Planert, E. Lueschen, E.R.Flueh & Y. Djajadihardja (2011)- Structural architecture of oceanic plateau subduction offshore Eastern Java and the potential implications for geohazards. Geophysical J. International 184, 1, p. 12-28.
(online at: https://academic.oup.com/gji/article/184/1/12/603656)
(Offshore S of E Java in early stage of Roo Rise oceanic plateau subduction. Oceanic plateau crust 12-18 km thick and area of ~100,000 km^2. Upper oceanic crust high degree of fracturing. Forearc crust thickness 14 km, with sharp increase to 33 km towards Java. Two possible models: either accumulation of Roo Rise crustal fragments above backstop or uplift of backstop caused by basal accumulation of crustal fragments)

Shuto, T. (1974)- Notes on Indonesian Tertiary and Quaternary Gastropods mainly described by the Late Professor K. Martin I. Turritellidae and Mathildidae In: T. Kobayashi & R. Toriyama (eds.) Geology and Palaeontology of Southeast Asia, University of Tokyo Press, 14, p. 135-160.
(Taxonomic revisions of many of the new gastropod species described by K.Martin (~1880-1922), mainly Miocene- Pliocene turritellids from Java. With range chart, but no information on localities)

Shuto, T. (1978)- Notes on Indonesian Tertiary and Quaternary gastropods mainly described by the late Professor K. Martin, II. Potamididae and Cerithiidae. In: T. Kobayashi & R. Toriyama (eds.) Geology and Palaeontology of Southeast Asia, University of Tokyo Press, 19, p. 113-160.
(Second part of taxonomic revisions study of many of the new gastropod species described by K. Martin from Java. Incl. Sundabittium n.gen. for gastropod Cerithium fritschi from Eocene of Nanggulan)

Shuto, T. (1980)- A note on the Eocene turrids of the Nangulan Formation, Java. In: H. Igo & H. Noda (eds.) Prof. Saburo Kanno Memorial Volume, University of Tsukuba, Japan, 1, p. 25-52.

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(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/262/242)
('Dynamics of the Citarik Fault'. NNE-SSW trending fault across W Java, through Pelabuhan Ratu- Bogor-Bekasi. Active since M Miocene, initially transtensional, but left-lateral strike slip fault since Plio-Pleistocene)

Sidarto (2009)- Geologi Pegunungan Selatan di daerah Gunungkidul dan sekitarnya ditafsir pada cita alos. Proc. Workshop Geologi Pegununungan Selatan, Yogyakarta 2007, Pusat Survei Geologi, Bandung, Special Publ. 38, p. 1-18.
('Geology of the Southern Mountains in the Gunungkidul area and surroundings with Alos remote sensing data'. Brief review of geology/ structure of western S Mountains area)

Sidarto & M.J. Morwood (2004)- Solo River terrace mapping in the Kendeng Hills area: use of Landsat imagery and digital elevation model overlays. Jurnal Sumber Daya Geologi (JSDG) 14, 3 (147), p. 196-207.
(Sartono 1976 distinguished 6 Quaternary terraces up to 96m elevation along Solo River N of Ngawi. In this study 11 terraces of point bar deposits identified, combined in four groups. Oldest terrace Sembungan, 20m above river base. Ngandong terrace, famous for hominid fossils, 16m above river base)

Sidarto, T., Suwarti & D. Sudana (1993)- Geological map of the Banyuwangi Quadrangle, Jawa, 1704-4, scale 1:100,000. Geological Research Development Centre (GRDC), Bandung.
(E-most coastal area of Java, with folded Late Oligocene- early M Miocene tuffaceous sediments of Batuampar Fm, overlain by M Miocene Punung Lst, intruded by M Miocene andesites. Overlain by Pleistocene and younger volcanics)

Siemers, C.T., J.A. Deckelman, A.A. Brown & E.R. West (1993)- Characteristics of the fractured Ngimbang carbonate (Eocene), West Kangean-2 well, Kangean PSC, East Java Sea, Indonesia. In: C.T. Siemers et al. (eds.) Carbonate rocks and reservoirs of Indonesia, Core Workshop Notes, Indonesian Petroleum Association, Jakarta, p. 10.1-10.40.
(Gas in tight, fractured M-U Eocene W of Kangean Island. Mud-dominated platform facies, average matrix porosity 2%)

Siemers, C.T., L.C. Kleinhans & R. Young (1992)- Indonesian Petroleum Association 1992 SW Java Field Trip/ Core Workshop. Indonesian Petroleum Association (IPA), Fieldtrip guidebook, p. 1-116.
(Fieldtrip to SW Java Eocene at Gunung Walat, Bayah. With overviews of sedimentary structures, depositional environments and core from Widuri/ NW Java and Bentayan/ S Sumatra wells)

Siesser, W.G., D.W. Orchiston & T. Djubiantono (1984)- Micropalaeontological investigation of Late Pliocene marine sediments at Sangiran, Central Java. Alcheringa 8, 2, p. 87-99.
(Upper Kalibeng Fm and marine intercalations of Lower Pucangan Fm at Sangiran contain >30 calcareous nannoplankton taxa, indicating Late Pliocene age for both. Upper Kalibeng Fm assigned to Zone NN16 (3.25-2.3 Ma), Lower Pucangan Fm within zones NN16- NN18 (3.25- 1.65 Ma) (but may contain common reworked nannos). Assemblages also include reworked Late Miocene Discoaster quinqueramus)

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(Geophysical servey of Jiwo Hills, an area with igneous intrusives and Eocene Nummulites limestones)

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('Geomagnetic anomaly; relation to the mineralized zones in the Malingping area, Bayah and surroundings, Lebak Regency, Banten Province'. Three groups of magnetic anomalies. Low anomaly tied to intrusion of acid magmatic rocks at 500-2000m depth, similar to Cihara granodiorite intrusion, and important for Au and Ag mineralization in Cikotok and Cirotan areas)

Simandjuntak, T. (2004)- New insight on the prehistoric chronology of Gunung Sewu, Java, Indonesia. In: Modern Quaternary Research in Southeast Asia 18, p. 9-30.
(Gunung Sewu ('Thousand Mountains' more accurately 40,000 hills) karsted Miocene limestone area underwent uplift in M Pleistocene)

Simandjuntak, T.O. (1995)- Back-arc thrusting and Neogene orogeny in Java, Indonesia. In: J. Ringis (ed.) Proc. 31st Session Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Kuala Lumpur 1994, 2, p. 242-260. *(online at: https://repository.unescap.org/server/api/core/bitstreams/4198bc42-86c9-49fe-843e-60aebea03e54/content)*
(Late Neogene long, S-dipping thrust zone in back arc of Java, called Baribis Thrust in W Java and Kendeng Thrust in E Java. In W terminates at S end of Sumatra fault system in Sunda Strait, in E continues across Madura Straits to Flores Sea. Part of 'Sunda Orogeny'. also causing plutonic intrusions and uplift of S Java and Nusatenggara)

Simandjuntak, T.O. (1979)- Sediment gravity flow deposits in Pangandaran-Cilicap region, South-West Java and their bearing on the tectonic development of southwestern Indonesia. Bull. Geological Research Development Centre (GRDC), Bandung, 2, p. 21-54.
(Sedimentology of Oligocene-Lower Miocene Jampang Fm near S Coast of C-W Java. Gravity flows rich in volcanic arc material. Lower part of succession derived from S or SW, upper part from N or NW. Similar deposits in Late Miocene- E Pliocene Halang Fm)

Simandjuntak, T.O. (2004)- Tectonostratigraphy of Jawa. Proc. Workshop Stratigrafi Pulau Jawa, Bandung 2003, Geological Research Development Centre (GRDC), Bandung, Special Publ. 30, p. 21-36.

(Six tectonostratigraphic zones: Basement (J-K metamorphics 213-125 Ma and Cretaceous- Eocene granites 87-52 Ma), Paleogene volcanics, Paleogene shelf, Neogene volcanics and inter-arc, Neogene fore-arc and Neogene back-arc)

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(online at: https://www.sciencedirect.com/science/article/pii/S1367912025003608)
(Mw 5.2 earthquake in SE-most Java on July 9, 2022 revealed evidence for previously unidentified active backthrust fault system. Steep S-dipping fault 5-20 km in forearc above subducting slab)

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(Seismic imaging of two intervals of isolated carbonate platform and mound development N of Madura: E Miocene, Kujung Fm and Late Miocene, Wonocolo Fm)

Simo, T., D. Nugroho, J.T. van Gorsel, F. Hakiki, R.P. Sekti, C.J. Strohmenger, D. Noeradi & B. Sapiie (2011)- Sedimentology and sequence stratigraphy of the Rajamandala Limestone. In: B. Sapiie & T. Simo, The stratigraphy and structure of the Oligocene (Chattian) Rajamandala Limestone, Bandung, Western Java, Indonesia, Indonesian Petroleum Association (IPA) Field Trip, p. 1-15.

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(online at: www.searchanddiscovery.com/documents/2012/20159simo/ndx_simo.pdf)
(In Cepu area, NE Java, widespread carbonate deposition in Late Eocene- E Oligocene, followed by M and end-Rupelian erosion/ exposure. After M-Oligocene unconformity increasing accommodation forced carbonate factory to backstep to small areas over pre-existing highs, followed by Chattian-Burdigalian aggradational phase. Change from carbonate to siliciclastic deposition during Burdigalian-Langhian transition. Banyu Urip carbonate reservoir is steep-flanked carbonate buildup with ~3300' of relief. Common fractures)

Simo, T., M. Weidmer, S. van Simaeys, R. Sekti, H. van Gorsel, C. Strohmenger & A. Derewetzky (2011)- Sequence stratigraphic correlation and sedimentological implications, East Java Basin; comparisons and lessons learned from outcrop and subsurface studies. Proc. 35th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA11-G-234, p. 1-9.
(Stratigraphic correlation in onshore NE Java Basin between Late Oligocene- Miocene of subsurface Cepu Block and outcrops in Rembang Hills)

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(online at: http://pustaka.geotek.lipi.go.id/wp-content/uploads/2016/02/Riset-Vol.1-No.2-78.pdf
('Stratigraphy and depositional history of oil shale in the Mangunweni-Karang Bolong area'. Thin (0.3-1.6m) oil shale of early M Miocene age, near Mangunweni in Karangbolong area of S C Java. Oil content 6.2- 14.5%. Above volcanic breccia, below sandstone-limestone. Deposited in lagoonal environment.)

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(online at: https://www.iagi.or.id/web/digital/64/67.pdf)
('Limestone sedimentation of the Kalipucang Fm, SW Java')

Siregar, M.S. (1984)- Sedimentasi Formasi Rajamandala di daerah Tagogapu- Padalarang, Jawa Barat. J. RISET Geologi dan Pertambangan (LIPI) 5, 2, p. 25-36.
(online at: http://pustaka.geotek.lipi.go.id/wp-content/uploads/2016/02/Riset-Vol.5-No.2-2.pdf)
('Sedimentation of the Rajamandala Formation in the Tagogapu- Padalarang area, West Java'. Three types of limestone in E part of outcrops of latest Oligocene- earliest Miocene Rajamandala Fm: planktonic packstone, Lepidocyclina packstone and coral-lithoclast rudstone, interbedded with planktonic foram marl)

Siregar, M.S. (2005)- Sedimentasi dan model terumbu Formasi Rajamandala di daerah Padalarang-Jawa Barat. J. RISET Geologi dan Pertambangan (LIPI) 16, 1, p. 61-81.
(online at: http://elib.pdii.lipi.go.id/katalog/index.php/searchkatalog/downloadDatabyId/7924/7924.pdf)
('Sedimentation and reef model of the Rajamandala Formation in the Padalarang area, W Java'. Late Oligocene-E Miocene Rajamandala Fm carbonates interpreted to represent ENE-WSE trending barrier reef with reef front and basin to N. Reef front three facies (planktonic packstone, Lepidocyclina packstone and rudstone); reef core boundstone facies three subfacies (framestone, bafflestone and bindstone). Boundstone facies deposited in reef crest to reef flat environment. Miliolid packstone facies in various environments including surge channel, lagoon and back reef)

Siregar M.S., Kamtono, Praptisih & M.M.Mukti (2004)- Reef facies of the Wonosari Formation, South Central Java. J. RISET Geologi dan Pertambangan (LIPI) 14, 1, p. 1-17.
(online at: https://tektonesiana.files.wordpress.com/2021/11/siregar-et-al.-2004-reef-facies-of-the-wonosari-formation-south-of-central-java.pdf)
(Limestones of (?Middle Miocene-Pliocene) Wonosari Fm in Southern Mountains S of Yogyakarta excellent exposures of Tertiary reefs. Facies include planktonic packstone-wackestone (basinal toe of slope), packstone-rudstone (reef slope), coral boundstone (reef), grainstone-packstone facies (surge channel to lagoonal sediments) and algal-foraminiferal packstones (back reef to shelf sediments))

Siregar, M.S. & D. Mulyadi (2007)- Fasies dan diagenesa Formasi Rajamandala di daerah Padalarang, Jawa Barat. In: A. Tohari et al. (eds.) Pros. Seminar Geoteknologi Kontribusi ilmu kebumian dalam pembangunan berkelanjutan, Puslitbang Geoteknologi (LIPI), Bandung, p. 19-23.
(online at: http://pustaka.geotek.lipi.go.id/index.php/2016/01/20/prosiding-2007/)
('Facies and diagenesis of the Rajamandala Formation in the Padalarang area, West Java'. Five carbonate facies distinguished in Late Oligocene Rajamanda Lst. Facies map showing ~15km long WSW-NNE trending zone of reefal boundstone, fringed by reef slope Lepidocyclina packstones to N, lagoon- backreef miliolid packstones to S)

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(online at: www.geotek.lipi.go.id/wp-content/uploads/2008/08/04_safeipraptisih_1.pdf)
(Facies study of Campurdarat Fm carbonates in S part of Trenggalek- Tulungagung area (E Java, S coast). Four carbonate facies types. Interpreted as barrier-reef with back-reef part to S and reef front facing North. Age reported as Early Miocene (but larger foraminifera characteristic of zone Lower Tf and could be Middle Miocene?; JTvG))

Siregar, P. & Harsono Pringgoprawiro (1981)- Stratigraphy and planktonic foraminifera of the Eocene-Oligocene Nanggulan Formation, Central Java. Publ. Geological Research Development Centre (GRDC), Bandung, Seri Paleontologi 1, p. 9-28.
(M Eocene- Early Oligocene planktonic forams in Nanggulan Fm marine clastic section overlain by Old Andesites)

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(online at: www.journal.lemigas.esdm.go.id/index.php/LPMGB/article/view/387)
('Evaluation of the geology of a gas seep in the Merapi region, Purwodadi, Central Java'. Natural gas seep in Merapi area, on W side of Godong High)

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(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/download/1163/949/2386)
(Oil-gas production in Cepu area from upper Tuban (Ngrayong Sand) and Kawengan Fms. Rel.high total organic content (av. 0.75%) in Tuban Fm; low TOC in Kawengan Fm. Thermal maturity confined to Tuban Fm. Kerogen mainly Type III, with limited Type II. Source probably in Tuban Fm and/or deeper section)

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(online at: https://www.iagi.or.id/web/digital/14/2008_IAGI_Bandung_Biostratigrafi-dan-Lingkungan.pdf)
('Biostratigraphy and depositional environment of the Ngrayong Formation in the Cepu area'. Discussion of foram biostratigraphy in and around M Miocene (N9-N12) quartz-rich Ngrayong sandstone in wells Cepu 1-6 (not real well names?). With foram distribution charts, well correlations and paleogeographic map showing transition from inner neritic in N to bathyal paleoenvironment in S)

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('Organic content and geochemical properties of Paleogene and Neogene claystones in the Serayu Basin: an analysis of potential hydrocarbon source rocks'. Geochemistry of 2 samples of Paleogene claystone, 3 Neogene and one oil seep sample. TOC of Neogene claystone higher than Paleogene. One Neogene sample classified as oil- gas source; all others gas source rock. Neogene claystone at Gintung River can be correlated with oil seep. Kerogen types of all claystones Type III (terrestrial) to Type II (mixing terrestrial and marine))

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(Rebuttal of Rutten (1952- Geosynclinal subsidence versus glacially controlled movements in Java and Sumatra) critique of Smit Sibinga (1949) paper. Repeats conclusion that Pleistocene eustatic sea level changes do interfere with large scale sedimentation trends)

Smyth, H.R. (2005)- Eocene to Miocene basin history and volcanic activity in East Java, Indonesia. Ph.D. Thesis University of London, p. 1-476. *(Unpublished)*
(Exposed Cretaceous basement in E Java of arc and ophiolitic character. Archean zircons in Miocene volcanics indicate basement beneath E Java includes Australian origin continental crust. Arc volcanism starts in M Eocene, earlier than previously thought (Late Oligocene). Many Cenozoic deposits previously interpreted as continental clastics from Sundaland with significant volcanic component and local basement source. Many quartz sst described as 'mature' are primary, crystal-rich volcaniclastics. Extensive explosive Plinian-style volcanism in M Eocene- E Miocene of E Java. Potential super-eruption in S Mountains (Semilir Eruption) at ~20 Ma. Load of volcanic arc may have generated Kendeng zone flexural basin. Late Cenozoic deformation and associated uplift in number of phases and not single event)

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(online at: http://searg.rhul.ac.uk/pubs/smyth_etal_2011_Semilir%20eruption%20Java.pdf)
Major E Miocene 'Semilir eruption' in S Mountains of E Java, with main phase at ~20.7 Ma)

Smyth, H. & R. Hall (2003)- Field guide to the geology of South East Java. University of London SE Asia Research Group Fieldtrip, October 2003, p. 1-47. *(Unpublished)*

Smyth, H., R. Hall, J. Hamilton & P. Kinny (2003)- Volcanic origin of quartz-rich sediments in East Java. Proc. 29th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 541-559.
(online at: http://searg.rhul.ac.uk/pubs/smyth_etal_2003%20Java%20volcanic%20quartz_IPA.pdf)
(Volcanic arc active in S Java from M Eocene-E Miocene. After lull in M Miocene, Late Miocene-Recent arc activity ~50 km farther N. Most Eocene-Miocene sands onshore Java have high volcanogenic content)

Smyth, H., R. Hall, J. Hamilton & P. Kinny (2005)- East Java: Cenozoic basins, volcanoes and ancient basement. Proc. 30th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 251-266.
(online at: https://espace.curtin.edu.au/handle/20.500.11937/21075)
(E Java geology overview. Regional angular unconformity above U Cretaceous and older basement, with oldest rocks above unconformity M Eocene-Lower Oligocene (gradual transgression). After intra-Oligocene hiatus suggest sea-level fall. Arc volcanic material dominated in Southern Mountains and Kendeng Zones, while in Rembang Zone carbonate deposition continued. In E Miocene Southern Mountains Volcanic Arc activity culminated in major eruptive phase at ~20 Ma. Continental Sundaland provided very little terrigenous material

to E Java in Cenozoic. Archean zircons in Cenozoic sediments of Southern Mountains suggest underlying Gondwana continental crust (or W Australia-derived subducted sediments?; JTvG) below parts of S Mountains)

Smyth, H.R., R. Hall & G.J. Nichols (2008)- Significant volcanic contribution to some quartz-rich sandstones, East Java, Indonesia. Journal of Sedimentary Research 78, 5, p. 335-356.
(online at: http://searg.rhul.ac.uk/pubs/smyth_etal_2008_quartz%20in%20java_opt.pdf)
(Cenozoic quartz-rich sandstones from E Java long been assumed to be product of erosion of continental source, but significant volcanic component. Quartz from acidic volcanic sources commonly overlooked)

Smyth, H.R., R. Hall & G.J. Nichols (2008)- Cenozoic volcanic arc history of East Java, Indonesia: the stratigraphic record of eruptions on a continental margin. In: A.E. Draut, P.D. Clift & D.W. Scholl (eds.) Formation and applications of the sedimentary record in arc collision zones. Geological Society of America (GSA), Special Publ. 436, p. 199-222.
(online at: http://searg.rhul.ac.uk/pubs/smyth_etal_2008%20East%20Java.pdf)
(Indian Ocean lithosphere subducted continuously beneath Java from ca. 45 Ma, resulting in formation of volcanic arc, although volcanic activity not continuous. S Mountains Arc active from M Eocene- E Miocene (~45-20 Ma), and activity included significant acidic volcanism. Zircon ages in arc rocks indicates that acidic character of volcanism related to contamination by fragment of Archean- Cambrian continental crust beneath the arc. Activity in S Mountains Arc ended at 20 Ma with phase of intense eruptions. Volcanic quiescence from ~20-12 Ma, after which arc volcanism resumed in modern Sunda Arc, with axis 50 km N of older arc)

Smyth, H.R., P.J. Hamilton, R. Hall & P.D. Kinny (2007)- The deep crust beneath island arcs: inherited zircons reveal a Gondwana continental fragment beneath East Java, Indonesia. Earth Planetary Science Letters 258, p. 269-282.
(online at: http://searg.rhul.ac.uk/pubs/smyth_etal_2007%20Gondwana%20crust%20E%20Java_EPSL.pdf)
(Inherited zircons from Late Oligocene -E Miocene volcanic arc rocks along E Java S coast with Archean (~2.6-2.7 Ga), Proterozoic (900-1250 Ma, 1600-1850 Ma) and Cambrian (500-750 Ma) age zircons, probably recycled from underlying Gondwana continental fragment (W Australia). Clastics from N and W parts of E Java mainly Cretaceous zircons (Borneo=derived?), not present in arc rocks to S. Continental crust was present at depth beneath arc in S Java when Cenozoic subduction began in Eocene)

Soe, U.T., J. Sinomiya, I.W. Warmada, L.D. Setijadji, A. Imai & K. Watanabe (2004)- Geology and gold-copper mineralization at Selogiri area, Wonogiri regency, Central Java, Indonesia. Proc. 1st Int. Symposium Earth Resources Engineering and Geological Engineering Education (SEED), Yogyakarta 2004, p. 20-24.

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('Study of turbidite facies of the Halang Formations in the Panusupan area, Banyumas, Central Java'. Latest Miocene- E Pliocene (N18-N19) turbiditic sandstones, claystones, tuffaceous sandstone in Banyumas basin SW of Purwokerto sourced from magmatic arc in N)

Soedjoprajitno, S. & Djuhaeni (2006)- Unit genesa pasir Ngrayong di Desa Ngepon Jatim, Cekungan Jawa Timur Utara. Buletin Geologi (ITB), Bandung, 38, 1, p.
('Genesis of Ngrayong sand unit in Ngepon village, East Java, NE Java Basin')

Soeharto, R.S. (1987)- Gold and silver mineralization in sulphide vein deposits of the Cikotok area, West Java, Indonesia, M. Sc. Thesis, University of Wollongong, p. 1-130.
(online at: http://ro.uow.edu.au/theses/2830/)
(Cikotok mineralization in Tertiary volcano-magmatic belt of Java Island. Gold-silver mineralization at Cikotok accompanied by base metal sulphides, and is hosted by altered calc-alkaline volcanic rocks of Oligo-Miocene Old Andesite Fm (mostly andesites). Alteration of host rocks mainly silicification, propylitization, carbonatization, sericitization, chloritization and argilitization)

Soeka, S. & Mudjito (1993)- Paleogene foraminiferal biostratigraphy and its problem in the South Central Jawa, Indonesia. In: T. Thanasuthipitak (ed.) Int. Symposium Biostratigraphy of mainland Southeast Asia: facies and paleontology (BIOSEA), Chiang Mai 1993, 2, p. 470. *(Abstract only)*
(Brief review of Paleogene occurrences in S Java; little specific detail)

Soeka, S., Suminta & T. Sudjaah (1980)- Neogene benthonic foraminiferal biostratigraphy and datum-planes of East-Jawa basin. Proc. 9th Annual Meeting Indonesian Association Geologists (IAGI), Yogyakarta, p.
(Review of six Late Miocene-Pleistocene biozones based on rotaliid benthic foraminifera from outcrop sections in NE Java. Defined by evolutionary appearances of (old to young): Asterorotalia subtrispinosa, A. trispinosa, Pseudorotalia catilliformis, Asanoina globosa, P. tikutoensis/ P. indopacifica and Calcarina calcar)

Soeka, S., Suminta, E. Thayib & T. Sudjaah (1981)- Neogene benthonic foraminiferal biostratigraphy and datum-planes of East Java basin. Lemigas Scientific Contributions 5, 1, p. 1-25.
(Similar to Soeka et al. 1980 above. Six biozones, numbered NB1- NB6, identified, based on 12 outcrop sections in NE Java basin, using first appearances of biostratigraphically significant benthic forams)

Soeka, S., Suminta, E. Thayib & T. Sudjaah (1982)- The Miocene/Pliocene boundary in the North-East Java basin. Lemigas Scientific Contributions (= Scientific Contributions Oil & Gas) 5, 2, p. 3-15.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/906/704)
(Late Miocene- E Pliocene (bio-)stratigraphy of NE Java Basin. Regressive phase at end Miocene, followed by transgression. Base Globorotalia tumida datum used here for Mio-Pliocene boundary datum = within uppermost Kerek Fm in Kendeng Zone and in uppermost Ledok Fm in Rembang Zone)

Soenandar, H.B. (1996)- Western Indonesian Basins: constraints on their thermal history and provenance from Fission Track Analysis. Ph.D. Thesis, University of Waikato, Hamilton, NZ, p. 1-378. *(Unpublished)*

Soenandar, H.B. (1997)- Thermal history of the western Indonesian basins (Sunda-Asri, Northwest Java and Southwest Java): evidence from fission track geochronology of apatite. In: J.V.C. Howes & R.A. Noble (eds.) Proc. Conf. Petroleum Systems of SE Asia and Australasia, Jakarta, Indonesian Petroleum Association (IPA), p. 601-629.
(Apatite fission track from basement in Ciletuh, SW Java, basement of NW Java Basin, and from Eocene-Pleistocene sediments of Sunda-Asri, NW Java and SW Java forearc basins. Forward modelling indicates rapid increase in geothermal gradient Sunda-Asri and NW Java Basin since Plio-Pleistocene, probably caused by formation of Neogene volcanic belt. Ciletuh-Cimandiri region of SW Java forward modelling implies ~90°C of cooling in Late Miocene-E Pliocene, corresponding to ~3 km of uplift where basement is exposed)

Soenandar, H.B. (1999)- The role of the Sunda Shelf as the provenance of western Indonesia Tertiary basin: a zircon fission track study result. In: H. Darman & F.H. Sidi (eds.) Tectonics and sedimentation of Indonesia, FOSI-IAGI-ITB Regional Seminar to commemorate 50th anniversary of Van Bemmelen's Geology of Indonesia, Bandung 1999, p. 22. *(Abstract only)*
(Zircon FT data from W Java: SW Java melange and NW Java basin basement: ~88-110 and 191-220 Ma; Eo-Oligocene sediments of Ciletuh, Walat, Jatibarang: ~61-65 and 128-161 Ma, etc. All rocks strong Late Cretaceous signals, replaced by E Miocene component by E Miocene)

Soenandar, H.B. & P.J.J. Kamp (1998)- Constraints on sedimentary provenance in the Sunda-Asri Northwest Java Basins and the Ciletuh region: evidence from zircon fission track (FT) analysis. Proc. 26th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 348. *(Poster abstract)*
(Zircon FT data from basement and sediments SW Java. All rocks strong Late Cretaceous signals, etc. etc.)

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('Analysis of the Jatibungkus Limestone, Karangsambung, Central Java'. Eocene limestone study; see also Paltrinieri et al. 1976))

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('Tectonic aspects from the stratigraphic evolution of the Todanan area, East Java')

Soeparyono, N. (1988)- Structural development of hydrocarbon traps in the Cepu Oil fields (Central Java), Indonesia. M.Sc. Thesis University of New South Wales (UNSW), Sydney, p. 1-303.
(online at: https://doi.org/10.26190/unsworks/10812)
(See also paper below. 70-75% of Cepu fields oil production from M Miocene Ngrayong Fm sands. Two different structural styles in area of old Cepu oil fields in NE Java: (1) in west, Nglobo-Semanggi field affected by basement-involved convergent wrench faults, (2) in east, Kawengan area by reverse faults with folds, not basement-involved. Some compressional structures formed at time of Middle Miocene Orogeny. With collection of vintage seismic lines over old onhore NE Java fields)

Soeparyono, N. & P.G. Lennox (1989)- Structural development of hydrocarbon traps in the Cepu Oil field Northeast Java, Indonesia. Proc. 18th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 139-156. *(online at: https://www.researchgate.net/profile/P-Lennox/publication/315029530_Structural_development_of_hydrocarbon_traps_in_the_Cepu_Oil_Field_northeast_Java_Indonesia/links/58c8782fa6fdcca65702e3e8/Structural-development-of-hydrocarbon-traps-in-the-Cepu-Oil-Field-northeast-Java-Indonesia.pdf)*
(Cepu oil fields in shallow water limey-clastic sequence in rifting back-arc basin with NE-SW basement faults. Deformation in early M Miocene caused basement fault reactivation in Nglobo-Semanggi with wrenching and development of flower structures, causing erosion of main reservoir rocks. Later Pliocene flower structures in Nglobo-Semanggi area, reflected at surface as en echelon anticlines. Tambakromo-Kawengan area minor N over S thrusting along E-W oriented listric reverse faults with detachment at shallow depths and development of Tambakromo-Kawengan hydrocarbon-bearing folds. Such folds related to imbricate blind thrusts parallel to Tambakromo-Kawengan thrust)

Soeparyono, N. & P.G. Lennox (1990)- Structural development of hydrocarbon traps in the Cepu oil fields, Northeast Java, Indonesia. J. Southeast Asian Earth Sciences 4, 4, p. 281-291.
(New model for Cepu oil fields. Generally shallow-water sequence developed in rifting back-arc basin with NE-SW oriented basement faults. Early M Miocene reactivation of basement faults in Nglobo-Semanggi area with flower structures caused areally restricted erosion of main reservoir rocks. Upper Pliocene deformation accelerated development of flower structures in Nglobo-Semanggi, shown at surface as en echelon, oil-bearing anticlines. Tambakromo- Kawengan area minor N over S thrusting along E-W oriented reverse faults with shallow detachment depth. Further hydrocarbon-bearing folds may exist N of Tambakromo-Kawengan structure: blind imbricate thrusts parallel to Tambakromo- Kawengan thrust)

Soeparyono, N. & P.G. Lennox (1991)- Structural styles, Cepu oil fields, Java, Indonesia. Exploration Geophysics (Bull. Soc. Australian Exploration Geophysicists) 22, 2, p. 369-374.
(Same paper as Soeparyono & Lennox 1990, 1991. Reinterpretation of 18 local and 7 regional seismic lines, well data and surface geology enabled new structural model for Cepu oil fields, which include both wrench and compressional structures)

Soepomo, D. & S. Bachri (1983)- Geologi daerah Kliripan dan sekitarnya Kab. Kulonprogo DIY serta genesa deposit biji mangaan di Kliripan. Teknik Geologi Univ. Gadjah Mada (UGM), p.
('Geology of the Kliripan area and surroundings and genesis of manganese ore deposits at Kliripan')

Soeria-Atmadja, R., R.C. Maury, H. Bellon, H. Pringgoprawiro, M. Polve & B. Priadi (1991)- The Tertiary magmatic belts in Java. In: E.P. Utomo et al. (eds.) Proc. The Silver Jubilee LIPI- Symposium on the Dynamics of subduction and its products, Yogyakarta-Karangsambung 1991, Research and Development Center for Geotechnology, Indonesian Institut of Sciences (LIPI), Bandung, p. 98-119.

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(online at: https://www.academia.edu/24640562/Tertiary_magmatic_belts_in_Java)
(Two episodes of arc volcanism in E Java: 'Old Andesites'~40-18 Ma in Southern Mountains, then start of modern Sunda Arc at 12-11 Ma ~50 km farther N)

Soeria-Atmadja, R. & D. Noeradi (2005)- Distribution of early Tertiary volcanic rocks in South Sumatra and West Java. The Island Arc 14, p. 679-686.
(Three main phases of volcanism: (1) M-L Eocene (43-33 Ma) island-arc tholeites (2) tholeitic pillow basalt in Miocene (11 Ma) and (3) calc-alkaline magmatism in Pliocene- Quaternary. Early Tertiary volcanics of Java S coast can be traced E as far as Flores; do not continue into S Kalimantan. Outboard shift in ?Eocene relative to Late Cretaceous arc related to docking of 'Sumba microcontinent', which also comprises much of E Java- Paternoster Platform- Spermonde Shelf, etc.)

Soeria-Atmadja, R., H. Pringgoprawiro & B. Priadi (1990)- Tertiary magmatic activity in Java: a study on geochemical and mineralogical evolution. In: Pros. Persidangan Sains Bumi and Masyarakat, Univ. Kebangsaan Malaysia, Kuala Lumpur July 1990, p. 164-180.

Soesilo, J., I.R. Palupi, W. Raharjo, S. Sutanto, F.A. Sulistyohariyanto, K.G.B. Ekaristi & F.B. Stiawan (2018)- Subsurface S-type granitoid identification based on gravity and seismic tomography models in Pacitan, East Java. Eksplorium 39, 2, p. 75-84.
(online at: https://ejournal.brin.go.id/eksplorium/article/view/7982/6105)
(Late Paleogene? S-type granitoid outcrop in Montongan, SE Pacitan, E Java. Gravity model suggests pluton 5 km wide and rootless. N-S seismic tomographic model indicates dense solid body overrides recent Java subduction zone. Supports idea of microcontinent beneath Southern Mountains of E Java?)

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('Study of the petrology of pillow lava from the Oligo-Miocene series of Kaki Lereng, S Mountains, C Java'.

Soesilo, J., E. Suparka, C.I. Abdullah & V. Schenk (2010)- Petrology and geochemistry of the quartz-white mica schist in the Luk Ulo Melange Complex, Central Java. Buletin Geologi 40, 3, p. 123-138.
(online at: http://eprints.upnyk.ac.id/12890/)
(Quartz-white mica schist from Pretertiary Luk Ulo complex in Sadang Area, 8 km N of Karangsambung and in Kaliwiro area, S Wonosobo mainly contains quartz; white mica, albite, garnet, etc. Foliated, gently N-NW dipping. Rutile and garnet indicated high pressure. Geothermometry/ geobarometry calculations suggest metamorphism at ~50 km depth)

Soesilo, J. & Sutanto (2000)- Study on garnet bearing quartz-muscovite schist blocks of the Luk Ulo Melange Complex, Kebumen, Central Java. Proc. Annual Meeting Indonesian Association Geologists (IAGI), Bandung 2000, 4, p. 1-5.
(Garnet-bearing quartz-muscovite schist outcrops in Kali Brengkok in Luk Ulo melange complex together with ophiolite, Nummulites limestone, turbidite sediments, high -P metamorphics and metabasite. Interpreted as continental protolith. K-Ar dates from muscovite yielded ~Aptian ages of 117, 115 and 110 Ma (Ketner et al. 1976, Miyazaki et al. 1998). Presence of Nummulites limestones as boudins in melange suggest melange formation still in progress in Eocene)

Soetantri, B., L. Samuel & G.A.S. Nayoan (1973)- The geology of the oil fields in North East Java. Proc. 2nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 149-176.
(Description of the old Cepu area oil fields, E Java. All young surface anticlines, with M Miocene- Pliocene clastics reservoirs)

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Soekardi Poespowardoyo, R. (1981)- Hydrogeological map of Indonesia, 1:250,000, Sheet XI. Jember (Jawa). Directorate of Environmental Geology, 1 map sheet.
(Three hydrogeological provinces in Jember region of E Java: (1) Southern Mountains, karst terrane, (2) the Quaternary Volcanic Province (Tarub, Ijang, Raung-Anjar, etc.) and (3) the Lowland Plain Provinces (; highest groundwater potential, in alluvial deposits))

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(online at: http://jurnal.unpad.ac.id/bsc/article/view/9791/pdf)
('Planktonic foraminifera biozonation in the Cipamingkis River section, Jonggol, West Java Province'. Jatiluhur Fm in Cipamingkis River with M-L Miocene planktonic foraminifera of zones N13-N16)

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(online at: http://seminar.ftgeologi.unpad.ac.id/wp-content/uploads/2016/02/Distribution-of-Ostracoda-from-Measured-Section-Data-at-Cimerang-River.pdf)
(Late M Miocene shallow marine deposits of Nyalindung Mb of Cimandiri Fm in Cimerang-River section, Sukabumi, W Java. Dominated by 6 species of ostracoda: Hemicytheridea ornata, H. reticulata, Cytherella hemipuncta, Cytherelloidea excavata, Cytherella javaseanse and Keijella carriei)

Somosusastro, S. (1956)- A contribution to the geology of the eastern Jiwo hills and the southern range in Central Java. Indonesian J. Natural Science (Majalah Ilmu Alam untuk Indonesia) 112, p. 115-134.

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(online at: http://pustaka.geotek.lipi.go.id/wp-content/uploads/2016/02/Riset-Vol.1-No.1-22-.pdf)
('Summary of tectonic events at the Old Andesite rocks in the south of East Java'. Rocks of mid-Tertiary Old Andesite arc at least 2 deformation periods: (1) M Miocene N-S compression, with dioritic- granodioritic intrusions; (2) Plio-Pleistocene migration of subduction towards Indian Ocean, with local N-S compression)

Sopaheluwakan, J. (1994)- Do Karangsambung (Central Java) and Bantimala (SW Sulawesi) form a single subduction process? a provocative view. Proc. 30th Anniversary Symposium Research and Development Centre for Geotechnology (LIPI), Bandung, 2, p. 7-8.
(Cretaceous subduction complexes of Ciletuh (W Java), Karangsambung and Bayat (C Java), Meratus (S Kalimantan), and Bantimala and Barru (S Sulawesi) may belong to same orogenic belt. Bantimala and Barru complexes may form single and intact Mesozoic basement, linked to Meratus Range prior to Makassar Strait opening. Karangsambung and Bantimala common early history and form single tectonic entity. Metamorphism-exhumation- accretion cycle in both areas in Late Jurassic-Cretaceous, with Bantimala earlier than Karangsambung. Karangsambung accretion may have continued to Paleocene. HP metamorphism at 500- 600° C and 10-14 kb between 135-110 Ma, transformed basaltic rocks and trench-fill sediments into blueschist and eclogite at depths of >40 km. Fast uplift to 20-25 km immediately after peak metamorphism, while subduction continued during most of Cretaceous in C Java and ceased in Albian time in Bantimala)

Sopaheluwakan, J., K. Miyazaki, I. Zulkarnain & K. Wakita (1993)- Early Cretaceous Eastern Sunda subduction metamorphism and its tectonic implications: record from Karangsambung and Bantimala eclogite. Proc. 22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, p. ?

Sopaheluwakan, J., K. Wakita, K. Miyazaki & I. Zulkarnian (1994)- Late Mesozoic subduction polarity reversal along the southeastern Sunda margin: a new vision on the Meratus-Bantimala-Karangsambung triangle. In: Tectonic evolution of SE Asia Conference, Abstract volume, London 1994, p. 56. *(Abstract only?)*

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(Hydrocarbons in pre-Parigi reservoirs on Pre-Tertiary basement. Reservoirs complex, consisting of volcanic tuff, conglomerate, sandstone and carbonate, and with facies changes and combination traps. Structures drape over basement blocks. Hydrocarbons in lower units (Jatibarang Volcanics, Lower Cibulakan) and probably also in upper units (U Cibulakan) originate from Talang Akar Fm. Vertical fractures important for hydrocarbon migration into upper units. High temperatures from DST probably related to recent volcanic influence and are higher than paleo temperatures indicated by maturation evaluation)

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(Seismotectonics between Java-Timor. Aseismic gap without strong earthquakes in Wadati-Benioff zone between 100-200 km depth. Active calc-alkaline volcanoes in Sunda Arc above this gap. Majority of earthquakes in wedge above subducted slab attributed to deep regional fracture zones, displaying thrust tectonic regime. Clusters of earthquakes beneath active volcanoes seismically active columns, induced by magma transport through lithospheric wedge. No seismically active columns beneath volcanoes of C Java: not at outcrop of seismically active fracture zone)

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(online at: https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1029/2005TC001867)
(Earthquake foci in central part of Sunda Arc (S Sumatra, W Java, Timor) show distinct strip of earthquakes distributed along Java Trench, separated by trench-parallel, 50-150 km wide aseismic link)

Sribudiyani, N. Muchsin, R. Ryacudu, T. Kunto, P. Astono, I. Prasetya, B. Sapiie, S. Asikin, A.H. Harsolumakso & I. Yulianto (2003)- The collision of the East Java microplate and its implication for hydrocarbon occurrences in the East Java Basin. Proc. 29th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 335-346. *(online at: /www.researchgate.net/profile/Agus-Harsolumakso/publication/285848798_The_collision_of_east_java Etc.)*
(Collision of Gondwanan microcontinent and Sundaland between Late Cretaceous and M Eocene(based on age ofLukUlo melange?), creating Meratus Mts in SE Kalimantan and Lok Ulo melange in C Java. E-W structural trends of E Java inherited from colliding microplate. With maps of structural elements and Late Cretaceous magmatic arc (mainly in S Java Sea) and Eocene arc across Java area (stratigraphy of collided block appears to be unknown; JTvG)

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(Description of new species of petrified tree trunk (Dryobalanoxylon bogorense) from volcanic sediments at Leuwilang, 20 km W of Bogor, W Java. Shows affinities with modern dipterocarp genus Dryobalanops, found today in tropical rainforests of Malaysia, Sumatra and Borneo, but not on Java)

Stehn, C.E. (1925)- De aardbeving van Maos op 15 Mei 1923. Vulkanologische en Seismologische Mededeelingen (Dienst Mijnbouw Nederlandsch-Indie), Weltevreden/ Batavia, 8, p. 22-28.
(online at: https://www.delpher.nl/nl/boeken/ Etc.)
(Investigation of damage caused by a significant earthquake near Maos, on the Serayu River, NE of Cilacap in south Central Java, on 15 May 1923. Stehn investigated geology of area (located in floodplain of Serayu River) and suggested relationship to local fault (see also report by G.L.L. Kemmerling (1916) on September 1916 Maos earthquake in same area))

Stehn, C.E. (1933)- Gids voor bergtochten op Java. Nederlandsch-Indische Vereeniging voor Bergsport, G. Kolff & Co, Batavia, 2nd. ed., p. 1-188.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB21:035931000:00253)
('Guide for mountain trips on Java'. Mountaineering/ hiking guide book, describing climbing routes of 52 Java volcanoes by geologist-volcanologist Edgar Stehn of the Volcanological Survey department in Bandung. Original edition in 1930)

Stehn, C.E. & J.H.F. Umbgrove (1929)- Bijdrage tot de geologie der vlakte van Bandoeng. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 46, 3, p. 301-314.
(online at: https://resolver.kb.nl/resolve?urn=MMUBA13:001672001:pdf)
('Contribution to the geology of the Bandung plain')

Stephens, N., F. Musgrove & P. Glenton (2013)- Banyu Urip reservoir rock type and geologic models for different stages of asset life, Cepu Block, Indonesia. Proc. 37th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA13-G-194, p. 1-12.
(Geologic model of Banyu Urip Field Oligo-Miocene carbonate buildup in Cepu Block, E Java. Reservoir Quality Zones are basic building blocks and include Platform Interior, Lower Platform Interior, Tight Rind, and Drowning Phase)

Stevens, J., E.M. Johnstone, J.V. White, G.C. Geary, O.P. Gross, J.G. McPherson, C.W. Rodda & A.B. Cahyono (2006)- A revised sequence stratigraphic framework and nomenclature, East Java Basin. Proc. IPA Int. Geoscience Conf. and Exhib., Jakarta 2006, p. 1-5.
(E Java Basin stratigraphy tied to global eustatic cycle chart)

Stinton, F.C. (1949)- Otoliths from Bodjonegoro. In: L. Boomgaart (1949) Smaller foraminifera from Bodjonegoro (Java), Doct. Thesis, University Utrecht, p. 154-157. *(Unpublished)*
(Seven species of fish otoliths 'of deep-sea character' from Mio-Pliocene marls of Bojonegoro 1 well, NE Java. Four species of Scopelus, also Macurus gracilis and Argentina sp.)

Stoehr, E. (1865)- Die Basaltklippe Batoe Dodol an Java's Ostkuste und ihre Hebung in der Jetztzeit. Neues Jahrbuch Mineralogie Geologie Palaeontologie 1865, p. 641-650.
(online at: https://www.biodiversitylibrary.org/item/151131#page/667/mode/1up)
('The Batu Dodol basalt cliff at Java's East coast and its recent uplift'. Dark-colored basalt cliff at easternmost coast of Java, covered by recent coral limestone up to 30-50' above present sea level, suggesting young uplift)

Stoop, A. (1884)- Een geologische verkenningstocht in de Residentie Probolinggo. Jaarboek Mijnwezen Nederlandsch-Indie 13, Wetenschappelijk Gedeelte, Batavia, p. 217-229. *(without maps online at: https://ia600704.us.archive.org/0/items/jaarboekvanhetm04gebigoog/jaarboekvanhetm04gebigoog.pdf)*
('A geological reconnaissance in the Probolinggo Residency', E Java. Mainly young volcanoes and volcanic deposits. Main focus was on drinking water in arid part of Java)

Suandhi, P., M.A. Anandito, R. Rudd, J.M. Sihombing & A. Bachtiar (2025)- Exploration update on the eastrn of the Kendeng area, onshore East Java Basin: revisiting the basement configuration, Paleogene paleogeography, geochemistry and petroleum system implications. Proc. 49thAnnual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA25-G-451, p. 1-15. *(online at: https://www.researchgate.net/publication/392263286_EXPLORATION_UPDATE_ON_THE_EASTERN_OF_THE_KENDENG_AREA_ONSHORE_EAST_JAVA_BASIN_REVISITING_THE_BASEMENT_CONFIG Etc.)*
(Discussion of basement configuration in Kendeng Zone, E Java, characterized by present-day regional gravity low. Regional transects, six paleo-highs with WNW-ESE trends (?), etc.. Two new hydrocarbon seepages in Jombang area similar to "Ngimbang Oil,", generated from transitional source rocks)

Suasta, I.G.M & I.A. Sinugroho (2011)- Occurrence of zoned epithermal to porphyry type Cu-Au mineralization at Wonogiri, Central Java. Proc. 36th HAGI and 40th IAGI Annual Conv., Makassar, p. 1-15.

(Wonogiri prospect in SE part of C Java province, 30km S of Solo. Randu Kuning prospect with (1) porphyry type Cu-Au mineralization at as quartz sulphide oxide sheeted and stockwork vein zones, and (2) epithermal Au ± base metal mineralization, mainly as quartz-carbonate- base metal veins hosted in intrusive and volcanic rocks proximal to Randu Kuning (see also Muthi et al. 2013))

Subagio (2008)- Struktur geologi bawah permukaan daerah Kebumen berdasarkan analisis pola anomali gaya berat dan geomagnet. Jurnal Sumber Daya Geologi (JSDG) 18, 6, p. 391-407.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/259/239)
('Sub-surface geologic structure structures of the Kebumen area based on analysis of gravity and geomagnetic anomaly patterns'. High anomalies in E and W of area have positive circular patterns, probably representing andesite intrusives in Karangbolong and Kulon Progo Highs, and Pratertiary rock in Karangsambung area. Low anomaly anomaly in central area indicates Tertiary sedimentary basin)

Subagio (2013)- Anomali gayaberat dan potensi bencana geologi di kawasan Jawa Barat bagian Tengah. Jurnal Sumber Daya Geologi (JSDG) 23, 2, p. 59-68.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/90/84)
('Gravity anomalies and geological hazard potential in the central part of West Java'. In C West Java Bouguer anomaly values 5-125 mGal. Lowest anomaly around Tagogapu, Padalarang area, showing sediment basin. Highest anomaly around Pelabuhanratu, reflecting presence of ultramafic rocks. Puncak area and surroundings are graben zone, filled by low density Quaternary volcanic rocks)

Subagio (2018)- Struktur geologi bawah permukaan Pegunungan Selatan Jawa Barat ditafsir dari anomali Bouguer. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 19, 4, p. 187-200.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/429/364)
('Subsurface geological structure of the Southern Mountains of W Java interpreted from Bouguer anomalies'. W Java Southern Mountains characterized by high anomaly gradients, mainly along S coast., some reflecting normal faults. High anomaly around Ciletuh, Sukabumi shows 240 mGals, while in the northern area is 10 mGals. Highest anomalies associated with ultramafic outcrop at Ciletuh, where Moho level is at ~13 km below sea level. Low anomalies in N indicate sedimentary basin, partly covered by Quaternary volcanics)

Subandrio, A.S. & N.I. Basuki (2010)- Alteration and vein textures associated with gold mineralization at the Bunikasih Area, Pangalengan, West Java. Jurnal Geologi Indonesia 5, 4, p. 247-261.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/281)
(Bunikasih vein system in Pangalengan district, 60 km S of Bandung, is low-sulfidation, adularia sericite epithermal gold deposit, hosted by Late Miocene andesitic volcanic at SW side of Malabar Volcano complex)

Subroto, E.A. et al. (2006)- Detailed petroleum geochemical analyses on sedimentary rocks collected from southern West Java, Indonesia. Proc. Annual Conv. Indonesian Association Geologists (IAGI), 2006, p.

Subroto, E.A., E. Hermanto, P. Kamtono & K. Kamtono (2010)- Source rock geochemical study in the Southwestern Java, a potential hydrocarbon basin in Indonesia. AAPG International Conference, Rio de Janeiro 2010. Extended Abstract, Search and Discovery Article 1023612, p. 1-12.
(online at: www.searchanddiscovery.net/documents/2010/10236subroto/ndx_subroto.pdf)
(Geochemical study of SW Java Eocene- Miocene outcrop samples from Ciletuh and Gunung Walat. Best source quality in Miocene Cimandiri and Nyalindung Fms, Oligocene Batuasih Fm and Eocene Bayah Fm. Oligo-Miocene sediments immature- marginally mature and unlikely sources of gas, unless buried deeply in basin. Eocene Bayah Fm coals significant oil and gas potential and locally mature. No oil seepage in area)

Subroto, E.A., A. Ibrahim, E. Hermanto & D. Noeradi (2008)- Contribution of Paleogene and Neogene sediments to the petroleum system in the Banyumas Sub-Basin, Southern Central Java, Indonesia. American Assoc. Petroleum Geol. (AAPG) Int. Conf. Exhibition, Cape Town 2008, p. 1-6. *(Extended abstract)*
(Oil samples from seeps and DST in Jati 1 well in Banyumas sub-basin, C Java, more fluviodeltaic than marine character. Biomarker distributions suggest all one family. Both Paleogene and Neogene intervals possible sources. Postulate NE-SW trending Paleogene basins across C Java ('Meratus Trend'))

Subroto, E.A., D. Noeradi, A. Priyono, H.E. Wahono, E. Hermanto, Praptisih & K. Santoso (2007)- The Paleogene Basin within the Kendeng Zone, Central Java Island, and implications to hydrocarbon prospectivity. Proc. 31st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA07-G-091, p. 1-14.
(Regional gravity map of C Java shows Kendeng zone is deep basin, dissected by NE-SW structural lineaments that can be interpreted as S-ward prolongation of Paleogene structural trend. Stratigraphic studies in Paleogene outcrops in S part of Java revealed Paleogene basin present in S part of island. Geochemical analyses performed on selected sediments and oil samples)

Subroto, E.A., H.E. Wahono, E. Hermanto, D. Noeradi & Y. Zaim (2006)- Reevaluation of the petroleum potential in Central Java Province, Indonesia: innovative approach using geochemical inversion and modelling. American Assoc. Petroleum Geol. (AAPG) Int. Conf. Exhibition, Perth 2006, p. 1-6. *(Extended abstract)*

Sucipta, I G.B.E. (2006)- Petrologi batuan metamorf tekanan tinggi di daerah Karangsambung, Kebumen, Jawa Tengah. Buletin Geologi (ITB) 38, 2, p. 69-79. *(online at: https://www.researchgate.net/publication/369144032_Petrologi_Batuan_Metamorf_Tekanan_Tinggi_di_Daerah_Karangsambung_Kebumen_-_Jawa_Tengah)*
('Petrology of high-pressure metamorphic rocks in the Karangsambung area, Kebumen, C Java'. High-P metamorphism in Karangsambung produced blueschist-eclogite facies, formed at 35-50 km depth)

Sudana, A. & A. Achdan (1992)- Geology of the Karawang Quadrangle, Jawa. Quad. 1209-5, 1:100,000. Geological Research Development Centre (GRDC), Bandung, p. 1-10.

Sudana, A. & A. Achdan (1992)- Geology of the Indramayu Quadrangle, Jawa, Quad. 1309-4, 1:100,000. Geological Research Development Centre (GRDC), Bandung, p. 1-4.

Sudana, D. & S. Santosa (1992)- Geology of the Cikarang Quadrangle, Jawa, Quad. 1109-2, 1:100,000. Geological Research Development Centre (GRDC), Bandung, p. 1-13.

Sudarno (2008)- Pemakaian kontak stratigrafi secara struktur untuk evaluasi batu lempung hitam sebagai sumber daya geologi di Perbukitan Jiwo, Bayat, Klaten. Media Teknik (UGM) 30, 3, p. 290-299.
(On possibly unconformable stratigraphic contact between Eocene Wungkal-Gamping Fm limestone with Oligocene Kebo-Butak Fm in Jiwo Hills, C Java. Presence of black claystone)

Sudarsono & I. Setiawan (2012)- Paragenesa mineral bijih sulfida hidrotermal di daerah Kluwih Kabupaten Pacitan Jawa Timur: pendekatan berdasarkan mineralogi dan inklusi fluida. Jurnal Sumber Daya Geologi (JSDG) 22, 1, p. 25-33.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/104/96)
('Ore mineral paragenesis of hydrothermal sulfide mineralization in the Kluwih area of Pacitan District, East Java: approach based on mineralogy and fluid inclusions'. Epithermal low sulphidation system in S Mountains, with chalcopyrite-bornite-galena-sphalerite)

Sudharto, R.T. (1986)- Mineralization at Gunung Limbung, West Java, Indonesia. Masters Thesis Royal Holloway and Bedford New College, University of London, p. 1-174. *(online at: https://repository.royalholloway.ac.uk/file/c7a2a82d-395c-4160-a160-238a6ca1bb87/1/10090094.pdf)*
(Thesis supervised by D.H.M. Alderton and A.J. Barber. Mesothermal quartz veins with sulphides of Cu, Pb, and Zn and trace Au and Ag in Plio-Pleistocene dioritic intrusion at Gunung Limbung, 60 km NW of Bogor, W Java (undeveloped prospect in PT Aneka Tambang concession))

Sudijono (1985)- Foraminifera from the mud volcanic area, Sangiran, Central Java. In: N. Watanabe & D. Kadar (eds.) Quaternary geology of the hominid bearing formations in Java. Geological Research Development Centre (GRDC), Bandung, Special Publ. 4, p. 253-273.

(Sedimentary rocks from mud volcano include limestones (M and Late Eocene with Nummulites- Pellatipira; E Miocene sandy limestones with Spiroclypeus, Lepidocyclina, Miogypsina, Miogypsinoides) and marls with Eocene, Oligocene, Miocene and Pliocene planktonic forams)

Sudijono (2005)- Age and the depositional environment of the Kalibiuk Formation of the Cisaat river section, Bumi Ayau, Central Java. Jurnal Sumber Daya Geologi (JSDG) 15, 2 (149), p. 118-135.
(Well-documented study of foraminifera of ~370m thick, clay-dominated Kalibiuk Fm, in Bumiayu area, C Java, suggesting mainly Late Pliocene ages (upper N20-N21). Lower part deposited in shelfal marine environment (Cassidulina- Hanzawaia fauna), upper part in brackish shallow marine and lagoon (Ammonia- Elphidium-Nonion- Asterorotalia fauna))

Sudiro, T.W., G.A.S. Nayoan, A. Yasid, M. Lattreille, H. Oesterle et al. (1973)- The structural units of the Jawa Sea. Proc. 2nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 177-185.
(Java Sea several N-S and NE-SW trending highs and lows. Sedimentation started with Eocene transgression from East)

Sudjatmiko (1972)- Geologic map of the Cianjur Quadrangle, Java. Quad. 9/XIII-E, scale 1:100,000. Geological Survey Indonesia, Bandung (also 2nd Edition, 2003).
(Area of W Java, incl. Rajamandala area, etc., W of Bandung)

Sudjatmiko & Santosa (1992)- Geologic map of the Leuwidimar Quadrangle, Java, Quad. 1109-3, 1:100,000. Geological Research Development Centre (GRDC), Bandung, p. 1-38.

Sudrajat, A. (1975)- Batuan gunung api dan struktur geologi di Jawa Timur dan Nusa Tenggara Barat. Jurnal Geologi Indonesia 2, p. 19-22.
(Volcanic rocks and geologic structure of East Java and western Nusa Tenggara)

Sudradjat, A. & G. Hartono (2006)- The application of the volcanic facies concept in the description of the "Old Andesite Formation". Proc. Int. Interdisciplinary Conference Volcano International Gathering 2006, Yogyakarta, p. 274-281.
(online at: https://repository.itny.ac.id/id/eprint/2587/1/9_THE%20APPLICATION%20OF%20VOLCANIC%20FACIES%20CONCEPT%20IN%20THE%20DESCRIPTION%20OF%20THE Etc.)
(Appplication of volcanic facies concept allowed identification of eruption cycles and locations of volcanic centers within Oligocene- E Miocene "Old Andesite Formation" of Southern Mountains of Java)

Sudradjat, A., I. Syafri & E. Budiadi (2010)- The geotectonic configuration of Kulun Progo area, Yogyakarta. Proc. 39th Annual Conv. Indonesian Association Geologists (IAGI), Lombok, p. 1-6.
(online at: https://www.iagi.or.id/web/digital/12/2010_IAGI_Lombok_The-Geotectonic-Configuration.pdf)
(Analysis of satellite imagery with field visits suggest three regional tectonic stages controlled development elongated dome of Kulon Progo in S Mountains, 30 km W of Yogyakarta: Meratus (SW-NE), Sunda (NNW-SSE) and Java trends (E-W). Not result of vertical undation force, as suggested by Van Bemmelen (1949))

Suedy, S.W.A, Muhadiono, S. Sabiham & I. Qoyim (2012)- Fosil polen mangrove berumur Pliosen dari Formasi Tapak daerah Kedung Randu, Banyumas. Bioma (Berkala Ilmiah Biologi) 14, 1, p. 17-24.
(online at: https://ejournal.undip.ac.id/index.php/bioma/article/view/9457)
('Pliocene fossil mangrove pollen in the Tapak Formation, Kedung Randu area, Banyumas')
(Samples from Tapak Fm of Kedung Randu, Banyumas, with 56 types of pollen and spores, 22 of which mangroves (Zonocostites, Spinizonocolpites, Florschuetzia, etc.). Presence of Stenochlaeniidites papuanus and Podocarpus imbricatus suggests P. imbricatus/ Dacrycarpidites australiensis Zone, Late Pliocene)

Sufiati, E. (2012)- Koleksi museum geologi fosil moluska holotype dari Banten, Jawa Barat. UPT Museum Geologi, Bandung, p. 1-190.
('The Geological Museum collection of fossil mollusc holotypes from Banten, West Java')

Sufiati, E. (2013)- Koleksi museum geologi fosil moluska holotype dari Bumiayu dan Cirebon, Jawa. UPT Museum Geologi, Bandung, p. 1-200.
('The Geological Museum collection of fossil mollusc holotypes from Bumiayu and Cirebon, Java')

Sufiati, E., Aswan, A. Sopanji, D. Kistiani & R. Wahyudin (2014)- Evolusi lingkungan pengendapan Formasi Nyalindung berdasarkan kajian paleontologi Moluska, daerah Ciodeng, Sukabumi, Jawa Barat. Proc. 43rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, PIT IAGI 2014-069, p. 1-5.
(online at: https://www.iagi.or.id/web/digital/6/2014_IAGI_Jakarta_Evolusi-Lingkungan-Pengendapan.pdf)
('Evolution of depositional environments in the Nyalindung Fm based on paleontology study of molluscs, Ciodeng River area, Sukabumi, West Java'. Nyalindung Fm deposited in shallow marine environments. At least 11 times of depositional environment changes caused by changes in Late Miocene sea level. Associations of Turritella-Dentalina, Turritella-Bufonaria, Strombus-Balanus, etc.)

Sugiaman, F.J. (1998)- Depositional and diagenetic models of Miocene Parigi and pre-Parigi carbonates, offshore northwest Java, Indonesia. Berita Sedimentologi (Indonesian Sedimentologists Forum- FOSI) 10, p. 7-8.
(Brief discussion of M-L Miocene Parigi Fm carbonate buildups in 'KL area', offshore NW Java)

Sugiarto, S., I.B.O. Agastya, M.O. Jene, T. Ramadhan & Y.B. Muslih (2018)- Architectural elements of volcanoclastic mass transport of Banyak Member, Western Kendeng, East Java. Proc. 42nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA18-185-G, p. 1-16.
(Banyak Mb is Late Miocene- E Pliocene andesitic volcaniclastic deep marine Mass Transport Deposits (slumps and debris flows) in W Kendeng Basin. Related to renewed and increasing volcanic eruption activity in Southern Mountains of Java. Not much detail)

Sugiatno, H. & C. Prasetyadi (1998)- Structural geology of the Rembang Hill, Central Java. Proc. 27th Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 3 (Geodin., Magmat. Volkanologi), p. 16-25.
(online at: https://www.iagi.or.id/web/digital/56/52.pdf)
(Rembang Hill in W Rembang zone E-W trending monoclinal structure, bounded by flexure in N and Jatipohon fault in S, and cut by E-W and NE-SW normal and sinistral slip faults. Major N70°E trending Jatipohon fault interpreted as normal fault, downthrown to N, with later inversion. Three segments, Klambu, Klampok and Todanan. W-most Klambu segment dominated by NE-SW sinistral slip faults with drag folds. Purwodadi High S of Klampok may act as structural barrier, weakening effects of N-directed compressive stress in W. Stratigraphic onlap of Ledok Fm on Bulu/Wonocolo Fms suggests Rembang structuring around 7.0 Ma)

Sugiharto (1984)- Stratigraphic traps defined by seismic data: a case study. Proc. 13th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 227-240.
(KL field in Arjuna basin off NW Java stratigraphic traps in Baturaja Fm carbonate and M Miocene Cibulakan Fm clastics)

Suhardja, S.K., S. Widiyantoro & A.B.-Santoso (2020)- Crustal thickness beneath Mt. Merapi and Mt. Merbabu, Central Java, Indonesia, inferred from receiver function analysis. Physics Earth Planetary Interiors 302, 105458, p. 1-11.
(Temporary seismic network data in 2013-2015 from 53 seismographic stations around Mt. Merapi and Mt. Merbabu in C Java used to map boundary between Earth's crust and upper mantle. Moho depth 27- 32 km beneath array, with no apparent correlation between crustal thickness and surface topography. Moho rel. shallow beneath Mt. Merapi (up to 27 km depth), despite its elevation of nearly 3 km. Etc.)

Suharsono & T. Suwarti (1992)- Geology of the Probolinggo Quadrangle, Jawa. Quad.1608-2, 1:100,000. Geological Research Development Centre (GRDC), Bandung, p. 1-9.

Suhartati (1984)- Penyebaran foraminifera bentos familia Rotaliidae dan Miliolidae pada Formasi Kalibeng Atas di daerah Sangiran, Kabupaten Sragen, Jawah Tengah. J. RISET Geologi dan Pertambangan (LIPI) 5, 1, p. 30-35.
(online at: http://pustaka.geotek.lipi.go.id/wp-content/uploads/2016/02/Riset-Vol.5-No.1-2.pdf)

('Distribution of benthic foraminifera of the Miliolidae and Rotaliidae families in the Upper Kalibeng Formation in the Sangiran area, Sragen, Central Java'. Mixed shallow and deep foraminiferal faunas)

Suharyogi, I.Y.P & R.A.P Sari (2024)- Paleodepositional environment of Kaliwangu Formation based on mollusc fossils assemblage in Ciwaringin River, Leuwimunding Area, Majalengka, West Java, Indonesia. Proc. Int. Conf. Geological Engineering and Geosciences, Yogyakarta 2023, IOP Conference Series: Earth and Environmental Science 1373, p. 012046, p. 1-8.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1373/1/012046/pdf)
(M-L Pliocene ('Bantamian') sandstones-claystones of Kaliwangu Fm exposed in Ciwaringin River in Leuwimunding area, Majalengka Regency, W Java contains abundant mollusc fossils. 11 mollusc associations, representing three intertidal-shallow marine paleodepositional environments)

Suharyogi, I., R.A.P Sari, D.A.A. Besari & U.P. Wibowo (2024)- Mollusc fossils from Cisubuh Formation in Majalengka Regency and surrounding area. Proc. 48th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA24-SS-01, p. 1994-2004. *(online at: https://www.researchgate.net/publication/383062264_Mollusc_Fossils_from_Cisubuh_Formation_in_Majalengka_Regency_and_Surrounding_Area*
(62 species of (Late Miocene?) molluscs in Cisubuk Fm, Bogor Basin, incl. Turritella bantamensis)

Suharyogi, I., R.A.P Sari, D.A.A. Besari & A.G.R. Jayanti (2025)- Biodiversity of Pliocene-Pleistocene mollusk mossils in the Cisaat River, Central Java, Indonesia. Proc. First International Seminar on Indonesian Mollusca (ISIM), Ambon 2024, IOP Conference Series: Earth and Environmental Science 1512, 012001, p. 1-9.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1512/1/012001)
(Study of molluscs in Plio-Pleistocene Kaliglagah and Kalibiuk formations along Cisaat River in C Java, a classic Bumiayu vertebrate fossils site. Seven mollusc biofacies, from lacustrine to shallow marine)

Suhendra, R. (2016)- Studi petrologi dan geokimia batuan metamorf berasosiasi dengan endapan emas orogenik pada lintasan Sungai Gebang, Desa Kaligua, Kecamatan Kaliwiro, Kabupaten Wonosobo, Provinsi Jawa Tengah. Thesis Gadjah Mada University, Yogyakarta, p. 1-333.
(summary online at: http://etd.repository.ugm.ac.id/...)
(Metamorphic rocks in Gebang River area of Karangsambung Complex, C Java, at least three types (1) overburden metamorphism (zeolite facies), (2) orogenic metamorphism (greenschist, epidote-amphibolite, amphibolite and blueschist facies), and (3) contact metamorphism (hornblende-hornfels and pyroxene hornfels facies). Occurrences of high sulfidation and skarn deposits show placer gold deposits in area not produced by single process (orogenic gold deposit))

Suhendra, R., N.I. Setiawan, I.W. Warmada, A.R. Aji & H. Humaida (2017)- Petrogenesis of very low to low-grade metamorphic rocks in Luk Ulo melange complex, Karangsambung, Indonesia. Proc. Seminar Nasional Kebumian 10, Dept. Teknik Geologi, Universitas Gadjah Mada (UGM), Yogyakarta, p. 1091-1113.
(online at: https://repository.ugm.ac.id/274159/1/OMP-09.pdf)
(Zeolite- and greenschist-facies metamorphic rocks in Karangsambung area widespread in N part of Luk UloMelange Complex, especially in Gebang River, Kaliwiro area, incl. scaly clay, mica schist, zeolitic rocks and basaltic lava. (S part of complex with higher-grade metamorphics). Multiple protolith rock types. Luk Ulo Complex a complex accretion zone)

Suhendra, R., R. Takahashi, A. Agangi, A. Imai, H. Sato & N.I. Setiawan (2024)- Textural-compositional evolution of pyrite and metal remobilization during low-grade metamorphism of metapelite: Contribution to gold mineralization in the Luk Ulo Complex, Central Java, Indonesia. Ore Geology Reviews 166, 105966, p. 1-23.
(online at: https://www.sciencedirect.com/science/article/pii/S0169136824000994
Cretaceous Luk Ulo Complex in C Java hosts orogenic gold-type ores (undiscovered, but known from float). Host rocks accreted Late Jurassic- E Cretaceous metapelite (greenschist), metamorphosed under T of ~510 ◦C)

Suhendra, R., R. Takahashi, A. Imai, H. Sato, N.I. Setiawan & A. Agangi (2022)- Primary source of placer gold in the Luk Ulo Metamorphic Complex, Central Java, Indonesia. Resource Geology 72, 1, e12300, p.

(Luk Ulo Metamorphic Complex in C Java is product of Cretaceous subduction and accretion, and includes diverse types of protoliths. Sources of placer gold deposits never identified. Two-types of primary mineralization in area: (1) seafloor basalt-hosted massive sulfide mineralization and (2) low-grade metamorphic rocks-hosted vein type mineralization. Volcanogenic massive sulfide mineralization identified in seafloor basalt and few deep-sea sedimentary rocks. Placer gold likely derived from erosion of orogenic-type gold ores in low-grade metamorphic rocks in surrounding areas)

Suhendro, I., A. Harijoko, N.I. Setiawan & H.E. Wibowo (2023)- Cooling history (from magma ascent to lava extrusion) of the Watuadeg pillow lava, Berbah, Yogyakarta, Indonesia. J. Applied Geology (UGM) 8, 1, p. 1-8.
(online at: https://jurnal.ugm.ac.id/jag/article/view/73942)
(Famous Oligocene? Watuadeg pillow lava outcrops S of Yogyakarta. Cooling time estimated from size and density of plagioclase microlites estimated for rim as ~12 hours, for medial and core parts ~52 and 91hours)

Suherman, T. & A. Syahbuddin (1986)- Exploration history of the MB Field, coastal area of Northwest Java. Proc. 15th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 101-122.
(1982 MB field straddles NW Java coast, ~35 miles NE of Jakarta. One of several fields in M Miocene Mid-Main Carbonate buildup. Productive interval over basement horst block (Rengasdengklok High). Faults defining N-S trending horst may be pathways from basinal areas (Ardjuna/Pasir Putih or Ciputat subbasin))

Sujanto, F.X. & Y.R. Sumantri (1977)- Preliminary study on the Tertiary depositional patterns of Java. Proc. 6th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 183-213.
(Java five major E-W trending structural units, from N to S: Seribu Platform. N Java hinge belt, Bogor-Kendeng Trough, Axial Ridge-flexure, Southern slope of axial ridge-flexure)

Sujatmiko (1972)- Geologic map of Cianjur Quadrangle, Java, 1:100,000. Geological Research Development Centre (GRDC), Bandung.

Sujatmiko (1994)- Batu permata Jawa Barat: potensi dan permasalahannya. Proc. 23rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 2, p. 882-889.
('Gemstones of West Java: the potential and its problems'. Brief review of presence of agate, silicified wood, jasper, opal, etc., in S Mountains of west Java))

Sujatmiko (2004)- Geologic map of Padalarang Quadrangle, Java, 1:100,000, 2nd Ed., Geological Research Development Centre (GRDC), Bandung.

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(Opal mined since early 1970s in 9 x 13 km^2 area in Banten Province, SE of Rangkasbitung. Opal found in 0.3-2.3m thick weathered pumice layer in Late Miocene Genteng Fm volcanoclastic sequence. Types of opal range from common opal to hyalite, fire opal, and white and black precious opal)

Sujatmiko & Santosa (1992)- Geology of the Leuwidamar Quadrangle, Jawa (Quad. 11093), 1:100,000. Geological Research Development Centre (GRDC), Bandung, p. 1-38.
(Map of SW Java, W of Pelabuhan Ratu. Oldest beds Eocene coal-bearing Bayat Fm)

Sujitno, P. & E. Ruslan (1978)- Seismik di Jawa Barat: kemajuan teknologi processing meningkatkan kemampuan interpretasi. Geologi Indonesia (IAGI). 5, p. 49-62.

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Sukandar, S., S.A. Siregar & L. Leverbvre (1982)- A reservoir description, based on wireline logs, geological and production data, aids selection of new well locations for optimum oil production. Proc. 11th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 415-427.

(Reservoir description of Parigi limestone reef in Tugu Barat field, W Java. Thick gas cap and aquifer cause gas and water cuts in production from thin oil column. Two limestone facies: (1) reef core with high vertical permeability, and (2) overlying reef debris, with better stratification and reduced vertical permeability)

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Sukandarrumidi (1990)- Biostratigrafi sumur pemboran CLS-X, Jatibarang. Media Teknik 12, 3, p. 150-162.
('Biostratigraphy of well CLS-X, Jatibarang'. M Miocene (Lepidocyclina verbeeki- Ammonia umbonata zone) to Pleistocene (Asterorotalia trispinosa zone) biostratigraphy of Jatibarang CLS-X well, drilled to 2630m, NW Java)

Sukanta U., E. Partoyo & A. Achdan (1994)- Depositional environment of the Besole Formation in the western part of the Blambangan region, East Jawa. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 4, 30, p. 9-14.
(On depositional environment of E Miocene volcanics-dominated Besole Fm in easternmost SE Java (part of Late Oligocene- earliest Miocene 'Old Andesites complex of S Mountains). Lower part deep water deposits, with andesitic pillow lavas passing upward into classic turbidites.Volcanic arc to backarc setting. Current directions probably NW to SE)

Sukardi (1992)- Geology of the Surabaya & Sapulu Quadrangle, Jawa (1608-4, 1609-1), 1:100,000. Geological Research Development Centre (GRDC), Bandung.

Sukardi & T. Budhitrisna (1992)- Geology of the Salatiga Quadrangle, Jawa (1408-6), 1:100,000. Geological Research Development Centre (GRDC), Bandung, p. 1-15. + map.
(NE part of Central Java, with W part of Kendeng zone and Quaternary arc, including Sangiran Dome)

Sukarna, D. (1991)- Geochemistry and origin of gold in the Cikotok ore group (COG) and associated plutonic and volcanic rocks in the Bayah area, Banten- West Java, Indonesia. Ph.D. Thesis State University of Ghent, Belgium, p. 1-293. *(Unpublished)*

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('Geochemistry and isotopes of primitive basalts (volcanic rocks of the Bayah area)'. Primitive Late Eocene- E Oligocene basalt in Cisiih River, Bayah area, SW Java)

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Sukarna, D. (1994)- Paleogeography and evolution of the Bayah area during Tertiary. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 4, 37, p. 2-12.
(Bayah High area of SW Java (W of Pelabuhan Ratu) with outcrops of Eocene-Oligocene rocks, flanked by late E and M Miocene rocks. Three periods of tectonic activity: (1) Late Paleogene N-directed folding-thrusting of Paleogene; (2) latest M Miocene folding; and (3) latest Miocene faulting in N. In Late Cretaceous- E Eocene Bayah area was in fore-arc position, with source of Paleogene sands from N. Late Eocene- M Oligocene 'Lower Old Andesite' volcanic activity in Bayah area. Late Oligocene- E Miocene 'Upper Old Andesite'activity along all of S Java. No paleogeographic maps)

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('Petrogenesis of the Mt. Malang diorite Mount Malang, Bayah area, based on geochemical and mineral chemistry'. Geochemistry of M Miocene(?) diorites at N side Bayah Dome, SW Java, which result from calc-alkaline island arc magmatism)

Sukarna, D. (1998)- Rb, Sr, Zr, Ba and Y behavior during mineralization in the Cirotan ore deposit. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 9, 90, p. 9-15.
(Cirotan ore deposit of Cikotok ore group in SW Java is epithermal gold deposit with polymetallic minerals, hosted in E Miocene 'Od Andesites')

Sukarna, D. (1999)- Rare elements distribution in Cirotan epithermal gold deposits. Indonesian Mining 5, p. 1-10.

Sukarna, D.J., A. Mangga S. & K. Brata (1993)- Geology of the Bayah area; implications for the Cenozoic evolution of West Java, Indonesia. In: G.H. Teh (ed.) Proc. Symposium Tectonic framework and energy resources of the W margin of the Pacific Basin, Bull. Geological Society Malaysia 33, Kuala Lumpur 1992, p. 163-180.
(online at: http://www.gsm.org.my/products/702001-101014-PDF.pdf)
(Review of SW Java Eocene- Pliocene sedimentary and volcanic rocks. Island arc volcanics in Late Eocene and Late Oligocene- earliest Miocene ('Old Andesites') and Late Miocene- Recent)

Sukarna, D., Y. Noya & S.A. Mangga (1994)- Petrology and geochemistry of the Tertiary plutonic and volcanic rocks in the Bayah area. Proc. 23rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 1, p. 389-412.
(online at: https://www.iagi.or.id/web/digital/62/32.pdf)
(Three episodes of Tertiary igneous rocks in Bayah area, SW Java, all calc-alkaline arc rocks: (1) Lower Old Andesite (Late Eocene- E Oligocene, 53-36 Ma; rel. primitive basaltic magma in forearc setting?) (2) Upper Old Andesite (Late Oligocene- E Miocene and (3) MPV, late E Miocene- Late Miocene. 2 and 3 are volcanic arc deposits and can be linked to Indian Ocean Plate subduction; magmatic arc))

Sukiman, S (1977)- Sur deux bois fossiles du gisement de la region Pachitan a Java. Comptes Rendus 102nd Congres National des Societes Savantes, Limoges, 1, p. 197-209.
('On two fossil woods from the deposits in Pacitan region of Java')

Sukisman, Y.R.S., S. Mulyaningsih & R.A. Hidayah (2020)- Hydrothermal alteration and ore metal mineralisation at Temon, Pacitan, East Jawa, Indonesia. J. Geoscience Engineering Environment Technology (JGEET) 6, 1, p. 24-33.
(online at: https://journal.uir.ac.id/index.php/JGEET/article/view/6368/3121)

Sukiyah, E., I. Haryanto & A. Sudradjat (2016)- The skin tectonic control in the geomorphologic evolution of western part of Java, Indonesia. Proc. 14th Regional Conference Geology and Mineral Resources of SE Asia (GEOSEA XIV) and 45th Annual Conv. Indonesian Association Geologists (IAGI) (GIC 2016), Bandung, p. 348-351.
(Dominant stress direction remains similar (N100E with ~E-W strike azimuths) from M Eocene to Pliocene-Quaternary. U Miocene and younger strata same strike direction but generally more gentle dips. Ideal Java geomorphologic zonation from S to N: rel. undeformed plateau in S (Jampang) to volcanic arc to intensely folded ridges in middle- thin skin overthrusting in N)

Sukmono, S., D. Santoso, A. Samodra, W. Waluyo & S. Tjiptoharsono (2006)- Integrating seismic attributes for reservoir characterization in Melandong Field, Indonesia. The Leading Edge 25, 5, p. 532-538. *(online at: www.researchgate.net/publication/277402680_Integrating_seismic_attributes_for_reservoir_characterization_in_Melandong_Field_Indonesia)*
(Melandong Field in onshore NW Java Basin seismic reservoir characterization of fluvio-deltaic channels of Talang Akar Fm and carbonates of Batu Raja Fm)

Sulaeman, C., L. Cendekia Dewi & W. Triyoso (2008)- Karakterisasi sumber gempa Yogyakarta 2006 berdasarkan data GPS. Jurnal Geologi Indonesia 3, 1, p. 49-56.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/219)

(Yogyakarta May 2006 magnitude 6.5 earthquake epicenter 10 km E of Bantul. GPS data suggest left-lateral strike slip along SW-NE trending fault)

Sulaeman, C., P.A. Minarno, I. Priambodo & H. Afif (2020)- Model sesar Pati di Jawa Tengah berdasarkan data GPS. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 21, 1, p. 9-15.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/450)
('Pati Fault Model in Central Java Based on GPS Data'.Earthquake prediction study)

Sulistyaningrum, I., R.P. Sekti, C.J. Strohmenger & T.N. Hidayah (2019)- Reservoir Quality Region (RQR) prediction throughout the Kedung Keris Field, Onshore East Java. Proc. 43rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA19-G-97, p. 1-14.
(Kedung Keris field 2011 ExxonMobil discovery in Cepu block, East Java basin. Isolated Oligocene- E-Miocene carbonate build-up, similar to and 10 km E of giant Banyu Urip field, but somewhat earlier final drowning of carbonate. Reservoir quality mapping from seismic facies and well data. Two periods of diagenesis, early (shortly after deposition) and late (after burial and compaction))

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(Kumbang Fm Late Miocene submarine volcanoclastics in Bogor Trough. Sourced from proto-Ciremai volcano and interfingering with (upper?) Halang Fm. sediments. Potential volcanoclastic hydrocarbon play)

Sulistiyono, Y.A. Sendjaja, Abdurrokhim & B.G. Adhiperdana (2025)- Geohistory model and structural style for hydrocarbon trapping mechanism in Kendal Sub-basin, North Central Java, Indonesia. Iraqi Geological J. 58, 2A, p. 165-183.
(online at: https://igj-iraq.org/igj/index.php/igj/article/download/2903/2271)
(Evaluation of structure and hydrocarbons of Kendal Sub-basin in E part of North Serayu Basin in N part of C Java, W of Semarang, based on seismic and well data (= area of late 1800s- early 1900s pioneering oil production on Java; JTvG. Three tectonic phases: (1) E-M Miocene rifting, producing half-graben; (2) M-Late Miocene N-S compression; (3) Late Miocene- Pliocene compression, creating thrust fold zone. Likely hydrocarbon generation from organic-rich E Miocene Lower Cibulakan shale. With NCJ-A1 well information. Etc.)

Sulistyaningrum, I., D. Mariana & Etikha (2022)- Revealed Banyu Urip new oppportunity: integrated subsurface approach leads to a potential field production increase through infill wells program. Proc. 46th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA22-G-90, p. 1-15.
(Banyu Urip field in NE Java with original oil column ~1000 ft thick and in communication with overlying Seravalian clastic section through gas cap. Gas with ~1.7% H2S and 45% CO_2. Producing since 2009. By 2022 produced >540 MMBO) with peak production ~220,000 BOPD in 2021. Unswept oil potential identified mainly in E and W areas. Carbonate infill wells planned to be drilled in late 2024)

Sulistyoningrum, D. & Wartono Rahardjo (2010)- Identification and paleoecology of coraline fossils (Cnidaria: Anthozoa) from Jonggrangan Limestone, Western Slope of Kucir Hill, West Progo Area, Yogyakarta Special Province. Proc. 34th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA10-G-056, p. 1-9.
(On corals from M-L Miocene Jonggrangan Fm reefal limestone, Kucir Hill, W Progo Mts, S Central Java (age should be Tf1; late E- M Miocene; Lunt 2013, Reich et al. 2014))

Sumanagara, D.A. & D. Sinambela (1991)- Penemuan endapan emas primer di Gunung Pongkor- Jawa Barat. Proc. 20th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 97-114.
(online at: https://www.iagi.or.id/web/digital/49/20th-(10-12-Des-1991)-6.pdf)
('The discovery of the Gunung Pongkor primary gold deposit, West Java'. Pongkor gold mine discovered in 1988-1991, WSW of Bogor. Hosted in andesitic volcanics)

Sumanagara, D.A. & D. Sinambela (1993)- The discovery of the Gunung Pongkor gold deposit, West Java. In: M. Simatupang & B.H. Wahju (eds.) Proc. Indonesian mineral development Conference, Jakarta 1991, Indonesian Mining Assoc. (IMA), Jakarta, p. 275-301.
(Similar to Sumanagara & Sinambela 1991, above)

Sumantri, Y.R. (1982)- Gas karbondioksida didalam cekungan minyak Jawa Barat Utara (suatu pandangan mengenai genesanya). Proc. 11th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 213-236.
(online at: https://www.iagi.or.id/web/digital/35/PIT-IAGI-1982-Paper-22.pdf)
('Carbon dioxide gas in the NW Java oil basin (a view of its genesis)'. On CO_2-bearing gas in onshore NW Java basin oil-gas fields)

Sumarso & T. Ismoyowati (1975)- Contribution to the stratigraphy of the Jiwo Hills and their southern surroundings (Central Java). Proc. 4th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 19-26.
(Bayat area with Eocene clastics and limestones of late Ta (M Eocene) and Tb (Late Eocene) unconformably over Pretertiary (Cretaceous?) metamorphic basement. M-L Eocene overall transgressive series:limestones overlain by Gamping Beds marls with planktonic foram zones P14 and P 15(latest M Eocene and early Late Eocene) (Unconformably overlain by latest Oligocene- E Miocene volcanoclastics ('Old Andesites'). M Miocene angular unconformity between Semilir beds (up to N9; basal M Miocene) and overlying late M Miocene Wonosari beds (N12). Late Miocene-Pliocene absent, probably erosion after Late Pliocene orogeny)

Sumarso & N. Suparyono (1974)- A contribution to the stratigraphy of the Bumiayu area. Proc. 3rd Conv. Indonesian Association Geologists (IAGI), Jakarta, p.

Suminto, M.M., Sidarto, S. Maryanto, E.E. Susanto, S.F. Aziz, I. Christiana & E. Fitriani (2004)- A study of the Solo River terraces from Kerek to Karsono: Ngawi and Bojonegoro regions, East Java. Geological Research and Development Centre, Bandung, p. .

Sumosusastro, S. (1957)- A contribution to the geology of eastern Djiwo Hills and the Southern Range in Central Java. Indonesian J. Natural Science (Majalah Ilmu Alam untuk Indonesia) 112, 2, p. 115-134.
(Geologic history in Jiwo hills and adjacent Southern Mountains in C Java begins with Mesozoic deposition, uplifted during Late Cretaceous or E Eocene orogenic activity. Eocene transgressions and regressions followed by Oligocene orogenic phase with diorite intrusions, folding pre-Tertiary-Eocene complex. Volcanic activity in lower Miocene time followed by M Miocene transgression, Mio-Pliocene uplift and E Pleistocene basalt extrusions. Collapse of geanticline along E-W faults to form rift zone was last tectonic event)

Sun, M. & I.N. Akbar (2011)- B-Field Reservoir simulation- characterization of carbonate fracture permeability using single and dual porosity models. Proc. 37th Annual Conv. Indonesian Petroleum Association, IPA11-E-237, p. 1-12.
(Banyu Urip Field excess permeability due to karst and fractures)

Sunan, H.L., Siswandi, A.K. Gibran, M.R. Aditama, R.Y. Saragih, W.H. Purnomo et al. (2020)- The genesis of gemstone based on pillow lava primary structure: a case study from Kumbang Formation, Limbasari. Proc. Int. Conf. Engineering, Technology and Innovative Researches (ICETIR 2020), Purbalingga, IOP Conference Series: Materials Science and Engineering 982, 012043, p. 1-8.
(online at: https://iopscience.iop.org/article/10.1088/1757-899X/982/1/012043)
(On the formation of jasper as hydrothermal product in cracks in (Miocene-Pliocene?) Kumbang Fm breccia ('peperite' fragmented volcanic rock) in N Serayu Mountains, C Java)

Sunardi, E. (1997)- Magnetic polarity stratigraphy of the Plio-Pleistocene volcanic rocks around the Bandung Basin, West Java, Indonesia. Dr.Sc. Thesis, Osaka City University, Japan, p. *(Unpublished)*

Sunardi, E. (1998)- Paleomagnetic study of selected dykes and lava from Bandung area. Berita Sedimentologi 8, p. 13-16.

(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/284)
(Summary of paleomagnetic study of last 4 Myrs of Plio-Pleistocene volcanics in Bandung area)

Sunardi, E. (2004)- Lithofacies stratigraphy and characteristic of Jampang Formation. In: Stratigrafi Pulau Jawa, Geological Research Development Centre (GRDC), Bandung, Special Publ. 30, p. 107-111.
(E Miocene Jampang Fm oldest volcanogenic deposit on Java. Breccias clasts mainly basalt, also skeletal limestone, lithic tuff, ripped-up tuffaceous sandstone)

Sunardi, E. (2011)- Stratigraphy review of Kuningan area in relation to the petroleum potential. Bull. Scientific Contribution (UNPAD) 9, 3, p. 125-138.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8269/3816)
(Kuningan area of Bogor Trough, E of Bandung and S of Cirebon, W Java, poorly known. First, shallow oil wells of Indonesia were drilled on oil seeps near Maja in N part of area by Reerink in 1871. Stratigraphy and hydrocarbon plays of offshore NW Java Basin may extend to Kuningan area)

Sunardi, E. & B.G. Adhiperdana (2008)- An account for the petroleum prospectivity in the Southern Mountains of west Java: a geological frontier in the west? Proc. 32nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA08-G-083, p. 1-12.
(S mountains of W Java largely consists of inverted sub-basins, with deformed Tertiary sediments and dissected arc remnants. Base Tertiary ranges from >2000m depth to PreTertiary exposure at Ciletuh. Early Tertiary coal and shales likely source rocks. Geochemical results from 200-400m well samples of Paleogene sediments indicate mature and oil/gas prone source rocks. Potential for petroleum accumulations greatest in E part)

Sunardi, E. & B.G. Adhiperdana (2013)- Sedimentologi dan paleohidrologi sedimen fluvial Oligosen Formasi Walat, Sukabumi-Jawa Barat. Bionatura- Jurnal Ilmu-ilmu Hayati dan Fisik 15, 1, p. 8-13.
(online at: http://jurnal.unpad.ac.id/bionatura/article/view/7212/3311)
(Sedimentology and paleohydrology of fluvial sediments of the Oligocene Walat Formation, Sukabumi, West Java'. Fluvial Walat Fm outcrops show upward decrease of fluvial sinuosity, and rivers becoming more braided, with wider and deeper channels upsection, with more coarse-grained facies Represents relative sediment supply increases beyond capacity of accommodation, possibly related to sea level drop through Paleogene, and global climate change from greenhouse to icehouse conditions in Eocene-Oligocene time (NB: age of Walat Fm more likely Late Eocene?; Lunt 2013))

Sunardi, E., B.G. Adhiperdana, Nurdrajat, N. Muchsin, T.W. Kunto & R. Ryacudu (2001)- Facies analysis of the Cisubuh Formation outcrops analogues at Brebes-Tegal-Pemalang District, Central Java. In: A. Setiawan et al. (eds.) Proc. 2n FOSI Regional Seminar, Deep-Water Sedimentation of Southeast Asia, Indonesian Sedimentologists Forum, Jakarta 2001, p. 43-47. *(Extended Abstract)*

Sunardi, E., M. Hyodo & H. Kumai (2001)- Magnetic polarity stratigraphy of the Plio-Pleistocene volcanic rocks in and around the Bandung Basin, West Java, Indonesia. Gondwana Research 4, 4, p. 793. *(Abstract) (online at: https://www.academia.edu/9901960/Magnetic_Polarity_Stratigraphy_of_the_Plio_Pleistocene_Volcanic_Rocks_in_and_Around_the_Bandung_Basin_West_Java_Indonesia)*
(Dating of ~4-1 Ma old volcanic rocks around Bandung using radiometric ages and magnetic polarity)

Sunardi, E. & J. Kimura (1998)- Temporal chemical variations of the late Neogene volcanic rocks around the Bandung Basin, West Java, Indonesia: an inferred timetable resolving the evolutionary history of the upper mantle. J. Mineralogy Petrology Economic Geology, Tokyo, 93, p. 103-128.
(online at: https://www.jstage.jst.go.jp/article/ganko/93/4/93_4_103/_pdf)
(Bandung Basin underlain by late Cenozic volcanics. Pliocene lavas dated by K-Ar as 4.1 Ma and 3.3-2.8 Ma at W and SW side of Bandung Basin. Resurgence in melting with 'Old Quaternary' lavas between ~1.1- 0.6 Ma, simultaneous with uplift of Sunda Arc.Middle and Late Pleistocene lavas at Sunda (0.5-0.2 Ma) and Tangkuban Perahu (0.18-0.04 Ma) volcanoes)

Sunardi, E. & R.P. Koesoemadinata (1997)- Magnetostratigraphy of volcanic rocks in Bandung area. Proc. 26th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 404-418.
(Plio-Pleistocene magnetic polarity stratigraphy supplemented with K-Ar dating, etc., for lava flows and dykes for last 4 Ma around Bandung Basin. 15 volcanic units assigned to paleomagnetic zones Gilbert (Selacau - Paseban volcanic unit, with mean age of 4.1 Ma and with reversed polarity), Gauss (calc-alkalic series of Cipicung, Kromong E and W; 3.3, 3.1 and 2.9 Ma), Matuyama (Cicadas tholeiitic lavas; 1.7 Ma) and Brunhes. Etc.)

Sunardi, E. & R.P. Koesoemadinata (1999)- New K-Ar ages and the magmatic evolution of the Sunda-Tangkuban Perahu Volcano Complex Formations, West Java, Indonesia. Proc. 28th Annual Convention IAGI, Jakarta 1999, p. 63-71.
(online at: https://www.iagi.or.id/web/digital/63/6.pdf)
(New K-Ar whole-rock age determinations on 18 volcanic rock sites around Bandung show ages of 4 Ma, -3.3-2.9 Ma, ~1.7 Ma, ~1.1 Ma, 0.5 Ma, -0.2 Ma and 0.1-0.04 Ma, suggesting continuous avtivity for 4 myrs or more)

Sunarta, J.A., B. Setiawan & Y.Z. Rochmana (2024)- Pengaruh diagenesis terhadap porositas batupasir Formasi Cinambo di daerah Cengal dan sekitarnya, Kabupaten Majalengka, Jawa Barat. Jurnal Geomine 12, 1, p. 10-25.
(online at: https://jurnal.fti.umi.ac.id/index.php/JG/article/view/649/282)
('The influence of diagenesis on the porosity of the Cinambo Formation sandstone in the Cengal area and its surroundings, Majalengka Regency, West Java.'. Effect of diagenesis (cementation, dissolution) on porosity of E Miocene Cinambo Fm arkosic turbiditic sandstones in W Java (no location maps))

Sunarya, Y., S.S. Sudirman & T. Kosasih (1992)- The epithermal gold deposits in the Cikotok area, West Java, Indonesia. In: Epithermal gold in Asia and the Pacific, Mineral concentrations and Hydrocarbon accumulations in the ESCAP Region series, UN ESCAP, 6, p. 54-59.
(Gold mined since 1936 Cikotok area, Bayah Dome, SW Java. Gold in epithermal, sulpide-bearing quartz veins, mainly in N-S trending fractures. Hosted by propylitized Oligo-Miocene 'Old Andesites')

Sunarya, Y. & S. Suharto (1989)- The epithermal gold deposits in Cikotok area, West Java. In: First workshop on epithermal gold mineralization, ESCAP, Resources Division and Geological Survey of Japan, Tsukuba 1989, p. 1-15.

Sunata, W. (1989)- Status of paleomagnetic studies on Quaternary deposits in Indonesia. Proc. 24th Session Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Bangkok 1987, 2, p. 170-175.
(Mainly results of Pliocene-Pleistocene magnetostratigraphy of Sangiran section, Central Java (Joint Indonesia-Japan project). Gauss-Matuyama boundary (2.48 Ma) in Upper Kalibeng Fm, Matuyama- Brunhes boundary (0.73 Ma) in upper Bapang (Kauh) Fm)

Sunjaya, E.S., A. Amir, D. Sudarmawan & A.H. Satyana (2006)- Sedimentology of Wonosari carbonates Southern Yogyakarta: outcrop study and petroleum implications. AAPG International Conference, Perth 2006. *(Abstract only)*
(Wonosari reefal carbonates rimmed shelf platform, deepening to N. Depositional environments from shallow S to deep N: (1) back reef-shelf with patch reef and algal foram packstones; (2) reef zone with boundstones and packstones-grainstones cut by surge channels; (3) reef slope with packstones and rudstones; (4) toe to slope with planktonic packstones and wackestones. Diagenetic processes: micritization, dolomitization, and dissolution. Locally good porosities. M Miocene Sambipitu Fm may provide source rocks but distribution limited. Mio-Pliocene Kepek limestones and marls may partly seal Wonosari reefs. Oil seeps absent in area)

Sunjaya E.S., M.I. Novian, E. Biantoro & A.H.Satyana (2006)- Exploration challenge on Kendeng zone: outcrop study and petroleum indication. Proc. 35th Annual Conv. Indonesian Association Geologists (IAGI), Pekanbaru, p. *(Poster abstract)*

Suparka, M.E. (1988)- Studi petrologi dan geokimia kompleks ofiolit Karangsambung Utara Luh Ulo, Jawa Tengah, Evolusi geologi Jawa Tengah. Doct. Thesis, Institut Teknologi Bandung (ITB), p. 1-181. *(Unpublished) (online at: https://osf.io/preprints/inarxiv/vfds3)*
('Study on petrology and geochemistry of North Karangsambung ophiolite, Luh Ulo, geological evolution of Central Java'. Karangsambung area (C Java) ophiolite consists of harzburgite, serpentinite, lherzolite, gabbro, diabase and pillow basalt. Originated from tholeiite magma from N-type mid oceanic ridge basalt. Radiometric ages of basalt and diabase 85.0 ± 4.3 Ma and 81.3 ±4.1 Ma.Mica schist ~85 and 102 Ma. Ophiolite result of thrusting part of mid oceanic ridge from Indo-Australia oceanic plate onto Eurasian continental plate in Late Cretaceous-Paleocene. Page 28-30: Luk Ulo melange with U Cretaceous- Paleocene planktonic forams)

Suparka, M.E., M. Aziz, C.I. Abdullah & Suparka (2007)- Mineralization of Cu-Au porphyry deposits in Cihurip and surrounding area, Garut Regency, West Java, Indonesia. Proc. Joint Conv 32nd HAGI, 36th IAGI, and 29th IATMI Annual Convention, Bali, p. 1319-1327.
(Cihurip Cu-Au mineralization in Garut Regency, S Mountains of W Java, hosted and enclosed by porphyry dyke, but not porphyry gold-copper deposit)

Suparka, M.E., S. Martodjojo & R. Soeria-Atmadja (1990)- Jalur magmatik maman Kapur-Tersier Awal di Jawa dan sekitarnya In: Pros. Persidangan sains bumi dan masyarakat, Univ. Kebangsaan Malaysia, Kuala Lumpur 1990, p. 81-91.
('Cretaceous- Early Tertiary magmatic belt in Java: and its surrounding areas')

Suparka, M.E. & R. Soeria-Atmadja (1991)- Major element chemistry and REE patterns of the Luk Ulo ophiolites, Central Java. In: E.P. Utomo et al. (eds.) Proc. The Silver Jubilee LIPI- Symposium on the Dynamics of subduction and its products, Yogyakarta-Karangsambung 1991, Research and Development Center for Geotechnology, Indonesian Institut of Sciences (LIPI), Bandung, p. 195-208.

Suparka, S., K.H. Thio, S. Hadiwisastra & S. Siregar (1979)- Suatu tinjauan mengenai batuan metamorf di daerah Cihara, Bayah, Jawa Barat. J. RISET Geologi dan Pertambangan (LIPI) 2, 1, p. 1-6.
(online at: http://pustaka.geotek.lipi.go.id/wp-content/uploads/2016/02/Riset-Vol.2-No.1-2-2-.pdf)
('A review of the metamorphic rocks in the Cihara area, Bayah, West Java'. Actinolite chlorite schist, hornblende schist, micaschist and granodiorite gneiss N of Cihara granodiorite, W of Pelabuhan Ratu. Interpreted as cataclastic metamorphics of E-W transcurrent fault)

Supendi, P., A.D. Nugraha, N.T. Puspito, S. Widiyantoro & D. Daryono (2018)- Identification of active faults in West Java, Indonesia, based on earthquake hypocenter determination, relocation, and focal mechanism analysis. Geoscience Letters 5, 1, p. 1-10.
(online at: https://geoscienceletters.springeropen.com/articles/10.1186/s40562-018-0130-y)
(Relocation of 168 shallow earthquakes in West Java 2009-2015) shows clusters of events near active faults in West Java, i.e., Lembang, Cimandiri and Baribis faults. Lembang fault indicates left-lateral strike slip. Around Cimandiri fault focal mechanism also show left-lateral strike slip, but changes to thrust to S. Baribis fault zone, is thrust fault is shown, but becomes oblique to E)

Supendi, P., S. Widiyantoro, N. Rawlinson, M.R. Daryono, A. Ardianto, A.W. Baskara, R. Damanik & Y.M. Husni (2025)- Evidence of the West Java back-arc thrust from earthquake activity. Tectonophysics 911, 230853, p.
(Seismicity monitoring along Baribis Fault Zone supports active West Java back-arc thrust and complex fault network. Newly identified Cirata Fault characterised by thrust mechanisms)

Supriatna, S., L. Sarmili, D. Sudana & A. Koswara (1992)- Geologic map of the Karangnunggal Quadrangle, Java, Quad. 1308-1, 1:100,000. Geological Research Development Centre (GRDC), Bandung.

Supriyanto & A.M.T. Ibrahim (1993)- Model pertumbuhan sembulan karbonat akibat progradasi sesar naik di bagian Selatan cekungan Jawa Barat Utara. Proc. 22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 1162-1174.

(Model of Miocene Upper Cibulakan and Parigi Fm carbonate development and thrust fault propagation in onshore NW Java basin)

Suratman, R.P. Koesoemadinata & E. Suparka (1994)- Stratigraphic sequence and carbonate diagenesis of the Paciran Formation, Northeast Java basin. Proc. 23rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 1, p. 19-32.
(online at: https://www.iagi.or.id/web/digital/62/2.pdf)
(Plio-Pleistocene Paciran Fm limestone on Tuban High in NE Java unconformable on early M Miocene Tuban Fm. Paciran Fm 7km E of Tuban with 'Karren' karst morphology. Two caliche horizons subdivide formation into three sequences. Diagenesis controlled by two sealevel drops in Pliocene and tectonic uplift in Pleistocene. Four diagenetic environments: marine, deep burial, paleo-arid freshwater and Recent freshwater)

Suratman & Mardiastro (1997)- Iodium di Cekungan Jawa Timur Utara. Proc. 26th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 140-152.
(online at: https://www.iagi.or.id/web/digital/64/12.pdf)
('Iodine in the NE Java Basin'. NE Java Basin formation waters near Mojokerto and Surabaya locally relatively rich in iodine, especially in Pucangan Fm of Kendeng zone. Commercial production since >100 years; currently by PT Kimia Farma at Watudakon anticline (~220 kg/day))

Suratman & S. Musliki (1996)- Anggota Ngrayong sebagai endapan regresif yang berprogradasi daerah selatan. Proc. 25h Annual Conv. Indonesian Association Geologists (IAGI), Bandung, p. 262 -274.
('The Ngrayong member as regressive deposit of a South-prograding system'. Middle Miocene Ngrayong sands represent major influx of sands into NE Java basin by prograding system from North)

Surjono, S.S. & M. Datun (2010)- Need to conserve the Miocene limestone in Bayat area, Central Jawa, Indonesia. Proc. Int. Symposium and 2nd AUN.Seed-Net Regional Conference in Geo-disaster mitigation in ASEAN, Bali 2020, p. 447-453. *(online at: https://www.researchgate.net/profile/Sugeng-Surjono/publication/370496906_Need_to_Conserve_the_Miocene_Limestone_in_Bayat_Area_Central_J Etc.)*
(On the need to conserve geologically unique Oyo/ Wonosari limestones that are being exploited by local people N of Bayat, C Java. Patchily exposed M Miocene limestone with Cycloclypeus annulatus, Lepidocyclina and Miogypsina that unconformably overlies Pretertiary and Eocene deposits)

Surono (1992)- The stratigraphic relationship between the Punung and the Wonosari Formations, Central Java. Bull. Geological Research Development Centre (GRDC), Bandung, 15, p. 31-37.
(M Miocene Punung and Wonosari limestones of S Mountains of C Java can not be differentiated and proposed to be united in one unit)

Surono (2005)- Sedimentology of the Paleogene Nanggulan Formation, West of Yogyakarta. Jurnal Sumber Daya Geologi (JSDG) 15, 1 (148), p. 75-82.
(M-L Eocene Nanggulan Fm 250m outcrop section in Kunir River, Pendoweredjo Village, 21km W of Yogyakarta. Middle part delta plain environment, upper 30m shallow marine. Volcanic materials most common in Nanggulan Fm sandstones)

Surono (2008)- Sedimentasi Formasi Semilir di Desa Sendang, Wuryantoro, Wonogiri, Jawa Tengah. Jurnal Sumber Daya Geologi (JSDG) 18, 1, p. 29-41.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/225/215 (?))
('Semilir Fm sedimentation in Sendang village, Wonogiri, C Java'. Volcanic Semilir Fm widely exposed in S Mountains. Overlies Butak Kebo Fm and overlain by Nglanggran Fm. Composed of sandstone, lapilli tuff and pumice breccias. Calcareous clays with nannofossils of E Miocene age. Zircon fission track in pumice breccia suggest ~16-17 Ma age (end of E Miocene). Depositional environment shallowing upward)

Surono (2008)- Litostratigrafi dan sedimentasi Formasi Kebo dan Formasi Butak di Pegunungan Baturagung, Jawa Tengah Bagian Selatan. Jurnal Geologi Indonesia 3, 4, p. 183-193.
(online at: www.bgl.esdm.go.id/dmdocuments/jurnal20080401.pdf)

(Oligocene- E Miocene 'Old Andesite' volcanics outcrop E-W along N foot of Baturagung Mountains, S Central Java. Early Oligocene Nampurejo basaltic pillow lava overlain by Late Oligocene Kebo Fm sandstone, siltstone, tuff, and shale and E Miocene Butak Fm polymict breccia with sandstone, shale, siltstone. Volcanics all deposited in marine basin. Volcanism most active during upper Kebo and Butak Fms)

Surono (2009)- Litostratigrafi Pegunungan Selatan bagian timur daerah istimewa Yogyakarta dan Jawa Tengah. Jurnal Sumber Daya Geologi (JSDG) 19, 3, p. 209-221.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/206/197)
('Lithostratigraphy of the eastern part of the Southern Mountains in the Yogyakarta area and East Java'. S Mountains of C Java intensive volcanic activity in Late Oligocene- E Miocene. Middle-Late Miocene widespread carbonate platform deposition)

Surono Martosuwito, S. Bachri & Z.A. Kamal (2018)- Stratigraphical and sedimentological review of the Merawu Formation, Serayu Basin, Central Jawa, Indonesia. Indonesian J. on Geoscience (IJOG) 5, 2, p. 117-128.
(online at: http://ijog.bgl.esdm.go.id/index.php/IJOG/article/view/393)
(Merawu Fm clastics widely distributed in Serayu Basin, C Java. Underlain by Paleocene Worawari Fm and overlain by Late Miocene Penyatan Fm. Previously interpreted as E-M Miocene turbidite sequence, but present research shows E Miocene-Pliocene tidal flat deposition)

Surono M. & R. Fakhruddin (2014)- Sedimen pasang-surut di Kali Keruh, Desa Lor Agung, Kabupaten Pekalongan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 15, 1, p. 41-53.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/69/71)
('Tidal sedimentary rocks at the Keruh Creek, Lor Agung village, Pekalongan Residency'. Documentation of 194m thick measured section of Late Miocene- E Pliocene (N17-N19) age in N Central Java (Halang Fm equivalent?). With tidal flat sedimentary structures (but apparently also rich in planktonic foraminifera = deep marine setting?; JTvG))

Surono, U. Hartono & S. Permanadewi (2006)- Posisi stratigrafi dan petrogenesis intrusi Pendul, Perbukitan Jiwo, Bayat, Kabupaten Klaten, Jawa Tengah. Jurnal Sumber Daya Geologi (JSDG) 16, 5 (155), p. 302-311.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/372)
('Stratigraphic position and petrogenesis of the Pendul Intrusion, Jiwo Hills, Bayat, C Java'. Intrusive microgabbro into M-L Gamping-Wungkal Fm sediments. K-Ar analyses of diabase and diorite of Pendul Intrusion of Bayat/ Jiwo Hills suggests two intrusive ages, M Eocene- E Oligocene (39.8- 30.0 Ma) and M Miocene (17.2- 13.9 Ma). Nearby Tegalrejo basalt 24.3 ± 0.7 Ma)

Surono & A. Permana (2009)- Lithostratigraphic and sedimentological significance of deepening marine sediments of the Sambipitu Formation, Gunung Kidul residence, Yogyakarta. Proc. 38th Annual Conv. Indonesian Association Geologists (IAGI), Semarang, p. 1-16. *(online at: https://www.iagi.or.id/web/digital/26/2009_IAGI_Semarang_Litostratigraphic-and-Sedimentological.pdf)*
(On latest E Miocene (N8) Sambipitu Fm at Ngalang River section, S Mountains SE of Yogya. Thickness 223m, overlies E Miocene Nglanggran Fm volcanic breccias and grades upward into marl-dominated M Miocene Oyo Fm. Lower Member dominated by sandstone and siltstone, alternating with breccias; Upper Member siltstone-mudstone intercalated with sandstone, marl and conglomerate. Lower Member deposited on tidal flat, affected by sedimentation of volcanic material, deepening to inner shelf in Upper Member (NB: generally viewed as deeper water turbiditic series?; JTvG))

Surono & A. Permana (2011)- Lithostratigraphic and sedimentological significance of deepening marine sediments of the Sambipitu Formation, Gunung Kidul Residence, Yogyakarta. Bulletin of the Marine Geology 26, 1, p. 15-30.
(online at: http://ejournal.mgi.esdm.go.id/index.php/bomg/article/view/31/31)
(Same paper as Surono and Permana (2009) above)

Surono & M.A. Puspa (2007)- Formasi Semilir di Pegunungan Selatan, Jawa Tengah, suatu hasil letusan dahsyat gunung api Miosen. Proc. Joint Convention 32nd HAGI, 36th IAGI and 29th IATMI, Bali, p. 32-39.

(online at: https://www.iagi.or.id/web/digital/28/2007_IAGI-Bali_Formasi-Semilir-di-Pegunungan-Selatan.pdf) ('The Semilir Formation in the Southern Mountains of Central Java, a result of an enormous eruption of a Miocene volcano'. E Miocene Semilir Fm (marine) volcanics/ volcanoclastics with zircon ages of ~16-17 Ma)

Surono M., H. Samodra & Sidarto (2013)- Hubungan lembah Sadeng, cekungan Baturetno dan teras Bengawan Solo, Jawa bagian Tengah. Jurnal Sumber Daya Geologi (JSDG) 23, 3, p. 153-161.
('Relations between the Sadeng valley, Baturetno basin and Solo River terraces, Solo, Central Java'. When Old Lawu erupted blocked Solo River and flooding of Baturetno basin S of Wonogiri in S Mountains)

Surono, B. Toha & I. Sudarno & S. Wiryosujono (1992)- Geological Map of the Surakarta- Giritontro Quadrangles, Jawa. 1: 100,000. Geological Research Development Centre (GRDC), Bandung, 2 sheets.

Suryantini & S. Ehara (2005)- Geothermal gradient study of onshore North West Java basin from petroleum wells. Proc. 3rd Int. Workshop Earth Science and Technology, Kyushu University, Fukuoka, p. 29-40.

Suryantini, S. Ehara & J. Nishijima (2006)- Preliminary geothermal gradient and heat flow compilation from Western Java, Indonesia. In: Annual Meeting Geothermal Resources Council, San Diego, Geothermal Resources Council Transactions 30, p. 699-704.
(Geothermal gradients and heat flow data calculated from 67 oil-gas and 3 geothermal wells. Heat flow in NW Java basin slightly higher than normal, from 60.8- 135.2 mW m-2. Temperature gradients 3.7- 6.6° C/100m. Very high heat flows in S part of basin. In volcanic area heat flow ~186.5 mW m-2. High heat flow outside volcanic area at border between gravity highs and lows, interpreted as faults)

Suryawan, E.H., A. Idrus, I. Suyanto, I. Ilmawan & M.D. Faruqi (2023)- Mineralogy and ore characteristics of the Kujang Pb-Zn skarn deposit, Sukabumi Regency, West Java. J. Applied Geology (UGM) 8, 2, p. 76-84.
(online at: https://jurnal.ugm.ac.id/jag/article/view/78105/38850)
(Kujang Pb-Zn skarn deposit SW of Sukabumi, in W Java southern mountains is most recent skarn deposit found in Sunda-Banda magmatic arc. Skarn orebodies at contact of marbleized limestone (presumably E Miocene Jampang Fm) and volcanics, near dacite porphyry intrusion. Orebodies controlled by NW-SE strike-slip faults. Metalliferous minerals sphalerite, galena, pyrrhotite, chalcopyrite and pyrite. Ore minerals formed at early retrograde stage. Average grades 2.1 % Pb, 6.5 % Zn and 1.8 % Cu)

Suryo, C.E., J.B. Firdausi & C.M. Azwar (2017)- The significance of berbah pillow lava as to beginning of ancient volcanic arc in Java Island. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 197, p. 1-4. *(online at: https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_The-Significance-of-Berbah-pillow-lava.pdf)*
(Watuadeg pillow lava exposed along Opak River, in Berbah, ~10km E of Yogyakarta, at base of Oligocene- E Miocene 'Old Andesite Formation' arc volcanics. Overlain by volcanoclastic rocks of Semilir Formation. Earlier radiometric dating 33.6 +/-9,7 Ma (E Oligocene) (with some almost certainly erroneous Miocene planktonic foraminifera species identifications; JTvG))

Susanto E.E., K. Mano, Sudijono, T. Sihombing & F. Aziz (1995)- Geology of the middle course of the Solo River between Sambungmacan and Ngawi. In: Sudijono et al. (eds.) Geology of Quaternary environment of the Solo-Madiun area, Central-East Jawa, Geological Research Development Centre (GRDC), Bandung, Special Publ. 17, p. 39-44.

Susilo, S., I. Meilano, S.T. Wibowo, A. Syetiawan, Y.A.L. Gaol, D. Ramdani & A. Julzarika (2022)- Geodetic strain of the Baribis Fault Zone in West Java, Indonesia. Proc. Int. Symposium on disaster risk reduction, mitigation and environmental sciences, Bogor 2022, IOP Conference Series: Earth and Environmental Science 1109, 012008, p. 1-5.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1109/1/012008/pdf)
(GPS velocities suggest NE Baribis fault in W Java is active thrust fault system)

Susilo, Y.B. (2023)- Geological setting and conservation of Karangsambung Geopark, Central Java, Indonesia. Apheleia Conference 2023, Macao, Portugal, 23p. *(online at: https://www.researchgate.net/publication/379122369_Geological_Setting_and_Conservation_of_Karangsambung_Geopark_Central_Java_Indonesia*

Susilohadi (1995)- Late Tertiary and Quaternary geology of the East Java Basin, Indonesia. Ph.D. Thesis, University of Wollongong. Australia, p. 1-169.
(online at: http://ro.uow.edu.au/cgi/viewcontent.cgi?article=2973&context=theses)
(Study of M Miocene- Quaternary geology, stratigraphy and paleogeography of NE Java-Madura area. During M Miocene and before, the NE part of E Java Basin controlled by NE trending half-grabens along sutures between Late Cretaceous- E Tertiary subduction systems. Little is known about basin configuration in S part of basin before M Miocene. Since Late Miocene E -trending anticlinal zones developed, with Rembang anticlinal zone between Blora and Madura as dominant structure)

Susilohadi (2008)- Atlas seismik refleksi Selat Sunda. Marine Geology Inst., Bandung, p. 1-14.
('Atlas of seismic reflection in Sunda Straits')

Susilohadi (2019)- Atlas seismik refleksi dangkal Selat Sunda Timur Laut dan Teluk Lampung. Puslitbang Geologi Kelautan (Marine Geology Inst.; MGI), Bandung, p. 1-73.
('Atlas of shallow seismic of northeastern Sunda Strait' and Lampung Bay')

Susilohadi, S., C. Gaedicke & Y. Djajadihardja (2009)- Structures and sedimentary deposition in the Sunda Strait, Indonesia. Tectonophysics 467, p. 55-71. *(online at: https://www.academia.edu/6756767/Structures_and_sedimentary_deposition_in_the_Sunda_Strait_Indonesia)*
(Sunda Strait opening initiated in early Late Miocene, following M Miocene onset of Sumatra fault system. Three major graben systems/ pull-apart basins: W and E Semangko and Krakatau. Prior to Late Miocene most of Sunda Strait and surroundings probably developed in non-marine environment.)

Susilohadi, S., C. Gaedicke & A. Ehrhardt (2005)- Neogene structures and sedimentation history along the Sunda forearc basins off southwest Sumatra and southwest Java. Marine Geology 219, 2-3, p. 133-154.
(20 seismic lines in SW Sunda arc margin between Manna and W Java show fore-arc basin structures and stratigraphy since Late Paleogene. Paleomorphology of Cretaceous continental margin persisted until Oligocene and paleoshelf margin extended NW off Sumatra. Two structural events between Late Oligocene-Pliocene. Back thrust-faulting along S border of fore-arc basin and initiation of Cimandiri FZ in Late Oligocene; Sumatra and Mentawai FZ initiated in Pliocene. Four Neogene sedimentary cycles. Volcanic activity abundant since late M Miocene. Turbidite deposition common along and seaward of basin slope during sea level lows in late M Miocene and L Miocene)

Susilohadi, F. Novico, L. Husson, R. Rahardiawan, H. Prabowo, J. Widodo & E.H. Sudjono (2024)- Quaternary deposition and erosion in the northeastern Sunda strait: An interplay between sea level, tectonics, and magmatic activity. J. Asian Earth Sciences: X, 12, 100179, p. 1-17.
(online at: https://www.sciencedirect.com/journal/journal-of-asian-earth-sciences-x/vol/12/suppl/C)
(NE Sunda Strait located on SW margin of Sunda Shelf and is partially flooded edge of SE Asian continental shelf. Opening of Sunda Strait began with CCW rotation of Sumatra, S Malacca, and Kalimantan in M Miocene, allowing formation of Sumatra Fault parallel to the oblique subduction zone. Extensive grabens formed at S end of Sumatra Fault and induced magmatic activities in tNW part of strait until M Pleistocene. Onset of Late Pliocene volcano complex formed barrier between Java Sea and southern Sunda Strait. Sea level fall since end of MIS-5 and during Last Glacial Maximum exposed Sunda Shelf, causing massive erosion, ultimately forming effective connection between Java Sea and Indian Ocean only during Holocene highstand)

Sutadiwiria, Y., E.B. Purwasatriya, Cahyaningratri P R, D. Syavitri, M. Maulani, A.A. Giovany & A.K. Ramadhan (2023)- Oil to source rock correlation of Besuki Area and its role in petroleum system of Banyumas Basin. Lemigas Scientific Contributions Oil & Gas 45, 3, p. 153-167.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/1256)

(Banyumas Basin with oil-gas seepage (Cipari, Besuki), but no oil discoveries. Seep oils no geochemical similarities with suspected source rocks in Pemali Fm, suggesting source rocks of oil seeps still unknown)

Sutan Assin, N.A.D. & A.N.S. Tarunadjaja (1972)- 'Djatibarang', the discovery and development of a new oilfield. Proc. First Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 125-137.
(1969 onshore waxy oil discovery 170km E of Jakarta. Reservoir Eocene- Oligocene Jatibarang Volcanics Fm, composed of >400m of sandy lithic tuffs with intercalations of andesites, red clay and basaltic intrusives)

Sutaningsih, N.E., H. Humaida, A. Zaennudin, Suryono & S. Primulyana (2010)- Indikasi sistim geotermal pada semburan lumpur Sidoarjo ditinjau dari karakteristik kimia. Proc. 39th Annual Conv. Indonesian Association Geologists (IAGI), Lombok 2010, PIT-IAGI-2010, p. 1-11.
(online at: https://www.iagi.or.id/web/digital/12/2010_IAGI_Lombok_Indikasi-Sistim-Geotermal.pdf)
('Indications of a geothermal system in the Sidoarjo mudflow viewed from chemical characteristics'. Sidoarjo hot mud eruption in E Java since June 2006 is in process of forming a "mud volcano".May become geothermal system. Geochemical work indicates mud is associated with igneous rock. Dominant gas is methane)

Sutanto (1993)- Evolutions geochimiques et geochronologiques du magmatisme Tertiaire de Java (Indonesie). Memoire de DEA, Universite de Bretagne Occidentale, Brest, p. 1-89.
('Geochemical and geochronological evolution of the Tertiary magmatism of Java' (also 1997 thesis on Sumatra)

Sutanto (2000)- Batuan vulkanik daerah Kulon Progo, geokronologi dan geokimia. Buletin Tekmira 14, p.
('Volcanic rocks of the Kulon Progo area, geochronology and geochemistry')

Sutanto (2003)- Batuan volkanik Tersier di daerah Pacitan dan sekitarnya. Majalah Geologi Indonesia (IAGI) 18, 2, p. 159-167.
('Tertiary volcanic rocks of the Pacitan area and surroundings'. Eocene- U Miocene volcanic edifices around Pacitan, S coast of C Java, Common island arc andesites. K/Ar ages 42-9 Ma. M-U Miocene volcanics from adakitic magma, from melting of young and hot lithospheric plate)

Sutanto (2004)- Distribusi spasial dan temporal batuan gunung api Tersier di Jawa Tengah dan Jawa Timur. Jurnal Teknologi Mineral (ITB) 17, 2, p. 65-71.
('Spatial and temporal distribution of Tertiary volcanic rocks in Central and East Java')

Sutanto (2008)- Geologi dan prospek geowisata Perbukitan Jiwo, Bayat, Jawa Tengah. J. Teknologi Technoscientia (AKPRIND) 1, 1, p. 111-121.
(online at: http://technoscientia.akprind.ac.id/wp-content/uploads/2009/11/Sutanto_111_121-okbgt.pdf)
(C Java Jiwo Hills near Bayat one of three places on Java with exposures of Pre-Tertiary and Paleogene rocks. Oldest rocks pre-Tertiary metamorphics, unconformably covered by Eocene Gamping-Wungkal Fm with Nummulites limestones. Cut by Late Eocene- E Oligocene (39.8, 33.2, 31.3 Ma) basaltic dykes. Unconformably covered by Oyo Fm calcarenite and marls. Proposal to preserve Jiwo Hills geotourism sites)

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(Elegant paper on Randu Kuning copper-gold prospect at Selogiri, ~40 km SE of Solo. Many Tertiary dioritic rocks in Randu Kuning area, with related porphyry Cu-Au and epithermal Au-base metal-bearing veins. Most porphyry veins cross cut by epithermal-type veins. Two type of hydrothermal breccias)

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(Au-base metals mineralization at Randu Kuning, S Java, in dioritic intrusive rocks at center of ancient volcanic crater. Porphyry and epithermal mineralizations associated with quartz- sulphides veins. Early quartz-magnetite veins generally without Cu-Au or barren, later sulphide bearing veins mineralized)

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(Evolution of Gajahmungkur E Miocene 'Old Andesite' paleovolcano in Wonogiri area, S Mountains, SE of Yogyakarta. Identified volcanic facies and location of paleovolcano vent. Four stages: (1) submarine volcano with pillow lavas, (2) emergence above sea level forming volcano island, with alternating lavas-pyroclastics; (3) self-destruction by formation of caldera, dominated by pumice, ignimbrite breccias; (4) declining activity, with more basaltic rocks)

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Tampubolon, R.A. & Y. Rizal (2019)- Sedimentary facies of the upper part of the Tapak Formation in Banyumas area, Central Java. Berita Sedimentologi 44, p. 5-10.
(online at: https://www.iagi.or.id/fosi/files/2019/10/FOSI_BeritaSedimentologi_BS44-October_2019.pdf)
(Upper part of Tapak Fm in Kali Cimande of Banyumas area example of tidal flat succession, deposited during Pliocene regressive event)

Tang, J.E. (2006)- Provenance of quartz-rich sandstones deposited adjacent to the Tertiary Java Arc, Indonesia. Masters Thesis, University of Wisconsin, Madison, p. 1-299. *(Unpublished)*
(E Java Basin sandstones volcaniclastic to lithic subarkose to quartzose. S Mountains M Eocene-E Oligocene lithic subarkoses and lithic arkoses with detrital zircons from Eocene (37-46 Ma), Late Cretaceous (60-92 Ma), M Triassic (224-240 Ma) and Proterozoic (1084-1998 Ma), suggesting input from volcanic arc and distal cratonic source. Late Oligocene- E Miocene sandstones volcaniclastic litharenites with zircon ages mainly Late Cretaceous (70-85 Ma), indicating minor cratonic input to arc-dominated sediments. W Kendeng Thrust Zone M Oligocene sandstones are volcanic arc-derived lithic arkoses; E Miocene sandstones are lithic subarkoses with recycled orogenic signature from uplift of local basement and older sandstone. Wide range of zircon ages, mainly Cretaceous (64-128 Ma), also Triassic (204-252 Ma) and Proterozoic (1754-2385 Ma). M Miocene quartz arenites from Rembang Uplift Zone most mature sands in basin and derived from craton, with zircons mainly Cretaceous (73-141 Ma), with some Tertiary, Early Mesozoic, Paleozoic and Proterozoic ages)

Tanikawa, W., M. Sakaguchi, H.T. Wibowo, T. Shimamoto & O. Tadai (2010)- Fluid transport properties and estimation of overpressure at the Lusi mud volcano, East Java Basin. Engineering Geology 116, p. 73-85.

(online at: http://bpls.go.id/bplsdownload/library/paper/2010_ENGEO3292_tanikawa_handoko_final.pdf)
(Mudstone of Late Pliocene- E Pleistocene U Kalibeng Fm source of mud at Lusi mud eruption, with lowest permeability of all samples. Permeability of U Kujung Fm limestone two orders of magnitude larger than Lower Kujung Fm limestone. Overpressure mainly caused by thick low-permeability sediments Upper Kalibeng Fm and high sedimentation rate. High overpressure below mudstone almost lithostatic levels. Small stress fluctuations, like Yogyakarta earthquake, may have caused mud eruption)

Tan Sin Hok (1934)- Uber mikrosphare Lepidocyclinen von Ngampel (Rembang, Mitteljava). De Ingenieur in Nederlandsch-Indie (IV) 1, 12, p. IV.203- IV.211.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1934-12.pdf)
('On microspheric Lepidocyclinas from Ngampel (Rembang, C Java)'. Large microspheric Lepidocyclina from Lusi River near Ngampel, collected by Ter Haar, assigned to Lepidocyclina papulifera Douville)

Tan Sin Hok (1935)- Uber *Lepidocyclina gigantea* Martin von Sud-Priangan (West-Java), Tegal (Mittel-Java) und Benkoelen (Sud-Sumatra). De Ingenieur in Nederlandsch-Indie (IV) 2, 1, p. IV.1- IV.8.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1935-01.pdf)
('On Lepidocyclina gigantea Martin from S Priangan (W Java), Tegal (C Java) and Bengkulu (S Sumatra)'. Large specimens are microspheric generations of Lepidocyclina)

Tan Sin Hok (1935)- Zwei neue mikrosphare Lepidocyclinen von Java. De Ingenieur in Nederlandsch-Indie (IV) 2, 2, p. IV.9- IV.18.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1935-02.pdf)
('Two new microspheric Lepidocyclinas from Java'. Two M-L Miocene new species described, L. (B) stratifera from Pasean village, C. Java, collected by A.C.D. Bothe and L. (B) omphalus, a stellate form from W Java)

Tan Sin Hok (1942)- The results of an investigation of the eastern part of the Soekaboemi- Tjibadak coalfield during June 6- June 16 1942. Report Geological Survey, Bandung, E42-41, p. 1-4. *(Unpublished)*
(Survey report for coal in W Java, conducted during Japanese occupation, when micropaleontologist TSH was made to work on search of economic minerals)

Tan Sin Hok (1942)- The Oligocene coal area of Tjikarang (Tjimandiri coalfield, sheet 14 Bajah). Report Geological Survey, Bandung, E42-45, p. *(Unpublished)*
(Survey report for coal in SW Java, conducted during Japanese occupation)

Tan Sin Hok (1943)- Note on the occurrence of *Miogypsinoides* Yabe and Hanzawa in Oligocene deposits. Proc. Imperial Academy (Tokyo) 19, 9, p. 585-586.
(online at: www.jstage.jst.go.jp/article/pjab1912/19/9/19_9_585/_pdf)
(During exploration in 1942 of Cimandiri coalfield(s), W Java, a sample from N of mouth of Tjibeuleungbeung contains both Camerina fichteli and Miogypsinoides sp., accompanied by isolepidine-nephrolepidine and eulepidine Lepidocyclines, demonstrating Miogypsinoides first appeared in Oligocene time (Td) (association of Early Oligocene N. fichteli and latest Oligocene Miogypsinoides not commonly accepted, but ??; JTvG))

Taruna, S.Y, L.D. Setijadji & Akmaluddin (2024)- Geology of the Kebasen Paleovolcano in Banyumas Regency, Central Java Province, Indonesia. Proc. International Conference Geological Engineering and Geosciences, Yogyakarta 2023, IOP Conference Series: Earth and Environmental Science 1373, p. 012047, p. 1-8.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1373/1/012047/pdf)
(Volcanic facies of Kebasen district in S Serayu Mts in southern C Java indicate existence of NW-SE orientatied composite paleovolcano with diameter of ~8 km, with Kebasen city at SW rim of old volcanic edifice. Mapped as breccia member of Halang Fm. Two volcanic stages: (1) caldera-forming eruptions with pyroclastic breccias and finer tuffs in upper parts; (2) basaltic- andesitic submarine pillow lavas covering caldera floor (transition of calc-alkaline to tholeiitic series). Planktonic foraminifera in distal calcareous sedimentary rocks between volcanic layers indicate E Pliocene (N18) age and upper bathyal- outer neritic paleobathymetry. Kebasen paleovolcano is newly identified submarine caldera-type Pliocene volcano within Sunda Arc in C Java)

Taufani, L., D. Harishidayat, R.C. Rohmana, I. Fardiansyah, Y.S. Purnama & I.B. Indriyanto (2021)- Utilization of digital mapping and outcrop model to assess reservoir characterization and quality index: Study case from Ngrayong Formation in the Randugunting Block, East Java. Proc. 45th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA21-G-48, p. 1-15.
(Digital outcrop study of M Miocene Ngrayong Fm in NE Java)

Taufiq, M. (2007)- Studi detail foraminifera bentonik besar di Formasi Baturaja. Proc. Joint Convention 32nd HAGI, 36th IAGI and 29th IATMI, Bali 2007, p. 720-728.
(online at: https://www.iagi.or.id/web/digital/28/2007_IAGI-Bali_Studi-Detail-Foraminitera-Bentonik.pdf)
('Detail study of larger benthic foraminifera in the Baturaja Fm'. Larger foraminifera from E Miocene reefal limestones of Baturaja Fm in 3 'AB' wells in NW Java basin (no real well names or locations given; onshore Java?). Incl. Lepidocyclina, Austrotrillina, Spiroclypeus, Miogypsina, Miogysinoides, Borelis, etc. (zone Te5). Seven ecozones based on LBF clusters. Equivalent of nannoplankton zones NN1-NN2)

Ter Haar, C. (1929)- Boemi-Ajoe District. Fourth Pacific Science Congress, Java 1929, Bandung, Excursion Guide E4, p. 1-15.
(Fieldtrip guide to locality of Pleistocene fossil vertebrates in Kali Glagah, Bumiayu district of Tegal Residency, C Java, which contain rhinoceros, hippopotamus, Elephas, Cervus, etc. Bone beds dip 25-40° (therefore believed to be possibly of Pliocene age) and underlain by thin-bedded Late Miocene marl- limestone (with Lepidocyclina (Trybliolepidina), volcanic breccia zone and Turritella Marls (mammal fauna now interpreted as E Pleistocene Satir 'island fauna'; age of folding in this area is therefore post ~1.5 Ma; JTvG))

Ter Haar, C. (1933)- Aanteekeningen over de sediment petrografie van Java. De Mijningenieur 14, 8, p. 136-138.
('Notes on the sediment petrography of Java'. New work confirms view of Rutten (1925) that Neogene sediments of S Java are composed of detritus from volcanic arc of S Java, but those from NW and E Java mainly detritus from old rocks in N (Sundaland). Heavy minerals of Eocene quartz sst of Bayah, SW Java rich in tourmaline, also zircon, anatase, rutile, etc., suggesting erosion of 'old' acid plutonic rocks. M Miocene sandstone from N Bantam with zircon, tourmaline, staurolite, brookite and rare augite (mix of 'old rocks' and volcanic source), from N Rembang area mainly 'old rocks' provenance (zircon, andalusite, staurolite, anatase, brookite). Miocene sandstones from Tegal, C Java and S Mountains, of andesitic origin (augite, hypersthene, hornblende, magnetite). Etc.)

Ter Haar, C. (1935)- Geologische kaart van Java, 1:100,000. Toelichting bij blad 58 (Boemiajoe). Dienst Mijnbouw Nederlandsch-Indie, Bandung. p. 1-65.
(Text online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:041775000:00007)
(Map online at: https://digitalcollections.universiteitleiden.nl/view/item/815935)
(Geologic map and description of Bumiaya area, SW of Slamet volcano, Pekalongan Residency. With brief agrogeologic description by J. Szemian. Showing complexly folded NE-directed thrusts involving Miocene deep marine Pemali-Rambatan-Lawak- Halang sediments, Pliocene sediments, etc. Includes Plio-Pleistocene Glagah series with freshwater molluscs and vertebrate fossils ('Satir Fauna'; described by H.G. Stehlin (1925), F.H. van der Maarel (1932) and R. von Koenigswald (1932). Partly remapped as Majenang Quadrangle by Kastowo & Suwarna (1996)?)

Thaden, R.E., H. Sumadirdja & P.W. Richards (1975, 1996)- Peta Geologi Lembar Magelang dan Semarang, Jawa (Geologic map of the Magelang and Semarang quadrangles), 11-XIV-B, 11-XIII-E, scale 1: 100,000. Geological Research Development Centre (GRDC), Bandung, p. 1-11. + map.
(online at: https://geologi.esdm.go.id/geomap/image/render/ggl-100k-/ggl_100k_28_med.jpg)
(Map sheet with Semarang city in NE, Sumbing volcano in SW, Merbabu volcano in SE, Cipluk abandoned oil field in NW, etc.))

Thamrin, M. & S. Prayitno (1982)- Heat flow measurements in the Tertiary basin of northwest Java, Indonesia. Proc. 18th Session Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Seoul 1981, p. 224-235.

Thayib, E.S. (1977)- The status of the melange complex in Ciletuh Area, South-West Java. Lemigas Scientific Contributions 1, 2, p.
(Same as Thayyib et al. 1977, below)

Thayyib S., Endang., E.L. Said, Siswoyo & S. Prijomarsono (1977)- The status of the melange complex in Ciletuh Area, South-West Java. Proc. 6th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 241-253.
(online at: https://geologi.fitb.itb.ac.id/wp-content/uploads/sites/63/2021/09/241.pdf)
(Structurally complex mixture of ultrabasic rocks (partly serpentinized peridotite, gabbro, pilow basalts), metamorphic rocks (including glaucophane schist, phyllite) and sheared sediments (probably Upper Cretaceous shales) probably melange complex. Possible continuation of Luk Ulo melange, 370 km to E. Overlain by M Eocene- E Oligocene Ciletuh Fm quartz sandstones)

'T Hoen, C.W.A.P. (1918)- Verslag over de uitkomsten van een geologisch-mijnbouwkundig onderzoek in een gedeelte der Residentie Rembang. Jaarboek Mijnwezen Nederlandsch Oost-Indie 45 (1916), Verhandelingen 2, p. 202-254.
('Report on geological investigations in Rembang Residency, E Java'. Rel. Detailed descriptions of Miocene stratigraphy of area around Ngandang-Lodan anticline, NW Rembang zone. Evaluation of 5-6 thin (<1m) coal horizons in what is now known as M Miocene Ngrayong quartz sandstone Formation, with detailed cross-sections. Similar coal-bearing series in Panowan-Kadjar anticline WSW of Lodan)

'T Hoen, C.W.A.P. (1930)- Geologische overzichtskaart van den Nederlandsch-Indischen Archipel 1:1,000,000, Toelichting bij Blad XVI (Midden Java). Jaarboek Mijnwezen Nederlandsch Oost-Indie 58 (1929), Verhandelingen, p. 1-72.
(map online at: https://digitalcollections.universiteitleiden.nl/view/item/815013
Explanatory notes for 1929 1: 1 million scale geologic overview map of Central Java.)

Thommeret, J. & Y. Thommeret (1978)- 14C datings of some Holocene sea levels on the north coast of the island of Java. Modern Quaternary Research in Southeast Asia 4, p. 51-56.
(Terrace of presumed beach deposits with marine fossils 1.3-2.4 m above present sea level along N coast of Java at Jepara. Dated as 5000- 3650 years B.P. and interpreted as Holocene sea level highstand episode)

Thompson, S., D. Arpandi & F.X.Suyanto (1979)- Thermal maturity and oil generation with reference to the CMS-1 (Java) and Susu Selatan-1 (Sumatra) wells, Indonesia. Proc. 8th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 385-405.
(Liptinitic kerogen yield oil at earlier level of maturity than sapropelic kerogen.CMS-1 well (onshore NW Java) heavy waxy oils generated from liptinitic kerogen. Onset of oil generation at vitrinite reflectance 0.35% and spore colour index 3-3.5. Major oil generation at vitrinite reflectance 0.55%/ spore colour index 5. In Susu Selatan-1 well (N Sumatra), light oils generated from sapropelic kerogen. Optimum oil generation at vitrinite reflectance ~0.8%/ spore colour index 7.5. No heavy oil accumulations in this area)

Tiede, C., A.G. Camacho, C. Gerstenecker, J. Fernandez & I. Suyanto (2005)- Modeling the density at Merapi volcano area, Indonesia, via the inverse gravimetric problem, Geochem. Geophysics Geosystems (G3), 6, 9, p. 1-13.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/full/10.1029/2005GC000986)
(3-D model of anomalous density for Merapi and Merbabu by inversion of gravity field)

Tingay, M. (2010)- Anatomy of the 'Lusi' mud eruption, East Java. Proc. Australian Soc. Exploration Geophysicists (ASEG), 21st Geophysical Conference, Sydney 2010, Extended Abstracts, 1, p. 1-6.
(online at: https://www.tandfonline.com/doi/abs/10.1081/22020586.2010.12042009)
(On 29 May 2006, hot mud started erupting in Porong District of Sidoarjo, E Java. With initial flow rates of ~5000 m^3/ day, mud quickly inundated neighbouring villages. After almost four years, 'Lusi' eruption expelled >73 million m^3 of mud at av. rate of ~64000 m^3 per day and displaced ~40,000 people. Other areas also at risk from subsidence and distant eruptions of gas. Efforts to stem mud flow or monitor its evolution hampered by overall lack of knowledge and consensus on subsurface anatomy of Lusi mud volcanic system)

Tingay, M. (2015)- Initial pore pressures under the Lusi mud volcano, Indonesia. Interpretation (SEG-AAPG) 3, 1, p. SE33-SE49.
(manuscript online at: https://digital.library.adelaide.edu.au/dspace/bitstream/2440/98207/3/hdl_98207.pdf)
(Lusi mud volcano at Porong, E Java erupted continuously since May 2006. Analysis of pore pressures immediately prior to Lusi eruption from nearby (150m) Banjar Panji-1 well indicate all sequences >350m below Lusi overpressured, and follow approximately lithostat-parallel pore pressure increase through Pleistocene clastics, Plio-Pleistocene volcanics (1870- 2833 m) and Miocene Tuban Fm carbonates, with pore pressure gradients of 17.2–18.4 MPa/km. Pore pressures in basal carbonates ~23.0 MPa above hydrostatic. 'Textbook disequilibrium compaction overpressure')

Tingay, M. (2016)- What caused the Lusi Mudflow disaster in Indonesia? In: 2nd AAPG/EAGE/MGS Conf. Innovation in geoscience: unlocking the complex geology of Myanmar, Yangon 2015, Search and Discovery Article 41791, p. 1-33. *(Abstract + Presentation)*
(Lusi mudflow S of Surabaya, E Java, has been erupting continuously for 9 years, displaced 40000 people and caused >US$2.7 billion in damage. Ongoing debate whether the disaster was triggered by drilling kick in Banjar Panji-1 well (1 day earlier, 150m away), or natural event induced by 2006 Mw6.3 Yogyakarta earthquake (2 days earlier, 250km away). This study suggests drilling kick, not earthquake, caused catastrophic shear failure of borehole wall and subsequent reactivation of Watukosek fault)

Tingay, M., O. Heidbach, R. Davies & R. Swarbrick (2008)- Triggering of the Lusi mud eruption: earthquake versus drilling initiation. Geology (GSA) 36, 8, p. 639-642.
(Lusi mud volcano in E Java unlikely to be triggered by Yogyakarta earthquake. Blowout in Banjar Panji-1 hydrocarbon exploration well was most likely mechanism for triggering Lusi mudflow)

Tingay, M., O. Heidbach, R. Davies & R. Swarbrick (2009)- The Lusi mud eruption of East Java. AAPG International Conference Exhib., Cape Town 2009, p. 1-24. *(Extended abstract and presentation)*
(Online at: www.searchanddiscovery.net/documents/2009/50187tingay/ndx_tingay.pdf)
('Lumpur Sidoarjo' mud eruption probably triggered by drilling of Banjar Panji 1 well in May 2006. Expelling mud up to 170,000 m3/ day. Mud flow now covers >700 ha of land to depths of up to 17m, engulfing 8 villages)

Tingay, M., M. Manga, M.L. Rudolph & R. Davies (2018)- An alternative review of facts, coincidences and past and future studies of the Lusi eruption. Marine and Petroleum Geology 95, p. 345-361.
(online at: http://seismo.berkeley.edu/~manga/tingayetal2018.pdf)
(Review of likely causes of Lusi mud eruption in E Java. Drilling reports and data confirm wellbore was not intact, there was subsurface blowout, and there was connection between well and eruption. Yogyakarta earthquake too far away to have initiated new eruption. Strongly favor initiation of eruption by oil well drilling)

Tingay, M., M.L. Rudolph, M. Manga, R.J. Davies & C.Y. Wang (2015)- Initiation of the Lusi mudflow disaster. Nature Geoscience 8, 7, p. 493-494.
(online at: https://www.researchgate.net/publication/279455800_Initiation_of_the_Lusi_mudflow_disaster
(MT repeats earlier and quite valid conclusions that the disastrous 'Lusi' mudflow eruption S of Surabaya was probably not triggered naturally but was consequence of Lapindo oil exploration drilling operations)

Titani, K. (1942)- Oil-fields in Java. J. Mining Institute of Japan 58, 685, p. 309-316. *(In Japanese)*
(online at: www.jstage.jst.go.jp/article/shigentosozai1885/58/685/58_685_309/_pdf)
(Brief review of NE Java basin stratigraphy and oil fields. Not much detail)

Titisari, A.D. (2014)- Geochronology and geochemistry of Cenozoic volcanism in relation to epithermal gold mineralisation in western Java, Indonesia. Ph.D. Thesis, School of Earth Sciences, University of Melbourne, p. 1-297. *(Unpublished)*
(W Java hosts low-sulphidation epithermal gold deposits, with most important deposits in Pongkor, Cibaliung, Cikotok and Papandayan districts. Most volcanics with enriched LILE and LREE compositions characteristic of calc-alkaline arcs, but Papandayan basalts depleted LREE contents typical of island arc tholeiites. 40Ar/39Ar

ages volcanic host rocks: Papandayan district ~18 Ma; Cibaliung district ~11 to ~9.5 Ma, Cikotok district ~18 - ~4.5 Ma, Pongkor district 2.7- ~2 Ma. Adularia crystallisation ages similar. Magmatic arc across W Java likely linked to SE Asia tectonic evolution, from E Miocene CCW rotation of Kalimantan to Late Miocene-Pliocene subduction. Three main events: E Miocene primitive tholeiite arc (20-18 Ma), M Miocene mature calc-alkaline arc (13-9 Ma) and Late Miocene- Pliocene evolved high-K calc-alkaline and shoshonitic arc (7-2 Ma). E Miocene Papandayan basement thinned island arc crust. Miocene- Pleistocene mineralisation of Cibaliung, Cikotok and Pongkor associated with calc-alkaline arc built on Sundaland continental crust)

Titisari, A.D. & S. Kurniawati (2018)- Genesa marmer daerah Besole, Kecamatan Besuki, Kabupaten Tulungagung, Provinsi Jawa Timur berdasarkan karakteristiknya. Proc. Seminar Nasional Kebumian 11, Gadjah Mada University, Yogyakarta, p. 745-751.
('The origin of marble in the Besole area, Besuki District, Tulungagung Regency, East Java Province, based on its characteristics'. Besole marble in in E Java, belongs to (M Miocene) Campurdarat Fm, originally wackestone-packstone transformed by contactmetamorphism)

Titisari, A.D., D. Phillips & Hartono (2014)- Geochemical variations on hosted volcanic rocks of Cibaliung epithermal gold mineralisation, Banten- Indonesia: implications for distribution of subduction components. J. Southeast Asian Applied Geology (UGM) 6, 1, p. 39-52.
(online at: https://jurnal.ugm.ac.id/jag/article/download/7216/5655)
(Neogene Sunda-Banda arc hosts various styles of gold mineralisation. Major and trace element data for host basaltic andesites and rhyodacites of Cibaliung epithermal gold mineralisation characteristic of calc-alkaline arcs, with hydrous slab component)

Titisari, A.D., D. Phillips, Prayatna & E.P. Setyaraharja (2017)- 40Ar/39Ar geochronology of volcanic and intrusive rocks in the Papandayan metallic prospect area, West Java, Indonesia. Resource Geology 67, 1, p. 53-71.
(online at: http://onlinelibrary.wiley.com/doi/10.1111/rge.12118/epdf)
(Papandayan metallic district in W Java, Indonesia with epithermal Au-Ag vein system in Arinem area. 40Ar/39Ar ages of basalt (11.7, 18.2 Ma) and andesite (7.7 Ma) samples of Jampang Formation volcanic rocks. Diorite intrusives: Gunung Halang (13.0 Ma), Gunung Lingga (10.8 Ma) and Gunung Buligir (7.4 Ma). Gunung Wayang fine-grained diorite dike 3.95 Ma. Adularia in Arinem vein (18.3 Ma). K-Ar illite ages of Arinem vein (9.4, 8.8 Ma). Ages suggest possibly multiple hydrothermal events)

Titisari, A.D., D. Phillips & E.P. Setyaraharja (2014)- Magmatic arc evolution in the Pongkor epithermal gold mineralisation district. Proc. Seminar Nasional Kebumian 7, Dept. Teknik Geologi, Gadjah Mada University, Yogyakarta, P3O-01, p. 488-503.
(online at: https://repository.ugm.ac.id/136277/1/488-503%20P3O-01.pdf)
(Pongkor epithermal gold mineralisation on NE flank Bayah Dome (~80 km SW of Jakarta) hosted in basaltic-dacitic volcanic breccias, lapilli tuffs and andesites. 40Ar/39Ar dating of andesites yielded average age of 2.74 ± 0.03 Ma, but may be age of hydrothermal alteration. Enriched LILE and LREE values characteristic of calc-alkaline arcs. Some andesite samples indicative of high-K calc-alkaline and shoshonite arcs. Temporal evolution from mature arc to evolved arc (high-K calc-alkaline- shoshonite volcanics)

Titisari, A.D., D. Phillips I.W. Warmada, Hartono & A. Idrus (2020)- 40Ar/39Ar Geochronology of the Pongkor low sulfidation epithermal gold mineralisation, West Java, Indonesia. Ore Geology Reviews 119, p. 1-15.
(Pongkor gold deposit 90 km SW of Jakarta typical low sulfidation epithermal gold deposit. 40Ar/39Ar age results for adularia samples from Ciguha vein 1.8, 2.3 Ma and 1.9 Ma, plus one weighted mean age of 1.95 Ma. Adularia from Kubang Cicau veins age of 2.0Ma. Adularia ages similar to previously reported 40Ar/39Ar results, but significantly younger than previously reported K-Ar adularia dating results)

Tjia, H.D. (1961)- Tjatatan mengenai stratigraphy Pegunungan Karangbolong, Djawa Tengah. Proceedings Institut Teknologi Bandung (ITB) 1, 3, p. 18-22.
(online at: https://journals.itb.ac.id/index.php/jmfs/article/view/9813)

('Notes on the stratigraphy of the Karangbolong Mountains, C Java'. Karangbolong Mts part of Java S Mountains. Oldest rocks 'Old Andesite Fm' composed of Oligocene- Aquitanian andesitic eruptive and intrusive rocks, unconformably overlain by Karangbolong Lst (Tf1-3, with Nephrolepidina, Trybliolepidina, Cycloclypeus spp.). To North uppermost limestone beds overlain by and interfingering with beds of Marl-tuff Mb of Tertiary f3. After this time marine sedimentation in this area came to halt)

Tjia, H.D. (1962)- Topographic lineaments in Nusa Barung, East Java. Proceedings Institut Teknologi Bandung (ITB) 2, 2, p. 89-98.
(online at: https://journals.itb.ac.id/index.php/jmfs/article/view/9797)
(Nusa Barung island off Puger at S coast of E Java mainly N-S trending karsted limestone ridges, probably of Late Miocene age. Pleistocene S-ward tilting of island (<4°), similar to most of S Mountains)

Tjia, H.D. (1964)- Structural analysis of Sheet 30, Purwakarta. Laporan Kongres Ilmu Pengetahuan Nasional Kedua (Proc. 2nd Nat. Scientific Congress), Yogyakarta 1962, B, 4, MIPI, Jakarta, p. 517-527.

Tjia, H.D. (1964)- Paleo-current and initial slope indicators in the Subang area, W. Java. Contributions Department of Geology, Institute of Technology Bandung (ITB), 57, p. 63-74.
(Pliocene deposits of Subang area with sedimentary structures indicating currents mostly longitudinal. Some arenites of Lower Pliocene unit deposited by turbidity currents)

Tjia, H.D. (1964)- Slickensides and fault movements. Geological Society of America (GSA) Bull. 75, 7, p. 683-686.
(On slickensides in Lokulo area, C Java)

Tjia, H.D. (Tjia Hong Djin) (1966)- Structural analysis of the Pre-Tertiary of the Luk-Ulo area, Central Java. Contributions Department of Geology, Institute of Technology Bandung (ITB) 63, p. 1-110.
('Analisis struktur daerah Pratersier Lokulo, Djawa'. Doctoral Thesis ITB, promotor Prof. J.A. Katili. The 'classic' Lokulo/ Karangsambung area S of Banjarnegara viewed here as part of the 'Sumatra Orogene', underwent three horizontal compressional episodes:NW-SE oriented in Pretertiary, N-S oriented during Eocene and N10E-S10W oriented in younger time. Mainly block faulting. Supposed sheet (nappe?) structure on ly in Eocene mass (could be gravity sliding). Overthrust sheets as advocated by Harloff (1933) could not be confirmed. Mesozoic metamorphic rocks and gabbro locally affected by brecciation. Mid-Cretaceous Orbitolina limestone lenses embedded in shale. Eocene with polymict conglomerates and clastics with Nummulites, suggesting Eocene unconformably overlies Pre-Tertiary. Miocene marine sediments with breccia horizons. Etc.)

Tjia, H.D. (Tjia Hong Djin) (1968)- The Lembang Fault, West Java. Geologie en Mijnbouw 47, 2, p. 126-130.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0VEdodFA2VGlONm8/view)
(Lembang fault, 10 km N of Bandung, N-ward facing scarp exposed over 22 km, parallel to Java's longitudinal axis. Former investigators attributed mainly dip slip displacements to this fault, but W part of fault (W of Tjikapundung valley), latest development sinistral strike slip in nature, with horizontal displacement of ~140m. E part of fault between Maribaja and Mount Pulusari is dip slip fault with exposed throws of 130-450m)

Tjia, H.D. (2013)- Morphostructural development of Gunungsewu karst, Jawa Island. Jurnal Geologi Indonesia 8, 2, p. 75-88.
(online at: http://ijog.bgl.esdm.go.id/index.php/IJOG/article/view/157/157)
(Review of landforms in karst hills in Miocene limestone of Southern Mountains SE of Yogyakarta, cone-and sinoid-shaped. Km-long linear ridges are relics of paleo-breaker zones. Also circular and spiral landforms, etc. Changes in orientation of inland and coastal ridges interpreted to reflect progressive CCW rotation of Gunungsewu microplate, in accordance with paleomagnetic data)

Tjia, H.D. & V. Tjioe (1964)- Origin of Tjongkang Hill near Tomo, West Java. Bull. Geological Survey Indonesia 1, 2, p. 25-33.
(Tjongkang Hill not a volcanic neck, but exotic block of Lower - Middle Miocene breccias and graywackes that was emplaced by submarine slumping during deposition of U Miocene argillaceous sediments)

Tobing, S.M. (2003)- Inventarisasi bitumen padat dengan 'outcrop drilling' di daerah Ayah, Kabupaten Kebumen, Jawa Tengah. Kolokium Hasil Kegiatan Inventarisasi Sumber Daya Mineral- DIM, TA. 2003, p. 26.1-26.3.
(online at: www.dim.esdm.go.id/kolokium%202003/batubara/Prosiding%20Ayah.pdf)
(Investigation of solid bitumen/oil shale in M Miocene Kalipucang Fm, Ayah area, Kebumen Regency, near S coast of C Java. Stratigraphy in area Late Oligocene- E Miocene Gabon Fm andesitic-basaltic volcanics, unconformably overlain by M Miocene Kalipucang Fm, mainly reef limestone, Late Miocene- E Pliocene Halang Fm turbidites and Late E Miocene- M Miocene andesitic intrusives. Solid bitumen/oil shale deposits in Kalipucang Fm in three main layers, 0.35- 3.9m thick, dipping 7- 65° to W-NW. Oil content 7- 50 liters/ ton. Bitumen resources is ~830,000 barrels oil)

Toha, B., M. Datun & Widiasmoro (1986)- Guidebook of Southern Mountains: Turbidite system excursions. Assoc. Indonesian Geol. (IAGI), p. 1-21.

Toha, B., R.D. Purtyasti, Sriyono, Soetoto, W. Rahardjo & P. Subagyo (1994)- Geologi daerah Pegununungan Selatan, suatu kontribusi. Proc. Geologi dan Geotektonik Pulau Jawa sejak akhir Mesozoik hingga Kuarter, Seminar Jurusan Teknik Geologi Fak. Teknik Universitas Gadjah Mada, p. 19-36.
('Geology of the Southern Mountains: a contribution')

Tregoning, P., F.K. Brunner, Y. Bock, S.O.O. Puntodewo, R. McCaffrey, J.F. Genrich, E. Calais, J. Rais & C. Subarya (1994)- First geodetic measurement of convergence across the Java Trench. Geophysical Research Letters 21, 19, p. 2135-2138.
(online at: http://web.pdx.edu/~mccaf/pubs/tregoning_java_grl_1994.pdf)
(GPS surveys on Christmas Island and Cibinong, W Java, suggest convergence at 67 ±7 mm/year orthogonal to trench)

Triwibowo, B. & K. Santoso (2007)- Potensi dan kualitas batuan Formasi Kujung sebagai batuan induk, pada lintasan Kali Wungkal, Tuban, Jawa Timur. Proc. Simposium Nas. IATMI, UPN, Yogyakarta, TS-03, p. 1-13.
(online at: http://elib.iatmi.or.id/uploads/IATMI_2007-TS-03_Bambang_Triwibowo,_UPNVY.pdf)
('Source rock potential and quality of Kujung Fm rocks in the Kali Wungkal section, Tuban, E Java'. Samples from Oligocene Kujung Fm marls near Tuban suggest poor source rocks: low TOC and immature)

Trooster, S.G. (1937)- Note betreffende Ir. Duyfjes "Zur Geologie und Stratigraphie des Kendenggebietes zwischen Trinil und Surabaja". Report Bataafsche Petroleum Maatschappij (BPM), Tjepoe (Cepu), p.
(Unpublished, but apparently widely available BPM report, discussing the Duyfjes (1936) paper on the stratigraphy of the eastern Kendeng zone, between Trinil and Surabaya, NE Java. (Gerrit Trooster was BPM geologist in Java in 1934-1942, and became Professor of Geology at the University of Utrecht in 1946-1950))

Trooster, S.G. (1937)- Lithologische correlatie van de standaard profielen van het Keninggebied met daaruit af te leiden stratigraphische tectonische conclusies. Report Bataafsche Petroleum Maatschappij (BPM), Cepu, p.
(Unpublished)
('Lithological correlation of the standard profiles of the Kening area with stratigraphic tectonic conclusions deduced from it'. Unpublished, but apparently widely available BPM report, discussing lithostratigraphy of Rembang zone, NE Java. This became basis of Tertiary formation nomenclature of NE Java in 1950s and later)

Tuakia, M.Z., Rendy, W.D. Santoso, E. Puswanto, F.S. Yuwono, B. Sapiie & A. Dianto (2023)- Outcrop to petrography scale and new age constraint of the Jatisamit Melange in the Luk Ulo area, Central Java, Indonesia. Australian J. Earth Sciences 71, 1, p. 100-113.
(Jatisamit Melange is matrix-dominated (younger?) member of Luk Ulo Melange, C Java. Three deformation phases including common boudinage and cleavage through ductile deformation, at low-medium T, during progressively increasing differential stress. Illite crystallinity suggests max. metamorphic T of 150-200 °C, at 4-5 km depth. Calcareous nannofossils ages suggest age of Jasamit/ Luk Ulo Melange matrix late M Eocene-earliest Oligocene, suggesting Luk Ulo Melange matrix is younger than its Cretaceous-Paleocene tectonic block ages? Suggest result of collision of SE margin of Sundaland with Gondwana micro-continent?)

Tuakia, M.Z., B. Sapiie & A.H. Harsolumakso (2015)- Karakteristik dan deformasi pada Satuan Larangan, Banjarnegara, Jawa Tengah. Buletin Geologi (ITB) 42, 1, p. 41-57. (*online at: www.researchgate.net/publication/330202110_Karakteristik_dan_deformasi_pada_Satuan_Larangan_Banjarnegara_Jawa_Tengah)*
('Deformation characteristics of the Larangan Unit, Banjarnegara, Central Java'. (Larangan rock unit of Prasetyadi (2007) result of tectonic mixing in fault zone due to collision of Gondwana microcontinental plate with E part of Sundaland after Cretaceous-Paleocene subduction. Late Eocene age suggested by fossil content. Complex similar Jatisamit Unit Melange (blocks of sandstones with boudins, phyllite, schist, basalt, etc. in matrix of black scaly clay), with common SW-NE orientation and dip of ~39° to SE. Probably formed in (SE-dipping) reverse fault zone at depth 6-9km)

Tun, M.M., I.W. Warmada, A. Harijoko, O. Verdiansyah & K. Watanabe (2014)- High sulfidation epithermal mineralization and ore mineral assemblages of Cijulang prospect, West Java, Indonesia. J. Southeast Asian Applied Geology (UGM) 6, 1, p. 29-38.
(online at: https://jurnal.ugm.ac.id/jag/article/view/7215/5654)
(Cijulang prospect in Garut District, W Java, high-sulfidation epithermal system in andesite lava and lapilli tuff. Mineralization characterized by pyrite-enargite-gold and associated acid sulfate alteration. Two stages: early Fe-As-S stage (with Au) and later Cu-Fe-As-S stage)

Tun, M.M., I.W. Warmada, A. Idrus, A. Harijoko, R. Al-Furqan & K. Watanabe (2014)- Characteristics of hydrothermal alteration in Cijulang area, West Java, Indonesia. J. Southeast Asian Applied Geology (UGM) 7, 1, p. 1-9.
(online at: https://journal.ugm.ac.id/jag/article/view/16917)

Turkandi, T., Sidarto, D.A. Agustiyanyo & M.M. Purbo Hadiwdjojo (1992)- Geology of the Jakarta and the Thousand Islands Quadrangle, Jawa, Quads. 1209-4, 1210-1, 1:100,000. Geological Research Development Centre (GRDC), Bandung, p. 1-14.

Twiss, W.J. (1921)- Een zinkertsvoorkomen in Zuid-Madioen. De Mijningenieur 2, 4, p. 44-51.
('An occurrence of zinc-ore in South Madiun'. Small zinc mining operation in E Java near Kerpoe village, 2.5km NE of Slahoeng, 10 km S of Balong. Zones (veins?) of pyrite and sphalerite in steeply dipping Miocene clastics and limestones)

Uhlig, H. (1980)- Man and tropical karst in Southeast Asia. GeoJournal 4, 1, p. 31-44.
(Mainly on 'cone karst' development in Gunung Sewu in S Mountains of Java. Also similar karst in Nusa Penida (S Bali) and N Bone and Maros (S Sulawesi))

Ulfah, A.A., Akmaluddin & D.H. Barianto (2023)- Biostratigraphy and climate change in the Late Miocene age based on foraminifera in the Oyo Formation, Oyo river section, Gunung Kidul, Yogyakarta. J. Tropical Biodiversity and Biotechnology (JTBB; UGM) 8, 2, jtbb81769, p. 1-18.
(online at: https://journal.ugm.ac.id/jtbb/article/view/81769/36248)
(Late Miocene (9.8-5.8 Ma) open marine Oyo Fm in Oyo River, Southern Mountains of C Java, 81m thick section of interbedded limestones and calcareous tuffaceous sandstones (overlying the Wonosari Limestone). Biostratigraphic investigation yielded 28 species of planktonic foraminifera, in three biozones (M13a/N16 and M13b-M14 (N17), and general cooling tendency. Seven paleoclimate zones, four warm and three cold zones, comparable to results from other studies in SE Asia and global paleoclimate trends (open marine sediments now well above sea level, suggesting uplift of Southern Mountains in C Java is post-Miocene?- JTvG))

Umbgrove, J.H.F. (1930)- Het ontstaan van het Dieng Plateau. Leidsche Geologische Mededelingen 3, 3, p. 131-149.
(online at: www.repository.naturalis.nl/document/549786)
('The origin of the Dieng Plateau'. The elevated Dieng Plateau of C Java is not caldera formation or crater bottom, but floor of an old mountain lake, enclosed by circle of young volcanoes)

Umbgrove, J.H.F. (1945)- Corals from the Upper Miocene of Tjisande, Java. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 48, p. 340-344.
(online at: https://dwc.knaw.nl/DL/publications/PU00017948.pdf)
(Reefal limestone lenses in Upper Halang Beds along Cisande River, N of Lurahgung, C Java. Associated with rhinoceros tooth (Aceratherium boschi Von Koenigswald; oldest land mammal fossil known from Java). Twenty-one coral species,15 could be identified, 47% still living. Percentage suggests Cisande limestone older than coral-bearing localities in Pliocene Sonde beds (Th), probably latest Miocene)

Umbgrove, J.H.F. (1946)- Corals from a Lower Pliocene patch reef in Central Java. Journal of Paleontology 20, 6, p. 521-542.
(Small hill of Gunung Linggapadang near Prupuk, C Java, is Lower Pliocene patch reef in marly Tapak Beds. Reef comparable to patch reefs in Bay of Jakarta. Well- preserved coral fauna of 70 species)

Umbgrove, J.H.F. (1946)- Corals from the Upper Kalibeng beds (Upper Pliocene) of Java. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 49, 1, p. 87-93.
(online at: https://dwc.knaw.nl/DL/publications/PU00018197.pdf)
(35 coral species from Late Pliocene Upper Kalibeng Beds at Sonde in W part Kendeng zone, E Java, collected by members of Geological Survey)

Umbgrove, J.H.F. (1950)- Corals from the Putjangan beds (Lower Pleistocene) of Java. Journal of Paleontology 24, 6, p. 637-651.
(Forty species of corals from lower Pleistocene Pucangan beds of Kendeng zone, E Java, with only 49% living species. This abnormally low percentage probably due to special character of fauna which consists mainly of solitary 'deep water' corals)

Umbgrove, J.H.F. & J. Cosijn (1931)- Java's zuidkust bij Tji-Laoet-Eureum. Verhandelingen Kon. Nederlands Geologisch Mijnbouwkundig Genootschap (KNGMG), Geologische Serie 9, 2, p. 133-134.
('Java's south coast near Tji-Laut Eureum'. Unusual erosional features on limestone plateau)

Umiyatun, S., R.E.J. Kurniawan, B. Prastistho & Surono (2006)- Studi nanofosil pada satuan batulempung, Formasi Wungkal- Gamping, lintusan Watu Prahu, Bayat, Klaten, Jawa Tengah. Proc. 35th Conv. Indonesian Association Geologists (IAGI), Pekanbaru 2006, p. 1-11. *(online at: http://eprints.upnyk.ac.id/22146/1/3.%20Studi%20Nannofosil%20Pada%20Satuan%20Batulempung%20Formasi%20Wungkal%20%E2%80%93%20Gamping%20Lintasan%20Watuprahu%20Bayat%20Klaten Etc.)*
('Nannofossil study of the claystone unit of Wungkal- Gamping Fm, Bayat, C Java'. Watuprahu section at Jiwo Hills SE of Yogyakarta contains Late Eocene nannofossil zones NP18-NP19 (incl. Cribrocentrum reticulatum, Discoaster saipanensis, D. barbadiensis, etc.)

Untung, M. (1974)- Bouguer anomaly map of Jawa and Madura, Scale 1:1,000,000 (2 sheets). Geological Research Development Centre (GRDC), Bandung.

Untung, M. (1982)- Sebuah rekonstruksi paleogeografi Pulau Jawa. Geologi Indonesia (J. Indonesian Association Geologists, Majalah IAGI) 9, 2, p. 15-24.

Untung, M. & Y. Sato (1978)- Gravity and geological studies in Java, Indonesia. Geological Survey Indonesia and Geological Survey of Japan, Bandung, Special Publ. 6, p. 1-207.

Untung, M., K. Udjang & E. Ruswandi (1973)- Gravity survey in the Yogyakarta- Wonosari area, Central Java. Geological Survey Indonesia, Publikasi Teknik, Seri Geofisika 3, p. 1-13.

Untung, M. & G. Wiriosudarmo (1975)- Pola struktur Jawa dan Madura sebagai hasil penafsiran pendahuluan data gayaberat. Geologi Indonesia (Majalah IAGI) 2, 1, p. 15-24.
('Structural pattern of Java and Madura as a result of preliminary interpretation of gravity data')

Uruma, R., Y. Kohno, K. Watanabe, A. Imai, T. Itya, L.D. Setijadji & A. Harijoko (2007)- Migration of subduction in Central Java, Indonesia. Proc. 5th Int. Workshop Earth Science and Technology, Fukuoka, p. 377-384.

Usman, D.N., N. Sulaksana, F. Hirnawan & I. Haryanto (2018)- Gold-silver mineralization in the neo-tectonism of Honje Formation and Cipacar Formation, in Cibaliung Block, Banten Province. J. Geoscience Engineering Environment Technology (JGEET) 3, 4, p. 231-236.
(online at: https://journal.uir.ac.id/index.php/JGEET/article/download/1852/1434)
(On Cibitung and Cikoneng Zones of epithermal gold mineralization zones in fractures in latest Miocene Honje Fm andesite and Pleistocene Cipacar Fm tuff, in SW Java)

Usman, T.K., A. Bunyamin, E. Purnomo & I. Prasetya (2006)- Formasi Cisubuh sebagai batuan reservoir hidrokarbon di cekungan Jawa Barat Utara dan Jawa Tengah Utara. Proc. 35th Annual Conv. Indonesian Association Geologists (IAGI), Pekanbaru 2006, PITIAGI-026, p. 1-7.
(online at: https://www.iagi.or.id/web/digital/15/2006_IAGI_Pekan-Baru_-Formasi-Cisubuh-Sebagai.pdf)
('The Cisubuh Formation as hydrocarbon reservoir rock in the NW Java and North Central Java basins'. Late Miocene- Early Pliocene Cisubuh Fm oil bearing in wells Jatirarangon 2 and 3 and Klantung-1)

Usman, T.K., Y. Fahrudi, E. Purnomo & P. Astono (2005)- Potensi batuan induk di daerah Majalengka dan implikasinya tehadap keberadaan hidrokarbon di daerah cekungan Bogor. Proc. 34th Annual Conv. Indonesian Association Geologists (IAGI) - 30th Annual Conv. HAGI- 14th PERHAPI, Surabaya, JCS2005-G084, p. 1-7.
('Source rock potential in the Majalengkah area and implications for hydrocarbon rock potential of the Bogor Basin'. Geochemical/ biomarker study of rocks and oils from area near first oil well on Java, Maja 1 in Majalengka area. Oil geochemically similar to E Miocene Cikaramas Fm)

Usman, T.K., I. Yuliandri, M. Fajar, D. Hilmawan, A. Naskawan, M.J. Panguriseng & W. Sadirsan (2011)- Strike-slip systems on Tanjung-Brebes area and their implication for hydrocarbon exploration. Proc. 35th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA11-G-116, p. 1-8.
(On N Central Java basin (N Serayu Basin) pull-apart basin evolution and oil seeps)

Usman, T.K., I. Yuliandri, M.J. Panguriseng, W.S. Sadirsan & D. Priambodo (2011)- New concept of Paleogene basin evolution of northern West Java. Proc. Joint 36th HAGI and 40th IAGI Annual Conv., Makassar, JCM2011-473, p. 1-5.
(online at: https://www.iagi.or.id/web/digital/10/2011_IAGI_Makassar_New-Concept-of-Paleogene.pdf)
(NW Java Basin basin evolution tied to S-ward shift of position of Indian Ocean subduction system from Jurassic to present-day. In E Eocene-Oligocene NW Java Basin was back arc system with shallow marine clastics, limestone intercalations and volcanics. Late Oligocene termination of volcanic system in NW Java and start of lacustrine deposition. Late Oligocene Rajamandala Fm is equivalent to Pondok Makmur Fm in NW Java, below Talang Akar Fm and interfingering with U Jatibarang Fm. In E Miocene growth of carbonates in NW Java Basin, with active volcanic sedimentation in Bogor Basin in S. No figures)

Utoyo, H. (2007)- Petrologi dan geokimia batuan gunung api terubah daerah Ponorogo, Jawa Timur. Jurnal Sumber Daya Geologi (JSDG) 17, Special Issue (163), p. 35-46.
('Petrology and geochemistry of volcanic rocks in the Ponorogo area, East Java'. Volcanics of Late Oligocene-E Miocene Mandalika Fm (= 'Old Andesites?) of Ponorogo area, NE of Pacitan near C-E Java border, mainly andesitic, rhyolitic, dacitic to basaltic in composition, with dykes, pillow lavas, etc. Of calk-alkaline affinity, related to subduction. Presence of molybdenum suggests basement rock possibly of continental granitic type)

Utami, D.A.,D. Noeradi & B. Sapiie (2011)- Sedimentary cycle reconstruction of reef and fragmental limestone in Cikamuning area, Padalarang, West Java, based on shallow well data and outcrop. Proc. 35th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA11-G-109, p.

(Four facies associations identified in SW part of latest Oligocene Rajamandal Limestone platform, W of Bandung, W Java, from old to young: coral bindstone to rudstone, prograding rudstone to packstone, well bedded turbiditic packstone to grainstone, and thick-bedded- massive rudstone to grainstone)

Utoyo, H. (2007)- Alteration and mineralization of ancient caldera in Cupunegara, Subang, West Java. Proc. Joint Convention 32nd HAGI, 36th IAGI and 29th IATMI, Bali 2007, p. 19-31.
(online at: https://www.iagi.or.id/web/digital/28/2007_IAGI-Bali_Alteration-and-Mineralization.pdf)
(Ancient caldera of Cupunagara,N of Bandung. Area covered by volcanic pyroxene andesite, with K/Ar ages between 59± 2 Ma (Upper Paleocene) and 37± 4 Ma (Late Eocene). Altered rocks with pyrite, chalcopyrite, etc.)

Utoyo, H., M.H.J. Dirk, S. Bronto & L.B. Kaspar (2004)- K-Ar age of volcanic rocks in Cupunegara, Subang, West Java. Proc. 33rd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, p. 81-87.
(online at: https://www.iagi.or.id/web/digital/16/2004_IAGI_Bandung_K-Ar-Age-Volcanic-Rocks.pdf)
(K-Ar dating of andesites from Cupunegara area NNE of Bandung gave Late Paleocene (59± 2 Ma) and Late Eocene (37± 4 Ma) ages. Possibly oldest volcanic rocks in region (older than Southern Mountians 'Old Andesite' arc?; JTvG)

Utoyo, H. & L. Sarmili (2008)- Petrogenesa endapan pasir besi di Pantai Panggul, Trenggalek. J. Geologi Kelautan 6, 2, p. 104-117.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/154/144)
('Petrogenesis of iron sand deposits at Panggul beach, Trenggalek'. Magnetite-rich sands along S coast of E Java derived mainly from outcrops of Oligo-Miocene Mandalika Fm volcanics ('Old Andesites) in S Mountains)

Uyeda, S., T. Eguchi, S. Kamal & W.S. Modjo (1982)- Preliminary study on geothermal gradient and heat flow in Java. UN-ESCAP, CCOP, Technical Bulletin 15, p. 15-28.
(online at: https://repository.unescap.org/items/569114cf-87f5-45c0-954f-0e8e9cd1cca0)
(Preliminary study of limited number of T measurements in water wells on Java, but most deemed unreliable)

Van Baren, F.A. (1939)- On the occurrence of celestine in Young Tertiary deposits in the Residency Rembang (Java). Geologie en Mijnbouw, n.s., 1, 12, p. 288-290.
(online at: https://drive.google.com/file/d/1dT-hyKAK5hV6zuPilO-LD3dbiUTgqKWX/view)
(Marly soil on Upper Kalibeng Fm in NE Java with 90% of heavy mineral fraction composed of small idiomorphic crystals of celestine (celestite; SrSO4) (origin not clear))

Van Bemmelen, R.W. (1934)- Geologische kaart van Java, 1: 100,000, Toelichting bij Blad 36 (Bandoeng), met eene korte agrogeologische beschrijving van Ing. J. Szemian. Dienst Mijnbouw Nederlandsch-Indie, Bandung, p. 1-95.
(Text online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:041774000:00001)
(Map online at: https://digitalcollections.universiteitleiden.nl/view/item/813208)
(Explanatory notes to Geological map of Java, 1: 100,000- sheet 36 (Bandung), with chapter on agrogeology by J. Szemian. Bandung city located on high plain between two E-W trending rows of active volcanoes. Surface formation mainly Pliocene-Recent volcanics and volcanoclastics. Oldest beds Miocene marine sediments. Etc.)

Van Bemmelen, R.W. (1934)- Ein Beispiel fur Sekundartektogenese auf Java. Geologische Rundschau 25, 3, p. 175-194.
('An example of secondary tectogenesis on Java'. On young, linked extensional and compressional structuring in mountains N of Bandung)

Van Bemmelen, R.W. (1937)- Geologische kaart van Java 1:100,000. Toelichting bij Blad 66 (Karangkobar). Dienst Mijnbouw Nederlandsch-Indie, Bandung, p. 1-50.
(Map online at: https://digitalcollections.universiteitleiden.nl/view/item/813498)
(C Java Ungaran region, with original descriptions of Penyaten Fm, etc. Four small areas with Eocene outcrops)

Van Bemmelen, R.W. (1937)- Examples of gravitational tectogenesis from Central Java. De Ingenieur in Nederlandsch-Indie (IV Mijnbouw en Geologie) 4, 4, p. IV.55- IV.65.
(Example of N-directed Late Miocene folding-thrusting presumably caused by gravitational sliding in Karangkobar region, N of Banjarnegara, northern C Java)

Van Bemmelen, R.W. (1937)- Igneous geology of the Karangkobar region (Central Java) and its significance for the origin of the Malayan potash provinces. De Ingenieur in Nederlandsch-Indie (IV) 4, 7, p. 115-135.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1937-07.pdf)
(Continuation of Van Bemmelen 1937 on gravitational tectogenesis of Karangkobar area. Petrography of Late Miocene submarine calk-alkali basaltic rocks and associated feeders of Penjaten volcano, Pliocene volcanic necks (9) and breccias of Bodas- Ligoeng series, and Quaternary calc-alkali volcanism of Djembangan and Dieng Plateau. Successive eruptions in Dieng group with increasing SiO2 content)

Van Bemmelen, R.W. (1940)- A limestone block in hypersthene dacite from the Koeda-neck (Kromong Complex, near Cheribon, Western Java). De Ingenieur in Nederlandsch-Indie (IV) 7, 3, p. IV.37- IV.41.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1940-03.pdf)
(Kromong Mountains formed by complex of volcanic necks up to 587m high, at N foot of Ciremai volcano, ~20 km W of Cirebon. Volcanic necks probably of Late Pliocene age, intrusive in Miocene limestone and Mio-Pliocene marine sediments (Kaliwangu-series). Limestone with Miocene foraminifera exposed as uplifted blocks at NE and SE side of complex. At SE side large limestone inclusion on top of dacitic Koeda (Kuda) neck, converted into fine-grained marble, with 1-2 cm reaction rim with secondary minerals)

Van Bemmelen, R.W. (1941)- Geologische kaart van Java, 1:100,000. Toelichting bij Blad 73 (Semarang) en 74 (Oengaran). Dienst Mijnbouw Nederlandsch-Indie, p. 1-116.
(Explanatory notes for Semarang and Unguran 1: 100,000 Geologic map sheets, C. Java (final map sheet published by the Dienst van den Mijnbouw; not sure if accompanying map was ever printed)

Van Bemmelen, R.W. (1941)- Granitische intrusies in het Zuidergebergte van West Java. De Ingenieur in Nederlandsch-Indie (IV) 8, 2, p. IV.9- IV.18.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1941-02.pdf)
('Granitic intrusions in the Southern Mountains of West Java'. Two examples: (1) quartz-dioritic intrusion in Tjilajoe (Cilayu) River, 60 km S of Bandung (found by Witkamp, 1939 , and (2) Tendjolaoet (Cendyolaut) Ridge granodioritic intrusion 40 km SSW of Tasikmalaya (Verbeek and Fennema, 1896). Both probably part of Oligo-Miocene 'Old Andesites' volcanic arc complex)

Van Bemmelen, R.W. (1947)- The Muriah volcano (Central Java) and the origin of its leucite-bearing rocks. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 50, 6, p. 653-658.
(online at: https://dwc.knaw.nl/DL/publications/PU00018362.pdf)
('Mediterranean-type' leucite-bearing rocks of Muriah volcano formed from limestone assimilation by 'Pacific-type' magmas. Volcanics of Rahtawu cauldron large inclusions of contactmetamorphic limestones with Katacycloclypeus annulatus, large Lepidocyclina, etc., belonging to (M Miocene) Rembang layers)

Van Bemmelen, R.W. (1949)- Java. In: The geology of Indonesia, Government Printing Office, The Hague, 1A, p. 545-659.
(Van Bemmelen's major status review of Java geology, as known in the late 1940's)

Van Benthem Jutting, T. (1937)- Non marine mollusca from fossil horizons in Java with special reference to the Trinil Fauna. Zoologische Mededelingen 20, p. 83-180.
(online at: www.repository.naturalis.nl/document/149951)
(Monograph of fresh water molluscs from collections of Dubois, Elbert and Selenka and Bandung Geological Survey, mainly from Latest Pliocene-Pleistocene of Kendeng zone/ Trinil area. Incl. Viviparus, Corbicula, Thiara, Lymnaea, etc.))

Van den Abeele, D. (1949)- Lepidocyclininae from Rembang (Java) with a description of *L. wanneri* n.sp. Proc. Koninklijke Nederlandse Akademie van Wetenschappen 52, 7, p. 760-765.
(online at: https://dwc.knaw.nl/DL/publications/PU00018695.pdf)
(Lepidocyclinids from E-M Miocene 'orbitoidal limestone (OK)' of Rembang Beds near Sumberan, Bringin and Gegunung oilfields, SE of Rembang, N and NW of Bojonegoro, collected by Wanner. Molluscs from same samples described by Wanner & Hahn (1935). Seven Lepidocyclina species, mainly subgenus Nephrolepidina, some Multilepidina. Lepidocyclina wanneri n.sp. introduced for specimens with multilepidine embryon)

Van den Bergh, G.D., W. Boer, H. de Haas, T.C.E van Weering & R. van Whije (2003)- Shallow marine tsunami deposits in Teluk Banten (NW Java, Indonesia), generated by the 1883 Krakatau eruption. Marine Geology 197, p. 13-34.
(Tsunamite from 1883 Krakatau eruption sandy layer with abundant reworked shell and other carbonate fragments. Coarse components consist of locally-derived material eroded from seabed. Land-derived components in tsunamite only close to coast. Along open sea-facing slope of Banten Bay tsunamite relatively thin (<7cm) but well-preserved)

Van den Bosch, C.A. (1929)- De wordingsgeschiedenis van het Tenggergebergte. Natuurkundig Tijdschrift voor Nederlandsch-Indie 89, p. 389-436.
(online at: https://resolver.kb.nl/resolve?urn=MMTEY01:179529004:pdf)
('The evolution of the Tengger Mountains'. Description and discussion of the origin of the Tengger caldera in E Java, with Bromo, Batok, etc. younger cones, by meteorologist/geophysicist from Batavia (triggered critical discussions by C.G.S. Sandberg, Kemmerling and Van Bemmelen (1930))

Van den Hoek Ostende, L.W., J. Leloux, F.P. Wesselingh & C.F. Winkler Prins (2002)- Cenozoic Molluscan types from Java (Indonesia) in the Martin Collection (Division of Cenozoic Mollusca), National Museum of Natural History, Leiden. Nationaal Natuurhistorisch Museum (NNM) Technical Bulletin 5, p. 1-130.
(online at: www.repository.naturalis.nl/document/45042)
(Listing and re-descriptions of Tertiary mollusc type specimens in K. Martin collection at Naturalis Museum, Leiden, mainly from Java. Contains 5700 type specimens of 912 species)

Vanderkluysen, L., M.R. Burton, A.B. Clarke, H.E. Hartnett & J.F.Smekens (2014)- Composition and flux of explosive gas release at LUSI mud volcano (East Java, Indonesia). Geochem. Geophysics Geosystems 15, 7, p. 2932-2946.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/full/10.1002/2014GC005275)
(LUSI mud volcano in E Java erupting since 2006. Last few years of activity characterized by periodic short-lived eruptive bursts. Gases sampled 98% water vapor, 1.5% CO_2, 0.5% methane)

Van der Meer Mohr, J.C. (1923)- Notiz uber das Vorkommen von *Pholas orientalis* Gmelin und *Tellina rostrata* L. im Pliozan Java's. Archiv fur Molluskenkunde 55, p. 209-212.
(online at: https://www.zobodat.at/pdf/Archiv-fuer-Molluskenkunde_55_0209-0212.pdf)
('Note on the occurrence of Pholas orientalis Gmelin and Tellina rostrata L. in the Pliocene of Java'. Molluscs from Kromong Mts SW of Cirebon)

Van der Meer Mohr, J.C. (1923)- Beitrage zur Kenntnis der Pliozan-Fauna Java's, nebst einer petrographischen Notiz bezüglich einiger fossilfuhrenden pliozanen Sandsteinbildungen von Dr. E. Scheibener. Natuurkundig Tijdschrift voor Nederlandsch-Indie 83, 1923, p. 124-136.
('Contributions to the knowledge of Pliocene faunas of Java, with a petrographic note on some fossiliferous Pliocene sandstone deposits by Dr. E. Scheibener'. Shallow marine bivalve and gastropod molluscs collected in 1920-1921 from Sadomas at Tji Waringin, Kromong Mts, at N foot of Ciremai volcano, SW of Cirebon (localities also mentioned by Junghuhn and Verbeek). Sandstones composed entirely of volcanic detritus, with calcite cement)

Van der Meer Mohr, J.C. (1924)- Beitrage zur Kenntnis der Pliozan-Fauna Java's- II. Natuurkundig Tijdschrift voor Nederlandsch-Indie 84, p. 199-201.

('Contributions to the knowledge of Pliocene faunas of Java'. Brief note with revisions of identifications of Van der Meer Mohr (1923), of molluscs from Kromong Mts, SW of Cirebon)

Van der Sluis, J.P. & D.R. de Vletter (1942)- Young Tertiary smaller foraminifera from the neighbourhood of Ngimbang, East Java. Proc. Koninklijke Nederlandse Akademie van Wetenschappen 45, 10, p. 1010-1015.
(online at: https://dwc.knaw.nl/DL/publications/PU00017817.pdf)
(129 species of mainly deeper marine foraminifera in Pliocene marls. Samples collected by Rutten in SW corner of 109-Lamongan map sheet. No location map, no stratigraphic context)

Van der Vlerk, I.M. (1923)- De stratigrafie van het Tertiair van Java. De Mijningenieur 4, p. 53-56.
('The stratigraphy of the Tertiary of Java')

Van der Vlerk, I.M. (1924)- Foraminiferen uit het Tertiair van Java. Wetenschappelijke Mededeelingen Dienst Mijnbouw Nederlandsch Oost-Indie 1, p. 16-35.
(Miocene larger forams from W. Java: Lepidocyclina rutteni n. sp. from Tji Lalang beds and Lepidocyclina/ Miogypsina/ Cycloclypeus and Rotalia beccarii atjehensis n. var. from Nyalindung beds near Sukabumi, W Java)

Van der Vlerk, I.M. & J.A. Postuma (1967)- Oligo-Miocene Lepidocyclinas and planktonic foraminifera from East Java and Madura, Indonesia. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, B, 70, 4, p. 392-399.
(Composite section of Oligo-Miocene sediments of E Java and Madura with Lepidocyclinas and planktonic foraminifera. Lepidocyclinas 'grade of enclosure' increases systematically from 36% to 65% up section. Oligo-Miocene boundary placed above Globigerina ciperoensis ciperoensis zone)

Van der Werff, W. (1996)- Variation in forearc basin development along the Sunda Arc, Indonesia. J. Southeast Asian Earth Sciences 14, 5, p. 331-349.
(Sunda Arc fore-arc areas between Sumatra and Sumba. Present forearc basin configuration initially controlled by extension and differential subsidence of basement blocks in response to Late Eocene India-Asia collision. Late Oligocene increase in convergence between SE Asia and Indian Plates associated with new pulse of subduction resulted in basement uplift and formation of regional unconformity along entire Sunda Arc. In Miocene, Sumba and Savu forearc sectors characterized by forearc extension. Forearc basins initially with submarine fan deposits, followed by basin and slope sediments derived from evolving magmatic arc. Incipient collision between Australia and W Banda Arc caused back-arc thrusting and basin inversion. S of Java, increase in size of accretionary prism and convergence rates resulted in folding/ uplift of distal forearc basin strata. Along Sumatra W coast uplift along inner side of forearc along older transcurrent faults. Initial forearc basin subsidence relates to age of subducting oceanic lithosphere. Flexural loading of evolving accretionary prism and across arc strike-slip faulting may result in additional forearc subsidence.)

Van de Velde, J. (1946)- Eenige korte mededeelingen over twee nieuwe goud-zilver bedrijven op Java. Jaarboek Mijnbouwkundige Vereeniging te Delft 1941-1946, p. 165-177.
(online at: http://lib.tudelft.nl/mscans/mscans0428)
('Brief notes on two new gold-silver projects on Java'. Summary of lecture on Cikotok and Cirotan mines in SW Java (Mijnbouw Maatschappij Zuid-Bantam) and Cikodang mine near Sukabumi (Redjang Lebong Co.))

Van Diest, P.H. (1872)- Rapport van een voorlopig onderzoek van zink-, lood en koperertsen op den berg Sawal, afdeeling Galoe, Residentie Cheribon, eiland Java. Jaarboek Mijnwezen Nederlandsch Oost-Indie 1872, 1, p. 173-193.
('Report of preliminary investigation of zinc, lead and copper ores on the Sawal Mountain, Cirebon Residency'. Brief survey in 1868 of trachytic rocks in the Priangan area of West Java, SW of Cirebon)

Van Dijk, P. (1867)- Algemeen verslag van het onderzoek naar kolenlagen in de Residentie Djokjokarta door middel van diepe boringen. Tijdschrift Nijverheid Landbouw Nederlandsch Indie 13, p. 167-205.
('General report on the survey of coal beds in the Yogyakarta Residency with the use of deep wells')

Van Dijk, P. (1872)- Geologische beschrijving der residentie Djokjakarta. Jaarboek Mijnwezen Nederlandsch Oost-Indie 1872, 1, p. 151-192.
('Geological description of the Residency Jogyakarta'. Includes one of the first mentions of presence of (Eocene) Nummulites on Java)

Van Dijk, P. (1872)- Beschrijving van het marmer voorkomende in de assistant-residentie Patjitan. Jaarboek Mijnwezen Nederlandsch Oost-Indie 1, p. 193-215.
('Description of the marble in the assistant-residency of Pacitan'. Investigation of suitability as building stone of 'marble' (crystalline limestone) at East side of Panggul Bay, Southern Mountains of SE Java. With early descriptions of the Miocene limestone geology of the Southern Mountains of Central-East Java. (On 1992 GRDC map this is shown as E Miocene Campurdarat Fm, in area with common andesitic intrusions- JTvG))

Van Dijk, P. (1873)- Steenkolen in het Semarangsche. Jaarboek Mijnwezen Nederlandsch Oost-Indie 2 (1873), 2, p. 164-174.
('Coal in the Semarang area')

Van Dijk, P. (1877)- Fossielen op de grens van Bagelen en Djokja. Natuurkundig Tijdschrift voor Nederlandsch-Indie 37, p. 71-75. *(wrong reference?)*
(Fossils on the border between Bagelen and Yogyakarta'. New location of Eocene Nummulites in C Java)

Van Dijk, P. (1883)- Onderzoek naar het voorkomen van aardolie in de nabijheid van Poerwodadi. assistent-residentie Grobogan. Jaarboek Mijnwezen Nederlandsch Oost-Indie 12 (1883), Wetenschappelijk Gedeelte 2, p. 359-369.
('Survey of the occurrence of 'earth oil' near Purwodadi, Grobogan region'. NE Java. Hill near Ngemba village in Lusi River valley near Purwodadi with steeply dipping Tertiary sediments, including limestone breccia with salt water and oil seeps)

Van Dijk, P. (1884)- Over de geologie van het noordelijke, niet-vulkanische gedeelte van de residentie Soerabaja. Jaarboek Mijnwezen Nederlandsch Oost-Indie 13 (1884), Wetenschappelijk Gedeelte, p. 5-76.
(partly in French; without map) (online at: https://ia600704.us.archive.org/0/items/jaarboekvanhetm04gebigoog/jaarboekvanhetm04gebigoog.pdf)
('On the geology of the northern, non-volcanic part of the Surabaya Residency'. Partly based on data from 700+m deep artesian well near Gresik)

Van Dijk, P. & J.A. Huguenin (1877)- Verslag over de nadere onderzoekingen naar de waarde der bruinkolen-lagen in de Afd. Lebak. Res. Bantam. Jaarboek Mijnwezen Nederlandsch Oost-Indie I (1877), p. 187-238.
('Report of more detailed investigations of the value of lignite beds in the Lebak District, Bantam Residency'. Mainly about the coalfield near Bodjong Manik (Bojonmanik),30km S of Rangkasbitung, as a follow-up of the report by Jonker (1872). First reports of coal quality, thickness (up to 1-2m thick) and lateral continuity were not favorable, so several shallow wells were drilled in 1875 to test if quality improved with depth (which it it did not). Two coal (lignite) beds, upper one thin, lower one up to 2m thick, ~10m apart. Associated tuff beds with silicified tree trunks. Coal of limited interest due to combination of poor coal quality and remote location)

Van Es, L.J.C. (1917)- Bijdrage tot de kennis van de stratigrafie van het Tertiair in de Residentie Bantam. Jaarboek Mijnwezen Nederlandsch Oost-Indie 44 (1915), Verhandelingen 2, p. 133-234.
('Contribution to the knowledge of the stratigraphy of the Tertiary in the Banten Residency' West Java. Results of 1915 South Banten fieldwork. Attempt to compare S Banten and S Sumatra stratigraphies (but poor age control). Common andesitic intrusions)

Van Es, L.J.C. (1918)- Geologische overzichtskaart van den Nederlandsch-Oost-Indischen archipel (schaal 1:1,000,000)- Toelichting bij Blad XV (Lampongs, Straat Soenda, Bantam). Jaarboek Mijnwezen Nederlandsch Oost-Indie 45 (1916), Verhandelingen 2, p. 55-140.
(text online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:041768000:00004) (no map)
(Regional overview map sheet and explanatory notes off southernmost Sumatra and W Java)

Van Es, L.J.C. (1918)- De voorhistorische verhoudingen van land en zee in den Oost-Indischen Archipel, en de invloed daarvan op de verspreiding der diersoorten. Jaarboek Mijnwezen Nederlandsch Oost-Indie 45 (1916), Verhandelingen 2, p. 255-304.
(Early paleogeographic map of Indonesia at end Pliocene and its implications for migration of animal species)

Van Es, L.J.C. (1920)- Nadere gegevens over het Bodjongmanik kolenveld. Jaarboek Mijnwezen Nederlandsch Oost-Indie 47 (1918), Verhandelingen 1, p. 150-153.
('Additional data on the Bojongmanik coal field'; West Java. Details on coal thickness and composition. Coals thought to be too thin and poor quality for commercial exploitation)

Van Es, L.J.C. (1926)- Geologische waarnemingen op Java. I. Djiwo en Zuidergebergte. De Mijningenieur 7, 9, p. 153-157.
('Geological observations on Java 1: Jiwo and Southern Mountains'. Early description of classic Jiwo- Southern Mountains successions N of Gunung Pendoel Miocene andesite intrusion (not much different from Verbeek and Fennema 1996): Pretertiary chlorite schists and crystalline limestones, overlain by Eocene conglomerates (mainly quartz pebbles), sandstones, claystones and limestones with Nummulites, Discocyclina, Pellatispira, etc., Early Miocene volcanic breccias. All formations unconformably overlain by near-horizontal 'young-Miocene' limestones with Lepidocyclina rutteni, Miogypsina, Orbulina, etc. (= Lower Tf; JTvG), suggesting Jiwo Anticline was already folded in Middle Miocene. Possibly 2000m of erosion prior to deposition of M-L Miocene limestone, most of it probably draining North, because more erosion on N flank of anticline)

Van Es, L.J.C. (1926)- Oude exploratiewerken in Zuid-Madioen. De Mijningenieur 7, 11, p. 205-210.
('Old exploration works in South Madiun'. Brief review of small mining exploration/ exploitation concessions S of Madiun, E Java. Mainly quartz veins with chalcopyrite in volcanics. Mining concessions: (1) Kesihan (1908-1925) S of Tegalombo (copper, zinc); (2) Kali Teloe (1908- 1925), N and W of Tegalombo (copper))

Van Es, L.J.C. (1929)- Trinil. Excursion Guide E5, Fourth Pacific Science Congress, Java 1929, p. 1-14.
(Field guide to Trinil hominid site, C Java)

Van Es, L.J.C. (1935)- De beteekenis en het voorkomen van fosfaat op Java. De Ingenieur in Nederlandsch-Indie (IV) 2, 5, p. IV.37-IV.47.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1935-05.pdf)
('The significance and occurrence of phosphate on Java'. Small phosphate deposits found at many localities on Java, all in present or former cave deposits, and formed from bat excrement)

Van Gorsel, J.T., D. Kadar, Soenarto, Budianto Toha et al. (1987)- Central Java Fieldtrip June 18-21, 1987. Indonesian Petroleum Association (IPA), Fieldtrip guidebook, p. 1-29.

Van Gorsel, J.T., D. Kadar & P.H. Mey (1989)- Central Java Fieldtrip 27-30 October 1989. Indonesian Petroleum Association (IPA), Fieldtrip guidebook, p. 1-67.

Van Gorsel, J.T. & S.R. Troelstra (1981)- Late Neogene planktonic foraminiferal biostratigraphy and climatostratigraphy of the Solo River section (Java, Indonesia). Marine Micropaleontology 6, 2, p. 183-209.
(online at: https://www.researchgate.net/publication/229413206_Late_Neogene_planktonic_foraminiferal_biostratigraphy_and_climatostratigraphy_of_the_Solo_River_section_Java_Indonesia)
(Late Miocene-Pleistocene planktonic foram biostratigraphy of deep water deposits of Kendeng zone in Ngawi section. Paleoclimate signal inferred from fluctuations in cooler-climate planktonic forams used to correlate with Mediterranean Miocene-Pliocene boundary stratotype)

Van Heurn, F.C. (1927)- Waarnemingen in verband met het voorkomen van verkiezeld hout in de voormalige Residentie Batavia. Handelingen 21e Nederlandsch Natuurkundig Geneeskundig Congres, Amsterdam, p. 283-285.

('Observations regarding the occurrence of silicified wood in the former Batavia Residency'. Fossil wood from Bolang estate 35 km West of Bogor, mainly of Dipterocarpaceae family. See also Krausel 1922, Pfeiffer and Van Heurn 1928)

Van Regteren Altena, C.O. (1938)- The marine Mollusca of the Kendeng Beds (East Java). Gastropoda, Part. I (Families Fissurellidae-Vermetidae inclusive). Leidsche Geologische Mededelingen 10, p. 217-320.
(online at: www.repository.naturalis.nl/document/549598)
(First of series of paleontological papers on molluscs from Plio-Pleistocene Kendeng Beds W of Surabaya. Material collected by Geological Survey, Bandung, personnel during Kendeng zone mapping survey (Duyfjes et al.) and by J. Cosijn. Molluscs mainly from Pucangan Fm, some Upper Kalibeng Fm)

Van Regteren Altena, C.O. (1938)- The marine Mollusca of the Kendeng beds (East Java) - Gastropoda, Part I (Families Fissurellidae- Vermetidae inclusive). Dienst Mijnbouw Nederlandsch-Indie, Wetenschappelijke Mededeelingen 27, 1, Bandung, p. 241-320.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB24:079041000:00031)
(Reprint of Van Regteren Altena (1938), Leidsche Geologische Mededelingen 10, above)

Van Regteren Altena, C.O. (1942)- The marine Mollusca of the Kendeng Beds (East Java) Gastropoda, Part II (Families Planaxidae-Naticidae inclusive). Leidsche Geologische Mededelingen 12, 1, p. 1-86.
(online at: www.repository.naturalis.nl/document/549625)
(Systematic study of marine molluscs from Plio-Pleistocene Kendeng beds of E Java, dealing with gastropods belonging to families Planaxidae, Potamididae, Cerithiidae, Triphoridae, Epitoniidae, Eulimidae, Pyramidellidae, Amaltheidae, Calyptraeidae, Xenophoridae, Strombidae and Naticidae)

Van Regteren Altena, C.O. (1943)- The marine Mollusca of the Kendeng beds, East Java, Gastropoda, part IV (Families Cassididae-Ficidae inclusive). Leidsche Geologische Mededelingen 13, p. 89-120.
(online at: www.repository.naturalis.nl/document/549495)
(Taxonomic descriptions of Plio-Pleistocene gastropods of families Cassididae and Ficidae from Upper Kalibeng and Pucangan formations of Kendeng zone, East Java (part III of this series is by Schilder 1941))

Van Regteren Altena, C.O. (1950)- The marine Mollusca of the Kendeng beds, East Java, Gastropoda, part V (Families Muricidae-Volemidae inclusive). Leidsche Geologische Mededelingen 15, 1, p. 205-240.
(online at: www.repository.naturalis.nl/document/549261)
(More taxonomic descriptions of Plio-Pleistocene gastropods of East Java)

Van Regteren Altena, C.O. & C. Beets (1944)- Eine Neogene Molluskenfauna vom Tji Gugur (Priangan), W. Java. Verhandelingen Kon. Nederlands Geologisch Mijnbouwkundig Genootschap 14 (Gedenkboek Tesch), p. 37-67.
(Rich Neogene mollusc faunas from Priangan, SW of Bandung. No maps or stratigraphic context info)

Van Regteren Altena, C.O. & C. Beets (1945)- Beschouwingen over de toekomst van het onderzoek der Caenozoische mollusken van Nederlandsch-Indie. Geologie en Mijnbouw 7, 5-6, p. 45-50.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0cnhfT3FfV3BWbGM/view)
('Remarks on the future of research of the Cenozoic molluscs of the Netherlands Indies')

Van Simaeys, S., F. Musgrove, N. Stephens, A. Weidmer, A. Zeiza, R. Sekti, A. Derewetzky & T. Simo (2011)- Early carbonate growth in the East Java Basin, Indonesia: a case study from the Jambaran Field. Proc. 35th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA11-G-205, p. 1-13.
(Jambaran Field discovered in 2001. Tall gas column in steep-flanked Oligocene carbonate buildup with ~1000m of relief relative to platform. Main buildup ~10 km long, 1 km wide. Unconformities recognized on well logs and seismic coincide with global Rupelian- Chattian sea level fluctuations, subaerial exposure and meteoric diagenetic events)

Van Tuijn, J. (1932)- Over de rangschikking der Duizend eilanden. De Mijningenieur 13, 7, p. 132-134.

('On the alignment of the Thousand Islands' (Pulau Seribu, NW of Jakarta). Suggests N-S aligned coral reefs of Pulau Seribu not controlled by underlying anticlinal structure as suggested earlier by Umbgrove (1929), but developed on an Early Quaternary drainage divide)

Van Valkenburg, S. (1924)- Het district Djampang-Koelon. Jaarboek Topographische Dienst 1924, Batavia, p. 1-9.
('The Jampang-Kulon District'. Geographic- geological observations in SW Java)

Van Valkenburg, S. & J.T. White (1924)- Enkele aanteekeningen omtrent het Zuidergebergte (G. Kidoel). Jaarboek Topographische Dienst 1923, Batavia, p. 3-16.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:036311000:00007)
('Some notes on the Southern Mountains (Gunung Kidul)'. Geographic-geological observations in Southern Mountains (Gunung Kidul) SE of Yogyakarta. With schematic maps and cross-sections)

Vanessa, A. & O. Verdiansyah (2014)- Inklusi fluida pada endapan emas epitermal sulfidasi tinggi Cijulang, Garut, Jawa Barat. Proc. 43rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, PIT IAGI 2014-256, p. 1-5.
(online at: https://www.iagi.or.id/web/digital/6/2014_IAGI_Jakarta_Inklusi-Fluida-Pada-Endapan.pdf)
('Fluid inclusions in high sulfidation epithermal gold deposit Cijulang, Garut, West Java'. High sulfidation epithermal gold deposits in volcanic rocks of Miocene Jampang Fm. Relatively high T (216-320 °C) and salinity 2-5 wt% NaCl at formation)

Verbeek, R.D.M. (1873)- Note on occurrences of *Nummulites* on Java. Mitteilungen an Professor H.B. Geinitz, Neues Jahrbuch Mineralogie Geologie Palaeontologie 1873, p. 297.
(online at: https://www.biodiversitylibrary.org/item/151147#page/325/mode/1up)
(Brief note, in German, listing known Nummulites occurrences on Java: (1) Junghuhn (1857) locality near Tanglar (Priangan); (2) P. van Dijk (1867) from Yogyakarta area; (3) likely also from limestones in Kidul Mountains S of Klaten (Letter to Prof. H.B. Geinitz in Dresden, mailed from Fort van der Capellen (Batusangkar) in W Sumatra on 10 March 1873))

Verbeek, R.D.M. (1883)- Over de dikte der Tertiaire afzettingen op Java. Natuurkundige Verhandelingen Koninklijke Akademie van Wetenschappen, Amsterdam, 23, p. 1-11
('On the thickness of the Tertiary deposits on Java'. Tertiary deposits in area S of Kuningan and S of Cirebon, ~4800m thick)

Verbeek, R.D.M. (1891)- Voorloopig bericht over nummulieten, orbitoiden en alveolinen in Java en over den ouderdom der gesteenten waarin zij optreden. Natuurkundig Tijdschrift voor Nederlandsch-Indie 51, 2, p. 101-138.
(online at: https://www.biodiversitylibrary.org/item/122303#page/114/mode/1up)
('Preliminary note on Nummulites, orbitoids and alveolinids in Java and on the age of the rocks in which they occur'. Only 6 areas of Java with Early Tertiary in outcrop, 5 of which have Eocene sediments unconformably overlying Pretertiary metamorphics. Includes first descriptions of Eocene Nummulites from Java (Nummulites javanus (3 varieties, incl. Karangsambung), N. bagelensis, Assilina, Discocyclina spp. (Nanggulan, etc.), Alveolina javana (Somowongso, Bagelen); also Timor. Also mention of Cretaceous larger foram Orbitolina from Luk Ulo melange, C Java (smaller species than in W Kalimantan). Eocene Alveolina timorense n.sp. from Timor sample in Bandung not figured (viewed as younger synonym of Alveolina (Fasciolites) oblonga by Bakx (1932))

Verbeek, R.D.M. (1897)- Kort geologisch overzicht van Java. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 2, 12, p. 173-186.
(online at: https://babel.hathitrust.org/cgi/pt?id=hvd.hxhgly;view=1up;seq=193)
('Brief geological overview of Java'. No maps, figures)

Verbeek, R.D.M. (1898)- Die Geologie von Java. Petermanns Geographische Mitteilungen 44, 2, p. 25-34.
(online at: https://zs.thulb.uni-jena.de/receive/jportal_jpvolume_00146687)

('The geology of Java'. Brief overview of the geology in German, with 1:2,250,000 scale map)

Verbeek, R.D.M. & R. Fennema (1881)- Nieuwe geologische ontdekkingen op Java. Verhandelingen Koninklijke Akademie van Wetenschappen, Amsterdam, Afd. Natuurkunde, 21, p. 47-90. *(online at: https://books.google.com/books/about/Nieuwe_g%C3%A9ologische_ontdekkingen_op_Java.html)*
('New geological discoveries on Java'. First report of Pre-tertiary rocks on Java, in three areas: (1) metamorphic rocks of S Serayu Mts/ Lok Ulo, N of Kebumen, associated with serpentinite and red chert, steeply dipping, roughly E-W strike (Junghuhn had called these Tertiary; Verbeek noted similarities with Sumatra old slates); (2) metamorphic rocks on three of 'Zutphen islands' in Sunda Straits and (3) Gedeh Mt near Jasinga, at border of Bogor and Bantam Residencies. Also first record of leucite-bearing volcanics of Muriah volcano, N coast of C Java)

Verbeek, R.D.M. & R. Fennema (1882)- Nieuwe geologische ontdekkingen op Java. Natuurkundig Tijdschrift voor Nederlandsch-Indie 41, p. 5-48.
('New geological discoveries on Java'. Same paper as 1881 paper above)

Verbeek, R.D.M. & R. Fennema (1896)- Geologische beschrijving van Java en Madoera. J.G. Stemler, Amsterdam, 2 vols, p. 1-1135. + Atlas.
('Geological description of Java and Madura'. Classic, comprehensive geologic description of Java and Madura, with oversized atlas of geologic maps. First to recognize Paleogene sediments and Pre-Tertiary schists in Central Java, and locally great thickness of Tertiary sediments. Ten areas with Eocene sediments had been identified among the more widespead Neogene rocks, including 2 in Banten, 4 in Priangan. Etc.)

Verbeek, R.D.M. & R. Fennema (1896)- Geologische kaart van het gebergte bij Djiwo (Residentie Soerakarta). (map from book 'Geologische beschrijving van Java en Madoera', scale 1:20,000).
(online at: https://library.si.edu/image-gallery/101380)
('Geologic maps of the mountains near Jiwo (Surakarta Residency)'.Classic area in C Java just North of the Southern Mountains scarp, with Cretaceous? Pretertiary phyllites, schists, serpentinites and crystalline limestone, overlain by M-L Eocene marine clastics and Nummulites-Assilina-Discocyclina limestones, etc.))

Verbeek, R.D.M. & R. Fennema (1896)- Description geologique de Java et Madoura. J.G. Stemler, Amsterdam, p. 1-1183.
(online at: https://gallica.bnf.fr/ark:/12148/bd6t541909293/f9.item)
('Geological description of Java and Madura'. French edition of the Verbeek and Fennema (1896) milestone book on the geology of Java, above)

Verdiana, P.R.M., Y. Yuniardi & A.A. Nur (2014)- Petrologi dan petrografi satuan breksi vulkanik dan satuan tuf kasar pada Formasi Jampang, daerah Cimanggu dan sekitarnya, Jawa Barat. Bull. Scientific Contribution (UNPAD) 12, 3, p. 171-179.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8378/3894)
('Petrology and petrography of volcanic breccias and coarse tuff of the Jampang Formation, Cimanggu and surrounding areas, West Java')

Verdiansyah, O. (2016)- Geochemical correlation between mafic and felsic igneous rock from Godean, Yogyakarta, Indonesia. Int. J. Geology and Earth Sciences (IJGES) 2, 4, p. 55-63.
(online at: http://new.ijges.com/uploadfile/2020/0303/20200303104357728.pdf)
Miocene magmatism in Godean hills area, 20 km W of Yogyakarta, C Java, with several types of island arc igneous rocks: andesite, microdiorite intrusion, dacite subvolcanics to lava, and subvolcanic basalt)

Verstappen, H.T. (1953)- Djakarta Bay, a geomorphological study on shoreline development. Doct. Thesis, Rijksuniversiteit Utrecht, Drukkerij Trio, s-Gravenhage, p. 1-101. *(Unpublished)*

Verstappen, H.T. (1954)- Het kustgebied van Noordelijk West Java op de luchtfoto. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 71, p. 146-152.

('The coastal region of northern West Java on air photos'. Geomorphical study of alluvial plain along N coast of W Java, which formed in last 5000 years, during lowering of sea level of 5-6m. With beach ridges, river levess, etc.)

Verstappen, H.T. (1956)- Landscape development of the Udjung Kulon Game Reserve. Penggemar Alam 36, Bogor, p. 37-51.
(Geomorphology study of poorly studied Ujung Kulon peninsula of SW Java. Not much on geology. Common travertine terraces in rivers of (Pliocene?)Marl Plateau, which appears to be tilted to NE)

Verstappen, H.T. (1957)- Short note on the dunes near Parangtritis (Java). Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 84, 1, p. 1-6.

Verstappen, H.T. (1988)- Old and new observations on coastal changes of Jakarta Bay: an example of trends in urban stress on coastal environments. J. Coastal Research 4, 4, p. 573-587.
(Rapid urbanization led to substantial changes and deterioration of coastal environments of Jakarta Bay since 1950s. Groundwater extraction results in land subsidence of 4-5 mm/year. Etc.)

Von Baumhauer, E.H. (1866)- Sur le fer meteorique de Prambanan dans le district de Soerakarta (Ile de Java). Archives Neerlandaises des Sciences Exactes et Naturelles, Haarlem, 1, p. 465-468.
(online at: https://www.biodiversitylibrary.org/item/156255#page/490/mode/1up)
('On the iron meteorite of Prambanan in the Soerakarta (Solo) District'. Analys of piece of iron meteorite kept in craton of the Susuhunan of Solo, found in September 1784 near Prambanan temple. Composed of iron (96.71%), nickel (2.86%) and traces of cobalt, silica (0.43%))

Von Baumhauer, E.H. (1884)- Over den op 3 Oktober 1883 te Ngawi in Midden-Java gevallen meteoriet Jaarboek Mijnwezen Nederlandsch Oost-Indie 13 (1884), Wetenschappelijk Gedeelte, p. 331-342. (also in Verslagen Koninklijke Akademie van Wetenschappen, Amsterdam, Afd. Natuurkunde, (3), 1, 1885, p. 8-18)
(online at: http://www.meteoritehistory.info/VMAW/1883_Ngawi.pdf)
('On the meteorite that fell at Ngawi in Central Java on 3 October 1883'. Two pieces piece of stone meteorite that exploded over Central Java, largest piece 202 grams. Covered with black-brown melt crust from travel through atmosphere. External parallel scrathes possibly formed when hot meteorite hit soil. Thin section shows aggregate of rounded olivine, pyroxene (enstatite) aggregates, iron, etc. Stored in Leiden Geological Museum (Member of the very low-iron LL Ordinary chondrite group; on same day a 1.19 kg meteorite fell at Karang-Modjo in Magetean District of Java, most likely from same fall))

Von Ettingshausen, C. (1883)- Beitrag zur Kenntnis der Tertiarflora der Insel Java. Sitzungsberichte Kaiserlichen Akademie Wissenschaften Wien, Mathematische-Physikalische Klasse, 1, 87, 1, p. 175-194.
(online at: www.zobodat.at/pdf/SBAWW_87_0175-0193.pdf)
('Contribution to the knowledge of the Tertiary flora of the island of Java', by Austrian botanist Constantin Freiherr (Baron) von Ettingshausen. Tertiary flora of Java more closely related to Tertiary floras of Europe than to Present-day flora of Java (?))

Von Hochstetter, F. (1864)- Geologische Ausfluge auf Java. In: Gesammelte Reiseberichte von der Erdumsegelung der Fregatte Novara 1857-59, I.e. Geol. Theil, Vienna, 2, p. 113-152.
(online at: https://www.zobodat.at/pdf/MON-GEO_0032_0113-0152.pdf)
('Geological excursions on Java'. Report of Hochstetter's trips on Java during stop in Batavia of the Austrian 'Novara Expedition', in May 1858. VH climbed volcanoes Gedeh and Tangkuban Prahu. Met with Franz Junghuhn in Lembang. Surveyed trachyte and limestones west of Bandung)

Von Koenigswald, G.H.R. (1935)- Vorlaufige Mitteilungen uber das Vorkommen von Tektiten auf Java. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 38, 3, p. 287-289.
(online at: https://dwc.knaw.nl/DL/publications/PU00016689.pdf)
('Preliminary note on the occurrence of tektites on Java'. Tektites (glass pebbles associated with meteorite impacts) rel. widespread in SE Asia (Indochina, Billiton, also Java). This paper reports on occurrence of tektites

at base of M Pleistocene Trinil beds, associated with Trinil fauna. No locality details (Verbeek earlier reported some tektites from Jepara near Semarang; reportedly also present near Bojonegoro)

Von Koenigswald, G.H.R. (1957)- Tektites from Java. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, B 60, p. 371-382.
(Description of large collection of tektites from Pleistocene Trinil beds of C Java, probably of extraterrestrial origin. Proposal to call these 'javanites' (now known to be part of the very large Australasian tektite strewn field tied to a Pleistocene asteroid impact near Laos-Cambodia around 700-800 ka; JTvG))

Von Koenigswald, G.H.R. (1963)- Rims, flow ridges and flanges in Javanese tektites. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, B 66, p. 206-208.
(Mild ablation features (partial melting in Earth's atmosphere) on Pleistocene tektites from Sangiran)

Von Koenigswald, G.H.R. (1978)- Tektite studies XII: Minute tektites from Central Java. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, B 81, p. 55-60.

Von Richthofen, F. (1862)- Bericht uber einen Ausflug in Java. Zeitschrift Deutschen Geologischen Gesellschaft, Berlin, 14, p. 327-356.
(online at: https://www.biodiversitylibrary.org/item/148846#page/339/mode/1up)
(Report on a trip on Java'. Summary of geological fieldtrip to W Java volcanoes and South coast by famous German geologist Von Richthofen with Franz Junghuhn, famous Java naturalist. Also comments of geology of Timor, Sulawesi, etc. Not much new; no figures)

Von Richthofen, F. (1874)- 3. Beobachtungen an dem gehobenen Korallenriff Udjung Tji Laut-oron an der Sudkuste von Java. Zeitschrift Deutschen Geologischen Gesellschaft, Berlin, 26, p. 239-250.
(online at: https://babel.hathitrust.org/cgi/pt?id=mdp. 39015035474918;view=1up;seq=255)
('Observations on the Udjung Tji Laut-oron raised coral reef on the East coast of Java'. 12-15m uplift of recent coral reef near mouth of Tji-Laut-oron river)

Von Staff, H. & H. Reck (1911)- Einige neogene Seeeigel von Java. In: M.L. Selenka & M. Blankenhorn, Die Pithecanthropus-Schichten auf Java, Engelmann, Leipzig, p. 41-45.
('Some Neogene sea urchins from Java'. Echinoids from Pliocene? marls in Trinil area, C Java, collected by Selenka 1907 expedition)

Vorstman, A.G. (1929)- Tertiaire vischotolieten van Java. Wetenschappelijke Mededeelingen Dienst Mijnbouw Nederlandsch-Indie 5, p. 1-16.
('Tertiary fish otoliths from Java'. Descriptions of otoliths from Late Eocene of Nanggulan, E Miocene Nyalindung beds and Late Miocene Tjilanang beds in Bandung survey collections)

Wachjudin, S., R.A. Kuhnel & S.J. van der Gaast (1990)- The characteristics of bentonite from the Karangnunggal deposit, West Java, Indonesia. Applied Clay Science 5, 4, p. 339-352.
(New discovery of bentonite in S Mountains of W Java)

Wagner, D. (2007)- Tomographic investigation of the crust of Central Java. Doktor Thesis Math.-Naturwissenschaftliche Fakultat Christian-Albrechts-Universitat, Kiel, p. 1-123.
(online at: https://d-nb.info/1019754621/34)
(Tomographic velocity survey, mainly around Merapi volcano, C Java. Low velocity under Sumbing, Merapi and Lawu with reduction in seismic velocities of >30 % in upper crust coincides with gravity low and extends to >50 km deep in upper mantle; interpreted as partially molten material in crust)

Wagner, D., I. Koulakov, W. Rabbel, B.G. Luehr, A. Wittwer, H. Kopp et al. (2007)- Joint inversion of active and passive seismic data in Central Java. Geophysical J. International 170, p. 923-932.
(130 seismographic stations onshore and off C Java and operated for >150 days. Inversion images show strong low-velocity anomaly (−30%) in backarc crust N of active volcanoes. In upper mantle beneath volcanoes a low-

velocity anomaly inclined towards slab, probably paths of fluids and melted materials in mantle wedge. Crust in forearc appears strongly heterogeneous. Onshore part two high-velocity blocks separated by narrow low-velocity anomaly, interpreted as weakened contact zone between two rigid crustal bodies. Recent Java earthquake at lower edge of this zone. Focal strike slip mechanism consistent with orientation of this contact)

Wagner, D., W. Rabbel, B.G. Luehr, J. Wassermann, T.R. Walter, H. Kopp et al. (2008)- Seismic structure of Central Java. In: D. Karnawati, S. Pramumijoyo et al. (eds.) The Yogyakarta earthquake of May 27, 2006, Star Publishing, Belmont, California, p. 2.1-2.11.
(C Java tomographic data reveals two low velocity anomalies, one at foot of volcanic arc, on NE-SW trending zone that separates forearc in two rigid blocks, and was likey epicenter of 2006 earthquake. Aftershocks mostly in Gunung Kidul Mountains, in zone semi-parallel to and 10-15 km E of Opak River fault)

Wagner, T., A.E. Williams-Jones & A.J. Boyce (2005)- Stable isotope-based modeling of the origin and genesis of an unusual Au-Ag-Sn-W epithermal system at Cirotan, Indonesia. Chemical Geology 219, p. 237-260.
(Late Pliocene Cirotan low-sulphidation epithermal gold deposit in Bayah Dome of SW Java complex polymetallic assemblages and progressive enrichment in Sn-W and Au-Ag in late stages of mineralization. Five ore/ alteration stages. Metallogenic model explains enrichment in Sn and W by increased recycling of slab-derived sedimentary material during Pliocene subduction)

Wahab, A. & D. Martono (1985)- Application of oil geochemistry for hydrocarbon exploration in Northwest Jawa. Proc. 14th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 635-657.
(Analysis of potential source rocks in NW Java shows Lower Cibulakan (Talang Akar) Fm sediments are main hydrocarbon source in area. Distribution of mature source rocks delineated by applying Lopatin method)

Wakita, K. (2000)- Cretaceous accretionary-collision complexes in Central Indonesia. J. Asian Earth Sciences 18, p. 739-749.
(Cretaceous accretionary-collision complexes formed by accretionary or collision processes, forearc sedimentation, arc volcanism, back arc spreading. Oceanic plate subducted under Cretaceous arc from S, carried microcontinents from Gondwanaland. Accretionary wedge with fragments of oceanic crust (chert, siliceous shale, limestone, pillow basalt). Jurassic shallow marine allochthonous formation emplaced by collision of continental blocks. Collision exhumed high-P metamorphics from deeper part of pre-existing accretionary wedge. Cretaceous tectonic units rearranged by Cenozoic thrusting and lateral faulting during successive collision of continental blocks and rotation of continental blocks in Indonesian region)

Wakita, K., Munasri & B. Widiyoko (1991)- Nature and age of sedimentary rocks of the Luk-Ulo melange complex in the Karangsambung area, Central Java, Indonesia. In: E.P. Utomo et al. (eds.) Proc. The Silver Jubilee LIPI- Symposium on the Dynamics of subduction and its products, Yogyakarta-Karangsambung 1991, Research and Development Center for Geotechnology, Indonesian Institute of Sciences (LIPI), Bandung, p. 64-79.
(online at: https://www.researchgate.net/publication/291800613_Nature_and_age_of_sedimentary_rocks_of_the_Luk_Ulo_Melange_Complex_in_the_Karangsambung_area_central_Java)
(Luk Ulo tectonic melange complex along Luk Ulo River, Karangsambung, includes fault-bounded tectonic slices of dismembered ophiolite, metamorphics (schists, phyllite, marble, igneous rocks (rhyolite. dacite, pillow basalts), and sediments (limestone, reddish-brown chert, siliceous shale, pebbly shale, shale, volcanoclastic sandstone with graded bedding and conglomerate). Melange unconformably overlain by Eocene-Oligocene Karangsambung Fm and younger rocks. Five Early to latest Cretaceous radiolarian assemblages I-V. Incl. Late Cretaceous age of radiolarite above pillow basalt)

Wakita, K., Munasri & B. Widoyoko (1994)- Cretaceous radiolarians from the Luk-Ulo Melange complex in the Karangsambung area, Central Java, Indonesia. J. Southeast Asian Earth Sciences 9, 1-2, p. 29-43.
(Five assemblages of Cretaceous radiolarians in shale and chert of Luk-Ulo Melange in Karangsambung area: I- Early Cretaceous ('up to Barremian'), II- Middle Cretaceous (Barremian-Albian?), III- early Late Cretaceous, IV- Late Cretaceous (Coniacian- M Campanian) and V- Late Cretaceous (Late Campanian- Maastrichtian). Siliceous- argillaceous rocks were deposited throughout Cretaceous time, and accreted at subduction trench in

M- Late Cretaceous or earliest Paleocene. Fragmentation and mixing with schist and quartz porphyry must have occurred in Paleocene)

Waldron, H.H. (1962)- Geology of Djatiluhur damsite and vicinity, West Java, Indonesia. In: Short Papers in geology, hydrology, and topography, Articles 120-179, U.S. Geological Survey (USGS) Professional Paper 450-D, p. D21-D23.
(online at: https://pubs.usgs.gov/pp/0450d/report.pdf)
(Brief review and map of folded Miocene marine clastic sediments with many andesitic intrusions at future Jatiluhur damsite, Bogor zone, W Java)

Waltham, A.C., P.L. Smart, H. Friederich, A.J. Eavis & T.C. Atkinson (1983)- The caves of Gunung Sewu, Java. Cave Science 10, p. 55-96.
(On caves in C Java Southern Mountains M Miocene Wonosari Limestone)

Waltham, D., R. Hall, H.R. Smyth & C.J. Ebinger (2008)- Basin formation by volcanic arc loading. In: A.E. Draut, P.D. Clift & D.W. Scholl (eds.) Formation and applications of the sedimentary record in arc collision zones. Geological Society of America (GSA), Special Paper 436, p. 11-26.
(Paper quantifies flexural subsidence from loading by volcanic arc. Good fit of model to Halmahera Arc and E Java. Loads generated by arc sufficient to account for subsidence in basins within ~100 km of active volcanoes at subduction plate boundaries, if plate is broken. Basins will be asymmetrical with coarse volcaniclastic material close to arcand volcaniclastic turbidites farther away. Density contrast between arc and underlying crust required to produce arc basins means they are unlikely to form in young intra-oceanic arcs)

Wandono, M. Ramdhan, A.N. Aulia, A.B. Pangestu, E. Hidayat, Syuhada, S. Widiyantoro, N. Rawlinson et al. (2025)- Seismic velocity structure beneath the western Java region, Indonesia, from local earthquake tomography. J. Volcanology Geothermal Research 468, 08472, p.
(Most recent Seismic P-wave tomography model of West Java, from BMKG earthquake and arrival time catalog, clearly imaging subduction zone, active faults, and volcanic arc. Subducting slab dip angle increases eastward, corresponding to increasing age of subducting Indian ocean lithosphere in that direction. Etc.)

Wanner, J. (1938)- *Balanocrinus sundaicus* n.sp. und seine Epoke aus dem Altmiocaen der Insel Madura. Beitrage zur Palaontologie des Ostindischen Archipels XV, Neues Jahrbuch Mineralogie Geologie Palaontologie, Beilage Band 79 B, p. 385-403.
('Balanocrinus sundaicus n.sp. and its…from the Early Miocene of Madura Island'. New crinoid species from blue-grey marls, collected by Weber near Bawarukem River, northern C Madura. Associated with Miogypsina thecidaeformis, M. kotoi, eulepidinid Lepidocyclina, Katacycloclypeus (= more likely Middle Miocene?; JTvG))

Wanner, J. & E. Hahn (1935)- Miocaene Mollusken aus der Landschaft Rembang (Java). Zeitschrift Deutschen Geologischen Gesellschaft, Berlin, 87, 4, p. 222-273.
('Miocene molluscs from the Rembang area (Java)'. Molluscs from area N and NNW of Bojonegoro (Sedan, Butak, Ngampel, Ngandong and Lodan). Mainly from M Miocene orbitoid-Cycloclypeus Lst (later called OK Limestone and Ngrayong Beds) and some from overlying Globigerina Marls series (later subdivided into Wonocolo, Ledok and Globigerina Marls Fms.). Wanner notes N to S facies changes. Richest mollusc localities on Dermawu-Mahindu and Gegunung anticlines. Molluscs mainly gastropods, 68 species, half of them new)

Wardhana, D.D., Kamtono & K.L. Gaol (2016)- Struktur tinggian di sub cekungan Majalengka berdasarkan metode gayaberat. J. RISET Geologi dan Pertambangan (LIPI) 26, 2, p. 85-99.
(online at: http://jrisetgeotam.com/index.php/jrisgeotam/article/view/278/pdf_88)
('Structural highs in the Majalengka subbasin based on gravity method'. Majalengka sub-basin in E part of Bogor Basin, NE of Bandung, covered by thick volcanic deposits, but with oil and gas seeps. Gravity model show NW-SE reverse faults and E-W and SW-NE shear faults. Depth of basement 2700-5000m. Kadipaten- Majalengka and Ujungjaya-Babakan Gebang structural highs may have hydrocarbon traps)

Warmada, I W. (2003)- Ore mineralogy and geochemistry of the Pongkor epithermal gold-silver deposit, Indonesia. Dissertation Technical University Clausthal, Germany, p.

Warmada, I.W. (2006)- Karakteristik mineralogi dan proses pengendapan emas pada endapan emas-perak epitermal Gunung Pongkor, Jawa Barat. Media Teknik 28, 4, p. 32-36.
(Pongkor epithermal gold-silver deposit in W Java largest low-sulfidation deposit on Java. Formed in Pliocene (2.05 Ma). More than nine subparallel quartz-adularia-carbonate veins. Formation T ~220°C)

Warmada, I.W., B. Lehmann & M. Simandjuntak (2003)- Polymetallic sulfides and sulfosalts of the Pongkor epithermal gold-silver deposit, West Java, Indonesia. The Canadian Mineralogist 41, 1, p. 185-200.
(online at: http://rruff.info/doclib/cm/vol41/CM41_185.pdf)
(Pongkor gold-silver deposit Late Pliocene age (2.05 Ma) and largest low-sulfidation epithermal precious-metal deposit in Indonesia. Nine major subparallel quartz-'adularia'-carbonate veins with low sulfide content. Sulfides dominated by pyrite, chalcopyrite, sphalerite, galena. Gold occurs as Au-Ag alloy and uytenbogaardtite (Ag3AuS2))

Warmada, I.W., B. Lehmann, M. Simandjuntak & H.S. Hemes (2007)- Fluid inclusion, rare-earth element and stable isotope study of carbonate minerals from the Pongkor epithermal gold-silver deposit, West Java, Indonesia. Resource Geology 57, 2, p. 124-135.
(Pongkor gold- silver deposit near Bayah, SW Java, is largest low-sulfidation epithermal metal deposit in Indonesia, and is of Late Pliocene age (2 Ma). Nine subparallel, ~N-S trending quartz -adularia -carbonate veins with low sulfide content. Fluid inclusions indicate temperatures of 180-220°C and meteoric water origin)

Warmada, I.W., M.T. Soe, J. Sinomiya, L.D. Setijadji, A. Imai & K. Watanabe (2005)- Petrology and geochemistry of intrusive rocks from Selogiri area, Central Java, Indonesia. Proc. 2nd Int. Symposium Earth Resources Engineering and Geological Engineering Education (SEED), Yogyakarta 2005, p. 163-169.
(online at: http://warmada.staff.ugm.ac.id/Articles/petrology-geochem-slgr.pdf)
(Selogiri gold prospect in W part of S Mountains, C Java, porphyry copper-gold deposit, overprinted by low sulfidation epithermal gold quartz deposits. Intrusions dated as ~21.7 Ma (microdiorite; Jogmec) and ~12.5- 11.9 Ma. Selogiri deposit formed during one or two intrusion periods, and short period of hydrothermal activities but did not create economic ore deposit)

Warmada, I.W., I. Sudarno & D. Wijonarko (2008)- Geologi dan fasies batuan metamorf daerah Jiwo Barat, Bayat, Klaten, Jawa Tengah. Media Teknik (UGM) 30, 2, p. 113-118.
('Geology and facies of metamorphic rocks in the West Jiwo area, Bayat, C Java'. Bayat area with metamorphic rock outcrops, intruded by igneous rocks (mainly diabase dikes). Phyllite, schist, gneiss and meta-sandstone widespread, locally also glaucophane schist, serpentinite and amphibolite. Three main metamorphic facies: greenschist, blueschist with transition to glaucophane greenschist, and amphibolite facies. Interpreted protolith of metamorphic rocks was melange of mafic/ultramafic rocks, pelitic rocks, carbonates and quartz sandstones)

Weeda, J. (1958)- Oil basins of East Java. In: L.G. Weeks (ed.) Habitat of oil, American Assoc. Petroleum Geol. (AAPG), Special Publ. 18, p. 1359-1364.
(In E-W trending E Java Tertiary basin 132 MBO produced since 1888 from 20 fields. Thick Miocene section, folded into 2 E-W trending zones in Plio-Pleistocene. Bulk of oil produced from M Miocene Ngrayong Sst (this was before Cepu oilfield discovery in Oligo-Miocene Kujung Fm Limestone; JTvG). Three oil types: (1) asphaltic oil from shallow Lidah and Kruka fields S of Surabaya from Pliocene U Globigerina Fm; (2) rel. light paraffinic oil from Upper Rembang and Lower Wonocolo sands in Ledok and nearby fields, and (3) heavy paraffinic oil in M Miocene Ngrayong sst at Kawengan)

White, J.D. (1924)- Geologische en bodemkundige excursie door het Djokjasche Zuidergebergte (3 October 1923). Verslag 4e Vergadring Vereeniging van Proefstion Personeel Buitenzorg 1924, p. 81-103.
('Geological and soil science excursion through the Southern Mountains SE of Yogyakarta', led by Head of Soil Science Laboratory in Bogor)

White, J.V., A.N. Derewetzky, G.C. Geary, V.K. Hohensee, E.M. Johnstone, C. Liu, A.C. Pierce & J. Stevens (2007)- Temporal controls and resulting variations in Oligo-Miocene carbonates from the East Java Basin, Indonesia: examples from the Cepu area. Proc. 31st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 549-559.
Five high-relief carbonate buildups drilled in Cepu area of E Java: Sukowati, Banyu Urip, Jambaran, Cendana and Kedung Tuban. Gross differences despite having all grown from a common, broad, probable E Oligocene carbonate platform. Timing of deposition of buildups established through robust Strontium isotope dating program (turns out to include bad dates, probably due to carbonate diagenesis; JTvG . Carbonate deposition on buildups progressively terminated through time fromW to E)

Whitten, T., R.E. Soeriaatmadja & A.A. Suraya (1996)- The ecology of Java and Bali. The ecology of Indonesia Series II, Periplus Ed., Singapore, p. 1-968.
(Not much on geology)

Wibisono (1971)- Neogene planktonic foraminifera from Kawengan, East Java, Indonesia. Lemigas Scientific Contributions 1, 1, Jakarta, p. 1-69.

Wibowo, A.W., A. Prasetyo, W.A. Syukur, A.B. Mulyawan, E.A. Wibowo & H. Hadisaputro (2011)- Study of early-Mid Miocene carbonate facies and distribution: implications for exploration opportunities in southern Cipunegara sub-basin, North West Java basin, West Java. Proc. Joint 36th HAGI and 40th IAGI Annual Conv., Makassar, JCM2011-013, p. 1-4.
(online at: https://www.iagi.or.id/web/digital/10/2011_IAGI_Makassar_Study-of-Early-Mid-Miocene.pdf)
(Onshore NW Java Cipunegara Sub-basin with small E-M Miocene (Upper Cibulakan Fm, 'mid-Main') coral reefal buildups along W-E trend in S part of basin. Reef sizes between 4- 40 km^2 and 50-200m thick)

Wibowo, A.W., A. Pujianto, W. Hindadari, A.W. Soedjono & D.N. Susanti (2014)- Stratigraphic plays in active margin basin: fluvio-deltaic reservoir distribution in Ciputat half graben, Northwest Java Basin. AAPG International Conference Exhib., Istanbul 2014, Search and Discovery Article10656, p. 1-7. *(Extended Abstract)*
(online at: http://www.searchanddiscovery.com/documents/2014/10656wibowo/ndx_wibowo.pdf)
(Oligocene synrift, 'pre-Talang Akar Fm' fluvio-deltaic clastic deposits in N-S trending Ciputat half-graben. Hydrocarbon-bearing in probable stratigraphic traps. Seismic attributes suggest N-S channel(s))

Wibowo, A.W., A. Pujianto, W. Hindadari & D.N. Susanti (2013)- Study of clastic reservoir distribution in active margin basin: stratigraphic play in Ciputat half-graben (Northwest Java Basin). Proc. Joint Convention 38th Indonesian Association Geophysicists (HAGI) - 42nd Indonesian Association Geologists (IAGI), Medan, p. 1-3.
(online at: https://www.iagi.or.id/web/digital/8/2013_IAGI_Medan_Study-of-Clastic-Reservoir.pdf)
(NW Java Basin series of N-S half graben, such as Ciputat, Pasibungur, and Cipunegara subbasins, formed during onset of rifting in M-L Eocene (?), Graben filled by lacustrine-fluvial sediment, Etc)

Wibowo, H. (2006)- Spatial data analysis and integration for regional-scale geothermal prospectivity mapping, West Java, Indonesia. M.Sc. Thesis Int. Inst. Geo-Information Science and Earth Observation (ITC), Enschede, p. 1-106.
(online at: www.itc.nl/library/papers_2006/msc/ereg/wibowo.pdf)

Wibowo, H.T., B.P. Istadi & W. Somantri (2012)- The structural geology at Lusi mud volcano, Indonesia. Proc. 41st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2012-GD-06, p. 1-5.
(online at: https://www.iagi.or.id/web/digital/9/2012_IAGI_Yogyakarta_The-Structural-Geology.pdf)
(Lusi Mud volcano in Renokenongo village, Porong District, E Java, at E end of Kendeng Zone in S part of E Java inverted back-arc basin formed in Oligocene- E Miocene. Rapid deposition of thick organic rich sediment as part of Brantas delta. NE-SW fault can be interpretated as oblique-sinistral strike slip fault or NW-SE fault as dextral strike slip. Continuous topographic changes along active fault zone)

Wibowo, H.T., B. Prastistho, C. Prasetyadi & D.F. Yudiantoro (2022)- Reanalysis LUSI stratigraphic based on cutting of Banjarpanji#1 well. J. Earth and Marine Technology (JEMT) 3, 1, p. 11-18.

(online at: https://ejurnal.itats.ac.id/jemt/article/view/3602/2582)
(Basal ~3000' interval of infamous Lapindo Banjarpanji 1 well that caused disastrous Lusi mud eruption interpreted as compact Volcanic Sandstone, with planktonic foraminifera indicating Middle Miocene age (zones N10-N13) (authors not familiar with work of Kadar et al. ?)

Wibowo, U.P. & R. Kapid (2014)- Biostratigrafi nannoplankton daerah Rajamandala. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 15, 4 (203), p. 185-194.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/57/59)
('Nannoplankton biostratigraphy of the Rajamandala area'. Brief review of nannofossils from 26 samples of Eocene- Miocene of Rajamandala area. Not much detail on sample localities or stratigraphic succession)

Wicaksana, H.I., A. Kurniasih & H. Nugroho (2017)- Ichnofossils analysis from Selorejo Formation in Gadu and Temengeng stratigraphic section Sambong, Blora, Central Java. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, p. 1-5.
(online at: https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_Ichnofossils-Analysis-from-Selorejo.pdf)
(UNDIP paper on trace fossil assemblages in Late Pliocene (N20-21), glauconitic Selorejo Fm of NE Java. Four classes of ichnofossils: Thalassinoides, Arenicolites, Planolites and Rhizocorallium. Interpreted as deposited in wave and storm dominated shallow marine environments)

Wicaksono, R.A., S.S. Angkasa, F.F. Azmalni, A.D. Kahfi & Alfardi A.P. (2009)- Deep hydrocarbon play in Banyumas sub-basin, Central Java: opportunities and risks. Proc. 38th Annual Conv. Indonesian Association Geologists (IAGI), Semarang, PITIAGI2009-149, p. 1-9.
(online at: https://www.iagi.or.id/web/digital/26/2009_IAGI_Semarang_Deep-Hydrocarbon-Play.pdf)
(Mainly literature review. Oil seeps in N Serayu Mountains. Banyumas basin formed in Eocene -Oligocene)
In Oligo-Miocene intra arc basin, dominated by volcaniclastic rocks. Change from intra-arc basin to fore-arc basin after volcanic arc moved to N after lower thrusting angle of oceanic crust than angle in Paleogene. M-L Miocene reservoirs targeted by old wells and Jati-1, but much mechanical trouble)

Wicaksono, R., L. Fauzielly & L. Jurnaliah (2019)- Bereubahan linkungan pengendapan berdasarkan kelimpahanan forominifera bentonik besar pada batugamping klastik Formasi Rajamandala. Padjadjaran Geoscience J. 3, 1, p. 67-77.
(online at: https://jurnal.unpad.ac.id/geoscience/article/view/20844
('Changes in depositional environment based on the abundance of large benthic forominifera in the clastic limestone of the Rajamandala Formation'. Larger forams around Oligocene-Miocene larger forams, suggesting mainly forereef environments)

Widagdo, A. (2008)- Fase-fase tektonik pembentuk ruang mineralisasi emas di daerah Selogiri- Wonogiri. J. Ilmiah Dinamika Rekayasa (UNSOED) 4, 1, p. 23-29.
(online at: https://dinarek.unsoed.ac.id/jurnal/index.php/dinarek/article/view/130/130)
('Tectonic phases of gold mineralisation in the Selogiri- Wonogiri area'. Selogiri prospect with metallic minerals pyrite, chalcopyrite, galena, sphalerite, magnetite, ilmenite, gold, etc. Four extensional tectonic phases in the study area, with metal mineralization generated by epithermal processes filling ~N-S trending fractures formed during extensional phase II (E Miocene))

Widagdo, A. (2024)- Struktur geologi pembentuk urat emas di Selogiri-Wonogiri, Jawa Tengah. Buku Monograf, Universitas Jenderal Soedirman, Purwokerto, p. 1-79.
(online at: http://eprints.upnyk.ac.id/45615/7/Struktur%20Geologi%20Pembentuk%20Urat%20Emas_311190003_Retno%20Anjarwati.pdf
('Geological structures forming gold veins in Selogiri-Wonogiri, Central Java' (booklet). The Gajah Mungkur 'Old Andesite' Late Oligocene- E Miocene volcanic complex near Wonogiri, E of Yogyakarta, has gold vein mineralization. Multiple extensional tectonic phases (polyphases).

Widagdo, A. & A.A. Permana (2021)- Extentional fault pada daerah compressive tectonic zone sebagai batas cekungan di Jawa Tengah Selatan. Jambura Geoscience Review 3, 1, p. 40-45.

(online at: https://ejurnal.ung.ac.id/index.php/jgeosrev/article/view/8121/2696)
('Extensional fault in a compressional tectonic zone as a basin boundary in South Central Java' On NNE-SSW trending and W-dipping normal fault boundary of S Serayu Mountains at E part with Kulon Progo Tertiary volcanic mountains)

Widagdo, A. & S. Pramumijoyo (2004)- Tectonic phases of structural forming and its relationship with mineralization in Selogiri area, Wonigiri, Central Java. Proc. 1st Int. Symposium on Earth Resources Engineering and Geological Engineering Education (SEED), Yogyakarta 2004, p. 25-28.

Widagdo, A., S. Pramumijoyo & A. Harijoko (2018)- Morphotectono-volcanic of Tertiary volcanic rock in Kulon Progo mountains area, Yogyakarta-Indonesia. Proc. Int. Conf. Earth Science, Mineral, and Energy, Yogyakarta 2018, IOP Conference Series: Earth and Environmental Science 212, 012051, p. 1-12.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/212/1/012051/pdf)
(Study of Kulon Progo Mts complex, C Java, where some circular structures of volcanoes are still intact, but others are not)

Widagdo, A., S. Pramumijoyo & A. Harijoko (2018)- Tectonostratigraphy-volcanic of Gajah-Ijo-Menoreh Tertiary volcanic formations in Kulon Progo mountain area, Yogyakarta, Indonesia. Proc. Int. Conf. Earth Science, Mineral, and Energy, Yogyakarta 2018, IOP Conference Series: Earth and Environmental Science 212, 012052, p. 1-11.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/212/1/012052/pdf)
(Kulon Progo Mountains formed by three Oligocene-Miocene volcanic bodies, with each volcano with different tectonic control and stratigraphy. Four periods of volcanism in Kulon Progo: Late Eocene, Early Oligocene (Gajah collapse volcano; related to Paleogene rifting), Late Oligocene (Ijo at S part of Gajah Volcano; Old Andesites) and Late Miocene (Menoreh; covers Gajah volcano and Jonggrangan Fm; related to Neogene Compressional Wrench that produces sinistral fault)

Widagdo, A., S. Pramumijoyo & A. Harijoko (2019)- Relation of lineaments and volcano-stratigraphy of Tertiary volcanic rocks in Kulon Progo Mountains Area, Yogyakarta-Indonesia. E3S Web of Conferences 76, 04008, p. 1-6.
(online at: https://www.e3s-conferences.org/articles/e3sconf/pdf/2019/02/e3sconf_icst2018_04008.pdf)

Widagdo, A., S. Pramumijoyo & A. Harijoko (2020)- Kontrol struktur geologi terhadap kemunculan Formasi Nanggulan di daerah Kecamatan Naggulan Kabupaten Kulun Progo, Yogyakarta. Jurnal Geosapta 6, 2, p. 97-101.
(online at: https://ppjp.ulm.ac.id/journal/index.php/geosapta/article/view/8282)
(Eocene Nanggulan Fm exposed on E side of Kulun Progo Mts, controlled by secondary fault on NE-SW trending fault system).

Widagdo, A., I Gde Sukadana & F.D. Indrastomo (2022)- Geological structure control on the formation of metal mineralization at quartz veins in Jendi Village, Wonogiri Regency, Central Java. Eksplorium 43, 2, p. 89-102.
(online at: https://ejournal.brin.go.id/eksplorium/article/view/8141/6247)
(Quartz vein mineralization near Wonogiri,south C Java, controlled by right slip fault of NW-SE trend that forms transtension zone with N-S trend.N-S veins generally thick, long/continuous, and have high meta content)

Widarmayana, I.W.A., N. Anggraini, N. Stephens & F. Musgrove (2014)- Banyu Urip and other Cepu Block fields- nucleation of early carbonate buildups into isolated platforms. Proc. 38th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA14-G-336, p. 1-12.
(Cepu Block early carbonate growth in Rupelian in two main depositional environments, shallow water carbonate on horst blocks and deeper water carbonate in graben areas. Early carbonate mounds coalesced into larger carbonate platforms that then rapidly grew vertically to become Cepu Block oil-gas fields. Coalesced buildups tend to be located along larger fault systems, resulting in dominant ENE-WSW orientation of fields)

Widarto, D.S., E. Widianto, Sardjito, E. Purnomo & E. Biantoro (2009)- Gravity and magnetotelluric studies of the South Losari oil prospect, Central Java, Indonesia. Proc. 9th SEGJ Int. Symposium Imaging and interpretation, Sapporo, p. 1-4.
(Gravity anomaly patterns suggest S Losari basement configuration controlled NW-SE trending Riedel shears and step-over splays, which subdivided study area in two depressions)

Widi, B.N. & H. Matsueda (1998)- Epithermal gold-silver tellurides-deposit of Cineam, Tasikmalaya District, West Java, Indonesia. Directorat Mineral Resources Indonesia, Special Publ. 96, p. 1-19.

Widianto, V., A. Priksawan, S.F. Yuflih, R. Kusumawardana, A. Angela, A. Subandrio & C. Prasetyadi (2016)- Ancient Oligo-Miocene volcanoes morphology affect on carbonate facies growth of Wonosari Formation in South East Java. Proc. 14th Regional Conference Geology and Mineral Resources of SE Asia (GEOSEA XIV) and 45th Annual Conv. Indonesian Association Geologists (IAGI) (GIC 2016), Bandung, p. 638-644.
(E-M Miocene Wonosari Fm limestone in Gedangan and Blitar areas of SE Java developed on slopes of Mandalika island arc volcanoes, causing volcanoclastic sediment influx into shallow carbonate facies)

Widianto, E., D. Santoso, I.T. Taib & W.G.A. Kadir (2004)- Basin boundaries determination in West Java using 2-D gravity modeling. Majalah Geologi Indonesia (IAGI) 33, p. *(in Indonesian)*

Widiarto, F.X., J. Setyoko, H. Humaida & A. Zaennudin (2010)- Sidik jari hidrokarbon dalam lumpur Porong, Sidoardjo, Jawa Timur. Proc. 39th Conv. Indonesian Association Geologists (IAGI), Lombok, PIT-IAGI-2010-187, p. 1-22. *(also in: Majalah Geologi (IAGI), 2010, 25, 3, p. 187-207) ('online at: https://www.iagi.or.id/web/digital/12/2010_IAGI_Lombok_Sidikjari-Hidrokarbon-dalam-Lumpur-Porong.pdf)*
(Hydrocarbon fingerprinting from Porong mud, Sidoardjo, East Java'. Well-documented paper on analysis of oil and gas traces in mud from LUSI mud eruption S of Surabaya. Oil biomarkers suggestive of restricted marine or lacustrine source. Gas non-associated gas from marine source rock, with variable amounts of CO_2)

Widijono, B.S. (2011)- Anomali gayaberat dan mendala tektonik Jawa Timur dan sekitarnya. Jurnal Sumber Daya Geologi (JSDG) 21, 6, p. 321-333.
('Gravity anomalies and tectonic terrains of North Java and its surrounding area'. Tectonic zones of East Java well imaged by gravity anomalies. Southern Mountains zone anomalies 100-130 mGal, Quaternary volcanoes zone 0-100 mGal, Kendeng Zone 0-40 mGal, Randublatung- Rembang Zone 0-25 mGal, Norht Java offshore 25-50 MGal)

Widijono, B.S. & B. Setyanta (2007)- Anomali gaya berat, kegempaan serta kelurusan struktur geologi daerah Jogjakarta dan sekitarnya. Jurnal Sumber Daya Geologi (JSDG) 17, 2, p. 74-90.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/281/252)
('Gravity anomalies, seismicity and geological structure lineaments of Yogyakarta and surrounding areas'. Gravity modelling indicate presence of strike slip, thrust and normal faults in basement and Tertiary rocks)

Widijono, B.S. & Subagio (2009)- Anomaly gaya berat sebagai salah satu petunjuk keterdapatan gejala struktur geologi daerah Jogjakarta dan sekitarnya. Proc. Workshop Geologi Pegunungan Selatan, Yogyakarta 2007, Pusat Survei Geologi, Bandung, Special Publ. 38, p. 105-122.
(Gravity anomalies and geological structure of Yogyakarta and surrounding areas)

Widiyantoro, S. (2003)- Constraints on upper mantle structure and seismicity beneath the Sunda Strait from teleseismic data. Proc. 32nd Annual Conv. Indonesian Association Geologists (IAGI) and 28th HAGI Annual Conv., Jakarta, p. 1-6.
(Sunda Strait area of active extension, marking transition from oblique subduction along Sumatra to near-perpendicular subduction along Java. Seismic tomography and seismicity pattern under Krakatau suggest (1) mantle plume ascending toward Krakatau volcano; and (2) columnar cluster of earthquakes below Krakatau trending almost vertically from Wadati-Benioff zone)

Widiyantoro, S. (2006)- Learning from the May 27, 2006 Yogya-Central Java destructive earthquake. Proc. 31st HAGI Annual Conv., Semarang 2006, p. 1-5. *(Extended abstract)*.
(Shear-wave seismic tomograms to explore buried structural features beneath Java. S-wave tomographic model suggests buried fault also exists below E Java)

Widiyantoro, S., E. Gunawan, A. Muhari, N. Rawlinson, J. Mori, N.R. Hanifa, S. Susilo, P. Supendi, et al. (2020)- Implications for megathrust earthquakes and tsunamis from seismic gaps south of Java Indonesia. Nature Scientific Reports, 10, 15274, p. 1-11.
(online at: https://www.nature.com/articles/s41598-020-72142-z.pdf)
(Relocation of earthquakes and inversions of GPS data reveal clear seismic gaps S of Java, which may be sources of future megathrust earthquakes and trigger tsunamis up to 20m along S coast)

Widiyantoro, S., H. Harjono, F. Lianto, Fauzi & Wandono (2004)- Seismisitas dan struktur kecepatan gelombang seismik di sepanjang Pulau Jawa. Proc. Annual Conv. Indonesian Association Geophysicists (HAGI), Yogyakarta, p.
('Seismicity and velocity structure along Java island'. Changes in seismic wave properties of subducting slab in E-W direction across Java and seismic gap below Central Java region)

Widiyantoro, S., P. Supendi, A. Ardianto, A.W. Baskara, C.A. Bacon, R. Damanik, N. Rawlinson et al. (2022)- Implications for fault locking south of Jakarta from an investigation of seismic activity along the Baribis Fault, northwestern Java, Indonesia. Scientific Reports 12, 1, 10143, p. 1-10.
(online at: https://www.nature.com/articles/s41598-022-13896-6.pdf)
(Recent borehole seismic deployments along Baribis Fault in NW Java reveal fault may be active. Seismicity in the E part of fault significantly higher than in W, suggesting western Baribis Fault is locked, and that neighbouring areas (including S Jakarta) may be highly vulnerable to future sizeable earthquakes)

Widiyantoro, S., Z. Zulhan, A. Martha, E. Saygin, P. Cummins, A.D. Nugraha & I. Meilano (2015)- Towards crustal structure of Java Island (Sunda Arc) from ambient seismic noise tomography. EGU General Assembly, Vienna 2015. *(Poster)*
(P- and S-wave tomography velocity model under Java from ambient seismic noise. Area of low gravity beneath Kendeng zone associated with low velocity zone. Southern Mountain range high gravity anomaly related to high velocity anomaly)

Widjajanti, N., C. Pratama, I.H. Azizi, Yulaikhah, M.F. Abiyyu, S.A. Rahman, M.N. Cahyadi, E. Aprianti & O. Prayog (2024)- Strain accumulation along the Eastern Java back-arc thrust system inferred from a dense Global Navigation Satellite System network. Geosciences (MDPI) 14, 12, p. 1-16.
(online at: https://www.mdpi.com/2076-3263/14/12/3460
(Back-arc thrust in E Java region part of Baribis–Kendeng fault system and may connect to Flores back–arc thrust. However, remarkable lack of known large earthquakes in E Java back-arc thrust. Recent GNSS observations to investigate crustal and strain accumulation along E Java back-arc thrust system revealed varying values of compression and extension throughout region)

Widodo, R.W. (2018)- Evolution of the Early Miocene carbonate Baturaja Formation in Northwest Java Basin, Indonesia. Ph.D. Thesis, Texas A&M University, College Station, USA, p. 1-188.
(online at: https://core.ac.uk/download/pdf/333659243.pdf)
(E Miocene Baturaja Fm carbonates prolific hydrocarbon reservoirs in onshore NW Java Basin. Generally 120-300m thick and deposited on ramp setting, Composed mainly of red algae and large benthic foraminifera, with relatively little coral, possibly linked to E Miocene global warm conditions with higher carbon productivity and higher CO_2. Reservoir porosity influenced by meteoric diagenesis, especially in carbonate mound settings. Subaerial exposure episodes indicated by negative δ13C shifts and extensive moldic porosity. Also burial dissolution porosity)

Widodo, R.W. (2022)- Porosity creation of the Baturaja Formation by meteoric and burial diagenesis: study case in Northwest Java Basin, Indonesia. Proc. 51st Annual Conv. Indonesian Association Geologists (IAGI), Makassar, p. 1-6.
(online at: https://www.iagi.or.id/web/digital/71/PITIAGI-22-P-Abs-122.pdf)
(E Miocene Baturaja Formation in Melandong area, onshore NW Java Basin, Indonesia. Porosity mainly secondary. Two possible scenarios for origin of dissolution porosity in red algal-large benthic foraminiferal packstone-grainstones:(1) meteoric dissolution and (2) burial dissolution based on CO_2 degassing)

Widodo, W., Ernowo, R.N. Pratama, M.R. Noor, D. Widhiyatna, E. Putra, A. Idrus et al. (2025)- Integrating PCA and fractal modeling for identifying geochemical anomalies in the Tropics: the Malang-Lumajang volcanic arc, Indonesia. Geosciences (MDPI) 15, 470, p. 1-30.
(online at: https://www.mdpi.com/2076-3263/15/12/470)
(On geochemical stream sampling in Southern Mountains of East Java)

Widyastuti, S., Abdurrokhim & Y.A Sendjaja (2016)- Asal sedimen batupasir Formasi Jatiluhur dan Formasi Cantayan daerah Tanjungsari dan sekitarnya, Kecamatan Cariu, Kabupaten Bogor, Provinsi Jawa Barat. Bull. Scientific Contribution (UNPAD) 14, 1, p. 25-32.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/9813/pdf)
('Provenance of the Jatiluhur and Cantayan Fm sandstones in the Tanjungsari and surrounding area, Cariu district, Bogor, W Java'. M-L Miocene sandstones in Bogor Trough: (1) Jatiluhur Fm (feldspathic wacke, derived from plutonic igneous rock, from Dissected Arc terrane) and Cantayan Fm (lithic arenite, derived from volcanic rock, from Transitional Arc- Undissected Arc terrane). Both units derived from magmatic arc terrane)

Wiedicke, M., H. Sahling, G. Delisle, E. Faber, S. Neben et al. (2002)- Characteristics of an active vent in the fore-arc basin of the Sunda Arc, Indonesia. Marine Geology 184, p. 121-141.
(Fluids venting at anticlinal structure at ~2910m water depth in forearc basin SW of Java, with water methane anomalies, elevated heat flow, vent-macrofauna (tube worms, bivalve Acharax), carbonate precipitation at sea floor and methane- rich pore fluids in sediment. Bottom-simulating reflectors (BSR) rise steeply towards vent, and lack of BSR below vent suggests perforation of hydrate-stability zone. Position on structure linked to oblique subduction suggests venting may be common along compressional /transpressional zones (Ujung Kulon FZ, Mentawai FZ) in NW fore arc of Sunda margin)

Wiedicke, M. & W. Weiss (2006)- Stable carbon isotope records of carbonates tracing fossil seep activity off Indonesia. Geochem. Geophysics Geosystems 7, 11, Q11009, p. 1-22.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1029/2006GC001292)
(Stable isotopes of carbonates in 20m long sediment cores from 1690-2995m water depth in forearc basin off SW Java (Ujung Kulon) and SW Sumatra (Bengkulu) display significant 13C depletion, interpreted to be caused by methane seepage and associated authigenic carbonate precipitation near seafloor. Seep activity most intense between 3-7 kyr B.P. and 27-33 kyr B.P. Probable tectonic control of seepage. Benthic foram infauna at seep sites dominated by 5 species: Chilostomella oolina, Globobulimina pacifica, Hoeglundina elegans, Uvigerina peregrina and Bulimina striata. Epifauna mainly Pyrgo murrhina, Oridorsalis umbonatus, Cibicidoides wuellerstorfi and Sigmoilinopsis schlumbergeri)

Wijayanti, H.D.Kusuma & M.I. Novian (2017)- Late Oligocene-Miocene sediment character in Gunung Jonggol, Eastern Part of West Progo Mountains. Joint Conv. HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, p. 1-4.
(online at: https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_Late-Oligocene-Miocene-Sediment-Character-in-Gunung-Jonggol_compressed.pdf)
(G. Jonggol section in West Progo Mts, Southern Mountains of C Java. Starts with Oligocene (N3) calcareous tuff, overlain by 100m of andesite breccias. Overlain by volcanoclastic sandstones gradually changing to E Miocene coral limestones (N5-N6) (Fig. 4 shows LBF Lepidocyclina and Miogypsina))

Wijayanti, H.D.K., O. Verdiansyah, M.I. Novian, N.I. Setiawan & K. Rohman (2016)- Protolith of Joko Tuo marble, Bayat, Central Java; contribution to paleoenvironment and age of metamorphic rock. Proc. 14th Regional

Conference Geology and Mineral Resources of SE Asia (GEOSEA XIV) and 45th Annual Conv. Indonesian Association Geologists (IAGI) (GIC 2016), Bandung, p. 319-322.
(online at: https://repository.itny.ac.id/id/eprint/1080/1/IAGI%202016%20HERNING%20DYAH.pdf)
(Low-metamorphic marble and phyllite form basement outcrop in Joko Tuo area, E Jiwo Hills, C Java. Presence of marble blocks with well-preserved mid-Cretaceous larger foram Orbitolina sp. in foliated chlorite-biotite-graphite)

Wijono, S. (1985)- Stratigrafi dan rekonstruksi lingkungan pengendapan purba endapan karbonat Formasi Oyo di G. Tugu, Bayat, Kabupaten Klaten, Jawa Tengah. Media Teknik 7, 2, p. 11-15
('Stratigraphy and reconstruction of the depositional environment of the Oyo Formation carbonate deposits in Mt. Tugu, Bayat, Klaten Regency, Central Java'. M-L Miocene Oyo Fm marls-calcarenites are slope deposits)

Wijono, S. (1987)- Hubungan beberapa parameter sedimen dengan populasi foraminifera bentonik pada Formasi Ledok, Jalur Kedung Planangan, Kab. Blora, Jawa Tengah. Proc. 16th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, p.
('Relations between some sediment parameters and the benthic foraminifera population in the Ledok Formation, Kedung Planangan, Blora district, C Java')

Willumsen, P. & D.M. Schiller (1994)- High-quality volcanoclastic sandstone reservoirs in East Java, Indonesia. Proc. 23rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 101-118.
(Late Pliocene-Pleistocene volcanoclastic reservoirs in 1993 Porong 1 and WD 8 wells and in outcrops good reservoir qualities)

Wiloso, D.A. (2019)- Korelasi minyak-batuan induk untuk menentukan asal minyak di cekungan Jawa Timur bagian barat. J. Teknologi Technoscientia (AKPRIND) 12, 1, p. 27-36.
(online at: https://journal.akprind.ac.id/index.php/technoscientia/article/view/1843/1435
('Oil-source rock correlation to determine the origin of oil in the western part of the East Java basin. Oils from Kedung Jati and Galeh oil seeps can be correlated to Ngimbang Fm source rock in Rembang-1 well)

Wiloso, D.A., B.W. Seubert, E.A. Subroto & E. Hermanto (2008)- Studi batuan induk hidrokarbon di cekungan Jawa Timur Bagian Barat. Proc. 37th Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 476-489.
('Study of hydrocarbon source rocks in the W part of the E Java basin'. Eocene Ngimbang clastics Fm in Rembang-1 good source rock richness, early mature, and potential to produce oil and gas from Types II and III kerogen. C27-C28-C29 ternary plots from four oil seeps and source rock from three wells show correlation between oil from terrestrial source and Ngimbang clastics Fm)

Wiloso, D.A., E.A. Subroto & E. Hermanto (2009)- Confirmation of the Paleogene source rocks in the Northeast Java Basin, Indonesia, based from petroleum geochemistry. AAPG International Conference Exhib., Cape Town 2008, Search and Discovery Article 10195, p. 1-33. *(Abstract + Presentation)*
(online at: www.searchanddiscovery.net/documents/2009/10195wiloso/images/wiloso.pdf)
(Geochemical analyses of sediments from 5 exploration wells (incl. Rembang 1, Padi-1), and four oil seeps indicate correlation between oils and thermally mature, organic-rich Late Eocene Ngimbang Fm)

Winantris, L. Fauzielly & L.Jurnaliah (2018)- Climate changes record of Bandung paleolake. Int. J. Advanced Science Engineering Information Technology (IJASEIT) 8, 6, p. 2504-2509.
(online at: https://ijaseit.insightsociety.org/index.php/ijaseit/article/view/5769)
(Changes in composition and quantity of pollen of forest plants, herbaceous pollen, Pteridophyta spores and freshwater algae in Quaternary of core hole in Bandung Basin reflect climate changes. Coldest conditions in lowest zone (20 -19m depth, carbon dating >11,800 years BP). Warmest T at 10 m depth, similar to current conditions)

Winantris (2019)- Palynospore pada lapisan batubara Formasi Bayah, Rangkasbitung, Provinsi Banten. Bull. Scientific Contribution (UNPAD) 17, 3, p. 161-166.
(online at: https://jurnal.unpad.ac.id/bsc/article/view/23994/pdf)

(Coal of Bayah Formation in SW Java exploited by community mining. Palynology of coal from Sindang Ratu village show age markers Proxapertites operculatus, P. cursus, Polygalacidites clarus and Verrucatusporites usmensis, suggesting Late Eocene age and freshwater swamp environment with Dicopopollis malesianus)

Winantris, M.F. Rosana & K. Sena (2023)- Age and depositional environment of the sandstone unit of Ciletuh Formation in Ciletuh-Palabuhanratu Geopark. Indonesian J. on Geoscience (IJOG) 10, 1, p. 73-82.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/850/389)
(Palynology of samples from M Eocene Ciletuh Fm sandstones at Ciletuh Bay, SW Java. Two clusters:(1) dominated by Proxapertites operculatus and P. cursus, with Palmaepollenites kutchensis, foraminiferal test linings, etc.; (2) dominated by Podocarpus pollen. with plant debris, foram test linings and dinoflagellate cysts, deposited in distal marine environment. Ages of all samples late M Eocene (Morley Zone E6))

Winardi, S., B. Toha, M. Imron & D.H. Amijaya (2010)- The potency of Nanggulan Formation shale as hydrocarbon source rock. Proc. 39th Annual Conv. Indonesian Association Geologists (IAGI), Lombok, PIT-IAGI-2010-310, p. 1-13.
(online at: https://www.iagi.or.id/web/digital/12/2010_IAGI_Lombok_The-Potency-of-Eocene.pdf)
(In W Indonesia Eocene shale generally considered as potential source rock. 11 samples of Eocene Nanggulan Fm shale with Nummulites and Discocyclina, outcropping at Nanggulan/ Kulonprogo 25 km W of Yogya, analyzed. Seven samples TOC >1%. Kerogen type III amorphous-humic. Maturity level of samples immature (highest Ro 0.39%, Tmax 422°C and TAI 2). At higher levels of maturity Nanggulan Fm shale has source rock potential. In adjacent Yogyakarta Low, Nanggulan Fm modeled to be late mature, generating gas since 0.4 Ma)

Winardi, S., B. Toha, M. Imron & D.H. Amijaya (2013)- The potential of Eocene shale of Nanggulan Formation as a hydrocarbon source rock. Jurnal Geologi Indonesia 8, 1, p. 13-23.
(online at: http://ijog.bgl.esdm.go.id/index.php/IJOG/article/view/152/152)
(Similar to Winardi et al. (2010) paper, above)

Winarno, T., J. Marin &W.W. Jati (2020)- Effect of porphyritic andesite intrusion on the formation of contact metamorphism aureole in Selo Gajah Hill Clastic Limestone, Bojonegoro Regency, East Java, Indonesia. J. Geoscience Engineering Environment Technology (JGEET) 5, 2, p. 101-108.
(online at: https://journal.uir.ac.id/index.php/JGEET/article/view/4098/2529)
(At Selo Gajah Hill, Jari Village, Bojonegoro Regency, limestone intruded by porphyritic andesite. Contact metamorphism in carbonate wall rocks created hornblende hornfels and pyroxene hornfels. Two metamorphic zones: inner vesuvianite zone with radius of 40-140 m from intrusion body and monticellite zone with radius from 25- 75 m from outside of vesuvianite zone)

Winarto (2022)- Paleogeomorfologi Formasi Cibodas dan catatan temuan fosil gigi hiu di daerah Gunung Sungging dan sekitarnya, Kabupaten Sukabumi, Jawa Barat. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 23, p. 61-69.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/681)
('Paleogeomorphology of the Cibodas Formation and Note of the discovery of shark teeth fossils in Gunung Sungging and surrounding area, Sukabumi Regency, West Java'. On locality with common large shark teeth fossils-Otodus megalodon in calcarenite-tuffaceous sandstones of Pliocene Cibodas Fm (source of many shark teeth fossils now on international fossil market ?(2023)' JTvG))

Winarto, J.B., W.A. Nurlathifah, A. Djafar, A.D. Sipayung, R.A.P. Sari & H. Insani (2022)- The surficial basin sediment investigation and its concerned vertebrate fossils in Sirtwo Island, western part of Saguling Dam, West Java, Indonesia. Indonesian J. Earth Sciences (InJoES) 2, 1, p. 1-15.
(online at: https://journal.moripublishing.com/index.php/injoes/article/view/288/102)
(Investigation of Late Pleistocene ancient Lake Bandung sediments, exposed during low lake level at Saguling Dam in 2021. With vertebrate fossils including Bovid, Rusa and Elephas maximus)

Wirasantosa, S. & K. Karta (1995)- Seismic reflection study of a fore-arc basin and accretionary prism South of West Java. In: J. Ringis (ed.) Proc. 31st Session Committee Co-ord. Joint Prospecting Mineral Resources in Asian

Offshore Areas (CCOP), Kuala Lumpur 1994, 2, p. 261-266. *(online at: https://repository.unescap.org/server/api/core/bitstreams/4198bc42-86c9-49fe-843e-60aebea03e54/content)*
(Single channel seismic profiles off SW Java. Fore-arc basins with 0.2- >1.5 sec of sediment, with two sequences separated by Late Miocene unconformity. Fore-arc sediments normally faulted adjacent to Sunda Strait and Pelabuhan Ratu Bay)

Witkamp, H. (1916)- De kalkbergen van Koeripan. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 33, 3, p. 417-423.
('The limestone mountains of Kuripan'. Group of three 30m high limestone hills near Ciseeng, W of Parung, W Java are sinter cones formed by hot spring activity)

Witkamp, H. (1939)- Een voorkomen van granodioriet in Zuid-Priangan. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2) 56, p. 638-653.
(online at: https://resolver.kb.nl/resolve?urn=MMUBA13:001695001:pdf)
('An occurrence of granodiorite in South Preanger', SW Java. Rare occurrence of granodiorite in Java, along Tjilajoe (Cilayu) River, 60km S of Bandung)

Witkamp, H. (1940)- Nog iets over de vulkaanruines bij Plered. De Tropische Natuur 29, 3, p. 56-58.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:036301000:00001)
('More about the volcano ruins near Plered', near Krawang, W Java. Brief review of earlier geological work on steep, eroded 'volcanic ruins' Gunung Parang, Gunung Bongkok, etc.))

Wittwer, A. (2010)- Investigating the crustal and upper mantle structure of the central Java subduction zone with marine wide-angle seismic and gravity data. Ph.D. Thesis, Christian-Albrechts-Universitat, Kiel, p. 1-148.
(online at: https://macau.uni-kiel.de/servlets/MCRFileNodeServlet/dissertation_derivate_00003637/Andreas_Wittwer_Diss.pdf)

Wiyoga, S.A. & N.I. Basuki (2010)- A microfacies study of carbonate rocks of the Citarate Formation, Cilograng Area, Lebak District, Banten. Proc. 34rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA10-SG-029, p. 1-7.
(Outcrop study of ~180m thick Early Miocene Citarate Fm limestone 10 km NW of Pelabuhan Ratu)

Wiyoga, S.A. & N.I. Basuki (2010)- Diagenetic pattern in the Citarate carbonate rocks, Cilograng area, Lebak District, Banten. Proc. 39th Annual Conv. Indonesian Association Geologists (IAGI), Lombok, p. 1-8.
(E Miocene Citarate Fm limestones 10 km NW of Pelabuhan Ratu. Regional M Miocene deformation formed NNE-WSW trending faults and E-W folds. Diagenesis include early marine cementation by fibrous aragonite, compaction, aragonite dissolution, precipitation of equant-grained calcite cement in phreatic environment, dissolution to form moldic porosities, dolomitization, formation of stylolites and fractures, and precipitation of late ferroan calcite during burial)

Wiyono, J., F. Rakhmanto, F. Andriyani, A. Susilo & A.M. Masdar (2007)- Characterization of carbonate reservoir at "X" Field using attribute and seismic inversion: examples from the Cepu area. Proc. 31st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, SG-12, p. 1-11.
(Seismicinterpretation study of X Field (= Sukowati Field; JTvG). In Kujung Fm carbonate buildup, Tuban Block, NE Java basin)

Wolbern, I. & G. Rumpker (2016)- Crustal thickness beneath Central and East Java (Indonesia) inferred from P receiver functions. J. Asian Earth Sciences 115, 1, p. 69-79.
(Earthquake data recorded in C and E Java suggests average crustal thickness of ~34 km. Support for presence of ophiolitic basement in center of island related to Meratus suture zone comes from shallowing of Moho to ~30 km (or less) under Kendeng zone, while to N and W Moho at anomalous depths to 39 km. Observed thick anomalies W and NW of Kendeng zone line up along hypothetical boundary between continental SW Borneo fragment and Meratus suture and may indicate crustal thickening caused by overthrusting in former collision zone. No clear evidence for postulated Muria-Progo lineament)

Woolfolk, E.R. & D.N. Tit (1939)- Geological report on the oil possibilities of the Banjoemas and Kedoe districts, South Central Java. Geological Survey, Bandung, Open File report E39-57, p. 1-13.
(Stanvac 1938 survey report. Ten anticlines mapped in marine Tertiary section in S Central Java. Two main volcanic breccia horizons and several unconformities. No surface oil or gas seeps encountered)

Wu, C.Q., Z.W. Zhang, M.F. Rosana, Q. Shu, C.F. Zheng, J. Xua, X. Lia & Z. Jin (2019)- The continental crust contributes to magmatic hydrothermal gold deposit in Ciemas, West Java, Indonesia: constraints from Hf Isotopes of zircons and in situ Pb isotopes of sulfides. Ore Geology Reviews 112, 103010, p. 1-15.
(Multistage porphyry-epithermal metallogenic systems in Late Eocene- E Miocene and Late Miocene- E Pleistocene magmatic belts of Java. In W Java common low-sulfidation type epithermal deposits, in E Java porphyry deposits. Newly discovered Ciemas deposit in W Java M Miocene (~17 Ma) porphyry-epithermal Au deposit. Zircons suggest M Miocene arc magmatism with intense crustal contamination, with mineralization materials mainly from ancient continental crust of Sundaland)

Wu, C.Q., Z.W. Zhang, C.F. Zheng & J.H. Yao (2014)- Mid-Miocene (~17 Ma) quartz diorite porphyry in Ciemas, West Java, Indonesia, and its geological significance. International Geology Review 57, 9-10, p. 1294-1304.
(Miocene quartz diorite porphyry from Ciemas area, SW Java, belongs to calc-alkaline-high K calc-alkaline series and formed by M Miocene arc magmatism. Porphyry, dacite and andesite rocks similar compositions. Zircon ages of andesite, amphibolic tuff breccia and quartz diorite porphyry 17.5, 16.9 and 17.1 Ma)

Xia, Y., J. Geersen, D. Klaeschen, B. Ma, D. Lange, M. Riedel, M. Schnabel & H. Kopp (2021)- Marine forearc structure of eastern Java and its role in the 1994 Java tsunami earthquake. Solid Earth (EGU) 12, 11, p. 2467-2477.
(online at: https://se.copernicus.org/articles/12/2467/2021/se-12-2467-2021.pdf)
(Previously unrecognized shallow subducting seamount ('island arc backstop') seen on seismic profile crossing the 1994 Mw 7.8 Java tsunami earthquake rupture area. Seamount subduction associated with overriding plate uplift, back-thrusting at landward slope of forearc high and formation of splay faults branching off landward flank of subducting seamount are observed)

Xia, Y., D. Klaeschen, H. Kopp & M. Schnabel (2022)- Reflection tomography by depth warping: A case study across the Java trench. Solid Earth (EGU), 13, p. 367-392.
(https://se.copernicus.org/articles/13/367/2022/se-13-367-2022.pdf)
(Mostly non-geological discussion of seismic velocity picking, with line across Java forearc as case sudy)

Xia, Y., H. Kopp, D. Klaeschen, J. Geersen, Bo Ma & M. Schnabel (2023)- Seamount and ridge subduction at the Java margin, Indonesia: effects on structural geology and seismogenesis. J. of Geophysical Research: Solid Earth 128, 9, e2022JB026272, p. 1-23.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2022JB026272)
(Java- Lesser Sunda margin with multi-scale subducting oceanic basement relief. Large-scale subducting features cause landward shift of deformation front, shortening of accretionary wedge, and seafloor steepening at relief's trailing edge. Small-scale subducting ridges primarily impact frontal prism (over-steepening at trench and localized slope failure). Ridge and seamount subduction induce frontal erosion and basal erosion offshore Lombok and Bali, respectively. P-wave velocity models indicate rigidity of upper plate's base along E Sunda margin significantly lower than worldwide trend)

Xie, F., Z. Wang, D. Zhao, R. Gao & X. Chen (2023)- Seismic imaging of the Java subduction zone: New insight into arc volcanism and seismogenesis. Tectonophysics 854, 229810, p.
(manuscript online at: https://www.researchgate.net/publication/369515725_Seismic_imaging_of_the_Java_subduction_zone_New_insight_into_arc_volcanism_and_seismogenesis)
(New P-wave velocity model of crust and upper mantle down to 600 km beneath Java. Fewer intra-slab Vp anomalies at ~100-200 km than other parts of slab, which may reflect dehydration embrittlement and slab hole. Low-Vp anomalies below subducting Australian slab probably due to slab hole (with seismic gap), where subslab

hot materials flow into mantle wedge (and generate K-rich back-arc volcanism and reduce large earthquakes (Mw ≥ 8.5) in Java?). Tomographic results also support hot finger model for arc magmatism in Java)

Yabe, H. & K. Asano (1937)- Contributions to the paleontology of the Tertiary formations of West Java. Part I. Minute foraminifera from the Neogene of West Java. Science Reports Tohoku Imperial University, Ser. 2 (Geol.) 19, p. 87-127.
(online at: http://hdl.handle.net/10097/30268)
(Shallow marine benthic foraminifera from samples collected by Chitani in 1935 in M Miocene- Pliocene, in Banten and Bogor areas. With stratigraphic columns of NW Java Mio-Pliocene. No locality details)

Yabe, H. & K. Asano (1937)- New occurrence of *Rotaliatina* in the Pliocene of Java. Chishitsugaku Zasshi (= J. Geological Society Japan) 44, 523, p. 326-328.
(online at: www.jstage.jst.go.jp/article/geosoc1893/44/523/44_523_326/_pdf)
(Brief note describing new Pliocene rotalid foram species from Bojong and Cilegong, Banten, W Java. Derived from Rotalia schroeteriana and named Rotaliatina globosa (now assigned to Asanoina Finlay 1961))

Yabe, H. & M. Eguchi (1941)- On some simple corals from the Neogene of Java. Proc. Imperial Academy (Tokyo) 17, 7, p. 269-273.
(online at: https://www.jstage.jst.go.jp/article/pjab1912/17/7/17_7_269/_pdf)
(Description of small Miocene and Pliocene corals (Heterocyathus, Fungia), collected by Chitani in Banten and Bogor areas, W Java)

Yaman, F., T. Ambismar & T. Bukhari (1991)- Gas exploration in Parigi and pre-Parigi carbonate buildups, NW Java Sea. Proc. 20th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 319-346.
(M Miocene Parigi and Pre-Parigi buildups with large quantities of gas. Reservoirs uniformly distributed vugular, mouldic and intragranular porosity. Gas is dry, interpreted to be thermogenic and sourced from deeper Talang Akar shales and coals. Migration of gas through vertical fault migration from Talang Akar into higher sections. Absence of oil implies heavier hydrocarbon fractions either stripped during migration or prevented from accumulating in buildups due to presence of earlier migrated gas)

Yang, F.Z., L. Luo, D. Jia, H.Q. Zhu, L. Wu & X. Li (2011)- Cenozoic tectonic evolution of the East Java Basin, Indonesia. Acta Metallurgica Sinica 17, 2, p. 240-248.
(online at: http://geology.nju.edu.cn/EN/abstract/abstract9358.shtml)
(In Chinese, with English summary. E Java Basin two rift phases and two compressional events. Eocene back-arc rifting basin resulted from N-ward subduction of Indo-Australian plate under Sundaland. Subduction changed direction to NE-SW in Oligocene, inducing 2nd phase of E-W extension and rifting. Collision of Roo Rise ocean plateau, S of E Java, at ~15 Ma caused inversion structures and formation of major oil traps. Part of Australian continental slope collided with Banda Arc at ~3.5-2 Ma, causing 2nd compressional deformation phase in basin)

Yokoyama, I., I. Surdjo & B. Nazhar (1969)- Volcanological survey of Indonesian volcanoes, Part 4. A gravity survey in Central Java. Bull. Earthquake Research Institute (Tokyo University) 48, 2, p. 303-315..
(online at: https://repository.dl.itc.u-tokyo.ac.jp/record/33330/files/ji0482010.pdf)
(N-S gravity travese across/ around Merapi-Merbabu volcanoes)

Yoni, D.R., Afrilita, N. S. Rangkuti, & D.P. Yodira. (2025)- Petrographic study of the Jampang Formation rock unit, Cibenda Area, Ciemas District, Sukabumi Regency, Indonesia. J. Ilmiah Dinamika Rekayasa (UNSOED) 21, 2, p.
(online at: https://jurnaldinarek.id/index.php/jidr/article/view/31)
(Early(?) Miocene Jampang Fm in SW Java andesitic breaccias, lavas amd volcanoclastic sandstones. Evolution from marine environment to tectonic and magmatic arc activity in Cibenda area)

Yu, Y, X.L. Huang, S.L. Chung, Jie Li, Y.M. Lai, I. Setiawan & M. Sun (2022)- Molybdenum isotopic constraint from Java on slab inputs to subduction zone magmatism. Geochimica Cosmochimica Acta 332, p. 1-18

(Mo-Sr-Nd-Hf-Pb isotopic data for Continental Arc Basalt and Back Arc Basalt from Java, to investigate role of slab inputs in Mo isotopic variation of Sunda arc magmatism. Upwelling of asthenosphere mantle through slab window enhanced melting of subducted sediments in Java. Compositional heterogeneity of Java Continental Arc Basalts along arc strongly controlled by thermal status and structure of subducted slab. Most of Java basalts lighter Mo isotopic compositions than depleted mantle)

Yudha, D.S., M.A. Prabowo, R.A. Suriyanto & D.H. Barianto (2020)- The diversity of ray-finned fishes (Actinopterygii) in Plio-Pleistocene Java. J. Tropical Biodiversity and Biotechnology (JTBB) (UGM) 5, 2, p. 149-156.
(online at: https://jurnal.ugm.ac.id/jtbb/article/view/43694/28392)
(At least 8 species of actinopterygians fish fossils fragments in Pleistocene sites across Java, belonging to three orders. Fish species reflect gradual evolution of Java Island from marine paleoenvironments in Plio-Pleistocene into lowland river environments near mangrove swamps and estuaries. Fish from Bandung lake site reflect lacustrine environment)

Yudha, D.S., R. Ramadhan, R.A. Suriyanto & M.I. Novian (2018)- The diversity of sharks fossils in Plio-Pleistocene of Java, Indonesia. Proc. 5th Int. Conference on Biological Science, Yogyakarta 2017, AIP Conference Proceedings 2002, 020013, p. 1-12.
(online at: https://pubs.aip.org/aip/acp/article-pdf/doi/10.1063/1.5050109/14060056/020013_1_online.pdf)
(Study of Plio-Pleistocene shark teeth from Java, mainly from Sangiran and Cirebon. 11 genera identified)

Yudha, D.S. & R. A. Suriyanto (2016)- Marine-mollusc fossils (Mollusca: Bivalvia and Gastropoda) and their paleoenvironmental interpretation from the situs manusia purba Sangiran area. Proc. Int. Conf. on Biological Science (ICBS), Yogyakarta 2015, AIP Conference Proceedings 1744, 020012, p. 1-12. *(online at: https://pubs.aip.org/aip/acp/article/1744/1/020012/777714/Marine-mollusc-fossils-Mollusca-Bivalvia-and)*
(Shallow marine- intertidal bivalves and gastropods from Lower Pleistocene Pucangan Fm in Sangiran, C Java)

Yulianto, E., L.M. Hutasoit, H. Pindratno, W.S. Sukapti & K. Hirakawawa (2006)- Plio-Pleistocene boundary in Jakarta: micropaleontological analysis. Unpublished? 7p.
(online at: http://www.geocities.ws/ekoy001/foram-rev-2-web.htm)
(Plio-Pleistocene boundary below Jakarta varies in depth. In Blok-M core, boundary at ~162 m depth, marked by Top Stenochlaeniidites papuanus at 162m, coinciding with Graminae abundance above boundary)

Yulianto, E., W.S. Sukapti, E.Y. Patriani & R. Setiawan (2024)- Organic thermal maturity based on Color Index of Halang Formation, Banyumas Basin, Central Java, Indonesia. Scientific Contributions Oil and Gas (SCOG) (Lemigas) 47, 3, p. 215-230.
(online as: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/1636/pdf)
(Palinomorphs and foraminfera from claystone of turbiditic Halang Fm in Banyumas Basin, C Java. Pollens, spores, dinnoflagellates and diatom in mostly black to dark brown in color (TAI 3- 4, Ro 1.0- 2.0%). Foraminifera tests mostly dark gray and brown. Foraminifera indicate Late Miocene- E Pliocene (N17-N19) age and deposited in a lower slope/ bathyal environment. Microfossils colors indicate high degree of thermal maturity, mature or dry gas (barren) level. High level of thermal maturity of relatively young sediments may be related to post-depositional volcanic activities)

Yulianto, E., W.S. Sukapti & R. Setiawan (2019)- Palinostratigrafi, paleoekologi dan paleoklimatologi Plistosen Awal berdasarkan studi palinologi Formasi Pucangan di daerah Sangiran. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 20, 3, p. 133-141.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/461/404)
('Palynostratigraphy, paleoecology and paleoclimatology of Early Pleistocene based on a pollen study of the Pucangan Formation in the Sangiran area'. Co-occurrence of Phyllocladus hypophyllus and Podocarpus imbricatus in Pucangan Fm indicates Pleistocene age (Monoporites annulatus Peak Zone). Depositional setting savannah with sparse swamp, riparian and lowland forest, sparse mangroves on muddy sea-land interface and heterogenous montane forests in highlands. During deposition savannah flourished on new emerged land due to

regression. Frequent volcanic eruptions during deposition of upper units destroyed heterogenous montane forest and led to homogenous Casuarina junghuniana forest)

Yulianto, I., R. Hall, B. Clements & C. Elders (2007)- Structural and stratigraphic evolution of the offshore Malingping Block, West Java, Indonesia. Proc. 31st Annual Conv. Indonesian Petroleum Association, IPA07-G-036, p. 1-13.
(online at: http://searg.rhul.ac.uk/pubs/yulianto_etal_2007%20SW%20Java_IPA.pdf)
(SW Java offshore Malingping Block series of extensional basins and highs, from W to E: Ujungkulon High, Ujungkulon Low, Honje High, W Malingping Low. Three major structural trends. Late Eocene movement on W-dipping NNE-SSW normal faults formed Ujungkulon Low. NE-SW faults parallel to Cretaceous subduction margin in Java interpreted as interaction between E-W extension and basement fabric. In shelf edge area, E-W trending normal faults active in Late Eocene and Early Oligocene. Reefal limestone build-ups on highs in Late Oligocene- E Miocene. E Miocene movements on E-dipping faults created full-graben geometry of Ujungkulon Low. E Miocene volcanism suggested to have terminated carbonate deposition. Minor inversion in E Miocene but little other evidence for contraction. Major Late Pliocene uplift period, resulting in regional unconformity, followed by renewed subsidence)

Yulianto, M.N., R. Galena & C. Prasetyadi (2011)- Karakteristik sesar anjak dan pemodelan struktur geologi menggunakan metode balances cross section daerah Kedungjati, Jawa Tengah (Kendeng Barat) dan daerah Ngawi, Jawa Timur (Kendeng Timur). Proc. Joint. 36th HAGI and 40th IAGI Annual Conv., Makassar, JCM2011-1305, p. 1-11.
(online at: https://www.iagi.or.id/web/digital/10/2011_IAGI_Makassar_Karakteristik-Sesar-Anjak.pdf(
(Balanced cross-section restorations in W and E Kendeng zones near Kedungjati and Ngawi, C-E Java)

Yulihanto, B. (1993)- Lembah torehan Miosen Atas dan perenannya dalam terbentuknya perangkap stratigrafi di daerah Cepu dan sekitarnya. Proc. 22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, p. 770-780.
(online at: https://www.iagi.or.id/web/digital/53/22nd-Volume-2-(6-9-Des-1993)-164-176.pdf)
'The Upper Miocene incised valley and its role in the formation of stratigraphic traps in the Cepu area and surroundings'. Cepu area M-U Miocene sequence stratigraphy. Seismic evidence for N-S trending incised valley(s) at Late Miocene Ledok Fm level and sand-rich section in Kawengan field)

Yulihanto, B., B. Situmorang & L. Sriwahyuni (1994)- Peranan tektonik tarikan pada perkembangan runtunan pengendapan Tersier di bagian Barat Kawasan daratan cekungan Jawa Timur Utara. Proc. 23rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 1, p. 123-132.
(online at: https://www.iagi.or.id/web/digital/62/11.pdf)
('The role of extensional tectonics on the development of Tertiary depositional sequences in the western part of the onshore NE Java Basin'. Oligocene- E Miocene extensional phase created NE-SW trending half-grabens. Second extensional phase in M Miocene. Late Pliocene basin inversion, NE-SW wrench faults and regional uplift)

Yulihanto, B., S. Sofyan & S. Musliki (1996)- Miocene- Pliocene Northeast Java Basin sequence stratigraphy. Int. Symposium on Sequence Stratigraphy in SE Asia, Jakarta 1995, Post-symposium fieldtrip, Indonesian Petroleum Association (IPA), Fieldtrip guidebook, p. 1-65.
(Outcrops of mainly Miocene clastics around Semarang, Cepu and Kendeng zone)

Yuniarni, R. (2014)- Karakteristik petrologi dan geokimia ofiolit Cikepuh, Kabupaten Sukabumi, Jawa Barat. Proc. 43rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, PIT IAGI 2014-067, p. 1-17.
(online at: www.iagi.or.id/web/digital/6/2014_IAGI_Jakarta_Geochemical-and-Petrology-Characteristic.pdf)
('Geochemical and petrologic characteristics of Cikepuh ophiolite, Sukabumi District, W Java'. Ultramafic rocks in Cikepuh River at Cibenda Village, Ciemas Subdistrict, SW Java, part of ophiolite complex. In outcrop mainly as blocks up to dozen meters in base of flaky clays, i.e. in melange, thrusted over continental l metamorphic and sedimentary rocks. Petrology characteristic of Mid Oceanic Ridge. Also radiolarian chert and basalt in area. Ophiolite rocks within tholeite series, sourced from upper mantle with low Neubium (Nb; 0.07 and 6.11 ppm)

Yuniarni, R. (2024)- Ciri petrologi dan geokimia batuan terobosan Gunung Sepikul, Trenggalek, Jawa Timur. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 25, 2, p. 107-116.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/742)
(Petrological and geochemical characteristic of Gunung Sepikul intrusive rocks, Trenggalek, East Java' Mt Sepikul in southern E Java is Miocene diorite-granodiorite intrusion of lowpressure adakite HAS type)

Yuningsih, E.T. (2011)- Compositional variations of Au-Ag Telluride minerals of Arinem deposit, West Java. Jurnal Sumber Daya Geologi (JSDG) 21, 3, p. 151-161.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/142/139)
(Epithermal gold-silver veins in Arinem area S of Papandayan volcano in SW Java contain Te bearing minerals (hessite (Ag Te), petzite (Ag Au Te), stutzite (Ag Te), tetradymite (Bi Te S), altaite (Pb Te))

Yuningsih, E.T. (2016)- Host rock and mineralized ores geochemistry of Arinem vein, Arinem deposit, West Java- Indonesia. Bull. Scientific Contribution (UNPAD) 14, 2, p. 205-222.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/9813/pdf)

Yuningsih, E.T. & H. Matsueda (2014)- Genesis and origin of Te-bearing gold-silver-base metal mineralization of the Arinem deposit in western Java, Indonesia. J. Mineralogical and Petrological Sciences 109, p. 49-61.
(online at: https://www.jstage.jst.go.jp/article/jmps/109/2/109_130118a/_pdf)
(Arinem epithermal gold-silver-base metal deposit near SW Java coast S of Bandung hosted by Arinem vein system which cuts Late Oligocene- M Miocene volcanic rocks. M Miocene quartz diorite-andesitic intrusions most likely source of metals. Three main stages of ore mineralization in quartz-illite-calcite veining)

Yuningsih, E.T. & H. Matsueda & M.F. Rosana (2014)- Epithermal gold-silver deposits in Western Java, Indonesia: gold-silver selenide-telluride mineralization. Indonesian J. on Geoscience (IJOG) 1, 2, p. 71-81.
(online at: http://ijog.bgl.esdm.go.id/index.php/IJOG/article/view/180/177)
(Gold-silver ores of W Java reflect major Mio-Pliocene metallogenic event. Two types of mineralization: W-most W Java (Pongkor, Cibaliung, Cikidang, Cirotan, etc. dominated by silver-arsenic-antimony sulfosalt, E part of W Java (Arinem, Cineam) dominated by silver-gold tellurides)

Yuningsih, E.T. & H. Matsueda & M.F. Rosana (2016)- Diagnostic genesis features of Au-Ag selenide-telluride mineralization of Western Java deposits. Indonesian J. on Geoscience (IJOG) 3, 1, p. 71-81.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/246/206)
(Ore mineralogy of westernmost part of W Java (with Pongkor, Cibaliung, Cikidang, Cikotok and Cirotan silver-gold deposits) characterized by dominance of silver-arsenic-antimony sulfosalt with silver selenides and rarely tellurides over argentite, whereas E part of W Java (Arinem and Cineam) deposits dominated by silver-gold tellurides)

Yuningsih, E., H. Matsueda, E.P. Setyaraharja & M.F. Rosana (2012)- The Arinem Te-Bearing gold-silver-base metal deposit, West Java, Indonesia. Resource Geology 62, p. 140-158.
(Arinem area, SW Java, Late Miocene (8.8–9.4 Ma) gold-silver-base metal vein system. Arinem vein hosted by Latest Oligocene-M Miocene Jampang Fm (23-11.6 Ma) andesitic volcanics and overlain unconformably by Pliocene-Pleistocene andesitic-basaltic volcanics)

Yusuf, M.F., S.U. Choiriah, W.A. Humairoh, S.A. Gutteres, K. Idea & D.F. Amri (2025)- Porosity analysis of Pliocene Limestone from the Mundu Formation based on core and petrographic analysis. Jurnal Penelitian Pendidikan IPA (JPPIPA) 11, 8, p. 282-291.
(online at: https://jppipa.unram.ac.id/index.php/jppipa/article/view/12315/8109)
(Analysis of porosity of Pliocene Mundu Fm limestone in Gunung Pegat area, Lamongan, Rembang zone of NE Java. Mainly Pliocene planktonic forminifera-dominated deeper marine packstones and wackestones. Core analysis gave porosity range of 1.5- 22.1% (av. 13.6%). Lithofacies and diagenesis control reservoir quality)

Yuwono, F.S. & Akmaluddin (2015)- Biostratigrafi nanofosil gampingan Formasi Kepek jalur Sungai Rambutan, Kec. Paliyan, Kab. Gunungkidul, Daerah Istimewa Yogyakarta. Pros. Seminar Nasional Kebumian 8, Jurusan Teknik Geologi, Universitas Gadjah Mada, Yogyakarta, p. 391-399.
(online at: https://repository.ugm.ac.id/135459/1/...)
('Calcareous nannofossil biostratigraphy of the Kepek Formation in the Sungai Rambutan section, Kec. Paliyan, Gunungkidul, Yogyakarta Special Area'. Kepek Fm 55m thick and youngest formation of Java Southern Mountains stratigraphy. First appearances of Discoaster asymmetricus and Pseudoemiliana lacunosa allow subdivision into 3 biozones: Sphenolithus neoabies (NN 13), Discoaster asymmetricus (NN 14) and Pseudoemiliana lacunosa (NN 15), of E Pliocene age (~5.1- 3.8 Ma). Equivalent to N19 planktonic foram zone)

Yuwono, N.T. (1992)- Fasies batugamping terumbu Formasi Paciran, Rembang, Tuban, Jawa Timur. Proc. 21st Annual Conv. Indonesian Association Geologists (IAGI), 2, Yogyakarta, p. 487-506.
('Reefal limestone facies of the Paciran Formation, Rembang, Tuban, East Java'. Plio-Pleistocene (and latest Miocene?) carbonate platform, NE Java, locally equivalent/interfingering with Mundu-Lidah Fms)

Yuwono, N.T. & Suratman (1990)- Aspek stratigrafi dan petrografi endapan turbidit (studi kasus: Formasi Kerek dan Anggota Banyak daerah Kedungjati, Jawa Tengah. Proc.19th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 149-174.
(online at: https://www.iagi.or.id/web/digital/47/19th-(11-13-Des-1990)-Book-I-157-182.pdf)
('Aspects of stratigraphy, sedimentology and petrography of turbidite deposits (case study of Kerek Formation and Banyak Member in the Kedungjati area, C Java'. Late Middle- Late Miocene submarine fan deposits SE of Semarang. Kerek Fm ~1300m thick claystones tuffaceous sandstone planktonic foram zones N13-N16 (M-L Miocene), overlain by Late Miocene Banyak Fm >720m thick debris flow sandstones with slumped beds, from upper fan setting, zones N17-N18 (latest Miocene). Sands graywackes with >25% lithics, mainly andesitic volcanics)

Yuwono, Y.S. (1987)- Contribution a l'etude du volcanisme potassique de l'Indonesie. Exemples du sud-ouest de Sulawesi et du volcan Muria (Java): Ph.D. Thesis, Universite de Bretagne Occidentale, vol. 1, p. 1-285 and vol. 2, p. 1-158. *(Unpublished)*.
('Contribution to the study of potassic volcanism of Indonesia; examples from SW Sulawesi and of the Muria volcano (Java)')

Yuwono, Y.S. (1997)- The occurrence of submarine arc-volcanism in the accretionary complex of the Luk Ulo area, Central Java. Buletin Geologi (ITB) 27, 1, p. 15-25.
(Eocene tholeitic island arc volcanics at Karangsambung area, here named 'Dakah Volcanics' (see also Setiawan et al. 2011))

Zacchello, M. (1984)- The Eocene mollusc fauna from Nanggulan (Java) and its palaeogeographic bearing. Memorie di Scienze Geologiche, Padova, 36, p. 377-390.

Zacchello, M. (2001)- The Eocene stratigraphic sequence of Nanggulan and the levels reported by K. Martin. Memorie di Scienze Geologiche, Padova, 53, p. 49-53.
(M Eocene Nanggulan Fm of C Java ~300m thick and subdivided into ten levels. Lowest level NG1 with lignite, without marine fauna, overlain by deeping-upward facies clastic succession. With listings of molluscs species and comparison to the 21-level stratigraphy of Oppenoorth & Gerth (1929))

Zahra, H., A. Idrus, T. Handayani, E. Ernowo, S. Suwahyadi & D.N. Sunuhadi (2023)- Mineralogy and provenance of iron sand deposits from Cipatujah and Cikalong, Tasikmalaya, West Java, Indonesia. Iraqi Geological J. 56, 2D, p. 187-200.
(online at: https://igj-iraq.org/igj/index.php/igj/article/view/1597/1638)
(Recent iron-rich sands from S coast of W Java with magnetite (up to 67%), ilmenite, hematite, pyroxene, etc. Most likely derived from Miocene Jampang Fm and Young Formation of Mt Cikuray volcano)

Zaim, Y. (1978)- Paleogeografi daerah Bumiayu, Jawa Tengah. Thesis, Inst. Teknologi Bandung (ITB), p.

('Paleogeography of the Bumiaya area, Central Java'. Plio-Pleistocene deposits with vertebrate fossils (for more Zain papers see Quaterny hominids chapter))

Zainudin, A. & D.H. Amijaya (2016)- Hubungan kekerabatan minyak bumi pada antiklin Gabus di daerah Grobogan dan antiklin Kawengan di daerah Bojonegoro, Cekungan Jawa Timur Utara berdasarkan data biomarker. In: R. Hidayat et al. (eds.) Proc. Seminar Nasional Kebumian 9, Dept. Teknik Geologi, Gadjah Mada University, Yogyakarta, p. 139-148.
(online at: https://repository.ugm.ac.id/273483/)
('The relationship of oils from the Gabus anticline in Grobogan and Kawengan anticline in the Bojonegoro area, NE Java Basin based on biomarker data'. Oils from Gabus (Ledok Fm) and Kawengan (Wonocolo Fm and Ngryong Fm) anticlines are related. API Gravity 24-30 °API, viscosity 2034-71 mm2/ s. Pr /Ph ratio 5.48-11.54, suggesting non-marine rocks with terrestrial Type III kerogen (high land plants. Some biodegradation)

Zakaria, R., (2016)- Sedimentology of open coast tidal fat deposits for reservoir analogs based on outcrop data: a case study of the Ngrayong Formation, Kadiwono Area, Central Java. Proc. 14th Regional Conference Geology and Mineral Resources of SE Asia (GEOSEA XIV) and 45th Annual Conv. Indonesian Association Geologists (IAGI) (GIC 2016), Bandung, p. 1-6.
(online at: https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_Sedimentology-of-Open-Coast-Tidal-Flat-Deposits.pdf)
(Tidal signatures in outcrops of M Miocene Ngrayong sandstones in Rembang zone. NE Java. Coarsening-upward sequence. Good reservoir quality. No location info.)

Zamparini, M. (2001)- Some molluscs and foraminifers from the Eocene-Oligocene of Nanggulan (Java, Indonesia). Memorie di Scienze Geologiche, Padova, 53, p. 54-56.

Zaputlyaeva, A., A. Mazzini, A. Caracausi & A. Sciarra (2019)- Mantle-derived fluids in the East Java sedimentary basin, Indonesia. J. of Geophysical Research: Solid Earth 124, 8, p. 7962-7977.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1029/2018JB017274)
(Gas geochemistry from hydrocarbon fields and surface seepage sites near Arjuno-Welirang volcanic complex and around Lusi mud eruption site. Mainly dry thermogenic gas. Presence of noble gases with mantle-derived He signature comparable to fluids emitted at Lusi and Arjuno-Welirang fumaroles)

Zaputlyaeva, A., A. Mazzini, M. Blumenberg, G. Scheeder, W.M. Kurschner, J. Kus, M.T. Jones & J. Frielin (2020)- Recent magmatism drives hydrocarbon generation in northeast Java, Indonesia. Nature Scientific Reports 10, 1786, p. 1-14.
(online at: https://www.nature.com/articles/s41598-020-58567-6.pdf)
(Oil generation may be accelerated by rapid reactions when carbon-rich sediments are exposed to migrating magmatic fluids. Lusi eruption in NE Java surface expression of present-day deep interaction between volcanic and sedimentary domains, with ongoing generation of hydrocarbons induced by recent magmatic intrusion from neighbouring Arjuno-Welirang volcanic complex)

Zeiza, A., F. Hakiki, F. Musgrove. I. Kerscher, I. Maura & S. Wertanen (2016)- Effects of pervasive hydrothermal dissolution on the giant Banyu Urip Field. Proc. 40th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA16-G-585, p. 1-12.
(Development drilling campaign in Banyu Urip field, Cepu Block, E Java confirmed most predictions of carbonate reservoir, except well-test derived average permeabilities and productivity higher than predicted. Overlying deep water sand units nearly perfectly pressure connected and of high quality. More fracture swarms in tight drowning cap facies than in higher porosity Platform Interior. Dissolution occurred millions of years after carbonates deposition and drowning as result of hydrothermal fluids)

Zeiza, A., N. Stephens & P. Glenton (2017)- A novel approach to the Banyu Urip 3D geologic model update. Proc. 41st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA17-546-G, p. 1-13.
(Updated geologic model of Oligo-Miocene carbonate and clastic reservoirs of Banyu Urip oil-gas field, Cepu Block, E Java. 46 wells drilled. Permeability from logs higher than core-based (matrix) permeability. Best quality

reservoir in platform-interior zones (av. porosity 26%y). Drowning-cap dominated by deeper water facies with av. porosity ~15%. Margin zones cemented, recrystallized and rel. tight (av. porosity 9%))

Zeiza, A.D., H. Tanjung, K.P. Laya & W.A. Ramadhan (2007)- Carbonate mound deposit of Gunung Bodas, Bogor as part of analogue model for prospective mud mound hydrocarbon reservoirs in Miocene carbonates. Proc. 31st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA07-SG-001, p. 1-6.
(Gunung Bodas limestone hill in Bogor zone in Limestone member of M Miocene Bojongmanik Fm. Three major carbonate facies: massive coral-algal reef, back reef and mound facies)

Zeiza, A., S. van Simaeys, F. Musgrove, R. Sekti & F. Hakiki (2012)- The impact of differential subsidence rates in shallow water carbonate reservoir quality: an example from the East Java Basin, Indonesia. Proc. 36th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA12-G-026, p. 1-13.
(Carbonate reservoir quality in Cepu fields better in Miocene than in Oligocene. Diagenetic leaching controls reservoir quality. Reservoir quality correlated to subsidence rates: high rates in U Oligocene and U Burdigalian meant less time for fresh water lens to leach carbonates and enhance reservoir quality)

Zetra, Y., R.Y.P. Burhan, A.W. Firdaus, Z.V. Nugrahaeni & T. Gunawan (2021)- Characteristics of Cepu Block oil, Wonocolo Formation, East Java Indonesia: study aliphatic biomarkers. Proc. 4th Int. Seminar on Chemistry, Surabaya 2020, AIP Conference Proceedings 2349, 1, 020040, p. 1-14.
(online at: https://aip.scitation.org/doi/pdf/10.1063/5.0052284)
(Biomarkers in crude oil samples from Wonocolo Formation in Cepu Block old oil well W110, at depth of 400m. indicate low maturity, oxic depositional environment and derived from terrestrial higher plants, bacteria and algae)

Zetra, Y., R.Y.P. Burhan, Sulistiyono, A. Firmansyah & D. Salsabila (2023)- Organic geochemical characteristics of Ngrayong Formation Polaman sediment rock, Northeast Java Basin-Indonesia. Indonesian J. of Chemistry (UGM) 23, 6, p. 1567-1583.
(online at: https://journal.ugm.ac.id/ijc/article/view/83534/37759)
(Samples of shale from Polaman quarry at base of M Miocene Ngrayong Fm quartz sandstones outcrop with organic material from bacteria, algae, and vascular plants, dominantly terrigenous organic matter. Low maturity of samples; Ngrayong Fm coal deemed to have potential to produce oil and gas)

Zhafira, D. & I.B. Indriyanto (2021)- Re-assessment of oil family and its implication to unlock new exploration opportunity in Pati Trough, North East Java Basin. Proc. HAGI-IAGI-IAFMI-IATMI Joint Convention Bandung (JCB) 2021, p. 410-423.
(online at: https://www.iatmi.or.id/proceedings-of-jcb-joint-convention-bandung-2021/)
(SW-NE trending Pati Trough (inverted rift?) in W part of onshore NE Java Basin. Analyses of oil samples from (unnamed) wells and seeps reveal two types of source facies, terrestrial-fluviodeltaic and estuarine-marine. Probably not all sourced from Ngimbang Fm. Oils not fully mature.Also indications for biogenic gas contribution, possibly from Ngrayong Fm coaly sediments)

Zhang, Z., C. Wu, X. Yang, C. Zheng & J. Yao (2015)- The trinity pattern of Au deposits with porphyry, quartz-sulfide vein and structurally-controlled alteration rocks in Ciemas, West Java, Indonesia. Ore Geology Reviews 64, p. 152-171.
(online at: https://www.sciencedirect.com/science/article/pii/S0169136814001577)
(Ciemas ore deposit in SW Java associated with E Miocene andesite, dacite and quartz diorite. Host rocks with zircon ages ~17.1- 17.5 Ma. Au deposition primarily during late magmatic activity and belongs to metallogenic system from porphyry to epithermal type)

Zheng, C., Z. Zhang, C. Wu & J. Yao (2014)- Sulfur isotope composition of Ciemas gold deposit in West Java, Indonesia. Acta Geologica Sinica (English Ed.) 88, Suppl. 2, p. 852-853. *(Abstract)*
(Ciemas Miocene high sulphidation epithermal deposit in Sukabumi province, W Java. Sulfur isotopes uniform and small positive d34S values, suggesting magmatic origin mixture of mantle-type and slab-derived sedimentary components)

Zheng, C., Z. Zhang, C. Wu & J. Yao (2017)- Genesis of the Ciemas gold deposit and relationship with epithermal deposits in West Java, Indonesia: constraints from fluid inclusions and stable isotopes. Acta Geologica Sinica (English Ed.) 91, 3, p. 1025-1040.
(Two volcanic belts in West Java: (1) late Miocene- Pliocene belt, generating Pliocene-Pleistocene epithermal deposits; (2) late Eocene- E Miocene belt generating Miocene epithermal deposits. Data from Ciemas gold deposit E of Ciletuh Bay (hosted in 'Old Andesites') indicate mixing of magmatic fluid with meteoric water. Miocene epithermal ore deposits in S part of West Java more affected by magmatic fluids and higher degree of sulfidation than those of Pliocene-Pleistocene)

Zhou, Z., W. Peng, H. Sun, X. Fu & W. Zhu (2024)- Three-stages tectonic evolution controls the differential distribution of hydrocarbons in the West Java backarc basin. Nature Scientific Reports 14: 18737, p. 1-10.
(online at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC11319467/pdf/41598_2024_Article_69831.pdf)
(W Java basin hydrocarbon mainly controlled by distribution of source rocks in Eocene-Oligocene 'subsidence period'. Three-stage tectonic development. Weakening of crust and magmatism facilitate high heat flow in back-arc area. Study delineates distribution of various types of oil and gas across various blocks)

Ziegler, K.G.J. (1918)- Kort bericht over het voorkomen van een granietgesteente in het stroomgebied van de Tji Hara, District Tji Langkahan, Afdeeling Lebak, Residentie Bantam. Jaarboek Mijnwezen Nederlandsch Oost-Indie 45 (1916), Verhandelingen 2, p. 48-54.
(Brief report on the occurrence of granitic rock on Java, along Cihara River, S Banten, SW Java. Interpreted as Neogene intrusive into Eocene sediments)

Ziegler, K.G.J. (1920)- Verslag over de uitkomsten van mijnbouw-geologische onderzoekingen in Zuid-Bantam. Jaarboek Mijnwezen Nederlandsch Oost-Indie 47 (1918), Verhandelingen 1, p. 40-140.
('Report on the results of mining geological investigations in South Bantam'. Extensive report, mainly on Eocene coal fields Bojongmanik, Bayah, Cimandiri in SW Java. With descriptions of minor oil seeps)

Zollinger, H. (1846)- Bijdragen tot de kennis van de gebergte-sijstemen in het Oostelijk Java. Tijdschrift voor Nederlandsch Indie 8, 1, p. 125-190.
(online at: https://babel.hathitrust.org/cgi/pt?id=uc1.b2878433&seq=141)
('Contributions to the knowledge of the mountain systems in Eastern Java', Extensive descriptions of E Java mountains chains by Swiss naturalist Heinrich Zollinger. No maps)

Zulfakriza, Z., E. Saygin, P.R. Cummins, S. Widiyantoro, A.D. Nugraha, B.G. Luhr & T. Bodin (2014)- Upper crustal structure of Central Java, Indonesia, from transdimensional seismic ambient noise tomography. Geophysical J. International 197, 1, p. 630-635.
(online at: http://seismo.berkeley.edu/~thomas/Publi/GJI_Java2.pdf)
(Ambient Noise Tomography collected during Merapi Amphibious Experiment in C Java in 2004. Tomographic images show shallow structures not evident in previous studies. Strong negative velocity under volcanic arc and Kendeng basin, surrounded by relatively high group velocities that may represent crustal blocks accreted to Sundaland core in Late Cretaceous)

Zulkarnain, I., E.T. Sumarnadi & R. Handoyo (1995)- Karakterisasi batuan serpentinit Karangsambung, Jawa Tengah sebagai bahun baku refraktori. In: Y. Kumoro et al. (eds.) Proc. Seminar Sehari Geoteknologi dalam indistrialisasi, Hasil-hasil Penelitian Puslitbang Geoteknologi LIPI, p. 218-228.
('Characterization of serpentinite rock of Karangsambung, Central Java, as refractory raw materials').

Zwierzycki, J. (1926)- De geologie van de omgeving van de stad Bandoeng. Gids voor Bandoeng, p.
('The geology of the surroundings of the city of Bandung')

Zwierzycki, J. (1935)- Geologische beschrijving der petroleumterreinen van Java. Indonesia Geological Survey, Bandung, Open File Report E35-13, p. 1-46. *(Unpublished)*

('Geological description of the oil fields of Java'. Rel. detailed descriptions of BPM (Royal Dutch-Shell) oil fields on NE Java, including information never published elsewhere)

III.2. Java Sea (incl. Sunda-Asri Basins, offshore NW Java basin)

Adhyaksawan, R. (2002)- Seismic facies and growth history of Miocene carbonate platforms, Wonocolo Formation, North Madura Area, East Java Basin, Indonesia. M.Sc. Thesis, Texas A&M University, College Station, p. 1-136. *(Unpublished)*

Adhyaksawan, R. (2003)- Seismic facies and growth history of Miocene carbonate platforms, Wonocolo Formation, North Madura area, East Java Basins, Indonesia. Proc. 29th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 163-184.
(Miocene Wonocolo Fm in Java Sea N of Madura area numerous isolated carbonate platforms over ~3000 km^2 area. Five growth phases. Platforms in W larger than E and record history of platform initiation, backstepping, progradation, coalescence into composite platforms, and termination. Eastern platforms: 1) smaller, 2) more widely spaced, 3) steeper platform margins, 4) largely aggradational stratal geometries, 5) slightly thicker than W platforms, and 6) tops at greater burial depths than W platforms. Most differences attributed to faster subsidence rates in E from 12-6 Ma, probably related to differential loading by volcanic arc)

Aditiyo, R., D. Nugroho, N.I. Basuki, R. Agustiana & A. Prasetya (2022)- Diagenetic controls on carbonate reservoir quality of Kujung I Formation in KE-2 Field, East Java Basin, East Java. Jurnal Geosains Terapan (UI) 5, 1, p. 1-5.
(online at: https://geosainsterapan.id/index.php/id/article/view/80)
(Brief review of carbonate facies and diagenesis of E Miocene Kujung I limestone reservoir in KE-2 oil-gas field in Java Sea, in S part of N Madura Platform)

Ageng, C., Hairunnisa, D. Hidayat, D. Nugroho & N.I. Basuki (2014)- Facies analysis, rock type, and property distribution in upper interval of Baturaja Formation, Krisna Field, Sunda Basin. Proc. 38th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA14-G-055, p. 1-19.
(E Miocene Baruraja Fm carbonates in Krisna field five lithofacies. Reservoir formerly interpreted as reef complex, but lithofacies and seismic facies indicate two facies associations: skeletal mound and slope to basin)

Albab, A. & N.C.D. Aryanto (2017)- Seismic facies of Pleistocene-Holocene channel-fill deposits in Bawean Island and adjacent waters, Southeast Java Sea. Bulletin of the Marine Geology 32, 1, p. 31-39.
(online at: http://ejournal.mgi.esdm.go.id/index.php/bomg/article/view/373/287)
(Sparker seismic profiles in SE Java Sea around Bawean show widespread Pleistocene incised lowstand paleo-channels, with late Pleistocene-Holocene (partial) fill. Older paleo-channels buried by up to 50m sediments. Width of main paleo-channels ~4 km. Two channel types: U-shaped channels in W part and V-shaped channels in E. Internal structure of incised-channels consist of chaotic reflectors at bottom, overlain by parallel-subparallel and almost reflection-free, homogenous sediments)

Aldrich, J.B., G.P. Rinehart, S. Ridwan & M.A. Schuepbach (1996)- Paleogene basin architecture of the Sunda and Asri Basins and associated non-marine sequence stratigraphy. In: C.A. Caughey et al. (eds.) Proc. Int. Symposium on Sequence Stratigraphy in SE Asia, Jakarta 1995, Indonesian Petroleum Association (IPA), p. 261-287.
(Nearly symmetric, fault bounded extension in Sunda and Asri basins early history, followed by shift to more asymmetric rift. Early Sunda Basin fill consists of Banuwati Fm and Zelda Mb of Talang Akar Fm. Banuwati Fm of Sunda Basin records overall transgressive event and culminates in widespread deposition of Banuwati Shale which is main source rock in Sunda Basin. Well log sequence stratigraphy and core study of non-marine Banuwati Fm in Sunda Basin identified alluvial fan, fluvial and shallow lacustrine facies)

Ardila, L.E. (1983)- The Krisna High: its geologic setting and related hydrocarbon accumulations. Proc. Offshore South East Asia Conference 6, Singapore 1983, SE Asia Petroleum Exploration Society (SEAPEX), p. 10-23.
(Krisna Field 1976 discovery on W flank Sunda basin, Java Sea. Mainly stratigraphic trap. Old basement High fringed by E Miocene Baturaja reefal buildup))

Ardila, L.E. & I. Kuswinda (1982)- The Rama Field: an oil accumulation in Miocene carbonates, West Java Sea. Proc. ASCOPE/CCOP Workshop, Surabaya 1982, Technical Paper TP/2, p. 341-382.

Arifin, L. & I.W. Lugra & P. Raharjo (2009)- Zona sesar di perairan Kalimantan Selatan (LP 1611). J. Geologi Kelautan 7, 1, p. 11-21.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/166/156)
('Fault zones in the waters S of Kalimantan'. Shallow seismic data indicate young NE-SW fault structures in Java Sea NE of Bawean, now probably inactive. Directions coincide with Muria-Meratus Tectonic Zone)

Arisandy, M., B. Abrar & W. Bahri (2015)- Limestone diagenesis reservoir quality of CD Carbonate Formation East Java Basin. Proc. 39th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA15-G-038, p. 1-13.
(Oligocene Ngimbang Fm ('CD") carbonates in 'Block P' E Java Sea, W of N Madura High, N of BD Ridge. Common larger foram wackestones, some coal floatstone, Most porosity is secondary. Two main diagenetic phases: (1) E-M Oligocene platform aggradation phase (keep up) with multiple times of exposure and dissolution by meteoric water; (2) Late Oligocene transgression (drowning) phase without exposure)

Armon, J., W.E. Harmony, S. Smith, B. Thomas, R. Himawan, B. Harman et al. (1995)- Complementary role of seismic and well data in identifying upper Talang Akar stratigraphic sequences- Widuri field area, Asri basin. In: C.A. Caughey et al. (eds.) Proc. Int. Symposium on Sequence Stratigraphy in SE Asia, Indonesian Petroleum Association (IPA), Jakarta, p. 289-309.
(Four parasequences in uppermost Talang Akar Fm in Widuri field, off SE Sumatra).

Ascaria, N.A., L. Prasetya, B. Priyanto, L.C. Lamba & H. Darman (2024)- Paleogene carbonate first trap play in the Northeast Java Basin using a sub-basin approach. Proc. 48th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA24-G-278, p. 1199-1221.
(Paleogene underexplored in NE Java Basin (with Eocene- E Oligocene rifting episodes). Paleogene carbonate build-ups mapped from seismic character in Ngimbang Low in Pagerungan sub-basin area. Paleogene carbonate can be divided into reefal lower part and carbonate debris in upper part of sequence. Oligocene carbonate porosity av. 15%. H-1 well encountered Ngimbang Eocene carbonate with reported good porosity and permeability with strong indications of karstification. Carbonate reservoir dominated by muddy limestone. First Paleogene trap from kitchen area highest chance of success. Etc.)

Asjhari, I. (2000)- Fast track exploration, development, production, and facilities to maximise return in the Poleng Field, Offshore Madura, Indonesia. Proc. 29th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 71-84.

Atkins, D. (2005)- Integrating geology and petrophysics into seismic interpretation for reservoir definition and improved field development: a case study from the Banuwati Field. Proc. 30th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 283-296.
(Study of gas-bearing Baturaja Fm carbonate buildup at Banuwati field, Sunda basin)

Atkinson, C.D., G.C. Gaynor & C.L. Vavra (1993)- Sedimentological and reservoir characteristics of the upper Cibulakan sandstones (main interval) in cores from the B-Field, offshore northwest Java. In: C.D. Atkinson et al. (eds.) Clastic rocks and reservoirs of Indonesia: a core workshop, Indonesian Petroleum Association (IPA), p. 59-90.
(M Miocene Upper Cibulakan Fm reservoirs ~75% of hydrocarbons discovered in ARCO NW Java PSC. B-Field produced 150 MMBO from B28/29 "Main" interval (N13-N14; E Tortonian). B28 interval is interbedded sandstones, shales and thin limestones. Ten depositional facies, reflecting series of deltaic to nearshore sub-environments, mostly mouth-bar, channel and channel fringe settings. Sandstone distribution influenced by syn-depositional structuring: thickest pay on flanks of field and thin dramatically over crest of structure. Highest oil rates from wells in elongate, channel sandstone bodies off main crest of structure)

Atkinson, C., M. Renolds, A, Clarke & S. Sampurno (2004)- Why look in deepwater when elephants prefer the shallows? The Biliton Basin revisited. In: R.A. Noble et al. (eds.) Proc. Deepwater and Frontier Exploration in Asia and Australasia Symposium, Jakarta, Indonesian Petroleum Association (IPA), p. 225-249.

(Tertiary Biliton basin, W Java Sea, one of the country's last remaining unexplored frontiers. Typical Eocene-Oligocene rift basin on SE margin of Sunda craton, NW of Karimundjava Arch. NE-SW trending, two depocenters with depth to metamorphic basement >4000m. M Miocene erosion-uplift episode)

Atkinson, C.D. & S.W. Sinclair (1992)- Early Tertiary rift evolution and its relationship to hydrocarbon source, reservoirs and seals in the offshore northwest Java Basins, Indonesia. AAPG 1992 Int. Conference, Sydney, American Assoc. Petroleum Geol. (AAPG) Bull. 76, p. 1088.
(Abstract only. Offshore NW Java basins originated by Late Eocene- E Oligocene rifting of S margin of Sunda Platform. N-S half-grabens fragment low-grade schist and igneous terrane. Most grabens show hanging-wall blocks dipping E. Oligocene largely nonmarine rift-fill deposits overlain by U Oligocene- Lower Miocene post-rift paralic- marine succession. In syn-rift phase block rotation and truncation episode noted. Half-grabens excellent hydrocarbon generation and accumulation systems)

Aveliansyah, P. Ponco, W. Triono & U.A. Saefullah (2016)- Pre-Talang Akar Formation: new hopes for hydrocarbon exploration in the Offshore North West Java Basin. Proc. 40th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA16-146-G, p. 1-14.
(Offshore NW Java Basin with mature conventional plays of Parigi, Main, Massive, Baturaja and Talang Akar Fms. Pre-Talang Akar Fm rel. underexplored. KL Field produced 11 BCF gas from Late Eocene carbonate (33-37 Ma; dated only by Sr isotopes; recrystallized and fractured, previously considered Pretertiary basement)). Jatibarang volcanism 3 phases: ~58 Ma, ~50 Ma and ~35 Ma. Cretaceous basement, incl. granites and schists-argillites)

Aveliansyah, Rinaldo, P. Ponco & U.A. Saefullah (2017)- Stratigraphic play concept potential in offshore North West Java Basin. Case study: Talang Akar Formation in BZZ area. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, p. 1-4.
(online at: https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_Stratigraphic-Play-Concept.pdf
(Deeper play potential in stratigraphc traps in early rift sediments onlapping against basement highs in Talang Akar Fm, BZZ area, Arjuna basin, offshore NW Java)

Azisyarlina, D., L.N. Wati, A.M. Mushwil, Z.L. Allo'labi, F. Rifdahana & D.F. Badaruddin (2024)- Identifikasi potensi batuan induk pada sumur Parang G-1 berdasarkan analisis geokimia dan analisis stratigrafi di Cekungan Biliton. Geosains Kutai Basin 7, 2, p. 45-56.
(online at: https://jurnal.fmipa.unmul.ac.id/index.php/geofis/article/view/1329/662)
('Identification of source rock potential in the Parang G-1 wellbased on geochemicals and stratigraphic analysis in the Biliton Basin'. Main hydrocarbon source rock in Parang G-1 well (Ashland, 1974) in Talang Akar Fm, but all samples immature for hydrocarbon generation? Talang Akar Fm thickness 1300', underlying massive sand Talang Akar Fm 1000' and basal Non-Marine Clay Layer1800'. (small Biliton Basin in Java Sea supposed to contain Eocene- E Oligocene rift fill, Late Oligocene- M Miocene post-rift sag, Late Miocene- Plio-Pleistocene rocks orogenic, but no data, See aso Widodo et al., 2019 and Sampurno et al. (2016); JTvG))

Aziz, S., S. Hardjoprawiro & S.A. Mangga (1993)- Geological map of the Bawean and Masalembo Quadrangle, Java, 1610-1, 1710-1, 1710-4, scale 1:100,000. Geological Research Development Centre (GRDC), Bandung.
(Bawean Island in Java Sea widespread Pleistocene Balibak Fm volcanics, underlain by E Miocene Gelam Fm limestones and Late Miocene- Pliocene Kepongan Sst. Masalembo and Keramian islands Quaternary volcanics only)

Basden, W.A., J.V.C. Howes & S. Wibisana (1999)- Integrated evaluation of a paleo gas-water contact and residual gas zone in the Sirasun Field, East Java, East Indonesia. In: C.A. Caughey & J.V.C. Howes (eds.) Proc. Conference Gas habitats of SE Asia and Australasia, Jakarta 1998, Indonesian Petroleum Association (IPA), p. 153-168.
(Strong seismic DHI beneath Sirasun gas field, E Java Sea N of Bali, cutting across lithologic boundaries and coinciding with base of residual gas zone 10m below current free water level)

Basden, W.A., H.W. Posamentier & R.A. Noble (1999)- Structural history of the Terang and Sirasun Fields and the impact upon timing of charge and reservoir performance, Kangean PSC, East Java Sea, Indonesia. Proc. 27th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 269-286.
(Terang-Sirasu- Batur structure offshore N Bali (E of Madura) with late charge of 0.9- 1.5 TCF biogenic gas. Reservoirs Late Miocene and Plio-Pleistocene sands and globigerinid limestones. Structuring Pleistocene (1.5 Ma) and recent inversion of Cretaceous-Oligocene extensional faults after (E?-) M Miocene early inversion)

Ben-Avraham, Z. (1973)- Sonobuoy refraction measurements in the Java Sea.. United Nations ECAFE, CCOP, Technical Bulletin 7, p. 39-53. *(online at: https://repository.unescap.org/server/api/core/bitstreams/02824758-88df-4f2d-a237-e8aa33c9b57e/content)*
(Forty sonobuoy oblique reflection-refraction profiles from Java Sea show differences between refraction velocities of E and W Java Sea areas, probably due to differences in basement type and sedimentary columns)

Berger, P. & R.E. Crumb (1990)- An integrated approach for the evaluation of shaly-sands reservoirs, North West Java. Proc. 8th Offshore South East Asia Conference, Singapore 1990, SE Asia Petroleum Exploration Society (SEAPEX) Proc. 9, p. 133-142.
(On log analysis procedures in shaly sands in Miocene Main/ Massive Formations, Arjuna basin)

Bhatti, M.A., M. Iqbal & M.R. Khan (2008)- Multiple phases of tectonic inversion, East Java Sea Basin Indonesia, and potential analogues in Pakistan. Pakistan J. Hydrocarbon Research 18, p. 65-77.
(E Java Sea Basin two phases of extension, followed by tectonic inversion)

Bianchi, N. & H. Harsian (2016)- The passive thermal contribution of a dormant pre-Cenozoic giant of the East Java Sea: implications for exploration of the Kangean area. Proc. Indonesian Petroleum Association (IPA) 2016 Technical Symposium, Jakarta, IPA 4-TS-16, p. 1-13.
(Large E-W trending pre-Cenozoic faulted synform of 200x50 km in Kangean area below base Cenozoic unconformity nucleated Paleogene extensional features, inverted in late Neogene to form Central High. Three thermal domains, controlled by burial depth of basement: in N and S, where basement near base Cenozoic unconformity, heat flows of 70-80 mW/m2. In C domain, where basement is deeper, heatflows <70 mW/m2, in axis of synform-60 mW/m2. Presence of pre-Cenozoic basin thus has negative impact on maturation of Eocene Ngimbang Fm source rocks)

Bianchi, N., H. Harsian, F. Febianto, R. Hariutama & D. Juliana (2018)- On the provenance of the Sepanjang oils: evidence from 3D petroleum system modeling. Proc. 42nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA18-23-G, p. 1-15.
(Petroleum system of Kangean area, E Java Sea, controlled by heat flow distribution, overpressure occurrence, and Late Neogene erosion. Charging of Sepanjang Field from late Neogene depocenter that formed in W-C part of Southern Basin as result of uplift and erosion of Central High. Depocenter activated E-ward oil expulsion ring of Paleogene Ngimbang source rock, already overmature to W. Oil remains contained in Ngimbang reservoir complex, thanks to thick overpressured overburden and absence of vertical conduits)

Bianchi, N., H. Harsian, D. Juliana, R. Hariutama & Heri (2016)- CSI (Cenozoic Systems Investigation) Kangean - an alternative hydrocarbon charging model for the Pagerungan Field. Proc. 40th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA16-49-G, p. 1-15.
(Basin modeling in Kangean area, E Java Sea. N Platform is immature, and Pagerungan Field gas originated from high maturity pod of Paleogene Ngimbang mudstones to S, corresponding with Central High, a Paleogene extensional structure, inverted in Late Neogene. Coaly organo-facies not activated)

Bishop, M.G. (2000)- Petroleum systems of the Northwest Java province, Java and offshore Southeast Sumatra. U.S. Geological Survey (USGS) Open File report 99-50-R, p. 1-34.
(online at: http:// pubs.usgs.gov /of/1999/ofr-99-0050/OF99-50R/index.html)
(Petroleum assessment NW Java basins)

Bransden, P.J.E. & S.J. Matthews (1992)- Structural and stratigraphic evolution of the East Java Sea, Indonesia. Proc. 21st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 417-453.
(Key E Java sea paper, describing Neogene inversion of Paleogene extensional basins. Widespread uplift/ inversion in Middle Miocene (~N11/N12). Oldest sediments overmature Upper Cretaceous, overlying Lower Cretaceous? accretionary complex)

Budiarso, H. (1996)- Distribusi gas CO_2 dan upaya mengurangi resiko eksplorasi pencairan hidrokarbon di Cekungan Jawa Barat Utara. Proc. 25th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 447-458.
(On CO_2 gas distribution in NW Java basin)

Bukhari, T., J.G. Kaldi, F. Yaman, H.P. Kakung & D.O. Williams (1992)- Parigi carbonate buildups, Northwest Java Sea. In: C.T. Siemers et al. (eds.) Carbonate rocks and reservoirs of Indonesia: a core workshop, Indonesian Petroleum Association (IPA), Jakarta, p. 6-1 to 6-10.
(Parigi Limestone Late Miocene zones N17/NN11, forming N-S trending buildups up to 1100' thick in NW Java basin onshore and offshore. Eight carbonate lithofacies, up to four transgressive marine episodes. Porosity mainly primary interparticle, with local enhancement by dissolution)

Burbury, J.E. (1977)- Seismic expression of carbonate buildups, NW Java Basin. Proc. 6th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 239-268.
(Offshore NW Java Basinwith carbonates at four stratigraphic levels. Widespread carbonate deposition in Oligocene-lower Miocene and late M Miocene time intervals, more localized deposition during two intervals in lower to middle Miocene. Carbonate build-ups developed in each of these times. Size, shape and disposition of build-ups, except those developed during late middle Miocene, related to tectonic framework, depositional history and local structural features of the basin)

Burollet, P.F., R. Boichard, B. Lambert & J.M. Villain (1986)- The Paternoster carbonate platform. Proc. 15th Annual Conv. Indonesian Petroleum Association 15, 1, p. 155-169.
(Recents sediment samples from E Java Sea all m-c grained carbonate sand from coral, red algae, molluscs and foraminifera. In some sheltered lows abundant Halimeda calcareous algae, representing 80% of sediment. Corals source of bioclasts on or near reef islands, elsewhere sand mainly forams)

Bushnell, D.C. & M.D. Temansja (1986)- A model for hydrocarbon accumulation in Sunda basin, West Java Sea. Proc. 15th Annual Conv. Indonesian Petroleum Association (IPA), p. 47-75.

Butterworth, P.J. & C.D. Atkinson (1993)- Syn-rift deposits of the Northwest Java Basin: fluvial sandstone reservoir and lacustrine source rocks. Indonesian Petroleum Association (IPA), Core Workshop, Clastic Rocks and Reservoirs of Indonesia, Jakarta, p. 211-229.

Butterworth, P.J., R. Purantoro & J.G. Kaldi (1996)- Sequence stratigraphic interpretations based on conventional core data: an example from the Miocene upper Cibulakan Formation, offshore Northwest Java. In: C.A. Caughey et al. (eds.) Proc. Int. Symposium on Sequence Stratigraphy in SE Asia, Jakarta 1995, Indonesian Petroleum Association (IPA), p. 311-325.

C&C Reservoirs (1996)- Bima Field, Sunda Basin, Indonesia. Reservoir evaluation report, p. 1-20.
(Part of series of unpublished multi-client oilfield summaries)

C&C Reservoirs (1996)- Krisna Field, Sunda Basin, Indonesia. Reservoir evaluation report, p. 1-27. *(Unpublished)*

C&C Reservoirs (1996)- Rama Field, Sunda Basin, Indonesia. Reservoir evaluation report, p. 1-16. *(Unpublished)*

C&C Reservoirs (1998)- Ardjuna-B Field, NW Java Basin, Indonesia. Reservoir evaluation report, p. 1-26. *(Unpublished)*

C&C Reservoirs (2001)- Pagerungan Field, East Java Basin, Indonesia. Reservoir evaluation report, p. 1-27.
(Part of series of unpublished multi-client oilfield summaries. East Java Sea gas field discovered in 1985, producing since 1994, with recoverable reserves of 1.8 TCF Gas. Trap M-L Miocene W-E trending elongate inversion-related anticline, not filled to spill. Reservoir ~300 ft thick M-U Eocene Ngimbang Clastics Fm, two fluvial sandstone reservoirs separated by 7' shale seal unit (Lower Coal/Shale Member)

C&C Reservoirs (2002)- Cinta Field, Sunda Basin, Indonesia. Reservoir evaluation report, p. 1-24. *(Unpublished)*

C&C Reservoirs (2002)- Widuri Field, Sunda Basin, Indonesia. Reservoir evaluation report, p. 1-40. *(Unpublished)*

Cahyono, A.A. & A. Felder (2010)- Well placement optimization for a thin oil rim development in the Ujung Pangkah Field, East Java, Indonesia. Proc. 34th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA10-E-079, p. 1-7.
(Java Sea Ujung Pangkah field E Miocene Kujung-I carbonate reservoir with 60-90' oil column and >250' gas cap. Trap combination rim shelf morphology and young Madura inversion. Lower part of reservoir highly porous reefal limestone, upper part lower porosity red-algal dominated reef)

Carter, D.C. (2003)- 3-D seismic geomorphology: insights into fluvial reservoir deposition and performance, Widuri Field, Java Sea. American Assoc. Petroleum Geol. (AAPG) Bull. 87, 6, p. 909-934.
(Seismic images of 4 reservoir intervals in Widuri Field show meandering fluvial depositional patterns)

Carter, D.C., J. Armon, W.E. Harmony, R.S. Himawan, P. Lukito, I. Syarkawi & P.C. Tonkin (1998)- Channel and sandstone body geometry from 3-D seismic and well control in Widuri field, offshore SE Sumatra, Indonesia. Proc. 26th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 155-173.

Carter, D.C., W.E. Harmony, L. Harvidya, G. Juniarto, S. Lestari & A. Purba (2001)- Seismic interpretation methodology for fluvial sandstone reservoirs in Widuri field, offshore SE Sumatra, Indonesia. Proc. 28th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 153-183.

Carter, D.C. & M. Hutabarat (1994)- The geometry and seismic character of Mid-Late Miocene carbonate sequences, SS Area, Offshore Northwest Java. Proc. 23rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 323-338.
(M Miocene Paprigi and Pre-Parigi ~N-S trending linear buildups)

Carter, D.J., D. Mandhiri, R.K. Park, I. Asjhari, S. Basyuni, S. Birdus et al. (2005)- Interpretation methods in the exploration of Oligocene-Miocene carbonate reservoirs, offshore northwest Madura, Indonesia. Proc. 30th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 179-214.
(Kodeco 2000-2005 oil- gas discoveries in Oligocene- E Miocene Kujung Fm carbonate in Kujung I reefal buildups and Kujung II-III platform carbonates. Kujung I discoveries KE-23B, KE-40, KE-24 and KE-30 in 2001-2001 followed by discovery of Kujung III interval in KE-40 in 2002. Seven further Kujung I discoveries in 2002-2004. S Poleng largest discovery and doubled size of Poleng field, 30 years after discovery)

Cornelis, W. (1924)- Overblijfselen van rivierbeddingen in de Java-zee. Natuurkundig Tijdschrift voor Nederlandsch-Indie 84, p. 115-157.
(online at: https://resolver.kb.nl/resolve?urn=MMTEY01:179527002:pdf)
('Remnants of river courses in the Java Sea'. Bathymetric profiles in parts of W and E Java Sea. Not a lot of data)

Crumb, R.E. (1989)- Petrophysical properties of the Bima Batu Raja carbonate reservoir, offshore N.W. Java. Proc. 18th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 161-208
(Bima Batu Raja carbonate buildup reservoir undercompacted mudstone, wackestone and packstone with porosity up to 40%. Laboratory cut-offs (used to determine net-pay) unusually high at 26% porosity and 10 md permeability because rock believed to contain non-interconnected porosity)

Cucci, M.A. & M.H. Clark (1993)- Sequence stratigraphy of a Miocene carbonate buildup, Java Sea. In R.G. Loucks & J.F. Sarg (eds.) Carbonate sequence stratigraphy, recent developments and applications, American Assoc. Petroleum Geol. (AAPG), Memoir 57, p. 291-303.
(Late Eocene Miocene Gunung Putih carbonate complex in E Java Sea WSW-ENE trending asymmetric buildup, with aggradational N side inferred to lie on paleowindward side. Late Oligocene erosional event, Late Miocene drowning of reef)

Cucci, M.A. & M.H. Clark (1996)- Carbonate systems tracts of an asymmetric Miocene buildup near Kangean Island, E. Java Sea. In: C.A. Caughey, D.C. Carter et al. (eds.) Proc. Int. Symposium on Sequence Stratigraphy in SE Asia, Jakarta 1995, Indonesian Petroleum Association (IPA), Jakarta 1995, p. 231-251.

Darmawan, F.H., S.B. Mustaffa, A.K. Wijaya, M.N. Juliansyah & G. Kaeng (2019)- Facies and stratigraphic controls on velocity Anomalies in the North Madura Platform, Offshore East Java Basin. Proc. 43rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA19-G-65, p. 1-10.

Darmawan, F.H., S. Shahar, T. Kurniawan, M.J.B. Hoesni, A.B. Abu Bakar, M. Mazied, M.A.B. Ismail, G. Kaeng & A.H. Wong Abdullah (2018)- North Madura platform charging and entrapment modeling study: an effort to understand hydrocarbon filling history in Bukit Tua field. Proc. 42nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA18-50-G, p. 1-15.
(Presence of oil and gas fields in N Madura Platform attributed to long distance migration from Central Deep and Madura Basin kitchen areas. In Bukit Tua and Jenggolo Field complex, oils initially trapped in lowest part of N Madura Platform (Ngimbang Fm, CD Carbonate). As charging of oil continued, top seal breached and oil filled overlying Kujung II clastics and carbonates. Later gas generation was able to breach Kujung II)

Darmawan, F.H., I.Wayan Ardana, C.S. Lee & A.K. Wijaya (2016)- Unravel the Oligocene-Miocene depositional architectures in the North Madura Platform using seismic stratal volume. Proc. 40th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA16-629-G, p. 1-12.
(online at: https://www.cgg.com/sites/default/files/2020-11/cggv_0000026372.pdf)
(Oligocene-Miocene seismic horizon interpretations N of Madura Island. Showing small patch reefs in Kujung2 carbonate, meandering channel at end of Tuban stage, channel and delta lobe in Ngrayong Sst. etc.)

Darmawan, H.I. & A.K. Wijaya (2022)- Characteristics of Eocene carbonate reservoir- A case study of Ngimbang Carbonate in North Madura Platform, East Java Basin. Proc. 46th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA22-G-62, p. 1-19.
(Newly drilled 'EJ7' well (2021) on N Madura Platform, offshore NE Java basin demonstrated good reservoir quality in buildup(?) in underexplored Eocene Ngimbang Carbonate Fm. Porosities up to 25-30% mainly secondary, tied to karstification. Not much detail on age, thickness, etc. (Fig. 12 shows Sphaerogypsina, but none of the more typical Eocene larger foram marker genera?; JTvG)

Darmawan, H.I., A.K. Wijaya, R.B. Kahar, T. Setiawan & K.A.B.L. Rosli (2024)- Journey of exploration discovery in the emerging play within East Java Basin, Indonesia. Proc. 48th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA24-G-406, p. 1509-1516.
(Case study study of 2021 'X-1' offshore NE Java Basin exploration discovery well in North Madura Platform area, confirming Late Eocene Ngimbang Carbonate play with isolated carbonate buildup, with better reservoir quality than surrounding wells in same play. Lost circulation at penetration of Ngimbang carbonate target, where severe karstification was observed from drilling as well as from logs and well-test data)

De Groot, C. (1851)- Bijdragen tot de geologische en mineralogische kennis van Nederlandsch Indie, I. Eiland Bawean. Natuurkundig Tijdschrift voor Nederlandsch-Indie 2, 1, p. 263-274.
(online at: https://ia801900.us.archive.org/10/items/natuurkundigtijd1850koni/natuurkundigtijd1850koni.pdf)
('Contributions to the geological and mineralogical knowledge of the Netherlands Indies, I. Island Bawean'. Most of island composed of volcanic rocks, incl. tuffs, columnar basalts, porphyry. Some Tertiary limestones (with E-M Miocene larger forams; see Van Bemmelen 1949, p. 321), pure white quartz sandstones (used in factory in

Surabaya) and non-commercial Pliocene? lignitic coal. (but: Hochstetter 1858, p. 291: fossils collected by De Groot included Terebratula, Pecten and Spondylus that looked rather like Cretaceous to him) With one map)

De Oliveira Martins, W. & R. Fainstein (2001)- Tectonics and stratigraphy of East Java Sea North of Madura Island, Indonesia. In: 7th Int. Congress Brazilian Geophysical Society (Salvador 2001), p. 1018-1021.
(Extended Abstract. E Java Sea basin M Eocne- E Miocene extension led to development of NE-SW trending tilted horst blocks and grabens. M Miocene and younger inversion structures. Late Miocene wrench-associated structures, E Pleistocene compressional phase. Central Depression is inverted half-graben. Pre-Ngimbang Megasequence mud-dominated with some siltstone-sandstone and rare late Cretaceous marine microfossils)

Dinkelman, M.G., J.W. Granath, P.A. Emmet & D.E. Bird (2008)- Deep crustal structure of East Java Sea back-arc region from long-cable 2D seismic reflection data integrated with potential fields data. Proc. 32nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA08-G-153, p. 1-6.
(JavaSpan regional deep seismic imaging in East Java Sea overview)

Djuanda, H. (1985)- Facies distribution in the Nurbani carbonate build-up, Sunda Basin. Proc. 14th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 507-533.
(E-M Miocene Nurbani reef Batu Raja carbonate build-up on W flank Sunda Basin. Sub-commercial 1983 oil-gas discovery. Basal transgressive platform limestone with several successive carbonate build-ups. Three lithofacies: (1) reef front skeletal packstones- wackestones along E flank, (2) lagoonal back-reef mudstones-marly limestones and (3) narrow band of reef core coral- algal boundstone. Best reservoir in skeletal packstones and wackestones with extensive mouldic and vuggy porosity, and with some fracturing)

Dorobek S.L. & R. Adhyaksawan (2003)- Conditions conducive to coalescence of isolated platforms in the Miocene Wonocolo Formation, North Madura area, East Java Basin, Indonesia. AAPG Annual Convention, Salt Lake City 2003. *(Abstract only)*
(M-U Miocene (~12-6 Ma) Wonocolo Fm offshore N Madura numerous isolated carbonate platforms, with up to five growth phases. In W part of area individual platforms larger in plan view than age-equivalent platforms to E and show initial development of several closely spaced isolated platforms that coalesce at middle of growth history into larger composite platforms. Leeward (E) margins of W-most platforms greatest amounts of progradation and filling of interplatform troughs. Smaller platforms in E part of study area steeper sided, farther apart, and largely aggradational geometries, possibly due to faster subsidence rates in E)

Dorojatun, A., A. Kusnin, M. Hutabarat, R.K. Suchecki & S.G. Pemberton (1996)- Geological reservoir heterogeneity of Talang Akar depositional system in the Jatibarang Sub-Basin, Offshore NW Java, Indonesia. Proc. 25th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 357-373.
(Talang Akar reservoirs in Jatibarang sub-basin along N border fault heterogeneous, coarse-grained sandstones to sandy mudstones deposited in fluvial-delta setting. Deposits historically regarded as alluvial-fan facies including highly anisotropic braided-stream fill and debris flows. Sedimentology and ichnology used to re-interpret these deposits as coarse-grained fluvial-deltaic to marginal marine with deposition along N border fault related to changes of base level or relative sea level that includes tectonic movements)

Easley, D., F. Yustiana & A. Hidayat (2011)- Seismic lineament analysis of a fractured limestone reservoir in the Ujung Pangkah Field. Proc. 35th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA11-G-105, p. 367-375.
(Ujung Pangkah field in E Java Sea mainly fractured limestone reservoir of E Miocene age that has undergone several stages of deformation. Paleogene extensional faulting may have lasted throug Kujung Fm deposition. Late Early Miocene NNE-SSW compression seen from seismic isochrons, with field developing northerly tilt as well as inversion of older normal faults. N of Ujung Pangkah Fld also E-W trending left lateral strike-slip movement)

Ebanks, W.J. & C.B.P. Cook (1993)- Sedimentology and reservoir properties of Eocene Ngimbang clastics sandstones in cores of the Pagerungan-5 Well Pagerungan Field, East Java Sea. In: C.D. Atkinson et al. (eds.)

Clastic rocks and reservoirs of Indonesia, IPA Core Workshop Notes, Indonesian Petroleum Association (IPA), p. 9-36.
(Sedimentological descriptions of Eocene gas-bearing fluvial clastics of Pagerungan field, E Java Sea)

Emery, K.O., E. Uchupi, J. Sunderland, H.L. Uktolseja & E.M. Young (1972)- Geological structure and some water characteristics of the Java Sea and adjacent continental shelf. United Nations ECAFE, CCOP, Technical Bulletin 6, p. 197-223.
(online at: https://repository.unescap.org/handle/20.500.12870/5064)
(Report on 1971Woods Hole marine geological- geophysical survey of Java Sea and part of Sunda Shelf. Identified NE trending basement ridges, etc.)

Emmet, P.A. (1996)- Cenozoic inversion structures in a back-arc setting, Western Flores Sea, Indonesia. Ph.D. Thesis Rice University, Houston, p. 1-277.
(online at: http://scholarship.rice.edu/handle/1911/16969)
(Geophysical-geological study of marginal basin in W Flores Sea. Underlying crust transitional between Sunda craton continental crust to W and Banda back-arc oceanic crust to E. Half-grabens began to form in M Eocene by extensional reactivation of thrusts in peneplained Cretaceous accretionary prism basement complex. Extension and regional subsidence continued until E Miocene, when compression began to invert extensional faults of half-grabens as thrusts. Inversion most dramatic during Late Miocene and Pliocene and continues today. Paleogene orthogonal extension, oriented N-S. Neogene depositional sequences determined from seismic stratal patterns and biostratigraphy data compare generally favorably to Haq et al. (1987) global cycle chart)

Emmet, P.A. & A.W. Bally (1996)- Evolution of Cenozoic inversion structures, East Java Sea, Indonesia. AAPG Annual Convention, San Diego May 1996. *(Abstract only)*.
(Study of deep water (>200m) subbasin in E Java Sea. Pelitic basement deformed in Cretaceous accretionary prism and uplifted/ peneplained in E Tertiary. ENE- trending half-grabens formed in Sunda back-arc in M Eocene- E Oligocene. Basin-bounding faults listric and inferred to sole into sub-horizontal detachment at <10 km. Extensional structures controlled by pre-existing thrusts and shaly bedding planes in basement. Eocene rifting in few deep basins. Oligocene rifting more broadly distributed in shallower basins. Inversion began in E Miocene as basin-bounding faults reactivated and graben-fill sediments displaced towards adjacent horst blocks. Most inversions trend ENE and grew in bathyal water depth. Inversion progressed through Miocene and culminated in development of regional basement-involved inversion high (E extension of Kangean high), uplifted and truncated in latest Miocene. Despite regional compression which continues today at deep structural level, small-displacement domino-style normal faults ubiquitous at shallow structural level and apparently form on flanks of growing inversions by gravity sliding)

Emmet, P.A. & P.R. Vail (1996)- Cenozoic inversion structures, East Java Sea, Indonesia: can tectonic and eustatic influences on stratal architecture be distinguished? AAPG Annual Convention, San Diego 1996.
(Abstract only. Extensional half-grabens in Sunda back-arc filled by M Eocene non-marine siliciclastics, including lacustrine coals. Transgressed by Late Eocene shallow-water carbonates on margins of rift basins with shale dominant in basin axes. Late Oligocene- E Miocene regional sag with aggradation of shallow water carbonates on basin margins, deep-water carbonate mudstone and shale in basin axes. Onset of compression in E Miocene reflected by increase in subsidence and sedimentation rates. Paleogene extensional basins progressively inverted as thick wedges of Miocene and younger calcareous mudstone accumulated on flanks. In Miocene N margin of basin strongly progradational reflecting tectonic stability and dominant eustatic influence, S margin back-stepped due to higher tectonic subsidence related to inversion process. In deep basin, growth phases of inversion structures correlate with eustatically-controlled unconformities on basin margins)

Emmet, P.A., J.W. Granath & M.G. Dinkelman (2009)- Pre-Tertiary sedimentary "keels" provide insights into tectonic assembly of basement terranes and present-day petroleum systems of the East Java Sea. Proc. 33rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA09-G-046, p. 1-11.
(E Java Sea deep seismic imaged up to 5 km of pre-M Eocene beds below angular unconformity, locally preserved in faulted synclines 20-50 km wide. These 'synformal keels' lie below known inversion structures, indicating

Eocene extensional basins and Miocene inversions nucleated on pre-existing structures. E-W orientation of better imaged keels may represent fabric of source terrane, presumably Australian margin.)

Fahmi, B., A. Filza A., Y. Irsyadie A., J.A. Pribadi & D. Rakasiwi (2018)- Identification of biogenic gas potential using integrated seismic data, wireline log and geochemistry data; a study case: Muriah sub-basin, Bawean Arc, offshore Northern East Java. Proc. 42nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA18-73-G, p. 1-18.

Fainstein, R. (1987)- Exploration of the North Seribu Area, Northwest Java Sea. Proc. 16th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 191-214.

Fainstein, R. & V.R. Checka (1988)- Seismic exploration of the Thousand Islands area, Java Sea. Proc. 58th Annual Int. Meeting Soc. Exploration Geophysicists (SEG), Anaheim, S8.7, p. 877-881.

Fainstein, R. & H. Pramono (1986)- Structure and stratigraphy of AVS Field, Java Sea. Proc. 15th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 19-45.
(AVS Field multiple Oligocene Talang Akar Fm channel sand reservoirs. Two facies (1) fluvial/upper deltaic and (2) transitional/lower deltaic. Oil is on structural roll-overs confined laterally by growth faults of Thousand Islands Fault System. No communication between multiple reservoir zones. Twenty oil- bearing reservoirs. Recoverable reserves >20 MBO)

Faisal, R., Bintoro W. & Munji S. (2005)- Deep reservoir challenge in Asri Basin, South East Sumatra. Proc. Joint Convention 30th HAGI, 34th IAGI, 14th PERHAPI, Surabaya 2005, p.
(Deeper play in Asri basin tested in 1995 Hariet-2 well, penetrating Eo-Oligocene oil sandstone below 310' thick Banuwati Shale lacustrine source rock. Penetrated ~320' of Banuwati Clastics member that overlies granitic basement, with average porosity of 13.6%, permeability 10.8 mD. Sandstone heavily compacted, but widespread secondary moldic porosity)

Farouki, M., A. Bromley & D. Cavalin (2019)- Modern seismic data reveals potential for a deeper play in North Madura, East Java, Indonesia. Proc. Asia Petroleum Geoscience Conference and Exhibition (APGCE 2019), EAGE, Kuala Lumpur, p. 1-5. *(Extended Abstract)*
(online at: https://www.tgs.com/hubfs/Technical%20Library/Technical%20Library%20Files/2019_apgce_farouki_etal_indonesia.pdf)
(East Java Basin prolific hydrocarbon province, with exploration typically focused on pinnacle reefs of Oligocene-Miocene Kujung Fm carbonates.New seimic methods now provide data in Madura with better resolution of deeper Eocene Ngimbang Fm and basement, opening up potential play in Ngimbang clastics (Ngimbang Fm shown here as Late Eocene syn-rift clastics, CD carbonates are Oligocene in age))

Fifariz, R. (2018)- Controls on Oligocene-Miocene carbonate shelf evolution, offshore East Java, Indonesia: insights from architecture, facies, and seismic geomorphology. Ph.D. Thesis University of Texas at Austin, p. 1-196.
(online at: https://repositories.lib.utexas.edu/handle/2152/74965)
(24 wells and 1,300 km^2 of 3D seismic data from offshore East Java, to study the Oligocene- E Miocene Kujung Fm and Late Miocene Wonocolo Fm. Kujung Fm evolved from mixed-siliciclastic-carbonate shelf in Oligocene to carbonate-buildups shelf in E Miocene (Aquitanian))

Fifariz, R., X. Janson, C. Kerans & B. Sapiie (2020)- Carbonate-shelf evolution during the Oligocene to early Miocene: insights from shelf architecture, lithofacies, and depositional models of the Kujung Formation, offshore East Java, Indonesia. Journal of Sedimentary Research 90, 8, p. 796-820.
(Study of Oligocene- E Miocene (Aquitanian) Kujung Fm in 19 wells and 3D seismic in E Java Sea, NW of Madura (JS1 Ridge- Central Deep). Oligocene mixed-siliciclastic-carbonate shelf and Aquitanian carbonate-buildups. Dominant factors controlling carbonate-shelf evolution: antecedent topography, routing of siliciclastics and sea level fluctuations (summary of UT.D. Thesis))

Fisher, D.A. & L Suffendy (1999)- Dim spots and non-bright AVO associated with gas in the South Arjuna Basin, offshore NW Java. In: C.A. Caughey & J.V.C. Howes (eds.) Proc. Conference Gas habitats of SE Asia and Australasia, Jakarta 1998, Indonesian Petroleum Association (IPA), p. 169-178.

Fletcher, G.L. & K.W. Bay (1975)- Geochemical evaluation, NW Java Basin. Proc. 4th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 211-240.
(Early ARCO source rock paper, suggesting main source rocks are in U Cibulakan and Talang Akar Fms)

Forrest, J.K., A.Y. Sukmana, W. Suhana & I. Asjhari (2005)- Reservoir simulation challenges for modeling an oil rim with large gas cap in the Poleng Field, Kujung-I oil reservoir, East Java Basin, West Madura Block, Indonesia. In: SPE Asia Pacific Oil and Gas Conference, Jakarta 2005, SPE 93137, p. 1-16.
(On reservoir simulation model for Poleng field ~30km off N coast of Madura, producing oil from 1975-1978 the again since 1998, from Miocene Kujung Fm carbonates. Original oil-in-place 98.5 MMB Oil and 292 BCF gas. Thin oil column below large gas cap (see also Welker-Haddock et al. 2001))

Gordon, T.L. (1985)- Talang Akar coals- Ardjuna subbasin oil source. Proc. 14th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 91-120.
(One of first papers to propose coals as oil source rocks in oil-gas fields offshore NW Java)

Granath, J.W., J.M. Christ, P.A. Emmet & M.G. Dinkelman (2010)- Pre-Tertiary of the East Java Sea revisited: a stronger link to Australia. Proc. 34th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA10-G-007, p. 1-13.
(Seismic lines over Pre-Tertiary in E Java Sea area suggests history of rift-fill, cratonic sedimentation and inversion similar to Goulburn Graben of Arafura Shelf. Suggest departure of E Java Terrane from Australian margin in Late Jurassic and suturing to SE Sundaland in mid-Cretaceous. N part of EJT (affected by Eocene Makassar Straits extension) probably related to E Indonesian islands and Tasman orogenic belt, while south correlates to Australian craton)

Granath, J.W., J.M. Christ, P.A. Emmet & M.G. Dinkelman (2011)- Pre-Cenozoic sedimentary section and structure as reflected in the JavaSPAN crustal-scale PSDM seismic survey, and its implications regarding the basement terranes in the East Java Sea. In: R. Hall et al. (eds.) The SE Asian gateway: history and tectonics of Australia-Asia collision, Geological Society, London, Special Publ. 355, p. 53-74.
(New regional seismic survey in Java Sea and Makassar Strait suggests E Java Sea underlain by continental basement with prolonged multiphase history of deposition punctuated by extensional and compressional events. E Java Terrane is major part of SE Sundaland between Meratus suture, Java arc and W Sulawesi orogenic belt, but is poorly constrained in N under N Makassar Basin and in Kalimantan. Precambrian-Permo-Triassic sedimentary section (age assumed) up to 8.5 km thick on basement in number of fault blocks, unconformably overlain by thin Cretaceous- E Paleogene overlap assemblage, unconformably overlain by M Eocene- Neogene clastics and carbonates representing Paleogene extension, sag, and Neogene inversion. E Java Terrane rifted from NW Australia in Jurassic and accreted onto magmatic arc of SE Kalimantan in Cretaceous)

Granath, J.W., P.A. Emmet & M.G. Dinkelman (2009)- Crustal architecture of the East Java Sea-Makassar Strait region from long-offset crustal-scale 2D seismic reflection imaging. Proc. 33rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA09-G-047, p. 1-14.
(East Java Sea-Makassar Straits, Banda Sea, Flores (oceanic) basin deep seismic lines)

Graetzer, M.K. (1980)- Upper Eocene-Lower Miocene planktonic foraminiferal biostratigraphy of wells JS 25-1 and JS 52-1, Offshore Eastern Java, Indonesia. M.Sc. Thesis University of Oklahoma, p. 1-112. *(Unpublished)*

Gresko, M.J. & P. Lowry (1996)- Seismic expression and channel morphology of a Recent incised-valley complex, offshore Northwest Java. In: C.A. Caughey et al. (eds.) Proc. Int. Symposium on Sequence Stratigraphy in SE Asia, Jakarta 1995, Indonesian Petroleum Association (IPA), Jakarta, p. 21-33.
(Identification of incised-valley complex on 3D seismic. Located within large erosional valley, 20-30km wide, >300 km long and >100m relief, likely formed during repetitive sea-level lowstands in Pleistocene. It focused

drainage from fluvial systems in NW Java, SE Sumatra, and possibly S Borneo into area of present-day Java Sea. From there fluvial systems drained into Indian Ocean through Sunda Straits)

Gresko, M., C. Suria & S. Sinclair (1995)- Basin evolution of the Ardjuna rift system and its implications for hydrocarbon exploration, Offshore Northwest Java, Indonesia. Proc. 24th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 148-161.
(Ardjuna Basin on S edge of Sunda craton, originated during (Eocene?-) Oligocene rifting event. Large sag basin over three precursor rift halfgrabens, with varying amounts of primary hydrocarbon source rocks and reservoir facies, the Oligocene Talang Akar Fm)

Guntoro, A. (1999)- Tectonic and structural setting of the East Java-Flores Seas; an indication of a new subduction reversal polarity in eastern Indonesia. In: B. Ratanasthien & S.L. Rieb (eds.) Proc. Int. Symposium Shallow Tethys (ST) 5, Chiang Mai 1999, Chiang Mai University, p. 389-402.
(ST5 symposium volume online at: https://library.dmr.go.th/elib/cgi-bin/opacexe.exe?op=mmvw&db=Main&skin=S&mmid=19206&bid=17374)
(E-W oriented Tertiary sedimentary basins of E Java-Flores two major zones with back-arc thrusting, Wetar N of Wetar-Alor and Flores thrust N of Flores-Sumbawa. Hamilton (1979) proposed back-arc thrusts indicate subduction polarity reversal. Large negative free-air anomalies over accreted wedge 30 km S of deepest part of Flores Sea suggest underthrusting plate is pulled down, as in subduction zones. Crustal loading between Flores and Flores thrust cannot completely explain deflection of Flores Basin lithosphere if bent as elastic plate. Underthrusting plate may extend to negative gravity anomalies of Flores Island, or gravitational instability is pulling it down into asthenosphere. Effect of subduction polarity influenced by type of basement)

Guntoro, A., Sardjono & J.P.S. Guntoro (2020)- Gravity analyses and crustal structure of the eastern East Java Sea, Indonesia. Int. J. Scientific Technology Research 9, 1, p. 3944-3948.
(online at: https://www.ijstr.org/final-print/jan2020/Gravity-Analyses-And-Crustal-Structure-Of-The-Eastern-East-Java-Sea-Indonesia-.pdf)
(E part of East Java Sea Basin is frontier area with water depth of >1000 m. Change of structural orientation from NW-SE trends in W part of E Java to E-W structural trend in eastern part of E Java Sea. Gravity processing and other data suggest eastern E Java Sea underlain by attenuated continental crust, which extends to S of Lombok. Etc.)

Hadiyanto, N., D.E. Sartika, F. Deliani & O. Takano (2010)- Integrated 3-D Static reservoir modeling of Upper Pliocene Paciran carbonate in the Sirasun gas field, Kangean Block, East Java Basin. Proc. 34th Annual Conv. Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA10-G-072, p. 1-12.
(E Java Sea Sirasun Field 1993 discovery with >200' gas column Upper Pliocene Mundu Fm globigerinid foraminiferal grainstones (called 'ramp-type platform facies'). Gas biogenic, >99% methane)

Hafsari, S.W. & S.U. Choiriah (2002)- Characteristics of the lithofacies and depositional environment of the Eocene Ngimbang carbonate buildup, Wk-3 Well, Kangean PSC East Java Sea, Indonesia. Proc. 31st Annual Conv. Indonesian Association Geologists (IAGI), Surabaya, 1, p. 29-41.
(350' of core in Eocene Ngimbang carbonate in well 'Ray 3' (=West Kangean 3?) immediately W of Kangean island, E Java Sea. Shallow platform lagoonal facies rich in miliolids overlain by rapidly deepening upward through Late Eocene transitional facies of Nummulites-rich packstone facies to deep marine platform facies, also with nummulitids. morozovellid planktonic foraminifera and platy corals)

Hafsari, S.W. & S.U. Choiriah (2003)- Diagenesis and fracture development of the Eocene Ngimbang carbonate RD-3 well, RD PSC, East Java Sea, Indonesia. Proc. 32nd IAGI and 28nd HAGI Annual Conv., p. 1-6.
(Eocene Ngimbang Carbonate buildup in core from RD 3 well, W of Kangean Island, affected by deep marine platform diagenesis and shallow marine platform diagenesis. Shallow marine platform affected by marine diagenesis, meteoric subaerial exposure and burial diagenesis. After burial to 12,000' Ngimbang carbonate formation uplifted by inversion to 7000', important for development of fracture porosity. Low average matrix porosity (1.8%) and permeability (0.1 md). Upper sequence did not develop fracture porosity because of high detrital clay content and has poor reservoir potential)

Handoyo, B.C. Ronlei, A.S. Wibowo, Fatkhan, A.S. Sigalingging, E.Y. Nathania, A. Erdi, P. Avseth, R. Carbonell et al. (2025)- Reservoir characterization of Ngrayong Formation sandstone with carbonate intercalation, using a geostatistical approach based on petrophysical parameters, Northeast Java Basin, Indonesia. Scientific Contributions Oil and Gas (Lemigas), Jakarta, 48, 3, p. 237-251.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/1828/1489)
(Reservoir characterization and geostatistical modeling of M Miocene Ngrayong Fm sandstone in 7 wells in NE Java basin)

Harmony, B., L. Harvidya, S.L. Supardi, F. Alkatiri, P. Mesdag, R. Van Eykenhof et al. (2003)- Time-elapse simultaneous AVO inversion of the Widuri field, offshore southeast Sumatra. Proc. 29th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 1-13.

Harris, M. (2001)- East Java- the Kujung Formation revisited. SEAPEX Press 4, 6, p. 16-25.
(Brief review of Kujung Fm Oligocene-Miocene carbonate play and recent hydrocarbon discoveries)

Harsian, H. (2018)- Exploration challenge in Southern Basin area of East Java basin- an aftermath of South Saubi drilling campaign. Proc. 42nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA18-91-G, p. 1-15.
(South Saubi well S of Kangean island in E Java Sea surprisingly drilled >3500' of Miocene? volcanics/ volcanoclastics, just below top of Kujung Limestone. Exact age of volcanics unknown)

Hartanto, S., B. Sapiie, I. Gunawan & B. Wibowo (2018)- Analisis sekatan dan karakteristik sesar pada Formasi Kujung Reef di Kompleks Lapangan KE, Cekungan Jawa Timur: implikasi terhadap migrasi hidrokarbon. Bulletin of Geology (ITB) 2, 1, p. 134-148. *(online at: https://buletingeologi.com/index.php/buletin-geologi/issue/view/4/Paper-1%20vol.%202%20no.%201)*
('Seal analysis and fault characteristics in the Kujung Reef Formation at the KE Field Complex, East Java basin: implications for hydrocarbon migration'. Geologic modeling and fault seal analysis of Kujung Reef formation at JS-1 ridge, E Java Sea)

Hartono, H.M.S. (1965)- Age and correlation of the geological formations found in Kangean. Proc. Baruna Expedition, 1, A-B-C, 1, p. 69-76.

Henk, B. (1992)- Tectono-stratigraphy of a Late Eocene rift system within the Kangean PSC Block-East Java Sea, Indonesia. AAPG International Conference, Sydney 1992, Search and Discovery Article 91015. *(Abstract) Late Eocene extension led to formation of E-W trending rift system in Kangean Block, with series of sediment filled, facing and non-facing half-grabens. Late Miocene structural inversion overprinted earlier extensional fabric. Asymmetric half-graben axes sites for Ngimbang Clastics source and reservoir facies and deepwater Ngimbang Carbonate facies. High basement blocks on margins sites for thin clastic deposits and thick shallow water carbonate buildups. Ngimbang Shale blanketed entire carbonate system)*

Hendratno, A. & F.D. Khoir (2019)- Petrologi batuan vulkanik Pulau Bawean, Kabupaten Gresik, Jawa Timur. Proc Seminar Nasional Kebumian 12, Teknik Geologi, Universitas Gadjah Mada (UGM) p. 994-1006.
(Bawean Island in Java Sea with Quaternary volcanic rocks of Balibak Fm. Petrographically, Porphyritic, etc., texture. With nepheline and leucite mineral but no quartz (SiO_2 7-54%), indicating basic, high-K rocks (trachybasalt, basaltic andesite, phonolite). Calc-alkaline in high-K series and shosonitic series)

Hidayat, D., A.W. Ismanto, R. Harsoyo, H. Suhartomo, I. Kurniawan, N. Hasani et al. (2024)- Sand ridge facies architecture of the transgressive shelf system using modern analog approaches, width and thickness approaches of the sand ratio, and seismic attribute. Proc. 53rd Annual Conv. Indonesian Association Geologists (IAGI), Balikpapan 2024, 101, p. 1-11. *(online at: www.iagi.or.id/web/digital/79/148---Sand-Ridge-Facies-Architecture-of-the-Transgressive-Shelf-System Etc)*
(On Miocene shallow marine tidal shelf ridge sandstones in Upper Cibulakan Fm of offshore NW Java Basin. Prolific hydrocarbon reservoirs Ridges composed of shaly sandstone with tidal signatures and stringers of

foraminiferal limestone. Average porosity 22%, permeability 100 mD; length 3- 10 km, width 1.5- 2 km and thickness 12- 50 feet)

Hidayat, F.I., A. Yogi, E. Sabra, T. Ramli, M. Firdaus, H.M. Saleh, G.G. Arviallyn & A.S. Wibowo (2022)- Source rock characterization of the Eocene- Miocene Central Deep, North East Java Basin. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 23, 3, p. 163-176.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/697/485)
(Geochemical analysis of (Eocene-Miocene?) samples from Cassiopeia-1, Pollen-1, and Alpha-1 wells in Central Deep, NE Java Basin, off N coast of Madura. Two groups of source rocks: (1) mixed terrestrial-marine, and (2) more terrestrial. Some samples have not yet reached thermal maturity)

Hughes, T.M., J.A. Simo, A.S. Ruf & F. Whitaker (2008)- Forward sediment modeling of carbonate platform growth and demise, East Java basin: example North Madura. Proc. 32nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA08-G-117, p. 1-10.

Hutapea, E., Nusatriyo & C.H. Wu (1988)- The K-39 reservoir characterization for simulation, Ardjuna basin, offshore, Northwest Java. Proc. 17th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 99-117.
(K-39 sandstone reservoir main producing interval in U Cibulakan Fm of K field, offshore NW Java. E-M Miocene NE-SW trending shelf sand bar complex. Av. thickness 84' gross/ 51' net, porosity 27%, perm. 152mD))

Ichimaru, Y. (2019)- Exploration and development of biogenic gas fields in East Java, Indonesia. J. Japanese Association for Petroleum Technology (Sekiyu Gijutsu Kyokaishi), Tokyo, 85, 1, p. 27-34. *(in Japanese, with English Abstract)*
(online at: https://www.jstage.jst.go.jp/article/japt/85/1/85_27/_pdf/-char/en)
(Review of biogenic gas accumulations in Madura Strait to area S of Kangean islands, reservoired in Pliocene Mundu/Paciran Fms limestone and sandstone reservoir. Most discoveries at depths <1000 m subsea, and accompanied by DHIs (flat spots corresponding to Gas-Water Contacts)

Ichimaru, Y. & H. Inoue (2015)- Exploration and development of Kangean block, East Java, Indonesia. J. Japanese Association for Petroleum Technology 80, 1, p. 19-26.
(online at: https://www.jstage.jst.go.jp/article/japt/80/1/80_19/_pdf/-char/en)
(In Japanese, with English summary. Review of prospectivity of Kangean PSC block in E Java Sea. Two petroleum systems: (1) thermogenic oil-gas with pre-Ngimbang and Ngimbang Fm source rocks; (2) biogenic dry gas in shallow horizons. Terang-Sirasun gas field started production in 2012. S Saubi prospect large reef buildup of Kujung Lst, similar to Banyu Urip oilfield in NE Java (but mainly volcanics; Harsian 2018))

Ichimaru, Y., H. Nishita, T. Honda & H. Sutanto (2010)- The dynamic of hydrocarbon migration and accumulation around Kangean Island, East Java, Indonesia. Proc. Annual Meeting Japanese Assoc. Petroleum Technology, 2010. *(in Japanese) (Abstract only).*

Ilahude, D. & M.S. Situmorang (1994)- Seismic reflection study on paleodrainage pattern of the Sunda River, off Southeast Kalimantan around Masalembo waters, Jawa Sea. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 4, 29, p. 2-10.
(Study of Pleistocene paleochannels in area near Masalembo, when Java Sea was exposed land area. Three channel types (horizons), mostly flowing from N to S, probably extensions of SE Kalimantan drainage, and merging with W to E oriented channel ('South Sunda River') in S of study area)

Indah, M.S., M. Natsir, D. Kadar & J. Setyowiyoto (2017)- Reconstruction chronostratigraphy in carbonate reservoirs surrounding wrench fault zone of RMKS, Sakala subbasin, East Java Basin, Indonesia. In: 79th EAGE Conference & Exhibition, Paris 2017, p. *(Abstract only)*

Indrasatwika, V., D. Hidayat & Hairunnisa (2017)- The Krisna sand: new potential within the Air Benakat Formation in the Krisna Field, Sunda Basin, Southeast Sumatra. Proc. 41st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA17-124-G, p. 1-14.

(Main producer in Krisna field is Baturaja Fm carbonate reservoir. Also production from some wells from poor-quality 200' thick Krisna Sand of M Miocene Air Benakat Fm (270 MBO cumulative production(?))

Ingram, M. (2018)- Basin analysis and hydrocarbon potential of the Bali Basin with expanded geothermal heat flow map of Indonesia. M.S. Thesis Ball State University, Muncie, Indiana, p. 1-110.
(online at: https://cardinalscholar.bsu.edu/handle/123456789/201279)
(Bali Basin is frontier backarc basin behind mid-Sunda Arc. Compared to basins further W, hydrocarbon production declines in Bali Basin and further E along Sunda Arc. Ngimbang Shale Unit regarded as potential source of hydrocarbons, and expected to migrate directly into overlying Kujung Fm limestones. Hydrocarbon plays expected in inversion thrusts. Bali Basin wells average heat flows)

Ismanto, A.W., R. Feraldo, A. Akbar, H. Suhartomo, N. Hasani, O.T. Musakti, A. Wasonoaji & L.I. Saputra (2024)- Lithofacies interpretation and depositional model of Talangakar lacustrine deposits: a study in the Ardjuna Field, Eastern Sunda Basin. Berita Sedimentologi 49, 3, p. 47-56.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/441/420)
(Arjuna field in offhore NW Java Sunda basin discovered in 1982 in Talangakar (TAF) fluvio-deltaic sandstones. All wells of four production platforms in the field shut in November 2006. Lower TAF lacustrine deposit with thin sand with remaining hydrocarbon potential)

Isworo, H., U.A. Saefulah & T. Prasetyo (1999)- Depositional model of the MB Field Mid-Main carbonate reservoir Offshore Northwest Java, Indonesia. Proc. 27th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 1-7.
(MB field MMC build-up, EUR ~34 MBO, is N-S elongated patch reef complex, formed during several build-up development stages. Several transgressive-regressive cycles in overal transgressive succession. Karst breccia facies also recognized. Result of study is retrograding carbonate build-up model)

Johansen, K.B. (2003)- Depositional geometries and hydrocarbon potential within Kujung carbonates along the North Madura Platform, as revealed by 3D and 2D seismic data. Proc. Annual Conv. Indonesian Petroleum Association (IPA), 2003, Jakarta, 1, p. 137-162.
(Numerous prospects along N Madura Platform in Kujung I and II/III carbonates. Structures in Kujung II/III large, low relief inversion anticlines, similar to Bukit Tua and Jenggolo fields. Kujung II/III carbonates different facies in stable carbonate platform area. Central part of N Madura Platform Kujung I buildups up to 150-250m high, 10s of km^2 in size, separated by lagoonal facies. Kujung I and II/III carbonates extensively karsted; probably several phases of exposure. Kujung I play combined stratigraphic/ structural. Build-ups encased in mostly non-permeable sequences, but 'thief-beds' potential risk. Source rock in up to 6 km deep kitchen in SE, with 3-4 km potentially mature source rocks, mixed lacustrine, deltaic and marginal marine sediments (Ngimbang- Kujung Fms). Most traps 10-50 km from mature source, so carrier beds in Ngimbang or Kujung Fm critical. Long distance migration main risk, but proven by discoveries along N Madura Platform)

Johansen, K.B. (2005)- New insight into the petroleum system in the East Java- South Makassar Area. Proc. 2005 SE Asia Petroleum Exploration Society (SEAPEX) Conference, Singapore, p. 1-17.
(Back-arc extension in Paleocene-Eocene formed basins around SE part Eurasian Plate. Three trends (1) S Makassar-Central Deep area, main faults NE-SW; (2) Sakala-Lombok Ridge, faults mainly E-W; (3) offshore SW Sulawesi overall NW-SE fault trends. Important inversion phase, particularly along Madura/Kangean wrench zone, initiated in E Miocene. Older extensional faults reactivated and some Eocene basins inverted. S Makassar Basin little affected by inversion. Inversion several phases through M/U Miocene- Present. Large number of leads: Ngimbang carbonate and clastic plays over Lombok Sub Basin; Eocene clastics and potential Late Oligocene carbonate plays in S Makassar, etc. Viable source rock main challenge in area.)

Juliansyah, M.N., R.K. Pratama, P. Monalia, A.K. Wijaya, A. Donurizki & R. Ismail (2020)- Uncovering the Kujung Carbonate facies complexities in an undisturbed North Madura Platform, East Java Basin, Indonesia. European Association Geoscientists Engineers (EAGE) 2020 Annual Conf. Exhibition Online, p. 1-5.
(North Madura Platform with various types of Oligo-Miocene Kujung carbonates, including shelf edge carbonate, platform carbonate and patch reefs).

Kaldi, J.G. & C.D. Atkinson (1993)- Seal potential of the Talang Akar Formation, BZZ area, offshore NW Java, Indonesia. Proc. 22nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 373-393.
(Seal potential comprises 1) seal capacity, 2) seal geometry and 3) seal integrity. In BZZ area best seal delta front shales: high seal capacity, thick, laterally continuous and very ductile. Potential is moderate in upper TAF transgressive carbonates: high seal capacity and continuous, but brittle and prone to fracturing. Delta plain shales and pro-delta shales poor seals due to limited seal capacity (delta plain) or too thin (pro-delta shales))

Kaldi, J.G. & C.D. Atkinson (1997)- Evaluating seal potential: example from the Talang Akar Formation, Offshore Northwest Java, Indonesia. In: R.C. Surdam (ed.) Seals, traps and the petroleum system, American Assoc. Petroleum Geol. (AAPG), Memoir 67, p. 85-101.
(Seal potential of various lithologies in U Oligocene Talang Akar Fm in offshore NW Java basin determined by (1) seal capacity (amount of hydrocarbon column height a lithology can support); (2) seal geometry (structural position, thickness and areal extent of seal); and (3) seal integrity. Best seal potential in delta-front shales (high seal capacity, thick, laterally continuous and very ductile))

Kaldi, J.G., D.S. MacGregor & G.P. O'Donnell (1997)- Seal capacity in dynamic petroleum systems: example from Pagerungan gas field, East Java Sea, Indonesia. In: J.V.C. Howes & R.A. Noble (eds.) Proc. Int. Conf. Petroleum System of South East Asia and Australasia, Indonesian Petroleum Association (IPA), Jakarta, p. 829-836.
(Seal capacity measurements suggest Ngimbang Shale top seal over Pagerungan Field, E Java Sea, supports maximum gas column of 213 m, but actual gas column is 328 m)

Kaldi, J.G., G.W. O'Brien & T. Kivior (1999)- Seal capacity and hydrocarbon accumulation history in dynamic petroleum systems: the East Java Basin, Indonesia and the Timor Sea region, Australia. Australian Petroleum Prod. Exploration Assoc. (APPEA) J. 39, 1, p. 73-86.
(Seals in E Java Basin dynamic rather than absolute barriers to fluid flow. Data from largest gas field, Pagerungan, suggest dynamically filling and leaking capillary trap, which may have been volumetrically larger in past. Timor Sea Neogene tectonism caused extensional faulting and basin formation. Faulting caused breaching of traps, whereas subsidence in new depocenters was drive for renewed hydrocarbon expulsion and migration, principally gas. In traps with high seal capacities, this charge of gas flushed preexisting oil accumulations. In other cases, breached traps refilled with gas over periods as short as perhaps 2-3 My)

Kamila, B., I. Muhsinah & E. Hartanto (2018)- Explore new insights in mature basin using play based exploration and common risk segment map: a case study of Sunda Basin, Indonesia. Proc. 42nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA18-103-G, p. 1-13.
(Play evalution of E Miocene Baturaja Lst Formation in Sunda Basin, off NW Java)

Keijzer, F.G. (1940)- A contribution to the geology of Bawean. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 43, 5, p. 619-629.
(online at: https://dwc.knaw.nl/DL/publications/PU00017446.pdf)
(Bawean island, Java sea, petrographic descriptions of rocks collected by Schmutzer in 1912: volcanic rocks (leucite-bearing; rel. young ?), E-M Miocene/Tf1-2 limestones with Miogypsina and quartz-sandstones. Some uncertainty whether the Bawean volcanics pre-date or postdate Miocene limestones)

Kenyon, C.S. (1977)- Distribution and morphology of Early Miocene reefs, East Java Sea. Proc. 6th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 215-238.
(Classic paper on E Java Sea, N of Madura Island. Widespread, thick E Miocene limestone and shale sequence (Kujung Unit I), with reefs as exploration targets. Main E Miocene physiographic elements (a) deep water, E-W trending open marine clastic basin in S (E Java-Madura Basin), (b) extensive, E-W positive area of shallow water carbonate deposition to N (E Java-Madura Shelf), with high energy bank along S margin, (c) Central Depression with open marine, fine clastics- limestones with bioherms (Poleng Field); (d) NE-SW trending JS-I Ridge NW of C Depression, with shoal water carbonates. E Bawean Trough to W of JS-1 Ridge. Kujung Unit I depositional trends influenced by pre-E Miocene NE-SW structural grain along Asian continental margin)

Kohar, A. (1985)- Seismic expression of Late Eocene carbonate build-up features in the JS-25 and P. Sepanjang trend, Kangean Block. Proc. 14th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 437-447.
(Over 20 carbonate build-ups at top Late Eocene carbonate shelf sequence. Features grew over basement highs, spreading E-W across Sepanjang island- JS25 area in Kangean block off N Bali. JS25-1 well penetrated >1000' of recrystallized Late Eocene limestone. Secondary porosity and fracturing produced good reservoirs)

Kovacs, P.P. (1982)- Rama reservoir model study. Proc.: Offshore South East Asia 82 Conference, SEAPEX?, Singapore, p. 1-20.

Kusnida, G. & L. Arifin (2022)- Marine geomagnetic anomaly belt and its relationship to the remnant arcs in the northwestern Java Sea. Bulletin of the Marine Geology 37, 1, p. 39-44
(online at: http://ejournal.mgi.esdm.go.id/index.php/bomg/article/view/?xxx?
(In NW Java Sea well-defined belts of anomalies, divided into four zones: Zones I and IV characterize a basinal area, Zone II a granitic belt, and Zone III a Cretaceous magmatic arc in E that extends from C Java across Java Sea to S Kalimantan. Magnetic anomalies coincide with free air satellite gravity anomalies)

Kusnida, D., E. Mirnanda, T.B. Nainggolan, Subagio & A. Albab (2023)- Interpretation and mapping of geologic structure in the Bali Basin based on integrated gravity, magnetic, and seismic data analysis. The Leading Edge 42, 12, p. 790-852.
(Bali Basin located in Sunda-Banda back-arc. Magnetic anomalies indicate thrust fault structure beneath N coast of Bali and Lombok vertically displaces basement; indicates a significant, tight, and well-developed expression of blind thrust faulting. Gravity data delineate 'basement' surface 6 km below S Bali Basin, where seismic sections show five Cenozoic sedimentary sequences >2000 m thick, filling highly deformed and faulted Cretaceous bedrock sequence. Basin subsidence followed by tectonic inversion)

Kusuma, D., F. Dasa & A. Sadat (2019)- The discovery of the Late Oligocene- Early Miocene of Kujung Cycle in JS-Ridge, NE Java Basin, Indonesia. Proc. 2nd Australasian Exploration Geoscience Conference (AEGC 2019), Perth, Exploration Geophysics, ASEG Extended Abstracts, p. 1-3.
(online at: https://www.tandfonline.com/doi/abs/10.1080/22020586.2019.12073012)
(Saka Indonesia seismic attributes study on Ujung Pangkah oil-gas field on NW-SE trending JS-1 Ridge in East Java Sea. Field produces from Late Oligocene- E Miocene of Kujung 1 limestone shelf edge carbonate associated with NW-SE anticline. Secondary porosity and fracturing significant for field performance)

Kusuma, D., F. Dasa & A. Sadat (2019)- Facies classification using stochastic inversion method for carbonate Oligo-Miocene in Pangkah, North East Java Basin. In: 2nd Australasian Exploration Geoscience Conf. (ASEG), Perth 2019, Extended Abstracts, p. 1-4.
(online at: https://www.tandfonline.com/doi/abs/10.1080/22020586.2019.12073011)
(Stochastic inversion methodology used by Saka personnel for handling uncertainties of Late Oligocene-Miocene carbonate volumes in Kujung I and CD Carbonate Plays of Pangkah PSC, Java Sea)

Lamba, L.C., L. Prasetya, N.A. Ascaria, D.R. Wulandari & B. Priyanto (2024)- Remaining giant potential from Paleogene carbonate play in Pagerungan sub-basin. Proc. 48th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA24-G-279, p. 1222-1238.
(Potential for new E-W trend of Paleogene carbonate buildups in Pagerungan sub-basin, offshore NE Java Basin, below 'traditional' Kujung Fm carbonate play. Paleogene play proven by oil-gas in JS 53-A well, H-1 oil field in North Madura sub-basin and K-1 (Kangean West?) gas well in Ngimbang low, etc.)

Landa, J.L., R.N. Horne, M.M. Kamal & C.D. Jenkins (2000)- Reservoir characterization constrained to well-test data: a field example. Soc. Petroleum Engineers (SPE) Reservoir Evaluation and Engineering 3, 4, p. 325-334.
(also in Proc. SPE Annual Technical Conference, Denver 2000, Paper 35611, p. 177-192)
(Reservoir description for Pagerungan gas field, E Java Sea. Discovered in 1985, producing since 1994 from fluvial M-U Eocene Ngimbang Clastics Fm)

Lelono, E.B. (2007)- Palynological investigation of the Oligocene sediment in East Java Sea. Lemigas Scientific Contributions 30, 1, p. 7-17.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/970/762)
(Palynology study of interval 3700-5400' in unspecified 'Wells 1 and 2' from E Java Sea, NE of Madura Island. Occurrence of pollen Meyeripollis naharkotensis and spore Cicatricosisporites dorogensis suggests Oligocene age, confirmed by foraminifera of Letter stages Tc-Te4 and nannozones NP21-NP25. Appearance of Dacrydium and Casuarina may indicate earlier arrival of Australian immigrants here compared other parts of Indonesia)

Lelono, E.B. & R.J. Morley (2011)- Oligocene palynological succession from the East Java Sea. In: R. Hall, M.A. Cottam & M.E.J. Wilson (eds.) The SE Asian gateway: history and tectonics of Australia-Asia collision, Geological Society, London, Special Publ. 355, p. 333-345.
(online at: http://searg.rhul.ac.uk/pubs/lelono_etal_2011%20Java%20Sea%20Oligocene.pdf)
(Palynomorph assemblages from independently dated marine Oligocene succession from E Java Sea wells here named X and Y. Early Oligocene with common rain forest elements, suggesting everwet, rainforest climate. Early part of Late Oligocene much reduced rain forest elements with grass pollen, indicating more seasonal climate. In latest Late Oligocene rainforest elements return in abundance, suggesting superwet climate. Palynological succession similar to Sunda Basin, W Java Sea)

Lelono, E.B. & R.J. Morley (2011)- Oligocene palynological zonation scheme from the East Java Sea. Lemigas Scientific Contributions 34, 2, p. 95-104.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/797)
(same paper as above)

Liu, X., H.W. Deng; H.L. Wang, S.H. Wang & Y.X. Di (2009)- Sequence and depositional characteristics in syn-rift stage, Sunda Basin, Indonesia. Acta Sedimentologica Sinica (Beijing) 27, 2, p. 280-288. *(in Chinese)*
(online at: http://www.cjxb.ac.cn/article/2009/2)
(Five sequences in syn-rift section of Sunda basin. Depositional systems include fan delta, braided channel delta, fluvial, delta, nearshore subaqueous fans and beach)

Longley, I., C. Kenyon, A. Livsey & J. Goodall (2017)- Play mapping in the East Java Basin, Indonesia: a methodology for future exploration. Proc. 79th EAGE Conference & Exhibition, Paris 2017, Workshops, WS10 CO3, 2p. *(Abstract only)*
(East Java basin long established petroleum province with unusually large variety of clastic and carbonate reservoir-seal pairs reflecting tectonostratigraphic settings ranging from extensional rift basins to stable platform areas to compressional and wrench-related inversion reflecting proximity to convergent margin to S. Nineteen plays identified over greater East Java area)

Luan, X. & P. Lunt (2021)- Eocene to Miocene stratigraphic controls in the far East Java Sea: implications for stratigraphic studies. Marine Geology 436, B4, 106479, p. 1-
(MS online at: www.researchgate.net/publication/350794880_Eocene_to_Miocene_stratigraphic_cont Etc.)
(New stratigraphic model for area of SE Sundaland, mainly based on NSA -1F (AGIP, 1983) and ST Z-1 (BP, 1992) wells. Mainly a acritique of previous eustatic sequence stratigraphic interpretations. Main regional unconformities at ~39 Ma and 36 Ma (late M Eocene and Late Eocene increases in subsidence), Eocene-Oligocene boundary increase in subsidence, mid-Oligocene tectonism, Oligocene-Miocene boundary common drowning of reefs, intra Early Miocene early compression and re-appearance of siliciclastics, and ~12-13 Ma M Miocene 'Duabelas unconformity' onset of compressional deformation)

Luan, X. & P. Lunt (2021)- Latest Eocene and Oligocene tectonic controls on carbonate deposition in eastern Java and the south Makassar Straits, Indonesia. J. Asian Earth Sciences 220, 4, 104900, p. 1-23.
(Comprehensive study of Late Eocene- Oligocene carbonates and enclosing siliciclastics in E Java and adjacent S Makassar Straits, Five genetic sedimentary sequences recognised, pointing to episodic sedimentary history controlled by tectonism. Additional intra-Late Miocene uplift and unconformity described. Mid-Oligocene and terminal Oligocene unconformities correlate across entire E margin of Sundaland. A zone under island of Java

and continuing NE through center of the Makassar Straits most tectonically active region, and least understood. With discussions of stratigraphy of key wells)

Luan, X. & P. Lunt (2022)- Controls on Early Miocene carbonate and siliciclastic deposition in eastern Java and south Makassar Straits, Indonesia. J. Asian Earth Sciences 227, 105091, p. 1-24.
(online at: www.researchgate.net/publication/357847311_Controls_on_Early_Miocene_carbonate_and Etc.)
(During Oligocene- basal Miocene, basin development dominated by extension with local transtension. This changed in E Miocene to regional compression. Three tectonic events, at ~24 Ma, 21 Ma and ~16 Ma. Most significant was concentration of siliciclastics on proximal side of Oligo-Miocene axis of subsidence, causing isostatic loading and nearby pinnacle reefs to achieve high relief, but ultimately acceleration in siliciclastic input at ~16 Ma caused simultaneous reef extinction)

Lunt, P. (2019)- The origin of the East Java Sea basins deduced from sequence stratigraphy. Marine and Petroleum Geology 105, p. 17-31.
(East Java Basin composed of at least six different basinal areas, with unique stratigraphic histories and petroleum systems. Formed as continuation of extension around Makassar Straits, not as back-arc basin. Elongate and anastomosing faults along S edge of extending crust, created unique stratigraphic zone S of Rembang Line Fault. Mid-Oligocene tectonic event created new Sibaru Trough depocenter. Poorly defined formation name Ngimbang Fm should be abandoned)

Magee, T., C. Buchan & J. Prosser (2010)- The Kujung Formation in Kurnia-1: a viable fractured reservoir play in the South Madura Block. Proc. 34th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA10-G-005, p. 1-22.
(online at: www.researchgate.net/publication/265289346_THE_KUJUNG_FORMATION_IN_KURNIA- Etc.)
(Kurnia-1well near S coast Madura island drilled rel tight (basinal?) Kujung Fm limestones, but reservoir potential enhanced by fractures)

Manur, H. & R. Barraclough (1994)- Structural control on hydrocarbon habitat in the Bawean area, East Java Sea. Proc. 23rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 129-144.
(Bawean area two tectonic phases: Paleogene rift and Neogene reactivation. Eocene-Oligocene doming and faulting followed by subsidence and tectonic quiescence until E Miocene. NE-SW trending grabens formed in M Eocene and filled with alluvial clastics, lateritic clays and lacustrine shales (source rocks). Basement onlap began in Late Eocene- E Oligocene with transgressive marine sandstones and limestones including reefs. Paleogene fault zones reactivated in Neogene. Wrench faulting, basin inversion or renewed subsidence from Late Miocene to Recent. Late Miocene structures generally dry, postdate main hydrocarbon generation. Pre-Late Miocene structures more attractive targets)

Marianto, F., A. Sadat, D. Kusuma & P. Luhut (2017)- Identifying the distribution of karst zone from the Early Oligocene-Early Miocene of Kujung cycle in JS- Ridge NE Java basin. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang 2017, p. 1-3.
(online at: https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_Identifying-the-distribution-of-karst-zone_compressed.pdf)
(Brief paper with one microscopic figure about attemted identfication of karstification in Oligocene- E Miocene carbonates in Pangkah PSC, using seismic attributes)

Marianto, F., A. Sadat, H. Yusuf & L.T.Hardanto (2022)- Reconstruction carbonate Oligo diagenesis Miocene in East Java Basin using Advantages Paleo-space Technique. Proc. 51st Annual Conv. Indonesian Association Geologists (PIT IAGI 51), Makassar 2022, 83, p. 1-9.
(online at: https://www.iagi.or.id/web/digital/71/PITIAGI-22-P-ABS-115.pdf)
(Something with seismic around Late Oligocene- E Miocene carbonates of Saka field in E Java Sea)

Matthews, S.J. & P.J.E. Bransden (1995)- Late Cretaceous and Cenozoic tectono-stratigraphic development of the East Java Sea Basin, Indonesia. Marine and Petroleum Geology 12, p. 499-510.

(E Java Sea Basin metamorphic basement, overlain by up to 3 km marine Upper Cretaceous sediments. Contraction and peneplanation of Cretaceous sediments and basement before middle E Eocene produced regional unconformity. E Eocene extension reactivated Cretaceous thrusts. E Eocene- E Oligocene normal faulting pulses, affecting progressively larger area with time. Paleogene fault-controlled sub-basins with fluvial, coastal plain and shelf clastic and carbonate sediments, recording overall transgression. E Oligocene regional subsidence; sediments dominated by deep marine clastics. Regional intra-Oligocene unconformity overlain by Oligocene- lowermost Miocene deep water calcareous mudrocks and limestones, locally onlapping Eocene rocks. Continuous regional subsidence during inversion history, resulting in gradual reversal of depocenter location. Paleogene depocenters became Neogene highs, Paleogene platforms Neogene depocenters. Tertiary structural evolution mainly dip-slip fault movement during extensional and contractional phases. Geometries similar to positive flower structures evolved by reverse reactivation of geometrically complex extensional fault system)

Maulin, H.B., C. Armandita, M.M. Mukti, D. Mandhiri, D. Rubyanto & S. Romi (2012)- Structural reactivation and its implication on exploration play: case study of JS-1 Ridge. Proc. 36th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA12-G-072, p. 1-13.
(JS-1 Ridge in West Madura Offshore area at least three tectonic regimes: Eocene NE-trending extension-rifting, Neogene wrenching and Late Neogene compressional thrust folding. JS-1 Ridge is basement high on basement that probably is Australia-derived microcontinent 'Argoland', accreted to Sundaland in Paleocene. M-Late Miocene uplift in E part of basin, associated with E-W trending, down-to-S normal faults. Further uplift/ N-S compression in Late Miocene-E Pliocene. Most intense deformation in Late Pliocene- E Pleistocene. Main play E-M Miocene Kujung Fm carbonates)

Maulin, H.B., A. Nugraha, C. Sutisna, A. Prasetya, I. Harun, D. Rubyanto & B. Wibowo (2016)- JS-1 Ridge: exploration in ancient melange basement high. Proc. 14th Regional Conference Geology and Mineral Resources of SE Asia (GEOSEA XIV) and 45th Annual Conv. Indonesian Association Geologists (IAGI) (GIC 2016), Bandung, p. 98-103.
(online at: https://www.academia.edu/29630949/JS_1_RIDGE_EXPLORATION_IN_ANCIENT_MELANGE_BASEMENT_HIGH)
(JS-1 Ridge in Java Sea is NE-trending horst-like structure, formed in Eocene or before, flanked by East Bawean Trough in W and Central Deep in E. Well basement penetrations in N part dominated by basic plutonic rocks (gabbro, basalt, and serpentinite in one well, with ~81 Ma Ar/Ar age). Center of JS-1 Ridge composed of metamorphic rocks. In South diorite, volcano-clastics, to altered andesite (Ar/Ar age ~71 Ma). Southernmost area dominated by (meta-)volcanics, also possible Pretertiary sediments. JS1 rocks possibly represent E-M Cretaceous melange)

Maynard, K., M. Decker & W.A. Morgan (2005)- Thorough data acquisition during appraisal mitigates development risk of a thin karst reservoir, Bukit Tua reservoir, East Java, Indonesia. Petroleum Exploration Society Great Britain Carbonate Conf., Nov. 2005, p. *(Abstract only)*
(Early Oligocene carbonate reservoir model discrete thin karst zones <30' thick in offshore N Madura Platform wells. Increased permeability associated with karst confined to thin zones, leaving much of matrix with low permeability that is not expected to contribute to reserves. Karst zones exhibit varying degrees of porosity-permeability because of dissolution and probable fracture enhancement and flowed up to 4500 BOD at DST)

Maynard, K. & W.A. Morgan (2005)- Appraisal of a complex, platform carbonate, Bukit Tua discovery, Ketapang PSC, East Java Basin, Indonesia. Proc. 30th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 317-330.
(Bukit Tua 2001 N Madura platform, E Java Sea, oil and gas discovery in 300' section of E Oligocene Ngimbang Fm/ 'CD' platform carbonates on basement, and in overlying Kujung Fm. Many uncertainties remain regarding distribution of facies and porosity. Includes overview of regional setting)

Mazied, M. (2002)- Application of sequence stratigraphic concepts and depositional models for reservoir mapping: an example from the Upper Cibulakan Formation in the L and LL Fields, Offshore Northwest Java. Proc. 28th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 597-607.
(late E and M Miocene Massive and Main sand reservoirs, some interpreted as NNE trending tidal ridges)

Mazied, M., I.W. Ardana, M.N. Juliansyah, E. Yogapurana & R.K. Pratama (2016)- Ngrayong Sandstone: 130 years of exploration history and a look at its future. Proc. Indonesian Petroleum Association, 2016 Technical Symposium, Indonesia Exploration: Where from, 1-TS-16, p. 1-14.
(M Miocene (N9-N12) Ngrayong Fm sand-rich fluvio-deltaic and shallow marine facies across paleo shelf in N part of NE Java basin, thick shale-dominated deposits along E-W paleo slope along present day N coast of E Java and Madura islands, further S by deep slope and basin floor facies dominated by pelagic/ hemipelagic shales with submarine fan complexes. Deltaic-shallow marine play productive in 1971 Kepodang biogenic gas field. CO_2 gas major issue in N offshore. Onshore discoveries in turbidite fan play (Kawengan 1892, Nglobo, Ledok, Semanggi, etc.). Future discoveries expected from underexplored basin floor fan play)

Mazied, M., E. Yogapurana, B. Abrar, A.W. Kusuma & H.S. Herlambang (2017)- Advanced mud gas analysis for an improved fluid characterization in a complex carbonate reservoir: a case study from A Field, East Java Basin. Proc. 41st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA17-454-G, p. 1-8.

McCaffrey, R. & J. Nabelek (1987)- Earthquakes, gravity and the origin of the Bali Basin: an example of a nascent continental fold-and-thrust belt. J. of Geophysical Research 92, p. 441-460.
(Bali Basin is downwarp in Sunda Shelf crust, produced by thrusting along Flores backarc thrust zone)

McChesney, D., A. Rusmantoro, M.G. Smith & S. Mursid (1992)- The Krisna lower Batu Raja waterflood: an updated case history. Proc. 21st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 21, 2, p. 403-430.

Miller, N.R. & J.G. Kaldi (1990)- Strontium isotope chronostratigraphy and diagenesis of the Batu Raja Limestone, offshore Northwest Java, Indonesia. American Assoc. Petroleum Geol. (AAPG) Bull. 74, 5, p. 728-729. *(Abstract only)*
(Sr isotope chronostratigraphy from 7 Bima field wells indicates Batu Raja limestone deposition started in Late Oligocene (26-27 Ma) and ceased in E Miocene (21-22 Ma). Eustatic sea level drop at ~21 Ma exposed Batu Raja carbonate platform to meteoric diagenesis and formed reservoir facies. Sr ratios of most Bima samples follow normal Tertiary trend. Zones significantly affected by early meteoric diagenesis have anomalously low ratios. Also, lower 87Sr/86Sr values in altered samples near Seribu fault. Migration of low 87Sr/86Sr early Tertiary marine formation waters up fault and into porous horizons likely mechanism for rock alteration)

Mohr, E.J.C. (1920)- Sedimenten van de Java Zee. Handelingen Eerste Nederlandsch-Indisch Natuurwetenschappelijk Congres, Batavia 1919, p. 219-223.
('Sediments of the Java Sea'. Brief, early discussion)

Molina, J. (1985)- Petroleum geochemistry of the Sunda Basin. Proc. 14th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 143-179.
(Shale source rocks in Oligocene Talang Akar and E Miocene Batu Raja Fms. rich in amorphous and herbaceous kerogen, with 1-6% TOC in Talang Akar Fm. Upper Talang Akar coaly, with good source potential. Overlying Batu Raja Fm TOC up to 3.0%, also dominated by woody-coaly organic matter. Eight oil families identified, indicating generation from terrestrial and aquatic kerogen types. Oil-source correlations suggest oils from center or W margin of Sunda Basin mostly from middle Talang Akar, along E margin mostly from lower Talang Akar. Oil generation from lower Talang Akar started in M-L Miocene)

Moulton, D.E., B.S. Wilton & G.G. Ramos (1998)- Optimizing drilling strategies in a tectonic belt, Pagerungan Field, north of Bali. Proc. IADC/SPE Drilling Conference, Dallas, IADC/SPE Paper 39357, p. 559-572.

Mudjiono, R. & G.K. Pireno (2002)- Exploration of the North Madura platform, offshore, East Java, Indonesia. Proc. 28th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 707-722.
(N Madura High E-W trending Ngimbang (M Eocene- E Oligocene) and Kujung (Late Oligocene- E Miocene) shelf edge carbonates. New Bukit Tua and Jenggolo oil-gas discoveries targeted layered Kujung platform carbonates on N Madura Platform, 10- 20 km from fringing reefs. Porosity may be from repeated exposure on

crest of old Madura Platform. Migration pathways via permeable Kujung I carbonates, near-basement carrier beds and Ngimbang and Kujung II/III carbonates. Fringing reefs viable play, as indicated by discoveries in Ketapang PSC (Bukit Panjang 2000; Payang 2001), nearby W Madura blocks (KE-23B, KE-13, KE-24, KE-30) and Pangkah (Ujung Pangkah 1998; Sidayu 2000). With good basement and paleogeography maps).

Muhammad, F., A.S. Murtani, W. Widiatmoko, L. Nugrahadin & M. Lejri (2019)- Stratigraphic forward modeling for step-out potential of Kujung I Early Miocene carbonate, North Gresik, East Java, Indonesia Schlumberger SIS Global Forum, Monaco 2019, Conference Presentation, p. 1-11.
(online at: https://www.software.slb.com/-/media/software-media-items/software/documents/external/technical-presentations/sis-global-forum-2019/ssc/stratigraphic-forward-modeling-for-stepout-potential-of-kujung-i-early-miocene-carbonate.pdf)
(Saka Indonesia Pangkal Ltd study of seismic facies of late Oligocene- E Miocene Kujung I-III limestone around Ujung Pangkah oil-gas field in offshore NE Java basin. Showing 3-4 platform/ reef complexes)

Murtani, A.S., D.W. Dwiperkasa, P. Patria & J. Xu (2015)- Seismic lineament analysis of a fractured limestone reservoir in the Ujung Pangkah Field. Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA15-G-055, p. 1-12.
(Oligocene- E Miocene Kujung Fm carbonate reservoir in Ujung Pangkah oil field (SW part of JS-1 Ridge, E Java Sea) with three dominant fracture orientations: NE-SW, NW-SE and E-W)

Natasia, N. (2024)- Architecture of the Early to Late Miocene Upper Cibulakan Formation, North West Java Basin, Indonesia: Insights from sequence stratigraphy and stratigraphic modeling. Doct. Thesis Sorbonne Universite, Paris, p. 1-212.
(online at: https://theses.hal.science/tel-04950609/document)
(Thorough study of late Early- early Late Miocene Upper Cibulakan Fm clastic and carbonate depositional environments and reservoir characterization study in Arjuna sub-basin, offshore NW Java Basin, in sequence stratigraphic framework. Twelve 3rd-order sequences, organized into three 2nd-order sequences. Stratigrapic forward modeling of 22.2- 8.4 Ma interval)

Natasia, N., M.K. Alfadli & I. Syafri (2017)- Eocene- Late Miocene tectonostratigraphy of Bima Field in Northwest Java Basin. J. Geological Sciences Applied Geology (UNPAD) 2, 3, p. 109-118.
(online at: http://jurnal.unpad.ac.id/gsag/article/view/15619/7346)

Nayoan, G.A.S. (1975)- Geology of the Karimunjawa Islands. Geologi Indonesia (IAGI) 2, 2, p. 13-20.
(Karimunjawa Islands in Java Sea N of Semarang up to >500m elevation. Two formations: Karimunjawa Fm Pre-Tertiary, unfossiliferous, steeply dipping, low-metamorphic sandstones, conglomerate, phyllite, possibly isoclinally folded, unconformably overlain by horizontal, ?Holocene basalts. Older formation correlated with Upper Triassic flysch by Van Bemmelen (1949), and probably southernmost Sundaland. Structural grain NW-SE, steeply dipping, mainly to SW (so unlikely to be part of Cretaceous accretionary terrane?; JTvG). Karimunjawa Arch surrounded by onlapping Tertiary sediments, probably always exposed during Tertiary)

Nedom, H.A. & H.J. Ramsey (1972)- Exploration and development of a new petroleum province, Java Sea, Indonesia. Proc. First Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 111-137.

Niggli, E. (1966)- Der Meteorit von Kangean (Indonesien). Ein Olivin-Bronzit-Chondrit. Geologie en Mijnbouw 45, 1, p. 1-9.
(online at: https://www.kngmg.nl/geologie-en-mijnbouw-portal-1961-2004/)
('The meteorite from Kangean: an olivine-bronzite chondrite'. A ~3kg meteorite fell in village of Se Djaban, Kalisangka District, Kangean Island, on 27 November 1908. Now stored at TH Delft))

Noble, R.A. & F.H. Henk (1996)- Source characteristics of Terang-Sirasun bacterial gas field. Proc. 25th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1p. *(Abstract only)*
(Terang-Sirasun gas field 100 km N of Bali in E Java Sea. ~1 TCF in Plio-Pleistocene Paciran Fm sandstone and foraminiferal limestones. Gas >99% methane, of microbial origin in anoxic marine setting)

Noble, R.A. & F.H. Henk (1998)- Hydrocarbon charge of a bacterial gas field by prolonged methanogenesis: an example from the East Java Sea, Indonesia. Organic Geochemistry 29, 1-3, p. 301-314.
(Terang-Sirasun 1982 field N of Bali >99.5% biogenic methane in Late Miocene-Pliocene Paciran Mb sandstone and globigerinid limestone, sealed by Quaternary Lidah Fm shales)

Novico, F., C. Endyana, D. Menier, M. Mathew, I. Kurniawan, H. Bachtiar et al. (2021)- The dynamic coastal evidence of Jakarta Bay during Late Pleistocene-Recent. Proc. 4th Int. Conf. Water Resources Development and Environmental Protection (ICWRDEP), Malang 2021, IOP Conference Series: Earth and Environmental Science 930 (2021) 012002, 0. 1-13.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/930/1/012002/pdf)

Novico, F., D. Menier, M. Mathew, M. Ramkumar, M. Santosh, C. Endyana, K.T. Dewi, I. Kurniwan et al. (2022)- Impact of Late Quaternary climatic fluctuations on coastal systems: Evidence from high-resolution geophysical, sedimentological and geochronological data from the Java Island. Marine and Petroleum Geology 136, 105399, p. 1-14.
(open manuscript at: https://www.sciencedirect.com/science/article/abs/pii/S026481722100502X)
(Investigation of morphology and sedimentary infill of submerged Late Quaternary incised valleys along N coast of W Java. Valleys incised during Quaternary lowstands and most of valley fill deposited during last postglacial sea level rise. Valley fill transgressive succession, from fluvial deposits at base (possibly amalgamated from older sequences) to shallow marine sediments and capped by hemipelagic deposits)

Nugraha, H.D., I.W.A. Darma & F.H. Darmawan (2016)- Ngimbang clastics play in the East Java Basin: new insight and concepts for North Madura Platform. Proc. 40th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA16-98-G, p. 1-13.
(Ngimbang clastics syn-rift succession in several NE-SW trending Paleogene half-grabens in E Java Basin. Consists of thick (~90m), but laterally-restricted fluvio-deltaic deposits, and thinner (~60m) but more extensive glauconitic shallow marine sandstones. Pagerungan Field produced 1.5 TCF gas from this play. Play fairway analysis with emphasis on reservoir distribution on N Madura Platform. Underlying basement NE-SW trending fold-thrust belt(s) (steeply dipping reflectors to NW on 3D seismic)

Nugrahanto, K. & M. Hutabarat (1994)- Reservoir characterization in a channel sand utilizing transgressive events: an example from the Talang Akar formation, offshore Northwest Java. Proc. 23rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 1, p. 88-103.
(online at: https://www.iagi.or.id/web/digital/62/8.pdf)
(Reservoir characterizion study of Late Oligocene BZZ-69B sand in upper Talang Akar sandstone in BZZ field, Arjuna Basin, off NW Java (incised valley fill))

Nugrahanto, K. & R.A. Noble (1997)- Structural control on source rock development and thermal maturity in the Ardjuna Basin, offshore northwest Java, Indonesia. In: J.V.C. Howes & R.A. Noble (eds.) Proc. Int. Conference Petroleum Systems of SE Asia & Australasia, Jakarta, Indonesian Petroleum Association (IPA), p. 631-653.
(Ardjuna Basin originated during Eocene-Oligocene period of extension. Incorporates major source kitchen for hydrocarbons with at least 2.8 BB Oil and 5 TCF Gas discovered to date. Three sub-basins. S sub-basin thickest sediments (~14,000' in axis), followed by C (~10,000') and N (~9000') sub-basins)

Nugroho, A., A. Ginanjar, S. Radiansyah & P. Syuhada (2017)- Integrated G & G evaluation to unveil new shallow gas opportunities in Cisubuh Formation, APN Field, ONWJ PSC, Indonesia. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, p. 1-5. *(online at: https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_Integrated-G-&-G-Evaluation-to-Unveil.pdf)*
(Shallow gas in Pliocene Cisubuh Fm sandstones in offshore NW Java basin formerly viewed as shallow drilling hazards, now potential targets (e.g. over ANP, Lima fields). Biogenic gas)

Ontosari, D., Miftah, R. Budiana, D. Wasugi, A. Dwinanto, Y. A. Yudha, R. Firmansyah, E.W. Irawan et al. (2021)- Newly identified sub-bsin in highly matured brownfield North-West Java Basin. Proc. HAGI-IAGI-IAFMI-IATMI Joint Convention Bandung (JCB) 2021, p. 406-409.
(online at: https://www.iagi.or.id/web/digital/52/JCB-2021-Paper-69-NW-Java-basin.pdf)
(Interpretation of multiple data sets suggests presence of two previouly unrecognized offshore sub-basins in W Java Sea, NE of Arjuna Basin: the S and N Anggursi sub-basins. Age of basin formation unknown)

Oostingh, C.H. (1938)- Fossielen van Bawean. Handelingen 8e Nederlandsch-Indisch Natuurwetenschappelijk Congres, Soerabaja 1938, p. 535-534.
(online at: https://resolver.kb.nl/resolve?urn=MMKB31:042287000:pdf)
('Fossils from Bawean'. Very brief report on mollucs found at three yellowish marl outcrops on Bawean island, Java Sea. Collected during conference fieldtrip (fieldtrip report by Coert in same volume). Two outcrops in S Bawean rich in thick-shelled oysters. Third locality at Pasaranginangin, 300m above sea level with Ostrea and also Amusium and Waldheimia, most likely of pre-Quaternary, Neogene age)

Pamungkas, G.M. (2020)- Hydrocarbon accumulation uncertainty in Miocene carbonate build-ups, NEJB. AAPG Asia Pacific Region GTW, Bogor 2019, Search and Discovery Article 11295p. 1-32. *(Abstract + Presentation)*
(Numerous Miocene 'Kujung' carbonate reefal buildups inJS-1 Ridge area, Java Sea. Hydrocarbon success rate from 58 reefs drilled 65% (38 HC-filled reefs))

Pamungkas, G.M. (2021)- Mesozoic tectonic setting of SE Sundaland after magmatism and surute evidence in JS-1 Ridge. Proc. 45th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA21-G-14, p. 1-16.
(JS1 Ridge in Java Sea is continuation of Meratus suture zone between SW Borneo and Paternoster terranes and E Cretaceous magmatic arc)

Pangesty, N.J., Aveliansyah, H. Nugroho & D. Utomo H. (2017)- Hydrocarbon potential mapping for fractured basement reservoir plays in the offshore North-West Java Block. Proc. 41st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA17-670-SG, p. 1-19.
(Hydrocarbon indications in Pretertiary basement of offshore NW Java Basin mainly in metamorphic rocks (schist, gneiss, marble, quartzite))

Pepper, A.S. & S.J. Matthews (2000)- Structural and petroleum systems modelling of the Eocene Ngimbang-sourced petroleum systems of the eastern East Java Sea. Part 2: Petroleum systems model. AAPG International Conference Exhib., Bali, Indonesia, 1p. *(Abstract only)*
(Thermal modeling of hydrocarbon source potential of coals and carbargillites in Eocene Ngimbang clastics of E Java Sea suggests large areas of basin are at maximum burial and thermal stress today. Due to high oil expulsion temperature (140° C at 5° C/Ma) and relatively limited post-rift deposition areas of effective kitchen severely limited)

Phillips, T.L., R.A. Noble & F.F. Sinartio (1991)- Origin of hydrocarbons, Kangean Block Northern platform, offshore northeast Java Sea. Proc. 20th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 637-662.
(online at: www.academia.edu/64680451/Origin_of_hydrocarbons_Kangean_Block_Northern_Platform Etc.)
(Oil in JS 53 and gas in Pagerungan from Eocene and older source rocks in E-W trending kitchen between fields. Late Eocene Ngimbang Fm coals and carbonaceous shales correlated to oil at JS 53 and condensate at Pagerungan. Paleocene-M Eocene Pre-Ngimbang Fm probable gas source at Pagerungan. Cretaceous sediments overmature and non-generative. Seismic shows E-W trending syncline in Cretaceous and Pre-Ngimbang N of Pagerungan, with N limb subcropping beneath JS 53 and Igangan-1. S limb subcrops beneath Pagerungan. Ngimbang and Pre-Ngimbang at maximum burial today in syncline. Hydrocarbon generation triggered by sedimentation associated with Late Miocene N-S compressional event)

Pireno, G.E. (2004)- Deep-water petroleum systems of the Southern Basin, North Lombok, Indonesia. In: R.A. Noble et al. (eds.) Proc. Deepwater and Frontier exploration in Asia and Australasia Symposium, Indonesian Petroleum Association (IPA), Jakarta, p. 321-332.

(Southern basin is Early Tertiary NE-SW and E-W half-graben, with sedimentation starting with M Eocene lacustrine sediments. Marine incursion started in mid Late Eocene. Inversion events in Late Eocene, mid-Oligocene and Plio-Pleistocene. L46-1 well tested oil in Eocene non-marine sandstone)

Poggiagliolmi, E., V.R. Checka, R.C. Roe & R. Purantoro (1988)- Reservoir petrophysics of Bima Field, N.W. Java Sea. Proc. 17th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 359-373.
(Mapping of porosity on petrophysically calibrated seismic data. Bima Field large field in Miocene Baturaja Fm carbonate buildup on flank of N-S trending basement high and underlying Talang Akar Fm sandstones)

Ponto, C.V., C.H. Wu, A. Pranoto & W.H. Stinson (1988)- Improved interpretation of the Talang Akar depositional environment as an aid to hydrocarbon exploration in the ARII Offshore Northwest Java contract area: Proc. 17th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 397-422.
(Oligocene Talang Akar Fm previous facies interpretation deltaic and marine. New interpretation determined four environments: continental, delta complex, shore zone and shelf. Delta complex and shore zone good source and reservoir potential. Four stages in Talang Akar Fm depositional history)

Ponto, C.V., C.H. Wu, A. Pranoto & W.H. Stinson (1989)- Controls on hydrocarbon accumulation in the Main, Massive sandstones of the Upper Cibulakan Formation, Offshore Northwest Java Basin. In: B. Situmorang (ed.) Proc. 6th Regional Conference Geology Mineral Hydrocarbon Resources of SE Asia (GEOSEA VI), Jakarta 1987, IAGI, p. 345-361.
(M Miocene Upper Cibulakan E-M Miocene 'Massive' and 'Main' hydrocarbons controlled by depositional facies (deltaic and shelfal) and mature Oligocene source rock distribution. Four cycles of delta progradation from northern source)

Posamentier, H.W. (2001)- Lowstand alluvial bypass systems: incised vs. unincised. American Assoc. Petroleum Geol. (AAPG) Bull. 85, 10, p. 1771-1793.
(Miocene unincised and Pleistocene incised valleys imaged on 3D seismic on shelf offshore NW Java)

Posamentier, H.W. (2002)- Ancient shelf ridges- a potentially significant component of the transgressive systems tract: case study from offshore northwest Java. American Assoc. Petroleum Geol. (AAPG) Bull. 86, 1, p. 75-106.
(3-D seismic of Miocene off NW Java shows extensive shelf ridge deposits: linear bodies 0.3 - 2.0 km wide, >20 km long, and up to 17 m high. Features asymmetric, characteristically sharp-edged and thicker on one side. Shelf ridge deposits tend to be sand prone and overlie ravinement surfaces. Ridges oriented parallel with axes of broad paleoembayments associated with structural fabric of basin. Ridges formed as result of erosion and reworking of sand-prone deltaic and/or coastal-plain deposits by shelf tidal currents, immediately after shoreline transgression. These deposits migrated across ancient sea floor, represent important component of transgressive systems tract, and have significant exploration potential.)

Posamentier, H.W. & P. Laurin (2005)- Seismic geomorphology of Oligocene to Miocene carbonate buildups offshore Madura, Indonesia. Soc. Exploration Geophysicists (SEG) 2005 Annual Meeting, Houston 2005, p. 1-4.
(Extended abstract)
(Buildups N of Madura range from small patch reefs to platforms with outliers, and tide influenced elongate large patch reefs in Kujung 2, Kujung 1, and Wonocolo Fms. Clastic low-angle clinoforms from NNW beween deposition of Kujung 1 and Wonocolo Fms. Post Wonocolo basin subaerially exposed and veneered by fluvial systems. Small Kujung 2 patch-reef buildups <120- 500m wide. Across platform 100's of small circular buildups, with ~25-40m of relief. Larger Kujung 1 patch reefs coalesced to form NW-SE trending platform. Buildups within platform 600m- 2 km diameter and 200-300m thick. Smaller patch reefs 60-120m diameter at tops of buildups. Large build-ups off platform, up to 400m thick with diameters 1- 6.5 km. Anastamosing 200m deep and 650m wide channels normal to platform and terminate at buildup margin. Wonocolo buildups larger than Kujung buildups and have clinoform architecture: circular to elliptical, 4-10 km wide and up to 20 km long, separated by 1.2-2.5 km wide tidal channels)

Posamentier, H.W., P. Laurin, A. Warmath, M. Purnama & D. Drajat (2010)- Seismic stratigraphy and geomorphology of Oligocene to Miocene carbonate buildups offshore Madura, Indonesia. In: W.A. Morgan, A.D.

George et al. (eds.) Cenozoic carbonate systems of Australasia, Soc. Sedimentary Geology (SEPM), Special Publ. 95, p. 175-194.
(Images of Miocene carbonate landscapes from 3D seismic off N Madura. Buildups range from small patch reefs to platforms with outliers. Tide-influenced elongate large patch reefs in Kujung 2 and K 1 and Wonocolo Fms. Clastics low-angle clinoforms from NNW. Top Wonocolo Fm subaerially exposed and site of densely spaced fluvial systems. Hundreds of small circular buildups of Kujung 2 range from 120-500m in diameter, and 25-40m of relief. Larger circular to elliptical patch reefs of Kujung 1 coalesced to form NW-SE trending platform. Buildups within platform 600m- 2 km wide and 200-300m thick. Smaller patch reefs at tops of buildups. Large buildups form off platform, up to 400m thick, 1-6.5 km wide. Anastamosing channels up to 200m deep and 650m wide, normal to platform. Woncolo buildups larger than Kujung (4-10 km wide, 20 km long), with internal clinoforms and separated from each other by tidal channels 1.2–2.5 km wide)

Posamentier, H.W., W. Suyenaga, D. Rufaida, R. Meyrick & S.G. Pemberton (1998)- Stratigraphic analysis of the Main Member of the upper Cibulakan Formation at E field, offshore northwest Java, Indonesia. Proc. 26th Annual Conv. Indonesian Petroleum Association (IPA), p. 129-153.
(Amplitudes in Upper Cibulakan Fm at E Field show E-W trending channel, likely deltaic. Biostratigraphic and sedimentologic data indicate open marine channel-fill. Main Member imaging reveals sand fields or patches, interpreted as sand waves migrating across transgressive surface of erosion)

Prahantanto, B.I., D.A. Setiawan & D.W. Dwiperkasa (2016)- Biogenic potential, North of East Java Basin, Proc. 9th Int. Conference on Petroleum Geochemistry in the Africa-Asia Region (A3PG 2016, Bandung, p. . *(Extended Abstract)*
(Potential biogenic gas accumulations in eastern Java Sea, e.g. Kepodang Field).

Prakoso, A., I.F. Firdaus & S. Sutiyono (2010)- Utilizing image log to generate fracture density map in the Pangkah Field, East Java, Indonesia. Proc. 34th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA10-G-010, p. 1-6.
(Ujung Pangkah Field 1998 oil-gas discovery off NE Java, N of Solo River delta. Reservoir Early Miocene platform margin carbonate reef build-up with complex reservoir properties and common faulting/ fractures. Fracture density decays quickly in about 200' from main faulting zone. Prevailing fracture orientation NE-SW)

Pramono H., C.H.C. Wu & R.A. Noble (1990)- A new oil kitchen and petroleum bearing subbasin in the offshore Northwest Java Area. Proc. 19th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 253-278.
(North Seribu Trough, offshore NW Java, is hydrocarbon generative center. NST oils differ from established oil families of Ardjuna Subbasin and S Seribu Trough and probably generated from lacustrine facies of Talang Akar Fm in central NST depocenter)

Prasetya, A., S. Romi, A. Yumansa, R. Agustiana, M. Setiawan & I.M. Harun (2017)- An incised valley filled system on a Ngimbang Limestone sequence at JS-1 Ridge, offshore East Java Basin, Indonesia. Proc. 41st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA17-507-G, p. 1-19.
(Seismic evidence of undrilled N-S oriented incised valley in mid-Oligocene at Top Lower Ngimbang Fm carbonate-dominated section on JS-1 Ridge in E Java Sea)

Prasetyo, H. (1992)- The Bali-Flores Basin: geological transition from extensional to subsequent compressional deformation. Proc. 21st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 455-478.
(Young back-arc thrusting N of Bali-Lombok-Flores, showing oceanic crust of Flores basin currently closing)

Prasetyo, H. & B. Dwiyanto (1986)- Single channel seismic reflection study of the eastern Sunda backarc basin, North central Flores, Indonesia. Bull. Marine Geological Institute 2, 1, p. 3-11.

Prasetyo, H. & L. Sarmili (1994)- Structural and tectonic development of West-East Indonesian backarc transition zone; implications for hydrocarbon prospect. Bull. Marine Geological Institute 9, 2, p. 23-60.
(W-E Indonesian Backarc Transition Zone (WEIBTZ) in E Sunda Arc System between Makassar Strait to N Bali and to E by NW-SE trending submarine ridge N of Flores. Tectonic phases: 1. Paleocene rifting; 2. M Miocene

and younger basement-involved inversion to form 'Sunda Folds', related to collision of Buton micro-continent with Sulawesi arc. 3. Flexure of SE Sunda shield margin to S beneath volcanic ridge; 4. Neogene back arc fold-thrust zone, associated with Australian margin-Banda Arc collision and subduction of Roo Rise oceanic plateau in Sunda Trench S of Bali. Westward transition from well-defined accretionary wedge to fold structural styles indicates W-ward decrease in shortening. Back arc thrusting N of Lombok reflects initial stage of arc polarity reversal, in which oceanic crust of Flores Sea subducted S-ward beneath arc, while Bali Basin represents analog of initial stage of foreland fold-thrust belt. Back arc region of E Sunda arc currently closing)

Prasetyo, H., Y.R. Sumantri, B. Situmorang & S. Wirasantosa (1995)- The 'Doang Borderland System' in the Southeast Sunda Shield margin: implications for hydrocarbon prospect in the eastern Indonesia frontier region. In: A. Noor & A. Tahir (eds.) Proc. Int. Seminar on the Sea and its environment, Ujung Pandang 1995, p.
(Seismic, gravity, drill-holes, side-scan seafloor mapping and Airborne Laser Flourescensor data used to determine geologic-tectonic development of "Doang Borderland System", a NE-SW and E-W series of ridges and deep basins in E Sunda Backarc. Basement consists of mixed oceanic, continental and Paleogene volcanic rocks, suggesting multiphase deformation. At least five geologic- tectonic episodes: (1) Some of Pre-Tertiary and economic basement show compressive regime (subduction/ collision); (2) Most of DBS Paleogene extensional regime; (3) extensional regime inverted to form 'Sunda Fold' structures; (4) Flexural downbowing to S of SE Sunda Shield margin (N basin margin) alongN Sunda volcanic ridge; and (5) Backarc fold-thrusting since Neogene, associated with Australian margin- Sunda Arc collision and Roo Rise (oceanic plateau) subduction in Sunda Trench. Back arc portion of DBS currently closing and will form suture zone in future)

Prasetyo, T. & Sugeng Herbudianto (1997)- First screening method use in low contrast low resistivity pay evaluation of the upper Cibulakan reservoirs in the L Field, offshore Northwest Java. Proc. 26th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 58-70.
(On evaluation of Miocene low resistivity pay horizons in L field, Arjuna basin, offshore NW Java)

Pratama, W.V., A. Ikhrandi, T. Nugroho, F. Fathurrahman, H. Utomo & R. Amami (2015)- Bawean island as a new geoturism destination in East Java basin. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI, Balikpapan, JCB2015-110, p. 1-10.
(Geotourism potential of Bawean Island on Bawean Arch, E Java Sea. With outcrops of Late Oligocene- E Miocene limestone, Late Miocene- Pliocene quartz sandstones and Pleistocene volcanics. Oil seep at in Mt. Lantung, Sangkapura district, S Bawean)

Prayitno, W., J.W. Armon & S. Haryono (1992)- The implications of basin modeling for exploration- Sunda Basin case history, offshore southeast Sumatra. Proc. 21st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 379-416.

Primadani, G.S., I.M. Watkinson, H. Gunawan & D. Ralanarko (2018)- Tectonostratigraphy of the ASRI Basin, SE Sumatera, Indonesia: unlocking the hidden potential of Oligo-Miocene reservoirs and implications for hydrocarbon prospectivity. Proc. 42nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA18-19-G, p. 1-14.
(Brief review of rel. well-known ASRI basin, offshore SE Sumatra- NW Java)

Prior, S.W. (1987)- Bima Field, Indonesia, a sleeping giant. In: M.K. Horn (ed.) Trans. 4th Circum Pacific Council for Energy and Mineral Resources Conf., Singapore 1986, p. 199-212.
(On large ARCO Bima oil field, offshore NW Java, with ~100 MBO of recoverable reserves. 2/3 of oil in partly stratigraphic trap of E Miocene Baturaja Limestone. Additional pay in deeper Talang Akar Fm sst. First drilled in 1974 by ZZZ-1 well, but at that time deemed non-commercial and heavy oil)

Priyanto, B., E.A. Subroto, A.H.P. Kesumajana, V. Susanto & A.D. Suryanto (2023)- Geochemical characteristics of lacustrine source rock: An insight of Banuwati Formation from Sunda and Asri Basins, Indonesia. Proc. 2nd Int. Seminar on Earth Sciences and Technology (ISEST-2023), Bandung, IOP Conference Series: Earth and Environmental Science 1245, 012009, p. 1-10.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1245/1/012009/pdf)

(Study of Eocene- E Oligocene Banuwati Fm in 2 offshore wells in Sunda and Asri basins, SW Java Sea. TOC 1.9-7.1%., mainly Type I kerogen, minor oleanane. Biomarkers indicate lacustrine depositional environment)

Priyanto, B., E.A. Subroto, A.H.P. Kesumajana, V. Susanto & A.D. Suryanto (2024)- Geochemical characteristics and origin of crude oils from Sunda and Asri Basins, Indonesia. Indonesian J. on Geoscience (IJOG) 11, 3, p. 3437-454.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/1023/491)
(Similar to Priyanto et al. (2023), above?. Sunda and Asri back-arc basins produced more than a billion barrels of oil equivalent.Eighteen crude oils classified as aliphatic oils, 25.3- 39 °API, low sulfur, deposited under oxic-suboxic conditions. Sourced from shales in Paleogene syn-rift shallow lacustrine Banuwati Fm)

Priyono, R., J. Widjonarko, E. Sunardi & B. Adhiperdana (2007)- Petroleum potential of the East Java- Lombok basin, North and South Makassar Strait and offshore Kutei basin. Proc. 31st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, G-068, p. 1-12.
(General paper promoting hydrocarbon potential)

Purantoro, R., P.J. Butterworth, J.G. Kaldi & C.D. Atkinson (1994)- A sequence stratigraphic model of the Upper Cibulakan sandstones (Main Interval), offshore Northwest Java Basin: insights from U-11 Well. Proc. 23rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 289-306.

Rachmawati, D. & B. Irfree (2025)- Mechanism formation carbon dioxide around Muriah Trough and Bawean Arc, North East Java Basin, Indonesia. J. Geoscience Engineering Environment Technology (JGEET) 10, 1, p. 1-7.
(online at: https://journal.uir.ac.id/index.php/JGEET/article/view/19121/7888)
(Carbon isotopes of CO_2 from gas samples from 6 exploration wells around Muriah Trough and Bawean Arch in Java Sea indicate origin not biogenic but mainly from inorganic processes, i.e. mantle degassing tied to volcanism at Muriah and Bawean in Late Miocene-Pliocene)

Radke, M., J. Rullkotter & S.P. Vriend (1994)- Distribution of naphthalenes in crude oils from the Java Sea: source and maturation effects. Geochimica Cosmochimica Acta 58, p. 3675-3689.
(C1-C3 naphthalenes and cadalene determined in 60 crude oil samples from Sunda, Arjuna and Jatibarang basins and in sample of Oligocene Talang Akar Fm resinite. Oils from Ardjuna and Jatibarang basins mainly derived from terrestrial sources. Transition to marine depositional environment in Sunda basin, indicated by decrease in C29 sterane relative abundance from 70 to 30%)

Rahardiawan R. & C. Purwanto (2014)- Struktur geologi Laut Flores, Nusa Tenggara Timur. J. Geologi Kelautan 12, 3, p. 153-163.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/256/246)
('Geological structures of the Flores Sea, East Nusa Tenggara'. Shallow seismic lines of Flores Sea between SE Sulawesi/Buton and Flores, with accretionary prisms, inactive volcanoes and active faults at seafloor)

Ralanarko, D., H. Gunawan, P. Nugroho, Sun Pengxiao & Su Chonghua (2015)- Uncertainty on stratigraphic heterogeneities within West Area and East Area of Widuri Field, offshore Ses Block, Indonesia: identifying 35-1 interval thin reservoir as an upside potential from fluvial channel system in Talangakar Formation, Asri Basin. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI, Balikpapan, JCB2015-368, p. 1-6.
(online at: https://www.iagi.or.id/web/digital/3/2015_IAGI_Balikpapan_Uncertainty-on-Stratigraphic.pdf)
(Reservoir sand distribution in fluvial 35-1 sand in Gita Mb of Talang Akar Fm in mature Widuri Field in Asri Basin off NW Java. Figures too much reduced;illegible, JYvG)

Ralanarko, D., B.A. Pangestu, E. Sunardi, Ildrem Syafri & B.G. Adhiperdana (2024)- Unleashing geological sequestration potential of mature oilfield by enforcing 4-dimensional seismic model-based inversion in Widuri Field, Indonesia. Bull. Geological Society Malaysia 77, 1, p. 15-26.
(online at: https://gsm.org.my/articles/bgsm202477-03/)

Ralanarko, D., M.I. Ramadhan, L. Fauzielly, Winantris, I. Syafri & Adurrokhim (2021)- Asosiasi facies & rekonstruksi paleogeografi pada zona transisi Formasi Talangakar, Cekungan Asri, Lepas Pantai block tenggara, Sumatra, Indonesia. J. Geologi Kelautan 19, 2, p. 85-94.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/736/538)
('Facies associations and palaeogeography reconstruction of the transition interval (of the upper) Talangakar Formation, Asri Basin, offshore SE Sumatra')

Ralanarko, D. & W. Senoaji (2012)- Shallow gas in ASRI Basin, Southeast Sumatra, Indonesia: drilling hazard or future potential? Proc. 37th Annual Conv. Indonesian Association Geophysicists (HAGI), Palembang, PITHAGI2012-065, p. 1-5. *(also in IPA Proceedings 2012)*
(Shallow gas in Air Benakat Fm sandstone reservoirs in Susana-01 around 1600- 1800' TVD and in other wells at ~1400'. Gas accumulations can be identified as bright spots on 3D seismic. Gas 99% methane and viewed as biogenic, based on gas isotope lightness and low C2-C7 content. Most probably generated from shale in M-L Miocene Air Benakat Fm)

Ralanarko, D., J. Sunarta, H. Gunawan, P. Nugroho, W. Wijadhy, C.H. Su & P.X. Sun (2016)- Development of low resistivity pay in Asri Basin, Southeast Sumatera Block, Indonesia. Proc. 14th Regional Conference Geology and Mineral Resources of SE Asia (GEOSEA XIV) and 45th Annual Conv. Indonesian Association Geologists (IAGI) (GIC 2016), Bandung, p. 108-113.
(Low resistivity of basal rift sandstone reservoirs tied to alluvial fan sediments)

Ralanarko, D., I. Syafri, A. Almabrury & A.A. Nur (2021)- A success case of Widuri area rejuvenation, Asri Basin, offshore SE Sumatra Block, Indonesia. Bulletin of the Marine Geology 36, 2, p. 57-64.
(online at: http://ejournal.mgi.esdm.go.id/index.php/bomg/article/view/704/525)
(INTA/B Field in Widuri area of Asri Basin produced for 25 years and currently undergoing watered-out phase. Integrated study successfully rejuvenated mature field, increasing oil production by average 300 BPOD/well)

Ralanarko, D., Wahyuadi, P. Nugroho, W. Rulandoko, I. Syafri, A. Almabrury & A.A. Nur (2020)- Seismic expression of Paleogene Talangakar Formation- Asri & Sunda Basins, Java Sea, Indonesia. Berita Sedimentologi 46, p. 21-43.
(online at: https://www.iagi.or.id/fosi/berita-sedimentologi-no-46-is-now-online.html)
(Review of seismic expression of the productive Talang Akar Formation in Asri and Sunda Basins, West Java Sea. Oil and gas fields, associated with series of Cenozoic half grabens)

Ralanarko, D., A. Wijaya, R.L. Jauhari & W. Senoaji (2012)- Geochemistry analysis for reoptimizing a gas well to be developed case study: ASRI Basin, offshore Southeast Sumatra, Indonesia. Proc. 41st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2012-E-11, p. 1-6.
('Asri Basin in W Java Sea with cumulative oil production of 549 MMBO. Talang Akar Fm main productive reservoir. Secondary target now is gas in Air Benakat Fm. Gas analysis: methane (98.9%), wetness 0.50%. Stable isotopes show gas unlikely to be biogenic)

Ramadhan, G.C., Y.D. Setiawati, A. Ginanjar, P.K.D. Setiawan & P.I. Syuhada (2017)- Sub-facies coding of single sand ridge facies: a new approach to interpret detailed sand ridge reservoirs. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, p. 1-7.
(Discussion of EMiocene N-S trending shallow marine sand riges in U Cibulakan 'Main' and 'Massive' intervals of K, E and U fields, offshore NW Java basin (see also Setiawati et al. 2017)

Ramsay, H.J. & H.A. Nedom (1973)- Exploration and development of a new petroleum province; Java Sea, Indonesia. J. Petroleum Technology 25, 4, p. 395-401.
(Early paper on first 10 oil-gas discoveries made in offshore NW Java basins since start of exploratory drilling in 1968)

Ratkolo, T. (1994)- Reservoir characteristics and petroleum potential of the mid main carbonate, Upper Cibulakan Group, Northwest Java Basin, Indonesia. Ph.D. Thesis University of Wollongong, p. 1-509.

(online at: http://ro.uow.edu.au/theses/1402/)
(M Miocene Mid Main Carbonate sequence in Seribu Shelf area of NW Java Basin with common N-S trending reef build-ups. Five coral-algal-foram limestone facies. Main diagenetic processes early diagenetic marine and vadose cementation, followed by dissolution and cementation. Latter processes greatest effect on porosity-permeability. Larger pores mainly secondary vugular or fracture porosity (23%, 19%). Coarser grainstone-packstone facies locally reduced porosity by cementation (e.g. 14% porosity and low permeability in Coral Limestone facies). Good quality reservoirs >10% recovery efficiency. Oil from Mid Main Carbonate reservoir contains bicadinane resins, oleanane and high pristane/phytane ratio, indicating land-plant precursor)

Reksalegora, S.W. (1993)- Reservoir distribution of the Upper Cibulakan Formation in the Seribu Shelf M-MM area, ARII ONWJ contract area: the search for additional reserves. Proc. 22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 832-846.
(Reservoir distribution maps of offshore NW Java Seribu Platform show clastic and carbonate reservoir distribution controlled by underlying basement, with NNW-SSE trends for sandstones and N-S trends for carbonates)

Reksalegora, S.W. (1999)- Biogenic structures of the B-28 zone "Main" interval, offshore Northwest Java. In: H. Darman & F.H. Sidi (eds.) Tectonics and sedimentation of Indonesia, FOSI-IAGI-ITB Regional Seminar to commemorate 50th anniversary of Van Bemmelen's Geology of Indonesia, Bandung 1999, p. 43-45.
(Brief discussion of bioturbation in M Miocene tide-dominated shoreface to offshore deposits of U Cibulakan Fm B-28 zone of B Field. Common sub-horizontal trace fossils Thalassinoides, Planolites, Chondrites, etc.)

Reksalegora, S.W., Y. Kusumanegara & P. Lowry (1996)- A depositional model for the “Main” interval, Upper Cibulakan Formation: its implications for reservoir distribution and prediction, ARII ONWJ. Proc. 25th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 163-173.
(Two sandbody types in "Main" interval: (1): sharp-based, bioturbated, glauconitic sandstone, with Glossifungites surface and siderite mudclasts, N-S orientation, 1-2 km wide, 5-8 km long. Sandbodies of same age and similar facies in W Java outcrops pinch out over 500m. Lower bounding contact discordant with underlying interbedded sandstone and mudstone. Sandbody formed in response to sea-level lowstand. (2): middle to lower shoreface "cleaning upward", burrowed sandstone with sharp upper-contact. Lower contact burrowed, siltstones and mudstones. Laterally extensive and correlative over inter-field distances (10's of km).

Reksalegora, S.W. & A.M. Ramdhan (2024)- Overpressure in Indonesia’s sedimentary basins series- The East Java basin. ITB Press, Bandung, p. 1-88.

Reynolds, J.R. (1995)- Northeast Java Basin. In: C. Caughey et al. (eds.) Seismic Atlas of Indonesian Oil and Gas Fields, Vol. 2: Java, Kalimantan, Natuna and Irian Jaya, Indonesian Petroleum Association (IPA), Jakarta, p. JAV11-JAV13.
(NE Java basin rel. stable northern platform (Java Sea) and series of deep basins to S (onshore), separated by 30-40 km wide, E-W trending Rembang inversion zone, which includes Madura Island. NE-SW trending Bawean Arch dominant positive feature offshore, which remained emergent from Eocene - E Miocene and was major source of clastic material to nearby depocenters. Smaller offshore highs, like JS-I-1 ridge, trend parallel to arch and separated by grabens and half-grabens with Eocene-Oligocene source rocks. With stratigraphic column and regional seismic line Trembul- Semanggi- Ledok- Kawengan fields)

Roberts, H.H., P. Aharon & C.V. Phipps (1988)- Morphology and sedimentology of *Halimeda* bioherms from the eastern Java Sea (Indonesia). Coral Reefs 6, 3-4, p. 161-172.
(Halimeda bioherms along W and S margins of Kalukalukuang Bank, E Java Sea. Numerous bioherms at N bank, with tops in 30-50m water depth. Fewer and thicker along deeper S margin. No reef-building corals below 15m. Upwelling of cold water and nutrient overloading from Pacific Troughflow water possible explanations for remarkable algal growth at expense of reef-building corals)

Roberts, H.H., C.V. Phipps & L. Effendi (1987)- *Halimeda* bioherms of the eastern Java Sea, Indonesia. Geology (GSA) 15, p. 371-374.

(Bioherms composed mainly of Halimeda plates on Kalukalukuang Bank, 50-70 km E of central Sunda Shelf. Thickness up to 52m above Top Pleistocene surface. Presence and growth rate possibly related to upwelling of deep, nutrient rich S-moving Pacific Throughflow water from Makassar Strait)

Roberts, H.H., C.V. Phipps & L.L. Effendi (1987)- Morphology of large *Halimeda* bioherms, eastern Java Sea (Indonesia): a side-scan sonar study. Geo-Marine Letters 7, 1, p. 7-14.
(The most extensive, and thickest Halimeda bioherms reported from modern seas are along margins of Kalukalukuang Bank, E Java Sea. Features average 20-30m thick (max. 50m) and developed over large areas by coalescence of individual mounds. Morphologies range from small mounds (10-20m diameter) through hay-stack features (100m diameter) to broad swells. Upwelling of cold, nutritive water responsible for high Halimeda productivity and large bioherm development)

Roe, G.D. & L.J. Polito (1977)- Source rocks for oils in the Ardjuna sub-basin of the Northwest Java basin, Indonesia. Proc. Seminar Generation and maturation of hydrocarbons in sedimentary basins, Manila 1977. United Nations ESCAP, CCOP, Technical Publication 6, p. 180-194.

Roniwibowo, A. (2014)- Studi pendahuluan potensi gas biogenik- termogenik pada area tinggian Bawean, cekungan Muriah, Laut Jawa Timur Utara. Proc. 43rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, PIT IAGI 2014-115, p. 1-11.
(online at: https://www.iagi.or.id/web/digital/6/2014_IAGI_Jakarta_Studi-Pendahuluan.pdf)
('Preliminary study on the potential for biogenic-thermogenic gas in the Bawean High area, Muriah basin, North East Java Sea'. Gas in Kujung Fm in Lengo-1 well mixture of hydrocarbon (67%) and non-hydrocarbon gas (CO_2 13%, Nitrogen 20%). Carbon isotopes indicate gas is biogenic, or mixed biogenic- thermogenic. Main source of gas inMuriah basin. Several exploration wells with high CO_2 in Tuban Fm sandstones and Kujung Fm limestones. CO_2 in Lengo-1 gas derived from inorganic source, probably magmatic activity, in other wells derived from organic activity)

Roniwibowo, A. (2015)- Biogenic gas exploration in the Bawean High offshore North East Java Basin. Proc. 39th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA15-G-285, p. 1-14.
(English version of Roniwibowo (2014). Active biogenic sources in Muriah Trough, Bawean High and E Florence Basin, in coal beds and shale)

Roniwibowo, A. (2016)- Biogenic gas exploration in the Bawean High, offshore North East Java Basin, Part II. Proc. 14th Regional Conference Geology and Mineral Resources of SE Asia (GEOSEA XIV) and 45th Annual Conv. Indonesian Association Geologists (IAGI) (GIC 2016), Bandung, p. 480-484.
(Follow-up of Roniwibowo 2014-2015 papers. Hydrocarbon gases in W part of Bawean High thermogenic (from SW part of Bawean High), mixed with 'secondary biogenic' (optimum development between ~1400'- ~2750' ss). Late generation of CO_2 (>90% in Merak wells) probably from local volcanic/magmatic activity)

Ruf, A.S., J.A. Simo & T.M. Hughes (2008)- Insights on Oligocene-Miocene carbonate mound morphology and evolution from 3D seismic data, East Java basin, Indonesia. Proc. 32nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA08-G-093, p. 1-10.
(3D seismic interpretation of Oligocene-Miocene carbonate buildups of N Madura Platform. Same paper as below. Locally high CO_2 content in gases in region; mainly of inorganic (magmatic) origin)

Ruf, A.S., J.A. Simo & T.M. Hughes (2008)- Quantitative characterization of Oligocene-Miocene carbonate mound morphology from 3D seismic data: applications to geologic modeling, East Java Basin, Indonesia. Proc. Int. Petroleum Technical Conference (IPTC), Kuala Lumpur 2008, IPTC 12511, p. 1-11.
(3D seismic interpretation of N Madura Platform shows growth history of Oligocene-Miocene carbonate buildups. Mound initiation with small (<100-500m), closely spaced, domal buildups, which become nuclei for intermediate mounds (2-3 km), which coalesce into amalgamated platforms (>5 km diameter))

Ruf, A.S., J.A. Simo & T.M. Hughes (2012)- Insights on Oligocene-Miocene carbonate mound morphology and evolution from 3D seismic data, East Java basin, Indonesia. Proc. AAPG Annual Meeting, Long Beach, CA 2007, Search and Discovery Article 50649, p. 1-19. *(Same paper as Ruf et al. 2008)*
(online at: https://www.searchanddiscovery.com/documents/2012/50649ruf/ndx_ruf.pdf)

Russell, K.L., C. Sutton & W.C. Meyers (1976)- Organic geochemistry as an aid to exploration in the East Java Sea. Proc. 5th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 69-80.
(E Java Sea Poleng field oils probably sourced from Kujung Unit III (Early Oligocene) shales, the only unit with TOC >1.5% and sufficiently mature)

Sampurno, S.T., J. Grant, A. Siregar & C. Murray (2018)- Biliton PSC: Four wells later and still a mystery. Proc. 2016 Technical Symposium, Indonesia exploration: where from-where to, Indonesian Petroleum Association (IPA), Jakarta, 31-TS-16, p. 1-19.
(Mitra Energy review. Biliton basin in W Java Sea SE of Belitung Island, 350km NE of Jakarta, N of Karimunjawa islands. Stratigraphic fill of Biliton Basin interpreted to be analogous to Asri Basin. After 10-year exploration program, incl. 4 wells, no discoveries, but some fluid inclusions in 2 wells. Parang G-1 well (Ashland, 1974) penetrated Oligocene synrift alluvial fan. Three more Batara wells in 2007, 2008, 2013. PSC relinquished 2013)

Santoso, M.A., R. Hidayat & G. Mahar (2016)- Analisis sekatan sesar Abbher pada formasi Ngimbang, lapangan South Ridge, cekungan Jawa Timur bagian utara, Provinsi Jawa Timur. In: R. Hidayat et al. (eds.) Proc. Seminar Nasional Kebumian 9, Dept. Teknik Geologi, Gadjah Mada University, Yogyakarta, p. 182-191.
(online at: https://repository.ugm.ac.id/273486/)
('Analysis of the Abbher fault in the Ngimbang Formation, South Ridge field, NE Java basin'. Pertamina Hulu South Ridge Field (not real name?) is oil-gas field at NW side of JS-1 Ridge, offshore W Madura Island in E. Java Sea. Cut by NE-SW trending normal growth fault (syn-rift?; parallel to main E Bawean Trough border fault), which offsets Ngimbang Fm. Shale gouge ratios in 4 wells in Ngimbang Fm suggests sealing fault)

Setianingpring, P. (2016)- Tektonostratigrafi area North Bali III, Cekungan Jawa Timur Utara. S2 Thesis Gadjah Mada University, p. 1-79. *(Unpublished)*
('Tectonostratigraphy of the North Bali III area, NE Java basin'. Tectonostratigraphy study based on 43 seismic lines and 6 wells around the North Bali III Area, offshore NE Java basin. Four tectonostratigraphic units: Pre Tertiary pre-rift, Eocene rifting, Late Eocene-Oligocene post-rift and E Miocene and younger syn-inversion)

Setianingpring, P., E.Y. Sulistiyowati, S. Husein & S.S. Surjono (2016)- Tektonostratigrafi area North Bali III, Cekungan Jawa Timur Utara. Publikasi Ilmiah Pendidikan dan Pelatihan Geologi 12, 2, p. 43-51.
('Tectonostratigraphy of the North Bali III area, NE Java basin'. Geology of offshore block, N of Bali, E of Kangean. M Eocene rifting (Ngimbang clastics), Late Eocene post-rift (Ngimbang Shale), Oligocene post-rift (Kujung- Prupuh carbonates, M Miocene and younger inversions, etc.)

Setiawan, D., M.N. Juliansyah & I.W. Ardana Darma (2014)- Stratigraphic- structural framework, play types and play fairway and underexplored play in East Java Basin. Proc. 38th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA14-G-309, p. 1-12.
(online at: https://www.researchgate.net/publication/323554990_Stratigraphic-Structural_Framework_Play_Types_and_Play_Fairway_and_Underexplored_Play_in_East_Java_Basin)
(Review of geology and Cenozoic hydrocarbon plays in offshore E Java Basin in and around Pangkah PSC)

Setiawan, D., F.D. Marianto & D. Dwiperkasa (2017)- Compressional tectonic influence to the structural configuration and its contribution to the petroleum system on the northern platform of East Java Basin. Proc. 41st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA17-71-G, p. 1-14. *(online at: www.researchgate.net/publication/324035302_Compressional_Tectonic_Influence_to_The_Structur Etc.)*
(Evidence of compression in Late Oligocene- mid E Miocene of E Java Sea (E-W trending RMKS fault zone inversion?)

Setiawan, D., F.D. Maryanto, D.K. Wikanswasti & A.I. Wardhana (2015)- Tuban Sandstone; an overlooked reservoir. Proc. 39th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA15-G-039, p. 1-9.
(online at: https://www.researchgate.net/publication/323260089_Tuban_Sandstone_an_Overlooked_Reservoir)
(In offshore NE Java basin E Miocene Tuban Fm shale usually seal for Oligocene- E Miocene Kujung Fm carbonate reservoirs, but more sandy Tuban facies present in E (Ronggolawe 1 well). Tuban marine sandstone reservoirs may have been overlooked in other areas like Pangkah. Tuban Sst prograded to S)

Setiawan, P.K. D., Amrizal, Y.D. Setiawati & A. Mansur (2024)- A proposed model of width-thickness ratio for tidal shelf sand ridge reservoirs within Upper Cibulakan Fm. in the Ajata Field, Offshore Northwest Java Basin. Berita Sedimentologi 49, 3, p. 65-83.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/442/423)
(Sedimentological study in non-existent field? E Miocene coarsening-upward tidal shelf sand ridges)

Setiawati, Y.D., G.C. Ramadhan, A. Ginanjar, P.K.D. Setiawan & P.I. Syuhada (2017)- Sand ridge facies architecture of the transgressive shelf system using sand width and thickness ratios: a case study of the Main and Massive interval of Uniform Field, North West Java basin. Proc. 41st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA17-139-G, p. 1-14.
(U Field in Offshore NW Java Basin produces from E-M Miocene shelf sand ridge reservoirs of Main and Massive intervals of U Cibulakan Fm. Mainly N-S trending sand bodies)

Shimazu, T., X. Janson, M. Yagi & Y. Ichimaru (2017)- Carbonate facies and reservoir quality of the Kujung Formation in Kangean Island, East Java, Indonesia. J. Japanese Association for Petroleum Technology 82, 1, p. 34-43.
(online at: https://www.jstage.jst.go.jp/article/japt/82/1/82_34/_pdf/-char/en)
(In Japanese. Outcrop study of Late Oligocene- Early Miocene Kujung Fm carbonates on NW Kangean island. Exploration target in nearby Kangean PSC (Japex), but no commercial hydrocarbons yet)

Shofiyuddin & S. Sutiyono (2010)- Petrophysical assessment for early water production in the Ujung Pangkah Field, East Java, Indonesia. Proc. 34th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA10-G-030, p. 1-9.
(Ujung Pangkah oil-gas field offshore E Java with complex E Miocene Kujung I (Prupuh FM) carbonate reservoir: E-W trending platform margin reef build-up with steep southern margin. Early water production suspected caused by mobile water through fractures and vuggy porosity)

Sihombing, E.H., P.K.D. Setiawan, L.J. Wood & P. Syuhada (2018)- Strike-slip rift-basin architecture in offshore area Jatibarang subbasin- new findings and future opportunities. Proc. 42nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA18-203-G, p. 1-26.
(Study of Jatibarang sub-basin of NW Java, N of Cirebon. NW-SE trending border fault of Jatibarang sub-basin (OO-Brebes Fault) likely right-lateral transtensional fault and probably part of Pamanukan-Cilacap Fault Zone. Paleogeography maps of Oligocene Talang Akar Fm syn-rift intervals show alluvial fans and fan delta, sourced from N and E)

Sihombing, E.H., P.K.D. Setiawan, L.J. Wood & P. Syuhada (2018)- Sedimentological characteristics of lacustrine associated reservoir in transtensional rift basin: Lake Singkarak modern analogue application in Lower Talangakar Formation, Jatibarang subbasin, NW Java. Proc. 42nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA18-310-G, p. 1-29.
(Fluvial- lacustrine Lake Singkarak deposits compared to Late Oligocene Talangakar Fm in Jatibarang basin)

Situmorang, M., Kuntoro, A. Farurachman, D. Ilahude & D.A. Siregar (1994)- Distribution and characteristics of Quaternary peat deposits in eastern Jawa Sea. Bull. Marine Geological Institute 8, 4, p. 9-20.
(Non-marine and marine sediments on E Java Sea seafloor between Madura and Kalimantan include channel, swamp, volcanogenic, kaolinitic and marine deposits. Widespread swamp deposits with peat layers in E Java Sea, with peat layers up to 0.72m thick. One thick peat layer S of Masalembo 0.4m below sea floor in 30m water

radiometrically dated as Early Holocene, confirming Kalimantan- Java connection during Quaternary, with Sunda River flowing in middle of area)

Situmorang, M., Kuntoro, A. Faturachman, D. Ilahude & D. Arifin (1994)- Preliminary results on the occurrence of peat deposits in eastern Java Sea. Proc. 30th Session Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Bali 1993, 2, p. 87-96.
(online at: https://repository.unescap.org/items/177e9366-1a15-4fc9-986f-15520603d2c3)
(Similar to above. Peat layers on Java Sea floor suggest land areas between E Kalimantan and E Java-Madura during the Quaternary sea level lowstand, with Sunda river flowing in middle of area)

Smart, S., D. Sturrock & A. Hidayat (2013)- Discrete fracture network modeling based on seismic data, logs, drilling losses, production, and outcrop data- Ujung Pangkah Field. AAPG Hedberg Conf., Fundamental controls on flow in carbonates, Saint-Cyr 2012, Search and Discovery Article 120090, p. 1-4. *(Extended-Abstract)*
(online at: www.searchanddiscovery.com/documents/2013/120090smart/ndx_smart.pdf)
(Ujung Pangkah Field is 1998 gas condensate field with oil rim just offshore NE Java. Reservoir Miocene Kujung Fm fractured carbonate with good- excellent matrix reservoir quality)

Smit-Sibinga, G.L. (1947)- The morphological history of the Java Sea. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 64, p. 572-576.

Smith, S.W., L. Danahey, R. Himawan, W.E. Harmony, H.L. Gilmore, J.W. Armon, T.L. Bowman & W. Smith (1996)- An example of 3-D AVO for lithology discrimination in Widuri Field, Asri Basin, Indonesia. The Leading Edge 15, 4, p. 283-288.
(Oil producing Lower Miocene U Gita Mbr sandstones of U Talang Akar Fm in Widuri Field, Asri Basin, off SE Sumatra, correlate with bright seismic amplitudes on 3-D seismic data. Amplitude maps at Base Upper Gita horizon interpreted as NE-SW trending belt of meandering distributary or fluvial channels)

Sosa J.C., F.B. Palao, J.S.S. Toralde & H. Zaki (2010)- Underbalanced drilling challenges and benefits in a marginal high-pour-point oil reservoir in Sepanjang Island, Indonesia. Proc. SPE/ IADC Managed pressure drilling and underbalanced operations Conference, Kuala Lumpur 2010, p. 1-12.
(Sepanjang field is marginal oil field on Sepanjang Island, E Java Sea, part of Kangean PSC, first discovered by ARCO in 1990. Oil from (Eocene) Ngimbang Carbonate reservoir mostly of heavy black oil with high pour point of 120°F, wax content 24.9%., specific gravity 0.8574 and API gravity 33. Reservoir is tight Ngimbang Fm carbonate at depth of ~4600'. Underbalanced drilling for new wells to improve reservoir productivity

Sosrowidjojo, I.B. (2011)- Organic geochemistry: 1. Geographic location of crude oils based on biomarker compositions of the Sunda-Asri basins, Indonesia. Int. J. Physical Science 6, 31, p. 7291-7301.
(online at: www.academicjournals.org/article/article1380715460_Sosrowidjojo.pdf)
(Biomarker cluster analysis of 45 oil samples in Sunda-Asri basins shows 6 geographically separated groups)

Sudarmono, S. Herbudiyanto & T. Abdat (2003)- The state of the art finding new oil and gas reserves in an old and mature area, offshore Northwest Java Sea. Proc. 29th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 1-17.
(Offshore NW Java basin mature area. Parigi carbonates neglected as targets because only gas. Success rate in Parigi <30%. Commonly thick Parigi buildups only thin gas columns at top, although one accumulation has >200' of column and holds >1 TCF gas. Example of U1 well. Oil and gas in channel-type sandstones of Talang Akar Fm. underdeveloped due to inability of seismic to image sandstones)

Sudibyo, T., Atmawan T., Ronnie P. & Bernato V. (2002)- Reservoir characterization study to delineate dimension of "Channel 8", Talang Akar Formation, Cinta Field, Sunda Basin. Proc. 31st Annual Conv. Indonesian Association Geologists (IAGI), Surabaya, 1, p. 193-223.
(online at: https://www.iagi.or.id/web/digital/17/RESERVOIR-CHARACTERIZATION-STUDY-TO-DELINEATE-DIMENSION-OF-CHANNEL,-CINTA-FIELD,-SUNDA-BASIN.pdf)

(E-W trending deltaic 'Channel 8' sand in Late Oligocene upper Talang Akar Fm in Cinta field, offshore NW Java, is 800-1500m wide and 17-70' thick. Produced ~11 MBO)

Sukamto, B., B. Siboro, T.D. Lawrence & S.W. Sinclair (1995)- Talang Akar (Oligocene) source rock identification from wireline logs- applications in the deep Ardjuna Basin, Offshore Northwest Java. Proc. 24th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 185-200.

Sukanto, J., F. Nunuk, J.B. Aldrich, G.P. Rinehart & J. Mitchell (1998)- Petroleum systems of the Asri Basin, Java Sea, Indonesia. Proc. 26th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 291-312.
(Asri Basin off SE Sumatra PSC recoverable oil reserves of ~500MMBO from nine fields includinge major Widuri and Intan oil fields. Penetration of organic-rich, mature source rock by Hariet-2 well in 1995 helped define primary petroleum system. Good geochemical match between produced oils and E Oligocene Banuwati Fm synrift lacustrine shales)

Sukaryadi, E.K.A. (2001)- Characteristics and sandbody geometry of the 34-1 reservoir, Widuri Field offshore Southeast Sumatra. Proc. 28th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 105-118.
(34-1 sandstone one of six productive reservoirs in Widuri field, Asri Basin, off SE Sumatra. The 34-1 thickness 10-53' and deposited in fluvio-deltaic setting. Incl. channel facies with E-W trend)

Suria, C. (1991)- Development strategy in the BZZ Field and the importance of detailed depositional model studies in the reservoir characterization of Talang Akar channel sandstones. Proc. 20th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 419-451.

Suria, C., C.D. Atkinson, S.W. Sinclair, M.J. Gresko & B. Mahaperdana (1994)- Application of integrated sequence stratigraphic techniques in non-marine/marginal marine sediments; an example from the Upper Talang Akar Formation, Offshore Northwest Java. Proc. 23rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 145-159.

Suria, C., P.J. Butterworth, M.J. Gresko, S.W. Sinclair & C.D. Atkinson (1996)- Sequence stratigraphic surfaces identified on conventional core data: Talang Akar Formation, Ardjuna Basin, offshore Northwest Java. In: C.A. Caughey et al. (eds.) Proc. Int. Symposium on Sequence Stratigraphy in SE Asia, Indonesian Petroleum Association, Jakarta 1995, p. 327. *(Abstract only)*

Susilohadi, S. & T.A. Soeprapto (2015)- Plio-Pleistocene seismic stratigraphy of the Java Sea between Bawean Island and East Java. Berita Sedimentologi 32, p. 5-16.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/117)
Marine geology/ seismic stratigraphy of SE part of submerged Sunda Shelf, N of E Java and Madura. Multiple Quaternary erosional features resulting from exposure during major Pleistocene sea level lows)

Sutanto, H., N. Andani, J.T. Musu, E.A. Subroto, A. Bachtiar & A.H. Satyana (2016)- Mesozoic-aged oils in the Northeast Java Basin, Indonesia: evidence from triaromatic dinosteroid. Proc. 40th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA16-663-G, p. 1-17.
(High Triaromatic Dinosteroid Index in 3 oil samples from Sepanjang Island 1,3,4 wells, SE of Kangean, may correlate to Cretaceous age, as also supported by previously reported Oleanane Index <20%, which is common for samples from older sources than Cenozoic. 'Supports idea that Cretaceous source rocks were deposited in marine setting while Australia-derived microcontinent was drifting N-ward before it collided with SE margin of Sundaland in Cretaceous' (NB: If 'triaromatic dinosteroid' biomarker indicates Mesozoic and younger marine dinoflagellates and oleanane indicates (Upper) Cretaceous and younger angiosperm land plants, couldn't the low oleanane/ high dinosteroid signify marine Tertiary, not necessarily Cretaceous, source facies?; JTvG))

Sutanto, H. & J.T. Musu (2014)- Application of oleanane and sterane index for biostratigraphic age determination: examples from Kangean oils, Northeast Java Basin. Lemigas Scientific Contributions Petroleum Science Technology 37, 1, p. 15-24.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/618)

(NE Java Basin hydrocarbon source rock generally believed to be in Late Eocene- E Oligocene early synrift Ngimbang Fm. Occurrence of Alisporites sp. suggest presence of Cretaceous sediments, which may also be potential source rock. Crude oils from Paleogene Ngimbang Fm in Kangean oil field in offshore NE Java Basin classified as mixed oil, with organic matter from both marine and terrestrial sources, deposited under oxidizing and reducing conditions. Very low oleanane Index (<20%; marker for flowering plants) suggests oils originated from Cretaceous source rock)

Sutanto, H. & J.T. Musu (2015)- Marine depositional environment determination using hydrogen isotopic composition of individual alkanes: case studies from Kangean oils, the Northeast Java basin. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI, Balikpapan, JCB2015-207, p. 1-9.
(Geochemistry of oils from well in Kangean (Sepanjang) area, Java Sea and Kawengan, NE Java basin. Sepanjang 1, 3 oils may be from mixture of marine and terrestrial kerogens, low oleanane% suggests marine shale source. Kawengan oil clearly terrestrial oil from deltaic source rock)

Sutanto, H., J.T. Musu, A.H. Satyana & A. Bachtiar (2015)- Mesozoic source rocks in Northeast Java Basin, Indonesia: evidence from biomarkers and new exploration opportunities. Proc. 39th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA15-G-090, p. 1-17.
(Similar to paper above: biomarkers in some oils from Eocene Ngimbang carbonates in Sepanjang Field, SE of Kangean in Java Sea, show stronger marine character and reducing conditions than typical Cenozoic 'Sundaland' oils and also show very low oleanane and sterane indexes, indicating source of oils may be Cretaceous in age. Presence of Lower Cretaceous Alisporites sp. in sediments analyzed, is another indication that there is Cretaceous source in area (proposed to be part of Australian-derived Paternoster-Kangean microcontinent, but Cretaceous marine sediments are also known all around the Sundaland margin; JTvG))

Sutisna, K., H. Samodra & A. Koswara (1993)- Geological map of the Kangean and Sapudi Quadrangle, Java, 1708-4, 1709-3, 1808-4, scale 1:100,000. Geological Research Development Centre (GRDC), Bandung.
(Kangean and Sapudi islands folded Oligocene-Pliocene sediments, mainly N-dipping. Oldest rocks Late Oligocene Cangkaramaan Fm marls with planktonic forams. Upper part interfingers with Oligo-Miocene Tambayangan (= Kujung) orbitoid limestone. Overlain by E-M Miocene Jukong-Jukong Fm limestone, unconformably overlainby Late Miocene-Pliocene marine Brakas Fm limestone-sandstones)

Sutiyono, S. (2009)- Reservoir water saturation and permeability modeling in the Pangkah Field. Proc. 33rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA09-G-022, p. 1-8.
(Ujung Pangkah Field is 1998 discovery in E Miocene platform margin carbonate reef build-up, offshore NE Java, in front of present day Solo river delta. Main producing Kujung-I Fm is complex carbonate reservoir. Paper is on initial petrophysical models to calculate water saturation and permeability)

Sutiyono, S. (2010)- Integrated petrophysics in Kujung carbonate reservoirs, East Java, Indonesia. Proc. 34th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA10-G-012, p. 1-7.
(On log interpretation challenges in E Miocene carbonate buildup of Ujung Pangkah Field, Java Sea)

Sutriyono, E. (1998)- Cenozoic thermotectonic history of the Sunda-Asri basin, southeast Sumatra: new insights from apatite fission track thermochronology. J. Asian Earth Sciences 16, 5-6, p. 485-500.
(AFT analysis of Cenozoic rocks from wells Asri-1, NE Ria-1, Hariet-1 and Yani-2 in Sunda-Asri basin suggest basin continues subsiding, probably due to extension initiated in Late Eocene. Recent heating of rocks consistent with 800m of Plio-Pleistocene burial. Geothermal gradients relatively constant through Cenozoic)

Sutton, C. (1978)- Depositional environments and their relation to chemical composition of Java Sea crude oils. In: Seminar Generation and maturation of hydrocarbons in sedimentary basins, Manila 1977, United Nations ESCAP, CCOP, Technical Publication 6, p. 163-179.

Syafrie, I, A. Sudradjat & E. Usman (2012)- Posisi tektonik Bawean-Muria dalam hubungan dengan hidrokarbon cekungan Cepu, Jawa Tengah. Proc. 41st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2012-GD-08, p. 1-5.

(online at: https://www.iagi.or.id/web/digital/9/2012_IAGI_Yogyakarta_Posisi-Tektonik-Bawean-Muria.pdf)
('Tectonic position of Bawean- Muriah in relation to the Cepu hydrocarbon basin, Central Java'. Bawean Island volcanics different from Java arc. Composed of phonotepite (?), basalt andesite, trachyte and phonolite, with significant amounts of leucite, with ages of 0.67- 0.26 Ma. Similar to Muria volcano (0.6 -0.4 Ma))

Syarif, M., Bintoro W. & Reno F. (2005)- Seismofacies study in early fill to source rock depositional environment, Asri basin. Proc. Joint Convention 30th HAGI, 34th IAGI, 14th PERHAPI, Surabaya 2005, JCS2005-S029, p. 98-111.
(Seimic facies maps of Eo-Oligocene early basin fill of Asri Basin, Java Sea, offshore SE Sumatra, incl. Banuwati lacustrine shale source rocks. Earliest fill alluvial-fluvial setting with N-S sediment transport direction, with local sediment sources from W and E flanks of rift basin)

Takano, O., A. Disiyona, A.P. Tata & B. Heruyono (2008)- Sequence stratigraphy and depositional model of the Ngimbang carbonate reservoir in Pagerungan Utara offshore, Kangean Block, East Java. Proc. 32nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA08-G-062, p. 1-11.
(Eocene Ngimbang Carbonate isolated platform reservoir in Pagerungan Utara two depositional sequences. Sequence boundary is onlap surface. HST of lower sequence (L-M Ngimbang Carbonate), two shoal complexes with progradational and aggradational patterns at W to C part and E part of platform. During relative sea level lowstand topographic highs at center of shoal complexes might be exposed. Subsequent relative sea level rise resulted in TST carbonate deposition (U Ngimbang Carbonate) only on platform with upward fining/deepening facies succession, and finally covered by hemipelagic shales (Ngimbang Shale))

Talo, A.J. & A.G. Randall (1985)- Krisna Lower Batu Raja waterflood project. Proc. 14th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 169-194.
(Offshore NW Java basin Krisna field enhanced production project)

Temansja, A.D. & D.C. Bushnell (1986)- A model for hydrocarbon accumulation in Sunda Basin, West Java Sea. Proc. 15th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 47-75.
(Sunda Basin oil-gas sources lacustrine and paludal shale and coal. All oil reserves contained within two widespread reservoir systems, fluviatile sandstones and reefal carbonates. Etc.)

Tognini, P., A.J. Bromley & N. Khifni (2007)- An alternative view on the existence of an effective petroleum system in the Bali-Lombok area. SEAPEX Exploration Conference, Singapore 2007, p. 1-29. *(Abstract + Presentation)*
(Bali-Lombok area water depth 200-1000m and extension of E Java Basin. Gravity data suggest thick Tertiary depocenter; part of Paleocene and M Eocene rift system that developed between. Two stage rift model that progressed from E to W. Marine transgression progressed from SE to NW. By end M Eocene Bali-Lombok area fully marine. By Late Eocene deep marine environment while areas to N had just been transgressed. Potential lacustrine and paralic source rocks only in Paleocene- E Eocene. Geochemical evidence of migrated hydrocarbons in dry wells. Basin modeling shows Paleocene- E Eocene source rock reached peak oil by end Eocene, so only Late Eocene- earliest Oligocene structures reasonable chance of capturing hydrocarbons)

Tonkin, P.C. (1995)- Determination of permeability in sandstone reservoirs affected by diagenetic kaolinite, Cinta Field, Southeast Sumatra. Proc. 24th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 45-59.
(Sunda Basin Cinta Field produces from Late Oligocene Talang Akar Fm sandstones and overlying Baturaja Fm reefal carbonates. Sandstones frequently large amounts of pore-filling kaolinite, from breakdown of potassium feldspars from volcanic detritus)

Tonkin, P.C. & R. Himawan (1999)- Basement lithology and its control on sedimentation, trap formation and hydrocarbon migration, Widuri-Intan oilfields, SE Sumatra. J. Petroleum Geology 22, 2, p. 141-165.
(Widuri-Intan fields in NW Asri Basin produced ~310 MB Oil from Late Oligocene Talang Akar Fm fluvial-deltaic sandstones. Oil in structural and stratigraphic traps in sinuous-meandering channel sandstones. Reservoir sands interbedded with mudstone and coal and overlie Cretaceous basement rocks. Basement lithologies: (1) hornblende granodiorite; (2) metamorphic rocks (mainly mica schist); (3) plugs of metabasalt

and related volcanic rocks; (4) dolomitic limestone. Basement topography influenced subsequent distribution of fluvial channels and sand pinch-outs. Faults controlled by basement lithology, especially at boundaries of intrusives. NW-SE shear zone offset basement between main Widuri and Intan fields. Lidya field reservoir pinch-out onto eroded areas of basement silicification along shear zone. Drape and compaction over eroded volcanic plugs enhanced structural-stratigraphic plays. Reservoir at Indri field underlain by dolomitic limestone and exhibits karst sinkhole and collapse structures)

Tonkin, P.C., A. Temansji & R.K. Park (1992)- Reef complex lithofacies and reservoir, Rama Field, Sunda basin, Southeast Sumatra, Indonesia. In: C.T. Siemers et al. (eds.) Carbonate rocks and reservoir rocks of Indonesia: a core workshop. Indonesian Petroleum Association (IPA), Jakarta, p. 7.1-7.32.
(Five main lithofacies in Rama field E Miocene Baturaja Fm. Secondary porosity restricted to packstones of bioclastic debris from main reef. Rel. minor in-situ reef facies tightly cemented poor reservoir)

Tyrrell, W.W. & R.G. Davis (1987)- Miocene carbonate shelf margin, Bali-Flores Sea, Indonesia. In: A.W. Bally (ed.) Atlas of seismic stratigraphy, American Assoc. Petroleum Geol. (AAPG), Studies in Geology 27, 3, p. 174-179.
(Amoco seismic line showing SW prograding Miocene carbonate shelf margin)

Tyrrel, W.W., R.G. Davies & H.G. McDowell (1986)- Miocene carbonate shelf margin, Bali-Flores Sea. Proc. 15th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 123-140.
(Central Lombok Block (CLB) N of Lombok/ Sumbawa underlain by Cretaceous melange and/or oceanic crust. After E Tertiary block faulting and nonmarine basin-fill, area underwent rapid subsidence. Most of upper Paleogene and Neogene in deep water facies, except along E and N margins where shallow water carbonate banks were progressively drowned. Local reversal of trend in Miocene along N part of CLB where shelf margin carbonate complex prograded ~9 km to SW over deep water basinal deposits during Miocene-?E Pliocene. This was followed by rapid subsidence causing 'drowning' of N shelf margin after which slope was onlapped and covered by deep water Plio-Pleistocene mudstone)

Usman, E. (2012)- Tektonik dan jalur volkanik busur belakang Bawean Muria sebagai pengontrol pembentukan Cekungan Pati dan potensi hidrokarbon. Indonesian J. Applied Sciences 2, 3, p. 111-118.
(online at: http://download.portalgaruda.org/article.php?article=104220&val=1389)
('Tectonics and position of Bawean-Muria back-arc volcanic arc as controlling the Pati Basin and hydrocarbon potential'. SW-NE trending Muria -Bawean back-arc magmatic belt part of Quaternary volcanic belt on SE border of granite belt of Java Sea. Volcanics in area of Gunung Muria calc-alkaline-shoshonite magmas. Meratus trend and Muria- Bawean back arc volcanic belt divides NE Java basin in Pati Basin in W and NE Java Basin in E)

Vear, A. & D.M. MacGregor (1996)- 2-D basin modeling of secondary petroleum migration in the Sakala Timur PSC, Indonesia. Proc. 25th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 421-435.
(E Java Sea Sakala Timur area basin modeling by BP. Reason for failure of ST-Alpha well was lack of suitable migration pathway from mature source kitchen to trap. Topseal capacity of silty Tertiary mudstones main risk)

Wahyuadi, D. & Aveliansyah (2021)- Regional basin analogue evaluation in offshore Northwest Java Basin to find new opportunities in matured field. Proc. 45th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA21-G-23, p. 1-34.
(Regional plays evaluation of Sunda, Ardjuna and Jatibarang sub-basins in NW Java. Two potential new plays in offshore NW Java Basin: (1) Late Eocene Pre-Talangakar, pre- or syn-rift Carbonate play and (2) Cretaceous Fractured Basement play)

Welker-Haddock, M., R. Park, I. Asjhari, J. Bradfield & B. Nguyen (2001)- The transformation of Poleng Field. Proc. 28th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 681-698.
(Poleng Miocene carbonate reef off Madura once abandoned field revived as economic venture after 3-D seismic survey, directional and horizontal wells, and led to new discovery at KE-23 Field)

Welker-Haddock, M.L., R.K. Park & M. Sudarmono (1996)- Prediction of carbonate sweet spots from 3-D seismic: a case history from Krisna Field. Proc. 25th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 353-365.
(Seismic response to variations in lithology is complex and non-unique. Most effective way to find carbonate reservoirs is to use seismic attributes in combination with conventional seismic interpretation such as structural mapping, isochron mapping to determine paleogeography and seismic morphology)

Wibowo, I.D., Sobani, L. Fransiska & M. Luciawaty (2018)- Successful story of proving-up a new play, an Eocene carbonate as a naturally fractured reservoir in offshore North West Java. Proc. 42nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA18-317-G, p. 1-14.
(Gas tested from fractured'Eocene pre-rift limestone in Kencanaloka Field, KLD Block, S Arjuna sub-basin, NW Java (NB: Eocene limestones not known from NW Java, and no evidence for age reported here; HvG))

Wicaksana, K.S., D. Pasaribu & H. Purba (2025)- Structural configuration and paleogeography of the "Krishna" Field in the Sunda Basin. Lemigas Scientific Contributions Oil and Gas (SCOG) 48, 4, p. 463-487.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/1964/1553)
(Review of seismic, wells and well logs of Krishna Field area in Sunda Basin, SW Java Sea)

Wicaksono, P., J.W. Armon & S. Haryono (1992)- The implications of basin modelling for exploration- Sunda Basin case study, offshore southeast Sumatra. Proc. 21st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 379-415.
(Sunda Basin good match between oils and Banuwati Fm lacustrine shales Type I kerogens. Present day top 'oil window' 9,500'. Significant hydrocarbon generation began at end Talang Akar time in basin center and progressed outwards through time. Mature source rocks more limted areal extent than indicated in earlier work. Vertical migration crucial close to generation area, lateral migration dominates away from it beneath regional Gumai shale seal. Drainage areas identified. Boundaries of 'Banuwati generation- migration hydrocarbon system' delineate probable prospective areas)

Wicaksono, P., A.W.R. Wight, W.R. Lodwick, R.E. Netherwood, B. Budiarto & D. Hanggoro (1996)- Use of sequence stratigraphy in carbonate exploration: Sunda Basin, Java Sea, Indonesia. In: C.A. Caughey, D.C. Carter et al. (eds.) Proc. International Symposium on Sequence Stratigraphy in SE Asia, Jakarta 1995, Indonesian Petroleum Association (IPA), p. 197-229.
(Lower Miocene Batu Raja Fm and Gumai Fm shallow marine limestones 250 MMBO, from seven fields. Several small discoveries in recent years, but accumulations not commercial due to unpredictable reservoir quality, limited areal extent, or low recovery factors. Sequence stratigraphic study of carbonates undertaken to produce a predictive model for porosity development)

Widiatmo, M.R., U. Mardiana, F. Mohamad & A. Ginanjar (2013)- 3D facies modelling of SS-44 mixed load channel reservoir, Karmila Field, Sunda Basin, South East Sumatera. Proc. 37th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA13-SG-070, p. 1-12.
(Karmila field in Sunda Basin produces from Talang Akar sands. SS-44 reservoir complex is mixed load channel facies with NW-SE orientation)

Widjonarko, R. (1990)- BD field- a case history. Proc. 19th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 161-182.
(BD field Mobil 1987 oil-gas discovery in W Madura Straits in E-W trending E Miocene reefal carbonate build-up (11,000'- 13,934'), with 29- 34% porosities in oil-gas zone and about 17% in water zone. Gas-oil column only 200')

Widjanarko, W. (1996)- Integrating nuclear magnetic resonance logging data with traditional downhole petrophysical data to optimize new development wells strategies in the Bravo Field offshore North West Java, Arco Indonesia PSC. Proc. 25th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 205-213.

Wight, A. (1995)- Geologic summary of Java. In: C. Caughey et al. (eds.) Pertamina-IPA Seismic Atlas of Indonesian Oil & Gas Fields, II: Java, Kalimantan, Natuna, Irian Jaya, p. JAV1-JAV10.
(Overview of NW Java geology and hydrocarbons in Oligo-Miocene sandstone and carbonate reservoir horizons in offshore Sunda, Asri and Arjuna basins. Arjuna basin offshore extension of larger onshore basin, with similar stratigraphy and productive horizons, but more carbonate in younger Miocene because farther from Sunda shield clastic provenance. With regional W-E seismic line across Sunda- Arjuna basins)

Wight, A. (2023)- 'PAY DIRT' & other tales from the Sunda Basin. SE Asia Petroleum Exploration Society (SEAPEX) 50th Jubilee Conv., Singapore 2023, p. 1-34. *(Abstract + Presentation)*
(Review of Sunda Basin oil-gas fields dicoveries in 1970-1980s, with AW presonal notes)

Wight, A., H. Friestad, I. Anderson, P. Wicaksono & C.H. Reminton (1997)- Exploration history of the offshore Southeast Sumatra PSC, Java Sea, Indonesia. In: A.J. Fraser, S.J. Matthews & R.W. Murphy (eds.) Petroleum Geology of Southeast Asia, Geological Society, London, Special Publ. 126, p. 121-142.
(Offshore SE Sumatra PSC in Java Sea produced >800 MBOE. Crude low sulphur, waxy and sourced by Oligocene lacustrine shales. >200 exploration wells since 1970; 21 commercial fields. Reservoirs Oligocene-E Miocene with ~25% of reserves in carbonates and 75% in fluvial-alluvial clastics. Main basins (Sunda, Asri) retro-arc, N-S oriented, asymmetric half-grabens between stable Sunda Shield and active volcanic arc on Java)

Wight, A. & D. Hardian (1982)- Importance of diagenesis in carbonate exploration and production, Lower Batu Raja carbonates, Krisna Field, Java Sea. Proc. 11th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 211-235.
(High porosity in Lower Baturaja carbonate from secondary leaching in freshwater environment. Seven major carbonate facies recognized)

Wight, A., Sudarmono & Imron A. (1986)- Stratigraphic response to structural evolution in a tensional back-arc setting and its exploratory significance, Sunda Basin, West Java Sea. Proc.15th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 77-100.
(Structure influences character and distribution of non-marine Oligo-Miocene TalangAkar and Banuwati Fms sandstone reservoirs in Sunda Basin, W Java Sea. Best reservoirs fluvial sandstones: (1) early braided regime derived from W and (2) younger meandering system flowing primarily from NE down graben axis. Recoverable reserves ~300 MMBO in nine fields)

Wight, A.W.R., S. Syafar, A. Kartika, R. Syah, J. Burgos, A. Telaumbanua, C. Oglesby & B Setiawan (2000)- 'Classic clastics'- has high-tech 3D improved imaging of stratigraphic traps found with 'traditional' techniques? Yvonne 'B' Field, Sunda Basin, Java Sea. AAPG International Conference Bali 2000, p. 1-7. *(Extended Abstract)*

Wijaya, A.K. (2014)- Rock type identification and complexity of carbonate reservoir in Kitty Field, Sunda Basin, Southeast Sumatra. Proc. 38th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA14-G-216, p. 1-15.
(On complex distribution of porosity and pore types in E Miocene Baturaja Fm carbonate reservoir in Kitty oil field, 1972 discovery in Sunda Basin. Most porosity secondary and much of this porosity is late)

Wijaya, A.K., H.I. Darmawan, R.B. Kahar, T. Setiawan & K.A.B. Khazali-Rosli (2024)- Journey of new exploration discovery in the emerging play within the mature basin, Offshore East Java Basin, Indonesia Proc. 48th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA24-G-406, p. 1-8.
(Recent discovery in North Madura Platform, offshore East Java Basin. X-1 well drilled in 2021 and targeted Late Eocene Ngimbang Carbonate Play. Well result proved presence of isolated carbonate build-up, with better reservoir quality than surrounding wells in same play (severe karstification). No well stratigraphic details)

Wijaya, A.K. & D. Kusuma (2022)- The importance of microscopic analysis and identification for carbonate reservoir characterization, study case from CD Carbonate Interval, North Madura Platform. Proc. 46th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA22-G-324, p. 1-12.

(Petrographic analysis of Early Oligocene CD Carbonate, the main hydrocarbon reservoir in study area. Most of porosity secondary (leached grains), and tied to sub-aerial exposure (no microfossils mentioned, presumably a key part of carbonate microscopic analysis?; JTvG))

Wijaya, A.K., M. Mazied, G. Fauzi & R. Spayung (2018)- Re-consideration of hydrocarbon migration in North Madura Platform area; an implication to the new exploration potential. Proc. 42nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA18-314-G, p. 1-14.
(N Madura Platform hydrocarbon producing area between two mature kitchens: Madura subbasin in S and Central Deep N and W. Hydrocarbon migration from Madura sub-Basin before inversion at ~7 Ma, but hydrocarbon migration from Central Deep in question, due to steep border fault and predicted poor reservoir quality of syn-rift deposits along fault. Oil geochemistry and basin modeling indicate N Madura Platform oils charged by both kitchens: mixed terrigenous-algal organofacies source from Ngimbang shale in Central Deep (expulsion since 22 Ma) and mainly terrigenous organofacies source in S part of platform)

Wijaya, A. K., M. Mazied &J.J. Idris (2019)- The sedimentary process and entrapment history of mixed carbonate- siliciclastic sequences in Oligo-Miocene interval; the implication to hydrocarbon accumulation in North Madura Platform, East Java Basin. Proc. Joint Convention IAGI- IAGI- IAFMI- IATMI, Yogyakarta 2019, p.

Wijaya, A.K., M.H.B. Roslan, M. Mazied, H.I. Darmawan & R.B. Ismail (2022)- Revealing new hydrocarbon potential in mature basin, A case study from North Madura Platform, East Java Basin, Indonesia. Proc. 46th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA22-G-236, p. 1-11.
(2021 wildcat exploration drilled offshore NE Java discovered new pool in thick oil-bearing carbonate build-up with good reservoir quality from deeper Late Eocene Ngimbang Carbonate Play (see also Darmawan & Wijaya (2022))

Wijaya, A.K. & E. Yogapurana (2016)- The important role of burial diagenesis in reservoir quality development, case study from Oligo-Miocene carbonate, North Madura Platform. Proc. 14th Regional Conference Geology and Mineral Resources of SE Asia (GEOSEA XIV) and 45th Annual Conv. Indonesian Association Geologists (IAGI) (GIC 2016), Bandung, p. 592-597.
(Most of secondary porosity in carbonates results from subaerial exposure and meteoric diagenesis, but Oligo-Miocene carbonate in N Madura Platform also evidence of late dissolution during burial diagenesis)

Wijaya, A.K. & E. Yogapurana (2017)- The Oligo-Miocene carbonates evolution in North Madura Platform, the effect to the reservoir complexity distribution. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 139, p. 1-4. *(online at: https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_The-Oligo-Miocene-Carbonates-Evolution.pdf)*
(Oligo-Miocene carbonates (CD and Kujung formations) in N Madura Platform developed as rimmed carbonate platform complex. Four growth stages. Complex diagenetic history: most porosity formed by dissolution of some grains, micrites and cements. Several undrilled patch reef complexes in study area)

Wijaya, A.K., E. Yogapurana, P. Monalia & H. Haryanto (2016)- The evolution of CD carbonate in North Madura Platform, an effort to understand reservoir complexity distribution. Proc. 40th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA16-649-G, p. 1-15.
(Facies evolution of 70-200m thick Early Oligocene CD carbonates offshore North Madura. Developed as rimmed carbonate platform complex, with shelf margin reef developed basinward in S. Four stages)

Woodling, G.S., J.G. Kaldi, K.I. Oentarsih & R.C. Roe (1990)- Integrated reservoir simulation study of the Bima Field, Offshore N.W. Java. Proc. 19th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 1-26.
(Bima field largest productive carbonate field offshore N.W. Java. Field startup was in 1987 with 7 platforms in N on primary production. Southern 2/3rd of field undeveloped. Multi-disciplinary reservoir study performed on Oligocene-Miocene U Batu Raja Limestone formation)

Woodling, G.S., J.G. Kaldi, R.C. Roe & K.I. Oentarsih (1991)- Multidisciplinary reservoir study of the Bima Field, Offshore NW Java, Indonesia: multidisciplinary studies. In: R.M. Sneider (eds.) The integration of geology, geophysics, petrophysics and petroleum engineering in reservoir delineation, description and management, American Assoc. Petroleum Geol. (AAPG), Special Publ. 26, p. 1-36.
(Bima Field with 700 MB OIP and 50 GCF gas in E Miocene Batu Raja limestone. Upper Batu Raja build-up thickest on highest parts of platform, with 'cleaning upward' cycles (muddy facies overlain by progressively more grain-rich sediments). Lower Miocene sea-level drop caused subaerial exposure of platform and leaching by meteoric fluids)

Xue, F., R.J. Broetz & E. Sirodj (2002)- Seismic evaluation of hydrocarbon prospedivity in offshore North Bali, Indonesia. Indonesia 2002 Acreage review, Petroleum Exploration Society Australia (PESA) News 56, 1p. *(Abstract)*
(Examples of 2D seismic section showing Oligocene carbonate platform development and post- E Pliocene inversion of normal faults)

Yaseen, F.F., W. Gardjito & M.E. McCauley (1993)- Development of Pagerungan gas field, Kangean Block PSC area. Proc. 22nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 495-508.
(Pagerungan 1985 gas discovery first gas development to provide fuel gas to power generation in E Java. No geology)

Yazid, Y., A.D. Haryanto & J. Hutabarat (2017)- Hubungan antara geokimia minyak bumi dan batuan induk di sub-cekangan Arjuna Tengah, Cekungan Jawa Barat Utara. Bull. Scientific Contribution (UNPAD) 15, 1, p. 69-86.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/11739/pdf)
('The relationship between geochemistry of oils and source rocks in the Central Arjuna sub-basin, NW Java Basin'. Source rock in Talang Akar Fm in offshore wells YZD-1, YY-1 and DZN-1 with kerogen types II-III, from terrestrial and algal sources. Oil samples suggest deep and shallow lake depositional environments, with mixture of higher plants and algae. Burial history modeling suggests oil generation in basal Talang Akar Fm began in E Miocene, deltaic Talang Akar in M Miocene)

Young, R. & C.D. Atkinson (1993)- A review of Talang Akar Formation (Oligo-Miocene) reservoirs in the offshore areas of Southeast Sumatra and Northwest Java. In: C.D. Atkinson et al. (eds.) Clastic rocks and reservoirs of Indonesia, Indonesian Petroleum Association (IPA) Core Workshop, p. 177-210.
(Talang Akar Fm succession of fluvio-lacustrine and fluvio-deltaic sediments up to 7000' thick. Productive reservoirs fluvial, distributary channel and marginal marine bar sandstones. Fluvial reservoirs tend to be thickest, most extensive and best reservoir quality. Talang Akar Fm diachronous lithostratigraphic rock unit in Late Oligocene- Early Miocene. Fluvio-deltaic sediments in upper part of succession retrogressively stacked in response to regional transgression which affected entire S margin of Sunda Shield)

Young, R., W.E. Harmony & T. Budiyento (1995)- The evolution of Oligo-Miocene fluvial sand-body geometries and the effect on hydrocarbon trapping, Widuri field, West Java Sea, In: A.G. Plint (ed.) Sedimentary facies analysis, Int. Association of Sedimentologists (IAS) Special Publ. 22, p. 355-380.

Young, R., W.E. Harmony, J. Gunawan & B. Thomas (1991)- Widuri field, offshore southeast Sumatra: sandbody geometries and the reservoir model. Proc. 20th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 385-417.
(Widuri 1988 discovery in Asri Basin 170' net oil pay in 6 reservoirs in upper Talang Akar Fm sandstones. Faulted anticline formed ~19 Ma (E Miocene), shortly after deposition of Talang Akar Fm. Trap combination structure-stratigraphy. Basal reservoir coarse fluvial sandstone, uppermost reservoir fine distributary channel sand in tide-dominated delta. Gradual change in river/channel type accompanied by change in reservoir quality and geometry from thick sheet sandstone at base to thin, 2000' wide, shoestring sand at top).

Zhong, D., X. Zhu & Q. Zhang (2006)- The sedimentary system and evolution of the Early Tertiary in the Sunda basin, Indonesia. Petrol. Sci., Beijing University, 3, 1, p. 1-11.

(Sunda basin early Tertiary half-graben basin with alluvial, lacustrine, fluvial and swamp, subaqueous fan, shallow and deep lacustrine, turbidite fan, fan delta and delta deposit. Alluvial fan, subaqueous fan and fan deltas on steep slope adjacent to synrift boundary fault, and deltaic systems on gentle slope of basins. Zelda Mb of Talang Akar Fm previously interpreted as fluvial, now interpreted as subaqueous fan, fan delta, delta and lacustrine deposit system. Four stages of basin evolution: initial subsidence (Banuwati Fm), rapid subsidence (Lw Zelda Mb), steady subsidence (middle Zelda Mb) and uplift (Upper Zelda Mb and Gita Mb)

Zhong, D., X. Zhu & Q. Zhang (2006)- Sedimentary characteristics and evolution of Asri Basin in Early Tertiary. Petroleum Science, Beijing University of Petroleum, 3, 3, p. 1-11.
(Asri basin half-graben with steep E side controlled by synrifting and gentle W slope, with Early Tertiar terrigenous clastics of Banuwati and Talang Akar Fm, in alluvial, fluvial and lacustrine facies. Four stages a.a. Sediment supply mainly from W and E, partly from N)

Zhu, X., S. Li, J. Ge, D. Zhong, Q. Zhang & D. Ge (2018)- Paleogene sequence framework and depositional systems in the Sunda and Asri Basins, Indonesia. Interpretation (SEG-AAPG) 6, 2, p. T377-T391.
(Banuwati Fm, Zelda and Gita Members in Oligocene of Sunda and Asri Basins divided into six 3rd-order sequences. Sedimentary evolution consistent with tectonic evolution)

III.3. Madura- Madura Straits

Andrearto, W. & B. Syam (2010)- Carbonate reservoir prospect in Madura Island. Proc. 39th Conv. Indonesian Association Geologists (IAGI), Lombok, PIT-IAGI-2010-161, p. 1-5.
(online at: https://www.iagi.or.id/web/digital/12/2010_IAGI_Lombok_Carbonate-Reservoir-Prospect.pdf)
(Seven wells drilled in Madura island show carbonates in Madura Island have good reservoir potential. Prupuh Fm carbonates (N4, latest Oligocene- earliest Miocene) in S part of island bioclastic carbonates deposited in shallow marine- open marine facies with porosity 5-10%. Carbonate deposition in N relatively shallow marine and porosity 10-20%)

Arifin, L. (2000)- Struktur patahan, lipatan dan akumulasi gas di perairan Sampang- Bluto dan sekitarnya, Madura, Jawa Timur. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 10, 103, p. 16-22.
(Shallow seismic reflection study at N Madura Straits. Several major anticlinal trends. Indications of biogenic gas accumulations)

Arifin, L. (2001)- Akumulasi gas dalam sedimen de perairan Ambunten- Madura. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 11, 118, p. 19-25.
('Gas accumulation in sediments in waters off Ambunten, Madura. Indicators of shallow biogenic gas on shallow seismic lines offshore N Madura)

Arifin, L.& D. Kusnida (2009)- Mud diapir di perairan selatan Pulau Madura. J. Geologi Kelautan 7, 3, p. 135-144.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/178/168)
('Mud diapyrs in waters south of Madura Island'. Shallow seismic reflection lines show 10 mud diapyrs and gas-bearing sediments in N Madura Straits, S of E Madura Island from Sampang to Kalianget)

Arifin, L., Susilohadi, D. Setiyadi, I.R. Silalahi, N.A. Kristanto, P. Rahardjo & C. Purwanto (2021)- Struktur geologi Selat Madura, Jawa Timur. J. Geologi Kelautan 19, 2, p. 50-59.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/737/540)
('Geological structure of the Madura Strait, East Java')

Arifin, M.T. (2016)- Reservoir characterization using seismic attributes and seismic inversion in a *Globigerina* Limestone reservoir, Madura Strait, Indonesia. M.Sc Thesis Chulalongkorn University, Bangkok, p.

Arifin, M.T. (2016)- Reservoir characterization using seismic attributes and seismic inversion of *Globigerina* Limestone reservoir, Madura Strait, Indonesia. Bull. Earth Sciences .Thailand (BEST) 8, 2, p. 179-189.
(online at: https://ph01.tci-thaijo.org/index.php/bestjournal/article/view/246966/167838)
(Oyong Firld in Madura Straits with E Pliocene Mundu Fm Globigerina grainstone gas reservoir. Same paper as IPA paper, below)

Arifin, M.T. & A. Ferguson (2017)- Reservoir characterization using seismic attributes and inversion analysis of *Globigerina* Limestone reservoir, Madura Strait, Indonesia. Proc. 41st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA17-267-G, p. 1-16.
(Hydrocarbons in latest Miocene- E Pliocene Mundu Fm bioclastic limestone reservoir of Madura Strait mainly formed of Globigerina planktonic foraminifera. Seismic inversion study shows W part of Mundis (=Maleo?) field more fractured, due to more fragile, cleaner facies. More porous reservoir in upper part of Mundu Fm. Two flat spots on seismic: lower at paleo Oil-Water contact, upper flat spot at present Oil-Water contact)

Arisandy, M. & W. Ardhana Darma (2016)- Our future is gas: the geology of the gas producer Mio-Pliocene Mundu Member *Globigerina* Limestone in East Java Basin. Proc. 14th Regional Conference Geology and Mineral Resources of SE Asia (GEOSEA XIV) and 45th Annual Conv. Indonesian Association Geologists (IAGI) (GIC 2016), Bandung, p. 549-554.
(Pliocene Mundu Globigerina limestone one of main gas producers in E Java Basin. Reservoir winnowed planktonic foraminifera pelagic rains on crests of anticlines; with excellent porosity (28-47%). Gases in Oyong,

Wunut and Kepodang fields mixed thermogenic (from Ngimbang Fm) and biogenic (from Plio- Pleistocene sequences. Paciran Fm claystone seal for Mundu reservoir, supporting gas column of >200m in nearby fields)

Arisandy, M., W. Darma, W. Nasifi, H. Haryanto, I.E. Amorita, W.N. Farida &, Y. Triyana (2017)- Future gas in East Java Basin? Control of paleo-terraces in reservoir facies distribution of Pliocene Mundu Member *Globigerina* Limestone. Proc. Joint HAGI-IAGI-IAFMI-IATMI Conv. (JCM 2017), Malang, p. 1-5.
(online at: https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_Future-Gas-In-East-Java-Basin.pdf)
(Depositional model of Pliocene Globigerina grainstone reservoirs ('Mundu play'). Best reservoir quality on crests of highs/ terraces (28-47% porosity; maximum winnowing, less dilution with fine clastics))

Astjario, P. & L. Arifin (2007)- Struktur diapir bawah permukaan dasar laut di kawasan pesisir selatan Kabupaten Sampang- Pamekasan, Jawa Timur. J. Geologi Kelautan 5, 1, p. 25-36.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/132/122)
(Diapyric structures below the surface of the seabed in the southern coastal region of Sampang - Pamekasan Regency, East Java'. Shallow seismic profiles in N Madura Straits show Quaternary sediments undisturbed by folding/faulting, but Tertiary sediments off S coast of Pamekasan area tightly folded and with shale diapyrs)

Aziz, S., Sutrisno, Y. Noya & K. Brata (1992)- Geology of the Tanjungbumi and Pamekasan Quadrangle, Java (1609-2, 1608-5), 1:100,000. Geological Research Development Centre (GRDC), Bandung.
(Geologic map of Central Madura. Folded Miocene-Pliocene sediments)

Banerjee, B.R. (1993)- Seismic signature as a porosity indicator in Early Miocene reefs in the Madura Strait via AVO inversion and modelling. Proc. 22nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 445-481.
(High porosity carbonate acoustic impedance can be similar to, or lower than, that of overlying sediments, whereas acoustic impedance in low porosity carbonate usually much higher than in overlying rocks)

Bianchi, N. (2020)- The heist of the Ngimbang "vault" of the Madura Strait. AAPG Asia Pacific Technical Symposium, The art of hydrocarbon prediction: managing uncertainties, Bogor 2019, Search and Discovery Article 1285, 5p,
(online at: https://www.searchanddiscovery.com/documents/2020/11285bianchi/ndx_bianchi.pdf)
(Madura Straits recognized for multiple shallow biogenic gas fields, but also deep thermogenic petroleum system in deep, unprobed Ngimbang "vault". Direct evidence of Ngimbang source identified 5 km upward within biogenic gas accumulations)

Boehm, A. (1882)- Ueber einige Tertiare Fossilien von der Insel Madura nordlich von Java. Denkschriften kaiserlichen Akademie Wissenschaften Wien, Mathematische-Physikalische Klasse, 45, p. 359-372.
(online at: https://www.biodiversitylibrary.org/item/31607#page/487/mode/1up)
('On some Tertiary fossils from Madura island, North of Java'. Descriptions of shallow marine fossils collected by C.F.A. Schneider from N coast of Madura near Sapuluh. Mainly echinoderms (7 new species) and bivalves (Ostrea, Spondylus, etc.)(viewed as 'Stage m3= Late Miocene- Pliocene? by Martin 1902))

De Groot, C. (1853)- Bijdragen tot de geologische en mineralogische kennis van Nederlandsch Indie, V. Eiland Madoera. Natuurkundig Tijdschrift voor Nederlandsch-Indie 4, p. 445-450.
('Contributions to the geological and mineralogical knowledge of the Netherlands Indies, V. The island of Madura'. Brief report. Outcrops dominated by limestones. Minor coal. Mentions several areas with oil seeps)

Edwin, A., K. Han & W. Nusantara (2013)- A case study on using Mundu-Paciran nannofossil zones (MPNZ) to subdivide Mundu and Paciran sequences in the MDA Field, East Java Basin, Indonesia. Berita Sedimentologi 26, p. 26-32.
(online at: www.iagi.or.id/fosi/files/2013/05/BS26-Java.pdf)
(Reservoirs in MDA gas field in E Madura Strait are Late Pliocene planktonic foram grainstones-packstones, deposited as pelagic rains and redistributed by marine bottom currents across crest of Late Miocene inversion structure. Differentiating Mundu and Paciran Sequences (formation/ sequence names used onshore E Java) relies

on biostratigraphy and chronostratigraphy, as lithologies are similar. Nannofossils used to define 8 local zones in NN11- NN18 (Late Miocene- Late Pliocene) interval. Best reservoir performance in latest Pliocene MPNZ-7 and MPNZ-6 zones)

Edwin, E. (2021)- Detailed lithofacies and archtectural facies analysis on mixed carbonate-siliciclastic shoreline depositionl environment of the Cibulakan Formation in Cipamingkis River, Jonggol. Bogor, West Java. Proc. 45th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA21-G-61, p. 1-13.
(Facies interpretations of Cibulakan Fm from sedimentary structures and trace fossils. No locality map, measured section column, age information, etc.)

Endharto, Mac (2004)- The tidal flat-shelf depositional system of the Ngrayong Sandstone in the western part of the Madura Island. Proc. 33rd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, p. 17-41.
(M Miocene Ngrayong sst in W Madura deposited in tidal flat system (similar to Endharto 2005))

Endharto, Mac (2005)- The tidal flat-shelf depositional system of the Ngrayong Sandstone in the western part of the Madura Island. Jurnal Sumber Daya Geologi (JSDG) 15, 2 (149), p. 61-80.
(Gunung Geger-Gujug Laut-Water Fall section suggests M Miocene Ngrayong Sst in W Madura formed in tidal sand flat, from supratidal-salt marsh to shallow subtidal environments. Tabular cross bedding in bioclastic lithic arenite, interpreted as sand flat in headward portion of macrotidal estuaries. Overlain by marine transgression of Bulu Limestone with Cycloclypeus, etc. Paleocurrents from cross bedding from N to S or SW direction (200°-190°)).

Endharto, Mac (2006)- The palaeoenvironments and depositional model for the Ngrayong sandstones, an outcrop study in eastern part of the Madura Island as a reference. Lemigas Scientific Contributions 29, 2, p. 34-45.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/1025)
(Outcrop study of early M Miocene Ngrayong Fm in E Madura: ~600m thick interbedded quartz sandstone, claystone and orbitoid limestones. Interpreted as cycles of shallow marine shoreface and tidal deposits. Overlain by ~200m thick later M Miocene Bulu Fm sandy limestone))

Fakhri, R., O. Yuditya, E.P. Putra, I. Sumantri & Kian Han (2024)- Revealing the uncertainty of *Globigerina* Limestone reservoir: case study from MBH Field. Proc. 48th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA24-G-292, p. 1239-1249.
(MBH Field one of gas fields in Madura Strait PSC, with 350' gross biogenic gas column in Pliocene Mundu-Selorejo Globigerina limestone reservoir. 2011 discovery, producing since 2022. One vertical exploration well and two horizontal development wells)

Faturachman, A. & S. Marina (2007)- Jalur migrasi dan akumulasi gas biogenik berdasarkan profil seismik Pantul Dangkal dan korelasi Bor BH-2 di perairan Sumenep, Jawa Timur. J. Geologi Kelautan 5, 3, p. 143-157.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/142/132)
('Migration pathway and biogenic gas accumulation based on seismic profiles of shallow sandstones in Sumenep waters and correlation with BH-2 core hole, East Java'. SE Madura offshore. In BH-2 core ~30m of Holocene-Recent black clay rests on the Pleistocene Pamekasan Fm. Minor biogenic gas)

Faturachman, A., R. Rahardiawan & A.H. Sianipar (2004)- Kandungan gas biogenik dan termogenik gas sedimen dasar laut di perairan Selat Madura (pengaruhnya terhadap sifat fisik dan keteknikan). J. Geologi Kelautan 2, 2, p. 21-30.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/111/101)
('Biogenic and thermogenic gas content of marine sediments in Madura Straits waters (their effect on physical properties and engineering)')

Fitrianto, T., E.P. Putra, V. Rowi, Chen Ying Fu & Kian Han (2016)- *Globigerina* Limestone sedimentation mechanism in GLX structure Madura Strait area, an example of upwelling current and winnowing process. Proc. 14th Regional Conference Geology and Mineral Resources of SE Asia (GEOSEA XIV) and 45th Annual Conv. Indonesian Association Geologists (IAGI) (GIC 2016), Bandung, p. 584-591.

(GLX structure in NW Madura Strait with 2 wells drilled. Reservoir rock Pliocene Mundu-Selorejo Globigerina Limestones. Two types of Globigerina Lst: (1) planktonic foram 'drifts', winnowed by bottom currents, and (2) planktonic foram 'turbidites'. Mundu sequence deep marine pelagic rock with <1% detrital clay, affected by bottom currents (upwelling?). Overlying Selorejo Fm with significant clay content, mainly reworked Mundu Fm)

Flathe, H. & D. Pfeiffer (1963)- Outlines of the hydrogeology of the Isle of Madura (Indonesia). Int. Association of Scientific Hydrology, Publ. 64, Berkeley, p. 543-560.
(1961 hydrogeological inventory survey on Madura)

Hageman, J. (1862)- Nadere inlichtingen omtrent de op het eiland Madura ontdekte ontvlambare gasbronnen. Natuurkundig Tijdschrift voor Nederlandsch-Indie 24, p. 487-488.
('Aditional information on the flammable gas seeps discovered on Madura island'. Brief communication on existence of gas seeps on Madura. No maps or other detailed information))

Haribowo, N., I. Sagala, N. Nurul, P. Gutteridge & M. Abdurrachman (2022)- Karst and dolomitization controlling Miocene carbonate reservoir quality, case study of carbonate oil discovery, East Java Basin, Indonesia. Second Int. Meeting for Applied Geoscience & Energy (IMAGE 22), SEG-AAPG, Houston, p. 356-359.
(online at: https://library.seg.org/doi/pdf/10.1190/image2022-3746160.1)
(On multiple karst episodes in Miocene Kujung carbonate reservoir in Jeruk oil field in Madura Straits. Stable C and O isotopes from core in both wells define diagenetic history)

Hehakaya, D.E. (2017)- Depositional and diagenetic characters of sediment in the "D" prospect East Java, Indonesia: Integration of rock properties and isotopes as an exploration tool. Bull. Earth Sciences Thailand (BEST) 9, 2, p. 1-8.
(online at: https://ph01.tci-thaijo.org/index.php/bestjournal/article/view/247021)
(Discussion of Oligo-Miocene Kujung Limestone in two wells in "D" Field (W of BD Field) in NW part of Madura Straits)

Hidayat, P.P.W., A.H. Murti, Sudarmaji, A. Shirly, B. Tiofan & S. Damayanti (2018)- Enhanced structural interpretation using multitrace seismic attribute for Oligo-Miocene target at Madura Strait offshore. Proc. 41st HAGI Annual Conv. Exhib. 2016, IOP Conference Series: Earth and Environmental Science 132, 012007, p. 1-11.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/132/1/012007/pdf)

Himawan, H., I. Sumantri & O.Y. Pahlevi (2021)- Integration of petrophysical analysis and elastic log properties as an input to optimize development wells target in unique *Globigerina* Limestone gas reservoir in Madura Strait. IAGI Journal 1, 2, p. 55-70.
(online at: https://journal.iagi.or.id/index.php/IAGIJ/article/view/31/300)

Htwe, P., S.S. Surjono, D.H. Amijaya & K. Sasaki (2015)- Depositional model of Ngrayong Formation in Madura area, North East Java Basin, Indonesia. J. Southeast Asian Applied Geology (UGM) 7, 2, p. 51-60.
(online at: https://journal.ugm.ac.id/jag/article/view/26947/16594)
(early M Miocene Ngrayong Fm in outcrop sectons in central anticlinal part of Madura Island. After deposition of Kujung Formation, basin morphology developed nearly E-W trending shelf edge. Ngrayong Sst variety of coastal and shallow marine depositional environments)

Iriska, D.M., N.C. Sharp &, S. Kueh (2010)- The Mundu Formation: early production performance of an unconventional limestone reservoir, East Java Basin- Indonesia. Proc. 34th Annual Conv. Indonesian Petroleum Association, IPA10-G-174, p. 1-17.
(Maleo and Oyong oil-gas fields in S Madura Straits Basin producing from E-M Pliocene Globigerina planktonic foram-rich limestone reservoir of U Mundu and lower Paciran sequences (~3-6 Ma). Typical porosities 36-55%, permeability 300-500 mD, but locally >1 Darcy)

Kusumastuti, A., P. van Rensbergen & J.K. Warren (2002)- Seismic sequence analysis and reservoir potential of drowned Miocene carbonate platforms in the Madura Strait, East Java, Indonesia. American Assoc. Petroleum Geol. (AAPG) Bull. 86, p. 213-232.
(online at: https://www.saltworkconsultants.com/downloads/IndoReef_Arse_Warren.pdf)
(Seismic study of four Miocene carbonate buildups in Madura Straits (Porong, KE, KD, BD) on WSW-ENE trending Oligocene fault block. Porong buildup Late Oligocene- E Miocene bioherm, buried by Plio- Pleistocene sediments. N flank steeper, probably windward side)

Latief, R., P. Mey & A. Suseno (1990)- Guide Book Post Convention Field Trip, Madura Island, October 19-21 1990. Indonesian Petroleum Association (IPA), Jakarta, 86p. *(Unpublished)*

Luan, X., Lin Li, Y. Lu, G. Fan, X. Wei & P. Lunt (2023)- Hydrocarbon accumulation controlled by early stage rifting and late stage orthogonal subduction, example from Madura sub-basin, Indonesia. J. Asian Earth Sciences 253, 105704, p. 1-17.
(Madura sub-basin is area of Madura Strait between RMK uplift in N and Java (Sunda) active volcanic belt in south. Petroleum mostly found in M-L Miocene sandstone reservoirs of Ngrayong and Wonocolo Fms. Recent exploration focused on E Miocene Kujung reef carbonates. With examples of Molah 1 well)

Luan, X., Y. Lu, G. Fan & P. Lunt (2023)- Pockmark reservoir, a new carbonate reservoir type from the Madura sub-basin, Indonesia. J. Asian Earth Sciences 260, 105936, p. 1-17.
(About M Pliocene pelagic Globigerina grainstones reservoirs, producing oil and gas in Madura Basin (*Terang-Sirasun, Oyong, Maleo fields; most already abandoned due to small field size). E Pliocene J110 Sequence widespread in E Java and Madura sub-basin and Island and in southern volcanic arc area, deposited in bathyal environment as condensed layer during "biogenic bloom" from ~7.8-3.5 Ma. Major environment change due to ~3.5 Ma compressional event. Diapirism led to formation of pockmarks (or mud volcano craters) along crest of anticlines. Globigerina tests accumulated in pockmark by cold seepage winnowing)*

Mansyur, M., L.G. Wooley & Nurhasan (2017)- Controlling factor in Pliocene carbonate reservoir quality as key to evaluate play chances: case study from Mundu carbonate from South Madura Strait- East Java Basin. AAPG Asia Pacific Region Technical Symposium, Bandung 2017, Search and Discovery Article 11007, p. 1-7.
(online at: www.searchanddiscovery.com/documents/2017/11007mansyur/ndx_mansyur.pdf and www.searchanddiscovery.com/documents/2017/11007mansyur/slides.pdf)
(Pliocene Mundu carbonate reservoir of E Java Basin (Madura Straits) consist of >85% planktonic and deep marine benthic foraminifera bioclasts. Contains 3.5 TCF gas. Average porosities >40% (up to 60%), permeability 100- >4000 mD. Sr isotope age 5.1- 5.8 Ma, older than suggested in previous publications. Reservoir quality controlled by marine sorting processes and diagenesis shutdown)

Mulhadiono, Harsono Pringgoprawiro & Sukendar Asikin (1986)- Tinjauan stratigrafi dalam tataan tektonik di Pulau Madura, Jawa Timur. Majalah Geologi Indonesia (IAGI) 11, 1, p. 1-8.
('Overview of stratigraphy in tectonic settings in Madura Island, East Java '. Revised nomenclature ofTertiary rocks on Madura. From lowest up: Ngimbang, Kujung (with Prupuh Mb in upper part), Tuban, Tawun (with Ngrayong and Rancah members), Pasean, Pasiran and Pamekasan Formations. Sedimentation and tectonics closely interrelated)

Nurhasan (2017)- Seismic DHI flat spot characteristic and statistic of the Pliocene *Globigerina* bioclastic limestones reservoir in Madura Strait area, East Java basin. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, p. 1-5.
(online at: https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_Seismic-DHI-Flat-Spot.pdf)
(All anticlinal structures drilled in Madura Straits that show bright seismic flat spot at level of Pliocene Mundu Fm Globigerina Limestone reservoir are commercial gas discoveries)

Pakpahan, A.S.P., J. Jyalita & S.S. Surjono (2015)- Sedimentology and characteristics of Pliocene shallow marine carbonate as reservoir alternative based on outcrop analogue in Madura and Puteran Island, Northeast Java Basin. AAPG/SEG Int. Conf. Exhib., Melbourne, Search and Discovery Article 51212, p. 1-16.

(online at: www.searchanddiscovery.com/documents/2015/51212pakpahan/ndx_pakpahan.pdf)
(Outcrop study of lateral facies in Pliocene carbonates in Madura and Puteran Island. All facies shallow marine, unlike age-equivalent gas-bearing globigerinid limestone reservoirs in Madura Straits fields)

Pradana, Y.S., Sudarmaji, M Nukman, Y.R. Kusuma & A.J.I. Sagala (2017)- Wonocolo's overpressure distribution forecast: a case study of the Madura Strait, East Java Basin. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, p. 1-5.
(online at: https://www.researchgate.net/publication/350895864_Wonocolo's_Overpressure_Distribution_Forecast_a_Case_Study_of_the_Madura_Strait_East_Java_Basin)
(On overpressure in M-L Miocene Wonocolo marine shale sequence in Madura Strait. N part more pressurized than S part. Cause of overpressure rapid burial and high sedimentation rates. Sedimentary thickness of Wonocolo Sequence varies, where N part of sequence is up to 1700 m (see also Ramdhan et al., (2013))

Praptisih (1986)- Lingkungan pengendapan anggota Ngrayong Formasi Tawun daerah Guluk Guluk, Sumenep, Madura. J. RISET Geologi dan Pertambangan (LIPI) 7, 2, p. 44-53.
('Depositional environment of the Ngrayong member of the Tawun Formation in the Guluk Guluk area, Sumenep, Madura'. M Miocene (zone N10-N13) Ngrayong Mb shallow marine sandstone, marl and bioclastic limestones with Cycloclypeus. Marl below sandstone withearly M Miocene Globorotalia peripheroacuta, Orbulina)

Purnomo, A.I., N. Hadiyanto & Y. Arakawa (2010)- P wave-S wave sensitivity analysis of globigerinid carbonate in Sirasun gas field. Proc. HAGI-SEG Int. Geoscience Conference, Bali 2010, IGCE10-OP-042, p. 1-10.
(Seismic imaging of Pliocene globigerinid packstones in Sirasun biogenic gas field, Madura Straits. Despite carbonate lithology, distinct flat spot present on seismic, indicating gas-water contact)

Putra, E.P., V. Rowi & Kian Han (2021)- The uniqueness of heterogeneous *Globigerina* Limestone reservoir and the importance of integrated rock type definition for field development plan: case study in Madura Strait, East Java. Proc. 45th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA21-G-15, p. 1-17.
(Pliocene Globigerina Limestone is main reservoir in 7 gas fields in Madura Strait Block. Eight rock types within Globigerina reservoir.Dominant rock type is packstone with ~40% porosity and 5 mD permeability)

Putra, P.S. (2007)- Sekuen pengendapan sedimen Miosen Tengah kawasan Selat Madura. J. RISET Geologi dan Pertambangan (LIPI) 17, 1, p. 20-36.
(online at: https://jrisetgeotam.brin.go.id/index.php/jrisgeotam/article/view/142/pdf_8)
('Seismic stratigraphy of Middle Miocene sediments in the Madura Straits area'. Seismic stratigraphy interpretation of M Miocene in S part of Madura Straits)

Ran, W., X. Luan, Y. Lu, H. Liu, J. Yang, Y. Zhao, W. He & Z. Yan (2019)- Formation and evolution of the Tertiary carbonate reefs in the Madura Strait Basin of Indonesia. J. Oceanology Limnology (China) 37, p. 47-61.
(online at: https://www.academia.edu/92337780/Formation_and_evolution_of_the_tertiary_carbonate_reefs_in_the_Madura_Strait_Basin_of_Indonesia)
(Analysis of 2D seismic data Madura Strait Basin reveals seismic reflection characteristics of reefs and associated sediments Platform margin reefs controlled by E-W trending Paleogene normal faults and Neogene inversion structures. Tertiary reefs in MSB divided into: 1) Late Oligocene- E Miocene open platform coral reef, 2) Late Oligocene- E Miocene platform margin coral reef controlled by normal faults, 3) platform margin Globigerina mound controlled by "hidden" inversion structure in E Pliocene, and 4) platform margin Globigerina mound controlled by thrust faults in E Pliocene)

Ran, W., X. Luan, Y. Lu, X. Wei & M.S. Islam (2020)- Seismic characteristics and strontium isotope ages of the Middle Miocene Ngrayong Formation in the Madura Strait Basin: implications for the paleogeographic reconstruction of East Java. J. Asian Earth Sciences 190, 104109, p. 1-17. *(pre-proof online at: https://www.academia.edu/92337785/Seismic_characteristics_and_strontium_isotope_ages_of_the_Middle_Miocene_Ngrayong_Formation_in_the_Madura_Strait_Basin_Implications_for_the_paleogeographic_reconstruction_of_East_Java)*

(M Miocene paleogeography of Madura Straits, East Java. Madura Straits and present-day Kendeng Zone N of M Miocene volcanic arc. Extensive Ngrayong Fm fining in S-ward-prograding clastic sequences, deposited in bathyal marine environment. In N region of Rembang-Madura Inversion Zone and N offshore of E Java deposited in transitional and neritic marine environments. Two new turbidite fans showing opposite source directions based on 3D seismic data in Madura Strait area. Sr dating suggests Ngrayoung age 13-15 Ma)

Reksalegora, S.W., L.M. Hutasoit, A.H. Harsolumakso & A.M. Ramdhan (2017)- Stress determination in overpressure zone of East Java Basin. Proc. 41st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA17-213-G, p. 1-12.
(Stress information from wells in Madura Straits (E extension of Kendeng zone) suggest horizontal/ compressional stress is dominant and plays major role in generating overpressure. In S half of study area fold and thrust stress regime, in N half likely strike-slip stress regime).

Reksalegora, S.W., L.M. Hutasoit, A.H. Harsolumakso & A.M. Ramdhan (2022)- Pore pressure prediction using velocity-mean effective stress relationship in Madura Sub-basin, East Java Basin- Indonesia. Indonesian J. on Geoscience (IJOG) 9, 2, p. 247-262.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/779)

Rutley, D.W. (2001)- Quantitative seismic reservoir characterisation: a model-based approach for the Sampang PSC, East Java, Indonesia. Exploration Geophysics 32, 4, p. 275-278.
(Modelling study of high amplitude seismic anomalies (gas prospects) in Madura Straits)

Sagala, I., S. Amin & Y. Triyana (2018)- Overpressure and seal integrity evaluation on Oligocene-Miocene carbonates reservoir in the Madura Strait Area of East Java Basin-Indonesia. AAPG Asia Pacific Region GTW, Perth 2018, Search and Discovery Article11140, p. 1-9. *(Extended Abstract)*
(online at: https://www.searchanddiscovery.com/pdfz/documents/2018/11140sagala/ndx_sagala.pdf.html)
(Overpressure encountered in Madura Strait wells that targeted Oligocene-Miocene carbonate reservoirs tied to seal failure. Overpressured wells in W moderate-high retention capacity and preserve hydrocarbon. Overpressured wells in C area low retention capacity and more prone to mechanical seal failure)

Setiadi, I., B. Setyanta, T.B. Nainggolan & J. Widodo (2019)- Delineation of sedimentary subbasin and subsurface interpretation East Java Basin in the Madura Strait and surrounding area based on gravity data analysis. Bulletin of the Marine Geology 34, 1, p. 1-15. *(online at: https://media.neliti.com/media/publications/380809-delineation-of-sedimentary-subbasin-and-984080ab.pdf)*
(Gravity interpretation of easternmost onshore NE Java Basin (consisting of several sub-basins) and continuation into Madura Strait and surrounding areas. Average basement depth ~3.2 km)

Sinaga, S.P. (2019)- Analisis sikuen stratigrafi batuan karbonat formasi tambayangan dan jukong-jukong, pada daerah Kepulauan Kangean, Cekungan Jawa Timur Utara. Undergraduate Thesis Trisakti University, Jakarta, p. *(Unpublished)*
('Analysis of the stratigraphic sequence of carbonate rocks of the Tambayangan and Jukong-Jukong Formations, in the Kangean Islands area, North East Java Basin')

Situmorang, R.I., D.A. Agustianto & M. Suparman (1983)- Geology of the Waru-Sumenep Quadrangle, 1609-3, 1608-6s cale 1: 100,000. Geological Research Development Centre (GRDC), Bandung. *(also 1992 2nd Edition)*
(online at: https://sih3.dpuair.jatimprov.go.id/main/sih3_detail/3438)
(Geologic map of eastern part of Madura Island. Folded Miocene- Pliocene marine sediments in E-W or WNW-ESE trending surface anticlines)

Sukandarrumidi (1983)- Geologi Pulau Kangean sebagai dasar pengembangan wilayah. Proc. 12th Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, p. 223-231.
(online at: https://www.iagi.or.id/web/digital/37/PIT-1983-Paper-22.pdf)
('Geology of Kangean island as basis of development of the region'. Geology of Kangean Island, E of Madura in E Java Sea. With Miocene limestones, etc.)

Sumantri, I., O.Y. Pahlevi, H. Himawan, V. Rowi & K. Han (2021)- Seismic qualitative and quantitative analysis for reservoir characterization of *Globigerina* BH gas field, North East Java Basin. Proc. 45th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA21-G-3, p. 1-15
(BH gas field in eastern Madura Strait, with biogenic gas in Pliocene Globigerina limestone reservoir, with strong seismic direct hydrocarbon indicator (DHI). Discovered in 2011, penetrated ~350' gross gas pay. Seismic modeling to determine field size in this one-well field)

Supriyadi, B. (1992)- Peranan wrench fault pada akumulasi hidrokarbon di Pulau Madura. Proc. 21st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 1, p. 207-222.
(online at: https://www.iagi.or.id/web/digital/51/12.pdf)
('The role of wrench faults for hydrocarbon accumulation in Madura Island'.Madura Island >100 wells drilled since 1897 (most of them shallow). Deformed by reactivation of basement faults in early M Miocene, indicating start of wrench faulting. Later compression accelerated wrench faulting in Plio-Pleistocene. Hydrocarbons generated in Late Miocene in Ngimbang Fm, then migrated through wrench faults into younger horizons)

Surjaudaja, R., A.M. Ramdhan & I. Gunawan (2017)- Analisis mekanisme terjadinya tekanan-luap dan prediksi tekanan pori pada lapangan BD, Cekungan Jawa Timur. Bulletin of Geology (ITB) 1, 2, p. 85-93.
(online at: http://buletingeologi.com/index.php/buletin-geologi/issue/view/3/Paper-2)
('Analysis of mechanisms of overpressure and pore pressure prediction in the BD field, East Java basin'. Study of overpressure in Plio-Pleistocene deposits at BD field, Madura Straits. Main cause of overpressure is sediment loading, not smectite-illite transformation or hydrocarbon generation)

Surjono, S.S. & M. Gunawan (2018)- Onshore- offshore facies change of Ngrayong Sandstone in Madura area, Indonesia. ASEAN Engineering J. 8, 2, e-ISSN 2586-9159, p. 1-15.
(online at: http://www.aseanengineering.net/aej/issue/2018-v8-no2/GeoE028_Formatted%20manuscript.pdf)
(M Miocene Ngrayong sandstone in NE Java basin clean sand facies and best reservoir. Reservoir quality decreases E-ward to Madura island, where more calcareous and shale. Ngrayong Sst evenly distributed across Madura Island and continues South into Madura Straits for 25-50 km and 100-125 km to E (well data). Facies changes more calcareous to E, and more shaly to South due to deeper marine environment)

Surjono, S.S. A.A. Mitasari & M.A. Hudatullah (2025)- Unravelling depositional mechanisms and diagenetic processes of thick marls: detailed petrographic study into Kalibeng Formation, Kendeng Zone, Indonesia. Proc. 4th Int. Conf. Geological Engineering and Geosciences (ICGOES 2024), Yogyakarta, IOP Conference Series: Earth and Environmental Science 1517, 012005, p. 1-18.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1517/1/012005)
(Late Miocene-Pliocene deep marine marls of Kalibeng Fm in Kendeng zone not suitable as reservoir rock)

Surjono, S.S. & S. Winardi (2012)- Understanding of Paleogene paleogeography to develop exploration concept in the North Central Jawa Basin, Indonesia. Proc. 29th IAS Meeting of Sedimentology, Schladming/Dachstein 2012, Austria, p. *(Abstract +Presentation) (online at: https://www.researchgate.net/publication/370497235_Understanding_of_Paleogene_Paleogeography_to_Develop_Exploration_Concept_in_the_North_Central_Jawa_Basin_Indonesia)*
(North Central Jawa Basin (NCJB) located onshore C Java, between two hydrocarbon basins: NW Jawa Basin (NWJB) and NE Jawa Basin (NEJB). Comprises North and South Serayu basinal areas N of Karangsambung. Presence of oil seeps, Paleogene candidate source rocks.Neogene mainly volcanoclastic deposits)

Suryana, E., L.M. Hutasoit, A.M. Ramdhan, D. Nugroho & Arifin (2023)- Pore pressure and compartmentalization of carbonate reservoirs in Northern Madura Platform- East Java Basin, Indonesia. Indonesian J. on Geoscience (IJOG) 10, 3, p. 297-307.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/980/429)
(On slight overpressure in Eocene- E Miocene carbonate reservoirs in unnamed wells N of Madura Island)

Susilohadi (1998)- Quaternary sequence stratigraphy of Madura Strait, Indonesia. Proc. 33rd Session Coord. Comm. Coastal and Offshore Programmes E and SE Asia (CCOP), Shanghai 1996, 2, p. 362-383.
(Madura Strait characterized by syndepositional folding forming W-E trending basin between Madura and Java volcanoes. Basin with rapid subsidence and >200m of Quaternary deposits. Deposition interplay between Quaternary coarse-grained volcaniclastics deposition in S, marine fossiliferous mudstone from exposed Madura in N, and Quaternary sea level changes. During major sea level fall, E Kendeng zone and Madura Strait subaerially exposed, as shown by widespread thin fluvial and alluvial fan deposits)

Susilohadi (2020)- Atlas seismik dangkal Selat Madura dan Laut Bali. Pusat Penelitian dan Pengembangan Geologi Kelautan (Marine Geology Institute), Bandung, p. 1-63.
(online at: www.researchgate.net/profile/Susilohadi-Susilohadi/publication/348959819_ATLAS_SEISM Etc.)
('Shallow seismic atlas of Madura Strait and Bali Sea')

Sutadiwiria, G. & H. Prasetyo (2006)- Uncertainty in geophysic-geology-reservoir modelling for Globigerinid sand carbonate in NE-Java Basin, Indonesia; case study: planning vs. actual of fields development at Madura Strait, Indonesia. Proc. SPE Asia Pacific Oil and Gas Conference and Exhibition (APOGC), Adelaide 2006, SPE 100957-MS, p. 1-6. *(Extended Abstract)*
(In NE Java Basin Pliocene Mundu Fm Globigerinid sands carbonate with oil and gas MDA, TSB, O and M fields. Problems in reserves assessment include reservoir compartmentalization (structural and stratigraphic) variations in depth of fluids contacts, low-resistivity case in clean-oil zones, etc.)

Sutisna, K., H. Samodra & A. Koswara (1993)- Peta geologi lembar Kangean dan Sapudi, Jawa. Pusat Penelitian dan Pengembangan (Puslitbang) Geologi, Bandung, 1:100,000.
(online at: https://sih3.dpuair.jatimprov.go.id/main/sih3_detail/3421)
('Geological map of the Kangean and Sapudi quadrangle' Java Sea island Kangean E of Madura, with outcrops of mainly N-dipping Oligocene Cangkaramaan marls, Oligo-Miocene Tambayangan Fm orbitoidal limestone, Miocene Jukong-Jukong limestone and Quaternary reef terraces)

Suwardi, S., B, Rusli, A. Himawan, D.M.R. Fernando & D. Mulyadi (2024)- Managing uncertainties in the early production stage of unconventional *Globigerina* Limestone reservoir in Madura Strait PSC. Proc. 48th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA24-G-241, p. 1-11.
(MBH-MDA dry gas fields in Madura Straits produce from Plio-Pleistocene Globigerina-dominated carbonate reservoir (av. porosity 40%, permeability 150 mD, water saturation 20%). Some unexpected solids production at surface during early gas production)

Tampubolon, R.A. (2016)- The shutdown of diagenesis in the Early Pliocene globigerinid limestones of the Mundu Formation and implications for porosity and permeability levels (East Java Basin, Indonesia). Bull. Earth Sciences Thailand (BEST) 8, 2, p. 123-132.
(online at: https://ph01.tci-thaijo.org/index.php/bestjournal/article/view/246961/167833)
(Pliocene Mundu Fm Globigerinid limestone gas reservoirs in Oyong Field Madura Strait deposited in deep water with bottom current winnowing/reworking. Despite >800m of overburden and tectonic overprint, no significant diagenetic alteration (>40% porosity, excellent permeability). Partial destruction of reservoir quality by micritization and rupture/collapse of planktonic foraminifera shells. Pliocene restriction of Madura Strait likely drove enhanced contourite currents that winnowed portions of Mundu Fm. Once bottom currents weakened, 800m of muddy sediments deposited and formed regional seal)

Triyana, Y., G.I. Harris, W.A. Basden, E. Tadiar & N.C. Sharp (2007)- The Maleo Field: an example of the Pliocene *Globigerina* bioclastic limestone play in the East Java Basin, Indonesia. Proc. 31st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA07-G-115, p. 45-61.
(Maleo field 2002 discovery in Madura Straits. Gas column 49m in E Pliocene Mundu and M-L Pliocene Paciran (Selorejo) carbonates, consisting almost entirely of planktonic Globigerina shells. Structure partly filled 4-way closure. Gas ~99% methane, primarily biogenic. Lime mud matrix % primary control on reservoir quality. Porosity up to 60%. Globigerina carbonates deposition in ~150-250m deep water, possibly on detached platform.

Some oil production from Globigerina reservoirs onshore. Maleo first offshore discovery of this reservoir type to be commercialized)

Triyana, Y. & M. Nashruddin (2018)- The Late Miocene to Pliocene Mundu Formation, an example of unique reservoir with excellent performance in Oyong Field, East Java Basin- Indonesia. Proc. Indonesian Petroleum Association Core Workshop, Jakarta 2018, p. 1-10.
(Core descriptions of gas-bearing Mundu Fm Globigerina foraminifera calcarenites in Madura Straits wells (Oyong-Field))

Wahab, A. & A. Suseno (1990)- Madura, land of opportunity. Geologi Indonesia (J. Indonesian Association Geologists IAGI) 13, 2, p. 33-46.

Wijaya, P.H. & D. Noeradi (2010)- 3D properties modeling to support reservoir characteristics of W-ITB Field in Madura Strait area. Bulletin of the Marine Geology 25, 2, p. 77-87.
(online at: http://ejournal.mgi.esdm.go.id/index.php/bomg/article/view/27/27)
(W-ITB gas field (not real name?) in W part of Santos Sampang PSC, NW Madura Straits, discovered in 2006. In W-ITB 1 well gas reservoirs in Selorejo and Mundu Fms, but in W- ITB 2 no gas reservoir in Mundu Fm)

Yuniardi, Y. (2015)- Seismic and sequence analysis of Middle to Late Miocene deposits of Northeast Java Basin. Indonesian J. on Geoscience (IJOG) 2, 2, p. 101-110.
(online at: http://ijog.bgl.esdm.go.id/index.php/IJOG/article/view/219/195)
(Sequence stratigraphy and seismic facies of M-L Miocene interval in Madura Straits, which onlaps Top Early Miocene surface from N to S)

IV. BORNEO (KALIMANTAN & NORTH BORNEO)

IV.1. Kalimantan/ Borneo General

Abbas, I.R.H, & A Maulana (2021)- Petrology of ultramafic rocks from PT. Sebuku iron lateritic ore (SILO) concession area and its effect on Ni and Fe in Sebuku Island, South Kalimantan, Indonesia. Proc. 3rd Int. Conf. Global Issue for Infrastructure, Environment, and Socio-Economic Development (GIESED 2020, Makassar), IOP Conference Series: Earth and Environmental Science 921, 012057, p. 1-12.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/921/1/012057/pdf)
(Varying degrees of serpentinization in peridotites of Sebuku island. affecting Ni and Fe contents)

Abidin, H.Z. (1995)- The origin of the Kelian gold deposit, East Kalimantan. In: Prosiding hasil penelitian geologi, Pusat Penelitian dan Pengembangan, Special Publ. 19, p. 20-40.

Abidin, H.Z. (1996)- Hydrothermal fluid constraints on the Muyup gold deposit, East Kalimantan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 6, 53, p. 2-8.
(Muyup gold prospect in NE part of SW-NE trending Miocene East-Central Kalimantan Volcanic belt)

Abidin, H.Z. (1996)- Petrology and geochemistry of volcanic and subvolcanic rocks from the Muyup gold prospect: implications for the tectonic development of the east Central Kalimantan volcanic belt. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 6, 57, p. 2-9.
(Muyup gold prospect in Latest Oligocene- M Miocene Muyup Volcanics at W margin Kutai Basin. Tied to SE-ward subduction of Proto-South China Sea plate under Borneo. Rel. high K content, and classified as shoshonitic and basaltic members of island arc calk-alkaline suite)

Abidin, H.Z. (1998)- The tectonic history and mineral deposits of the east-Central Kalimantan volcanic belt, Indonesia; a comparative study of the Kelian, Muyup and Masa Ria gold deposits. Ph.D. Thesis University of Adelaide, p. 1-286.
(online at: https://digital.library.adelaide.edu.au/items/d4e0f5c1-b7ee-45f8-a42a-10c5092cb060)
(East-Central Kalimantan Early Miocene volcanic belt as result of subduction of South China Sea plate below Kalimantan. Andesitic and dacitic volcanics host several gold deposits in Kutai Basin (Kelian, Muyup) and Barito basin (Masupa Ria), all low sulphidation epithermal types)

Abidin, H.Z. (1998)- Mineralization and alteration of the Kelian gold deposit, East Kalimantan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 8, 76, p. 2-10.
(Kelian gold deposit in E-C Kalimantan Volcanic Belt is low sulphidation epithermal gold deposit, genetically associated with Miocene volcanic and subvolcanic rocks. Mineralization consists of disseminations and stockworks, with minor sulphide veins. Mineralization generally at contact between andesite intrusives and (Eocene) pyroclastics. Several types of wallrock alteration)

Abidin, H.Z. (1998)- The genesis of Muyup gold prospect, East Kalimantan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 8, 81, p. 10-22.
(Muyup small low sulphidation gold deposit discovered in mid-1980's in W part of Kutai Basin, hosted in Eocene Pamaluan Fm clastics. Associated with Muyup Volcanics of latest Oligocene- E Miocene East-Central Kalimantan Volcanic belt)

Abidin, H.Z. (1998)- Mineralization and alteration of the Masupa Ria gold prospect, East Kalimantan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 9, 88, p. 16-27.
(Masupa Ria small gold deposit discovered in mid-1970's in East Central Kalimantan Volcanic Belt, ~150 km WSW of Kelian. Associated with E Miocene? volcanics and intrusions. Several ore bodies, mainly at contact between intrusive and volcanic rocks. Ore mineral mainly pyrite, sphalerite, chalcopyrite, stibnite and gold. (see also Thompson et al. 1992))

Abidin, H.Z. (2001)- Iron oxides associated with the ultramafic rocks, Mt. Kukusan area, South Kalimantan. Indonesian Mining J. 7, 2, p. 14-23.

Abidin, H.Z. (2004)- Gold mineralization at the Pantain Bancah prospect, Pelaihari District, South Kalimantan. Majalah Geologi Indonesia (IAGI) 19, 2, p. 106-116.
(Gold prospect in S Meratus Mts, SE Kalimantan)

Abidin, H.Z. & A.S. Hakim (2001)- Dismembered ophiolite complex in Mt. Kukusan Area, Batulicin District, South Kalimantan: synthetic origin and economic important. Geological Research Development Centre (GRDC), Bandung, Special Publ. 28, p. 75-88.
(Kukusan area, E of Meratus Mts, SE Kalimantan, dismembered ophiolite complex with ultramafic rocks, chert and volcanic flows. Ultramafic rocks dominate and consist of dunite, serpentinite, harzburgite. Reddish chert outcrops in N area, formed in deep sea environment and structural contact with ultramafics. Origin of Kukusan ophiolite complex still controversial (obduction or plutonic intrusion, may be result of Oligocene W-ward obduction of E Sulawesi ophiolite and Miocene- Pliocene collision of Sula micro continents)

Abidin, H.Z. & B.H. Harahap (1996)- Geochemistry of young volcanic rocks from the Kelian gold prospect, East Kalimantan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 6, 60, p. 2-8.
(Kelian area in W Kutai basin in E Kalimantan, with Oligocene-Miocene volcanics of volcanic arc character and Pleistocene volcanics of non-orogenic character, similar to Oceanic Island Basalt but probably related to period of uplift and continental rifting volcanism within Sundaland)

Abidin, H.Z., P.E. Pieters & D. Sudana (1993)- Geology of the Long Pahangai Sheet, 1716, Kalimantan 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(C Kalimantan map sheet, showing Permo-Triassic(?) Busang Complex granite-gabbro and metamorphic rocks, overlain by folded Cretaceous Selangkai Gp sediments, unconformably overlain by near-horizontal Late Eocene sediments. In N Embaluh melange composed of imbricated Late Cretaceous- Paleocene-Eocene sediments and some Danau Fm ultramafics. Late Oligocene- E Miocene Sintang andesite intrusives, etc.)

Abidin, H.Z. & E. Rusmana (1997)- Petrology and geochemistry of the Tertiary volcanic/sub volcanic rock from the Masupa Ria Gold prospect, East Kalimantan. Proc. 26th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 237-253.
(Masupa Ria gold prospect in E-C Kalimantan volcanic belt. Volcanics High-K calk-alkaline island arc volcanism as result of subduction of S China Sea plate under Kalimantan in Late Oligocene (~24.4 Ma))

Abidin, H.Z. & Sukardi (1997)- Geochronology and geology of the East-Central Kalimantan volcanic belt, Indonesia. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 7, 64, p. 17-27.
(NE-SW trending, ~400 km long belt of calk-alkaline volcanics with gold mineralization across C and E Kalimantan. K-Ar ages of andesites at Kelian, Muyup and Masupa Ria gold prospects from ~14.2- 24.6 Ma (E-M Miocene). Quaternary basalt and dacite at Kelian 1.53- 0.97 Ma (Pleistocene). Late Oligocene-Miocene volcanism related to subduction of S China Sea plate under N Borneo margin of Sundaland basement complex)

Adimedha, T.B., R.A. Farenzo, I.G. Sukadana, R.D. Nugraheni, F. Pratiwi, R.C. Ciputra, F.D. Indrastomo et al. (2024)- Distribution and characteristics of Rare Earth Elements in Uranium-ore deposits from Rirang Area, West Kalimantan Province, Indonesia. Eksplorium 45, 1, p. 1-16.
(online at: https://ejournal.brin.go.id/eksplorium/article/view/8149/6250)
(Uranium and REE mineralization in Kalan area, Rirang, Melawi Regency, W Kalimantan, due to metasomatism processes associated with Na-rich fluid of felsic intrusion (linked to Sukadana granite), hosted by Jeranong Fm. metasiltstone-metapelite. Uranium and REE-bearing minerals uraninite, brannerite, monazite, and xenotime)

Advokaat, E.L., N.T. Marshall, S. Li, W. Spakman, W. Krijgsman & D.J.J. van Hinsbergen (2018)- Cenozoic rotation history of Borneo and Sundaland, SE Asia revealed by paleomagnetism, seismic tomography, and kinematic reconstruction. Tectonics 37, 8, p. 2486-2512.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1029/2018TC005010)
(Paleomagnetic data from Kutai basin show Borneo underwent ~35° CCW rotation in Late Eocene and additional ~10° CCW rotation since E Miocene. How rotation was accommodated relative to Sundaland not clear. Late

Eocene- E Oligocene rotation possibly driven by change in motion of Australia relative to Eurasia, from E-ward to N-ward, which also led to initiation of subduction along E Sunda trench and proto-South China Sea to S and N of Borneo, respectively)

Akmaluddin & C. Carangritti (2019)- Biostratigrafi foraminifera plangtonik pada Cekungan Kutai, Kalimantan Timur. Prosiding Seminar Nasional Kebumian KE-12, Teknik Geologi Fakultas Teknik Universitas Gadjah Mada, Yogyakarta 2019, p. 218-227.

Akmaluddin, M. Virgiana A., S. Husein, M.I. Novian, N.I. Setiawan, D.H. Barianto, Sunjaya E.S. & B.T. Tampubolon (2019)- Late Cretaceous sedimentary rock in Barito Basin, Indonesia: lithology, paleontology and paleoenvironment. Scientific Contributions Oil and Gas (SCOG), Lemigas, 42, 3, p. 131-143.
(online at: http://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/400)
(Late Cretaceous sediments in wells in NE Barito Basin. Analyses in 6 wells suggest Cenomanian age: Sulcoperculina, Orbitolina and Rotalipora in Bongkang 2 and Hayup 1, 2 (Shell, 1965 wells), palynomorphs like Cicatricosisporites dorogensis, etc., in Bagok 1 and 2 Pertamina 1987, 1991 wells. (NB: foraminifera associations unusual; identifications open to re-interpretation?; JTvG))

Albrecht, J.C.H. (1946)- Contributions to the geology of the region between Soengai Klindjau and Soengai Belajan, Northern Koetai, Borneo. Ph.D. Thesis Universiteit van Utrecht, Kemink, Utrecht, p. 1-115.
(Study of samples collected by Witkamp 1922-1925 from NW edge of Kutai Basin and adjacent Pretertiary basement outcrops. Oldest rocks 'Old Slates' (?Devonian and younger), overlain by Danau Fm (Permo-Carboniferous and U Triassic). Unconformably overlain by Lower Tertiary clastics with Eocene limestones with Pellatispira, Biplanispira and Nummulites. Illustrations of deep marine trace fossils Helminthoida, Palaeodictyon spp., etc. from E Tertiary platy marls at L. Atan)

Alfing, J., M. Brocker & N.I. Setiawan (2021)- Rb-Sr geochronology of metamorphic rocks from the Central Indonesian Accretionary collision complex: Additional age constraints for the Meratus and Luk Ulo complexes (South Kalimantan and Central Java). Lithos 388-389, 105971, p. 1-20.
(New Rb-Sr geochronology for metamorphic rocks in Meratus Complex, SE Kalimantan, and Luk Ulo, C Java. Meratus schists early High-P/low-T metamorphism, overprinted by later medium P conditions. Glaucophane-rich sample with Rb-Sr ages of 110-115 Ma (~Aptian-Albian; minimum age for HP/LT stage). Meratus Haruyan metamorphics likely metamorphic sole of Meratus ophiolite. New ages of HP/LT rocks from Luk Ulo Complex 119-114 Ma (Aptian). Both occurrences belong to same E Cretaceous subduction system. All Pretertiary basement occurrences with HP/LT metamorphic imprint have Cretaceous metamorphic ages clustering at 135-100 Ma. Sulawesi complexes slightly older? (~130-120 Ma), suggesting possible additional Cretaceous suture zone through Sulawesi)

Alfyan, M.F. & O. Verdiansyah (2025)- Ore textures and chemical constraints in the Serantak goldfield, northwest Borneo, Indonesia: implications for retrograde skarn occurrences. Australian J. Earth Sciences 72, 1, p. 85-107.
(online at: https://www.researchgate.net/publication/388632848_Ore_textures_and_chemical_constraints_in_the_Serantak_goldfield_northwest_Borneo_Indonesia_implications_for_retrograde_skarn_occurrences)
(Ore genesis ore genesis and sequence in Serantak gold deposit in Bengkayang Regency, NW Kalimantan (part of West Borneo Arc), in area of Late Triassic Banan Fm meta-volcanoclastics and Oligocene- E Miocene Sintang Intrusuves. Gold mineralization classified into two zones, proximal retrograde skarn and peripheral epithermal vein styles)
AMDEL (1983)- K-Ar geochronology of five hornblendes from South Kalimantan. Geological Research Development Centre (GRDC), Bandung, p. *(Unpublished)*
(Heryanto & Panggabean 2004: Includes 113 ± 1 Ma age for hornblende schist from Aranio River, Meratus Range, SE Kalimantan)

Amiruddin (1989)- The preliminary study of the granitic rocks of West Kalimantan, Indonesia. M.Sc. Thesis, Wollonggong University, Australia, B-Geol. 951, p. *(Unpublished)*

Amiruddin (2000)- Petrology and geochemistry of the Sepauk Tonalite and its economic aspect in the Schwaner batholith, West Kalimantan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 10, 100, p. 2-14.
(Cretaceous Sepauk tonalite part of largest granitoid batholith in W Kalimantan. Intermediate, I-type granite, with K-Ar ages 87-123 Ma, interpreted to belong to subduction-related volcanic arc. Intruded into Pinoh Metamorphics, with contact aureoles suggesting depth of emplacement 7-16km)

Amiruddin (2000)- Characteristics of Cretaceous Singkawang and Triassic Sanggau batholiths, West Kalimantan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 10, 103, p. 2-15.
(NW Kalimantan Cretaceous Singkawang batholith (NW of Schwaner Mts) and Triassic Sanggau batholith (N of Schwaner Mts) both I-type granites ('compressive granite' or 'volcanic arc granite'), related to subduction. Triassic Sedua granite in small Sanggau batholith intruded into Permian(?) Embuoi metamorphic rocks with K-Ar ages 195-232 Ma (= Late Triassic). Contact aureoles suggest depths of emplacement ~6.5- 16 km)

Amiruddin (2000)- Cordilleran and Caledonian types Cretaceous orogenic granitic rock belts: with the granitic samples from West-East Kalimantan, Indonesia. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 10, 108, p. 2-15.
(Two type of Cretaceous granite in Kalimantan: (1) Cordilleran-type large Schwaner (Sepauk Tonalite) and Singkawang batholiths in S, I-type granites created during subduction from 129-86 Ma; and (2) Caledonian-type E-W trending belt of isolated granite and granodiorites plutons in N, I-type and S-type granites, emplaced between 81-75 Ma (= Campanian) within collision zone)

Amiruddin (2009)- Cretaceous orogenic granite belts, Kalimantan, Indonesia. Jurnal Sumber Daya Geologi (JSDG) 19, 3, p. 167-176.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/203/194)
(Two types of Cretaceous granite belts in Kalimantan: (1) Schwaner-Ketapang 'Cordilleran-type' large batholiths, tied to 'mid'-Cretaceous subduction of oceanic crust below continent, emplaced from 86- 129 Ma and (2) two belts of 'Caledonian-type' 'post-collisional' Late Cretaceous (75-81 Ma= Campanian) isolated plutons, the E-W trending Sambas- Mangkalihat belt and Meratus in SE (see also companion paper of Hartono (2012))

Amiruddin (2012)- Cretaceous granitoid magmatism. In: U. Hartono (ed.) Magmatism in Kalimantan, Centre for Geological Survey, Geological Agency (Bandung), Special Publ., p. 27-66.
(Review of widespread Cretaceous granitoids in Kalimantan.Two groups: (1) large, massive E-M Cretaceous batholiths in SW and W (Schwaner, Singkawang, Ketapang, Sanggau) and (2) Late Cretaceous isolated plutonic belts (Sambas- Mangkalihat small plutons in accretionary system all along N border of Kalimantan, W Meratus in SE Kalimantan). Radiometric ages of granitoids from 80-129 Ma)

Amiruddin & H.Z. Abidin (2005)- Preliminary indication of gold mineralization within the metamorphic rocks in Gunung Belanda area, Pelaihari, South East Kalimantan. Majalah Geologi Indonesia (IAGI) 20, 3, p. 123-128.
(Small, poorly studied epithermal gold prospect hosted in Huaran Metamorphics in S part of Meratus Mts of SE Kalimantan (Tempurung River, Pelaihari District)

Amiruddin & S. Andi Mangga (1999)- Geochemistry of Cretaceous peraluminous granite plutons in head water of the Mahakam River, East Kalimantan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 9, 88, p. 2-10.
(U Cretaceous Topai and Nyaan Merah granites in N-C Kalimantan intruded into Cretaceous Embaluh Complex. Topai granite K-Ar ages ~75-77 Ma. Peraluminous S-type granites, probably derived from pelitic sediments. Tectonic setting syn-collisional, near collision zone?)

Amiruddin & D.S. Trail (1993)- Geology of the Nangapinoh sheet, Kalimantan, 1:250 000. Geological Research Development Centre (GRDC), Bandung, p. 1-49. + map.
(Incl. large Early Cretaceous 'Sepauk Tonalite', intruding Pinoh Metamorphics. Aptian-Albian radiometric ages 107-112 Ma and 112-123 Ma)

Anderegg, H., (1941)- Nota over een tocht van Moeara Oeja (Hoeloe Soengei) over het Meratoes gebergte naar Tanah Grogot (Pasir). Bataafse Petroleum Maatschappij (B.P.M.), Balikpapan, Unpublished Report, 9p.

('Notes on a trip from Muara Uja (Hulu Sungie) across the Meratus Range to Tanah Grogot (Pasir)'. One of several geological field reports in Barito Basin area around 1939-1941 by Swiss BPM geologist Hans Anderegg))

Anggritya K.D. & B. Priadi (2016)- Basement characteristics of northern Barito Basin, Siung Malopot area, Central Kalimantan. Proc. 14th Regional Conference Geology and Mineral Resources of SE Asia (GEOSEA XIV) and 45th Annual Conv. Indonesian Association Geologists (IAGI) (GIC 2016), Bandung, p. 301-309.
(Basement outcrops in Siung Malopot area in N part of Barito basin (277km NE of Palangkaraya) Cretaceous? low-metamorphic andesite and granodiorite. Also boulders of Early Tertiary limestone and presumably reworked latest Carboniferous - E Permian fusulinid foraminifera (Schwagerina))

Anjarwati, R., A. Idrus & L.D. Setijadji (2018)- Geology at Beruang Kanan, Central Kalimantan, Indonesia. Proc. Int. Conf. Earth Science Mineral and Energy, Yogyakarta 2018, IOP Conference Series: Earth and Environmental Science 212, 012017, p. 1-11.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/212/1/012017/pdf)
(Beruang area within Oligocene C Kalimantan magmatic arc that hosts epithermal gold deposits (e.g. Kelian, Indon, Muro) and prospects (Muyup, Masupa Ria, Gunung Mas, Mirah). Mineralization associated with intrusions emplaced at shallow crustal levels in area of junction between Mesozoic metamorphic rocks to S and accreted Lower Tertiary sediments to N. Cretaceous rocks in Beruang Kanan older intrusions and volcanic and volcaniclastic rocks. Beruang Kanan mineralization hosted in dacite tuff of probable Oligocene age)

Anonymous (1921)- Ijzerertsafzettingen in Borneo. Verslagen Mededeelingen Indische delfstoffen en hare toepassingen, Dienst Mijnwezen Nederlndsch Oost Indie, Bandung, 9, p. 1-51.
(online at: https://resolver.kb.nl/resolve?urn=MMKB24:078921000:pdf)
('Iron ore deposits in Borneo' (also spelled Ijzerertsafzettingen). Reviews of iron ore occurrences on Pulau Laut, Pleiari near Martapura (first discovered by Von Gaffron 1844, Rant 1854), Kota Waringin and Ketapang, and some others in W Borneo. Investigations in 1916-1919 were focused near outcropping peridotite bodies)

Anshari, G., A.P. Kershaw & S. Van der Kaars (2001)- A Late Pleistocene and Holocene pollen and charcoal record from peat swamp forest, Lake Sentarum wildlife reserve, West Kalimantan, Indonesia. Palaeogeogr. Palaeoclim. Palaeoecology 171, 3-4, p. 213-228.
(Palynological record of last 30 kyrs from peat swamp forest in Upper Kapuas River Basin, NW Kalimantan. Late Pleistocene temperatures cooler. Charcoal values rise throughout period, reflecting increased human impact, especially in last 1400 years)

Anshari, G., A.P. Kershaw & S. Van der Kaars & G. Jacobsen (2004)- Environmental change and peatland forest dynamics in the Lake Sentarum area, West Kalimantan, Indonesia. J. Quaternary Science 19, 7, p. 637-655.
(online at: https://www.researchgate.net/publication/229456157_Environmental_change_and_peatland_forest_dynamics_in_the_Lake_Sentarum_area_West_Kalimantan_Indonesia)
(Four short pollen and charcoal records from around Lake Pemerak on the margins of the Danau Sentarum National Park, W Kalimantan provide partial picture of lowland equatorial vegetation over last 40 kyrs. Period before Last Glacial Maximum time of most active peatland growth. Increase in charcoal just before ~30 ka, suggests more frequent burning, attributed to initial human impact. Late Pleistocene Last Glacial Maximum marked by a peak in montane–submontane rainforest taxa, indicating substantial lowering of temperature)

Aprillia, R., W. Mukhtar, S. Setiawati, G.C. Asbanu & I. Munzir. (2024-. Genesis of bauxite ore in Toba Area Sanggau District, West Kalimantan Province. Jurnal Geocelebes 8, 1, p. 26-36.
(online at: https://journal.unhas.ac.id/index.php/geocelebes/article/view/26521/11384)
(Indonesia's largest bauxite reserves (703 MT) are in West Kalimantan. Lateritic bauxite in Sanggau Regency formed from rocks with a high relative Al content, low Fe and minor quartz (Sepauk Tonalite). Main mineral is gibbsite, accessory minerals hematite, goethite, kaolinite and quartz)

Aral, H., M.I. Pownceby & J. Im (2008)- Characterisation and beneficiation of zircon-rich heavy mineral concentrates from central Kalimantan (Borneo, Indonesia). Applied Earth Science (Trans. Institute of Mining and Metallurgy (IMM), London B), 117, 2, p. 77-87.

(C Kalimantan potentially significant zircon, ilmenite, rutile and other heavy mineral province. Study of zircon-rich heavy minerals from artisanal mine tailings in Sampit region, S C Kalimantan)

Aribowo, Y., Y. Syahputra & D.A. Widiarso (2018)- Characteristics of lateritic nickel mineralization in mid part of Madang and Serakaman areas, Sebuku Island, South Kalimantan. Proc. 2nd Int. Joint Conf. Advanced Engineering and Technology (IJCAET), Bali 2017, MATEC Web of Conferences 159, 01038, p. 1-6.
(online at: https://www.matec-conferences.org/articles/matecconf/pdf/2018/18/matecconf_ijcaet-isampe2018_01038.pdf)
(Survey of laterite nickel mineralization in serpentinized dunite and harzburgite, gabbro, silicified gabbro, tuff, and basalt on Sebuku Island. Ni content rel. low).

Arief, J.M., D. Sunjaya, L.D. Setijadji & H. Sindhunata (2022)- Tayan bauxite laterite deposit: implications of parent rock types to major and Rare Earth Elements characteristics and potential Scandium occuriences. Proc. 51st Annual Conv. Indonesian Association Geologists (IAGI), Makassar 2022, 97, p. 1-9.
(online at: https://www.iagi.or.id/web/digital/71/PITIAGI-22-P-Abs-057.pdf)
(W Kalimantan reportedly has enormous bauxite reserves (PT Antam). Tayan laterite bauxite deposit~ 110 km E of Pontianak, W Kalimantan. Hosted by Lower Cretaceous Sepauk tonalite granitoid in Schwaner Mountains. Bauxite hosted by diorite parent rock higher Al_2O_3 content and lower SiO_2 content relative to granodiorite-hosted bauxite. Also higher Scandium than bauxite with granodiorite parent rock)

Aryanto, N.C.D. (2009)- Identifikasi keterdapatan kasiterit dalam sdimen dasar laut di perairan Singkawang dan sekitarnya, Kalimantan Barat. Proc. 38th Annual Conv. Indonesian Association Geologists (IAGI), Semarang, p. 1-6. *(online at: https://www.iagi.or.id/web/digital/26/2009_IAGI_Semarang_Identifikasi-Keterdapatan-Kasiterit.pdf)*
('Identification of the presence of cassiterite in seabed sediments in the waters of Singkawang and its surroundings, West Kalimantan'. Up to 15% cassiterite in shallow marine sea floor sediment off W Kalimantan,SW of Singkawang, NNW of Pulau Kabung)

Aryanto, N.C.D., Koesnadi H.S., Setyanto & N. Sukmana (2000)- Indikasi keberadaan dan kandungan mineral kasiterit di perairan selatan Kalimantan. Proc. 29th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, p. 61-72. *(Poster abstract)*
('Indications of the presence and content of cassiterite mineral in the waters of S Kalimantan')

Aryanto, N.C.D., E. Suparka, C.I Abdullah & H. Permana (2013)- The petrology characteristic of granitoid rock based on geochemical analysis of Bajau Cape Coast and its surrounding, West Kalimantan. Bulletin of the Marine Geology 28, 1, p. 13-20.
(online at: http://ejournal.mgi.esdm.go.id/index.php/bomg/article/view/51/52)
(Granitoid along Bajau Cape coast near Singkawang, ~145 km N of Pontianak, NW Kalimantan. Rocks porphyric texture, with biotite. Classified as alkali feldspar granite, syeno-granite and quartz monzonite (part of Oligo-Miocene Sintang Intrusives or Cretaceous Mensibau/ Singkawang Group?)

Aryanto, N.C.D., E. Suparka, C.I Abdullah & H. Permana (2013)- Petrology and geochemie of Singkawang granitoid, West Kalimantan. Proc. Joint Convention 38th Indonesian Association Geophysicists (HAGI) - 42nd Indonesian Association Geologists (IAGI), Medan, JCM2013-010, p. 1-4.
(online at: https://www.iagi.or.id/web/digital/8/2013_IAGI_Medan_Petrology-and-geochemie.pdf)
(Similar to Aryanto et al. (2013) paper above, on Singkawang granite-granodiorite 145km N of Pontianak (no age info))

Atarita, T.C., Fatahillah & E. Anggraeni (2015)- Hydrocarbon prospective of Mesozoic sequence in Barito Basin, South Kalimantan. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI, Balikpapan, JCB2015-522, 1p. *(Abstract only)*
(3D seismic suggests NW-SE trending Pretertiary synrift system possibly developed, similar to Tertiary synrift. Evidence for Mesozoic sediments in wells of NE Barito Basin: Late Cretaceous sandstone shale in Bagok 2, 500m Cretaceous limestone with Orbitolina in Hayup 1)

Atmawinata, S., N. Ratman & Baharuddin (1995)- Geological map of the Muara Ancalong Quadrangle 1816, Kalimantan, 1: 250,000. Geological Research Development Centre (GRDC), Bandung.
(Geologic map of N side of Kutai Basin. Oldest rocks in NW corner Telen-Kelinjau Melange and Telen Fm metasediments, associated with Cretaceous Tebang Melange with blocks of Orbitolina limestone, gabbro, ultramafics, chert, etc. Unconformably overlain by Eocene and younger clastics and limestones (with Nummulites, Pellatispira, etc.))

Auliya, I., A. Ramadhan, M.K.M Darmaputra, M.B. Najah & I.G.B.E Sucipta (2021)- Geochemical characteristics of Schwaner Mountains granitoids and their relationship to magmatism in the Southwest Borneo Block. Proc. HAGI-IAGI-IAFMI-IATMI Joint Convention Bandung (JCB) 2021, p. 775-778.
(online at: https://www.iatmi.or.id/proceedings-of-jcb-joint-convention-bandung-2021/)
(Granitoid geochemical data in Schwaner Mts compiled from previous studies)

Aveliansyah & M. Syaiful (2010)- Facies and paleo-environment of Miocene Pulau Balang Formation and its implication to hydrocarbon potential in Kutai Basin, based on outcrop observation. Proc. 34th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA10-SG-049, p. 1-8.
(Samarinda area outcrop section description of 200m of M Miocene (N9-N14) tide-influenced delta plain-delta front facies)

Badaruddin, D.F., Hidayat, R. Adlan, T. Ramli & M. Nurhidayat (2019)- Sintang intrusive delineation and focus area for hydrocarbon exploration in Melawi Basin, West Kalimantan. Proc. 43rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA19-G-172, p. 1-14.
(online at: www.researchgate.net/publication/346228246_SINTANG_INTRUSIVE_DELINEATION_AND_FOCUS_AREA_FOR_HYDROCARBON_EXPLORATION_IN_MELAWI_BASIN_WEST_KALIMANTAN)
(Cretaceous-Oligocene Melawi Basin in W Kalimantan has hydrocarbon potential, as proven by oil seeps in outcrop and gas shows in Kayan-1 and Kedukul-1 wells. Miocene Sintang Intrusives caused drilling failures and other problems)

Badaruddin, D.F., D. Noeradi, M. Nurhidayat & M.S. Burhanuddin (2018)- Retroarc foreland basin in Melawi Basin, West Kalimantan, and implication to hydrocarbon migration pathway. Proc. 42nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA18-273-G, p. 1-14
(M Eocene- Oligocene Melawi Basin in NW Kalimantan 300km long and 100km wide and formerly classifiied as intra-continental rift, sag basin and strike slip basin. Sedimentation thicker in N, as result of thrust fault-controlled sediment deposition. N of basin subduction and collision-related rocks include M Eocene Piyabung arc volcanics and Boyan and Lubok Antu melanges. Further N lies Sarawak Basin, classified as Eocene-Oligocene foreland basin. Oil seeps around Kedukul-1 well, gas shows in Kayan-1 and Kedukul-1 wells. Melawi basin is retroarc foreland basin, with hydrocarbon migration pathways from foredeep in N to forebulge area in S part of basin)

Badaruddin, D.F., Suyono, M. Nurhidayat, P. Asmoro & R.Y. Saragih (2018)- Post-mortem analysis of drilling failure of Kayan-1 and Kedukul-1 wells in Melawi Basin, West Kalimantan. Proc. 42nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA18-189-G, p. 1-15. *(online at: https://www.researchgate.net/publication/372828144_Post-Mortem_Analysis_of_Drilling_Failure_of_Kayan-1_and_Kedukul-1_Wells_in_Melawi_Basin_West_Kalimantan)*
Melawi Basin in NW Kalimantan with oil seeps at surface, but two wells (Kayan 1, Elf 1986 and Kedukul 1, CanadianOxy 1995) only gas shows. Both wells in E Oligocene beds at surface. In Kayan-1, E Miocene Sintang intrusions intruded Eocene Ingar and Dangkan Fms. Kedukul-1 TD in Sintang Intrusion. Reservoir sandstones poor porosity (av. 8-10%). Oil maturation window at surface in E Melawi basin due to Miocene regional uplift)

Baharuddin (2007)- Petrologi dan geokimia batuan gunung api Metulang di daerah Longbia, Kalimantan Timur: implikasi tektonikanya. Jurnal Sumber Daya Geologi (JSDG) 17, 1 (157), p. 40-48.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/278/249)

('Petrology and geochemistry of Metulang volcanic rocks in the Long Bia area, East Kalimantan: its tectonic implications'. Plio-Pleistocene porphyric basaltic Metulang Volcanics petrology and geochemistry indicate island arc volcanics, related to Borneo- Palawan subduction)

Baharuddin (1994)- The petrology and geochemistry of the Cretaceous volcanic and subvolcanic rocks of the Schwaner Mountains Region, Southwest Kalimantan, Indonesia. M.Sc. Thesis University of Tasmania, p. 1-63. *(Unpublished)*

Baharuddin (1994)- The petrology and geochemistry of the Cretaceous Schwaner volcanic/ subvolcanic rocks and its implication to the tectonic evolution of Sundaland. Proc. 23rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 1, p. 271-290.
(Schwaner Mts Cretaceous E-W belt of Early Cretaceous granitoids (130-100 Ma) are rotated extension of continental E Asia. Also Late Cretaceous Kerabai volcanics, probably associated with slow, low-angle subduction, and Tertiary volcanics (30-16 Ma))

Baharuddin (1999)- Petrology and mineral geochemistry of the Cretaceous volcanic and subvolcanic rocks from the Schwaner Mountains, West Kalimantan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 9 (89), p. 10-20.
(Schwaner Mts Cretaceous volcanics of Matan Volcanic Complex/ Kerabai Volcanics range from basaltic to rhyolitic, subvolcanics diorite to gabbro and dolerite. Composition of magma med-high K calk-alkaline)

Baharuddin (2001)- Struktur sesar pada batuan ultramafik di daerah Tanjungdewa-Batakan, Kalimantan Selatan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 11 (117), p. 2-10.
('Fault structure in ultramafic rocks in the Tanjung Dewa-Batakan area, South Kalimantan'. At S tip of Bobaris Range NW-SE left-lateral Batakan Fault and N-S right-lateral Tanjungdewa Fault)

Baharuddin (2006)- Hubungan keberadaan runtunan ofiolit dengan konsentrasi unsur logam dalam endapan Sungai aktif di daerah Pelaihari, Kalimantan Selatan. Jurnal Sumber Daya Geologi (JSDG) 16, 4 (154), p. 198-209.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/364)
('The relationship between ophiolite and the concentration of metal elements in active river sediments in the Pelaihari River area, S Kalimantan'. Stream samples in Tambak-Bobaris zone of SW Meratus Mts suggest significant concentrations of Ni, Cu, Pt and Co, presumably derived from ophiolite)

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(online at: https://www.iagi.or.id/web/digital/10/2011_IAGI_Makassar_Petrologi-dan-Geokimia.pdf)
('Petrology and geochemistry of Tertiary Jelai volcanic rocks in the Malinau area, NE Kalimantan: its tectonic implications'. Jelai Volcanics of NE Kalimantan W of Tarakan Basin, calc-alkaline basaltic andesites of island arc affinity, with M Miocene K-Ar ages between ~14.7- 16.1 Ma)

Baharuddin (2011)- Petrologi dan geokimia batuan gunung api Tersier Jelai di daerah Malinau, Kalimantan Timur: implikasi tektoniknya. Jurnal Sumber Daya Geologi (JSDG) 21, 4, p. 2013-211.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/147/143)
(same as Baharuddin 2011, above)

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Baharuddin, M.H.J. Dirk & U. Hartono (2001)- Ciri petrologi dan geokimia batuan ofiolit Bobaris, Pegunungan Meratus, Kalimantan Selatan, dan potensi mineral ekonomisnya. Geological Research Development Centre (GRDC), Bandung, Special Publ. 28, p. 61-73.
(Bobaris ophiolite complex along W flank of Meratus Mts, SE Kalimantan, is dismembered ophiolite sequence emplaced in Maastrichtian, Late Cretaceous)

Baharuddin, B. Djamal & B. Harahap (2003)- Geochemistry of the Tertiary rhyolite from West Kalimantan and its geodynamic implications. Buletin Geologi (ITB) 35, 2, p. 1-43.

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(Early to Late Cretaceous Selangkai Fm deformed flysch type series in Sintang Quadrangle, N of Melawi and S of Ketungau Basins. Deposited in submarine fan environment, >3000m thick. With Embaluh Group in E region and Boyan Melange possibly parts of accretionary complex of SW-dipping (restores to W-dipping in Cretaceous) Pacific Ocean subduction zone, which ties to Cretaceous Schwaner magmatic belt)

Baharuddin, R. Heryanto & H. Panggabean (2002)- Cretaceous Selangkai Formation of West Kalimantan and its tectonic implication. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 12, 123, p. 2-9.
(Cretaceous Selangkai Fm well exposed on Sintang Quadrangle, NW Kalimantan, mainly between Melawi and Ketungau-Manda Tertiary basins). Deformed flysch- type deposit accumulated in submarine fan environment. Thickness >3000m. Fossils indicate E-Late Cretaceous ages. With Embaluh Complex and Boyan Melange are part of accretionary prism complex at (present-day) S-dipping Late Cretaceous subduction zone, which is tied to Cretaceous Schwaner magmatic belt and reflect W-dipping subduction of Pacific Ocean crust)

Baharuddin, P.E. Pieters, D. Sudana & S. Andi-Mangga (1993)- Geology of the Long Nawan sheet 1717 area, Kalimantan. 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(C-E Kalimantan-Sarawak border area map, dominated by intensely folded Late Cretaceous-Paleogene Embaluh Gp metasediments, intruded by Late Cretaceous Topai granite. Locally overlain by M Eocene Nyaan volcanics and Pliocene Metulang Fm volcanics)

Baharuddin & E. Rusmana (2007)- Geochemical characteristics of the youngest volcanic rocks from Mount Acau, West Kutai Regency, East Kalimantan. Jurnal Sumber Daya Geologi (JSDG) 17, Special Issue (163), p. 47-56.
(Quaternary Metulang Volcanics at Mount Acau with K/Ar ages of 0.93-0.01 Ma are basalt and basaltic andesite of low-K tholeitic and medium-K calk-alkaline types. Show characteristic intraplate magmatism, possibly due to backarc extension)

Baharuddin & P. Sendjaja (2014)- The petrology and geochemistry of the Cretaceous Schwaner volcanic/ subvolcanic rocks and its implication to the tectonic evolution of Sundaland. In: I. Basuki & A.Z. Dahlius (eds.) Sundaland Resources, Proc. Annual Conv. Indonesian Soc. Economic Geologists (MGEI), Palembang, p. 129-144.
(Schwaner Mts Domain in W Kalimantan dominated by E-W belt of I-type granitoids, ~200 km wide and 500 km long, including mainly E Cretaceous (130-100 Ma) tonalites and granodiorites, probably rotated extension of continental E Asia belt. Some evidence that granitoids in Schwaner Mts domain become younger from N (124 Ma) to S (74 Ma). Late Cretaceous 'Kerabai Volcanics' range from basalt to rhyolite, subvolcanic rocks diorite to gabbro and dolerite, comprising calc-alkaline orogenic association, probably subduction-related magma associated with slow, low-angle subduction)

Baharuddin & J. Wahyudiono (2007)- Kontrol struktur pada pola zig-zag aliran Sungai Kayan di daerah Peso, Kalimantan Timur. Jurnal Sumber Daya Geologi (JSDG) 17, 3, p. 178-186.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/288/259)
('Structural control on zig-zag pattern of the Kayan River in Peso, East Kalimantan'. Peso area downstream of Kayan River, mainly occupied by flysch-type deposits of Cretaceous Rajang-Embaluh Group, unconformably overlain by Tertiary sediments and intruded by Tertiary-Quaternary magmatics. Zig-zag pattern of Kayan River in area closely related to major NE- SW and NW-SE-trending faults)

Baldwin, J. (2008)- Kelian; a precursor to the carbonate-base metal gold model. In: P.C. Lewis (ed.) Proc. Terry Leach Symposium, Sydney 2008, Bull. Australian Institute of Geoscientists (AIG) 48, p. 1-7.
(online at: https://www.aig.org.au/library/publications/aig-bulletins/)

(Review of Kelian gold mine in C Kalimantan. Discovered by PT Rio Tinto Indonesia in 1976, production started in 1992, mining completed 2003. Early Miocene epithermal mineralization system linked to andesite intrusions. Uplift of >900m duringM-L Miocene (see also Van Leeuwen et al. 1990, Davies et al. 2008))

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(online at: https://ia600807.us.archive.org/29/items/sim_engineering-and-mining-journal_1931-09-14_132_5/sim_engineering-and-mining-journal_1931-09-14_132_5.pdf)
(Brief but good review of of diamond mining in Borneo, which dates back centuries)

Barker, S.M., J. Jong & F.L. Kessler (2015)- Structural comparison of the fold-thrust belts along the Circum-Borneo margins. Proc. SE Asia Petroleum Exploration Society (SEAPEX) Conference, Singapore 2015, 4.1, p. 1-18. *(Extended Abstract + Presentation)*
(Comparisons of nine fold-thrust belts (FTB) that fringe E Sundaland around NW and W Borneo margins: Bunguran, W Baram Delta, E Baram Delta, N NW Sabah Trough, Sandakan, Tarakan and Kutai-W Sulawesi. Almost all are 'thin-skinned' and in at least four belts frontal thrusting can be linked to proximal extensional growth faults (Bunguran/Rajang Delta, Sandakan, Tarakan, Kutai))

Barron, L.M., T.P. Mernagh R. Pogson & B.J. Barron (2008)- Alluvial ultrahigh pressure (UHP) macrodiamond at Copeton/Bingara (Eastern Australia) and Cempaka (Kalimantan, Indonesia), 9th Int. Kimberlite Conference, Extended Abstract 9IKC-A-00039, p. 1-3.
(Similar diamonds in Cenozoic placers in E Australia and in SE Kalimantan. Copeton- Bingara diamonds ultrahigh pressure macrodiamonds, formed during termination of subduction by continental collision)

Bassi, D., L. Hottinger & Y. Iryu (2009)- Reassessment of *'Boueina' pacifica'* Ishijima, 1978 (Orbitolininae, Foraminiferida), formerly considered a green halimedacean alga. J. Foraminiferal Research 39, 2, p. 120-125.
(online at: http://jfr.geoscienceworld.org/content/39/2/120.full.pdf)
(Boueina pacifica Ishijima 1978 described from Aptian shallow-water carbonates at Seberuang, W. Kalimantan, originally ascribed to Halimeda-group algae, but is orbitolinid foraminifer. Type specimens no diagnostic features to identify genus or species of orbitolinids)

Batara, B. & C. Xu (2022)- Evolved magmatic arcs of South Borneo: Insights into Cretaceous slab subduction. Gondwana Research 111, p. 142-164.
(online at: www.sciencedirect.com/science/article/pii/S1342937X22002313)
(Arc magmatism in S Borneo active throughout Late Mesozoic but mainly in Cretaceous (144-72 Ma). Late Cretaceous granitoids from S Schwaner I-type transitional to A-type. Two subduction systems beneath Sundaland converged and interacted during Cretaceous: (1) Paleo-Pacific subduction in N (Lupar Line melange, Late Jurassic- Cretaceous Schwaner-Singkawang magmatic arc, and Late Cretaceous Kuching-Long Pahangai arc); (2) Meso-Tethys subduction in SE (Schwaner-Singkawang magmatic arc, Meratus-Luk-Ulo melanges, and Meratus-West Java magmatic arc). Late Cretaceous slab rollback led to crustal stretching in Schwaner-Singkawang regions. SW Borneo block considered to be part of Sundaland; Semitau affinity with S Cathaysia. Both terranes accreted onto Sundaland during Triassic Indosinian orogeny)

Batchelor, D.A.F. (1993)- Late Pleistocene sedimentation and landform development in western Kalimantan (Indonesian Borneo); discussion. Geologie en Mijnbouw 71, 3, p. 281-286.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0bW5rd1U5UFlVZnc/view)
(Disagrees with Thorp et al. 1990 correlation and age assignments of Pleistocene lithostratigraphic units in W Malaysia and Indonesian Tin Islands, which they correlated with 'NW Kalimantan Late Pleistocene Alluvials')

Bergman, S.C., D.P. Dunn & L.G. Krol (1988)- Rock and mineral chemistry of the Linhaisai Minette, Central Kalimantan, Indonesia, and the origin of Borneo diamonds. The Canadian Mineralogist, 26, 1, p. 23-43.
(online at: http://rruff.info/doclib/cm/vol26/CM26_23.pdf)
(Linhaisai minette dykes from C Kalimantan, just E of Muller Mts dated at ~7.8 Ma. Primitive nature and probably of mantle origin. Do not contain diamonds; Borneo alluvial diamonds must derive from elsewhere.

Stratigraphy of area: Late Paleozoic metamorphics overlain by marine Cretaceous, overlain by Oligocene(?) Plateau sandstone, intruded by Neogene igneous rocks))

Bergman, S.C., W.S. Turner & L.G. Krol (1987)- A reassessment of the diamondiferous Pamali Breccia, southeast Kalimantan, Indonesia: intrusive kimberlite breccia or sedimentary conglomerate? In: Mantle metasomatism and alkaline magmatism, Geological Society of America (GSA). Special Paper 215, p. 183-195.
(Pamali Breccia along margin of Bobaris ophiolite often regarded as 'kimberlite' source of Borneo diamonds (Koolhoven 1935), but is fluvial conglomerate with angular ophiolite fragments)

Bladon, G.M., P.E. Pieters & S. Supriatna (1989)- Catalogue of isotopic ages commissioned by the Indonesia-Australia Geological Mapping Project for igneous and metamorphic rocks in Kalimantan, preliminary report. Geological Research Development Centre (GRDC), Bandung, p. *(Unpublished)*

Bleekrode, S.A. (1857)- Antimonium en platina van Borneo, onderzocht en beschreven. Tijdschrift De Volksvlijt, p. 1-39.
('Antimony and platinum from Borneo, investigated and described'. Review of occurrences and applications on antimony and platinum worldwide by physician and professor of chemical technology in Delft. Antimony ore formerly mined in Sarawak (Bintala, Tabow, Balanian) and exported to Britain)

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('Platinum ore from Gunung Lawack on Borneo'. Brief note on chemistry of magnetic platinum ore, which contains ~75% Platinum, also ~8% each of Iridium and Osmium, 1% Palladium/ Rhodium. (No locality details, but presumably from Meratus-Bobaris Mountains region?))

Bocking, M. (1855)- Mineral-Analysen, Platinerz von Borneo. Annalen der Chemie un Pharmacie 96, p. 243-244.
(online at: https://babel.hathitrust.org/cgi/pt?id=uiug.30112025848521)
('Analyses of platinum ore from Borneo'. Brief note on Platinum-Iridium-Osmium-Iron nugget from placer deposits in Gunung Lawack region near Martapura? (derived from Meratus/ Bobaris Range). Analyzed in Bonn)

Brandon-Jones, D. (2001)- Borneo as a biogeographic barrier to Asian-Australasian migration In: I. Metcalfe et al. (eds.) Faunal and floral migrations and evolution in SE Asia-Australasia. Balkema, Lisse, p. 365-372.
(Widespread deforestations during Pleistocene cool dry glacial climates caused major discontinuities in distribution of primates and other fauna and flora of W Indonesia)

Breitfeld, H.T., L. Davies, R. Hall, R. Armstrong, M. Forster, Marnie, G. Lister, M. Thirlwall, N. Grassineau, J. Hennig-Breitfeld & M.A.W. van Hattum (2020)- Mesozoic Paleo-Pacific subduction beneath SW Borneo: U-Pb geochronology of the Schwaner granitoids and the Pinoh Metamorphic Group. Frontiers in Earth Science 8, 568715, p. 1-37.
(online at: www.frontiersin.org/articles/10.3389/feart.2020.568715/full)
(New geochemistry, zircon U-Pb and 40Ar/39Ar age data from igneous and metamorphic rocks of Schwaner Mts in SW Borneo suggest three zones: NW Schwaner Zone part of W Borneo Block in Triassic in Sundaland margin, recording Triassic-Jurassic magmatism during early Paleo-Pacific subduction. N and S Schwaner Zones part of SW Borneo (Banda) Block. Jurassic granitoids in SSZ within-plate (A-type) granites. SW Borneo (Banda) Block collided with E Sundaland at ~135 Ma, after which large I-type granitoid plutons and arc volcanics formed in the NWSZ and NSZ between c. 90-132 Ma, associated with Cretaceous Paleo-Pacific subduction. Largest intrusion is 110-120 Ma Sepauk Tonalite. After collision of E Java- W Sulawesi (Argo) Block, subduction ceased and post-collisional magmatism produced 78-85 Ma Sukadana Granite and A-type 72 Ma Sangiyang Granite in SSZ. Pinoh Metamorphics, previously assumed to represent Paleozoic basement, with common E Cretaceous (110-135 Ma) zircons; interpreted as volcaniclastics formed contemporaneously with subduction-related volcanics of NSZ, metamorphosed during intrusion of Cretaceous granitoids. No igneous rocks older than Cretaceous in NSZ and older than Jurassic in SSZ. No evidence for continuation of Triassic volcanic arc crossing Borneo from Sundaland to E).

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(Probably part of Lefevre et al. (1982 report))

Brouwer, H.A. (1910)- On micaleucite basalt from Eastern Borneo. Proc. Koninklijke Nederlandse Akademie van Wetenschappen 12, p. 148-154.
(online at: https://dwc.knaw.nl/DL/publications/PU00013424.pdf)
(English version of 1909 paper 'Glimmerleucitbasalt van Oost-Borneo'. Leucite-bearing basalts previously known only from Ringgit (Java), Bawean and SW Sulawesi. Also present in E Bawoei Mts, Upper Kajan area, Kalimantan. Rock type named kajanite)

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(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:037050000:00001)
('List of a collection of rocks from the Kelei River in Berau, E Kalimantan'. Summary petrographic descriptions of descriptions of Tertiary limestones with Lepidocyclina, shales and greywacke sandstones collected from Kelei tributary of the Berau River by Spaan)

Buijs, D.W., H. Witkamp, F.H. Eendert, H.C. Siebers & F.D.K. Bosch (1927)- Midden-Oost-Borneo Expeditie 1925. Indisch Comite voor Wetenschappelijke Onderzoekingen, Kolff, Weltevreden, p. 1-407.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB18A:020964000:00009)
('Report on Central- East Borneo Expedition April- December 1925'. Scientific expedition into the interior of NE Kalimantan, sponsored by the 'Indisch Comite voor Wetenschappelijke Onderzoekingen' (Indies Committee for Scientific Research). Primarily a botanical study, with brief summary of geology by H. Witkamp (p. 105-116). (see also descriptions of rock samples from this expedition by Rutten (1947))

Burgath, K. (1988)- Platinum-group minerals in ophiolitic chromitites and alluvial placer deposits, Meratus-Bobaris area, Southeast Kalimantan. In: H.M. Pritchard et al. (eds.) Proc.Geo-Platinum 87 Symposium, Milton Keynes 1987, Springer, Dordrecht, p. 383-403.
(Platinum-group mineral from alpine-type chromitites and placer deposits in SE Kalimantan typically small and occur mainly as Ru-rich and Os and Ir-rich laurites. PGM obtained from placers are Ag- and Cu-bearing Pt-Fe alloys (up to >1 mm), rutheniridosmine containing Au and Cu, and Cu-bearing osmiridium. Ru-lr-Os phases in placers could have come from Meratus-Bobaris ophiolite chromitites)

Burgath, K.P. & M. Mohr (1986)- Chromitites and platinum-group minerals in the Meratus- Bobaris ophiolite zone, Southeast Borneo. Metallogeny of basic and ultrabasic rocks. In: M.J. Gallager et al. (eds.) Proc. Int. Symposium Metallogeny of basic and ultrabasic rocks, Edinburgh 1985, Institute of Mining and Metallurgy (IMM), London, p. 333-349.

Burgath, K.P. & M. Mohr (1991)- The Pamali Breccia near Martapura in South-East Kalimantan (Indonesian Borneo); a diamondiferous diatreme? Geologisches Jahrbuch A127 (Festschrift M. Kuersten), p. 569-587.
(Pamali Breccia at SE flank of Bobaris Ophiolite Range, E of Martapura, Meratus Mts, is sedimentary ultramafic breccia-conglomerate, with ultramafics lacking typical kimberlite elements. Pamali Breccia not diamond-bearing diatreme as suggested by Koolhoven (1935). Diamond-bearing gravels in Martapura area have remarkably few ultrabasic components and may mainly be material reworked from U Cretaceous Lower Manunggul Fm diamond-bearing conglomerates, which lacks ultramafic components. Local miners note common association of diamonds and corundum-diaspore rocks)

Burgath, K.P. & H.R.W. Simanjuntak (1983)- Investigation of ophiolite suites and their mineral possibilities in Southeast Kalimantan (Meratus and Bobaris ophiolite zones). Institute for Geosciences and Natural Resources and Directorate of Mineral Resources, Field Activity Report 24.9.1983- 30.11.1983, p. 1-26.

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(online at: https://journal.iagi.or.id/index.php/IAGIJ/article/view/15/12)
(Previous uranium exploration in W Borneo by BATAN since 1969 focused on Kalan area, where uranium from Lower Cretaceous Sepauk Tonalite felsic-intermediate igneous rocks now hosted in Pinoh Metamorphite. Potential new play in Oligocene sandstone-dominated Tebidah Fm of Melawi Basin, N of Sepauk Tonalite in Menukung area, where uranium anomalies have been observed)

Chiang, K.K. (2002)- Geochemistry of the Cenozoic igneous rocks of Borneo and tectonic implications. Ph.D. Thesis, Royal Holloway and Bedford College, University of London, p. 1-364. *(Unpublished)*

Chiang, K.K., C. Macpherson, R. Hall & M. Thirlwall (2000)- A comparative study of the geochemistry and tectonic setting of Cenozoic igneous rocks from East Kalimantan and Sabah, Borneo. Goldschmidt 2000 Conf., Oxford 2000, p. 305 *(Abstract only)*
(E Miocene (~24-18 Ma) rocks in Kutei Basin E-W trend of intrusive rocks belonging to Sintang suite that extends E-W across Kalimantan. Youngest stages of Sintang episode overlap with eruptive volcanism in SE Sabah and precede intrusion of Kinabalu pluton in M Miocene. This period of igneous activity in NW Borneo is coeval with opening of Sulu Sea. Late Plio-Pleistocene volcanics of Borneo NE-SW trend)

Choanji, T. & R. Indrajati (2016)- Analysis of structural geology based on satellite image and geological mapping on Binuang area, Tapin Region, South Kalimantan. Proc. 14th Regional Conference Geology and Mineral Resources of SE Asia (GEOSEA XIV) and 45th Annual Conv. Indonesian Association Geologists (IAGI) (GIC 2016), Bandung, p. 352-361.
(online at: https://www.researchgate.net/publication/311912138_Analysis_of_Structural_Geology_based_on_Sattelite_Image_and_Geological_Mapping_on_Binuang_Area_Tapin_Region_South_Kalimantan)
(Binuang area in SE Barito basin with five major faults and one fold: Normal Fault (Batangbanyu), Thrust Fault (Gunung Batu-1), Strike-slip faults (Gunungulin, Gunung Batu-1, Bumbun, Hantan) and Batangkayu syncline)

Choi, Y., I. Lee, J.H. Seo, M. Guillong, M.J. Lee & S. Han (2025)- Fluid phase separation promotes mineralization of epithermal base metal sulfides: A case study from the Central Seruyan Pb-Zn-Cu deposit in Kalimantan, Indonesia. Ore Geology Reviews 186, 106925, p. 1-20.
(online at: https://www.sciencedirect.com/science/article/pii/S0169136825004858
(On Central Seruyan epithermal Pb-Zn-Cu deposit in Schwaner Mountains (SW) part of Central Borneo metallogenic belt. Primary base metal sulfide minerals in main ore stage galena, sphalerite and chalcopyrite. Principal Pb-Zn-Cu mineralization under T of 170 to 320 ℃, at apparent depth of 0.1-0.4 km from paleosurface, and tied to steeply dipping, SW-NE trending thrust faults. Hosted in hosted in altered dacite and Kuayan Fm Triassic-Jurassic silicified tuff. Likely age of mineralization Late Cretaceous)

Ciputra, R.C., M.N. Heriawan, H. Syaeful, D. Kamajati & P. Rahmawati (2022)- Geostatistical ore body modeling on uranium mineralization in Remaja Sector, Kalan Area, West Kalimantan. Eksplorium 43, p. 41-58.
(online at: https://ejournal.brin.go.id/eksplorium/article/view/8136)

Coggon, J. (2010)- Application of the 190Pt-186Os isotope decay system to dating platinum-group minerals. Doct. Thesis, University of Durham, p. 1-99.
(online at: http://etheses.dur.ac.uk/398/1/Jude_Coggon_THESIS_with_corrections.pdf)
(Includes chapter on 190Pt-186Os isotope age dating of platinum minerals and ophiolite formation of samples from river placers in Pontyn River, Tanah Laut, near Asem Asem at SE of Meratus Range. Age 197.8 ± 8.1 Ma)

Coggon, J., G.M. Nowell, D.G. Pearson & S.W. Parman (2011)- Application of the 190Pt- 186Os isotope system to dating platinum mineralization and ophiolite formation: an example from the Meratus Mountains, Borneo. Economic Geology 106, 1, p. 93-117.
(Pt-Os dating of detrital Platinum Group Minerals from Pontyn River, Asem Asem Basin, SE of Meratus Mountains, SE Kalimantan, gave precise isochron age of 197.8 ± 8.1 Ma (earliest Jurassic). Interpreted as age of crystallization of PGM grains in ophiolite body, in lower oceanic lithosphere)

Cretier, H. (1879)- Looderts van Samarajak in de bovenlanden van het Landschap Kandawangan, in de Westerafdeeling van Borneo. Jaarboek Mijnwezen Nederlandsch Oost-lndie 8 (1879), p. 239.
('Lead ore of Samarayak in upper Kandawangan, West Kalimantan'. Summary of chemical analysis of sample of lead ore from Kandawangan area, W Kalimantan: lead 54.9%, zinc 22.0%, sulfur 19.0%, etc.)

Croockewit, J.H. (1852)- De diamantgronden van Koesan. Natuurkundig Tijdschrift voor Nederlandsch-Indie 3, 3, p. 316-321
('The diamond terranes of Kasan', SE Kalimantan. Report on natives' diamond digging for diamonds in alluvial deposits in Kusan area (E of Meratus Range?): Sungei Dana/ Sungei Bakarang. No maps or figures)

Dana, C.D.P., A. Agangi, A. Idrus, C.K. Lai & D.R. Simbolon (2022)- Bi-Ag sulfosalts and sulfoarsenides in the Ruwai Zn-Ag-skarn deposit, Central Borneo, Indonesia. Minerals (MDPI) 12, 12, p. 1-13.
(online at: https://www.mdpi.com/2075-163X/12/12/1564)
(Ruwai skarn deposit in Schwaner Mountain considered largest Zn skarn deposit in Indonesia. Discovered in 1918 during Dutch survey and now under management of PT Kapuas Prima Coal. Zn-Pb-Ag mineralization in massive sulfide ore bodies. Study documents mineralogical characteristics of several Bi-Ag sulfosalts and sulfoarsenides. Ore-forming T based on arsenopyrite geothermometry 428- 493 °C)

Dana, C.D.P., A. Agangi, A. Idrus, C. Chelle-Michou, C.K. Lai, M. Ishida, M. Guillong, I. González-Alvarez et al. (2023)- The age and origin of the Ruwai polymetallic skarn deposit, Indonesia: evidence of Cretaceous mineralization in the Central Borneo metallogenic belt. Economic Geology, 118, 6, p. 1341–1370.
(online at: https://pubs.geoscienceworld.org/segweb/economicgeology/article/118/6/1341/623873/The-Age-and-Origin-of-the-Ruwai-Polymetallic-Skarn)
(Ruwai polymetallic skarn deposit in Schwaner Mountains, C Kalimantan, mined since 2005 for Fe-Zn-Pb-Ag by PT Kapuas Prima Coal. Main ore minerals sphalerite and galena. Skarns and orebodies hosted in Jurassic (-Lower Cretaceous?) Ketapang Complex marble, intruded by Cretaceous Sukadana granitoids. Minerals U-Pb/ Re-Os ages ~97- 94 Ma. U-Pb zircon ages show three phases of magmatism: (1) E Cretaceous (~146, ~106 Ma = Berriasian, Albian; andesite-dacite), (2) Late Cretaceous (~100- 97 Ma= Cenomanian; diorite-granodiorite), and (3) Late Miocene (~11-9 Ma = Tortonian; diorite-dolerite). Ruwai skarn mineralization in Late Cretaceous (~99-94 Ma), associated with Paleo-Pacific subduction beneath Sundaland after SW Borneo accretion)

Dana, C.D.P., A. Agangi, R. Takahashi, A. Idrus, C.K. Lai & N.A. Nainggolan (2022)- Element mobility during formation of the Ruwai Zn-Pb-Ag skarn deposit, Central Borneo, Indonesia. Resource Geology 72, 1, e12290, p.
(Ruwai deposit in Lamandau district (Schwaner Mts metallogenic belt) is Indonesia's largest Zn-Pb-Ag skarn deposit. Four zones, Gojo, Karim, Ruwai, and SW Gossan. Ore bodies mostly hosted in limestone of Jurassic Ketapang Complex, around quartz diorite intrusion of Cretaceous Sukadana Granitoid. Skarn complex prograde, retrograde and supergene stages. Most metals (Zn, Pb, Ag, Cu, Fe) magmatic-sourced)

Dana, C.D.P., C.K. Lai, X.P. Xia & M Geiger (2024)- Multiple mineralization events in the Central Borneo metallogenic belt, Indonesia: Insights from the Beruang Kanan orefield. Ore Geology Reviews 169, 106087, p. 1-14.
(online at: https://www.sciencedirect.com/science/article/pii/S0169136824002208)
(C Borneo two metallogenic belts, both (Paleo-Pacific) subduction-related: (1) E-W segment hosting of mainly Cretaceous polymetallic mineralization (Ruwai Zn -Pb-Ag, Lamandau Cu; Schwaner Mts.) and (2) NE trending segment of Oligo-Miocene epithermal Au-Ag mineralization (Kelian, Mt. Muro). Beruang district located at overlap of two segments, with Cretaceous (102–105 Ma; linked to emplacement of Sepauk tonalite) and Miocene (gold at 13.1-9.2 Ma, associated with the emplacement of Sintang intrusion)mineralization)

Dana, C.D.P., J.R. Simarmata, P.G.S. Aditya & A. Widyastanto (2019)- Hydrothermal alteration zoning and mineralization style in Southwest Gossan Block of Ruwai Skarn Zn-Pb-Ag deposit, Lamandau, Central Borneo: an implication to ore genesis and exploration. Proc. Joint Convention HAGI-IAGI- IAFMI-IATMI, Yogyakarta 2019, p 1-6.
(online at: www.researchgate.net/publication/337702595_Hydrothermal_Alteration_Zoning_and_ Etc.)
(Ruwai Zn-Pb-Ag skarn one of biggest base metal deposits in Indonesia. SW Gossan block one of distal parts of deposit in SW part of Ruwai skarn mining complex. Mined by open pit methods from 2014-2016 and underground mining from 2017. Skarnization and mineralization as massive sulfide along contact zone between hornfelsed siltstone and limestone adjacent to diorite intrusion body)

Darman, H. (2021)- Tracing the provenance of the Devonian limestone of Telen River, East Kalimantan. Berita Sedimentologi 47, p. 57-62.
(online at: https://www.iagi.or.id/fosi/berita-sedimentologi-no-47-is-now-published.html)
(Devonian Limestone with Heliolites coral in Telen River in NE Kalimantan first found in 1925 (Witkamp, Rutten). In 1989, ITB expedition deemed Devonian limestone to be boulders in Permian sediments. Nearest similar Devonian limestones >2000 km away. Telen River Lst probably closer to Indochina at time of deposition)

Davies, A.G.S. (2002)- Geology and genesis of the Kelian gold deposit, East Kalimantan, Indonesia. Ph.D. Thesis, University of Tasmania, p. 1-380.
(online at: http://eprints.utas.edu.au/12977/2/Davies_A_PhD2002.pdf)
(Kelian is breccia- and vein-hosted low sulfidation epithermal gold-silver deposit in structural inlier of felsic volcaniclastic rocks (Kelian Volcanics) surrounded by Eocene terrestrial and shallow marine sedimentary rocks of Kutai Basin. Intersection of two regional lineaments was focus of rhyolite-andesite intrusions in Lower Miocene (~19.5- 19.8 Ma), associated with intense brecciation)

Davies, A.G.S., D.R. Cooke & J.B. Gemmell & K.A. Simpson (2008)- Diatreme breccias at the Kelian gold mine, Kalimantan, Indonesia; precursors to epithermal gold mineralization. Economic Geology 103, 4, p. 689-716.
(E Miocene volcanism with maar-diatreme breccia complex preceded main-stage epithermal gold mineralization at Kelian gold mine. Prior to brecciation, andesite intrusions (19.7 Ma) emplaced into felsic volcaniclastics and overlying carbonaceous sandstones and mudstones)

Davies, A.G.S., D.R. Cooke, J.B. Gemmell, T. van Leeuwen, P. Cesare & G. Hartshorn (2008)- Hydrothermal breccias and veins at the Kelian Gold Mine, Kalimantan, Indonesia: genesis of a large epithermal gold deposit. Economic Geology 103, 4, p. 717-757.
(Early Miocene mineralized hydrothermal breccias and veins formed during and after waning stages of maar-diatreme-related volcanic activity at Kelian, Kalimantan)

Davies, A.G.S., T.M. van Leeuwen, D.R Cooke & J.B. Gemmell (2004)- The Kelian gold deposit; exploration history, critical factors and deposit summary. In: D.R. Cooke et al. (eds.) 24 Carat Au workshop, Special Publ. Centre for Ore Deposit and Exploration Studies (CODES), University of Tasmania, Hobart, 5, p. 65-76.

Davies, L.B. (2013)- SW Borneo basement: age, origin and character of igneous and metamorphic rocks from the Schwaner mountains. Ph.D. Thesis Royal Holloway, University of London, p. 1-391. *(Unpublished)*
(Granitoids in Schwaner Mountains of SW Borneo: (1) In South within-plate granitoids, with zircon ages of ~186 and 76 Ma; (1) In North I-type, arc-related granitoids, typically tonalites and granodiorites, with zircon age populations of 112, 98, 84, and 76 Ma. Pinoh Metamorphics of metamorphosed pelites, quartzites and basalts. Zircon dating shows metamorphic protoliths of PMG younger than 130 Ma. Ar-Ar geochronology indicates peak regional metamorphism at ~110 Ma. Later shearing at 25 Ma)

Davies, L., R. Hall & R. Armstrong (2014)- Cretaceous crust in SW Borneo: petrological, geochemical and geochronological constraints from the Schwaner Mountains. Proc. 38th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA14-G-025, p. 1-15.

(Pinoh Metamorphic Group along N edge of Schwaner granitoid complex of SW Borneo low P- high T metamorphic rocks contain abundant Cretaceous zircons, with age distribution suggesting detrital origin, and chemistry suggesting significant reworked volcanic material. Volcanic rocks erupted in E Cretaceous (~130 Ma), reworked into sediments, buried and metamorphosed during extension probably associated with emplacement of Schwaner batholith later in E Cretaceous (120-80 Ma). Jurassic granites in S Schwaner Mountains (~187Ma) interpreted to be product of rifting of blocks from NW Australia)

Davies, L., R. Hall & M. Forster (2015)- Age and character of basement rocks in SW Borneo: New insights from Ar-Ar dating of Pinoh metamorphic group rocks. AAPG Geoscience Technology Workshop (GTW), Tectonic evolution and sedimentation of South China Sea region, Kota Kinabalu 2015, Sabah, AAPG Search and Discovery Article 90236, 2p. *(Abstract only)*
(online at: https://www.searchanddiscovery.com/abstracts/pdf/2015/90236apr/abstracts/ndx_davies.pdf)
(Summary of L. Davies thesis work. Pinoh Metamorphic Gp of Schwaner Mts deposited as Lower Cretaceous (~130 Ma) volcanogenic sediments. Ar-Ar ages record onset of low-P metamorphism at ~116 Ma. Peak thermal metamorphism at ~110 Ma. Late shearing event at ~25 Ma, possibly linked to exhumation age of Schwaner Mts)

De Groot, C. (1857)- Bijdragen tot de geologische en mineralogische kennis van Nederlandsch Indie, XVIII. Zuid-en Oosterafdeeling van Borneo. Natuurkundig Tijdschrift voor Nederlandsch-Indie 14, p. 1-86.
('The South and Eastern part of Borneo'. Early geological description of SE Kalimantan, incl. Oranje Nassau coal mine at Pengaron, from 1852, 1853 and 1855 visits)

De Groot, C. (1859)- Een woord betreffende eene beschouwing over de koolformatie op Borneo. Natuurkundig Tijdschrift voor Nederlandsch-Indie 19, p. 313-
('A word about a report on the coal formation on Borneo'. Critique of Prof. S. Bleekrode (1859) report, who called the (Eocene) Pengaron coals of the Barito Basin lignite, not black coal, etc.)

De Groot, C. (1863)- Notes on the mineralogy and geology of Borneo and the adjacent islands. Quarterly J. Geological Society, London, 19, p. 515-517.
(Brief summary. Steam coal formation of Borneo underlies Nummulites Limestone, therefore belongs to 'Suessonien' of D'Orbigny. Search for lodes of copper in W part of Borneo: N of Pontianak strings of copper, very rich, but too small to be economic. Poor copper-lodes near Singkarak Lake, E of Padang, W Sumatra; and veins too poor to be worked. On Billiton island a vein 4-5' wide at Gunung Tadjouw with much tin ore; its exploitation started last year. No figures)

De Groot, C. (1868)- Verslag over de Borneo steenkolen en hare geschiktheid als brandstof. Natuurkundig Tijdschrift voor Nederlandsch-Indie 30, p. 69-148.
('Report on the Borneo coal and its suitability as fuel'. Reprint of De Groot (1868) in Natuurkundig Tijdschrift 30. Extensive report on results of combustion tests of coals from Pengaron in Navy steamships, which were variable, probably depending on which of the 6 coal seams were sampled. New tests show only beds A, C and D suitable for use in ship steam engines. Comparisons with coal fromPelarang, Kutai Basin, and higher-sulfur coal from Labuan island, British North Borneo. Etc.)

De Groot, C. (1874)- Zuid-en Oosterafdeeling van Borneo. Jaarboek Mijnwezen Nederlandsch Oost-Indie 3 (1874), 2, Verhandelingen, p. 3-84.
('The South and Eastern part of Borneo'. Early geological description of SE Kalimantan. Reprinted from Natuurkundig Tijdschrift voor Nederlandsch-Indie 14 (1857). With 2 small maps, incl. one of Oranje Nassau coal mine NE of Martapura (reprint of De Groot 1857))

De Groot, C. (1878)- Verslag over de Borneo steenkolen en hare geschiktheid als brandstof. Jaarboek Mijnwezen Nederlandsch Oost-Indie 7 (1878), 2, p. 153-213.
('Report on the Borneo coals and its suitability as fuel'. Reprint of De Groot (1868))

De Keyser, F. & E. Rustandi (1993)- Geology of the Ketapang Sheet area, Kalimantan. Geological Research Development Centre (GRDC), Bandung, 1:250,000 scale map.

De Keyser, F. & J. Noya-Sinay (1992)- History of geoscientific investigations in West Kalimantan, Indonesia. BMR J. Australian Geology Geophysics 13, 3, p. 251-273.
(online at: www.ga.gov.au/corporate_data/81323/Jou1992_v13_n3_p251.pdf)
(Thorough review of geological survey work in W Kalimantan from early 1800's- 1990 First journeys by Europeans into interior between 1816 and 1850. After 1850 establishment of Mines Department Everwijn checked reported mineral occurrences. Systematic mapping project in 1923-1932 covered most of W Kalimantan)

De Kroes, J. (1926)- Uitkomsten van het mijnbouwkundig onderzoek van goudhoudende terreinen in de zoogenaamde Chineesche districten van de residentie Westerafdeeling van Borneo. Verslagen Mededeelingen Indische delfstoffen en hare toepassingen, Dienst Mijnbouw Nederlandsch Indie, Weltevreden, 19, p. 1-27.
(online at: https://resolver.kb.nl/resolve?urn=MMKB24:078911000:pdf)
('Results of mining investigations of gold-bearing terrains in the so-called Chinese Districts of the Residency of West Borneo'. Area extensively exploited for alluvial gold by Chinese 'kongsi's' in mid-1800's. Large number of 5-10m deep shallow drillholes revealed only sub-economic quantities of gold. Not much on geology of area)

De Roever, W.P. (1947)- Occurrences of the mineral pumpellyite in Eastern Borneo. Bull. Bureau Mines and Geological Survey Indonesia 1, 1, p. 16-17.
(Pumpellyite in spilites and albite diabases from Danau Fm of E Kalimantan and many rocks in Celebes)

De Roever, W.P. (1947)- A pseudotachylitic rock from Eastern Borneo. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 50, 10, p. 1310-1311.
(online at: https://dwc.knaw.nl/DL/publications/PU00018414.pdf)
(Short note on tectonic breccia in E Kalimantan in Kajan River, downstream of confluence with Sungei Kat. Surrounding region mainly constituted by dynamo-metamorphic slates, arkoses, and sandstones, covered by younger volcanic rocks. Rock formed by intensive movements along fault zone)

De Roever, W.P. & A. Kraeff (1947)- Anorthoclase-bearing granogabbroid to granonoritic rocks from Boeloengan (Eastern Borneo). Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 50, 10, p. 1315-1316.
(Short note on petrography of porphyritic rocks of granogabbroid affinity from Bulungan area, near confluence of Kajan and Bahau Rivers, E Kalimantan)

Dieckmann, W. (1922)- De ijzerertsafzettingen van het Koekoesan gebergte in Zuidoost Borneo. Jaarboek Mijnwezen Nederlandsch Oost-Indie 49 (1920), Verhandelingen 1, p. 70-86.
('The iron ore deposits of the Kukusan Mountains in SE Borneo'. Iron ore in Soengei Doewa area forms few meter thick crust on peridotite body and probably formed by soil weathering of peridotite)

Ding, Q.F., F.Y. Sun & B.L. Li (2004)- Evolution of Cenozoic collision orogen of north Kalimantan and its metallogenesis. J. Jilin University (Earth Science) 34, 2, p. 193-200. *(in Chinese with English abstract)*
(North Kalimantan orogen formed by collision between Luconia continental block and N margin of Sundaland. Complicated history from interior orogen to peripheral orogen and to interior orogen again. Imbricate thrusting during late Oligocene- M Miocene interior orogen was most important epoch of regional metallogenesis in Kalimantan)

Dirk, M.H.J. (1995)- Plagiogranit Pegunungan Meratus, Kalimantan Selatan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 5, 51, p. 23-32.
('Plagiogranite from the Meratus Mountains, S Kalimantan'. Plagiogranite from area of ultrabasic rocks in Meratus Mts ranges from tonalite to trondhjemite. K_2O and SiO_2 content place it in oceanic plagiogranite/ ophiolitic trondhjemite field. Similar to Troodos plagiogranite on Cyprus. Probably differentiation product of basic/ ultrabasic magma. K/Ar age 112 Ma (Albian, mid-Cretaceous; Permanadewi 1995))

Dirk, M.H.J. (1997)- Batuan subvolkanik kapur akhir di Pegunungan Meratus, Kalimantan Selatan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 7, 66, p. 11-17.

('Upper Cretaceous sub-volcanic rocks near the Meratus Mountains, S Kalimantan'. Late Cretaceous andesitic-dioritic inrusives from Meratus Mts with SiO_2% 50.6-57.3%, with calk-alkaline to tholeiitic affinities. Formed in volcanic arc above subduction zone.)

Dirk, M.H.J. (2000)- Magma genesis and paleotectonic setting of a calc-alkaline plutonic rock series from Meratus Range, South Kalimantan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 10, 105, p. 19-32.
(Cretaceous plutonic rock series of diorite-tonalite/ granite/trondhjemite of calc-alkaline affinity in Meratus Mts. Formed from dioritic- tonalitic magma in continental environment at <60 km depth. K-Ar ages of two samples 118 and 100 Ma (~Aptian-Albian))

Dirk, M.H.J. (2002)- Petrogenesa dan lingkungan tektonik granit Lumo, Propinsi Kalimantan Tengah. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 12, 125, p. 8-18.
('Petrogenesis and tectonic environment of the Lumo granite, C Kalimantan province'. Lumo granite outcrops W of N end Meratus Range, C Kalimantan, is holocrystalline porphyritic granite with cordierite, biotite, etc., formed from partial melting of crust, possibly greywacke in syn-orogenic or post orogenic setting (K-Ar ages age Permian (260 ±1.7 M)a and-Carboniferous (319 ± 1.7 Ma);S-type collisional granite; Dirk 2002, 2003)

Dirk, M.H.J. (2002)- Petrologi granit-kordirit Lumo- Kalimantan Tengah. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 12, 126, p. 13-21.
(Porphyritic Lumo granite with cordierite and K-feldspar crystallized from partial melting of pelitic-sedimentary source, probably at ~22km depth. K-Ar age of muscovite ~319 Ma, biotite ~260 Ma. S-type/ ilmenite series granite (= tin-bearing granite type))

Dirk, M.H.J. (2003)- Geodinamika dan model pembentukan granit Lumo, Propinsi Kalimantan Tengah: suatu tafsiran. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 13, 142, p. 48-58.
('Geodynamics and model of formation of the Lumo granite, C Kalimantan province; an interpretation'. Lumo granite of Lumo River, at W side of N Meratus Range, SE Kalimantan, with K-Ar ages of ~319 and 260 Ma. Formed from partial melting of greywacke during crustal thickening associated with collision, although also characteristics of volcanic arc granites)

Dirk, M.H.J. (2002)- Indikasi petrologi, petrogenesa dan lingkungan tektonik berdasarkan susunan geokimia-granit Palangkaraya, Propinsi Kalimantan Tengah. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 12, 131, p. 19-27.
('Petrology, petrogenesis and tectonic environment based on the geochemical composition of the Palangkaraya, granite, Central Kalimantan Province'. Several granite outcrops NW of Palangkaraya. Calk-alkaline, peraluminous, 'monzogranite', probably syn-collisional (no age information))

Dirk, M.H.J. & Amiruddin (2000)- Batuan granitoid. In: U. Hartono et al. (eds.) (2000)- Evolusi magmatik Kalimantan Selatan, Geological Research Development Centre (GRDC), Bandung, Special Publ. 23, p. 37-51.
(Review of SW Meratus Mountains granitoids. M Jurassic Puruidalam 'plagiogranite' associated with ophiolites with K-Ar age 155 ±16 Ma). Lower Cretaceous volcanic arc-type Belawayan granite with ~101-131 Ma K-Ar ages)

Djamal, B., D. Sudana, Sutrisno, Baharudin & K. Hasan (1995)- Geological map of the Tanjung Mangkaliat sheet, Kalimantan, scale 1:250,000, Quad 2017. Geological Research Development Centre (GRDC), Bandung.
(Geologic map of E end of Mangkalihat Peninsula. Mainly Eocene- Miocene marine clastics and limestones. Oldest rocks exposed in small area at N coast are Cretaceous? 'ophiolite' (gabbro, basalt, chert) associated with Cretaceous sandy limestone with Orbitolina. Unconformably overlain by Eocene Kuaro Fm shallow marine clastics and limestone)

Djokolelono, S. & E. Agoes (1988)- Uranium occurrences in the volcanic rocks of upper Mahakam, East Kalimantan. Proc. Conf. Uranium deposits in Asia and the Pacific; geology and exploration, Jakarta 1985, Int. Atomic Energy Agency (IAEA), Vienna, IAEA-TC-543/8, p. 109-120.

(Uranium survey by BATAN in Kawat River area in Upper Mahakam region. Kawat area tectonic depression with uranium occurrences in young volcanic facies, usually in aphanitic rhyolite. Mineralization consists of pitchblende, with molybdenite and pyrite. Oldest rocks in area folded, steeply dipping, ~E-W trending U Jurassic quartzite, ophiolitic rock and radiolarite and E-M Cretaceous black shale with quartzite and radiolarite. Unconformably overlain by U Cretaceous- Eocene clastics, with regional dip to SSE)

Doorman, J.G. (1906)- De diamantwinning in Landak. Tijdschrift Nijverheid Landbouw 73, p. 542-557.
('The exploitation of diamonds in Landak'. Brief review of traditional alluvial diamond mining industry of West Kalimantan)

Draniswari, W.A., F. Pratiwi, Ngadenin, I Gde Sukadana, T.B. Adimedha, R.C. Ciputra et al. (2021)- Distribution and mineralogical characteristic of Raya Volcanics, West Kalimantan. Eksplorium 42, 2, p. 77-90.
(online at: https://ejournal.brin.go.id/eksplorium/article/view/8089/6205
(Cretaceous Raya arc volcanics and associated Mensibau Granodiorite in NW Kalimantan (Kuching Zone) interpreted to be products of W-ward subduction of Paleo-Pacific plate in E Cretaceous. Distribution probably controlled by NNW-SSE fault system. Erupted as lava flows derived from mafic magma)

Elliott, P.J. (2004)- Results from induced polarisation surveys over the Beruang copper-gold deposit in central Kalimantan, Indonesia. Proc. PACRIM 2004 Conference, Adelaide, Australasian Institute of Mining and Metallurgy (AusIMM), Parkville, p. 307-316.
(Beruang copper-gold deposit near center of Kalimantan is diorite porphyry/ dacitic tuff hosted deposit. Extensive Induced Polarisation coverage obtained over deposit and surrounding area. Drilling of targets derived from inversion modelling resulted in some significant copper-gold intersections)

Ervan, M. & Subagio (2023)- Anomali gayaberat kaitannya dengan batuan ofiolit sebagai pembawa mineral rromit di daerah Banjarmasin-Kotabaru, Kalimantan Selatan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 24, 1, p. 1-10.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/696/522)
('The gravity anomaly related to ophiolite rocks carrying chromite minerals in the Banjarmasin-Kotabaru area, South Kalimantan'. Gravity data analysis with aim of delineating presence of ophiolite rocks. High Bouguer anomaly in Meratus Range and around Laut to Sebuku Island (conveniently ophiolites also in outcrop))

Erzagian, E., L.D. Setijadji & I.W. Warmada (2016)- Studi karakteristik dan petrogenesis batuan beku di daerah Singkawang dan sekitarnya, Provinsi Kalimantan Barat. In: R. Hidayat et al. (eds.) Proc. Seminar Nasional Kebumian 9, Dept. Teknik Geologi, Gadjah Mada University, Yogyakarta, p. 421-432.
(online at: https://repository.ugm.ac.id/137902/1/MOB-03.pdf)
('Study of the characteristics and petrogenesis of Beku rocks in the regions of Singkawang and surroundings, W Kalimantan Province'. On NW Kalimantan volcanic and intrusive rocks: (1) Permo- Triassic calk- alkaline subduction- and collision-related series with intrusions of S-type granite (2) Cretaceous calk-alkali to high-K subduction and collision series with I- and S-type granites; (3) Eocene-Miocene calk-alkaline subduction series with I-type granitoids and (4) Pliocene tholeitic series formed in continental rift zones)

Escher, B.G. (1920)- Gesteenten van de Kelei (Berouw, Oost-Borneo). Natuurkundig Tijdschrift voor Nederlandsch-Indie 80, 1, p. 29-36.
(online at: https://archive.org/details/mobot31753002490180/page/n29)
('Rocks from the Kelei River, Berau Region, E Kalimantan'. Pebbles collected by Beucker Andreae in 1918. Some Oligo-Miocene foram limestones from this collection described by Rutten 1926. Includes quartz sst, slate, quartz-tourmaline rock, porphyrite, granite, breccias, radiolarian chert. Not overly useful)

Escher, B.G. (1933)- Uranium mineralen op Borneo? Geologie en Mijnbouw 12, 1, p. 5-6.
(online at: https://drive.google.com/file/d/1yodQJMRB_hYelv7qHS0yOy0seiM1mUyE/view)
('Uranium minerals on Borneo?'. Questions reported presence of uranium mineral broggerite from SE Kalimantan, as suggested by Tschernik (1909, 1910) (but uranium since proven to be present;JTvG))

Esenwein, P. (1932)- Petrologische beschouwingen omtrent de korund-diaspoorrots rolsteenen (leboer steenen) uit de diamantstreken van West en Zuidoost Borneo. Wetenschappelijke Mededeelingen Dienst Mijnbouw Nederlandsch-Indie 22, p. 1-29.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB24:079040000:00049)
('Petrologic observations on the korund- diaspore rock pebbles ('leboer'/ 'lebur rocks') from the diamond areas of W and SE Kalimantan'. 'Lebur' black pebbles composed of corundum diaspore, a bauxite-like Al2O3 mineral, considered by local miners as indication of diamond-bearing alluvial deposits. Origin not clear, possibly formed from contact-metamorphism of bauxite (formed from basaltic rock?), with reduction of water content. Association leboer- diamond probably result of river transport, not common origin)

Everwijn, R. (1854)- Bijdragen tot de geologische en mineralogische kennis van Nederlandsch Indie door de Ingenieurs van het Mijnwezen in Nederlandsch Indie, VII. Voorlopig onderzoek naar kolen in de landschappen Salimbauw, Djongkong en Boenoet in de Res. Westerafdeeling van Borneo. Natuurkundig Tijdschrift voor Nederlandsch-Indie 7, p. 379-387.
('Preliminary investigation of coal in the areas of Salimbau, Jongkong and Bunut, W Kalimantan'. First of series of short reports on mineral exploration work by Mijnwezen mining engineer Everwijn. Some thin coal beds present, previously exploited by natives. Mentions 'Nummulites-marl' at Seberuang tributary of Kapuas River, but forams subsequently described as Patellina by Von Fritsch (1878; = mid-Cretaceous Orbitolina concava). Not much detail, no maps)

Everwijn, R. (1854)- Bijdragen tot de geologische en mineralogische kennis van Nederlandsch Indie door de Ingenieurs van het Mijnwezen in Nederlandsch Indie, IX. Verslag van een onderzoek naar de aangelegenheden der goudgroeven in het Landschap Landak. Natuurkundig Tijdschrift voor Nederlandsch-Indie 7, p. 396-400.
('Report of an investigation in the surroundings of the gold quarries in the Landak area'. Describes remants of small gold mining works of natives and Chinese at Madjouw. Also mentions small diamond mining operations by natives in Landak River area near Ngabang. No maps, figures)

Everwijn, R. (1855)- Onderzoek naar tinerts in de landschappen Soekadana, Simpang and Matam, en naar antimoniumerts op de Karimata-eilanden. Natuurkundig Tijdschrift voor Nederlandsch-Indie 9, p. 58-64.
('Investigation of tin ore in the areas of Sukadana, Simpang and Matam and of antimony ore on the Karimata islands'. No tin found associated with granitic rocks at Sukadana, Simpang and Matam, W Kalimantan. Karimata island W of Kalimantan mountainous, mainly composed of granite, with some metamorphic rocks at NE coast. Some iron ore, but no tin. No maps, figures)

Everwijn, R. (1856)- Bijdragen tot de geologische en mineralogische kennis van Nederlandsch Indie door de Ingenieurs van het Mijnwezen in Nederlandsch Indie, XV. Onderzoek naar tinerts in het landschap Kandawangan. Natuurkundig Tijdschrift voor Nederlandsch-Indie 11, p. 449-460.
('Contributions to the geological and mineralogical knowledge of the Netherlands Indies, XV. Investigation on tin ore in the Kandawangan area'. Tin ores reported from southern parts of West Kalimantan. Tin found only in small quantities near Aboet in interior of Matang, but no traces of tin in other sites investigated. No maps)

Everwijn, R. (1858)- Bijdragen tot de geologische en mineralogische kennis van Nederlandsch Indie door de Ingenieurs van het Mijnwezen in Nederlandsch Indie, XX. Wester Afdeeling van Borneo. Natuurkundig Tijdschrift voor Nederlandsch-Indie 17, p. 284-316.
('Western Division of Kalimantan'. Summary of Everwijn's 1857 prospecting activities for gold and other minerals, in SW Kalimantan. Also mention of coal in Kapuas- Bunut Rivers area near Sintang. Not much detail. With overview map of traverses surveyed)

Everwijn, R. (1862)- Verslag van de onderzoekingen naar kopererts in het gebied van Mandhor, Westerafdeeling van Borneo. Natuurkundig Tijdschrift voor Nederlandsch-Indie 24, p. 403-428. *(also in Jaarboek Mijnwezen NOI 1878, 2, p. 117-143)*
('Report on investigations of copper ore in the area of Mandor, W Kalimantan'. 1858-1861investigation of small CuS2 veins at Wang-phin-san, near Tampie Mountains, 3 hours from Mandhor, W Kalimantan. Associated with granite. Believed to be too small for exploitation)

Everwijn, R. (1873)- De groote diamant, of 'Danau Radja' van Matam, Westerafdeeling van Borneo. Jaarboek Mijnwezen Nederlandsch Oost-Indie 2 (1873), 1, p. 197-203.
('The big diamond, or 'Danau Raja' from Matam, W Kalimantan'. Rumors of existence of a 375 carat diamond in Kalimantan could not be confirmed. Other large stones in area believed to be diamonds proved to be quartz)

Everwijn, R. (1872)- Staat van vergelijking tusschen de Lebak (Bantam) kolen en verschillende andere kolensoorten. Met analysen van steenkolen van Bantam, Borneo, Laboean, Poeloe Laoet en Engeland, door C. L. Vlaanderen. Jaarboek Mijnwezen Nederlandsch Oost-Indie 2 (1873), 1, p. 276-277.
('Comparisons between coals from Lebak (Banten) and several other coals. With analyses of coals from Banten, Borneo, Labuan, Pulu Laut and England')

Everwijn, R. (1878)- Verslag van de verrigte onderzoekingen naar kopererts in het gebied van Mandhor, gelegen in de Westerafdeeling van Borneo. Jaarboek Mijnwezen Nederlandsch Oost-Indie 7 (1878), 2, p. 117-143.
('Report on investigations of copper ore in the area of Mandor, W Kalimantan'. Same as Everwijn 1862)

Everwijn, R. (1879)- Overzicht van de mijnbouwkundige onderzoekingen in de Westerafdeeling van Borneo verricht. Jaarboek Mijnwezen Nederlandsch Oost-Indie 8 (1879), 1, p. 3-116.
('Overview of mining investigations in W Kalimantan'. Summary of previous papers on prospecting surveys in W Kalimantan by mining-engineer Everwijn. Incl. coal in Kapoeas river area, copper or in Mandor and Boedok, gold in Landak, survey of tin ores in Soekadana, etc. (mainly negative for tin))

Fadlin & A. Candra (2016)- Mineralisasi dan prospeksi urat polimetalik (Pb-Zn-Cu-Au) daerah Bukit Pondok (Bekas Tambang Voc tahun 1902), Tanah Tidung, Kalimantan Timur. Jurnal Ilmu Kebumian Teknologi Mineral (JIK TekMin) (UPN) 2, 1, p.
(online at: http://jurnal.upnyk.ac.id/index.php/JIKTekMin/article/view/1677/1555)
('Mineralization and prospecting of polymetallic veins (Pb-Zn-Cu-Au) in the Bukit Pondok area (former VOC mine in 1902), Tanah Tidung, East Kalimantan'. Bukit Pondok area was mined in 1902 by Dutch. Located within Paleocene-Middle Tertiary Borneo magmatic arc. Lithology volcanoclastics with dacite and andesite intrusions. Widespread mineralization, incl. sphalerite (ZnS), galena (PbS), chalcopyrite, Au, Ag, etc., in quartz veins and wallrock mineralization. Orientation of quartz veins E-W, with dip >60°)

Fahruddin, S. Widyantoro, A.D. Nugraha & Afnimar (2017)- Search for mantle seismic discontinuities beneath northern Kalimantan, central Indonesia: a preliminary result of employing SS precursors. Int. J. Tomography Simulation 30, 1, p.
(Kalimantan located far from active subduction zones with few seismic stations. SS precursors show discontinuity at ~690 km depth and weaker discontinuity at ~290 km depth)

Fahir, S.L.N. & L.D. Setijadji (2011)- Studi evolusi batuan granitik di Kalimantan Barat. ? Yogyakarta, p. 1-52.
('Study of the evolution of granitic rocks in West Kalimantan')

Faturrakhman, M.L., Jamal, S. Maryanto & N.P. Rattyananda (2021)- Lingkungan pengendapan Formasi Tanjung di lintasan Gunungbatu, Binuang, Kalimantan Selatan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 22, 3, p. 133-141.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/583/458)
('Depositional environment of the Tanjung Formation along the Gunungbatu traverse, Binuang, S Kalimantan'. Eocene Tanjung Fm at Gunungbatu dipping to WNW, up to 160 m thick sandstone, claystone with coal intercalations. Floodplain- delta plain deposits)

Fauzi, R., Widodo, Ngadenin & A.J. Karunianto (2021)- Re-evaluation of Uranium resources in Batubulan sector, Melawi, West Kalimantan. IAGI Journal 1, 3, p. 111-120.
(online at: https://journal.iagi.or.id/index.php/IAGIJ/article/view/348/355)
(Uranium exploration n Batubulan Sector, Melawi, conducted by BATAN since 1973. Area of metamorphic rocks, metasedimentary rocks, and intrusive rocks. Spotty uranium mineralization in metasediments)

Fehn, H. (1930)- Die Insel Borneo (Bausteine zu einer Landeskunde). Mitteilungen Geographische Gesellschaft Munchen 23, 2, 80p.
('The island of Borneo- building stones for geography')

Fehn, H. (1933)- Die Oberflachenformen der Insel Borneo. Ein Uberblick. Mitteilungen Geographische Gesellschaft Munchen 26, 1, p. 1-53.
('The surface features of the island of Borneo- an overview'. Old geomorphologic description of Borneo)

Ferguson, K.J. (1986)- The Kelian gold prospect, Kalimantan, Indonesia: volcanism, hydrothermal systems and related mineralization. In: R.L. Braithwaite et al. (eds.) Volcanism, hydrothermal systems and related mineralization, Proc. Int. Volcanological Congress (IAVCEI) Symposium 5, Hamilton, N.Z., p. 41-46.

Frenzel, A. (1877)- Mineralogisches aus dem Ostindischen Archipel. Jahrbuch Verhandlungen Kaiserlichen Koniglichen Geologischen Reichsanstalt, Vienna, Mineralogische Mitteilungen 27, 2, p. 297-308.
(online at: https://www.zobodat.at/pdf/MinMitt_1877_0297-0308.pdf)
('Mineralogy from the East Indis Archipelago'. Descriptions of rocks collected by A.B. Meyer of Zoological Museum of Dresden in 1870-1873. Mainly from Borneo (incl. antimon minerals, arsenic and cinnaber from W Sarawak, etc.), Philippines, Ternate, Timor (incl. copper ores from Usu copper mine and other localities) and New Guinea. No figures)

Frijling, H., J.E. Loth & J.W.H. Adam (1920)- Bijdrage tot de geologie van het Landschap Kotawaringin en de afdeeling Ketapang resp. geleegen in de Residenties Zuider- en Ooster en Westerafdeeling van Borneo. Jaarboek Mijnwezen Nederlandsch-Indie 47 (1918), Verhandelingen 1, p. 210-223.
('Contributions to the geology of the Kotawarin and Ketapang districts, etc.', SW corner of Kalimantan. Mainly granites, overlain by folded ?Mesozoic and rel. undeformed Tertiary sediments. Intruded and overlain by younger porphyrites and andesites. With 1:1 million geological sketch map)

Fuller, M., J.R. Ali, S.J. Moss, G.M. Frost, B. Richter & A. Mahfi (1999)- Paleomagnetism of Borneo. J. Asian Earth Sciences 17, p. 3-24.
(Paleomagnetic data support counterclockwise rotation of Borneo since Cretaceous. Mesozoic rocks older than 80 Ma in Kalimantan- Sarawak almost 90° CCW rotation. NW Borneo Late Cretaceous- Eocene Silantek Fm 41° CCW rotation, Oligo-Miocene rocks generally weak CCW rotations. Bulk of paleomagnetic data suggests up to ~50° CCW rotation of Borneo between 25-10 Ma)

Fuller, M., R. Haston, J. Lin, B. Richter, E. Schmidtke & J. Almasco (1991)- Tertiary paleomagnetism of regions around the South China Sea. J. Southeast Asian Earth Sciences 6, p. 161-184.
(Tertiary CCW rotation in Sarawak, and Sabah. Conflicting results from Kalimantan, some show no rotation with respect to Eurasia, others give CCW rotations)

Gaol, K.L., H. Permana & N.D. Hananto (2003)- Aplikasi model 2-D anomali gravitasi pada komplek akresi Pegunungan Bobaris- Meratus, Kalimantan Selatan. Jurnal Teknologi Indonesia 26, p. 25-33.
('Application of 2-D gravity model of the accretionary complex of the Bobaris- Meratus Mountains, S Kalimantan'. Preliminary modeling results suggest Bobaris-Meratus in near-Equatorial position since the Jurassic represents accretionary complex)

Gaol, K.L., H. Permana, A. Kadarusman, N.D. Hananto, D.D. Wardana & Y. Sudrajat (2005)- Model gayaberat pegunungan Bobaris- Meratus, Kalimantan Selatan, dan implikasi tektoniknya. Jurnal Geofisika 2005, 2, p. 2-9.
('Gravity model of Bobaris- Meratus Mountains and its tectonic implications'. Bobaris-Meratus mountains with ultramafic rocks flower structure?)

Gascuel, L. (1901)- Les gisements diamantiferes de la region sud-est de l'ile de Borneo (Possessions hollandaises). Annales des Mines (9), 20, p. 2-23.
(online at: https://patrimoine.minesparis.psl.eu/scripto/transcribe/261/73864)

('The diamond-bearing formations of the SE Borneo region'. Diamond-bearing deposits worked by locals for centuries in two main areas (but 'moribund since 1886'): (1) Landak in W Kalimantan near Pontianak and (2) Martapura near Banjarmasin, SE Kalimantan. Diamonds in Quaternary fluvial gravel deposits around Banyu-Irang River, which contain pebbles of white quartz, micaceous quartzites, porphyritic rocks, shelly limestones, chert, but no basic igneous rocks. Already in 1901 diamond industry in region in serious decline. Gascuel argues the origin of diamonds is granulite or pegmatiite. Gascuel was probably sent to Martapura to investigate diamond-bearing deposits by the Rotschild bank, which financed a diamond mining operation in an 1881 concession near Cempaka by the French brothers Simonnar. Diamond in Borneo deemed unprofitable)

Geiger, M., D. Prasetyo & T. Leach (Kalimantan Gold Corporation) (2002)- Porphyry copper-gold systems in Central Kalimantan. Annual Convention, Prospectors and Developers Association of Canada, Technical Paper Presentation, p. 1-16. *(online at: www.researchgate.net/publication/242722839_Porphyry_Copper_Gold_Systems_in_Central_Kalimantan)*
(Exploration over past 15 years by Kalimantan Gold Corporation identified >30 copper and/or gold prospects. Porphyry copper-gold systems are viable exploration targets in central regions of Kalimantan)

Geiger, M., T. Leach & D. Prasetyo (2010)- Porphyry copper gold systems in Central Kalimantan. In: N.I. Basuki & S. Prihatmoko (eds.) Proc. Kalimantan coal and mineral resources, MGEI-IAGI Seminar, Balikpapan 2010, p. 73-89. *(online at: http://www.karyailmiah.trisakti.ac.id/uploads/kilmiah/dosen/The_Quality_of_Kalimantan_rendah.pdf)*
(Oligocene and Miocene volcanic arc(s) across Kalimantan hosts several epithermal gold deposits, postulated to be near-surface manifestations of porphyry copper systems. Thirty deeper copper-gold prospects identified)

Geinitz, H.B. (1883)- Uber Kreide-Petrefakten von West-Borneo. Zeitschrift Deutschen Geologischen Gesellschaft, Berlin, 35, p. 205.
(online at: https://www.biodiversitylibrary.org/item/148375#page/217/mode/1up)
('On Cretaceous fossils from W Kalimantan'. Brief note on 42 fossils sent to Geinitz by Verbeek (collected by Van Schelle?), incl. molluscs (Pholadomya, Trigonia, Vola, Gervillea, etc.) and Upper Cretaceous Hemiaster spp. echinoid. First record of Mesozoic rocks in Kalimantan. No figures (see also Verbeek 1883))

Geological Survey of Indonesia (1969)- Geologic Map of Southeast Kalimantan, 1:500,000. Bandung.
(online at: https://collections.lib.uwm.edu/digital/collection/agdm/id/11003)
(Historic compilation map of SE Kalimantan surface geology)

Gisolf, W.F. (1924)- Bijdrage tot de kennis van de waarschijnlijke genese der ijzerertsen van het Koekoesan gebergte (Zuid- en Oost-Afdeeling van Borneo). Jaarboek Mijnwezen Nederlandsch Oost-Indie 50 (1921), Verhandelingen 1, p. 296-303.
('Contribution to the knowledge of the likely genesis of iron ores of the Kukasan Mountains, SE Kalimantan'. Layer of iron ores above hartzburgite-serpentinite body probably initially concentration of magnetite/ hematite in final stage of magmatic cooling processes, then further concentrated during surface weathering)

Gisolf, W.F. (1928)- On the origin of some iron ores and serpentinite in the Dutch East Indies. Proc. 3rd Pan Pacific Science Congress, Tokyo 1926, National Research Council of Japan, 2, 34, p. 1729-1732.
(online at: https://books.google.com/books?id=Y4wKAAAAIAAJ&pg)
(Brief review of rock types and iron ores in the East Indies. In tropical climates serpentine is not weathering product of olivine, because olivine preferentially weathers to limonite. Instad, primary serpentine formed from peridotite under high pressure and with supply of water. Formation of serpentine and chlorite in SE Kalimantan peridotites caused by auto-metamorphism)

Giorno, M., A. Kontonikas-Charos, Ernowo, Y. Krisnanto & M. Frenzel (2023)- Ore mineralogy and metal deportment of Fe-Ni_Co laterite deposits from Sebuku Island, Kalimantan, Indonesia. Proc. GeoBerlin 2023 Conference, Berlin 1p. *(Abstract only)*
(online at: https://www.researchgate.net/publication/383861911_Ore_mineralogy_and_metal_deportment_of_Fe-Ni-Co_laterite_deposits_from_Sebuku_Island_SE_Kalimantan_Indonesia)

(Laterites of Sebuku Island, SE Kalimantan, with resource of ~390 Mt at 42.5 wt.% Fe, 0.9 wt.% Ni, and 0.15 wt.% Co. Deposits mostly limonitic Fe-Ni-Co-rich horizons, formed by weathering of Jurassic-Cretaceous ophiolitic units)

Glawe, U. & B.N. Upreti (2004)- Better understanding the strengths of serpentinite bimrock and homogeneous serpentinite. Felsbau 22, 5, p. 53-60.
(online at: https://www.geoengineer.org/bimrocks/files/glawe_Felsbau.pdf)
(Study of serpentinite 'bimrock' (block-in-matrix rocks) serpentinite breccia in Meratus Range, and its suitabilty as foundation for proposed Kusan-3 hydro-electric dam across Kusan River. Foundation is serpentinized rock, fractured into blocks by cataclasites, making it a kind of mega-breccia or fault breccia with blocks up to 1 m^3, with common slickensides (see also unpublished thesis of Hollmann (2000))

Gollner, E.R.D. (1924)- Verslag over de uitkomsten van mijnbouwkundig- geologische onderzoekingen op Poeloe Laoet. Jaarboek Mijnwezen Nederlandsch Oost-Indie 50 (1921), Verhandelingen 1, p. 4-55.
(Geological survey of Laut Island, SE Kalimantan, with focus on Eocene coal occurrences. Coal mined by NEI government on Pulau Laut since 1914. Two main coal horizons in ~160m basal quartz sandstone member, each 2-3m thick. Overlying Late Eocene marl member ~85m thick. Upper Eocene limestones common in other parts of SE Kalimantan, but missing on Pulau Laut. With 1:50,000 scale geologic map of N part of island)

Graham, I., T. Grieve, L. Spencer & S. Hager (2014)- Source of PGM and gold from the Cempaka palaeoplacer deposit, SE Kalimantan, Indonesia. In: E.V. Anikina et al. (eds.) 12th Int. Platinum Symposium, Inst. Geology and Geochemistry UB RAS, Yekaterinburg, p. 173-174. *(Abstract)*
(online at: http://conf.uran.ru/12IPS/12%20IPS%20ABSTRACTS.pdf)
(Cempaka palaeoplacer diamond deposit ~40 km SE of Banjarmasin. Host sediments for diamonds, platinum group minerals (PGM) and gold are alluvial coarse gravels, sandy gravels and gravelly sands. PGM and gold appear transported and probably recycled several times. PGM mineralogy suggests derivation from bimodal source: ophiolites (Meratus or Bobaris ophiolites) and as yet undiscovered Alaskan-type complexes. Chemistry of gold suggests epithermal gold mineralization; closest source within Sumatra-Meratus Arc.)

Graham, I., L. Spencer, L.M. Barron & G. Yaxley (2006)- Nature and possible origin of the Cempaka diamond deposit, Southeastern Kalimantan, Indonesia. IAGOD Meeting, Moscow, p. 1-6.

Graham, I.T., L. Spencer, G. Yaxley & L. Barron (2007)- The use of zircon in diamond exploration- a preliminary case study from the Cempaka deposit, SE Kalimantan, Indonesia. 2nd Conf. Specialist Group in Geochemistry, Mineralogy and Petrology, Dunedin 2007, Geological Society Australia, Abstracts, 86, p. 32-35. *(Abstract only)*

Gunawan, A., A.N. Amal, A.K. Budi & R. Galuh (2021)- Tectonic event in Cenozoic and is implication for hydrocarbon prospect in Berau Sub Basin, Northeast Borneo, Indonesia. Proc. HAGI-IAGI-IAFMI-IATMI Joint Convention Bandung (JCB) 2021, p. 430-435.
(online at: https://www.iatmi.or.id/proceedings-of-jcb-joint-convention-bandung-2021/)
(Berau sub-basin (S onshore part of greater Tarakan Basin) with multiple deformation events since M Mesozoic. Uplift of Mangkalihat Peninsula due to collision between Paternoster and Mangkalihat-Meratus block in Jurassic (??). Cretaceous sediment in proto Berau Sub-Basin. M Eocene initiation of Makassar rift created half graben system in greater Tarakan Basin. Miocene collision between Dangerous Ground and Sundaland caused sediment prograding system, with development of Berau delta to E. Many oil seeps near Tanjung Redeb city and abundant oil and gas shows in wells. Area dominated by anticlines related to NW-SE transpressional system. Oligocene isolated carbonate and Miocene deltaic prospects)

Gunawan, R. & C.B.C. Valk (1972)- Notes on the geology of aluminous laterites of West Kalimantan. Bull. of National Institute Geology and Mining (NIGM) 4, 1, p. 29-36.
(Large 300 km long and 50-100 km wide, NNW-SSE trending bauxite belt in W Kalimantan, explored by PT Alcoa. Bauxitic laterites formed on uplifted and dissected peneplain, mainly related to weathering of quartz-poor intrusives and best developed at margins of intrusives. Previously Bintan island, SE Sumatra, was main bauxite occurrence in Indonesia)

Gunter, B. (2010)- The geology, alteration and mineralization at the Jelai gold prospect, East Kalimantan. In: N.I. Basuki & S. Prihatmoko (eds.) Proc. MGEI-IAGI Seminar Kalimantan coal and mineral resources, Balikpapan 2010, p. 91-106. *(also in Majalah Geologi Indonesia (2011) 26, 1, p. 1-17)*
(Jelai prospect in NE Kalimantan 45 km W of Tarakan. Low sulphidation epithermal quartz veins associated with andesitic volcanics, dacites and intrusives. Oldest granitoids in region Late Cretaceous. Mineralizatons and volcanics in area dated as 22, 16 and 7-9.4 Ma)

Gunter, B. (2010)- The exploration history, geology and exploitation of the Buduk Gold Mine, West Kalimantan: an example of a small gold mine operation in Kalimantan. In: N.I. Basuki & S. Prihatmoko (eds.) Proc. MGEI-IAGI Seminar Kalimantan coal and mineral resources, Balikpapan 2010, p. 129-144.
(Buduk area of NW Kalimantan, ~100km N of Pontianak, has been alluvial gold mining area since Chinese operations started in 1771 and Dutch-operated Sambas Gold Mines between 1936-1940. Several areas of gold mineralization. Mine within area of sub-horizontal sediments with minor volcanics of Late Triassic- E Jurassic Bengkayang Group, intruded by Miocene Sintang Intrusives, associated with skarn-type gold mineralization)

Gunter, B. (2011)- Sejarah eksplorasi, geologi, dan eksploitasi pertambangan emas Buduk, Kalimantan Barat: contoh sebuah operasi pertambangan emas kecil di Kalimantan. Majalah Geologi Indonesia (IAGI) 26, 3, p. 173-190.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/761)
('The exploration history, geology, and exploitation of the Buduk gold mine, W Kalimantan: an example of a small gold mining operation in Kalimantan'. Same paper as Gunther 2010)

Haile, N.S. (ed.) (1955)- Geological accounts of West Borneo- translated from the Dutch. Geological Survey Department, British Territories in Borneo, Bull. 2, p. 1-285.
(Translations of papers on geology of W Kalimantan and adjacent areas of Sarawak by Dutch geologists (F. Krekeler, L.H. Krol, G. ter Bruggen, C.P.A. Zeijlmans van Emmichoven and J.C.H. Ubaghs), originally published in 1925-1939. Age of Danau Fm in Sarawak is Cretaceous, not Permo-Triassic as suggested by Zeijlmans (1939) for Kalimantan)

Haile, N.S. (1961)- Notes on Mesozoic orogeny in West Borneo. Proc. 9th Pacific Science Congress, Bangkok 1957, Geol. Geoph. 12, p. 117-120. *(Extended Abstract)*
(online at: http://archive.org/details/geologyandgeophy032600mbp)
(Also in 'Annual Report Geological Survey Department, British Territories in Borneo, 1957, p. 17-23) Moderately folded U Triassic-Cretaceous of W Kalimantan and W Sarawak unconformable on highly deformed Permian or Carboniferous age rocks. This and synchronous granite intrusions indicate folding in Late Permian or E Triassic and in E Jurassic. No evidence of orogenic activity in Cretaceous)

Haile, N.S. (1973)- West Borneo microplate younger than supposed? Nature 242, p. 28-29.
(Short note suggesting W Borneo possibly not part of Sunda shield and extension of continental SE Asia, but younger. Partly supported by occurrence of steeply dipping 'Ketapang Complex' unmetamorphosed grey shale in Pawan River, W Kalimantan, with Albian- Cenomanian pollen (Caytonopollenites zone of Muller). Flanked by massive volcanic rocks of Matan Complex. Area may be built chiefly of Late Cretaceous and younger rocks)

Haile, N.S. (1974)- Borneo. In: A.W. Spencer (ed.) Mesozoic-Cainozoic orogenic belts; data for orogenic studies. Geological Society, London, Special Publ. 4, p. 333-347.
(Late Mesozoic- Tertiary orogeny affected N part of Borneo, over 900 km from Makassar Straits to S China Sea. Four zones recognized, in direction of increasing age of main periods of mobility from N to S: Miri (youngest deformation), Sibu (greatest mobility; thick deformed Late Cretaceous-Eocene flysch), Kuching (deformed Mesozoic marine sediments) and W Borneo Paleozoic metamorphic basement with Late Paleozoic- Mesozoic sediments)

Haile, N.S. (1979)- Rotation of Borneo microplate completed by Miocene: palaeomagnetic evidence. Warta Geologi (Newsletter Geological Society Malaysia) 5, 2, p. 19-22.

(online at: https://gsmpubl.files.wordpress.com/2014/09/ngsm1979002.pdf)
(Samples from latest Oligocene- E Miocene U Silantek Beds show reversed magnetism close to present-day field, indicating 50° CCW rotation of Borneo since Cretaceous was completed by time of deposition of U Silantek Beds)

Haile, N.S., M.W. McElhinny & I. McDougall (1977)- Palaeomagnetic data and radiometric ages from the Cretaceous of West Kalimantan (Borneo), and their significance in interpreting regional structure. J. Geological Society, London, 133, 2, p. 133-144.
(W Kalimantan complex history of magmatism and cooling from M Jurassic- Late Cretaceous. Well-defined granitic magmatic event in Schwaner zone at ~79-86 Ma, also recognized in Sarawak, S China Sea islands, Malay Peninsula, S Sumatra, and Java Sea. Paleomagnetism of Late Cretaceous samples yield mean paleomagnetic pole at 21°E, 41°N, and 0° paleolatitude for W Kalimantan. Paleomagnetic pole not significantly different from Cretaceous pole estimated for Malay Peninsula. Since M Cretaceous W Kalimantan and Malay Peninsula behaved as one unit, have remained in present latitude, but rotated anticlockwise ~50°)

Haile, N.S. & E. Urquhart (1995)- Dating Mesozoic melange and other problematic formations in Southeast Asia. Proc. International Symposium Geology of SE Asia and adjacent areas, Journal of Geology, Hanoi, Geological Survey Vietnam, 5-6, p. 308-309. *(Abstract only)*
(Mesozoic melange in Borneo in discontinuous belt from NW tip to E coast (= Danau Fm of Molengraaff; JTvG). Over part of length it forms S limit of U Cretaceous- U Eocene flysch/ accretionary prism of N Borneo. Fossils in blocks in melange include E Cretaceous radiolaria in cherts, U Cretaceous forams in sediment blocks and rare Eocene nannofossils in matrix. Overlain by undisrupted Plateau Gp with U Eocene forams and pollen)

Hakim, A.Y,A., A.H. Dijkstra, F. Melcher, V. Betrandsson Erlandsson & M. Feichtert (2025)- Tracing metal sources in orogenic gold deposits of the Timburu Goldfield, Meratus, Indonesia: A geochemical approach. J. Asian Earth Sciences 285, 106561, p.
(Orogenic gold deposits at Timburu Goldfield, in large fault zone of Meratus Range, SE Kalimantan. Associated with listvenite and primarily hosted by metamorphosed Jurassic ultramafic and volcanic rocks. Haraan, Kembatang Kecil, Menteu and other prospects. Mineralization represented by electrum and hessite, with trace amounts of chalcopyrite, galena, tetrahedrite, etc. Ni-Co and other metals leached from metamorphosed ultramafic rocks and mobilised during alteration. Gold and related metals originated from High P- Low T metamorphism dehydration during Cretaceous continent-continent collision, and overprinted by late intrusive quartz veins)

Hakim, A.Y.A., N.N. Febriyanto, G.I. Priyadi, J. Sibotang, A. Febriyani & T.N., Shufi (2025)- Ore-forming processes of the Timburu orogenic Au deposit, Meratus, Indonesia: episodic fluid phases. Proc. 17th MGEI Annual Convention, Surabaya 2025, p. 164-167. *(Extended Abstract)*
(online at: https://www.researchgate.net/publication/398485021_Ore-forming_Processes_of_the_Timburu_Orogenic_Au_Meratus_Indonesia_Episodic_Fluid_Pulses)
(On multiple stages of ore formation in the Timburu Goldfield, Meratus, SE Kalimantan. Mainly orogenic gold (listvenite), controlled by reverse faults, in orogenic system associated with ophiolitic rocks)

Hakim, A.Y.A., D. Sunjaya, A.N.H. Hede, T. Indriati & T. Hidayat (2023)- Critical raw materials associated with the lateritic bauxite and red mud in West Kalimantan, Indonesia. Geochemistry Exploration Environment Analysis 23, 3, p. 1-19.
(On weathering and leaching processes in lateritic bauxite in Tayan mine and Mempawah deposit, West Indonesia Bauxite Province, NW Kalimantan)

Halewijn, M.J. (1838)- Borneo- Eenige reizen in de binnenlanden van dit eiland, Beschrijving der diamantmijnen te Soengi Roentie in Bandjermasin in 1824. Tijdschrift voor Nederlandsch Indie 1, 2, p. 81-84.
('Travels in the interior of Borneo- Description of the diamond mines at Sungei Runti in Banjarmasin in 1824'. One of first descriptions of open pit alluvial diamond mines in SE Kalimantan. Diamond-bearing beds 'lead-colored stone' ('batu tima') at ~12 feet depth)

Hall, R. & G.J. Nichols (2002)- Cenozoic sedimentation and tectonics in Borneo: climatic influences on orogenesis. In: S.J. Jones & L. Frostick (eds.) Sediment flux to basins: causes, controls and consequences. Geological Society, London, Special Publ. 191, p. 5-22.
(Sediment volume in basins around Borneo indicates >6 km removed by Neogene erosion. Implied tectonic uplift not reflected in high mountains on island. High weathering and erosion rates in tropical climate likely factor governing formation of relief. Rapid removal of material by erosion prevented tectonic denudation by faulting: around Borneo there was no lithospheric flexure due to thrust loading and no true foreland basins developed. Sediment deposited adjacent to orogenic belt in older, deep oceanic basins. Sediment yield of Borneo mountains comparable to Alps or Himalayas)

Hall, R., M.W.A. van Hattum & W. Spakman (2008)- Impact of India-Asia collision on SE Asia: the record in Borneo. Tectonophysics 451, p. 366-389.
(History of Borneo not consistent with island forming part of large block extruded from Asia. Clockwise rotations predicted by indentor model for Borneo incompatible with paleomagnetic evidence. Great thicknesses of Cenozoic sediments in Borneo and circum-Borneo basins derived from local sources and not from distant sources in Asia. Cenozoic geological history of Borneo records subduction of proto-S China Sea and Miocene collision after this ocean lithosphere was eliminated, and effects from long-term subduction beneath SE Asia)

Handaka, H.F., A. Idrus, G.I. Priyadi & Ernowo (2025)- Hydrotermal alteration style of gold mineralization-bearing ultramafic hostrocks in Meratus Ophiolite Complex, South Kalimantan, Indonesia. Proc. 4th Int. Conference Geological Engineering and Geosciences (ICGOES 2024), Yogyakarta, IOP Conference Series: Earth and Environmental Science 1517, 012037, p. 1-12.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1517/1/012037/pdf)
(Some gold mineralization in fault zone in peridotites in Meratus Range, SE Kalimantan)

Harahap, B.H. (1987)- The petrology of some young subvolcanic and volcanic rocks from West Kalimantan, Indonesia. M.Sc. Thesis, University of Tasmania, p. 1-234.
(online at: https://eprints.utas.edu.au/19986/1/whole_HarahapBhaktiHamonangan1988_thesis.pdf)
(Petrography and chemistry of Tertiary volcanic rocks from C and W West Kalimantan (mainly subduction-related arc volcanics) and Quaternary basaltic andesites from Mt. Niut (intra-plate volcanism not related to subduction). K-Ar ages of intrusions near Sintang: in South 23.0-30.4 Ma, in North 16.4-17.9 Ma (similar to intrusives in nearby Sarawak))

Harahap, B.H. (1990)- Magmatism in West Kalimantan. J. Indonesian Association Geologists (IAGI) 13, 1, p. 63-90.

Harahap, B.H. (1993)- Geochemical investigation of Tertiary magmatic rocks from central West Kalimantan. Proc. 22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 304-326.
(online at: https://www.iagi.or.id/web/digital/61/32.pdf)
(Tertiary magmatic rocks in W Kalimantan mainly dacites, some rhyolites, basalts, andesites. Basalts in N province different source from S province. Volcanics in S intrude Cretaceous granodiorites, are most siliceous. Chemistry typical island arc, may be related to SE subduction under Sarawak accretionary prism)

Harahap, B.H. (1994)- Petrology of the Cretaceous subvolcanic and volcanic rocks from Singkawang area, West Kalimantan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 4, 35, p. 15-24.
(Mid-Cretaceous volcanics from Singkawang area of W Kalimantan (W of Schwaner batholith) range from basalt to dacite, porphyritic, low-metamorphic, etc., with geochemistry typical of island arc lavas. One sample from Damar Island dated as 106 Ma. Probably response to subduction from N, which may have been ancestral Pacific Ocean)

Harahap, B.H. (1994)- Petrology and geochemistry of Mount Niut Volcano, West Kalimantan. Bull. Geological Research Development Centre (GRDC), Bandung, 17, p. 1-12.
(Pliocene basic volcanics in W Kalimantan)

Harahap, B.H. (1995)- The Boyan melange of West Kalimantan origin and tectonic development. Bull. Geological Research Development Centre (GRDC), Bandung, 18, p. 1-21.
(Boyan melange E-W trending belt in W Kalimantan, composed of km-size blocks of clastics, limestone (with Cenomanian Orbitolina), radiolarian chert, greenschist, large blocks (6 x 40 km) of sheared serpentinite, also granite (one 320 Ma K/Ar age), basalt, etc., in sheared chloritized dark 'scaly' shale. Common boudinage structures. Bounded to N and S by Selangkai Fm Turonian turbidites, with gradational contacts. Overall dips of beds/ cleavage to South. Interpreted as Late Cretaceous S-dipping subduction complex. Intruded by Miocene 'Sintang' dacitic rocks, one dated at 16.4 Ma)

Harahap, B.H. (1995)- Petrography and mineral chemistry of the Tertiary subducted related mafic subvolcanic rocks from West Kalimantan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 5, 47, p. 2-15.
(Description of W-C Kalimantan basaltic- andesitic dykes and plugs in Nangapinoh and Sintang map sheets. (not clear what age; somewhere between Cretaceous- Miocene; JTvG))

Harahap, B.H. (1996)- Petrological characteristics of the Upper Miocene to Plio-Pleistocene volcanism in Kalimantan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 6, 62, p. 21-31.
(Cretaceous- M Miocene volcanism in Kalimantan produced silica-rich calc-alkaline volcanic series in subduction-related volcanic arc systems. Upper Miocene- Plio-Pleistocene volcanics tholeiitic and alkaline and associated with ENE structural trend along highest points of Kalimantan. Basaltic lavas similar to intraplate continental basalts, not related to subduction)

Harahap, B.H. (1996)- Petrography and mineral chemistry of the Tertiary silicic subvolcanic rocks of the Sundaland of West Kalimantan. Bull. Geological Research Development Centre (GRDC) 19, p. 75-95.
(95% of subvolcanic rocks of W Kalimantan are silica-rich dacites and rhyolites)

Harahap, B.H. (2012)- Regional geology and tectonics. In: U. Hartono (ed.) Magmatism in Kalimantan, Centre for Geological Survey, Geological Agency (Bandung), Special Publ., p. 13-26.
(Review of regional geology of Kalimantan. Borneo result of Mesozoic amalgamation of ophiolitic, island arc and microcontinental fragments of S China and Gondwana origin. Today far from active margins and stabilized in Late Miocene, after which extensional processes common. Most of Kalimantan continental crust. W region is part of Sundaland Craton, with Schwaner Mts E Cretaceous granites (continuation of E Asian Magmatic Arc). NW Kalimantan domain Late Carboniferous sediments flanked by metamorphics, intruded by Permian- M-L Triassic biotite granites, unconformably overlain by Late Triassic Serian Volcanics and Jurassic- Cretaceous marine sediments. Oldest igneous rock Late Carboniferous- E Permian Lumo Granite in N Meratus Mts. Etc.)

Hardjadinata, K. (1995)- Studi ofiolit Pegunungan Meratus-Bobaris, Kalimantan tengara. Jurnal Geologi dan Sumberdaya Mineral (JGSM), 5, 40, p. 10-18.
('Study of ophiolite of the Meratus- Bobaris Mountains, SE Kalimantan'. Meratus- Bobaris Mts association of pillow basalts, gabbro, dunite, pyroxenite peroditite and plagiogranite represents incomplete ophiolite assemblage. Chemistry suggests formation in island-arc environment. M Cretaceous (116-95 Ma; Aptian-Cenomanian) radiometric ages of plagiogranite and metadiabase. Ophiolite emplacement result of collision of Eurasian and Pacific Ocean plates)

Harjanto A., Sutarto & P.P.A. Kurniawan (2019)- Geology and the effect of boulder size concretion to bauxite laterite deposit quality at Djanra area, Sandai District, Ketapang Regency, West Kalimantan. Journal Techno (UPN) 5, 1, p. 1-14.
(online at: http://eprints.upnyk.ac.id/21808/1/B13.Journal%20Techno%20v1%202019_Agus%20Harjanto.pdf)
(Bauxite concretions in Sandai area, Schwaner Block, SW Kalimantan, associated with Cretaceous granites and andesitic volcanics)

Harloff, C.E.A. (1933)- Over een nog onbekende pseudomorfose naar andalusiet in een contactgesteente van Borneo. De Mijningenieur 7, p. 121-124.
('About an unknown pseudomorphosis after andalusite in a contactmetamorphic rock from Borneo'. Andalusite in hornfels from unknown location in Borneo partly converted to corundum and sericite)

Harrison, T. (1975)- Tektites as "date markers" in Borneo and elsewhere. Asian Perspectives 18, 1, p. 61-63.
(The only place in North Borneo with tektites is NW coastal region 20 miles from Brunei city, at base of Jerudong Beds, and K-Ar dated as 730,000 BP by Zahringer (1963). However, associated wood much younger, so tektites may be reworked)

Harting, A. (1925)- Bijdrage tot de geologie van Beraoe (met een geologisch schetskaartje van Beraoe 1:750,000). Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 8 (Gedenkboek Verbeek, memorial volume), p. 205-212.
(online at: https://books.google.com/books?id=Yy0RAAAAIAAJ&pg)
('Contribution to the geology of Berau, with a geological sketch-map, 1:750 000'. S Tarakan Basin, E Kalimantan. Brief review of upper Berau River area. Pre-Tertiary steeply-dipping phyllites and quartzites with reddish radiolarian cherts and granites and diabase-like rocks, similar to Molengraaff's Danau Formation. Strike mainly E-W trending, more SW-NE in W part of area. Unconformably overlain by Eocene Nummulites-bearing clastics and carbonates, Oligo-Miocene Lepidocyclina limestones, overlain by Globigerina marls, then coal-rich beds, unconformably overlain by Plio-Pleistocene Sadjau and Bunyu beds. Gas seep on Rantau Panjang anticline)

Harting, A. (1930)- Enkele geologische waarnemingen langs de S. Kajan. De Mijningenieur 11, p. 176-179.
(Some geologic observations along the Kajan River'. Discussion of the direction of Pre-Tertiary at Brem-Brem falls near Bulungan and unconformably overlying, horizontal Eocene limestone)

Hartmann, M.A. (1937)- Der Batoe Mesangat in Nord-Koetai, eine imposante Vulkanruine in Borneo. Natuurkundig Tijdschrift voor Nederlandsch-Indie 97, 4, p. 214-225.
(online at: http://62.41.28.253/cgi-bin/...)
('The Batu Mesangat in N Kutai, an imposing volcano ruin in Borneo'. Mesangat massif between Telen and Belayan Rivers and between Poh and Atan mountains in N Kutai, about 1500m high. In area of Pre-Tertiary rocks, from S to N: folded Danau Fm (mainly E-W, occ. WSW-ENE trending sandstones- shales- radiolarites and limestone/marble lenses and dynamometamorphically altered diorite, serpentinite, peridotite and diabase). Locally younger volcanics (basalt, andesite) and Mesozoic intrusions of quartz porphyry, dacite, liparite. To N widespread black, red and green shales-schists, mainly SW-NE trending, possibly Late Paleozoic age, unconformable over Danau Fm, and thrusted over Danau Fm against Kutai Basin. Batu Mesangat is a 'volcano ruin' of quartz porphyry intrusive complex of possible Mesozoic age. Twin peaks of Batu Mesangat named by Hartmann as Princess Juliana Peak (1515m elevation) and Prince Berhard Peak (1445m))

Hartono, H.M.S. (1984)- Tectonic development of Kalimantan and adjacent areas. Bull. Geological Research Development Centre (GRDC), Bandung, 9, p. 1-13.
(Kalimantan tectonic history: Permian- Carboniferous volcanic arc, with subduction from N/ NE. Late Triassic collision, a continuation of Burmese- W Malayan microcontinent collision with Indochina. Late Cretaceous melange in E Kalimantan and volcanics in SW Kalimantan are part of arc system extending SW towards Java-Sumatra. Tertiary subduction/ accretion from N/NW)

Hartono, H.M.S. (1985)- Summary of tectonic development of Kalimantan and adjacent area. Proc. Second EAPI/CCOP Workshop, Energy 10, p. 341-352.
(Review of tectonic development of Kalimantan. Pre-Late Triassic rocks present, but history not clear. Carboniferous-Permian arc postulated. Kalimantan cratonized and stabilized by collision tectonics in Late Triassic, correlating with Indo-Sinian orogeny in peninsular Malaysia and Thailand. Late Cretaceous-Early Tertiary arc development with granitic plutons in SW Kalimantan. Post-Late Triassic deposition either platform cover or active marginal accretion)

Hartono, U. (1997)- Tertiary basalts and microgabbros from Pulau Laut, South Kalimantan: a primitive magma in island arcs. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 7, 71, p. 2-8.
(Paleogene basalts and microgabbros at Gunung Jembangan high-MgO primitive magma, derived from depleted mantle source, possibly 20% melting of spinel lherzolite, probably in subduction setting)

Hartono, U. (2000)- The origin of Tertiary basaltic and low-Y andesitic volcanic rocks from the Meratus Range, South Kalimantan. Jurnal Geologi dan Sumberdaya Mineral (JGSM), 10, 103, p. 23-32.
Small dikes and plugs of Tertiary basaltic, andesitic and dacitic volcanic rocks in Meratus Range and Pulau Laut, associated with strike-slip faults. K-Ar ages 62-23 Ma (Paleocene- E Miocene). High MgO and low-Y primitive magma source)

Hartono, U. (2000)- Batuan kerak samudera. In: U. Hartono, R. Sukamto et al. (eds.) (2000)- Evolusi magmatik Kalimantan Selatan, Geological Research Development Centre (GRDC), Bandung, Special Publ. 23, p. 25-36.
('Oceanic crust rocks'. Review of SW Meratus Mountains ophiolites)

Hartono, U. (2003)- A geochemical study on the Plio-Pleistocene magmas from Kalimantan; their influence to the Tertiary mineralization system in Kalimantan. Majalah Geologi Indonesia (IAGI) 18, 2, p. 168-174.
(Plio-Pleistocene volcanics common along Kalimantan- Sarawak border. Matulang Fm basalts and basaltic andesites previously interpreted as intraplate magmatism. Geochemistry suggest mixing of deep mantle source and arc magma. Probably produced during extensional tectonism after Late Miocene collision of Miri-Luconia microcontinent with Kalimantan/Sundaland in NW Sarawak)

Hartono, U. (2003)- The role of South Kalimantan Tertiary volcanics in gold mineralisation. Prosiding Forum Litbang ESDM, 2003, p. 175-186.
(Widespread alluvial gold, but no economic primary gold deposits in S Kalimantan. Tertiary volcanics on Pulau Laut (Late Paleocene basalt and basaltic andesite + Eocene- E Miocene andesite) with rel. low gold mineralization. Geochemically look like subduction-related volcanics, but no subduction here in Tertiary?)

Hartono, U. (2006)- Petrogenesis of the Sintang Intrusives and its implications for mineralization in Northwest Kalimantan. Jurnal Sumber Daya Geologi (JSDG) 16, 4 (154), p. 210-219.
(Late Oligocene- E Miocene Sintang intrusives of NW Kalimantan part of belt formed along N margin of Sundaland, can be followed from NW Kalimantan to Upper Tarakan/Mangkalihat, and is associated with gold mineralization. Mainly of granodiorites of adakite-type, probably derived from melting of subducted South China Sea oceanic crust, following M-L Oligocene compressional event in Kalimantan. Commonly with gold mineralization)

Hartono, U. (ed.) (2012)- Magmatism in Kalimantan. Centre for Geological Survey, Geological Agency, Bandung, Special Publication, p. 1-199.
(With chapters by Amiruddin, B. Harahap, I.G.B.E. Sutjipta, S, Bronto and U. Hartono. Major review of distribution of Cretaceous- Recent volcanic and plutonic rocks in Kalimantan, tectonic history and associated mineral deposits (see more detail under chapters))

Hartono, U. (2012)- Cretaceous arc magmatism. In: U. Hartono (ed.) Magmatism in Kalimantan, Centre for Geological Survey, Geological Agency, Bandung, Special Publ., p. 67-114.
(Review of Cretaceous volcanic and sub-volcanic rocks in SE (U Cretaceous/ ~83-66 Ma Haruyan Fm arc volcanics of Meratus Mts), SW (U Cretaceous/ ~88-65 Ma Kerabai Volcanics SW of Schwaner Mts; probably consanguineous with 91-86 Ma Sukadana granite) and NW Kalimantan (Lower Cretaceous/106 Ma Raya Volcanics))

Hartono, U. (2012)- Pliocene- Pleistocene magmatism. In: U. Hartono (ed.) Magmatism in Kalimantan, Centre for Geological Survey, Geological Agency, Bandung, Special Publ., p. 153-162.
(Review of Plio-Pleistocene (5.8- 1.7 Ma) Metulang and Niut volcanics of East-Central and NW Kalimantan. Differ from Tertiary volcanics, possibly 'non-orogenic' magmatism)

Hartono, U. (2012)- Tectono-magmatic evolution. In: U. Hartono (ed.) Magmatism in Kalimantan, Centre for Geological Survey, Geological Agency, Bandung, Special Publ., p. 191-199.
(Most of magmatic activity in Kalimantan related to subduction processes. Not much information on pre-Cretaceous magmatic activity. E Cretaceous Schwaner and Singkawang batholiths may form continuation of E

Asian magmatic arc and result from subduction of Paleo-Pacific Plate (from present-day North) along E Asia. Subduction continues to Late Cretaceous (Kerabai Volcanics, Sukadana granite). Also Cretaceous accretionary/ subduction complex in SE Kalimantan, tied to subduction of Indian Plate at S side of Sundaland (Batang Alai granite, Haruyan Volcanics), terminating in Paleocene with Paternoster Plate collision. Eocene to Oligocene or M Miocene subduction of proto-S China Sea oceanic crust under N Kalimantan, creating Rajang accretionary prism and Muller, Piyabung, Sintang, Nyaan and Serantak volcanics. Etc.)

Hartono, U., H.Z. Abidin & I.G.B.E. Sutjipta (2012)- Mineralization. In: U. Hartono (ed.) Magmatism in Kalimantan, Centre for Geological Survey, Geological Agency, Bandung, Special Publ., p. 163-190.
(Review of metallic mineral deposits in Kalimantan, all associated with magmatic belts. Kalimantan long history of alluvial gold mining. During 'gold rush' of 1980's-1990's several epithermal gold deposits discovered: E Kalimantan (Kelian, Muyup, Tasan, Busang, Seruyung, Jelai), C Kalimantan (Masupa Ria, Mt. Moro, Gunung Emas) and W Kalimantan (Sebuduk, Pandung, Salakaen, Bukit Timah) Most of these associated with Sintang Intrusives of Late Oligocene- M Miocene C Kalimantan magmatic arc. Small gold prospects also in S Kalimantan/ Meratus Mts (Miing, Pantain Bancah, Gunung Belanda), presumably also associated with Tertiary intrusives)

Hartono, U. & S. Bronto (2012)- Tertiary arc magmatism. In: U. Hartono (ed.) Magmatism in Kalimantan, Centre for Geological Survey, Geological Agency (Bandung), Special Publ., p. 115-152.
(Mineral deposits of Kalimantan mainly associated with Tertiary magmatism. Four main groups of Tertiary volcanics: (1) Eocene (~50 Ma) Piyabong/ Muller/ Nyaan volcanics in N-C Kalimantan (possibly arc volcanics from proto-S China Sea Plate subduction); (2) rel. widespread Oligocene- M Miocene (30-16 Ma) intermediate Sintang intrusives (>150) and Malasan volcanics in central parts (incl. common 'adakitic' rocks) (arc magmatism, also tied to S China Sea subduction); (3) M Miocene- Pliocene Jelai volcanics of NE Kalimantan; (4) Plio-Pleistocene Metulang/ Niut volcanics widespread along N border of Kalimantan)

Hartono, U., M.H.J. Dirk, P. Sanyoto & S. Permanadewi (1999)- Geochemistry and K/Ar results of the Mesozoic-Cenozoic plutonic and volcanic rocks from the Meratus Range, South Kalimantan. In: G.H. Teh (ed.) Proc. 9th Regional Congress Geology Mineral Energy Resources of SE Asia (GEOSEA '98), Kuala Lumpur 1998, Bull. Geological Society Malaysia 43, p. 49-61.
(online at: www.gsm.org.my/products/702001-100834-PDF.pdf)
(Three main periods of magmatic activity in Meratus Mts: (1) E Cretaceous (131-103 Ma; Barremian-Albian) subduction-related granitoids (mainly island arc?; e.g. Batangalai granite), (2) Late Cretaceous (82-66 Ma; Campanian- Maastrichtian) Haruyan Fm submarine island arc basalt-andesite and granitoids and (3) Tertiary (62-19.5 Ma) andesitic-basaltic volcanics and granitoids (limited distribution; on Palau Laut along strike-slip faults). Microdiorite at G. Kukusan K-Ar age 19.6 Ma. Parts of U Cretaceous- Tertiary andesites high-MgO, probably formed by reaction between ascending melts and mantle peridotite)

Hartono, U. & D. Djumhana (2000)- Batuan malihan. In: U. Hartono, R. Sukamto et al. (eds.) (2000)- Evolusi magmatik Kalimantan Selatan, Geological Research Development Centre (GRDC), Bandung, Special Publ. 23, p. 75-84.
(Review of mid-Cretaceous metamorphic rocks of SW Meratus Mountains, SE Kalimantan)

Hartono, U. & S. Permanadewi (2000)- Batuan volkanik. In: U. Hartono, R. Sukamto et al. (eds.) (2000)- Evolusi magmatik Kalimantan Selatan, Geological Research Development Centre (GRDC), Bandung, Special Publ. 23, p. 53-74.
(Review of volcanic rocks, Meratus Mts, SE Kalimantan)

Hartono, U., S. Permanadewi & M.H.J. Dirk (1997)- Petrology and geochemistry of the Tertiary volcanic and subvolcanic rocks, South Kalimantan. Proc. 26th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 419-427.
(online at: https://www.iagi.or.id/web/digital/64/32.pdf)
(Reprinted in Bronto & Surono 2014. Tertiary volcanics of Pulau Laut and Meratus Range associated with strike-slip faults. Most volcanics high MgO content. K-Ar ages of plagioclase from Pulau Laut andesite and micro-gabbro 57.5 Ma and 62.5 Ma, hornblende 32.5- 19.5 Ma. Probably originated from U Cretaceous- Lower Tertiary

subduction, but magma produced accumulated in lower crust- upper mantle before rising to surface in E-M Tertiary)

Hartono, U. & I. Saefudin (2000)- Evolusi magmatik. In: U. Hartono, R. Sukamto et al. (eds.) (2000)- Evolusi magmatik Kalimantan Selatan, Geological Research Development Centre (GRDC), Bandung, Special Publ. 23, p. 119-135.
(Review of magmatic evolution Meratus Mts, SE Kalimantan)

Hartono, U., P. Sanyoto, H.Z. Abidin, S. Permanadewi, W. Sunata, M.H.J. Dirk & I. Saefudun (1997)- Geochemical characteristics of the Cretaceous and Tertiary volcanics, South Kalimantan: implications for the tectono magnetic evolution. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 7, 66, p. 2-10.
(Cretaceous volcanics of Haruyan Fm in Meratus Mts and in Pulau Laut mostly porphyritic andesites, characteristic of subduction arc volcanism. Paleogene basaltic rocks along strike-slip faults on Pulau Laut MgO rich and characteristic of primitive magma (not shown on Rustandi et al. 1995 Pulau Laut geologic map?; Hartono 2003))

Hartono, U., R. Sukamto, Surono & H. Panggabean (eds.) (2000)- Evolusi magmatik Kalimantan Selatan. Geological Research Development Centre (GRDC), Bandung, Special Publ. 23, p. 1-140.
('The magmatic evolution of South Kalimantan'. Collection of papers published earlier)

Hartono, U. & Sulistyawan (2010)- Origin of Cretaceous high magnesian andesites from southeast Kalimantan-geochemistry. Jurnal Sumber Daya Geologi (JSDG) 20, 5, p. 261-276.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/177/173)
(Anomalously high MgO content of some andesites ('boninites') found with normal volcanic arc andesites of U Cretaceous Haruyan Fm in Meratus Range and on Pulau Laut. Both originated from subduction zone-type magma. Two possible origins of high-Mg andesites: (1) melting of mantle wedge above slab; (2) reaction between silicic magma and hot mantle peridotite (boninites typically form in fore-arc environments during early stages of subduction?; JTvG))

Hartono, U. & Suyono (2006)- Identification of adakite from Sintang intrusives in West Kalimantan. Jurnal Sumber Daya Geologi (JSDG) 16, 3 (153), p. 173-178.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/362/315)
(U Oligocene- E Miocene Sintang high-level intrusives widely exposed in W Kalimantan. Consist of microdiorite, granite/ microgranite, quartz diorite, dacite, andesite and minor rhyolite and rhyodacite. K-Ar analyses 30.4-23.0 Ma in Melawai Basin, 17.9- 16.4 in Ketangau Basin. Published geochemical data suggest most rocks adakites. Products of arc magmatism, probably from melting of subducted (Proto- ?) South China Sea oceanic crust beneath Kalimantan. Subduction started in Late Oligocene when crust was still young)

Hashimoto, W. & T. Koike (1973)- A geological reconnaissance of the reservoir area of the Riam Kanan dam, East of Martapura, Kalimantan Selatan (South Borneo), Indonesia. In: T. Kobayashi & R. Toriyama (eds.) Geology and Palaeontology of Southeast Asia, University of Tokyo Press, 13, p. 163-184.
(Description of Cretaceous (Aptian-Senonian) to Lower Tertiary stratigraphy of area of Riam Kanan dam at Aranio, 40 km E of Banjarmasin, SW Meratus Mts. Area now mainly flooded by water reservoir. Review of works of Verbeek (1875), Hooze (1893), Martin (1889), Krol (1920) and Koolhoven (1935), with additional observations. Oldest rocks crystalline schist, bounded by Bobaris Peridotite. Basal Cretaceous (Cenomanian?) conglomerate mainly composed of schist, also peridotite. Overlying marine sediments with volcanics. Orbitolina from limestone farther North not O. concavata, but older form of O. scutum type, in Japan associated with Upper Aptian ammonites. Latest Cretaceous non-marine shales with estheriids)

Hashimoto, W. & T. Koike (1974)- On the Martapura Cretaceous system of Southeast Kalimantan, Borneo, Indonesia (Geology along the upper stream of the Riam Kanan River). J. of Geography (Chigaku Zasshi), Tokyo, 83, 1, p. 1-18. *(in Japanese)*
(online at: https://www.jstage.jst.go.jp/article/jgeography1889/83/1/83_1_1/_pdf/-char/en)

(1972 survey of Meratus Mts Upper Cretaceous sediments at upper Riam Kanan River, E and Riam Kiwa W of Bobaris Mts. Basal conglomerates, sandstones and siltstones, unconformable over schist, with Turonian ammonoids and Inoceramus. Overlying Benuariam/Atiin Fm porphyritic lavas, agglomerates and tuffs, and conglomerates, Tabatan Fm sandstones and conglomerates with Aptian-Albian Orbitolina in limestone pebbles and reworked Benuariam Fm. Overlying Rantaulajon Fm fissile shale rich in estheriids, indicating non-marine facies, probably Senonian. Includes record of mid-Cretaceous Orbitolina in Meratus Mts at Hantakan, E of Barabai. Study of Eocene- Miocene suggests Early Oligocene Td stage is absent in area)

Hashimoto, W. & K. Matsumaru (1974)- *Orbitolina* from the Seberuang Cretaceous, Kalimantan Barat (West Borneo), Indonesia. In: T. Kobayashi & R. Toriyama (eds.) Geology and Palaeontology of Southeast Asia, University of Tokyo Press, 14, p. 89-99.
(Multiple localities of Selangkai Fm clastics at Seberuang River, U Kapuas, W Central Kalimantan with lenses of coral-bearing limestones rich in Tethyan mid-Cretaceous larger foram Orbitolina lenticularis. Fossils first described by Von Fritsch (1883), Martin (1899), Molengraaff (1900) and Zeijlmans (1939). Seberuang Orbitolina is Orbitolina lenticularis of Hofker (1966) groups II (within E Aptian) and I-II (Late Aptian). With good map of all Orbitolina localities in W Indonesia)

Hattori, K., K.P. Burgath & S.R. Hart (1992)- Os-isotope study of platinum-group minerals in chromitites in alpine-type ultramafic intrusions and the associated placers in Borneo. Mineralogical Magazine 56, p. 156-164.
(online at: www.minersoc.org/pages/Archive-MM/Volume_56/56-383-157.pdf)
(187Os/ l86 Os ratios of ~1.04 in laurite grains in mid-Cretaceous (~110 Ma) chromitites from Bobaris and Meratus Mts, SE Kalimantan (and platinum group minerals in associated alluvial placers derived from ultramafics) suggest derivation from mantle, with no significant contribution of crustal 187Os. Also low ratio (1.06) in nugget from SE Sabah 40 Ma Darvel Bay ophiolite)

Hattori, K.H., L.J. Cabri, B. Johanson & M.L. Zientek (2004)- Origin of placer laurite from Borneo: Se and As contents, and S isotopic compositions. Mineralogical Magazine 68, 2, p. 353-368.
(Platinum-group mineral laurite (RuS2) from Pontyn River sediments, Tanah Laut, SE Borneo, derived from Meratus ophiolite. Formation of laurite in residual mantle or in magma generated from refractory mantle, followed by erosion after obduction of host ultramafic rocks)

Hattori, K. & S.R. Hart (1991)- Osmium-isotope ratios of platinum-group minerals associated with ultramafic intrusions: Os-isotopic evolution of the oceanic mantle. Earth Planetary Science Letters 107, p. 499-514.
(Includes Os-isotope data on Cretaceous Meratus ophiolite (two dismembered ophiolite bodies, obducted during subduction of Sundaland Plate at ~114 Ma; Pamali, Sungei Kalaan, Sungai Besar; SE Kalimantan) and Tertiary Darvel Bay (Sungei Edam, Sabah) ophiolites (extends N to ophiolite complex on Palawan Island, with Ar-age of metamorphic minerals of 36 Ma, in Miocene-age host rock stratigraphy))

Hendratno, A. & R. Al Furqon (2006)- Petrologi granit kordierit (studi kasus daerah Sungai Lumo- Kalimantan Tengah). Teknik Geologi Universitas Gajah Mada, p. *(Unpublished?)*
('Petrology of cordierite granite (special study of Lumo River area, C Kalimantan))

Hennig, J., H.T. Breitfeld, R. Hall & A.M. Surya Nugraha (2017)- The Mesozoic tectono-magmatic evolution at the Paleo-Pacific subduction zone in West Borneo. Gondwana Research 48, p. 292-310. *(manuscript online at: https://pure.royalholloway.ac.uk/ws/portalfiles/portal/28227647/Hennig_et_al_manuscript_GR_2017.pdf)*
(Metamorphic and magmatic rocks in NW part of Schwaner Mountains of W Kalimantan with mainly Cretaceous U-Pb zircon ages (~80-130 Ma). Triassic metatonalite near Pontianak with Triassic and Jurassic zircons formed at Paleo-Pacific margin of subduction under Indochina- E Malaya block. Geochemically similar Triassic rocks in Embuoi Complex to N and Jagoi Granodiorite in W Sarawak formed part of SE margin of Triassic Sundaland. One S-type granitoid (118.6 Ma) with inherited Carboniferous, Triassic and Jurassic zircons, indicating Sundaland basement. Two I-type granitoids with Cretaceous ages of 101 and 81 Ma. All three record Cretaceous magmatism at Paleo-Pacific subduction margin. Cretaceous zircons of metamorphic origin indicate recrystallisation at ~90 Ma, possibly related to collision of Argo block with Sundaland. Subduction ceased at that time, followed by post-collisional magmatism in Pueh (77 Ma) and Gading Intrusions (80 Ma) of W Sarawak

(NB: West Borneo here viewed as part of Triassic Sundaland, extending to NW Schwaner zone and possibly further S; not SW Borneo block as previously assigned by Hall, etc.; JTvG))

Herman, D.Z. (2007)- Kemungkinan sebaran zirkon pada endapan placer di Pulau Kalimantan. Jurnal Geologi Indonesia 2, 2, p. 87-96.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/31)
('Possibity of zircon deposits in placer sediments in Kalimantan'. On hypothetical zircon placers from granites)

Hermanto, B., S. Bachri & S. Atmawinata (1994)- Geological map of the Pankalanbuun Quadrangle, Kalimantan, 1: 250,000, Quad. 1515. Geological Research Development Centre (GRDC), Bandung.
(S Kalimantan geologic map. S margin of Schwaner Mts. Oldest rocks ?Triassic Kuayan Fm andesitic volcanics, intruded by Cretaceous Mandahan granites, unconformably overlain by Late Miocene- Pliocene Dahor Fm)

Hermiyanto Zajuli, M.H & M.F. Sodiq (2019)- Mineralogy and Rock-Eval characteristic of Mesozoic fine grained sedimentary rock from Pedawan Formation: implication for shale hydrocarbon potential. Int. J. Science and Research (IJSR) 8, 8, p. 726-731.
(online at: https://pdfs.semanticscholar.org/3ca5/38f8672c5ff4369039d877384708c75fb5e1.pdf)
(In Singkawang Mesozoic basin in NW Kalimantan Cretaceous Pedawan Fm TOC values 0.27- 2.29, Hydrogen Index <100, BI 52-99%. Maturity level mature to overmature (478-556 °C). Pedawan Fm shale potential as unconventional hydrocarbon play)

Heryanto, R. (1991)- Sedimentology of the Melawi and Ketungau basins, West Kalimantan, Indonesia. Ph.D. Thesis University of Wollongong, Australia, vol. 1- Text, p. 1-255, vol. 2- Figures.
(online at: http://ro.uow.edu.au/theses/1405)
(Melawi and Ketungau 'forearc' basins in W Kalimantan formed between E Tertiary Lubuk Antu subduction zone in N and Semitau High to S. Semitau High part of Late Cretaceous Boyan Melange subduction complex (with up to km-size blocks, incl. Cretaceous Orbitolina Limestone, ultramafics, Permian granitoid and metamorphic microcontinental fragments). Up to 7500m of Late Eocene- Oligocene shallow marine- terrestrial deposits in Melawi and Ketungau Basins. Three unconformities in Melawi Basin. Melawi Group and Alat Sst can be correlated with Kantu Fm and Tutoop Sst in Ketungau Basin. Sand provenance from N, from uplifted melanges. Both basins with coal seams. Uplift of Semitau High (Boyan Melange) along backthrusts during Paleocene- E Eocene produced accretionary prism flanked to S by forearc Melawi Basin. N-ward migration of Benioff Zone in Late Eocene created forearc Ketungau Basin between old and new (Lubok Antu Melange) outer arc ridges. With palynology analyses by B. Porthault. Oligo-Miocene Sintang intrusives ~23-31 Ma in S, ~16-18 Ma in N)

Heryanto, R. (1996)- Diagenesis of the Melawi Basin sandstone, West Kalimantan, Indonesia. Bull. Geological Research Development Centre (GRDC), Bandung, 20, p. 67-84.
(Diagenesis of >7 km thick Eocene and Oligocene fluvial, lacustrine and shallow marine sandstones of Melawi Basin. Generally characteristic of deeper burial)

Heryanto, R. (1996)- Sedimentology of the Ingar Formation. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 6, 53, p. 9-16.
(Ingar Fm Eocene mudstones and minor fine sandstones are oldest formation of Melawi Basin sequence in W Kalimantan. ~2000m thick outer shelf- upper slope deposits. With slump folds, ball-and-pillow structures and allochthonous limestone blocks. Classified as lithic arkose- feldspathic litharenite with 9-21% quartz and 12-40% lithics (mainly volcanics), derived from Schwaner Mountains volcanic arc rocks (entire Melawi Basin Eo-Oligocene section almost 8000m thick ?))

Heryanto, R. (1996)- Sedimentology of the Dangkan sandstone. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 6, 58, p. 6-16.
(Eocene Dangkan Sst in Melawi Basin of W Kalimantan. Unconformably overlies Selangkai Sst in N and Ingar Fm in S and is conformably overlain by Eocene Silat Shale. With polymict basal conglomerate, with clasts derived from Semitau High N of basin. Deposited in fluvial environment (Eocene in Melawi basin >5-6 km thick))

Heryanto, R. (1999)- Petrografi batupasir Formasi Manunggul di daerah Alimukim, Kalimantan Selatan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 9, 93, p. 16-26.
('Petrography of the Manunggul Fm sandstone in the Alimukim area, S Kalimantan'. Sandstones of U Cretaceous Manunggul Fm in Alimukim area, Meratus Mts, are feldspathic litharenites: quartz generally 1-8%, andesitic lithics 20-40%, basalt 10-19% and plagioclase 8-15%. Provenance 'undissected' andesitic magmatic arc (from Paau Volcanics). Also contributions from granite, ultramafics, metamorphics and sedimentary rock, incl. radiolarian chert)

Heryanto, R. (1999)- Diagenesa batupasir Formasi Manunggul di daerah Alimukim, Kalimantan Selatan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 9, 98, p. 16-26.
('Diagenesis of Manunggul Fm sandstone in the Alimukin area, S Kalimantan'. Diagenesis of Upper Cretaceous volcanoclastics overlying Meratus ophiolite complex includes compaction, quartz, laumontite and calcite cement and secondary porosity from dissolution of feldspar and volcanic fragments)

Heryanto, R. (2000)- Pengendapan batuan sedimen kelompok Pitap di bagian selatan Pegunungan Meratus, Kalimantan Selatan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 10, 109, p. 2-19.
('Deposition of rocks of the Pitap Group in the southern part of the Meratus Mountains, S Kalimantan'. U Cretaceous Pitap Gp volcanoclastics in S Meratus Mts overlies basement of Batugamping Fm (Orbitolina Lst; ~100-300m thick?), E Cretaceous Paniungan mudstones (Berriasian-Barremian?) and ultramafic and granitic rocks. Composed of interfingering Pudak and Keramaian Fms. Lower Pudak Fm is olistostrome with blocks of Orbitolina limestone and volcanic rocks, deposited on continental slope, upper part submarine fan deposits)

Heryanto, R. (2000)- Tataan stratigraphy. In: U. Hartono et al. (eds.) Evolusi magmatik Kalimantan Selatan, Geological Research Development Centre (GRDC), Bandung, Special Publication 23, p. 7-24.
(Stratigraphy chapter in 'Magmatic evolution of South Kalimantan' book)

Heryanto, R. (2011)- Stratigrafi bagian barat dan tenggara Kalimantan: implikasinya terhadap keterdapatan sumber daya energi fosil. Geological Survey Indonesia (PSG), Bandung, p. 1-63.
(Stratigraphy of West and SE Kalimantan: implications for fossil energy resources')

Heryanto, R. & H.Z. Abidin (1995)- Geological map of the Longbia (Napaku) Quadrangle 1818, Kalimantan, scale 1: 250.000. Geological Research Development Centre (GRDC), Bandung.
(Map inboard of Tarakan Basin. Oldest rocks Jurassic-Cretaceous Telen Fm sheared black and red slate, chert and metasandstone. Unconformably overlain by thick U Cretaceous- Paleocene Embaluh Gp mainly flysch-type clastics with SW-NE trending folds, unconformably overlain by M-L Eocene clastics and limestones. Oligo-Miocene Jelai Fm basaltic-andesitic volcanics, Etc.)

Heryanto, R., B.H. Harahap, P.R. Williams & P.E. Pieters (1993)- Geology of the Sintang sheet area, Kalimantan, 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(C Kalimantan map sheet, showing occurrences of Jurassic- Early Cretaceous Danau Mafic Complex (probably oceanic crust in Cretaceous Boyan accretionary melange?), Semitau Metamorphics, thick Eocene sediments of Melawi and Ketungau basins, widespread Late Oligocene- E Miocene Sintang andesite intrusives, etc.)

Heryanto, R. & U. Hartono (2003)- Stratigraphy of the Meratus Mountains, South Kalimantan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 13, 133, p. 2-24.
(Meratus Mts with Paleozoic Lumo continental granite NW of range and M Jurassic Puruidalam oceanic plagiogranite (155± 16 Ma) in ophiolite complex. Meratus stratigraphy three groups: (1) Jurassic- E Cretaceous imbricated ultramafics (120-155 Ma), chert, Aptian- Albian (110-199 Ma) metamorphic Hauran schist and Pelaihari phyllite, sediments (incl. pre-Aptian E Cretaceous Paniungan Fm mudstone and Barremian Batununggal Orbitolina Lst; should be Aptian?) and melange; (2) Late Cretaceous- Paleocene Pitap Gp volcanics and deep water Manunggul Fm volcanoclastics and island arc type Hawaja Granite (~70-87 Ma); (3) Eocene- Miocene sediments of Barito basin margin. Also Belawayan arc-type granite (K-Ar ages 101-131 Ma), U Cretaceous Pudak Fm olistostrome of volcanoclastics and limestone blocks in Pudak River)

Heryanto, R. & B.G. Jones (1996)- Tectonic development of Melawi and Ketangau basins, Western Kalimantan, Indonesia. Bull. Geological Research Development Centre (GRDC), Bandung, 19, p. 151-179.
(In Late Cretaceous most of W Kalimantan Melawi/ Ketangau basins was area of marine shelf, flysch and pelagic deposition. Early Tertiary S-directed thrusting created Melawi foreland basin with Eocene lacustrine, fluvial and marginal marine sediments. In latest Eocene new thrust zone further North, producing second foreland basin (Ketangau))

Heryanto, R. & H. Panggabean (2010)- Characteristics and depositional environment on Jurassic-Cretaceous rock sequences in Meratus Mountains, South Kalimantan. Proc. Symposium Paleoclimates in Asia during the Cretaceous, IGCP Project 507, Yogyakarta 2010, p. 53-56. *(Abstract only)*
(Summary of Meratus Mts rocks, ages and tectonic development. Permo-Carboniferous S-type Lumo granite (319-260 Ma), represents continental Sundaland. M Jurassic metamorphic rocks (165-180 Ma). Mid-Cretaceous subduction suggested by arc-type Belawayan Granite (101-131 Ma) and metamorphic rocks (110-119 Ma). Belawayan granite overlain by Aptian-Albian Batununggal Lst. Palynomorphs from Paniungan Mudstone indicate Berriasian-Barremian age)

Heryanto, R. & P. Sanyoto (1994)- Geological map of the Amuntai Quadrangle 1713, Kalimantan, 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(Geologic map of NW part of Barito Basin and part of NW Meratus Range)

Heryanto, R., P. Sanyoto & H. Panggabean (2003)- Depositional setting of the sedimentary rocks of Pitap Group in the northern Meratus High (Amandit, Alimukim and Paramasan Areas), Southeast Kalimantan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 13, 141, p. 2-21.
(Pitap Group in Meratus Range all U Cretaceous- Paleocene clastic- volcanoclastic deep marine slope to submarine fan deposits. Three formations, Pudak Fm (post Aptian-Albian Orbitolina Lst), Karamaian Fm (with Valanginian- Cenomanian radiolarian cherts (?), maybe also younger) and Manunggul Fm)

Heryanto, R., P. Sanyoto, H. Panggabean & K. Hasan (2001)- Depositional environment of the Late Cretaceous Pitap Group, Meratus Mountain, Southeast Kalimantan. In: A. Setiawan et al. (eds.) Proc. Deep-water sedimentation of Southeast Asia, FOSI (Indonesian Sedimentologists Forum) 2nd Regional Seminar, Jakarta, 1p. *(Abstract only)*
(Pitap Group in Meratus Mts divided into interfingering Pudak, Keramaian and Manunggul Formations. Lower Pudak Fm is olistostrome with olistoliths, including Orbitolina Limestone and volcanics in volcanic sandstone matrix. U Pudak Fm volcanic sandstone interbedded with conglomerate/ breccia, deposited as upper submarine fan. Keramaian Fm and Manunggul Fms submarine fan conglomerate, sandstone and mudstone. Volcanic activity produced age-equivalent Late Cretaceous volcanic rocks of Haruyan Group, deposited directly above basement (imbricated Lower Cretaceous Batununggal Lst, Paniungan Mudstone, ultramafics, metamorphic and granitic rocks). Tertiary sediments unconformably overlie both Pitap and Haruyan Groups)

Heryanto, R., S. Supriatna, E. Rustandi & Baharuddin (1994)- Geological map of the Sampanahan Quadrangle, Kalimantan, Quad. 1813, 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(Includes NE part of Meratus Range. With in SW part of Range Batanglai granite (K/Ar age 115 Ma) overlain by Aptian Batununggal Fm Orbitolina limestone, Late Cretaceous Haruyan Fm basaltic lavas and >2000m thick Pitap Fm volcanoclasic flysch with common Kintap Orbitolina limestone olistoliths. Ultrabasic rocks in East)

Heryanto, R., Sutrisno, Sukardi & D. Agustianto (1998)- Geologic map Belimbing sheet, South Kalimantan, scale 1: 100.000. Geological Research Development Centre (GRDC), Bandung.

Hidayat, S., Amiruddin & D. Satrianas (1995)- Geological map of the Tarakan and Sebatik sheet, Kalimantan, Quad 1919, 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(Map sheet of Tarakan Basin in NE corner of Kalimantan, with NW-SE trending anticlines of folded Miocene and younger sediments. Older outcrops in SW of sheet, with folded Mesozoic Bengara Fm clastics and tuffs, unconformably overlain by Eocene Sembakung Fm clastics and Nummulites- Fasciolites limestone,

unconformably overlain by Oligocene-Miocene Naintupo Fm clastics with limestone intercalations (with Eulepidina, Spiroclypeus, etc. E-M Miocene Jelai Fm volcanics and associated granitoids)

Hidayat, S. & I. Umar (1994)- Geological map of the Balikpapan sheet, Kalimantan. Geological Research Development Centre (GRDC), Bandung.

Hinde, G.J. (1900)- Description of fossil radiolaria from the rocks of Central Borneo. In: G.A.F. Molengraaff, Borneo-expedition. Geological explorations in Central Borneo (1893-94), Brill, Leiden, Appendix I, p. 1-57.
(Several localities of radiolarian chert in C Borneo, sampled by Molengraaff. Two kinds: intensely folded folded red radiolarian cherts in Danau Fm of Upper Kapuas River area, and radiolarian tuffs and marls S of Semitau Hills, both below M Cretaceous clastics with Orbitolina. Radiolarians of E Cretaceous or Late Jurassic age (called E Cretaceous by Sanfilippo and Riedel 1985 (Stichocapsa cribata Hinde limited to Valanginian in W Pacific ODP sites; Matsuoka (1992); Stylatractus ovatus n.sp. = Sphaerostylus lanceola= Tithonian-Aptian; Sanfilippo and Riedel 1989))

Hirano, H., S. Ichihara, Y. Sunarya, N. Nakajima, I. Obata & M. Futakami (1981)- Lower Jurassic ammonites from Bengkayang, West Kalimantan Province, Indonesia. Bull. Geological Research Development Centre (GRDC), Bandung, 4, p. 21-26.
(Two species of Toarcian (upper Lower Jurassic) ammonites (Harpoceras sp. and Dactylioceras sp.) from uppermost part of >3000m thick Upper Triassic- Jurassic Bengkayang Gp (Sungaibetung Fm) at Mt Bawang, Bengkayang area, W Kalimantan, in beds previously mapped as U Triassic. Formation intruded by E Cretaceous (~104 Ma) Mt. Raya granodiorite and Tertiary tonalite of 29-19 Ma age)

Hirschi, H. (1908)- Vorlaufiger Bericht uber einen geologischen Streifzug in centraal-Borneo- Oberlauf Moeroeng (Barito). Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2), 25, p. 777-806.
(Preliminary note of a geological survey of the upper Murung tributary of the Barito River, N of Banjarmasin, C Kalimantan. Includes first report of diamonds and gold in alluvial deposits at Babuat River in headlands of Barito River, C Kalimantan)

Hollmann, F. (2000)- Felsmechanische und mikrostrukturelle Untersuchungen an Serpentinit-Proben aus SE-Kalimantan, Indonesien. M.Sc. Thesis, Institute of Geology, Ruhr-University, Bochum, Germany, p.
('Rock mechanics and micro-structural investigations on serpentinite samples from SE-Kalimantan, Indonesia'. Study of mechanical properties of brecciated serpentinite ('bimrock') for Kusan-3 Hydropower dam foundation in Meratus Mts. Original ultramafic rocks undergone complete serpentinization and fractured into fault breccia. Blocks re-cemented by precipitated serpentinite minerals forming block-in-matrix structure)

Hollmann, F.S., H.K. Kutter & U. Glawe (2001)- Felsmechanische und mikrostrukturelle Untersuchungen an Serpentinit-Kataklasiten aus SE-Kalimantan, Indonesien. In: 13th Nationale Tagung fur Ingenieurgeologie, Karlsruhe, Geotechnik 2001, Supplement, p. 203-204. *(Abstract only)*
('Rock mechanic and microstructural investigations of serpentinite-kataklasites from SE Kalimantan, Indonesia'. Summary of Hollmann (2000) thesis work)

Hooze, J.A. (1893)- Topographische, geologische en mijnbouwkundige beschrijving der afd. Martapoera, residentie Zuider- en Oosterafdeling van Borneo. Jaarboek Mijnwezen Nederlandsch Oost-Indie 22 (1893), p. 1-431.
(maps online at: https://digitalcollections.universiteitleiden.nl/view/item/57151)
('Topographic, geologic and mining description of the Martapura District, S and E Kalimantan'. Extensive description of Martapura region geology and economic minerals, mainly on coal and diamonds)

Horner, L. (1837)- Verslag van een geologisch onderzoek van het zuidoostelijk gedeelte van Borneo Verhandelingen Bataviaasch Genootschap Kunsten Wetenschappen 17, 2, p. 89-119. *(online at: https://ia801900.us.archive.org/35/items/verhandelingenv171839bata/verhandelingenv171839bata.pdf)*

('Report on a geologic investigation of the SE part of Borneo'. Probably first report on geology of SE Kalimantan; by young Swiss medical doctor/geologist Horner of the Commision of Natural Sciences, probably as member of a Salomon Muller-led field party)

Hovig, P. (1930)- De oorsprong van de Borneo diamanten. Mijnwezen (Geologie en Mijnbouw) 8, 12, p. 157-161.
(online at: https://drive.google.com/file/d/1IsA9sp2MEHaeqL_IHPOyMvlLVrkM08Tm/view)
('The origin of the Borneo diamonds'. Brief review, largely based on Krol (1922). Quaternary diamond placers probably formed through multiple stages, from primary deposits (here believed to be contact zones of acid intrusions) into Lower Cenomanian clastics, then reworked into progressively younger sediments. No figures)

Hovig, P. (1931)- Waar zijn de Borneo diamanten ontstaan? Mijnwezen (Geologie en Mijnbouw) 9, 5, p. 51-55.
(online at: https://drive.google.com/file/d/1E498lefLrH386NtZtwaRrZtTYdDvcmkK/view)
('Where did the Borneo diamonds originate?'. Reply to Wing Easton (1931) discussion of Hovig 1930 paper, suggesting ultramafic rocks more likely source of diamonds. Hovig reasserts position that diamonds formed in contact zones of granites. This discussion led to new investigations by W.C.B. Koolhoven in 1932, and Hovig conceding he was wrong)

Husain, J.R., Normansyah & H. Bakri (2022)- Control of iron ore education on Sebuku Island. Journal of Geology and Exploration 1, 1, p. 8-12.
(On distribution of lateritic iron ore on serpentinized ultramafic rocks of Sebuku island, SE Kalimantan)

Hutchison, C.S. (1986)- Formation of marginal seas in S.E. Asia by rifting of the Chinese and Australian continental margins and implications for the Borneo region. In: G.H. Teh & S. Paramananthan (eds.) Proc. 5th 7th Regional Congress Geology Mineral Energy Resources of SE Asia (GEOSEA V), Kuala Lumpur 1984, 2, Bull. Geological Society Malaysia 20, p. 201-220.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1986b11.pdf)
(SE Asian marginal basins formed by processes other than back-arc extension. Andaman Sea is Miocene leaky transform system. W Philippine Sea, Banda Sea, Celebes Sea and Sulu Basins are remnants of former Cretaceous-Eocene oceans, now trapped behind younger arc-trench systems, Etc. (many of the assumptions used here to build tectonic model differ from current interpretations; JTvG))

Hutchison, C.S. (1987)- Stratigraphic-tectonic model for Eastern Borneo. Proceedings Sixth Regional Conference on the geology, mineral and hydrocarbon resources of Southeast Asia (GEOSEA VI), Jakarta 1987, IAGI, p.

Hutchison, C.S. (1988)- Stratigraphic-tectonic model for Eastern Borneo. Bull. Geological Society Malaysia 22, p. 135-151.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1988007.pdf)
(E Borneo nucleated since Late Cretaceous time around Miri Zone, whose basement may be microcontinent rifted from shelf of Vietnam and S China. E margin of Miri Zone interpreted as Atlantic-type margin, with down-faulted continental crust giving way E-wards to Late Cretaceous-Eocene oceanic lithosphere ('Chert-Spilite Fm' and underlying 'Crystalline Basement') of same age as ocean floor of adjacent Celebes Sea. Rajang Gp deposited as Late Cretaceous-Paleogene turbidite fan directly on Chert-Spilite Fm. E-wards subduction of this oceanic basement resulted in W and N Sulawesi volcanic arc. Etc.)

Hutubessy, S. & S. Panjaitan (2003)- Penelitian geomagnetik di cekungan Amuntai, Kabupaten Amuntai, Kalimantan Selatan. Proc. 32nd Annual Conv. IAGI and 28th Annual Conv. HAGI, Jakarta, p. 1-7.
(Magnetic survey and model in Amuntai (NE Barito) basin, SE Kalimantan)

Ichihara, S., Y. Sunarya & N. Nakajima (1984)- Cretaceous and Tertiary granitic rocks, West Kalimantan (G. Bawang- Bengkayang- Darit- Pahuman area and G. Ibu area). Bull. Directorate Mineral Resources Indonesia 2, 15, p. 1-28.
(Descriptions of Cretaceous granodiorite plutons of Singkawang batholith, NW Kalimantan, etc.)

Icke, H. & K. Martin (1906)- Die Silatgruppe, Brack- und Susswasser-Bildungen der Oberen Kreide von Borneo. Sammlungen Geologischen Reichs-Museums Leiden, Ser. 1, 8, p. 106-144.
(online at: www.repository.naturalis.nl/document/552415)
('The Silat Group brackish and freshwater deposits of the Upper Cretaceous of Kalimantan'. Description of fresh and brackish water molluscs) from Melawi Basin E of Sintang, collected by Wing Easton. Mainly gastropods (Faunus eastoni, Paludinopsis silatiensis, Melania krausei) and some bivalves (Corbula silatiensis). Martin suggests most likely Late Cretaceous age (but palynology in Sutjipto (1991) believed to be Eocene))

Idrus, A., C.D.P. Dana, C.K. Lai, A. Agangi, R. Takahashi & E.H. Rajagukguk (2023)- Proximal to distal geochemical variations of the Ruwai polymetallic skarn deposit, Central Borneo, Indonesia: Insights from sulfides chemistry and implications to exploration. J. Geochemical Exploration 246, 107161, p. 1-16.
(Ruwai largest polymetallic skarn deposit in Borneo, in Schwaner Mountains. Mineralization hosted by Jurassic Ketapang Complex metalimestone, and can be divided into proximal (Gojo-Karim) and distal (C Gossan-SW Gossan) zones. Linked to Cretaceous Sukadana granitoids)

Idrus, A., L.D. Setijadji & F. Thamba (2011)- Geology and characteristics of Pb-Zn-Cu-Ag skarn deposit. Jurnal Geologi Indonesia 6, 4, p. 191-201.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/download/126/126)
(Geology of skarn Pb-Zn-Cu-Ag deposit at Ruwai mine, Lamandau Regency, SW Kalimantan. Ruwai skarn associated with Late Cretaceous dyke/stock, intruded into Triassic-M Cretaceous Ketapang volcanics and sediments, including limestone. Controlled by NNE-SSW-trending strike slip faults and N70E-trending thrust fault)

Idrus, A., L.D. Setijadji & F. Thamba & F. Anggara (2011)- Geology and characteristics of Pb-Zn-Cu-Ag skarn deposit at Ruwai, Lamandau Regency, Central Kalimantan. J. Southeast Asian Applied Geology (UGM) 3, 1, p. 54-63.
(online at: http://geologic-risk.ft.ugm.ac.id/fresh/jsaag/vol-3/no-1/jsaag-v3n1p054.pdf)
(Same as or similar to Idrus et al. 2011, above; also in Indonesia J. on Geoscience 6, 4, (2014))

Idrus, A., F. Zaccarini, G. Garuti, I.G.N.K. Wijaya, Y.C.A. Swamidharma & C. Bauer (2022)- Origin of podiform chromitites in the Sebuku Island ophiolite (South Kalimantan, Indonesia): constraints from chromite composition and PGE mineralogy. Minerals (MDPI) 12, 8, p. 1-31.
(online at: https://www.mdpi.com/2075-163X/12/8/974)
(Likely Jurassic-age ophiolite of Sebuku Island, along Makassar Strait in SE Kalimantan contains two types of podiform chromitites, formed in supra-subduction zone. Ophiolite overlain by U Cretaceous Pitap Fm clastics interfingering with Haruyan Fm pillow lavas, breccias and tuffs, and unconformably overlain by Eocene Tanjung Fm (similar to nearby Meratus Range))

Ilhami, A.R., Nurhakim & Riswan (2019)- Studi keterdapatan bijih kromit pada endapan laterit di Kecamatan Karang Intan, Kabupaten Banjar, Provinsi Kalimantan Selatan. Jurnal Geosapta 5, 1, p. 31-60.
(online at: https://ppjp.ulm.ac.id/journal/index.php/geosapta/article/view/5714/pdf)
('Study of presence of chromite ore in laterite deposits in the Karang Intan District, Banjar, S Kalimantan')

Ilmawan, I., A. Idrus, C.K. Lai, C.D.P. Dana & A.P.A. Nugroho (2023)- Intermediate-sulfidation epithermal mineralization at Monterado goldfield in Western Borneo (Indonesia): Geological, mineralogical, and fluid inclusion microthermometric perspectives. Geological Journal 58, 1, p. 315-332.
(Gold mining in W Borneo can be traced back over a century (more likely several centuries JTvG). In Monterado goldfield gold-bearing quartz veins in intrusions (Mensibau granodiorite, Sintang suite diorite porphyry) and volcanic-sedimentary sequences (Raya Volcanics, Hamisan Fm).Veins are largely by N-S-trending tensional veins (Nek Rimban, Muisan) and NW-SE en-echelon tensional gash veins (Mertua, Lipan, Sekar). Monterado Au-Ag mineralization best classified as intermediate-sulfidation epithermal)

Ilyas, S. (2003)- Inventarisasi batubara bersistem di daerah Muara Wahau dan sekitarnya, Kabupaten Kutai Timur, Provinsi Kalimantan Timur. Kolokium Hasil Kegiatan Inventarisasi Sumber Daya Mineral, DIM, TA, p. 22-1-22.10.
(online at: www.dim.esdm.go.id/kolokium%202003/batubara/Makalah%20Wahau%20Kaltim.pdf)
('Systematic investigation of coal in the Muara Wahau area, Kutai Regency, E Kalimantan Province'. Six main coal seams, 6- 45m thick, in Upper Wahau Fm (E Miocene?) in NE corner Kutai Basin. Ash content <4%, sulphur 0.15%, mean vitrinite reflectance Rv mean 0.27%)

Imani, S.N., F.M.H. Sihombing, T.L. Indra & R.D. Nugraheni (2020)- Characteristics of chromitite mineralization in Sebuku Island based on thin section, polished section, and geochemical data. Proc. Life and Environmental Sciences Academics Forum 2019, IOP Conference Series: Earth and Environmental Science 538, 012047, p. 1-8.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/538/1/012047/pdf)
(Sebuku island off SE Kalimantan main source of iron laterite in Indonesia. In Mesozoic suture zone with ultramafic-mafic rocks as part of ophiolite sequence, containing podiform chromitite, formed by fractional crystallization. Abundance of Al2O3 and TiO2 in chromitite suggests Al-rich chromitite formed in supra-subduction zone, near or above Moho-transition zone)

Irfan, U.R., I. Alimuddin & I.B. Pasalli (2019)- The influence of topography to the distribution of Ni-laterite deposits of Mangguruh area, Sebuku Island, South Kalimantan. Proc. The 5th Int. Symposium Material, Mechatronics and Energy, Gowa 2018, IOP Conference Series: Materials Science Engineering 619, 012015, p. 1-10.
(online at: https://iopscience.iop.org/article/10.1088/1757-899X/619/1/012015/pdf)
(Laterite nickel enrichment influenced by topography (best on slopes). Drill core data in Sebukuh indicate laterite thickness of >10m on slopes of 0-5% with nickel content of 1.2%, and 5-10% with ->1.4%. nickel. Steeper slopes have thinner laterite layer. High iron ore in each topographic slope group)

Ismail, Y. (1998)- Alterasi hidrotermal pada intrusi andesit G. Otje, Banjarmasin, Kalimantan Selatan. Proc. 27th Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 1 (Sumberdaya Mineral Energi), p. 200-211.
('Hydrothermal alteration at the Gunung Otje andesite intrusion, Banjarmasin, SE Kalimantan')

Jafar, N., S.R. Nurhawaisyah, S. Widodo, C.A. Chalik & M.H. Wakila (2023)- Mineralogical study of bauxite of Kenco Area, Landak District, West Kalimantan Province, Indonesia. Proc. 4th Int. Conf. Global issues for infrastructure, environment and socio-economic development (GIESED), Makassar 2021, IOP Conference Series: Earth and Environmental Science 1134, 012025, p. 1-7.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1134/1/012025)
(Laterite bauxites formed by weathering of rocks with high aluminum, low iron and little quartz content. In Indonesia, bauxite known from Bintan Island, Riau Islands, Bangka and Kalimantan. In Kenco area, Landak Regency NE of Pontianak, W Kalimantan, bauxite dominated by gibbsite, sou)

Jong, J., S. Barker & F.L. Kessler (2015)- A comparison of fold-thrust belts in Eastern Sundaland: structural commonalities and differences on the Circum-Borneo Margin. Proc. 39th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA15-G-138, p. 1-21.
(Comparison structural commonalities of Neogene fold-thrust belts of E Sundaland margin in NW and E Circum-Borneo: Bunguran, W Baram Delta, E Baram Delta, C and N NWSabah Trough, Sandakan, Tarakan, Kutai and W Sulawesi foldbelts. Belts along E Borneo margin of Sulu, Tarakan, Kutai and W Sulawesi are induced by crustal subduction; compressive ('failed subduction') NW margin exhibits stretched continental crust of S China Sea, deformed by strike-slip tectonics, contractional block uplift, gravitational gliding and thrusting, inversion tectonics and clay diapirism)

Kadarusman, A. (2010)- The origin of Borneo (Kalimantan) diamond: a summary. Proc. 39th Annual Conv. Indonesian Association Geologists (IAGI), Lombok 2010, p. 1-5.
(online at: https://www.iagi.or.id/web/digital/12/2010_IAGI_Lombok_The-Origin-of-Borneo.pdf)

(Review of literature on Kalimantan diamonds. Primary host for diamonds still not identified. Kalimantan diamonds likely related to Kimberlite Clan rocks that originated in cratonic environment)

Kamiludin, U. & Y. Darlan (2005)- Keterdapatan emas letakan dan ikutannya di perairan Delta Kapuas, Pontianak, Kalimantan Barat. J. Geologi Kelautan 2, 3, p. 1-8.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/viewFile/123/113)
('Presence of gold placers in the waters of the Kapuas Delta, Pontianak, West Kalimantan'. Presence of gold placers, associated with Ag, Cu, Pb, Zn and Sn in offshore sediments originating from Kapuas River. Primary source probably Sintang intrusives)

Kamiludin, U., Y. Darlan & H. Kurnio (2008)- Sebaran endapan kuarsa di perairan Delta Kapuas, Pontianak, Kalimantan Barat. J. Geologi Kelautan 6, 3, p. 135-145.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/157/147)
('Distribution of quartz deposits in the waters of the Kapuas Delta, Pontianak, West Kalimantan'. Study of recent sands of Kapuas delta with high % quartz)

Kamiludin, U., I Wayan Lurga & S. Hakim (2003)- Sedimen permukaan dan kandungan mineralnya di perairan Pontianak, Kalimantan Barat. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 13, 143, p. 57-66.
('Surface sediment and mineral content in the waters of Pontianak, West Kalimantan'. Recent sediments off Pontianak dominated by quartz (from Sukadana granite and Kempari Sst Fm?). Heavy minerals include magnetite, hematite, cassiterite, pyrite, etc.)

Karyono, H.S. (1988)- Typologie de structures mineralisees du Bassin de Kalan, Kalimantan de l'Ouest, Indonesie; aspect tectonique et controle structural de mineralisations d'uranium. Doct. Thesis, Universite Louis Pasteur, Strasbourg, p. 1-202. *(Unpublished)*
('Mineralized structures of the Kalan Basin, W Kalimantan; tectonic aspects and structural control on uranium mineralizations')

Karyono, H.S. (1991)- Analisis kontrol tektonik pada vein mineralisasi di Bukit Eko, Kalan, Kalimantan Barat. Proc. 20th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 115-128.
('Analysis of tectonic control on vein mineralization at Bukit Eko, Kalan, W Kalimantan')

Karyono, H.S. & M. Ruhland (1990)- Use of multiscalar processing of remotely sensed data in Kalan fracturation networks West Kalimantan, Indonesie for future mineralization research. ISPRS J. Photogrammetry and Remote Sensing 45, p. 428-441.
(Kalan area in C Kalimantan N of Schwaner Mts with 3000-4000m thick Permo-Carboniferous (or younger?; JTvG) low metamorphic sediments, surrounded by Cretaceous tonalitic intrusives. Two periods of tectonic deformation (1) plastic deformation, forming schistosity in metapelite, fracture cleavage in metasilt and regional folding (N70°E average axial direction; bedding planes av. strike N50°E, dip 50°S). With uranium mineralisation in fractures and schistosity; (2) brittle deformation that did not cause any extensive bed sliding, fracturing, etc. Fracture patterns may be result of large 'Kalan alignment' NE-SW sinistral strike-slip fault)

Kemmerling, G.L.L. (1915)- Topographische en geologische beschrijving van het stroomgebied van de Barito, in hoofdzaak wat de Doesoenlanden betreft. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2), 32, p. 575-641 and p. 717-772.
(online at: https://resolver.kb.nl/resolve?urn=MMUBA13:001661001:pdf)
('Topographic and geological description of the Barito drainage area, in particular the Dusun lands'. Mainly geographic description and review of stratigraphy. With 1:750,000 scale geologic map)

Khan, A.A. (2018)- An appraisal of the tectonic evolution of SW Borneo constraints from petrotectonic assemblage and gravity anomaly. Bull. Geological Society Malaysia 66, p. 47-56.
(online at: https://gsm.org.my/products/702001-101756-PDF.pdf)
(Petrotectonic assemblages suggest early crust of SW Borneo evolved from depleted basaltic to enriched andesitic composition of intra-oceanic subduction melts and has undergone delamination. Due to intrusion and lateral

spreading of hot upper mantle, lower crust has undergone partial melting, resulting in extrusion of tholeiitic magma into overlying basins. E-W trending Pre-Carboniferous inlier surrounded by Cretaceous intrusives and volcanics in Schwaner Mountains mark start of Cretaceous collision episode. Widespread oceanic rock assemblages, ophiolites, meta-sedimentary and igneous rocks in NW-SE zone signify derivation from paleo-ocean basin closure. Deformed Cretaceous flysch forms accretionary complex as dominantly Tertiary accretionary wedge to N. Indentation of Luconia micro-continent onto SW Borneo peri-continent edge after subduction had ceased. Sibu high segment of Luconia Block. Collision and subduction between Luconia micro-continent and SW Borneo peri-continent evolved "Sarawak Suture" and "Continental Arc")

Kim, I.J. (2005)- Occurrence of gold deposits of the Tumbang Lapan area of the Middle Kalimantan, Indonesia. Economic and Environmental Geology (Korean Soc. Economic Environmental Geology) 38, 3, p. 347-353. *(In Korean, with English summary)*
(C Kalimantan Tumbang Lapan area (along tributary of Kahajan River) with Permian- Carboniferous Pinoh Metamorphic rocks, Cretaceous granites. Faults with gold-bearing hydrothermal quartz veins)

Kim, I.J. & J.H. Lee (2006)- Geochemical exploration for the stream sediments of the Tumbang Mirih in the Middle Kalimantan, Indonesia. Economic and Environmental Geology (Korean Soc. Economic Environmental Geology) 39, 3, p. 301-328. *(In Korean, with English summary)*
(Common gold in Quaternary stream samples in Tumbang Mirih area in C Kalimantan)

Kim, I.J., W.S. Kee, K.Y. Song, B.G. Kim, S.R. Lee & G.H. Lee (2004)- Geology of the Kualkulun in the Middle Kalimantan, Indonesia: I. Stratigraphy and structure. Economic and Environmental Geology (Korean Soc. Economic Environmental Geology) 37, 6, p. 437-457. *(In Korean, with English summary)*
(online at: https://www.kseeg.org/journal/view.html?pn=search&uid=505&vmd=Full)
C Kalimantan Kualakulun area (area Kahayan River near Tewah, N of Palangkaraya) with Permian-Carboniferous Pinoh Metamorphic rocks (mica-schists, etc.), and Cretaceous Sepauk plutonics of Sunda shield, ovelain by Late Eocene Tanjung Fm (fluvio-delta plain deposits of S-ward flowing system, some coal, pebbles in conglomerate mainly vein quartz, changing upward into shallow marine environment), Oligocene Malasan Volcanics and Oligocene- E Miocene Sintang volcanics. Four main deformational phases)

Kim, I.J., G.H. Lee, D.L. Cho, S.R. Lee & S.R. Lee (2004)- Geology of the Kualkulun in the Middle Kalimantan, Indonesia: II. Mineralogy and geochemistry. Economic and Environmental Geology (Korean Soc. Economic Environmental Geology) 37, 6, p. 459-475. *(In Korean, with English summary)*
(online at: https://www.kseeg.org/journal/view.html?pn=search&uid=506&vmd=Full)
(C Kalimantan Cretaceous Sepauk plutonic rocks calk-alkaline S-type granites, with K-Ar ages of biotite granite 100.5- 106.5 (Albian), med-grained granitoids 91.9- 102.6 Ma. Oligocene Malasan Volcanics intermediate dacitic pyroclastics and minor lavas of subalkaline series with K-Ar ages 31.5- 36.8 Ma. Oligocene- E Miocene Sintang intrusives are basic-intermediate basalts and trachyandesite with K-Ar ages 24.6-34.5 Ma)

Kim, I.J. & J.H. Lee (2006)- Occurrence of placer gold deposits from the Takaoi Area of the Middle Kalimantan, Indonesia. Economic and Environmental Geology (Korean Soc. Economic Environmental Geology) 39, 2, p. 191-212. *(in Korean, with English abstract and figure captions)*
(online at: https://www.kseeg.org/journal/view.html?pn=search&uid=427&vmd=Full)
(Placer gold deposits in Takaoi area in unconsolidated fluvial deposits, unconformably over Carboniferous-Permian schists and Cretaceous granodiorite. Source rock of gold grains is vein quartz)

Kleibacker, D., R. Tasrianto & A. Saripudin (2015)- Long distance migration in Central Kalimantan: a solution to the Barito dilemma? Proc. 39th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA15-G-085, p. 1-13.
(online at: www.researchgate.net/publication/286919892_Long_Distance_Migration_in_Central_Kali Etc.)
Previous basin models concluded that 80 GBO and >100 TCF of gas (ConocoPhillips: ~66 GBO and ~70 TCF gas from Eocene Tanjung coals) should have been generated in Barito foreland basin, but only 200 MMBOE EUR discovered so far, in Tanjung Field and satellites. Apparent discrepancy coined 'Barito Dilemma' Possibility

of long distance secondary oil migration (~100km) out of latest Miocene to Plio-Pleistocene S Barito fore-deep towards C Kalimantan Palangkaraya PSC suggested by oil seep(s))

Kloos, J.H. (1866)- Vorkommen und Gewinnung des Goldes auf der Insel Borneo. Tijdschrift voor Nederlandsch Indie 28, p. 207-216.
('Occurrence and exploitation of gold on the island of Borneo'. Brief review, observing gold present across much of Borneo, but mainly at W coast (Kapus area) and Sarawak. No maps or figures)

Kobayashi, T. (1973)- On the history and classification of the fossil Conchostraca and the discovery of Estheriids in the Cretaceous of Borneo. In: T. Kobayashi & R. Toriyama (eds.) Geology and Palaeontology of Southeast Asia 13, Tokyo University Press, p. 47-72.
(Upper Cretaceous small fresh-water crustacean shells from shales near Rantaulajung, Riam Kanan River, Meratus Mts front, E of Martapura, SE Kalimantan. Mainly of species Pseudocyclograpta hashimotoi n.sp.)

Koolhoven, W.C.B. (1933)- Het primaire voorkomen van den Zuid-Borneo diamant (voorlopige mededeeling). De Mijningenieur 14, 8, p. 138-144.
('The primary occurrence of the South Borneo diamonds (preliminary communication)'. Diamonds have been mined in SE Borneo for centuries. Base of widespread M Cretaceous Manunggul Fm (locally with Orbitolina) unconformable over all older formations, with transgressive basal conglomerates containing older rocks and also detrital diamonds. (but Cretaceous basal conglomerates directly on Meratus peridotites lack diamonds). Eocene conglomerates also diamond-bearing. Peridotitic 'Pamali Breccia' with small diamonds proposed as primary diamond source. With map of diamond-bearing areas along NW side Meratus Mts, from Krol (1920))

Koolhoven, W.C.B. (1935)- Het primaire voorkomen van den Zuid-Borneo diamant. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 11, p. 189-232.
('The primary occurrence of the South Borneo diamonds'. Discussion of SE Borneo diamond occurrences, mainly in Upper Cretaceous and younger clastics at NW side of Meratus Mts. Thought thought to be derived from peridotitic 'Pamali Breccia'. Conclusion disputed Bergman et al. (1987), Burgath & Mohr (1991), etc.)

Kraeff, A. (1955)- A contribution to the petrology of the young extrusive and intrusive rocks of the river basin of S. Kajan (NE Borneo). Djawatan Geologi (Indonesia Geol. Survey), Publikasi Keilmuan, Seri Petrologi 29, p. 11-19.

Krause, P.G. (1899)- Uber Lias von Borneo. Sammlungen Geologischen Reichs-Museums Leiden, ser. 1, 5, p. 154-168.
(online at: www.repository.naturalis.nl/document/552379)
(also in Jaarboek Mijnwezen Nederlandsch Oost-Indie 25, Wetenschappelijk Gedeelte, p. 28-42).
('On the Liassic of Borneo'. Upper Liassic macrofossils from slightly bituminous dark shales interbedded with lighter sandstones in Sambas region, NW Kalimantan, collected by Wing Easton. With ammonites of Harpoceras radians group and possible Inoceramus)

Krause, P.G. (1899)- Uber Tertiare, Cretaceische und altere Ablagerungen aus West-Borneo. Sammlungen Geologischen Reichs-Museums Leiden, E.J. Brill, ser. 1, 5, p. 169-218.
(online at: www.repository.naturalis.nl/document/552412)
('On Tertiary, Cretaceous and older deposits from West Borneo'. Brief, early description of W Borneo Mesozoic and Tertiary rocks and fossils from Molengraaff collection. Includes discussion of Cretaceous limestones with Orbitolina concava, as first reported by Von Fritsch (1875). No locality maps. Also in Jaarboek Mijnwezen Nederlandsch Oost-Indie 1899, Wetenschappelijk Gedeelte, 2, p. 1-52)

Krause, P.G. (1904)- Die Fauna der Kreide von Temojoh in West-Borneo, 1 Teil. Die Ammoniten. Sammlungen Geologischen Reichs-Museums Leiden, E.J. Brill, ser. 1, 7, p. 1-28.
(online at: www.repository.naturalis.nl/document/552403)
('The Cretaceous fauna from Temojoh, W Borneo'. Cretaceous ammonites from slightly bituminous dark grey limestone at Temojoh village on the Landak River, collected by Koperberg in 1895. Associated with rel. small

and thin-shelled gastropods, bivalves, plant remains and crustacean remnants. Ammonites mainly Knemoceras pinax n.sp., also Schloenbachia sp. (Knemoceras pinax assigned to genus Engoceras, a Late Albian- E Cenomanian genus that lived in rel. shallow shelfal marine facies in Tethys region (Bujitor 2010); JTvG))

Krause, P.G. (1911)- Uber unteren Lias von Borneo. Sammlungen Geologischen Reichs-Museums Leiden, E.J. Brill, ser. 1, 9, 1, p. 77-83.
(online at: www.repository.naturalis.nl/document/552428)
('On Lower Liassic from Borneo'. Jurassic faunas reported earlier from W Borneo were mainly of Late Liassic M and U Jurassic ages (Martin, Vogel, Bullen Newton). New discovery of Early Jurassic ammonite in concretion collected by Van Dijk in float in area mapped by Wing Easton (1904) as mainly Paleozoic- Triassic outcrop, between Gunung Bentok, G, Sanggan and G, Melangsar. Ammonite most similar to E Liassic Aegoceras ziphus, but here described as Aegoceras borneense n.sp.)

Krekeler, F. (1932)- Over een nieuw voorkomen van fossielhoudend Palaeozoikum in Midden-West Borneo (voorlopige mededeeling). De Mijningenieur 13, p. 167-172.
('A new occurrence of fossiliferous Paleozoic in the central part of West Borneo (provisional report)'. See also English translation in Haile (1955). First description of fusulinids and brachiopods in W Kalimantan- W Sarawak border area, S of Kuching. Limestones associated with volcanic rocks and suggestive of Late Carboniferous age. Strike of folded, steeply dipping Late Paleozoic- Triassic rocks predominantly N-S. Overlain by Triassic volcanoclastics with Monotis salinaria (Fusulinid limestone subsequently named Terbat Lst by Haile (1954), and its fusulinids identified as E Permian by Cummings (1955))

Krekeler, F. (1932)- Critische beschouwingen over een nieuwe door L.H. Krol gepropageerde kaarteringsmethode voor de Mesozoische formaties in den Nederlandsch-Indischen Archipel en omgeving. De Mijningenieur 4, p. .
('Critical review of a new mapping method proposed by L.H. Krol (1930) for the Mesozoic formations in the Netherlands-Indies Archipelago and surroundings')

Krekeler, F. (1933)- Aanvullende mededeelingen omtrent het voorkomen van fossielhoudend Palaeozoikum in West Borneo. De Mijningenieur 14, 11, p. 191-192.
('Supplementary report on the occurrence of fossiliferous Paleozoic in West Borneo'. See also English translation in Haile (1955). Brachiopod-bearing beds from dark claystone in volcanic series in Lower Sadong R area previously interpreted as Paleozoic also contains Halobia and now believed to be Triassic in age. Fusulinid beds from marly limestones in core of same anticline examined by Tan Sin Hok and provisionally identified as Staffella sp., believed to be same species (and same volcanoclastic facies) as U Carboniferous- Permian of Jambi, Sumatra (= E Permian?; JTvG))

Krekeler, F. (1955)- A new occurrence of fossiliferous Paleozoic rocks in the central part of West Borneo (provisional report). In: N.S. Haile (ed.) Geological accounts of West Borneo, Geological Survey Department, British Territories in Borneo, Kuching, Bull. 2, p. 7-14.
(English translation of Krekeler (1932) original Dutch paper above)

Krekeler, F. (1955)- Supplementary report on the occurrence of fossiliferous Paleozoic in West Borneo. In: N.S. Haile (ed.) Geological accounts of West Borneo, Geological Survey Department, British Territories in Borneo, Kuching, Bull. 2, p. 15-16.
(English translation of Krekeler (1933) original Dutch paper above)

Krokel, F. (1923)- Gesteine aus dem Gebiet des Boelangan-Flusses in Nordoestlichen Borneo. Sammlungen Geologischen Reichs-Museums Leiden, ser. 1, 10, 3, p. 141-182.
(online at: www.repository.naturalis.nl/document/552377)
('Rocks from the area of the Bulungan River in NE Kalimantan'. Description of rocks collected in the Bulungan area in NE Kalimantan by geologist Herbordt of BPM in 1910-1911. Includes biotite granite, quartz-diorite, dacite, augite-andesite, andesite tuff, breccia, conglomerate, sandstone, siliceous shale (area revisited by the Midden Oost-Borneo Expeditie in 1925; see Witkamp (1927), M.G. Rutten (1947))

Krol, L.H. (1916)- Korte beschrijving van enkele 'groote' diamanten, in den laatste tijd gevonden bij Tjampaka, afd. Martapoera, Residentie Zuider- en Oosterafdeling van Borneo. Jaarboek Mijnwezen Nederlandsch Oost-Indie 44 (1915), Verhandelingen 1, p. 13-17.
('Brief description of some 'large' diamonds found recently near Cempaka, Martapura'. In 1912-1915 stones of 12, 17 and 24 carats found at Danau Pumpung, S of Cempaka. Yellowish color, octohedral shape)

Krol, L.H. (1919)- De Borneo diamant, haar voorkomen, winning en bewerking. De Ingenieur 1919, September, p. 707-709.
('The diamonds of Borneo, its occurrences, exploitation and processing'. Summary of presentation)

Krol, L.H. (1920)- Over de geologie van een gedeelte van de Zuider- en Oosterafdeling van Borneo. Jaarboek Mijnwezen Nederlandsch Oost-Indie 47 (1918), Verhandelingen 1, p. 281-367.
(Geology of SE Borneo, E of Banjarmasin, including Meratus- Bobaris Mountains. Cenomanian folding episode with 'intrusions' of peridotites and metamorphism. With 1:100,000 geologic map on 6 sheets)

Krol, L.H. (1922)- Bijdrage tot de kennis van den oorsprong en de verspreiding der diamant-houdende afzettingen in Zuidoost-Borneo en van de opsporing en winning van den diamant. Borneo. Jaarboek Mijnwezen Nederlandsch Oost-Indie 49 (1920), Verhandelingen 1, p. 250-304.
('Contribution to the knowledge of the origin and the distribution of diamond-bearing deposits in SE Kalimantan and its exploitation'. Diamonds found in much of Kalimantan: W (Landak River. Kajan area), SE (Martapura), Upper Barito, etc. Mainly found in Quaternary river terraces and source rock still unclear (and also in ?Cenomanian and Eocene conglomerates). Mid-Cretaceous Cenomanian peridotites/ serpentinites believed to be most likely diamond source, but not all rivers draining serpentinite terrains diamond-bearing)

Krol, L.H. (1923)- Dari hal intan. Uitgave Commissie voor de Volkslectuur, Weltevreden (Batavia), serie No. 555, p. 1-57.
('From the diamond situation(?)'. Popular booklet in Indonesian language on diamonds, including mining localities and diamond processing in Martapura area, Borneo)

Krol, L.H. (1927)- On the occurrence of the Danau formation in Martapura (S.E. Borneo). Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 30, 3, p. 338-340.
(online at: https://dwc.knaw.nl/DL/publications/PU00015449.pdf)
(Critique of Rutten (1926) paper of same title. In Meratus Mts Alino and Waringin layers (including E Cretaceous limestones with Orbitolina) affected by contact metamorphism by 'intra-Cenomanian intrusives' and may also have affected (Triassic-Jurassic?) Danau Fm radiolarites)

Krol, L.H. (1929)- Over het voorkomen der Danau-formatie in Martapoera (Z.O. Borneo). Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 35, p. 988-990.
('On the occurrence of the Danau Fm in Martapura, SE Kalimantan'. Dutch version paper above)

Krol, L.H. (1929)- Plooiingsrichtingen in het Mesozoicum van West- (Centraal en Zuid-Oost?) Borneo. De Mijningenieur 10, 9, p. 200-202.
('Folding directions in the Mesozoic of West (Central and Southeast?) Borneo'. In upper reaches of Sekayam River, Sarawak border area, strike directions of sediments with Triassic fossils around N 20° W, while Cretaceous beds strike N 60°(E?). Triassic with Monotis salinaria, M. inaequivalvis, Pseudomonotis ochotica, Steinmannites. Lower Cretaceous with Orbitolina, Vola, Micrabacia, Arca cenomanensis, U Cretaceous with Discorbina canaliculata (or Rosalina linnei= Globotruncana). Jurassic limestone of Bau, Sarawak at N 60° W (Krol's data questioned by Wing Easton (1929), Mijningenieur 10, 12, p. 271-272))

Krol, L.H. (1929)- Radiolarienhoudende gesteenten van Borneo. De Mijningenieur 10, 11, p. 243-248.
('Radiolarian-bearing rocks of Borneo'. Radiolarian-bearing rocks known from various parts of Kalimantan and Sarawak, probably of Triassic, Jurassic and Cretaceous ages. Three groups: (1) with 'normal' clastic sediments and limestones; (2) as siliceous rocks (cherts, jaspis, radiolarites), (3) conglomerates with clasts of older radiolarites. With appendix by Tan Sin Hok on radiolaria identifications (not very specific))

Krol, L.H. (1930)- De Mesozoische plooiingen op Borneo, Nederlandsch-Indie en omgeving en hunne waarde voor het kaarteren van onbekende, fossiellooze gebieden. De Mijningenieur 11, 4, p. 68-89.
('The Mesozoic folding in Borneo, Netherlands Indies and surrounding areas and its value for mapping unexplored non-fossiliferous areas'. English translation in Haile (1955, p. 17-38). Krol proposes an intereting tectonic model, in which directions of folding are used to date ages of Mesozoic folding in unfossiliferous regions: Triassic N20°W, Cretaceous N60°E and Jurassic N60°W. (while the idea certainly has merit, It was brutally publically criticized by his colleagues at the Dienst van den Mijnbouw in Bandung; JTvG))

Krol, L.H. (1931)- Mijnbouwkundig-geologisch onderzoek in West-Borneo. Jaarboek Mijnwezen Nederlandsch-Indie 59 (1930), p. 48-54.
('Mining-geological survey in W Borneo'. Status report of West Kalimantan mapping by geological survey)

Krol, L.H. (1955)- The Mesozoic folding in Borneo, Netherlands Indies, and the surrounding territories and its value for mapping unexplored non-fossiliferous area. In: N.S. Haile (ed.) Geological accounts of West Borneo- translated from the Dutch, Geological Survey Department, British Territories in Borneo, Kuching, Bull. 2, p. 17-38
(Translation of Krol (1930) Dutch-language paper)

Kueter, N., J. Soesilo, Y. Fedortchouk, F. Nestola, L. Belluco, J. Troch, M. Walle, M. Guillong, A. Von Quadt & T. Driesner (2016)- Tracing the depositional history of Kalimantan diamonds by zircon provenance and diamond morphology studies. Lithos 265, p. 159-176.
(Diamonds in alluvial deposits in Kalimantan not accompanied by kimberlite or lamproite indicator minerals. Meratus Mts 'headless' diamond deposits. Provenance analysis of diamond-bearing 'Dahor Fm' Pleistocene river channel material and from outcrops of diamond-bearing Campanian-Maastrichtian Manunggul Fm. Diamonds from Meratus and Sanggau area look like classical kimberlite-type diamonds. Inclusions of olivine, coesite, garnet suggest P at formation 4.8-6.0 GPa and T of 930-1250°C. Zircons only small subset of kimberlitic affinity. Trace elements (U, Th and Eu) suggest eclogitic source for zircons. Data support model for Kalimantan diamonds of emplacement in N Australian Craton, then spread passively through SE Asia by terrane migration during Gondwana breakup. Diamond-bearing lithologies metamorphosed by terrane amalgamation events, destroying indicative mineral content. Orogenic uplift liberated diamond-content into new, autochthonous placer deposits)

Kusnaeny, K. (1968)- Die Manganerzvorkommen in West-Kalimantan (Indonesien) und Orissa (Indien). Geologisches Jahrbuch 86, p. 655-692.
('The manganese ore occurrences in W Kalimantan (Indonesia) and Orissa (India)'. On mineralogy of manganese ores of W Kalimantan. Mineralization tied to veins with rhodonite and piemontite in volcanic rocks, subsequently enriched by lateritic weathering. Very little on geological setting)

Lai, C.K., A. Idrus, M.F. Rosana, C. Chelle-Michou, S. Meffre, A. Agangi et al. (2020)- Mineralization of Kalimantan gold belt- a geochronological perspective. 12th MGEI Annual Convention. Jakarta.

Leach, T.M. (2002)- Alteration and mineralisation in the Busang gold prospect, East Kalimantan, Indonesia. Proc. AusIMM New Zealand Branch Annual Conference, 150 Years of Mining, Auckland 2002, p. 233-238.

Le Bel, L., J.L. Nagel, P. Lecomte & A. Muchsin (1985)- CTA39A, Follow-up work in the Longlaai area, NE Kalimantan (The Longlaai Project)), Phase I. Bureau Recherches Geologiques et Minieres (BRGM) Report 86, p. 1-107. *(Unpublished)*
(Long Laai gold prospect associated with E Miocene (22.6 Ma) adamellite)

Lefevre, J.C., J. Collart, M. Joubert, J.L. Nagel & A. Paupy (1982)- Geological mapping and mineral exploration in North-East Kalimantan 1979-1982; Final Report. Bureau Recherches Geologiques et Minieres (BRGM) and Direktorat Jendral Pertambangan Umum, BRGM Report 82RDM007AO, p. 1-120.
(Unpublished geological survey report, available in Geological Survey library, Bandung. Geological mapping and geochemical sampling program in area W of Tarakan Basin. Area dominated by tightly folded and faulted

Cretaceous- E Eocene flysch-type sediments, unconformably overlain by subhorizontal, rel. thin M-U Eocene transgressive clastics series with reefal limestones, etc. Important volcanic phase in Miocene)

LeRoy, L.F. & G.O. Croes (1880)- Verslag van een onderzoek der lood en zinkertsafzetting aan de Kandawangan Rivier, in de Westerafdeeling van Borneo. (Met een naschrift van C.J. van Schelle). Jaarboek Mijnwezen Nederlandsch Oost-lndie 1880, 2, p. 3-13.
('Report on the lead and zinc ore deposit on the Kandawangan River in West Kalimantan. With a postscript by van Schelle'. Early report on lead and zinc ore occurrence in SW Kalimantan, where high grade ore was found by locals near Marouw on Kandawangan River, 14 km S of Ketapang border at Tanjung. Presence of ore confirmed in this paper at two sites, but not in situ as lode or vein (see also Cretier 1879))

Li, S. (2024)- Petrogenesis of Borneo's Triassic granitoids in SE Asia and crustal growth of the southeastern margin of Pangea-Eurasia Continent. Bull. Mineralogy Petrology and Geochemistry (China) 43, 4, p. 746-754.
(in Chinese with English Abstract)
(online at: https://www.sciengine.com/BMPG/doi/10.3724/j.issn.1007-2802.20240027)
(During Triassic, SE Asia continent continually grew around SE of Eurasia Continent. Borneo Island is largest block in central SE Asia and considered to reflect convergence and collision of several small continental blocks in Mesozoic time. W Borneo Triassic granitoids in Kuching and NW Schwaner zones have mixed characteristics of Indochina granitoids (with ancient crust signature) and N Borneo granitoids with juvenile crust signature (indicating juvenile mantle materials had developed here since Triassic. Zircons of Borneo granitoids show two-stage ages (~240 and 210 Ma) and positive ε Hf(t) values, indicating two-stage contributions of juvenile components. Autochthonous crustal growth of the Borneo terrane ialong SE margin of Pangea-Eurasia Continent and further crustal growth of Eurasia Continent margin (Sumatra, Java, and Borneo) to SE. Crustal growth not single subduction-accretion process of Paleo-Pacific or Tethys systems, as traditionally thought, but may be related to exchange of matters and energy between Tethys Ocean and Panthalassa Ocean)

Li, S., S. Sun, X. Yang, W. Sun & Z. Wu (2022)- Detrital zircon U-Pb age perspective on the sediment provenance and its geological significance of sandstones in the Lamandau region, SW Borneo, Indonesia. J. Oceanology Limnology 40, p. 496-514.
(online at: www.researchgate.net/publication/356894779_Detrital_zircon_U-Pb_age_Memoranda on the iron-ore occurrences Pulau Sebuku and investigation of thr iron-ore deposit Kotawaringinperspective_on Etc.)
(SW Borneo block oldest continental fragment of Borneo. Detrital zircon ages from Ketapang Complex sandstones six main populations: 2476-2344 Ma, 2016-1831 Ma, 1296-759 Ma, 455-406 Ma, 262-210 Ma, and 187-78 Ma. Youngest age 78 Ma, indicating maximum depositional age of sandstones is Campanian. Permian-Late Cretaceous detrital zircons interpreted as derived from nearby Schwaner Mountains and tin belt granitoids in SE Asia. Archean-Carboniferous detrital zircons have age spectra similar to those of NW Australia, indicating SW Borneo block was located on NW margin of Australia in Paleozoic)

Li, S., X. Yang & W. Sun (2015)- The Lamandau IOCG deposit, southwestern Kalimantan Island, Indonesia: evidence for its formation from geochronology, mineralogy, and petrogenesis of igneous host rocks. Ore Geology Reviews 68, p. 43-58.
(online at: www.researchgate.net/profile/Xy-Yang/publication/284392570_ Etc.)
(Lamandau Fe-Cu-Au deposit in SW Kalimantan related to Late Cretaceous diorite porphyries with zircon U-Pb ages of ~79 and 82 Ma. These arc-related igneous rocks may be tied to Pacific Plate subduction, but in extensional environment, related to rollback of Pacific plate. Magnetite compositions of low REE and high Cu-Au indicate possible Iron oxide copper-gold (IOCG) mineralization system)

Lohr, J.A., (1914)- Mededelingen over de geologie der Doesoenlanden. Verslagen Geologisch Mijnbouwkundig Genootschap Nederland Kolonien, Geol. Sectie, I, p. 174-175.
('Notes on the geology of the Dusun Lands', upper Barito Basin, Kalimantan)

Loth, J.E. (1920)- Verslag over de resultaten van geologisch- mijnbouwkundige verkenningen en opsporingen in de residentie Wester-Afdeeling van Borneo. Jaarboek Mijnwezen Nederlandsch-Indie 47 (1918), Verhandelingen 1, p. 224-280.

('Results of geological- mining reconnaissance in the West Borneo Residency' With 1:500,000 geological map and cross-sections on 2 sheets. Most of area, from Schwaner Mts in S, with granites overlain by rel. undeformed Cretaceous- Eocene sediments. In N WNW-ESE trending Semitau hills with folded deep-water Danau Fm shales with radiolarian cherts, unconformably overlain by less deformed, sandy Cretaceous (Cenomanian with Orbitolina and Senonian brackish-water Melawi Group). In far North near Sarawak border folded slates of unknown age. Rel. common Tertiary intrusives and volcanics)

Lumadyo, E., R. McCabe, S. Harder & T. Lee (1993)- Borneo: a stable part of the Eurasian margin since the Eocene. In: B.K. Tan et al. (eds.) 7th Regional Congress Geology Mineral Energy Resources of SE Asia (GEOSEA VII), Bangkok 1991, J. Southeast Asian Earth Sciences 8, p. 225-232.
(Paleomagnetic studies suggest SE Borneo has been at present position since Eocene, and no large Tertiary counterclockwise rotation was observed)

Macke, C.A.F. (1921)- Het voorkomen van ijzererts op de eilanden van de Poeloe Laoet groep en op de tegenoverliggende kuststreek van Borneo. Verslagen Mededelingen Dienst Mijnwezen 9, Batavia, p.
('The occurrence of iron ore on the islands of the Pulau Laut group and the adjacent coastal area of Borneo')

Macke, C.A.F. (1924)- Resultaten van het geologisch-mijnbouwkundig onderzoek in Zuidoost Borneo. Jaarboek Mijnwezen Nederlandsch Oost-Indie, 50 (1921), Verhandelingen 1, p. 269-303.
('Results of the geological mining investigation in southeast Borneo'. Early geological-mining survey of area in SE Borneo: Pulau Laut, P. Sebuku and the Tanah Bumbu adjacent to mainland of SE Kalimantan. Oldest rocks include serpentinized peridotites, gabbros and quartz-diorites)

MacKinnon, K., G. Hatta, H. Halim & A. Mangalik (1996)- The ecology of Kalimantan. The ecology of Indonesia Series, vol. III, Periplus Editions, Singapore (also Oxford University Press), p. 1-870.

Margono, U., T. Soejitno & T. Santosa (1995)- Geological map of the Tumbangmanjul Quadrangle, Kalimantan, 1:250,000. Geological Research Development Centre (GRDC), Bandung.

Margono, U., Sutrisno & E. Susanto (1997)- Geologic map Kandangan sheet, Kalimantan, 1: 250.000. Geological Research Development Centre (GRDC), Bandung.

Martin, K. (1882)- Begeleidende woorden bij een geologische kaart van Borneo, geteekend door Von Gaffron. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 7, p. 16-22. *(also in Jaarboek Mijnwezen 1882, Wetenschappelijk Gedeelte, p.)*
('Text accompanying a previously unpublished geological map of Borneo made by Von Gaffron'. S Kalimantan map showing traverses made between 1843-1848; focused on mineral occurrences)

Martin, K. (1888)- Ueber das Vorkommen einer Rudisten fuehrenden Kreideformation im suedoestlichen Borneo. Sammlungen Geologischen Reichs-Museums Leiden, ser. 1, 4, 4, p. 117-125.
(online at: www.repository.naturalis.nl/document/552380)
('On the occurrence of a rudist-bearing Cretaceous formation in SE Borneo'. Rel. poorly preserved molds of Cretaceous rudists, collected by C. van Schelle in 'Patellina (=Orbitolina) marl' at Sebaruang River, a left tributary of Kapuas River (Danau Kloenten, Sungei Pangaringan, Sg. Limau Gulung, Sg. Djarikan). Identified as Sphaerulites and Radiolites (age interpreted by Martin to be Senonian, but Umbgrove (1938) considered this to be Cenomanian; JTvG)

Martin, K. (1888)- Ueber das Vorkommen einer Rudisten fuhrenden Kreideformation im sudostlichen Borneo. Jaarboek Mijnwezen Nederlandsch Oost-Indie 1888, Wetenschappelijk Gedeelte, p. 72-80.
('On the occurrence of a rudist-bearing Cretaceous formation in SE Borneo'. Reprint of Martin (1888))

Martin, K. (1889)- Die Fauna der Kreideformation von Martapoera. Sammlungen Geologischen Reichs-Museums Leiden, ser. 1, 4, p. 126-194.
(online at: www.repository.naturalis.nl/document/552423)

('The fauna of the Cretaceous formation of Martapura', SE Kalimantan. Marl-dominated U Cretaceous section with sandstones and conglomerates. With poorly preserved ammonites (Acanthoceras), common oysters (Ostrea martapuriensis, Ostrea ostracina), rudists (Sphaerulites, Radiolites), gastropods (incl. 8 species of Nerinea), brachiopods (Terebratula spp.), bivalves (Trigonia limbata, Vola, Cardium). Age probably Upper Cretaceous/ Senonian. With 7 plates)

Martin, K. (1889)- Die Fauna der Kreideformation von Martapoera. Jaarboek Mijnwezen Nederlandsch Oost-Indie 18, Wetenschappelijk Gedeelte, p. 1-74.
('The fauna of the Cretaceous formation of Martapura', SE Kalimantan. Reprint of Martin (1889) above)

Martin, K. (1889)- Versteinerungen der sogenanten alten Schieferformation von West Borneo. Sammlungen Geologischen Reichs-Museums Leiden, Ser. 1, 4, p. 198-208.
(online at: www.repository.naturalis.nl/document/552432)
('Fossils from the so-called Old Slate Formation of West Borneo'. Rare molluscs collected from shales by Van Schelle in 'Chinese districts' of W Borneo. Presence of Gervillia borneensis n.sp. and Corbula sp. probably indicate Cretaceous age (but Martin (1898) deemed these to be E Jurassic in age. See also Newton 1903, Vogel). With 2 plates)

Martin, K. (1889)- Versteinerungen der sogenanten alten Schieferformation von West Borneo. Jaarboek Mijnwezen Nederlandsch Oost-Indie 18 (1889), Wetenschappelijk Gedeelte, p. 75-85.
('Fossils from the so-called Old Slate Formation of West Borneo'. Reprint of Martin (1889)

Martin, K. (1889)- Untersuchungen uber den Bau von *Orbitolina* (*Patellina* auct.) von Borneo. Sammlungen Geologischen Reichs-Museums Leiden, Ser. 1, 4, p. 209-231.
(online at: www.repository.naturalis.nl/document/552418)
('Remarks on the structure of Orbitolina (= Patellina of earlier authors) from Borneo'. Early paper on mid-Cretaceous larger foram Orbitolina concava, called Patellina in earlier papers. Collected by Van Schelle on Seberuang River, a tributary of Kapuas River, Central Kalimantan)

Martin, K. (1889)- Untersuchungen uber der Bau von *Orbitolina* (*Patellina* auct.) von Borneo. Jaarboek Mijnwezen Nederlandsch Oost-Indie 18 (1889), Wetenschappelijk Gedeelte p. 86-108.
('Remarks on the structure of Orbitolina from Borneo'. Reprint of Martin (1889))

Martin, K. (1898)- Notiz uber den Lias von Borneo. Sammlungen Geologischen Reichs-Museums Leiden, ser. 1, 5, p. 253-256.
(online at: www.repository.naturalis.nl/document/552398)
('Note on the Lias of Borneo'. Follow-up on Krause (1897) discovery of Liassic rocks of W Kalimantan. New material collected by Wing Easton from shales-sands at Sungei Kerassiek near Sepang in Sambas not only contained poorly preserved ammonite Harpoceras radians, but also bivalve Gervillia borneensis (already described by Martin (1889), possibly from same area). No figures)

Martin, K. (1898)- Notiz uber den Lias von Borneo. Jaarboek Mijnwezen Nederlandsch Oost-Indie 27 (1898), Wetenschappelijk Gedeelte p. 33-36.
('Note on the Lias of Borneo'. Same as Martin (1898, above)

Martin, K. (1898)- Die Fauna der Melawi-Gruppe, einer Tertiaren (Eocanen?) Brackwasser-ablagerung aus dem innern von Borneo. Jaarboek Mijnwezen Nederlandsch Oost-Indie 27 (1898), Wetenschappelijk Gedeelte, p. 37-96.
('The fauna of the Melawi Group, a Tertiary (Eocene?) brackish-water deposit from the interior of Borneo'. Same as Martin, 1899)

Martin, K. (1899)- Die Fauna der Melawi-Gruppe, einer Tertiaren (Eocanen?) Brackwasser-ablagerung aus dem innern von Borneo. Sammlungen Geologischen Reichs-Museums Leiden, ser. 1, 5, p. 257-316.
(online at: www.repository.naturalis.nl/document/552430)

('The fauna of the Melawi Group, a Tertiary (Eocene?) brackish-water deposit from the interior of Borneo'. Descriptions of probably Late Eocene-age brackish-fresh water molluscs from Melawi and Kajan Rivers area, NW Kalimantan, collected by Wing Easton. Mainly species of bivalves Corbula (C. dajacensis), Cyrena (C. subrotundata, C. melaviensis) and gastropods Melania and Paludomus (P. gracilis, P. crassa); less common Arca melaviensis n.sp. Age indeterminate. With 2 plates)

Martin, K. (1899)- On brackish water-deposits of the Melawi in the interior of Borneo. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 1, p. 245-248.
(online at: https://dwc.knaw.nl/DL/publications/PU00014557.pdf)
(Molluscs collected by Wing Easton and Molengraaff in sediments of Melawi River area, Upper Kapuas, C Kalimantan, mainly fresh (Melania, Paludomus) or brackish water (Cyrena, Corbula), but also some shallow marine species. Age Tertiary, possibly Eocene)

Maryanto, S., Jamal & K.D. Kusumah (2014)- Mikrofasies batugamping Formasi Butanunggal di daerah Binuang, Kalimantan Selatan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 15, 4 (203), p. 195-204.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/58/60)
'Limestone microfacies of the Batununggal Fm in the Binuang area, S Kalimantan'. Microfacies of Early Cretaceous reefal limestone with Orbitolina (identified as Aptian-Albian Orbitolina oculata and O. primitiva) in Meratus Mts. Limestones occuring as olistoliths in Late Cretaceous- Paleocene Keramaian Fm (?))

Masdja, M. & S. Sastrawiharjo (1988)- Geochemical exploration for uranium deposits in the Kalan area, Kalimantan. In: Technical committee meeting on Uranium deposits in Asia and the Pacific: Geology and exploration; Jakarta 1985, Panel Proceedings Series, Int. Atomic Energy Agency, Vienna, p. 229-238.
(On 1971-1976 uranium exploration work in C Kalimantan by Indonesian (BATAN) and French (CEA) teams, identifying some mineralized outcrops and boulders in Kalan area)

Matano, A., A. Idrus & L.D. Setijadji (2026)- Bauxite characteristics based on regional geology in Ketapang, West Kalimantan, Indonesia. In: J.T.S. Sumantyo & P. Razi (eds.) Advances in Geoscience and Remote Sensing Technology. Proc. 2nd International Conference Geoscience and Remote Sensing Technology (IC-GEOREST 2024), Padang 2024, Springer Singapore, p. 624-645.
(Bauxite present in W Kalimantan, especially in Ketapang Regency, at Labai, Sandai, Taya, Air Upas, etc., in S Schwaner Mountains. Highest Al2O3 content in bauxites derived from the Laur Granite and Sepauk Tonalite)

Mazur, S., C. Green, M. Stewart, R. Bouatmani & P. Markwick (2011)- Rotation of Borneo revisited- new inferences from gravity data and plate reconstructions. Proc. Petroleum Geology Conference Exhibition (PGCE), Kuala Lumpur 2011, Warta Geologi (Newsletter Geological Society Malaysia) 37, 1, p. 52. *(Abstract only)*
(online at: https://gsmpubl.files.wordpress.com/2014/09/warta37_1.pdf)
(Paleomagnetic data of 50-40° CCW rotation of Borneo since 80 Ma disputed. Large gravity lineaments running E-W through Kalimantan and into Sea of Kalimantan(?) as well as ENE-WSW gravity anomalies across Java Sea and into Sumatra are evidence of crustal continuity that is hard to reconcile with rotation model of Hall (2002). Alternative plate model predicts 12-13° of CW rotation for Kalimantan and Sarawak relative to S China since 30 Ma. N Sabah is separated from Sarawak and Kalimantan by plate boundary, implying common tectonic history for N Sabah and S Palawan and separate evolution until M Miocene docking of Palawan Block to N margin of Borneo and Cagayan Ridge)

McManus, J. & R.B. Tate (1976)- Volcanic control of structures in North and West Borneo. Proc. SEAPEX Offshore South East Asia Conference, Singapore 1976, 5, p. 1-14.
(Volcanic and epiclastic rocks rel. widespread in N and W Borneo, and relationship between volcanism, fracture patterns and sedimentation)

Mildan, D., A.S. Subandrio, P. Bangun & D. Sunjaya (2021)- Contrasting genesis of lateritic bauxite on granodioritic and andesitic rocks of Mempawah area, West Kalimantan. IAGI Journal 1, 2, p. 81-88.
(online at: https://journal.iagi.or.id/index.php/IAGIJ/article/view/33/306)

(Lateritic bauxite deposits in Mempawah area, W Kalimantan, formed by chemical weathering of Cretaceous granodioritic rock and hydrothermal alteration of andesitic rocks)

Milsom J. (1997)- The gravity field of Borneo and its region. Bull. Geological Society Malaysia 40, p. 21-36.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1997003.pdf)
(Review of gravity data on and around Borneo. Gravity data tends to support thin (<15km), probably oceanic crust under Makassar Straits (and Kutai Basin?). Isostatic effects dominate gravity field in Borneo region, with crust showing ability to support loads for short periods only and even then only in relatively small areas such as Darvel Bay)

Mohler, W.A. (1946)- Uber das Vorkommen von *Trocholina* Paalzow in der Unterkreide von West-Borneo. Eclogae Geologicae Helvetiae 39, 2, p. 300-302.
(online at: https://www.e-periodica.ch/digbib/view?pid=egh-001:1946:39#327)
('On the occurrence of Trocholina Paalzow in the Lower Cretaceous of Borneo'. First report of small benthic foram Trocholina in SE Asia, from Lower Cretaceous of Seberuang River, Kapuas drainage basin, W Kalimantan. Associated ammonites described by Von Koenigswald 1939. Material collected by Zeijlmans 1939, who noted similarities of this material with Dusun Pobungo Cretaceous of Jambi, Sumatra)

Molengraaff, G.A.F. (1895)- De Nederlandsche expeditie naar Centraal-Borneo in 1894. Handelingen 5e Nederlandsch Natuur- Geneeskundig Congres, 4, p. 1-9.
(First summary report on 1894 Central Kalimantan geological expedition)

Molengraaff, G.A.F. (1900)- Geologische verkenningstochten in Centraal-Borneo. Maatschappij ter bevordering van het natuurkundig onderzoek der Nederlandsche kolonien, Brill, Leiden, p. 1-529 + Appendix 56p. + Atlas 22 plates.
(Text volume online at: http://openlibrary.org/works/OL7839000W/Borneo-expeditie
or at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB21:039075000:00532) (without Atlas)
('Geological reconnaissance trips in Central Borneo'. Classic pioneering geologic reconnaissance across C Kalimantan in 1993-1894, with traverses along Kapuas, Mandai, Embaluh, Seberuang, etc. rivers. Oldest rocks Crystalline Schist and Old Slate Formations. First descriptions of E-W belt of Late Jurassic - E Cretaceous Danau Fm (E-W trending, steeply dipping deep marine 'diabase tuff' deposits with radiolarian cherts), unconformably overlain by less-deformed M-U Cretaceous marine sandy clastics and marls with Orbitolina concava and plant debris. Overlain by widespread rel. flat-lying but clearly variously uplifted non-marine Tertiary clastics. Eocene Nummulites- Discocyclina limestones found, but only as float. Also various types of intrusive granitoids and volcanic, small peridotite massif on Upper Kapuas, glaucophane amphibolite on Sebilit River, etc.)

Molengraaff, G.A.F. (1902)- Borneo-expedition. Geological explorations in Central Borneo (1893-94). English revised edition. Brill, Leiden, 2 vols., p. 1-529 + Appendix 56p. + Atlas 22 plates.
(English version of Molengraaff (1900) above about the 1893-1894 Central Borneo expedition)
(Atlas online at: http://hdl.handle.net/1887.1/item:2033428)

Molengraaff, G.A.F. (1909)- On oceanic deep-sea deposits of Central Borneo. Proc. Koninklijke Nederlandse Akademie van Wetenschappen Amsterdam, 12, p. 141-147.
(online at: https://dwc.knaw.nl/DL/publications/PU00013423.pdf)
(Radiolarian cherts common in intensely folded Danau Fm (S of 'Old Slates' of U Kapuas mountain range near Kalimantan-Sarawak border), in ~60km wide belt stretching E-W over distance of 650 km across N Central Borneo from Upper Kapuas to Upper Mahakam Basin. Radiolarites often red in color and 97% silica) Interpreted as deep oceanic deposits, similar to those forming at depths below 5000m at equatorial latitudes today. (Age of Danau Fm oceanic assemblage is Jurassic- E Cretaceous according to Hinde (1900) and Heryanto et al. 1993))

Molengraaff, G.A.F. (1909)- Iets over de rivieren van het eiland Borneo in verband met zijn geologische gesteldheid. Handelingen Nederlandsch Natuur- Geneeskundig Congres 12, Utrecht, p. 700-712.
('About the rivers on the island of Borneo in relation to its geological condition'. In S half of Borneo all rivers drain from N to S, to Java Sea, in N half of island rivers drain W to E or E to W. Related to E-W striking fold

trends in N Borneo, generally of Cretaceous age, while in S mostly granites, schists and Tertiary sandstones with no preferential strike directions)

Molengraaff, G.A.F. (1914)- Hoofdtrekken der geologie van Oost Borneo naar aanleiding der reizen van prof. dr. A.W. Nieuwenhuis en anderen. Verslagen Geologisch Mijnbouwkundig Genootschap, Geol. Sectie, 1, p. 175-179.
('Main features of the geology of East Kalimantan, after voyages of Prof. A.W. Nieuwenhuis and others')

Monnier, C., M. Polve, J. Girardeau, M. Pubellier, R.C. Maury, H. Bellon & H. Permana (1999)- Extensional to compressive Mesozoic magmatism at the SE Eurasia margin as recorded from the Meratus ophiolite (SE Borneo, Indonesia). Geodinamica Acta 12, 1, p. 43-55.
(Meratus ophiolitic series records (1) Jurassic continental rifting episode along Paleo-Eurasian margin followed by ?Cretaceous backarc opening, as seen in peridotites and (2) M-Late Cretaceous subduction-related calc-alkaline magmatism. Ophiolitic series ultramafics (lherzolites and pyroxenites) with minor metavolcanics, typically enriched MORB to normal MORB types. Meratus peridotites fragment of subcontinental lithospheric mantle. Back-arc basin basalts also in metamorphic soles of peridotites, formed in back-arc basin now accreted to E margin of Eurasia and partly covered by calc-alkaline magmatism (Alino Fm). Ophiolitic series crosscut by Late Turonian-Senonian Manunggul Fm calc-alkaline melts)

Moss, S.J. & M.E.J. Wilson (1998)- Biogeographic implications from the Tertiary palaeogeographic evolution of Sulawesi and Borneo. In: R. Hall & J.D. Holloway (eds.) Biogeography and geological evolution of SE Asia. Backhuys Publishers, Leiden, p. 133-155.
(online at: http://searg.rhul.ac.uk/searg_uploads/2016/01/Moss_Wilson.pdf)
(Series of paleogeographic maps of Borneo- Sulawesi region, from 50- 4 Ma. W Sulawesi accreted onto Borneo by Late Cretaceous, then separated in M-Late Eocene. E Sulawesi collided with W Sulawesi in M-L Oligocene. Late Miocene accretion of Australia-derived microcontinents onto E Sulawesi)

Moyle, A.J., K. Bishoff, K.R. Alexander & H. Hoogvliet (1996)- Mt Muro gold deposit, Indonesia. Proc. Conf. Porphyry related copper and gold deposits of the Asia Pacific Region, Cairns 1996, Australian Mineral Foundation, Adelaide, p. 7.1-7.9.
(On Mt Muro gold deposit in C Kalimantan)

Muhammad, A.G. & B. Soetopo (2016)- Pemodelan dan estimasi sumber daya uranium di sektor Lembah Hitam, Kalan, Kalimantan Barat. Eksplorium 37, 1, p. 1-12.
(online at: https://ejournal.brin.go.id/eksplorium/article/view/8109/6220)
('Uranium resources modeling and estimation in Lembah Hitam sector, Kalan, West Kalimantan'. Lembah Hitam Sector part of Schwaner Mts and Kalan Basin. Uranium mineralization in Permo-Triassic Pinoh Metamorphics metasiltstone and metapelites (intruded by Cretaceous Sepauk Tonalite/ Sukadana Granite))

Murphy, D., T.A. Moore, D. H. Amijaya, F. Anggara, M. Friederich, C. Gaina, J. Trofimovs, H. Dalton & E. Ominigbo (2024)- Constraints from lamprophyre petrogenesis on the timing of Eocene lithospheric thinning and associated rifting of Borneo and Sulawesi. J. Asian Earth Sciences 260, 105952, p. 1-15.
(online at: https://www.sciencedirect.com/science/article/pii/S1367912023004133)
(Alkaline lamprophyre dyke intruded into rift-related Eocene Tanjung Fm of Senakin Peninsula in SE Kalimantan, with chemistry of intra-plate Ocean Island Basalt affinity. 40Ar/39Ar emplacement age of ~37.5 Ma, same as Late Eocene age of Tanjung Fm from microfossils. Petrology and geochemistry of Senakin lamprophyre dyke consistent with magma genesis beneath thick lithosphere followed by fractional crystallisation at Moho depths, indicating thick SE Kalimantan paleo-lithosphere. Lamprophyre magmatism initiated by Late Eocene lithospheric extension associated with opening of Makassar Strait)

Murphy, R.W. (2002)- Throwaway lines on the petroleum geology of Borneo. SEAPEX Press 5, 2, p. 38-44.
(Series of statements on geology of North Borneo, incl. SW Borneo is underlain by Sunda cratonic continental crust that amalgamated in Late Triassic time, N Borneo underlain by stacked sequences of oceanic crust,

dominantly of Late Jurassic- E Cretacous age, controversy exists about postulated Tertiary CCW rotations of Borneo, etc.)

Murphy, R.W. (2002)- Crustal evolution of Borneo. SEAPEX Press, Singapore, 5, 6, p. 28-30.
(Series of cartoons depicting tectonic evolution of Borneo from Late Triassic- Recent)

Murphy, R.W. & A.A. Morado (1998)- The structure of Borneo (7 crustal cross-sections). SEAPEX, p.

Nagel, J.L. (1990)- CTA 39A. Exploration of the Long Laai Zn-Pb-Ag skarn mineralisation in the Tahling Basin, Kalimantan Timur (Indonesia). Bureau Recherches Geologiques et Minieres (BRGM) Report R-30433, DEX-DAM-90 p. *(Unpublished)*

Newton, R. Bullen (1903)- Notes on some Jurassic shells from Borneo, including a new species of *Trigonia*. Proc. Malacological Soc. London, 5, 6, p. 403-409.
(Jurassic rocks with molluscs known only from West of Borneo: Sultanate of Sambas and W Sarawak. Initially described as Cretaceous by Martin (1890), subsequently determined to be Liassic. Description of new Jurassic fossils from Boedak (Buduk), W Kalimantan, collected by McCarthy, incl. Trigonia molengraaffi n.sp., Protocardia, Corbula, Pseudomonotis, Exelissa, etc. Most likely age 'Lower Oolitic' (= ~Bajocian, M Jurassic) (Trigonia molengraaffi considered to be species of Myophorella (Haidaia) by Kobayashi (1957) and is common in Upper Jurassic of Japan (Hayami 1984))

Newton, R.B. & R. Holland (1899)- On some Tertiary foraminifera from Borneo collected by Professor Molengraaff and the late Mr. A.H. Everett and their comparison with similar forms from Sumatra. Annals and Magazine Natural History, ser. 7, 3, p. 245-264.
(online at: https://archive.org/details/biostor-87097)
(Occurrences of Eocene Nummulites- Discocyclina limestones from Kalimantan- Sarawak/ Brunei border area, and from Gomanton hill, Kinabatang district. The supposedly Eocene-age 'Orbitoides' of Brady (1875;with suggested species name of a Discocyclina), collected from the Padang Highlands by Verbeek, here re-assigned to Orbitoides (Lepidocyclina) verbeeki. (= genus Eulepidina = Late Oligocene- E Miocene; JTvG))

Ngadenin, I.G. Sukadana & R. Fauzi R (2022)- Preliminary overview of the prospects for Rare Earth Elements in Kalan, West Kalimantan. Indonesia. Proc. 4t International Conference on Nuclear Energy Technologies and Sciences, Tangerang 2021, AIP Conference Proceedings 2501, 020006, p.
(Kalan area in Melawi Regency, West Kalimantan, is prospective area for Uranium. Two types of U ore: monazite (with high grade sof rare earth elements) and tourmaline type (see also Adimedha et al. (2024))

Ngadenin, N., I.G. Sukadana, A.G. Muhammad & S. Suripto (2011)- Inventarisasi potensi sumber daya uranium daerah Kawat, Mahakam Hulu, Kalimantan Timur tahapan prospeksi detil. Eksplorium 32, 2, p. 65-76.
(online at: https://ejournal.brin.go.id/eksplorium/article/download/7965/6089)
('Inventory of uranium resources potential at Kawat area, Upper Mahakam, East Kalimantan, detailed prospecting stage'. Several radioactive outcrop anomalies in Upper Mahakam river, in two areas of acid volcanic rocks ~25 km^2 wide ((M Eocene?) Nyaan and Kawat rhyolites))

Ngadenin, A. Sumaryanto, H. Syaeful & I.G. Sukadana (2017)- Geologi dan mineralisasi uranium di daerah Kalan, Kabupaten Melawi, Kalimantan Barat. Proc. Seminar Nasional Kebumian 12, Yogyakarta, Fakultas Teknologi Mineral, UPN "Veteran", p. 108-114.
(online at: https://karya.brin.go.id/id/eprint/3477/1/PROSIDING_Ngadenin_FTM_2017.pdf)
('Geology and uranium mineralization in the Kalan area, Melawi Regency, West Kalimantan')

Nila, E.S., E. Rustandi & R. Heryanto (1995)- Geological map of the Palangkaraya Quadrangle, 1: 250,000. Geological Research Development Centre (GRDC), Bandung.
('Peta geologi lembar Palangkaraya, Kalimantan'. Southern C Kalimantan map sheet E and S of Palangkaraya town. Mainly Young Tertiary sediments with rel. small outcrop areas of Cretaceous granite and E Triassic(?) quartzite and Triassic(?) volcanics)

Nixon, P.H. & S.C. Bergman (1987)- Anomalous occurrences of diamonds. Indiaqua 47, p. 21-27.
(Includes suggestion that Borneo diamonds are associated with ultramafic rocks of obducted ophiolite)

Noviana, A., A. Idrus, Y.C.A. Swamidharma, I. Setiawan & Chun-Kit Lai (2021)- Petrology and fluid inclusion study of W+Sb±Au quartz vein mineralization in Sebuku Island, South Kalimantan, Indonesia. Indonesian J. of Economic Geology (IJEG) 1,1, p. 92-96.
(online at: https://journal.iagi.or.id/index.php/IJEG/article/view/347/354)
(Sebuku Island in SE Kalimantan province has one of largest Fe-Ni laterite deposits in Indonesia. New ore deposit type in N Sebuku: mesothermal W+Sb±Au ore quartz veins, hosted by metasandstone and metapelitic rocks. Quartz veins are associated with narrow alteration zones, along NE-trending dextral and SE-trending sinistral strike-slip faults. Ore minerals comprise mainly wolframite, stibnite, kermesite, tripuhyite, and minor arsenopyrite, pyrite and Fe-Ti oxides (nothing on ages of mineralization and host rocks; JTvG))

Omura, I. (1942)- Oil fields in Bornea. J. Mining Institute of Japan 58, 685, p. 317-319. *(in Japanese)*
(online at: https://www.jstage.jst.go.jp/article/shigentosozai1885/58/685/58_685_317/_pdf/-char/en)
(Brief review of oil fields in North Borneo, Tarakan and Kutai basins)

Panggabean, H. (2005)- The occurrence of methane gas seepages in the Upper Ketungau area, West Kalimantan. Indonesian Mining J. 8, 1, p. 1-8.
(online at: http://jurnal.tekmira.esdm.go.id/index.php/imj/article/view/205/122)
(Flammable methane gas seepages at Peturau River, N of Upper Ketungau River, Ketungau Basin, N of Semitau High (Boyan Melange), NW Kalimantan. Near outcrop of Sekalau coal seam and probably coalbed methane gas, leaking through NW-SE trending faults. Coals present in Eocene Kantu (Silantek) Fm and Miocene Late Oligocene-Miocene(?) Ketungau Fm (Sekalau and Malintang seams, 0.10- 0.95m thick, vitrinite Ro 0.66-0.70%). Kantu Fm coal vitrinite Ro 0.68-0.82%)

Panjaitan, S. (2015)- Dinamika dan evolusi cekungan Ketungau Kalimantan Barat berdasarkan metode gayaberat. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 16, 2, p. 103-114.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/45/46)
('Dynamics and evolution of the Ketungau basin, West Kalimantan, by gravity method'. Oil-gas seeps in Sinaning River and upper Puturau and Ara Rivers along S margin of Ketungau Basin. Gravity anomalies 2 areas: 16-58 mGal anomaly over Semitau high and 8-16 mGal over sedimentary basin. Ketungau Basin controlled by reverse and normal faults; formed as foreland basin when Kalimantan underwent 60º Oligocene-Miocene rotation to left. Basement interpreted as ophiolite or oceanic rocks, deformed by block faulting, Cretaceous- Tertiary sediment thickness Ketungau Basin up to ~4km)

Parkinson, C.D., K. Miyazaki, K. Wakita, A.J. Barber & D.A. Carswell (1998)- An overview and tectonic synthesis of the pre-Tertiary very-high pressure metamorphic and associated rocks of Java, Sulawesi and Kalimantan, Indonesia. Island Arc 7, p. 184-200.
(High-P metamorphic rocks common in Cretaceous accretionary complexes of Java, Sulawesi, SE Kalimantan. Many occur as imbricate slices of carbonate, quartzose and pelitic schists of shallow marine or continental margin parentage, interthrust with subordinate basic schists and serpentinite. Predominantly low-intermediate metamorphic grade, with K-Ar ages of 110-120 Ma. Metamorphic rocks from greater depths (>60 km) sporadically exposed, usually as tectonic blocks. Metamorphic rocks probably recrystallized in N-dipping subduction zone at Sundaland craton margin in Early Cretaceous. Exhumation may have been facilitated by collision of Gondwanan continental fragment with Sundaland margin at ~120-115 Ma)

Patria, A.A., R. Suhendra, F. Anggara, A. Agangi, S.P. Obrochta & I. Setiawan (2024)- Association and textural-compositional evolution of pyrite-organic matter in coals of the Tarakan, Barito, and Pasir Basins, Kalimantan, Indonesia. Int. J. Coal Geology 282, 104442, p. 1-22.
(Extensive Eocene and Miocene coal-bearing sediments in E Kalimantan, mined since 1989 (actually since 1800s; JTvG). Coals from Kalimantan mainly medium-high sulfur content (>3%; but may exceed 10%). Max. T reached by organic matter during diagenesis ~166 ◦C for Pasir, 136 ◦C for Barito, and ~132 ◦C for Tarakan Basin. Pyrite

is mainly found as large size framboids (mostly >5 μm), indicating formation in sedimentary layer with dysoxic bottom water conditions during early–late diagenetic stages, formed under topogenous mire conditions. Etc),

Permanadewi, S., M.H.J. Dirk & U. Hartono (1997)- Penarikhan Kalium-Argon batuan granitik daerah Kalimantan selatan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 7, 74, p. 25-32.
(K-Ar analyses of granitic rocks in the S Kalimantan area'. New analyses of Cretaceous granites from Meratus Range E of Kandangan and Barabai. Two groups of granitic rocks (1) E Cretaceous group (121-103 Ma; calc-alkaline, I-type, subduction-related volcanic arc granites) and (2) Late Cretaceous tonalite and diorite (71-70 Ma; unknown genesis). Also 131.1 ± 12.8 Ma age for gabbro)

Permanadewi, S., U. Hartono & I. Saifudin (1996)- Hasil pentarikhan Kalium- Argon dan jejak belah batuan gunungapi Pulau Laut: implikasinya terhadap evolusi magma Kalimantan Selatan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 6, 63, p. 10-16.
('Results of K-Ar and trace elements of volcanic rocks from Pulau Laut; implications for the magmatic evolution of S Kalimantan'. K-Ar and fission track ages of volcanics of Laut Island off SE Kalimantan. K-Ar ages of Cretaceous Haruyan Fm andesitic volcanics 82 Ma (E Campanian) and 69.6 Ma; Paleocene andesite and microgabbro, Oligocene andesite of 32.5 Ma. Apatite Fission track ages of G. Peltin diorite at E side of island 7.6- 8.3 Ma)

Pieters, P.E. (1988)- Epithermal gold, and foreland faulting and magmatism, Kalimantan, Indonesia. BMR Research Newsletter 9, October 1988, p. 4-5.
(online at: https://d28rz98at9flks.cloudfront.net/90259/ResearchNews_09_p004.pdf)
(Summary of prelininary results of 1982-1986 BMR/GRDC North and Central Kalimantan mapping project. Gold mineralisation widespread in Kalimantan, but particularly abundant in E-W trending belt up to 100 km wide that conforms to uplifted and strongly faulted foreland basement high (incl. Kelian prospect). Gold deposits likely formed as a as result of hydrothermal activity associated with a Late Oligocene- Miocene igneous event (mainly small, high-level intrusives) coeval with uplift of basement high. Gold hosted by wide variety of rock types. Most common accessory ore minerals cinnabar and stibnite, which have been mined in small-scale operations)

Pieters, P.E. & P Sanyoto (1993)- Geology of the Pontianak/Nangataman Sheet area, Kalimantan 1: 250,000. Geological Research Development Centre (GRDC), Bandung..
(Pontianak/Nangataman Sheet geology in W Kalimantan characterized by a core of ancient metamorphic rocks (Pinoh metamorphics) and younger large Cretaceous granitoid intrusions (Sepauk Tonalite) in Schwaner Mts. Also extensive Late Oligocene- E MioceneSintang Intrusives and Cenozoic Melawi Basin)

Pieters, P.E. & S. Supriatna (1990)- Late Cretaceous- Early Tertiary continent- continent collision in Borneo. In: T.J. Wiley et al. (eds.) Terrane analysis of China and the Pacific Rim, Circum-Pacific Council Energy and Mineral Resources, Earth Science Series, 13, p. 193-194. *(Abstract only)*
(350km-wide Cretaceous-Paleogene orogenic belt that crosses Borneo represents Cretaceous subduction and E Tertiary continent-continent collision zone. Northern continental domain is southern extension of continental South China and Indochina, the southern continent is displaced fragment of Gondwana)

Pieters, P.E. & S. Supriatna (1990)- Geological map of the West, Central and East Kalimantan Area, 1: 1000,000. Geological Research Development Centre (GRDC), Bandung.
(Includes 91-80 Ma radiometric age for Sukadana Granite)

Pieters, P.E., Surono & Y. Noya (1993)- Geological map of the Nangaobat Sheet area, Kalimantan 1:250,000. Geological Research Development Centre (GRDC), Bandung.

Pieters, P.E., Surono & Y. Noya (1993)- Geology of the Putussibau Sheet, Kalimantan 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(C Kalimantan map sheet, showing Permo-Triassic Busang Complex igneous and metamorphic rocks, overlain by folded Cretaceous Selangkai Gp sediments, unconformably overlain by near-horizontal Late Eocene

sediments. In North Kapuas and Embaluh melange with Danua ultramafics. Numerous Late Oligocene- E Miocene Sintang andesite intrusives, etc.)

Posewitz, T. (1882)- Unsere geologische Kenntnisse von Borneo. Mitteilungen Jahrbuche Koniglichen Ungarischen Geologischen Anstalt, Budapest, 6, 4, p. 136-162.
(online at: http://pbc.gda.pl/Content/52889/C_TP_15007_Bd_6__.pdf)
('Our geological knowledge of Borneo'. With (oversimplified) geological map of long ridges of metamorphic-igeneous rocks, surrounded by Tertiary sediments)

Posewitz, T. (1883)- Uber die recente Bildung von Harzablagerungen. Geologische Notizen aus Borneo. Foldtani Kozlony (Bull. Hungarian Geological Society) 13, p. 409-412.
(online at: https://epa.oszk.hu/01600/01635/00536/pdf/EPA01635_foldtani_kozlony_1883_11-12_409-412.pdf)
('On the recent formations of resin deposits- Geological notes from Borneo'. Resin ('damar') collected by natives all along Barito River. Derived from three tree families, Abictinea, Burseracea and Dipterocarpacea. Resin clumps become part of young sediments. Written in Teweh, 1 May 1883)

Posewitz, T.A.K. (1883)- Geologische Notizen aus Central-Borneo (das Tertiare Hugelland bei Teweh). Natuurkundig Tijdschrift voor Nederlandsch-Indie 43, p. 169-175.
('Geologic notes from Central Borneo- the Tertiary hill country near Teweh'. Brief description of surface geology of upper Kutei basin near Muara Teweh. Common rel. hard sandstones, locally with plant fragments, overlain by marls and ~40m thick Eocene Nummulites-Orthophragmina (= Discocyclina) limestone. Stratigraphy appears similar to Eocene of Pengaron (Barito basin). No figures/ maps)

Posewitz, T. (1883)- Das Goldvorkommen in Borneo. Mittheilungen Jahrbuche Koniglichen Ungarischen Geologischen Anstalt, Budapest, 6, 6, p. 176-190.
(online at: http://pbc.gda.pl/Content/52889/C_TP_15007_Bd_6__.pdf)
('The gold occurrences of Borneo'. Early report on distribution of gold in Kalimantan. Many of the alluvial and fluvial gold occurrences already mined by locals. Less common gold disseminated in metamorphic rocks, granites and quartz veins)

Posewitz, T. (1884)- Geologische Mitteilungen uber Borneo. 1. Das Kohlenvorkommen in Borneo. 2. Geologische Notizen aus Central-Borneo, das Tertiare Hugelland bei Teweh. Mitteilungen Jahrbuche Koniglichen Ungarischen Geologischen Anstalt, Budapest, 6, p. 317-350.
(online at: https://epa.oszk.hu/03600/03681/00026/pdf/EPA03681_mittheilungen_1884_02_318-350.pdf)
('Geological notes from Borneo: I. Coal occurrences in Borneo (descriptions of Eocene coals in Pengaron, West Borneo, East Borneo (Kutai, etc.) and N Borneo); and II. Geological notes from Central Borneo- the Tertiary hill country near Teweh' (mid-Tertiary folded sediments with Eocene Nummulites horizons) (same paper as Posewitz 1883, above)

Posewitz, T. (1884)- Geologischer Ausflug in das Tanah-laut (Süd-Borneo). Verhandlungen Kaiserlichen Koniglichen Geologischen Reichsanstalt, Vienna, 13, p. 237-244. *(online at: https://opac.geologie.ac.at/wwwopacx/wwwopac.ashx?command=getcontent&server=images&value=VH1884_237_A.pdf)*
(Geological excursion to the Tanah Laut area' (South Borneo)'. Repot of rravel from Banjarmasin to Bati-Bata, Pelahari and Tabanio. Tanah-Laut area in foothills of uninhabited Meratus Range (composed of serpentinie, gabbro and diorite), is richest area of SE Borneo for native and Chinese gold and diamond mining. Gold production apparently already much diminished since previous century. Diamonds mainly further North, near Martapura and Cempaka, but production also already much diminished. A French company also owned diamond mining concession at that time. No maps, figures)

Posewitz, T. (1885)- Geologische Notizen aus Central-Borneo. III. Das Gestein des Goenong Pararawen. Natuurkundig Tijdschrift voor Nederlandsch-Indie 44, 2, p. 102-107.
('Geologic notes from Central Borneo III. The rocks of Gunung Pararawen mountain'. Same paper as Posewitz (1885), below)

Posewitz, T. (1885)- Geologische Notizen aus Central-Borneo. Ein Ausflug auf den Berg Pararawen. Foldtani Kozlony (Bull. Hungarian Geological Society) 15, p. 76-80.
(online at: https://epa.oszk.hu/01600/01635/00541/pdf/EPA01635_foldtani_kozlony_1885_01-02_076-080.pdf)
('Geologic notes from Central Borneo III. An excursion to Gunung Pararawen mountain' Trip from Teweh to Pararewen, one of southernmost peaks of the Central mountains of Borneo, and visible from Teweh. Previously visited only by Dr. Schwaner in 1840s. Dense vegetation from bottom to top, with only few, poor, outcrops of granitoid weathered rocks.)

Posewitz, T. (1885)- Das Diamantvorkommen in Borneo. Mitteilungen Jahrbuch Koniglichen Ungarischen Geologischen Anstalt 7, p. 183-192.
('The occurrence of diamonds in Borneo'. Appendix to Geology of Bangka paper. Review of 1800's Dutch literature on diamond occurrences on Kalimantan, which had been exploited by Chinese miners since 1700's, mainly in West Kalimantan (Landak). Diamonds also present in SE Kalimantan, mainly at Martapura and Cempaka and also E of Meratus Range in Pagattan and Kusan areas. All diamonds from Quaternary alluvial deposits)

Posewitz, T. (1886)- Die Diamantfelder in Borneo. Das Ausland, Stuttgart, 59, 36, p. 705-708.
('The diamond fields of Borneo'. Brief review on widespread diamond occurrences in Borneo, which have long been known and actively exploited by native and Chinese miners (only few, short-lived western mining operations in Landak (van Schelle) and Cempaka). All in alluvial deposits. Diamond crystals often rounded. From Dutch literature and personal visit to Tanah Laut. In German geographic journal; no map or figures)

Posewitz, T. (1887)- Das Petroleum-Vorkommen in Borneo. Das Ausland, Stuttgart, 60, 10, p. 191-192.
('The petroleum occurrences in Borneo'. First(?) brief report of an oil seep at village of Balangan, SE Kalimantan (Barito basin margin). This triggered the creation of a short-lived oil company, the Exploratie Maatschappij Balangan in 1897. Also known occurrences near Sanga-Sanga near Mahakam Delta, on Tarakan island (Menten, 1863) and in North Borneo. No records from West Borneo. No figures)

Posewitz, T. (1887)- Das Platin-Vorkommen in Borneo. Das Ausland, Stuttgart, 60, 17, p. 329-330.
('The platinum occurrences in Borneo'. Brief note in German geographic journal on occurrences of rare platinum in SE Borneo. Known since 1831 (Tanah Laut, Hartmann) and 1836 (Pleihari, Horner), but of no commercial interest. Sourced from nearby serpentinites as suggested by Verbeek. Not known from West Borneo)

Posewitz, T. (1887)- Geologisches aus Borneo- Formationen alter als Tertiar. Das Ausland, Stuttgart, 60, 25, p. 504-506.
('Geology of Borneo- Formations older than Tertiary' Brief note in German geographic journal on Pretertiary rocks. Claims that prior to early 1880s no rocks older than Tertiary were known from Borneo. Works by Verbeek in SE and Van Schelle and Everwijn in W Borneo showed Cretaceous sediments. Possibly also Carboniferous rocks. No figures)

Posewitz, T. (1888)- Hohlenforschungen in Borneo. Das Ausland, Stuttgart, 61, 31, p. 612-613.
('Cave investigations in Borneo'. Brief note in German geographic journal about common caves in Tertiary limestones. Incl. Batu Hapu near Pengaron in SE Borneo, 800x150m wide and 100m high. Many others in N Borneo, with bone fossils. No figures)

Posewitz, T. (1888)- Das Quecksilber-Vorkommen in Borneo. Das Ausland, Stuttgart, 61, 31, p. 613-614.
('The mercury occurrence in Borneo'. Very brief note in German geographic journal. Cinnaber known from Sarawak border area known since 1868 in Tegora and Gading. Also Van Schelle report in 'Chinese Districts' in West Borneo. No figures or maps)

Posewitz, T. (1888)- Das Gebirgssystem Borneos und insbesondere das Centralgebirge. Mitteilungen Kaiserlichen Koniglichen Geographischen Gesellschaft Wien 31, 8, p. 129-135.

('The mountain range system of Borneo, in particular the Central Range'. Still much unknown about the unexplored central ranges of Borneo. Early explorers included Georg Muller (killed in 1825 near the Upper Mahakam divide) and Dr. Schwaner, who came close from the SE, but did not go all the way. Posewitz assumes radiating mountain ridges from a center (not correct). No maps or figures)

Posewitz, T. (1888)- Neuere geologische Entdeckungen im nordostlichen Borneo. Foldtani Kozlony (Bull. Hungarian Geological Society) 18, p. 316-321.
(online at: https://ojs.mtak.hu/index.php/foldtanikozlony/article/view/5551/6704)
('Newer geological discoveries in NE Borneo'. Report on earliest geological traverses by personnel of the British North Borneo company. No maps, figures)

Posewitz, T. (1889)- Borneo: Entdeckungsreisen und Untersuchungen; gegenwartiger Stand der geologischen Kenntnisse, Verbreitung der nutzbaren Mineralen. Friedlander, Berlin, p. 1-385.
(online at: https://archive.org/details/borneoentdeckun00posegoog)
('Borneo: discovery journeys an investigations; present state of geological knowledge, distribution of economic minerals'. Early textbook with overview of exploration, geology, mineral occurrences of all of Borneo Island, with first geological map. Few illustrations)

Posewitz, T. (1889)- Lateritvorkommen in West-Borneo. Natuurkundig Tijdschrift Nederlandsch-Indië 48, p. 16-20.
('Laterite occurrences in West Borneo'.Brief note on similarities between geology of Bangka and the 'Chinese Districts' of West Borneo, including laterite deposits. Also similar iron stones in nearby Sarawak)

Posewitz, T. & F.H. Hatch (1892)- Borneo: its geology and mineral resources. Edward Stanford, London, p. 1-495.
(online at: http://archive.org/details/cu31924009555594)
(English translation by Frederick Henry Hatch, of the Posewitz (1889) German original. First non-Dutch overview of late 1800's state of knowledge of Borneo geology, coal and minerals)

Priadi, B (2010)- Kalimantan magmatic system. In: N.I. Basuki & S. Prihatmoko (eds.) Proc. MGEI-IAGI Seminar Kalimantan coal and mineral resources, Balikpapan 2010, p. 187-190.
(Eocene-Miocene magmatic products in Kalimantan calc-alkaline, subduction-related magmatism, correlated to subduction of S China Sea Plate, indicating time of collision of Luconia continental plate to NW Kalimantan. Miocene-Pliocene magmatism of potassic calc-alkaline affinity, indicating development of present subduction system. Tholeiitc within-plate magmatism characterizes of Pliocene- Recent magmatism)

Priyomarsono, Sumarso (1985)- Contribution a l'etude geologique du Sud-est de Borneo, Indonesia: geologie structurale de la partie meridionale de la chaine des Meratus. Thesis, Universite de Savoie, Chambery, Travaux Dept. Sciences de la Terre 5, p. 1-198. *(Unpublished)*
(*Abstract at: http://edytem.univ-savoie.fr/archives/lgham/priyomarsono-r-fr.html*)
('Contribution to the study of SE Borneo: structural geology of the southern part of the Meratus chain'. Oldest rocks M Cretaceous Alino Fm volcanic arc deposits (Pulau Laut and W Sulawesi transitional arc-forearc rocks). Radiolarians and Orbitolina gave M Albian- Cenomanian age; interbedded lavas K/Ar age ~92 Ma, granite ~97Ma. Cenomanian obduction of peridotites with metamorphic sole dated at ~145 Ma, possibly due to collision of unknown microcontinent. Unconformably overlain by Turonian- Senonian Manunggul Fm molasse with calc-alkaline volcanics dated between 87-72 Ma. Eocene (and older?) extensional grabens with paralic, then marine deposits of Tanjung Fm. Middle Miocene compression, tied to Sula-Sulawesi collision, formed most folding and uplift along E border of Meratus Mts. Neotectonic uplift phase caused additional, recent uplift)

Priyomarsono, S. (1986)- Evolusi tektonik daerah Meratus dan sekitarnya, Kalimantan Tenggara. Proc. Annual Conv. Indonesian Association Geologists (IAGI), p.
('Tectonic evolution of the Meratus and surrounding areas, Kalimantan'. Summary of thesis above)

Priyomarsono, S. & A. Sumarsono (1996)- Kontrol tektonik pada sedimentasi progading delta di cekungan Kutai, Kalimantan Timur. Proc. 25th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 104-119. *('Tectonic control on prograding delta sedimentation in the Kutai Basin, E Kalimantan')*

Pubellier, M., J. Girardeau & I. Tjashuri (1999)- Accretion history of Borneo inferred from the polyphase structural features in the Meratus Mountains. In: I. Metcalfe (ed.) Gondwana dispersion and Asian accretion, IGCP 321 Final results volume, A.A.Balkema, Rotterdam, p. 141-160.
(Meratus Mountains area of Mid-Cretaceous ophiolite obduction (oblique, N-S directed collision) and also separates Eocene Barito and Asem-Asem basins. W front high-angle thrust, E flank gentle East dip. Main Meratus uplift around E-M Miocene boundary (remote response to Banggai-Sula collision). Two phases of Paleogene extension: N110E in Barito (Paleocene?) and N20E (Eocene; tied to Makassar Straits opening))

Pubellier, M. & D. Menier (2013)- The ups-and-downs of Borneo. In: 3rd Int. Conf. Palaeontology of South-East Asia (ICPSEA3), Malaysia, p. 42. *(Abstract only) (online at: www.senckenberg.de/files/content/forschung/projekte/igcp-596/igcp_596_malaysia_2013_abstrvol.pdf)*

Purwanto, H.S. (2009)- Mineralisasi lead- zinc daerah Riamkusik, Kecamatan Marau, Kabupaten Ketapang, Propinsi Kalimantan Barat. J. Ilmiah Magister Teknik Geologi (UPN) 2, 2, p. 1-15.
(online at: http://jurnal.upnyk.ac.id/index.php/mtg/article/view/190)
('Lead- Zinc mineralization in the Riamkusik area, District Marau, Ketapang, W Kalimantan Province'. Massive sulphide mineralisation in SW Kalimantan with galena, magnetite, sphalerite, pyrite, stibnite, hematite, chalcopyrite, also some Au and Ag. In fault zone in Cretaceous volcanics/ andesitic intrusions (?))

Purwanto, H.S. & H. Riswandi (2010)- Jenis deposit "massive sulphide" Pb-Zn di dearah Riam Kusik, Kecamatan Ketapang, propinsi Kalimantan Barat. J. Ilmiah Magister Teknik Geologi (UPN) 3, 2, p. 1-12.
(online at: http://jurnal.upnyk.ac.id/index.php/mtg/article/view/209)
('Type of "massive sulphide" Pb-Zn deposit in Riam Kusik, Ketapang District, West Kalimantan'. Massive sulphide mineralization with galena, chalcopyrite, sphalerite, etc., following E-W structural grain)

Qian, X., Y. Yu, Y. Wang, C. Gan, Y. Zhang & A.J. Asis (2022)- Late Cretaceous nature of SW Borneo and Paleo-Pacific subduction: new insights from the granitoids in the Schwaner Mountains. Lithosphere 2022, 1, 8483732, p. 1-22.
(online at: https://pubs.geoscienceworld.org/gsa/lithosphere/article/2022/1/8483732/615588/Late-Cretaceous-Nature-of-SW-Borneo-and-Paleo)
(Detailed geochem work on Late Cretaceous granitoids of SW and NW Borneo. Subdivided into Group 1 (~92-85 Ma; ~Turonian-Santonian) biotite granite/ granodiorite and Group 2 (~81-80 Ma; E Campanian) monzogranite. SW Borneo granites compare with granites along Kuching zone; both formed in magmatic arc setting related to Paleo-Pacific subduction)

Quek, L.X., S. Li, C.K. Morley, A.A. Ghani, J. Zhu, M.H. Roselee, S. Murthadha, R. Rahmat, Y.M. Lai & L. Lintjewas (2023)- Southwest Borneo, an autochthonous Pangea-Eurasia assembly proxy: Insights from detrital zircon record. Geology (GSA) 51, 8, p. 785-790.
(Current tectonic model for Borneo suggests SW Borneo block rifted from NW Australia at ~190 Ma and collided with Eurasia in E Cretaceous, but Circum-Pacific-style accretionary orogens prevail. SW Borneo detrital zircon data show consistent age peaks in late Permian- E Cretaceous samples (~250 Ma, 1.9-1.8 Ga, 2.5-2.4 Ga). SW Borneo is Triassic accretion zone at E Cimmeria (= 'Sibumasu') that rifted from NW Australia in Permian. SW Borneo underwent further accretion along its SE margin in Jurassic (~186 Ma and 140 Ma). in Jurassic Meso-Tethys and Paleo-Pacific supra-subduction zone setting. This revision locates SW Borneo with other SE Tethysides blocks in Eurasia where accretionary orogens have influenced rises after 200 Ma.

Ramdani, F.Z.F., A.H.P. Ramadhani, A. Cahyadi, W. Widodo & Ernowo (2023)- Derajat lateritisasi dan pengayaan unsur Fe-Ni-Co pada batuan harsburgit di Pulau Sebuku, Kalimantan Selatan. Buletin Sumber Daya Geologi 18, 3, p. 171-182.
(online at: https://buletinsdg.geologi.esdm.go.id/index.php/bsdg/article/view/BSDG_VOL_18_NO_3_2023_3)

('Degree of lateritization and enrichment of Fe-Ni-Co elements in harzburgite rocks on Sebuku Island, SE Kalimantan'. On lateritization of ultramafic rocks along E coast of Sebuku Island. Zone with high degree of lateritization contains 36-51% Fe, 0.8-1.4% Ni and up to 1.2 % Co (Sebuku island with Barito- Asem Asem basins-type stratigraphy of Jurassic? ultrabasic rocks, overlain by U Cretaceous Haruyan Fm volcanics and Pitap Fm clastics, overlain by Eocene Tanjung Fm)

Retgers, J.W. (1891)- Mikroskopisch onderzoek eener verzameling gesteenten uit de afdeeling Martapura, Zuid- en Oost Afd. van Borneo. Jaarboek Mijnwezen Nederlandsch Oost-Indie 1891, Wetenschappelijk Gedeelte, p. 5-212.
('Microscopic study of a collection of rocks from the department Martapura, SE Kalimantan'. Petrographic description of rocks collected by Hooze in 1883-1888. Mainly metamorphic schist types, including glaucophane schist, all presumed to be of Precambrian age (more likely mid-Cretaceous; JTvG). No location maps)

Retgers, J.W. (1893)- Uber kristallinische Schiefer, insbesondere Glaukophanschiefer, und Eruptivgesteine im sudlichen Borneo. Neues Jahrbuch Mineralogie Geologie Palaontologie 1893, 1, p. 39-43.
(online at: https://www.zobodat.at/pdf/Neues-Jb-Min-Geol-Palae_1893_0033-0050.pdf)
('On crystalline schists, particularly glaucophane schists, and volcanic rocks in southern Kalimantan'. First record of high P- low T glaucophane schists from Meratus Mountains at Pengaron and further north, collected by Hooze. Also peridotites-serpentinites. Little or no granite and true gneiss. No figures)

Retgers, J.W. (1895)- Mikroskopische beschrijving van gesteenten afkomstig van de Oostkust van Borneo, verzameld door den mijningenieur J.A. Hooze. Jaarboek Mijnwezen Nederlandsch Oost-Indie 1895, Wetenschappelijk Gedeelte, p. 78-98.
('Microscopic study of rocks from the east coast of Kalimantan, collected by J.A. Hooze'. Brief petrographic descriptions, many from Pulau Laut, of a.o. quartz sandstones from Kutai, porphyrite/ diabase, diorite, and serpentinite from Palau Laut, limestone from Laut straits, etc.)

Roberts, G.G., N. White, M.J. Hoggard, P.W. Ball & C. Meenan (2018)- A Neogene history of mantle convective support beneath Borneo. Earth Planetary Science Letters 496, 1, p. 142-158.
(Convective uplift possibly played role in sculpting Borneo physiography. Long wavelength free-air gravity anomaly of +60 mGal centered on Borneo coincides with distribution of Neogene basaltic magmatism and sub-plate slow shear wave velocity anomalies (anomalously hot asthenosphere?). Regional shortening does not account for km-scale regional elevation. Uplift history suggests Borneo topography grew in Neogene and ties to offshore Miocene transition from carbonate to clastic deposition. Regional uplift possibly partly generated and maintained by temperature anomalies within asthenospheric channel)

Robinson, G., N. Ratman & P. Senyaja (1996)- The accreted Meratus terranes Southeast Kalimantan. Bull. Geological Research Development Centre (GRDC), Bandung, 20, p. 35-56.
(At least 3 terranes accreted to SE Kalimantan from E between Barremian-Aptian and end-Paleocene. Meratus Mts consists of number of W-dipping partly subducted slabs of pre-Aptian oceanic crust, with granite and marine sediments. Stratigraphy includes Aptian-Paleocene arc volcanics, Barremian-Aptian granite, Aptian-Paleocene marine sediments and slivers of high P-low T metamorphic equivalents of these rocks. Meratus Mts uplifted and partly eroded at end-Paleocene, followed by deposition of Eocene- Pleistocene sediments (much of this scenario and timing unlikely to be correct?; JTvG))

Robinson, G.P., A.Y.S. Wah, B.T. Setiabudi, D.N. Sunuhadi, J.M. Hammarstrom, S. Ludington, A.A. Bookstrom, S.A. Yenie & M.L. Zientek (2013)- Porphyry copper assessment for Tract 142pCu7019, Central Kalimantan-Indonesia and Sabah and Sarawak, Malaysia. In: J.M. Hammarstrom et al., Porphyry copper assessment of Southeast Asia and Melanesia, U.S. Geological Survey, Scientific Investigations Report 2010-5090-D, Appendix I, p. 149-163.
(online at: http://pubs.usgs.gov/sir/2010/5090/d/sir2010-5090d_text.pdf)
(Assessment of porphyry copper deposits in C Kalimantan- N Borneo dispersed belt of late Oligocene- Pliocene intermediate intrusives and volcanics. Relation of these intrusive rocks to subduction unclear, and tectonic setting

for porphyry copper deposits in this tract likely post-subduction. All porphyry copper prospects likely of Miocene-Pliocene age. Only one known porphyry copper deposit: Mamut (Sabah; 1966))

Robinson, K. (1987)- Palinspastic thickness map of the Paleogene sequence of the Circum-Borneo region, Southeast Asia. Open-File Report U.S. Geological Survey (USGS), Reston, OF 87-495-B.
(online at: http://pubs.usgs.gov/of/1987/0495b/plate-1.pd)
(Paleogene isopach map of circum-Borneo region)

Robinson, K. (1987)- Palinspastic paleogeographic map of the Paleogene sequence of the Circum-Borneo region, Southeast Asia. U.S. Geological Survey (USGS), Reston, Open-File Report OF 87-495-C.
(online at: http://pubs.usgs.gov/of/1987/0495c/plate-1.pdf)
(Broad Paleogene paleogeography map of Borneo)

Robinson, K. (1987)- Palinspastic thickness map of the Neogene sequence of the Circum-Borneo region, Southeast Asia. Open-File Report U.S. Geological Survey (USGS), Reston, OF 87-495-D.
(online at: http://pubs.usgs.gov/of/1987/0495d/plate-1.pd)
(Neogene isopach map of circum-Borneo region)

Robinson, K. (1987)- Palinspastic paleogeographic map of the Neogene sequence of the Circum-Borneo region, Southeast Asia. Open-File Report U.S. Geological Survey (USGS), Reston, OF 87-495-E.
(online at: http://pubs.usgs.gov/of/1987/0495e/plate-1.pdf)
(Broad Neogene paleogeography map of Borneo)

Robinson, K. (1987)- Location map of major Tertiary sedimentary provinces and structural elements of the Circum-Borneo region, Southeast Asia. Open-File Report U.S. Geological Survey (USGS), OF87-495-F.
(online at: http://pubs.usgs.gov/of/1987/0495f/plate-1.pdf)
(Simple Tertiary basins of Borneo area outlines map)

Robinson, K. & E.P. DuBois (1987)- Thickness map of the petroliferous Tertiary sequence of the Circum-Borneo region, Southeast Asia. Open-File Report U.S. Geological Survey (USGS), Reston, OF 87-495-A.
(online at: http://pubs.usgs.gov/of/1987/0495a/plate-1.pdf)
(Tertiary isopach map of circum-Borneo region. Part of structure, isopach, paleogeographic maps series)

Rodenburg, J.K. (1984)- Geology, genesis and bauxite reserves of West Kalimantan, Indonesia. In: L. Jacob (ed.) Bauxite, Proc. 1984 Bauxite symposium, Los Angeles 1984, American Institute of Mining Metallurgical and Petroleum Engineers (AIME), New York, p. 603-618.
(Major bauxite belt in W Kalimantan evaluated from 1969 to 1974 by PT Alcoa. Bauxite occurs as capping of low hills, formed during post-Paleogene peneplanation stage. Deposits formed by in situ weathering of predominantly acidic and basic intrusive rocks. Reserves of high-grade (> 38% Al) laterite bauxite in W Kalimantan estimated as 810 million tons of ore)

Rura, A., P. Widekso, A. Purnomo & J. Umbal (2011)- Application of an Analytical Spectral Device (ASD) in alteration mapping of the Seruyung Project, East Kalimantan, Indonesia. Majalah Geologi Indonesia 26, 3 p. 155-171.
(online at: https://www.academia.edu/34074143/Application_of_an_Analytical_Spectral_Device_ASD_in_Alteration_Mapping_of_the_Seruyung_Project_East_Kalimantan_Indonesia)
(PT Avocet paper on Seruyung gold prospect, comprised of high sulphidation epithermal deposits and mineralized diatreme structures, hosted in interbedded andesitic to dacitic volcanic and epiclastic sequence, located in the Nunukan District, NE Kalimantan. Tied to Miocene and younger SE-ward subduction of Sulu Sea Plate(?))

Rusmana, E. & P. Pieters (1993)- Geology of the Sambas/Siluas sheet area, Kalimantan, Quads 1317-1417, 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(Geologic map of NW tip of Kalimantan. Includes in North Late Jurassic- E Cretaceous Serabang melange complex with ultramafics, intruded by Upper Cretaceous Pueh granite. In S typical 'NW Kalimantan Domain'

stratigraphy: Paleozoic-Triassic? metamorphics, overlain by very thick (>1500m) Late Triassic-Jurassic Bengkayang Gp clastics, overlain by Cretaceous Pedawan Fm, unconformably overlain by Paleogene Kayan Sst, intruded by numerous Late Oligocene-E Miocene Sintang intrusives and also Pliocene Niut Volcanics)

Rustandi, E., E.S. Nila, P. Sanyoto & U. Margono (1995)- Geological map of the Kotabaru Sheet, Kalimantan. 1:250,000, Quad 1812. Geological Research Development Centre (GRDC), Bandung.
(Map sheet of SE-most Meratus Mts, Asem Asem Basin and Pulau Laut and Sebuku islands. All areas with folded succession of ultramafic rocks (in E Meratus associated with 'amphibolite-garnet schist' and mid Cretaceous Kintap Orbitolina limestone olistoliths; on Pulau Laut overlain by basalt, silicified sandstones and radiolarian cherts), overlain by Upper Cretaceous Pitap Fm polymict clastics and Eocene clastics with coals. Oligocene Berai Lst covers much of Asem Asem basin. Overlain by Warukin Fm. Folding post-dates Miocene Warukin Fm deposition)

Rutten, L. (1926)- Over het voorkomen der Danau-formatie in Martapoera (Z.O. Borneo). Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 35, p. 31-35.
('On the occurrence of the Danau Fm in Martapura, SE Kalimantan'. See English version below)

Rutten, L. (1926)- On the occurrence of the Danau-formation in Martapura (S.E. Borneo). Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 29, 4, p. 524-528.
(online at: https://dwc.knaw.nl/DL/publications/PU00015300.pdf)
(Many rocks described by Hooze (1893) as Cretaceous Waringin and Alino claystones are radiolarites and may be considered as equivalents of Molengraaff's Danau Fm of Mesozoic radiolarian-rich deep water deposits from C Kalimantan (Krol (1926) questioned that these are the same formations; JTvG))

Rutten, L.M.R. (1927)- Chapters 13-21 on the geology of Borneo. In: L.M.R. Rutten (1927) Voordrachten over de geologie van Nederlandsch Indie, Wolters, Groningen, p. 191-310.
(Chapters reviewing geology of Borneo in Rutten's classic lecture series book)

Rutten, L. & C.J. Rutten-Pekelharing (1911)- De omgeving der Balikpapan-Baai. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2) 28, p. 579-601.
('The Balikpapan Bay area'. Brief geographic- geologic description of area on E Kalimantan coast)

Rutten, M.G. (1940)- On Devonian limestones with *Clathrodictyon* cf *spatiosum* and *Heliolites porosus* from Eastern Borneo. Proc. Koninklijke Nederlandse Akademie van Wetenschappen 43, 8, p. 1061-1064.
(online at: https://dwc.knaw.nl/DL/publications/PU00017492.pdf)
(E-M Devonian coral Heliolites porosus and possibly Silurian stromatoporoid Clathrodictyon cf spatiosum in dark recrystallized limestone, collected by Witkamp in 1925 along Telen River (tributary of Mahakam R.), above confluence of Long Hoet, NE Kalimantan, in folded, low-metamorphic 'Old Slates', with nearby andesites. (NB: appear to be blocks in melange) (Both taxa also reported from M-L Devonian of Laos and NE Thailand (Fontaine 1954, 1993). and may also be similar to Australian Mid-Devonian limestones from Canning Basin, Tamworth Belt, etc.; JTvG))

Rutten, M.G. (1943)- Over enkele Devonische fossielen uit Midden Oost-Borneo. Handelingen 29e Nederlandsch Natuur- Geneeskundig Congres, Amsterdam 1943, p. 58-59.
('On some Devonian fossils from Central E Borneo'. Brief note on Devonian coral and sponge fossils in Utrecht collection, collected by Witkamp (1925) in Telen River area, NE Kalimantan, in large area of 'Old Slates'. Rutten suggests Witkamp rocks are from 'Danau Fm', composed of isoclinally folded cherts, radiolarites, quartzitites (in other parts of C Kalimantan with Triassic Halobia and Monotis; Zeijlmans 1938), and greywackes, spilitic diabase and diabase porphyrites associated with (Permian) fusulinids. Telen location is ~200km NNW of Samarinda. Rocks part of N/E margin of 'Borneo continental core- SW Borneo Terrane', as exposed in NW Kalimantan- W Sarawak, or part of Panthalassan accreted arc terrane?; JTvG)

Rutten, M.G. (1947)- De gesteenten der Midden Oost-Borneo Expeditie 1925. Geographische Geologische Mededeelingen, Rijksuniversiteit Utrecht, Physiogr.-Geol. Reeks II, 9, p. 1-51.

('The rocks of the Central East Borneo Expedition'. Geological results of 1925 geographic expedition and descriptions of rocks collected by Witkamp, now at Utrecht University. Gently folded Tertiary sediments in S part, isoclinally folded, radiolarian-rich pre-Tertiary Danau Fm in North. Diorites emplaced in Danau Fm. Local Late Tertiary volcanics. Danau Fm two parts: older series of cherty sediments with radiolaria, intercalated limestones and diabase-spilites; younger part graywackes with fragments of rocks from older series (signifying orogenetic event?). With descriptions of Devonian coral and stromatoporoid, Eocene (Ta) Nummulites- alveolinid limestones, also rare Pellatispira, Miocene larger foraminifera, etc.)

Sambas Exploration Co. Ltd (1890)- Gold in Borneo. London, p. 1-39.
(online at: https://ia800405.us.archive.org/0/items/goldinborneo00samb/goldinborneo00samb.pdf)
(Brief review of gold in Kalimantan. Probably a promotional brochure for Sambas Exploration Company, which owned two gold concessions (Boedeck, Montrado) South of Sambas, NW Kalimantan, in what used to be the 'Chinese Districts'. Concessionaires R. Liddelow andMr. E.L. Gordon, who travelled across W Borneo in 1889. Most of knowledge on Borneo gold taken from T. Posewitz (1889) book, 'Borneo'. Sambas reportedly operated aroun 1896-1907)

Santy, L.D. (2014)- Diagenesis batupasir Eosen di Cekungan Ketungau dan Melawi, Kalimantan Barat. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 15, 3, p. 117-131.
('Diagenesis of Eocene sandstones of Ketungau and Melawi basins, W Kalimantan'. Eocene sandstones outcropping around Semitau High in NW Kalimantan show 'mesogenetic mature B' stage, indicating former burial between 2700-4000m in Melawi Basin. Eocene sands in Ketungau Basin 'mesogenetic semi-mature', i.e. burial depth of ~1500-2000m (less than Melawi Basin because of uplift with Semitau High in Oligocene))

Santy, L.D. & H. Panggabean (2013)- The potential of Ketungau and Silat shales in Ketungau and Melawi Basins, West Kalimantan: for oil shale and shale gas exploration. Jurnal Geologi Indonesia 8, 1, p. 39-53.
(online at: http://ijog.bgl.esdm.go.id/index.php/IJOG/article/view/154/154)
(Ketungau and Melawi Paleogene intramontane basin, in NW Kalimantan have potential for oil shale and shale gas. Ketungau shale dominated by type III, immature, and gas prone kerogen. Silat shale in Melawi Basin dominated by type II, immature- early mature, mixed gas, and oil prone kerogen. Both formations widespread and typically 900-1000m thick)

Sanyoto, P. (1992)- The stratigraphy and structure in the Semitau area; evidence for compressional tectonics in the Late Oligocene- Early Miocene. In: 29th International Geological Congress, Kyoto 1992, Abstracts, p. 433.

Sanyoto, P. (1993)- Regional tectonics of West Kalimantan. Proc. 22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 136. *(Abstract only)*

Sanyoto, P. & P.E. Pieters (1993)- Geological map of the Pontianak/Nangataman Sheet area, Kalimantan, 1314/1315, 1:250,000, Geological Research Development Centre (GRDC), Bandung.
(W Kalimantan map sheet with oldest rocks pre-Cretaceous Pinoh Metamorphics, Cretaceous granitoids and volcanics. In Kapuas River area in N overlain by E Oligocene clastics of Melawi Basin. Youngest rocks Oligo-Miocene Sintang Intrusives)

Sanyoto, P. & R. Sukamto (2000)- Perkembangan tektonik. In: U. Hartono, R. Sukamto et al. (eds.) (2000)- Evolusi magmatik Kalimantan Selatan, Geological Research Development Centre (GRDC), Bandung, Special Publication 23, p. 85-117.
(Review of Meratus Mountains tectonics, in 'Magmatic evolution of S Kalimantan' book. Lower Cretaceous amalgamation of ophiolite/ Jurassic metamorphics and Sundaland margin, etc.)

Sarbini, S.A. & W. Wirakusumah (1988)- Uranium deposit model for estimation of ore reserves in the Remaja area, West Kalimantan. Proc. Conference Uranium deposits in Asia and the Pacific; geology and exploration, Jakarta 1985, Int. Atomic Energy Agency (IAEA), Vienna, IAEA-TC-543/11, p. 155-166.
(On 1974-1978 uranium exploration work in W-C Kalimantan, identifying some mineralization in Kalan Prospect in N-dipping fault breccias in SE-dipping metasediments in Remaja area)

Sardjono (2004)- Evolusi kerak Lajur Meratus dan implikasi terhadap aspek mineralisasi. Majalah Mineral Energi (EDSM) 2, 2, p. 16-19.
('Crustal evolution of the Meratus Mts and implications of aspects of mineralization')

Sardjono (2021)- Gravity field and structure of the mantle plume beneath Kalimantan Island, Central Indonesia, Asian J. Science and Technology 12, 3, p. 11570-11574.
(online at: https://www.journalajst.com/sites/default/files/issues-pdf/8501.pdf)
(Gravity data suggest presence of mantle plume structure beneath Kalimantan. SW-NE trending elliptical structure in northern C Kalimantan- Sarawak,~600 km long, 300 km wide and~40 km thick. Depth to the top of plume ~160 km below sea level. Believed to feed diamond-bearing intrusions)

Sarmili, L. (1997)- Indikasi mineral kasiterit dan mineral berat lainnya di perairan Kalimantan Barat dan sekitarnya. Proc. 26th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, Sumber Daya Min. Energi, p. 254-262.
('Indications of cassiterite and other heavy minerals in waters of West Kalimantan'. Presence of cassiterite in seafloor sediments off SW Kalimantan suggests presence in source area of granites with same properties as granites around Bangka- Belitung)

Sarmili, L. (1998)- Surficial cassiterite deposits dispersal in southwest Kalimantan waters. Bull. Marine Geological Institute (MGI), Bandung, 13, 2, p. 1-8.
(Similar to Sarmili (1999) paper below. High anomaly cassiterite deposit in SW Kalimantan waters indicates tin deposits not only adjacent to Bangka and Belitung Islands, but also further E near Kalimantan. Extension of anomalies supported by shallow seismic and magnetic data indicating occurrence of granitic basement close to sea bed. Granitic basement may be different from basement of Bangka-Belitung (main granitic of tin belt), but may belong to Anambas-Natuna granitic belt)

Sarmili, L. (1999)- Submarine cassiterite in southwest Kalimantan waters. Proc. 35th Session Coord. Comm. Coastal Offshore Geoscience Programmes E and SE Asia (CCOP), Subic Bay 1998, 2, Technical Reports, p. 93-102.
(Discovery of cassiterite anomalies in W Kalimantan waters, indicating tin placers may form not only near Bangka and Belitung islands but also off Kalimantan. Shallow seismic data and strong magnetic anomalies indicate granitic intrusions close to surface, interpreted as source of cassiterite. Granites of Bangka-Belitung are part of Main granite tin belt whereas W Kalimantan intrusions belong to Anambas-Natuna granitic belt)

Sastratenaya, A.S. (1991)- Deformation et mobilite du megaprisme tectonique de Pinoh-Sayan, Kalimantan, Indonesie. Doct. Thesis, Universite Louis Pasteur de Strasbourg, p. 1-188. *(Unpublished)*
('Deformation and mobility of the Pinoh-Sayan tectonic mega-prism, Kalimantan'. Kalan sector of Pinoh-Sayan uranium exploration area on N side of Schwaner Mts. Basement Permo-Carboniferous metasediments, intruded by E Cretaceous tonalite and Late Cretaceous monzogranites, unconformably overlain by Tertiary Melawi Fm continental deposits. Tectonic phases: (1) Triassic folding and schistosity development; (2) Jurassic-U Cretaceous 65° CCW rotation of pre-existing structures along major NE-SW Kalan lineament, characterized by folding of schistosity and development of large sinistral WSW-ENE shear zone; (3) End-Cretaceous- Miocene reactivation of above two main features, causing lateral expulsion of 'tectonic megaprism' formed by these features, while fore-land cover is folded)

Satyana, A.H. (1994)- The northern massifs of the Meratus Mountains, South Kalimantan: nature, evolution, and tectonic implications to the Barito structures. Proc. 23rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 1, p. 457-470.
(online at: https://www.iagi.or.id/web/digital/62/36.pdf)
(Basement outcrops N of main Meratus Range contain similar Cretaceous subduction complex rocks and granodiorite as Meratus Range. Form series of E-vergent thrusts, i.e. opposite direction of W-vergent main Meratus Range)

Satyana, A.H. (1996)- Adang-Lupar Fault, Kalimantan: controversies and new observations on the Trans-Kalimantan megashear. Proc. 25th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 3, p. 124-143.
(online at: https://www.academia.edu/12177070/ADANG_LUPAR_FAULT_KALIMANTAN_CONTROVERSIES_AND_NEW_OBSERVATIONS_ON_THE_TRANS_KALIMANTAN_MEGASHEAR)
(Adang and Lupar faults are probably connected and form major WNW-ESE trans-Kalimantan left-lateral mega-shear fault zone, from Natuna to Makassar Straits, along which transpressional and transtensional deformation occurred)

Satyana, A.H. & C. Armandita (2008)- On the origin of the Meratus Uplift, Southeast Kalimantan- tectonic and gravity constraints: a model for exhumation of collisional orogen in Indonesia. Proc. 33rd Annual Conv. Indonesian Asociation Geophysicists (HAGI), Bandung 2008, p. 1-4.
(online at: www.academia.edu/12963123/ON_THE_ORIGIN_OF_THE_MERATUS_UPLIFT_SOUTH Etc.)
(Meratus Mts is collisional suture marking E-M Cretaceous collision of Schwaner and Paternoster continents. Presently, mountains are basement uplift separating Tertiary Barito basin from Asem-Asem and Pasir Basins. Lack of gravity and magnetic expression of ultramafics suggests Meratus Mts are 'rootless', composed of thin allochthonous oceanic slab, exhumed in Late Cretaceous due to buoyancy of thick subducted Paternoster continent after oceanic front broke off. Lack of deformation on seismic data from S Makassar Strait and Paternoster terrane oppose common view that micro-continents colliding with E Sulawesi propagated their tectonic forces W-wards and uplifted Meratus Mts)

Satyana, A.H. & H. Darman (2000)- Kalimantan. In: H. Darman & F.H.Sidi (eds.) Outline of the geology of Indonesia, Chapter 5, Indonesian Association Geologists (IAGI), Jakarta, p. 69-90.

Schairer, G. & A. Zeiss (1992)- First record of Callovian ammonites from West Kalimantan (Middle Jurassic, Kalimantan Barat, Borneo, Indonesia). BMR J. Australian Geology Geophysics 13, 3, p. 229-236.
(online at: https://ecat.ga.gov.au/geonetwork/srv/eng/catalog.search#/metadata/81321)
(New ammonite fauna of probable Callovian age from Brandung Fm dark limestones and shales in NW Kalimantan, 40 km NW of Sanggau. With Hectioceras spp., Reineckia, Indosphinctes, Kalimantanites n.gen., Borneoceras sanggauense n.gen. n.sp., etc. Many endemic elements, but main affinities with Iran and Europe (fauna apears different from M Jurassic 'NE Gondwana margin' Macrocephalites-dominated assemblages of Sula islands, the New Guinea margin and also Himalayas; JTvG))

Scheele, E. (1908)- Uber Einige Erdoele aus Borneo. Inaugural Dissertation, Universitat Basel, p. 1-64.
(online at: https://catalog.hathitrust.org/Record/006562857)
('On some oils from Borneo'. Old chemical analyses of 15 crude oil samples from Sanga Sanga and Louise fields, E Kalimantan)

Schellmann, W. (1966)- Die lateritische Verwitterung eines marine Tons in Sudost-Kalimantan. Geologisches Jahrbuch 84, p. 163-188.
('The lateritic weathering of a marine claystone in SE Kalimantan'. Study of 3m lateritic iron ore profile above Eocene marine clay which overlies serpentinite at SW flank of Kukusan Mountains, SE Kalimantan)

Schlagintweit, F. & M. Simmons (2023)- The original published description of an embryonic apparatus from the Orbitolinidae (Foraminifera) (Lower Cretaceous of Borneo) with a brief comment on the age of orbitolinid occurrences in Borneo. Acta Palaeontologica Romaniae 19, 2, p. 21-24.
(online at: https://actapalrom.geo-paleontologica.org/Online_first/Schlagintweit_Cretaceous_Borneo.pdf)
(First description of Cretaceous orbitolinid larger foraminifera in Indonesia was by Martin (1890), from supposed "Cenomanian" of Borneo. He assigned it to Orbitolina concava (Lamarck), but it is more compatible with late Barremian- E Aptian Palorbitolina lenticularis. There are no known records of true Orbitolina concava or other Cenomanian orbitolinids in Borneo region)

Schmutzer, J. (1908)- Bijdrage tot de kennis der oude eruptiefgesteenten en amphiboolschisten aan de Rivieren Sebilit en Tebaoeng in Centraal-Borneo. Verhandelingen Koninklijke Akademie van Wetenschappen, Amsterdam (2), 14, 3, p. 1-48.
('Contribution to the knowledge of old volcanic rocks and amphibole schists along the Sebilit and Tebaung Rivers in Central Kalimantan'. Petrographic descriptions of gabbros, diorite, peridotite-serpentinite and amphibolite from Molengraaff collection from steeply dipping section in Semitau Hills, NW Kalimantan. Most rocks collected as float in Tebaung River)

Schmutzer, J. (1909)- The mineralogic and chemical composition of some rocks from Central Borneo. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 11, p. 398-415.
(online at: https://dwc.knaw.nl/DL/publications/PU00013553.pdf)
(Petrographic descriptions and chemical analyses of 4 igneous rocks collected along Sebilit and Tebaung Rivers in Central Borneo'. Samples collected by Molengraaff from C Kalimantan: amphibole dacite, andesite and microgranite)

Schmutzer, J.I.J.M. (1910)- Bijdrage tot de kennis der postcenomane hypoabyssische en effusieve gesteenten van het Westelijke Muller gebergte in Centraal Borneo, Doctoral Thesis Delft, Amsterdam, p. 1-214.
(online at: https://repository.tudelft.nl/file/File_b0ff72ba-2109-4ee3-adfd-924270917be6)
('Contribution to the knowledge of the post-Cenomanian hypabyssal and eruptive rocks of the western Muller Mountains in Central Borneo'. Descriptions of igneous and volcanic rocks of the Muller Range, collected by Molengraaff. Post-Cenomanian, possibly Early Tertiary age. Of limited use for regional geology?)

Schmutzer, J. (1911)- Die vulkanischen Gesteine des westlichen Mullergebirges in Zentral-Borneo. Centralblatt Mineralogie Geologie Palaontologie 1911, p. 321-327.
(online at: www.biodiversitylibrary.org/item/192769#page/345/mode/1up)
('The volcanic rocks of the western Muller Mountains in Central Kalimantan'. Summary description of volcanic rocks of Muller Range, described in more detail in Schmutzer (1910). No figures)

Schultz, J.F.H. (1877)- Iets over de diamantmijnen in Landak, Westerafdeeling van Borneo. Tijdschrift voor Nederlandsch Indie, new series (4), 6, 2, p. 454-465.
('Note on the diamond mines at Landak, western province of Borneo'. Diamonds mined from alluvial deposits along Landak River in W Kalimantan mainly by ~600 Chinese miners. Richest mines farthest upstream. Most diamonds <4 carats, some ~40 carats. Diamonds processed in Pontianak and Singapore. No maps or figures)

Seavoy, R.E. (1975)- Placer diamond mining in Kalimantan, Indonesia. Indonesia (Southeast Asia Program Publications at Cornell University) 19, p. 79-84.
(Diamonds, gold and platinum in river and terrace gravels in Martapura and Pleihari regions, SE Kalimantan. Most placer gold from nearby Bobaris Mts. Platinum from weathering of layered ultrabasic rocks that form cores of Bobaris and Meratus Mts. Diamonds from kimberlite pipes associated with ultrabasic rocks of Bobaris Mts. Only small-scale mining by villagers)

Seeley, J.B. & T.J. Senden (1994)- Alluvial gold in Kalimantan, Indonesia: a colloidal origin? J. Geochemical Exploration 50, 1-3, p. 457-478.
(Placer gold deposits in Quaternary paleochannels and Pleistocene terraces in Ampalit and Cempaga Buang drainage basins near Kasongan, C Kalimantan. Nearby in N and NW basement outcrops (Permo-Triassic metamorphics and large Jurassic-Cretaceous granodioritic plutons, with NE structural trend throughout basement) and Oligo-Miocene volcanics-intrusives associated with epithermal gold deposits. Morphology of gold grains (common spherical grains) from Ampalit indicates gold grains possibly of colloidal origin, not mechanically transported to present domain, but transported via ground water to zone of aggregation)

Sendjaja, P., M.E. Suparka & E. Sucipta (2009)- Adakites rocks from Sintang, West Kalimantan and Una-Una Island, Central Sulawesi, Indonesia: evidence of slab melting of subducted young oceanic crust. In: 11th Regional Congress Geology Mineral Energy Resources of SE Asia (GEOSEA 2009), Kuala Lumpur, p. 42-43. *(Abstract)*
(online at: www.gsm.org.my/products/702001-101669-PDF.pdf)

(Adakites refer to group of silicic arc igneous-volcanic rocks primarily produced by direct melting of basaltic portion of subducted young (<25 ma) oceanic crust. Geochemical characteristic high silica (SiO_2 >56%), high Al_2O_3 (>15%), low MgO (<3%), high Sr, low Y. M Miocene adakitic granodiorite from Sintang, W Kalimantan and Quarternary adakites volcanic rocks from UnaUna Island, C Sulawesi similar patterns of LREE-enriched signature of island arc, confirming rocks produced in convergent margin environment)

Setiabudi, B.T. (2001)- Geochemistry and geochronology of the igneous suite associated with the Kelian epithermal gold deposit, Indonesia. Ph.D. Thesis, Australian National University (ANU), Canberra, p. 1-203.
(online at: https://digitalcollections.anu.edu.au/handle/1885/12888)
(Kelian large gold mine ~250 km W of Samarinda, C Kalimantan.E Miocene intrusive-related low sulphidation system in C Kalimantan Continental Arc. Miocence calc-alkaline suites from Kalimantan volcanic arc two trends (1) 'productive' igneous suites at Kelian, Muyup and Ritan, typical calc-alkaline series; (2) Magerang-Imang and Nakan suites with high MgO. Zircon ages of Magerang hornblende andesite 19.4 Ma and 19.6 Ma, Nakan andesite 20.0 Ma. Central Andesite porphyry at Kelian 3 age populations: 21.2, 20.5 and 19.7 Ma, with youngest date (Burdigalian) interpreted as emplacement age. Runcing Rhyolite porphyry 3 age populations between 19.3-20.8 Ma. Kelian and Magerang andesites short interval of emplacement (0.5- 1 Ma))

Setiabudi, B.T. (2002)- Nested cannibalistic intrusions associated with the Kelian gold deposit, Indonesia: zircon U-Pb dating by Excimer laser ablation ICP-MS. Proc. 31st Annual Conv. Indonesian Association Geologists (IAGI), Surabaya, 2, p. 894-911.
(online at: https://www.iagi.or.id/web/digital/18/NESTED-CANNIBALISTIC-INTRUSIONS-ASSOCIATED-WITH-THE-KELIAN-GOLD-DEPOSIT,-INDONESIA-;-ZIRCON-U-Pb-DATING-BY-EXCIMER-LASER Etc.)
(Kelian and Magerang andesites 250km W of Samarinda, with short age range. Magmatism and mineralization within 0.5- 1.0 Myrs around 19.4 Ma (E Miocene). Produced two types of eithermal deposits. Detrital zircons in nearby rivers Tertiary populations of 1.7-2.8 Ma and 15.8-21.7 Ma; sugnificant Cretaceous peak at ~105 Ma))

Setiabudi, B.T. (2002)- Geochemistry of the igneous suite of the Kelian region, East Kalimantan, Indonesia: implications for the gensis of the Kelian deposit. Proc. 31st Annual Conv. Indonesian Association Geologists (IAGI), Surabaya, 2, p. 912-933.
(online at: https://www.iagi.or.id/web/digital/18/GEOCHEMISTRY-OF-THE-IGNEOUS-SUITE-OF-THE-KELIAN-REGION,-EAST-KALIMANTAN,-INDONESIA-IMPLICATIONS-FOR-THE-GENESIS-OF-THE Etc.)
(E Miocene calk-alkaline arc volcanics of Kelian region two magmatic differentiation trends. Part of Central Kalimantan continental arc of andesitic- trachyandesitic rocks)

Setiabudi, B.T., I.H. Campbell, C.E. Martin & C.M. Allen (2007)- Platinum group element geochemistry of andesite intrusions of the Kelian region, East Kalimantan, Indonesia; implications of gold depletion in the intrusions associated with the Kelian gold deposit. Economic Geology and Bull. Soc. Economic Geologists 102, 1, p. 95-108.
(online at: https://www.researchgate.net/publication/247864690_Platinum_Group_Element_Geochemistry_of_Andesite_Intrusions_of_the_Kelian_Region_East_Kalimantan_Indonesia_Implications_of_Gold_Depletion_in_the_Intrusions_Associated_with_the_Kelian_Gold_Deposit)
(Gold mineralization at Kelian mine younger than associated C and E andesite intrusions (~19-20 Ma) considered to be related to S-dipping subduction zone in NW Sarawak. Gold probably derived from slightly younger intrusions. Parallel Cu-Au-PGE patterns due to mixing between mafic and more felsic magma)

Setiadi, I., A. Setiawan & M.A.S. Iskandar (2023)- Interpretasi geologi Cekungan Singkawang, Kalimantan Barat, berdasarkan analisis data gayaberat dan seismik. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 24, 2, p. 59-70.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/728/528)
('Geological interpretation of the Singkawang Basin, West Kalimantan, based analysis of gravity and seismic data'.Mesozoic Singkawang Basin in NW Kalimantan rel. poorly known. Possibly with active petroleum system. Gravity data suggests 7 sub-basins, with average sediment thickness 2.3 km, ~E-W orientations. Pendawan, Kayan and Payak Fms deposited above metamorphic basement)

Setiawan, B. (1993)- Les lignees granitiques et les skarns mineralisees en Zn de Longlaai, Est-Kalimantan (Borneo, Indonesie). Thesis Ecole Nationale Superieure des Mines de Paris, p. 1-481. *(Documents du BRGM no. 227)*
('The granitic suites and Zn-mineralized skarns from Longlaai, E Kalimantan')

Setiawan, B. (1993)- Studi kasus 3 tubuh granitik terkontaminasi di daerah Longlaai, Kabupaten Berau, Kalimantan-Timur. Proc. 22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 258-270. *(online at: https://www.iagi.or.id/web/digital/61/28.pdf)*
('Case study of three contaminated granitic bodies in the Longlaai area, Berau district, East-Kalimantan'. E Miocene Mamak, Gupak and Segah granitoids in NE Kalimantan with 'calcic' contamination)

Setiawan, B. & M. Fonteilles (1998)- Granitic magmas in individual massifs as liquids derived from a single andesite parental melt- two examples from N.E. Kalimantan, Indonesia. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 8, 77, p. 12-26.
(Two groups of E Miocene leucogranitic intrusions in Longlaai area in NE Kalimantan, Upper Segah and Longlaai, separated by 15km zone without intrusives. Intruded into Lower Eocene Geh Fm, Sr isotope age 22 ± 2 Ma. Interpreted to be formed by fractional crystallization processes from single deep seated andesitic magma chamber, resulting in 'normal' group and 'shoshonitic' type)

Setiawan, B. & L.M. Le Bel (1987)- Discovery of a new tin province, Long Laai area, East Kalimantan, Indonesia. In: C.S. Hutchison (ed.) Tin and Tungsten granites, Proc. IGCP Project 220 Meeting, Ipoh, Malaysia, 1986, Technical Bull. 6, p. 61-82.
(Tin-bearing adamellites in small intrusions in Long Laai area, NE Kalimantan. Radiometric age 26 Ma)

Setiawan, N.I., Y. Osanai, N. Nakano, T. Adachi & A. Asy'ari (2014)- Metamorphic evolution of garnet-bearing epidote barroisite schist from Meratus complex in South Kalimantan, Indonesia. Proc. 43rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, PIT IAGI 2014-106, p. 1-18. *(online at: https://www.iagi.or.id/web/digital/6/2014_IAGI_Jakarta_Metamorphic-Evolution-Of_Special-season.pdf)*
(First report on metamorphic evolution of garnet-bearing epidote-barroisite schist from Aranio River, etc. in Meratus Complex. P-T path of garnet-bearing epidote-barroisite schist and epidote-glaucophane schist: (1) first stage may be glaucophane- epidote assemblage (1.7-1.0 GPa, T 300-550 °C; max. P of prograde stage); (2) peak P-T condition based on garnet rim, barroisite, phengite, epidote and quartz (550-690 °C, 1.1-1.5 GPa; albite epidote amphibolite-facies corresponding to depth of 50-60 km); (3) retrograde stage shows changing composition of amphiboles from Si-rich barroisite to actinolite (~0.5 GPa at 350 °C). Meratus metamorphics experienced high-P conditions in epidote-blueschist facies before peak metamorphism in epidote-amphibolite facies. Garnet-bearing epidote-barroisite schist suggest higher geothermal gradient in Meratus Complex than in SW Sulawesi and C Java metamorphic terranes. See also Setiawan et al., 2015)

Setiawan, N.I., Y. Osanai, N. Nakano, T. Adachi & A. Asy'ari (2015)- Metamorphic evolution of garnet-bearing epidote-barroisite schist from the Meratus complex in South Kalimantan, Indonesia. Indonesian J. on Geoscience (IJOG) 2, 3, p. 139-156.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/download/204/198)
(Same paper as Setiawan et al. (2014) above)

Setiawan, N.I., Y. Osanai, N. Nakano, T. Adachi, L.D. Setiadji & J. Wahyudiono (2013)- Late Triassic metatonalite from the Schwaner Mountains in West Kalimantan and its contribution to sedimentary provenance in the Sundaland. Berita Sedimentologi 28, p. 4-12.
(online at: www.iagi.or.id/fosi/berita-sedimentologi-no-28-borneo.html)
(Metatonalites in W Schwaner Mountains of W Kalimantan have calc-alkaline affinities and derived from subduction-related arc tectonic environment (proto-S China Sea subduction?). Some have adakite signature. Zircon dating shows magmatic age at 233± 3 Ma (~Carnian, Late Triassic), older than accepted ages for granitoids in Schwaner Mountains and oldest recorded here. Schwaner Mountains therefore sediment source not only from Cretaceous age granites, but also from Triassic age granites)

Setiawan, R. & I. Nurdiana (2007)- Petrologi batupasir Formasi Mentarang kelompok Embaluh, di daerah Longbia, Kalimantan Timur. In: Geologi Indonesia: dinamika dan produknya, Geological Research Development Centre (GRDC), Bandung, Special Publ. 33, 2, p. 193-205.
(Petrology of deep marine Late Cretaceous -E Eocene Mentarang Fm sandstone of Embaluh Group in Longbia district, E Kalimantan. Partly low-metamorphic interbedded sandstones, siltstone, and slaty mudstone. Mainly litharenites, recycled orogen. Sandstones provenance Semitau Ridge and Schwaner Mts in SW Kalimantan, probably also Embuoi and Busang Complex in S. Andesitic-basaltic rock fragments more common than sedimentary and metamorphic rocks. Volcanism probably related to tectonics in N Kalimantan)

Setijadji, L.D. (2009)- Alluvial gold in Central Kalimantan: its mode of occurrence, source and consequences for primary deposits. Proc. 38th Annual Conv. Indonesian Association Geologists (IAGI), Semarang, 1p. *(Abstract only)*
(online at: https://www.iagi.or.id/web/digital/26/2009_IAGI_Semarang_Alluvial-Gold-in-Central.pdf)
(Alluvial gold deposits extensively distributed in C Kalimantan. Most deposits worked as small-scale traditional operations. One large-scale dredging operation at Ampalit drainage basin near Kasongan in 1988-1992. Many alluvial gold deposits associated with muddy gravelly rocks. Much of gold may not be derived from Tertiary epithermal systems but from Mesozoic granite-related quartz veins)

Setijadji, L.D., N.I. Basuki & S. Prihatmoko (2010)- Kalimantan mineral resources: an update on exploration and mining trends, synthesis on magmatism history and proposed models for metallic mineralization. Proc. 39th Annual Conv. Indonesian Association Geologists (IAGI), Lombok 2010, p. 1-14.
(online at: https://www.iagi.or.id/web/digital/12/2010_IAGI_Lombok_Kalimantan-Mineral-Resources.pdf)
(Kalimantan magmatic arcs Cretaceous and younger events. Subduction magmatism may ended after Late Cretaceous in much of island, followed by syn- and post-collision magmatism. Metallic mineralization in two main periods (1) Cretaceous or older, dominated by granitoid-related skarn iron and base metals in Schwaner and Meratus Mountains; (2) M-L Miocene gold and base metals mineralization associated with Sintang Intrusions. Miocene gold-bearing intrusions not products of ordinary subduction-zone magmatism, but derived from basalts source during major tectonic events following subduction)

Setijadji, L.D., N.R. Nabawi & I.W.Warmada (2014)- Tin occurrences in western Kalimantan island, Indonesia and implications on the new interpretation of the SE Asia tin-bearing granite belts. Proc. 4th Asia Africa Mineral Resources Conference, Algiers, p. *(Abstract ony)*
(Discovery of tin mineralization in Ketapang and Singkawang districts, W Kalimantan, suggests presence of S-type Triassic-Jurassic granites in Ketapang area, whose distribution is not well constrained due to overlapping of Cretaceous granitoids in Schwaner Mts, which are not known to produce tin. This suggests SW Kalimantan was already connected to Sumatra and Tin islands since at least Triassic-Jurassic)

Setijadji, L.D., F. Tamba & A. Idrus (2010)- Geology of the Ruwai iron and Zn-Pb-Ag skarn deposits Lamandau District, Central Kalimantan. In: N.I. Basuki & S. Prihatmoko (eds.) Proc. MGEI-IAGI Seminar Kalimantan coal and mineral resources, Balikpapan 2010, p. 175-185.
(also in Majalah Geologi Indonesia 2011, 26, 3, p. 143-154)
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/759)
(Fe and Zn-Pb-Ag skarn mineralization in Ruwai District, Schwaner Mountains, C Kalimantan, result of Late Cretaceous- E Tertiary granitoids intrusions. Initially reported by Frijling et al. (1920). Oldest rocks in area Permo-Carboniferous Pinoh Metamorphics, Late Triassic- Mid Cretaceous Ketapang Complex limestone-sandstone- siltstone and Kuatan/ Metan andesitic-rhyolitic volcanics, all intruded by E and Late Cretaceous Schwaner Arc (Sukadana batholiths))

Setyadi, H., W, Yudanto, D. Kristanto, T.R. Setiawan, D. Iswanto, B. Santoso, I. Hardjana & A. Ismanto (2015)- Discovery, characteristic and inventory of Seruyung deposit, Nunukan District, North Kalimantan Province, Indonesia. In: N.I. Basuki (ed.) Proc. Indonesian Society of Economic Geologists (MGEI) 7th Annual Convention, Balikpapan, p. 85-100.
(On Seruyung marginally economic gold deposit in NE Kalimantan, NW of Tarakan, dicovered in 1998. In Neogene andesitic volcanics, part of Miocene- Recent volcanic arc, built on Tidung Basin M Eocene-Miocene

sediments, formed due to SE-ward subduction of Sulu Sea Plate. High sulphidation epithermal gold deposit, with mineralization mainly in vuggy quartz core zone with hydrothermal breccia hosted by volcanic breccia)

Setyanta, B. (2016)- Konfigurasi geologi bawah permukaan cekungan sedimen daerah Longbia-Muarawahau, Kalimantan Timur, berdasarkan analisa gayaberat. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 17, 4, p. 217-229.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/15/13)
('Configuration of basement of geological sedimentary basin area of Longbia-Muara Wahau, East Kalimantan, based on gravity analysis'. Bouguer anomalies in NE Kutai basin suggest basement composed of granitic and ophiolitic fragments)

Setyanta, B. & I. Setiadi (2006)- Kompleks batuan ultramafik Meratus sebagai bagian dari ofiolit kerak samudra ditinjau dari aspek geomagnetik dan gaya berat. Jurnal Sumber Daya Geologi (JSDG) 16, 6 (156), p. 355-348.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/374/327)
('Meratus ultramafic rocks complex as part of ophiolite oceanic crust from geomagnetic and gravity aspects'. Geomagnetic and gravity analysis in Banjarmasin Quadrangle at SW end of Meratus Range shows high geomagnetic anomaly values in S, generally low in N. Ophiolitic rock interpreted to overlie less magnetized granitic crust. Bobaris and Manjam ophiolite belts represent oceanic crust thrusted over granitic crust)

Setyanta, B., I. Setiadi & W.H. Sinamora (2008)- Model geologi bawah permukaan daerah Muara Wahau hasil analisis anomali gaya berat berdasarkan estimasi kedalaman dengan metode analisis spektral. Jurnal Sumber Daya Geologi (JSDG) 18, 6, p. 379-390.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/258/238)
('Subsurface geology model of the Muara Wahau area from gravity anomaly analysis and depth estimation with the spectral analysis method')

Setyanta, B., B.S. Widijono & D.Z. Hayat (2002)- Kelurusan struktur geologi dan implikasinya terhadap evolusi tektonik daerah Samarinda-Sangatta, Kalimantan Timur berdasarkan analisis anomali gayaberat. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 12, 128, p. 14-23.
('Lineaments of geological structures and implications for the tectonic evolution of the Samarinda-Sangatta area, East Kalimantan, based on analysis of the gravity anomalies'. Kutai Basin regional WNW-ESE lineaments associated with top basement step faulting)

Setyanto, A. & M. Surachman (2017)- The occurences of heavy mineral placer at Kendawangan and its surrounding, West Kalimantan Province. Bulletin of the Marine Geology 32, 1, p. 33-40.
(online at: http://ejournal.mgi.esdm.go.id/index.php/bomg/article/view/319/288)
(Study of heavy mineral placers of Kendawangan coastal and adjacent offshore area, W Kalimantan. Cassiterite (0.3-15%) and zircon (1-26%) found at all locations and have potential to be further developed. High content of cassiterite (Sn) generally linked to sediment of Kendawangan River, Kalimantan)

Shah, A.A., M.N. Zhafri, J. Delson^ B. Navakanesh (2018)- Major strike-slip faults identified using satellite data in Central Borneo, SE Asia. Geosciences (MDPI) 8, 5, 156, p. 1-21.
(online at: https://www.mdpi.com/2076-3263/8/5/156)
(Lots of mainly NW-SE trending dextral strike-slip faults identified from satellite imagery)

Shen, A.H., Tay Thye Sun, Ye Luo, J.T. van Gorsel, M. Rosana Fatimah, Tay Kunming & W. Deng (2017)- Kalimantan diamonds from Landak: gemmological characteristics, FTIR and photoluminescence spectroscopy. Proc. 35th Int. Gemmological Conf. (IGC) 2017, Windhoek, Namibia, p. 57-61.
(online at: www.igc-gemmology.org/)
(Brief review. Diamonds found in 4 main areas of Kalimantan (Landak, Puruk Cahu, Martapura, Kelian), mainly in Quaternary alluvial deposits, some in Cretaceous and Eocene conglomerates. Landak diamond deposits along lower terrace of Landak river)

Shimazaki, Y. & K. Isono (1964)- Mineralogy of some laterite ores from Sebuku Island, Indonesia. Bull. Geological Survey of Japan 15, 8, p. 447-465.
(online at: https://www.gsj.jp/data/bull-gsj/15-08_01.pdf)
(Main minerals in laterite ores from Sebuku goethite, gibbsite, magnetite, chromite, spinel, hematite, quartz. No location data or geologic background info))

Sikumbang, N. (1986)- Geology and tectonics of pre-Tertiary rocks in the Meratus Mountains, South-East Kalimantan, Indonesia. Ph.D. Thesis, University of London, p. 1-313. *(Unpublished) (online at: https://repository.royalholloway.ac.uk/file/0b87633a-607a-4c53-833e-d6da582d4955/1/10090124.pdf))*
(Meratus metamorphics two groups: widespread Hauran schists (K-Ar ages 108-119 Ma) and lower grade Pelahari phyllites, etc. Orbitolina limestones in three tectonic settings. In N of study area limestones with granodiorite and granite detritus in basal part and deposited unconformably on Sunda continental basement at NW edge of Meratus Range. In SE area parautochthonous Orbitolina limestone in thrust sheets. Species identified by Rolf Schroeder as Palorbitolina lenticularis and Orbitolina (Mesorbitolina) parva, indicating early Late Aptian age. Also Barremian ammonites below Orbitolina limestone and intruded by Sg. Kintap granite with K/Ar age of 95.3 Ma (Cenomanian). Aptian and older rocks unconformably overlain by Albian-and younger Alino Gp, with basal Pudak Fm submarine volcanoclastics with Orbitolina limestone blocks (olistostrome?). Tabatan Fm polymict conglomerates above erosional surface, probably of Campanian age, overlain by ?lacustrine Rantaulajang Fm black clay with estherids)

Sikumbang, N. (1990)- The geology and tectonics of the Meratus Mountains, South Kalimantan, Indonesia. Geologi Indonesia (IAGI) 13, 2, p. 1-31.
(Meratus Mts highly deformed E Cretaceous- Paleocene ophiolitic and metamorphic rocks and sediments and island arc volcanics. Oldest rocks Berriasian- Aptian shelf-slope sediments, juxtaposed with ophiolite/ oceanic crust by strike-slip faulting shortly after deposition. Volcanic arc collided with Sundaland in Cenomanian. Absence of Paleocene- Lower Eocene suggests uplift. Late M Miocene and Plio-Pleistocene uplift events)

Sikumbang, N. & R. Heryanto (1994)- Geologic map of the Banjarmasin Quadrangle, Kalimantan, Quadrant 1712 (1:250,000). Geological Research Development Centre (GRDC), Bandung. *(also 2nd ed., 2009)*
(Geologic map, including SW part of Meratus Range)

Simandjuntak, H.R.W., U. Kuntjara, S. Simandjuntak, K.P. Burgath & M. Klimainsky (1986)- Investigations of chromite occurrences in the Bobaris ophiolite, S.E. Kalimantan, Indonesia. Report, Direktorat Sumberdaya Mineral, Bandung, p. 1-73. *(Unpublished)*

Simbolon, D.R., D.P. Cendi & E.W.Laurie (2019)- Metallogenic model of the Ruwai Fe-Zn-Pb-Ag skarn deposit, Central Kalimantan: understanding the complexity from proximal to distal base metal mineralization. In: Unlocking concealed and complex deposits, Proc. 11th Annual Conv. Indonesian Soc. Economic Geologists (MGEI), Bogor 2019, p. 115-122.
(online at: www.researchgate.net/publication/336086262_Metallogenic_Model_of_the_Ruwai Etc.)
(Ruwai Fe-Zn-Pb-Ag deposit, in E part of Schwaner Mountains in C Kalimantan metallogenic belt, one of best examples of skarn base metal mineralization in Indonesia. Four mining centres: Gojo-Karim (Fe-proximal skarn), Ruwai-SW Gossan (Zn-Pb-Ag-distal skarn), Gojo and Karim. Linked to (Cretaceous) quartz diorite intrusions)

Simmons, S.F. & P.R.L. Browne (1990)- Mineralogic, alteration and fluid-inclusion studies of epithermal gold-bearing veins at the Mt. Muro Prospect, Central Kalimantan (Borneo), Indonesia. J. Geochemical Exploration 35, 1-3, p. 63-103.
(Mt. Muro prospect in Upper Kutai basin numerous steeply dipping, epithermal gold-bearing quartz veins, formed during Oligo-Miocene calc-alkaline volcanism of C Kalimantan. Probably short-lived subduction andesitic volcanic event above S-dipping subduction zone)

Simmons, S.F. & P.R.L. Browne (1992)- Mineralogic, alteration and fluid-inclusion studies of epithermal gold-bearing veins at the Mt. Muro Prospect, Central Kalimantan (Borneo), Indonesia. In: J.W. Hedenquist et al. (eds.)

Epithermal gold in Asia and the Pacific, mineral concentrations and hydrocarbon accumulations in the ESCAP Region series, UN ESCAP, 6, p. 60-64.
(Abbreviated version of paper above)

Slater, E., J. Hanley, T. Mulja, M. Zentilli & C.Trottier (2020)- Epithermal mineralization in the Busang Southeast Zone, Indonesia: new insight into the Au prospect at the center of the Bre-X fraud. Minerals (MDPI) 10, 8, 698, p. 1-16.
(online at: https://www.mdpi.com/2075-163X/10/8/698)
(Busang mineral prospect in the Tertiary E-C Kalimantan volcanic belt was reported to host large Au resource until 1997 when it was revealed that Bre-X drill core samples had been deliberately contaminated ("salted") with extraneous Au, to falsify and increase resource estimates. Busang similar to nearby mineralized epithermal deposits in Kalimantan Gold Belt, but currently uneconomic)

Sinamora, W.H. & I. Budiman (2000)- Penafsiran data gayaberat Kalimantan menggunakan teknik pengolahan dan penyajian citra warna dan citra relief bayangan. Geological Research Development Centre (GRDC), Geophysical Series 1, p. 35-46.
(On gravity anomaly trends across W Kalimantan)

Singh, S.S.M., L.S. Binel, M.N. Juliansyah, F.H. Darmawan, M.L. Lee & X. Legrand (2019)- Identification of a back bulge basin in the northwestern part of Barito Basin (Borneo, Indonesia). Proc. Asia Petroleum Geoscience Conference and Exhibition (APGCE 2019), EAGE, Kuala Lumpur, p. 1-5. *(Extended Abstract)*
(In NW part of Barito foreland basin is a 'back bulge basin' with its own potential petroleum system)

Situmorang, B. (1987)- Emplacement of the Meratus ultrabasic massif: a gravity interpretation. Lemigas Scientific Contributions 11, 2, p. 61-72.
(online at: https://www.researchgate.net/publication/359959646_Emplacement_Of_The_Meratus_Ultrabasic_Massif_A_Gravity_Interpretation)
(SE of Banjarmasin, Late Miocene sediments unconformable over Pretertiary, suggesting pre-Late Miocene uplift. Two dimensional gravity modeling suggests Meratus ophiolites are rel. thin (~300-350m; thicker if serpentinized), allochthonous sheets of Mesozoic ultrabasic rocks, emplaced in mid-Cretaceous, and probably underlain by ~26 km thick continental crust. Meratus massif part of larger oceanic crustal segment emplaced during M Cretaceous obduction (incl. diabase/gabbro at base Taka Talu 2 well, Paternoster Platform?))

Situmorang, R.L. & G. Burhan (1995)- Geological map of the Tanjung Redeb Quadrangle 1918, Kalimantan, scale 1: 250.000. Geological Research Development Centre (GRDC), Bandung.
(Map of part of Tarakan Basin. Four tectonic events, oldest in or before Late Cretaceous. Oldest formation is folded, low metamorphic Cretaceous Bangara Fm (= Bengara? flysch with radiolaria, in SE. Unconformably overlain by Eocene Sembakung Fm, with clastics in lower part, limestone (with Nummulites, Discocyclina) and tuff in upper part. Thick Late Oligocene- E Miocene limestone, Jelai Volcanics, Etc.)

Smith, C.B, G.P. Bulanova, S.C. Kohn, H.J. Milledge, A.E. Hall, B.J. Griffin & D.G. Pearson (2009)- Nature and genesis of Kalimantan diamonds. Proc. 9th Int. Kimberlite Conference, Lithos 112, Supplement. 2, p. 822-832.
(online at: https://www.researchgate.net/publication/230021952_Nature_and_genesis_of_Kalimantan_diamonds)
(Ddiamonds from four main diamond mining districts in Kalimantan colourless or yellow- pale brown, with features indicative of fluvial transport and crustal recycling. Inclusions 68% peridotitic and 32% eclogitic. Re/Os dating of sulphide inclusion from one peridotitic diamond gave Archean age of 3.1 Ga ± 0.2. Kalimantan diamonds resemble those from kimberlite or lamproite from subcontinental lithospheric mantle. Five genetic groups recognized, but mixed occurrences due to long history of sedimentary recycling)

Smit Sibinga, G.L. (1932)- The interference of meridional and transversal stress in the southeastern part of Borneo. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 35, 8, p. 1090-1096.
(online at: https://dwc.knaw.nl/DL/publications/PU00016325.pdf)

(Two main trends of Tertiary folds in Kalimantan:'transverse' (E-W; parallel to Pretertiary nucleus of island) and 'meridional' (N-S). Mangkalihat Peninsula separates NW-SW trending folds in north from N-S trending folds in south)

Smit Sibinga, G.L. (1953)- On the origin of the drainage system of Borneo. Geologie en Mijnbouw N.S. 15, 5, p. 121-136.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0ZVcxcHpSWkZzQWM/view)
(Present river system of Borneo originated on initial relief in Early Neogene time. Early Neogene main divides were Schwaner Mts and Semitau-Kuching Ridge. Plio-Pleistocene diastrophism created present main Kinabalu-Schwaner-Karimata divide)

Smit Sibinga, G.L. (1953)- Pleistocene eustasy and glacial chronology in Borneo. Geologie en Mijnbouw 15, 11, p. 365-383.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0YV9fZXR4WGVTOG8/view)
(Terraces in more stable part of Borneo similar to those in Java and Sumatra and can be correlated to glacial-interglacial chronology)

Soeria-Atmadja, R., D. Noeradi & B. Priadi (1999)- Cenozoic magmatism in Kalimantan and its related geodynamic evolution. J. Asian Earth Sciences 17, p. 25-45. *(online at: www.academia.edu/10855117/Cenozoic_magmatism_in_Kalimantan_and_its_related_geodynamic_evolution)*
(NE-SW Tertiary magmatic belt of C Kalimantan two periods of subduction: Eocene-Oligocene and Late Oligocene-Miocene. Younger magmatic belt on earlier belt; limited exposures of Eocene volcanics. Belt known as `gold belt' of C W Kalimantan, with Neogene epithermal mineralization at relatively shallow depths. Earliest known subduction-related magmatism in Eocene-E Oligocene with calc-alkaline silicic pyroclastics, followed by continental collision. Subsequent subduction-related magmatism from Late Oligocene-Pleistocene magma evolution from calc-alkaline to potassic calc-alkaline. Plio-Pleistocene magmatism with basalt flows)

Soesilo, J., Amiruddin, V. Schenk, E. Suparka & C.I. Abdullah (2012)- Plutonism and contact metamorphism in the Meratus Complex, Southeast Kalimantan. Proc. 41st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2012-GD-33, p. 28. *(Abstract only; no figures)*
(Plutonic rocks in Meratus Complex, SE Kalimantan, include Late Carboniferous- E Permian granite of Lumo, near Buntok (K-Ar ages of micas 319 and 260 Ma). To E, small outcrop of Late Jurassic Purui Dalam oceanic trondhjemite overlain by Late Cretaceous turbidites and volcanics. Mid-oceanic plagio-granite K-Ar age 155 Ma (Late Jurassic). Further SE mid-Cretaceous volcanic arc granitoids in main body of Meratus Complex: Riam Andungan trondhjemite 92±2 Ma; Hajawa granitoid 87 and 71 Ma; Batangalai 119 and 101 Ma. Common Cretaceous high-T contact metamorphism. U-Pb zircon dating of diorite and metapelite hornfels yield 115 Ma and 118.3 Ma (Aptian) ages)

Soesilo, J., E. Suparka & C.I. Abdullah (2011)- Study on garnet from Meratus Complex, South Kalimantan and its usefulness on diamond source tracking. Proc. Seminar Nasional Kebumian 2011, UPN-Veteran, Yogyakarta, 2011, p. 7.12- 7.22.
(online at: http://eprints.upnyk.ac.id/12895/1/2011_Prosiding%20Seminar%20Nasional%20Kebumian%20UPNVY_Study%20on%20Garnet%20From%20Meratus%20Complex%2C%20South%20Kalimantan%20and%20Its%20Usefulness%20on%20Diamond%20Source%20Tracking.pdf)
(Garnets in two types of pre-Late Cretaceous metamorphic rocks in Meratus Complex: (1) blueschist metapelite and (2) garnet granulite. (still no clear link to alluvial diamonds?-JTvG)

Soesilo, J., E. Suparka, V. Schenk & C.I. Abdullah (2012)- Glaucophanitic and its retrograded metamorphic rocks in the Southern Meratus Complex, Southeast Kalimantan. Proc. 41st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2012-M-27, 1p. *(Abstract only)* *(also Chapter 3 of ITB thesis; online at: https://digilib.itb.ac.id/assets/files/2019/2012_DS_PP_JOKO_SOESILO_1-BAB_3A1.pdf)*
(Three metamorphic terrains in Meratus Complex, SE Kalimantan. High-P metamorphics represented by quartz-rich Aranio (or Hauran) schist with glaucophane-crossite in southern terrain, with outcrops at Hauran, Apukan and Riam Kanan Rivers. Amphibole exhibits retrograde path toward greenschist. Wakita et al. (1998) ages for

high-P metapelite schist 180-165 Ma (E-M Jurassic; now believed to be age of peak glaucophane metamorphism), to 112-108 Ma (Albian/Cretaceous; probably age of retrograding greenschist))

Soesilo, J., V. Schenk, E. Suparka, C.I. Abdullah and Amiruddin (2014)- The K-Ar and U-Pb SHRIMP zircon age dating of the Batangalai Pluton, Central Meratus, Southeast Kalimantan. Proc. Seminar Nasional Geologi Nuklir dan Sumber Daya Tambang, BATAN, Jakarta, p. 1-16.

Soetarno, D. (1992)- Mineralisation uranifere dans le bassin de la Kalan, Kalimantan (Indonesie); geologie et geochronologie. Doct. Thesis Universite de Nancy, p. 1-167. *(Unpublished)*
(Uranium mineralization in Kalan Basin, N flank Schwaner Mountains, N part of W Kalimantan Province, in schistose metapelites that underwent regional and contact metamorphism. Uraninites of Remaja emplaced at 151 Ma, Rirang at 140 Ma. Uranium mineralization corresponds with start of Yenshanian orogeny, manifested by granite intrusions around Jurassic- Cretaceous boundary)

Soetarno, D. (1992)- Geokronologi U-Pb pada mineralisasi uranium di Eko dan Rirang, Kalan, Kalimantan Barat. Proc. 21st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 1, p. 257-264.
(online at: https://www.iagi.or.id/web/digital/51/17.pdf)
('U-Pb geochronology of uranium mineralization in Eko and Rirang, Kalan, West Kalimantan'. U- mineralization in NW Kalimantan (along N side of Schwaner Range) in fine-grained metasediments. Age of uranite at Eko tunnel 150 Ma; uranite associated with monazite in Rirang 140 Ma (both around Jurassic-Cretaceous boundary). U mineralization not genetically related with formation of Schwaner granitoids)

Soetarno, D. (1993)- Karakter dan umur kimia mineralisasi uranium di Remaja dan Tanah Merah, Kalan, Kalimantan. Proc. 22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 724-735.
('Character and chemical age of uranium mineralization in Remaja and Tanah Merah, Kalan, Kalimantan'. Uranium mineralization in Kalan area, N margin of Schwaner Mts, NW Kalimantan. In Remaja mainly uraninite and branerite; in Tanah Merah mainly uraninite and monazite. Chemical ages of Remaja 145-150 Ma (or 125-130 Ma); Tanah Merah 145-150 Ma (or 135-145 Ma))

Soetrisno, S. Supriatna, E. Rustandi & K. Hasan (1994)- Geological map of the Buntok Quadrangle, 1: 250,000, Quad 1714, Geological Research Development Centre (GRDC), Bandung.
(Geologic map of N part Barito Basin, with Meratus Mountain front in East (folded Cretaceous granite, overlain by Late Cretaceous clastics and volcanics, Eocene Tanjung Fm, Oligocene Berai Limestone and Montalat Fm marls, Miocene Warukin Fm clastics, etc.)

Spencer, L.K., S.D. Dikinis, P.C. Keller & R.E. Kane (1988)- The diamond deposits of Kalimantan, Borneo. Gems & Gemology 24, 2, p. 67-79.
(online at: https://www.gia.edu/doc/The-Diamond-Deposits-of-Kalimantan-Borneo.pdf)
(Diamonds from West and SE Kalimantan are in alluvial deposits from unknown source. Do not believe in nearby ophiolite source)

Stauffer, P.H. (1983)- Phantom tektite localities of Borneo. Meteoritics 18, 1, p. 9-13.
(The only authentic Pleistocene tektite finds in Kalimantan are from around Martapura, SE Kalimantan (Pelaihari, Sungai Riam, etc.). First reported by S. Muller in 1836. SW Kalimantan localities shown on maps in Lacroix and others are probably misinterpretations of older literature)

Stumpfl, E.F. & A.M. Clark (1966)- Electron-probe microanalysis of gold platinoid concentrates from Southeast Borneo. Transactions of the Institution of Mining and Metallurgy, London, 74, p. 933-946.

Stumpfl, E.F. & M. Tarkian (1974)- Vincentite, a new palladium mineral from south-east Borneo. Mineralogical Magazine 39, p. 525-527.
(online at: https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=7abfcf645ba448529fe44e5675356053f01d5b2a)

(New palladium mineral containing As, Sb, and Te, discovered in platinum-gold concentrates from Riam Kanan River, SE. Kalimantan)

Subagio & T. Patmawidjaja (2013)- Pola anomali Bouguer dan anomali magnet dan kaitannya dengan prospek sumber daya mineral dan energi di Pulau Laut, Pulau Sebuku dan Selat Sebuku, Kalimantan Selatan. J. Geologi Kelautan 11, 3, p. 115-129.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/236/226)
('Bouguer anomaly patterns and magnetic anomalies and their relation with mineral and energy prospects of Pulau Laut, Sebuku Island and Sebuku Strait, South Kalimantan'. Circular pattern of Bouguer gravity anomalies of 45-64 mGals reflect ultramafic rocks close to surface; exposed ultrabasic rocks indicated by high magnetic anomalies. Parallel Bouguer patterns reflect thrust and normal faults)

Subagio, B.S. Widijono & Sardjono (2000)- Model kerak lajur Meratus berdasarkan analisis data gayaberat dan magnet, implikasi terhadap potensi mineral ekonomi. Geological Research Development Centre (GRDC), Geophysical Ser. 1, p. 47-67.
('Meratus belt crustal model based on gravity and magnetic data analysis, implications for economic mineral potential'. Crustal models of two traverses across Meratus Mts (Kandahan and Martapura), based on gravity-magnetic data. Data can be interpreted with various models, one of them (fig. 8) with relatively thin obducted ultramafic slab over granite)

Subandrio, A.S. & A. Kuswanto (2010)- Geological investigation and geolectric tomography study on iron ore deposit of Kendawangan- West Kalimantan and their possible genetic significance. In: N.I. Basuki & S. Prihatmoko (eds.) Proc. Kalimantan coal and mineral resources, MGEI-IAGI Seminar, Balikpapan 2010, p. 117-128.
(Kendawangan iron ore deposits in Triassic-Cretaceous in two areas of W Kalimantan, 400km S of Pontianak: (1) Bukit Besi area areally restricted, thick-bedded-massive hematite ores in lower part of Cretaceous magmatic complex (produced by submarine volcanism) and (2) Birai area metamorphosed, folded specularite ores within Triassic Pinoh Fm meta-sedimentary belt. Some mineralization smilar to Banded Iron Ore Fm)

Subiantoro, L., P. Widito & A. Marzuki (2003)- Sintesis geologi mineralisasi uranium di sektor Tanah Merah dan sekitarnya Kalimantan Barat. In: Kumpulan Laporan hasil penelitian Tahun 2003, Pusat Pengembangan Geologi Nuklir-Batan, p. 452-471.
(online at: http://digilib.batan.go.id/e-prosiding/File%20Prosiding/Geologi/Laporan_Pen._2004-2006_PPGN_berkas_A/artikel/lilik_s_452.pdf
('Synthesis of geology of uranium mineralization in the Tanah Merah area and surroundings, Kalan Basin, West Kalimantan'. Uranium in veins WNW -ESE trending fractures in Permian Nanga Pinoh Metamorphics. Uranium process tied to late-magmatic Sukadana granite of Cretaceous age?)

Sudradjat, S.A. (1976)- Geological map of the Tewah Quadrangle, Central Kalimantan (scale 1: 250,000). Geological Survey Indonesia, Bandung.

Sugiaman, F. & L. Andria (1999)- Devonian carbonate of Telen River, East Kalimantan. Berita Sedimentologi 10, p. 18-19.
(Devonian black limestones with Heliolites porosus coral, first reported by Witkamp (1925) and Rutten (1940, 1943) from melange complex at N margin Kutai basin (blocks floating in black slate and turbiditic sandstones). May be blocks in Permian sandstone. Telen River sst also with Permian Neoschwagerid fusulinids (Darman & Sidi, 2000, Geology of Indonesia, p. 86))

Sugiaman, F., L. Andria, A.Y. Arief, Nurcahyo W.H., Meizarwin, S. Mujiyanto, A. Budianto & F.A. Wisanggono (2016)- Devonian Expedition 1989, Telen River area, Muara Wahau District, Kutei region, East Kalimantan. Geology Student Association 'GEA', Institut Teknologi Bandung (ITB), p. 1-141.
(English edition of 1989 report on ITB expedition to NE Kalimantan to study Devonian limestone/fossils. These are the oldest known rocks from W Indonesia, first reported by Witkamp (1925) and Rutten (1940) in Telen River area (tributary of Mahakam River). Oldest unit pre-Permian? dark schist. Overlain by ?Permian turbiditic

metasandstones of Telen Unit, with black Devonian limestone boulders with Heliolites corals (up to 10's of m; debris flows?) and with common Permian fusulinid foraminifera (Neoschwagerinidae; similar to fusulinids from Danau Kapuas regions?; Krekeler 1932, 1933) in calcareous sandstone matrix. Sediments thrusted to E, but no evidence of 'melange'. Mesozoic and older metasediments unconformably overlain by Eocene quartz sandstones. With reverse faults and post-Eocene diorite intrusions. H. Darman suggests paleo-position at margin of Indochina block)

Suharyanto, A., F.E. Yunita, J. Irawan, L. Andriyah, T. Arini, E. Sulistiyono, I. Setiawan, F. Firdiyono et al. (2025)- Geochemistry and mineralogy of S- and I-type granitoids from the Meratus mountains, Indonesia: a new frontier for hard-rock lithium exploration. J. of Umm Al-Qura University for Applied Sciences, p. 1- 16. *(in press?;14 authors!)*
(online at: https://link.springer.com/article/10.1007/s43994-025-00285-8)
(Lower Cretaceous-age S- and I-type granitoids from Meratus Mountains, SE Kalimantan, have low bulk lithium concentrations. Both S-type (sedimentary protolith) and I-type (igneous protolith) granites)

Sukadana, I.G. (2012)- Geologi dan mineralisasi uranium, sektor Nyaan, Mahakam Hulu, Kalimantan Timur. Eksplorium 33, 2, p. 129-145.
(online at: https://ejournal.brin.go.id/eksplorium/article/view/8006/6127)
('Geology and uranium mineralization of the Nyaan sector, Upper Mahakam, East Kalimantan'. Three significant radioactive anomalies in the Nyaan Sector. Mineralization of pitchblende (uraninite), monazite and autunite, associated with bornite, chalcopyrite, etc.. Associated with five or more, ~50-100m thick M Eocene pyroclastic rhyolite deposits, andesitic pillow lava, feldspathic sandstone, etc.)

Sukardi, B. Djamal, S. Supriatna & S. Santosa (1995)- Geological map of the Muaralasan quadrangle, Kalimantan, scale 1:250,000. Sheet.1917, Geological Research Development Centre (GRDC), Bandung.
(Geologic map of W part of Mangkalihat Peninsula and area to W. Oldest rocks ophiolites (peridotite, gabbro, basalt) and thick, folded Telen Fm Low metasediments of Late Jurassic- E Cretaceous age in NW corner of sheet. Overlain by U Cretaceous Kelay Fm deep marine clastics with tuff, Eocene litoral Marah Fm clastics and marine Tabalar Fm clastics and limestones with (Late) Eocene Nummulites, Discocyclina, Biplanispira, etc. (in other papers Taballar Lst called Late Oligocene- E Miocene; JTvG). Also young volcanics)

Sukardi & R. Heryanto (1997)- Petrografi batupasir Formasi Pitap di Sungai Amandit, Kalimantan Selatan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 7, 75, p. 19-30.
('Petrography of the Pitap Fm sandstones at Amandit River, S Kalimantan'. Upper Cretaceous volcanoclastic Pitap Fm in Kandangan and Amuntai map sheets of Meratus Range composed of well-bedded sandstones and siltstones. Composition arkose- litharenite, derived from magmatic arc: quartz 2-74%, feldspar 22-88% and lithics 7-77%. Depositional environment deep marine turbiditic sediments)

Sukardi, N. Sikumbang, I. Umar & R. Sunaryo (1995)- Geological map of the Sangatta Quadrangle, Kalimantan, Quad 1916, scale 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(Map sheet of NE Kutai Basin, North of Samarinda sheet. Oligocene and younger clastic sediments with thin limestones, folded in N-S trending anticlines))

Suliantara (2011)- Geologi penginderaan jauh dalam studi evaluasi lahan migas di Cekungan Kutei Atas bagian Utara. Lembaran Publikasi Minyak dan Gas Bumi (Lemigas) 45, 2, p.
(online at: https://journal.lemigas.esdm.go.id/index.php/LPMGB/article/view/697)
('Remote sensing geology in the evaluation study of oil and gas fields in the northern Upper Kutei Basin')

Sulistyawan, R.I.H., Baharuddin & U. Hartono (2013)- Geochemistry of the Jelai Volcanics from Mount Rian, East Kalimantan. Jurnal Sumber Daya Geologi (JSDG) 23, 3, p. 133-141.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/86/80)
(M Miocene- Pliocene calc-alkaline Jelai Volcanics exposed at Mt Rian, NE corner of Kalimantan. Most K-Ar ages ~15-17 Ma. Consist of porphyritic basaltic andesitic lavas and pyroclastics. Subduction-related magmas, possibly part of Rajang- Cagayan volcanic belt of Soeria-Admadja et al. 1999))

Sumantri (1992)- Sebaran akumulasi Uranium pada tipe jalur mineralisasi di Eko-Remaja, Kalan, Kalimantan Barat. Proc. 21st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta,1, p. 251-256.
(online at: https://www.iagi.or.id/web/digital/51/16.pdf)
('Dispersion of uranium accumulation on mineralized zone type at Eko-Remaja, Kalan, West Kalimantan'. Four mineralization types: intraschistose veins and boudinages, tectonic breccias, fractures, etc.))

Sumartadipura, A.S. & U. Margono (1996)- Geological map of the Tewah (Kualakurun) quadrangle, Central Kalimantan, Quad 1614, 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(Geological map with in NW Schwaner Mts 'basement' rocks (Sepauk granitoids, Pinoh metamorphics with NE-SW foliation, Metan Complex ?Triassic low-metamorphic andesitic volcanics dipping SE 60°, Sintang Intrusives, Malasan Oligocene andesitic volcanics), In E Barito basin Tertiary sediments. Eocene Tanjung Fm (sands, shales and limestones with Pellatispira-Discocyclina) and Oligocene Montalat Fm marine marls only in NE corner; farther south Warukin Fm directly on Pre-Tertiary. 76 ± 8.7 Ma apatite and zircon fission track ages Batuan Pluton of Schwaner Mts)

Sunata, W. & S. Permanadewi (1995)- Data magnet purba dan penarikhan Kalium-Argon dari batuan mikrodiorit Gunung Kukusan utara, daerah Batulicin, Kalimantan Selatan. Proc. Seminar Hasil pemetaan geologi dan geofisika, Puslitbang Geologi, Bandung 1995, p. 260-268.
('Paleomagetic data and K/Ar ages of North Gunung Kukusan microdiorite, Batulucin area, S Kalimantan'. E Miocene (19.6 Ma) microdiorite paleomagnetism suggest weak CCW rotation; Fuller 1999)

Sunata, W. & H. Wahyono (1991)- VI. Palaeomagnetism. In: C.S. Hutchison (ed.) Studies in East Asian tectonics and resources (SEATAR): Crustal Transect VII Java-Kalimantan-Sarawak-South China Sea. CCOP, TP 26, p. 43-51.
(Paleomag results from W Kalimantan document CCW rotation between Jurassic- Miocene: (1) Triassic Gunung Bawan basalts (Serian volc.-equiv.) and shales with Monotis 73° CCW rotation and paleolatitude 17.2°; (2) Late Triassic Suti Semarang Kalung Fm black shales with Monotis 81.5° CCW rotation and paleolatitude 10.8°N or S; (3) Jurassic Tenguwe area black ammonite-mudstone 93° CCW rotation and paleolatitude 2.9° S; (4) Late Cretaceous Ketapang area igneous rocks 50° CCW rotation, no latitudinal displacement; (4) Oligo-Miocene basalt sills at Mandai River unrotated)

Sunata, W. & H. Wahyono (1998)- Data magnet purba teruji untuk formasi Tanjung, daerah Batulicin, Kalimantan Selatan; dan aplikasinya untuk menentukan waktu terjadinya rotasi. Pusat Penelitian dan Pengembangan Geologi, Bandung, Special Publication .19, p. 242-252..
('Paleomagnetic data of the Tanjung Formation in the Batulicin area, S Kalimantan'. Weak CCW rotation of Late Eocene Tanjung Fm sandstone; Fuller 1999)

Sunjaya, D., R.D. Nugraheni, A. Hindarto & T. Semedie (2019)- Characteristics of bauxite at the quartz diorite laterite in Tayan, West Kalimantan. Proc. MGEI Southwest Pacific Resources Conference (SPR 2018), Makassar 2018, p. 93-96.
(online at: https://www.researchgate.net/publication/331647198_Characteristics_of_Bauxite_at_the_Quartz_Diorite_Laterite_in_Tayan_West_Kalimantan)
(In Indonesia common bauxite deposits in Riau Islands, W Kalimantan etc. W Kalimantan laterite belt trending NNW-SSE from Singkawang, Sambas, Bengkayang, Pontianak, Landak, Kubu, Sanggau, Kayong Utara and Ketapang. In Tayan-Sanggau area bauxite occurs as lateritic weathering of E Cretaceous quartz diorite of Sepauk Tonalite Fm of Schwaner Mountains. Bauxite zone mainly gibbsite with goethite)

Sunjaya, D., R.D. Nugraheni, A.A. Sahri, M. Widyastuti & A. Hindarto (2019)- Mineral classification of bauxite laterite in Tayan mining site, West Kalimantan, Indonesia. Proc. Joint Convention HAGI- IAGI- IAFMI- IATMI (JCY 2019), Yogyakarta 2019, p. 1-8.
(online at: https://www.iagi.or.id/web/digital/69/JCY_0975.pdf)
(Bauxite minerals in Tayan classified as kaolinitic bauxite, bauxitic kaolinitic, and ferritic bauxite. Bauxite mineralogy dependent on parent rocks)

Suparka, E. (1995)- Occurrence of adakites in Sintang area, West Kalimantan: a Neogene post-subduction volcanism phenomena. In: S. Nishimura & R. Tsuchi (eds.) Proc. Oji Seminar on Neogene evolution of Pacific Ocean Gateways, Kyoto, IGCP-355, p. 34-44.

Supiandi, S. (1988)- Studies on peat in the coastal plains of Sumatra and Borneo, I: Physiography and geomorphology of the coastal plains. Southeast Asian Studies (Kyoto) 26, 3, p. 308-335.
(online at: http://repository.kulib.kyoto-u.ac.jp/dspace/bitstream/2433/56338/1/KJ00000131463.pdf)

Supiandi, S. & B. Sumawinata (1989)- Studies on peat in the coastal plains of Sumatra and Borneo, II: The clay mineralogical composition of sediments in coastal plains of Jambi and South Kalimantan. Southeast Asian Studies (Kyoto) 27, 1, p. 35-54.

Supriatna, S. (1989)- Data baru mengenai geologi Pegunungan Meratus, Kalimantan Selatan. Bull. Geological Research Development Centre (GRDC) 13, p. 30-38.
('New data on the geology of the Meratus Mountains, SE alimantan'. Including presence of Pre-Tertiary melange)

Supriatna, S. & Abidin (1995)- Geology of the Muara Wahau sheet area, Kalimantan, Quad 1817, 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(NE Kalimantan map sheet, N of Kutai Basin. Oldest rocks Telen Fm sheared and brecciated ?Jurassic- Early Cretaceous metasediments (mainly NW-dipping?), associated with Jurassic? ultramafic rocks and Kelinjau melange (with blocks of Devonian reefal limestone (= Danau Fm of Molengraaff (1902)?). Mesozoic rocks intruded by Late Cretaceous Kelai biotite- hornblende granite (part of E-W Sambas- Mangkalihat accretionary prism belt with ~75-81 Ma age granitoids of Amiruddin 2000). Overlain by U Cretaceous Embaluh Gp low metamorphic sediments, unconformably overlain by Late Eocene conglomerates grading upward into marine Eo-Oligocene clastics and limestones. Oligo-Miocene Sintang intrusives)

Supriatna, S., U. Margono, Sutrisno, F. de Keyser, R.P. Langford & D.S. Trail (1993)- Geology of the Sanggau sheet area, Kalimantan Quadrangle 1617, 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(NW Kalimantan map sheet which includes Kemajan Mts/ Mengkiang area with intensely folded Permo-Carboniferous Pinoh metamorphics and Balaisebut Group metasediments, intruded by Triassic Embuoi granites (K-Ar ages initial crystallisation 230-263 Ma, later recrystallization at 201-214 Ma). Unconformably overlain by Late Triassic andesitic Serian Volcanics and Sadong Fm clastics and by Cretaceous Pedawan Fm marine sediments, unconformably overlain by non-marine Lower Tertiary Kajan/ Plateau sandstone, etc. Includes Nuit volcano, with basalts with K/Ar date of 4.92 Ma)

Supriatna, S., A. Sudradjat & H.Z. Abidin (1995)- Geology of the Muara Tewe sheet area, Kalimantan Quadrangle 1715, 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(C Kalimantan map sheet. In NW folded Upper Cretaceous Selangkai group, unconformably overlain by Late Eocene, intruded by Sintang volcanics. In SE Upper Kutai Basin with folded Oligocene sediments)

Supriatna, S., R. Sukardi & E. Rustandi (1996)- Geology of the Samarinda sheet area, Kalimantan, 1:250,000. Geological Research Development Centre (GRDC), Bandung.

Supriyana, E. & T. Padmawidjaja (2020)- Korelasi cekungan Ketungau dan Melawi berdasarkan analisis data gayaberat. Lembaran Publikasi Minyak dan Gas Bumi (Lemigas) 54, 1, p. 37-47.
(online at: https://journal.lemigas.esdm.go.id/index.php/LPMGB/article/view/418)
('Correlation of the Ketungau and Melawi basins based on gravity data analysis')

Surata, M. (2005)- Challenges to develop the Tayan lateritic bauxite- West Kalimantan. In: S. Prihatmoko et al. (eds.) Indonesian mineral and coal discoveries, IAGI Special Issues 2005, p. 106-117.
(Bauxite deposits in Tayan, E of Pontianak, W Kalimantan, formed by lateritization of E Cretaceous gabbro (high-iron type) and Late Cretaceous diorite (high-silica type))

Surata, M., O. Suksianto, M. Pratomo & Supriyadi (2010)- Discovery and its genetic relatonship of bauxite deposit in Mempawah and Landak Regency, West Kalimantan Province. In: N.I. Basuki & S. Prihatmoko (eds.) Proc. Kalimantan coal and mineral resources, MGEI-IAGI Seminar, Balikpapan 2010, p. 107-116.
(W Kalimantan NNW-SSE trending lateritic bauxite belt parallel to West coast, geologically on Schwaner block. Rel. low grade. SiO_2 bauxite type derived from Cretaceous Mensibao diorite, Fe_2O_3-type from Cretaceous Gunungapi Raya Mb andesite and gabbro)

Surjono, S.S., H.D.K. Wijayanti & Irawan (2012)- The influence of volcanism in sedimentary rock of Upper Kutai Basin. Proc. 41st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2012-SS-40, p. 1-6.
(online at: https://www.iagi.or.id/web/digital/9/2012_IAGI_Yogyakarta_The-Influence-of-Volcanism.pdf)
(Influence of volcanic activity during sedimentation in Upper Kutai Basin shown by volcanic material in Late Eocene Batu Ayau polymict conglomerates (M-L Eocene rift phase) and Late Oligocene- E Miocene Marah Fm along Belayan and Ritan Rivers. Oligocene-Miocene boundary marked by major unconformity and widespread regression, with associated volcanic activity shown by lahar, tuff and tuffaceous sandstone Marah Fm. Origin of volcanic material possibly from Nyaan and Kelian volcanoes during Eocene- E Miocene)

Suryono, N., S. Supriatna & D. Satria (1994)- Geologi rinci dan prospeksi mineral berharga di dearah Muara Luhung (Permata Intan), lembar Muara-Tewe, Kalimantan Tengah. Bull. Geological Research Development Centre (GRDC), Bandung, 17, p. 40-55.
('Detailed geology and economic mineral prospecting in Muara Luhung (Permata Intan) area, Muara-Tewe sheet, Central Kalimantan')

Susianto, A., E.R. Esomar, R. Rahadi & M.N. Ardhie (2012)- The characteristic of the Sepinggan Strike slip fault zone and its role in forming structural traps the Southeast Kutei Basin. Proc. 36th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA12-G-062, p.
(Sepinggan Fault is SE-NW right-lateral strike-slip fault, extending >70 km from offshore SE Balikpapan to onshore S Penajam area.Part of the bigger Adang fault zone. Several significant hydrocarbon traps formed along fault through transtension and transpression (Sepinggan, Mahoni, Yakin). Pre-existing N-S fault offset >2 km)

Suwarna, N. & T. Apandi (1994)- Geological map of the Longiram Quadrangle, East Kalimantan, 1:250,000. Geological Research Development Centre (GRDC), Bandung.

Suwarna, N. & R.P. Langford (1993)- Geological map of the Singkawang Sheet area, West Kalimantan, Quad. 1316, 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(NW coast Kalimantan. With thick Bengkayang Gp U Triassic- Lw Jurassic clastics, subdivided into Triassic Banan Fm clastics with acid tuffs near base (~1000m) and E Jurassic Sungaibetung Fm clastics (1500m). Intruded and overlain by large Early Cretaceous Mensibau granite intrusives and volcanics. Also numerous Late Oligocene- E Miocene Sintang intrusives)

Suyono (2013)- Stratigraphy and tectonics of the East Ketungau Basin, West Kalimantan during Palaeogene. Jurnal Geologi Indonesia 8, 4, p. 205-214.
(online at: http://ijog.bgl.esdm.go.id/index.php/IJOG/article/view/170/170)
(East Ketungau Basin (=Mandai Basin) interpreted as Late Cretaceous- E Tertiary fore arc basin between Schwaner Arc /Boyan melange in S and Sarawak Accretionary Prism in N. Two phases of sedimentation: (1) Late Cretaceous marine Selangkai Fm fore-arc basin fill; (2) Eocene? marginal marine- non-marine Mandai Gp unconformably over Selangkai Fm, following 50° CCW rotation of Kalimantan. Stratigraphic succession of E Ketungau Basin similar to W Ketungau Basin and Melawi Basin in S)

Suyono & M.H. Hermiyanto (2010)- Study characteristic biostratigraphy and Rock Eval pyrolisis of Eocene mudstone in the Mandai Basin, West Kalimantan. Proc. 39th Conv. Indonesian Association Geologists (IAGI), Lombok, PIT-IAGI-2010-186, p. 1-5. *(online at: https://www.iagi.or.id/web/digital/12/2010_IAGI_Lombok_Study-Characteristic-Biostratigraphy.pdf)*

(Mandai Basin Paleogene frontier basin in W Kalimantan, 60 km S of Putussibau, Kapuas Hulu District. It is bounded by Semitau High/ Melawi basin in S, Lubuk Antu melange in N, Ketungau basin in W. Late Eocene Mandai Gp intertidal- shallow marine clastics unconformably overlie Selangkai Gp and other basement. Eocene mudstones analyzed by Rock Eval pyrolysis: TOC 0.3- 5.2% and classified as poor-fair gas source)

Suyono & M.H. Hermiyanto Zajuli (2018)- The Mesozoic hydrocarbon source rock potential of Singkawang Basin, West Kalimantan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 19, 3, p. 131-144.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/233)
(Singkawang Basin Mesozoic basins, NW Kalimantan, with sedimentary rocks that may have hydrocarbon potential. TOC of E Jurassic Sungaibetung Fm 0.95-2.8%, Late Triassic Banan Fm 0.42- 2.4%, Cretaceous Pedawan Fm 0.27-2.3% and Late Cretaceous-Eocene Kayan Fm 0.41-1.8%. Hydrogen index (HI) suggest likely dry gasprone kerogen. Probably overmature thermal stage)

Swamidharma, Y.C.A. (2016)- Magmatic Fe-Ni-Cu sulphides occurence in Sebuku Island. Proc. 8th Annual Conv. Indonesian Soc. Economic Geologists (MGEI), Bandung, p. 106-108.
(Fe-Ni-Cu sulphides, Co, Au and Platinum Group Elements minerals, associated with cumulus ultramafic zone of Late Triassic- E Cretaceous ophiolite complex in Sebuku Island)

Swamidharma, Y.C.A., A. Khoirrurozikin, A. Cahyadi, Y. Krisnanto & D. Herkusuma (2015)- Mineral resource and potentials in ultramafic cumulate complex of Sebuku Island. In: N.I. Basuki (ed.) Proc. Indonesian Soc. Economic Geologists (MGEI) 7th Annual Convention, Balikpapan, p. 131-135.
(On exploration of lateritic iron ores from ultramafic complex of Sebuku Island, SE Kalimantan near Meratus Range. Also potential for nickel and other ferrous minerals at various places within cumulate complex. Some microdiamonds present in stream sediment samples near cumulate)

Syaban, S.N., A. Idrus, L.D. Setijadji & I. Setiawan (2024)- Hydrothermal alteration, ore mineralization, and fluid inclusions study of the Mount Muro low sulphidation hydrothermal deposit, Murung Raya Regency, Central Kalimantan, Indonesia. Proc. Int. Conference Geological Engineering and Geosciences 2022 (ICGOES-2022) Yogyakarta 2022, IOP Conference Series: Earth and Environmental Science 1378, p. 1-14.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1378/1/012028/pdf)
(Study of gold deposits at Mount Muro, part of the 'Central Kalimantan Gold Belt', a continuation of NE-SW trending Masuparia- Kelian- Busang Lane gold district. Gold mineralization related to andesite and basalt intrusions aged 14.4 - 24 Ma (E-M Miocene))

Syuhada, S., B. Pranata, T. Anggono, M. Ramdhan, Z. Zulfakriza, F. Febriani, A.D. Prasetio, C.N. Dewi et al. (2022)- Crustal velocity structure in Borneo Island using receiver function inversion. Acta Geophysica 70, 6, p. 2529-2553.
(Seismic inversion results indicate that Borneo is covered by 1-3 km thick sediment layers. Crustal thickness 26-36 km. Results generally consistent with other previous studies in region)

Tampi, J.N., W.S. Lauwijaya, A.N. Hidayah & J. Sianturi (2024)- Unveiling hidden treasures: a pragmatic approach to assessing unmapped oil potential in the South Mahakam cluster, Lower Kutai Basin, Indonesia Proc. 48th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA24-G-168, p. 1-14.
(S Mahakam cluster five fields: Jempang-Metulang, Mandu, Manpatu, Stupa, and Jumelai, producing gas since 2012. Two main reservoirs:late M Miocene Sepinggan Deltaic Sequence (Kampung Baru and Balikpapan Gp) and early M Miocene Jumelai Sand (Balikpapan Gp). Discussion of effort to discover untapped oil resources)

Tan Sin Hok (1936)- Vindplaatsen van *Globotruncana* Cushman in West-Borneo. Natuurkundig Tijdschrift voor Nederlandsch-Indie 96, 1, p. 14-18.
(online at: http://62.41.28.253/cgi-bin/...)
('Localities with Globotruncana in West Borneo'. Upper Cretaceous planktonic foraminifer Globotruncana from 3 areas in W Kalimantan, Sungei Silat, Sg. Landak and Sg. Kajan, in samples collected by H. Ehrat and Zeijlmans)

Tarring, H. & G.D. Bellows (1952)- Mineral deposits of Northwest Borneo: a reconnaissance. Geological Research Development Centre (GRDC), Bandung, Unpublished Report F52-1, p.

Tasrianto, R., V. Amir, R. Indrawan, L. Andria & T. Keller (2019)- Identification of new exploration potential in Central Kalimantan. Proc. 43rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA19-G-156, p. 1-16.
(ConocoPhillips Kualakurun exploration block in N Barito Basin in C Kalimantan, since 2013. With oil seep on Kapuas River. New gravity and 2D seismic data shows W area of block with NE-SW oriented Eocene rifted basins, interpreted as continuation of S Kutai regional trend. Rifts inverted during Plio-Pleistocene compression. (see also Amir et al. 2019))

Tate, R.B. (1991)- Cross-border correlation of geological formations in Sarawak and Kalimantan. Bull. Geological Society Malaysia 28, p. 63-95.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1991004.pdf)
(Regional correlation between S and W Sarawak stratigraphy and new C and NW Kalimantan stratigraphy. Oldest rocks pre-Late Carboniferous metamorphics (meta-oceanic?; no ancient continental basement on Borneo). Permo-Triassic igneous metamorphic complex in Sanggau Quad, with two crystallization events with K-Ar ages 263-230 Ma (Late Permian-E Triassic), and 214-201 Ma (Late Triassic-E Jurassic). Late Carboniferous- Permian with rare fusulinids in both NE Kalimantan/ W Sarawak and Kuching area. Also in both areas unconformably overlying Late Triassic- (E Jurassic?) Serian Fm andesitic arc volcanics, associated with thick Late Triassic-E Jurassic Sadong and Bengkayang Fm shallow marine sediments (with Krusin Flora). Unconformably overlain by thick Late Jurassic-Cretaceous Bau/ Kedadom/ Pedawan/ Selangkai Fms marine sediments. Widespread (Lower) Cretaceous granitoids and arc volcanics in Kalimantan. Two E-W trending melange zones: (1) BoyanMelange (U Cretaceous?) in S and Lubuk Antu-Kapuas (Eocene) in N)

Tate, R.B. (1996)- The geological evolution of Borneo Island. M.Sc. Thesis University of Malaya, Kuala Lumpur, p. 1-393.
(online at: http://studentsrepo.um.edu.my/774/)
(Extensive review of geology of Borneo island: (1) nature and origin of Late Paleozoic Basement; (2) stratigraphy of Mesozoic sediments and associated igneous and metamorphic rocks; (3) Cretaceous igneous-volcanic arc rocks and oceanic crustal rocks and associated deepwater sediments and melange zones; (4) Cenozoic rifting of Mesozoic landmass and development of basins and associated igneous activity)

Tate, R.B. (compiler) (2001)- The geology of Borneo Island. Geological Society of Malaysia, CD-ROM Publication.

Tate, R.B. (2002)- Geological map of Borneo Island, 1: 1,500,000. Geological Society of Malaysia.
(online at: http://geology.um.edu.my/gsmpublic/borneo.swf)
(New geologic map of Borneo island compiled from published geologic maps of Geological Survey of Malaysia (Sarawak and Sabah), Geological Research and Development Centre in Bandung (Kalimantan), Brunei Museum/ Shell maps and other sources. With 12p. accompanying notes. Oldest 'in-situ' rocks of Pinoh Metamorphics in W and SW Kalimantan, assumed to be of 'Pre-Carboniferous' age. Oldest in-situ fossiliferous rocks ?Carboniferous-Permian metasediments of Balaisebut/ Terbat Group in NW Kalimantan and W Sarawak)

Tate, R.B. (2002)- Notes to accompany the Geological map of Borneo. Geological Society of Malaysia, p. 1-12.
(Brief summary of geology and stratigraphy of Kalimantan and North Borneo. With 1:500,000 scale geological map, mainly compiled from published geological maps and publications. Not clear if Borneo is part of Triassic and older Malay Peninsula/ SE Asia craton. Oldest fossiliferous rock Devonian limestone in tectonic melange of probable Lower Cretaceous age in NE Kalimantan. Oldest in-situ rocks 'pre-Carboniferous' Pinoh Metamorphics. Followed by Permian-Triassic igneous and metamorphic rocks, U Triassic volcanics, Triassic-Jurassic- Cretaceous sediments, widespread Cretaceous granites, etc.)

Tay, T.S., P. Wathanakul, W. Atichat, L.H. Moh, L.K. Kem & R. Hermanto (2005)- Kalimantan diamond-morphology, surface features and some spectroscopic approaches. Australian Gemmologist 22, 5, p. 186-195.

(Cempaka diamonds abundant percussion scars, suggesting mechanical reworking. Deformation marks similar to those reported on diamonds from dredge waters off Phuket, Thailand. Zircon and olivine inclusions in diamonds suggest possibility of peridotitic source)

Taylor, W.R., A.L. Jaques & M. Ridd (1990)- Nitrogen-defect aggregation characteristics of some Australasian diamonds: time-temperature constraints on the source regions of pipe and alluvial diamonds. American Mineralogist 75, p. 1290-1310.
(online at: www.minsocam.org/ammin/am75/am75_1290.pdf)
(Alluvial diamonds from Landak, W Kalimantan and Keliam River NW of Barito Basin similar N content, absence of H defects and mantle residence T isotherm of 1145°C as alluvial diamonds from Copeton (NSW, New England Fold belt), and are different from Agyle/Kimberley Block diamonds. This suggests possible origin with E Australian Gondwanaland subcontinental lithosphere)

Ter Bruggen, G. (1932)- Oud-Tertiair in phyllitische facies in West Borneo. De Mijningenieur 1932, p. 56-57.
('Early Tertiary in phyllitic facies in West Borneo')

Ter Bruggen, G. (1935)- De Eocene fyllietformatie in Centraal-Borneo. Doct. Thesis, Technische Hogeschool Delft, p. 1-139.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB21:028955000:00147)
('The Eocene phyllite formation in C Borneo'. See also English translation in Haile (1955, p. 39-124). Phyllites in NW Kalimantan/ S Sarawak Embaluh Complex contain zone Ta Assilina, Nummulites and Discocyclina, and are transgressed by non-metamorphosed Late Eocene (zone Tb) clastics zone, suggesting Late Eocene or later low-grade metamorphism. Conclusions harshly criticized (not necessarily justified?) by his former collegues Zeijlmans van Emmichoven & Ubaghs, 1936)

Ter Bruggen, G. (1936)- De Eocene fyllietformatie in Centraal-Borneo (een wederwoord). De Ingenieur in Nederlandsch-Indie (IV) 3, 7, p. IV.124- IV.126.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1936-07.pdf)
('The Eocene phyllite formation in C Borneo (a reply)'. Reply to rather brutal critique of Ter Bruggen (1935) thesis by Zeijlmans & Ubaghs (1936). See also English translation in Haile (1955, p. 147-158))

Ter Bruggen, G. (1955)- The Eocene phyllite formation in Central Borneo. In: N.S. Haile (ed.) Geological accounts of West Borneo- translated from the Dutch, Geological Survey Department, British Territories in Borneo, Kuching, Bull. 2, p. 39-124.
(English translation of Ter Bruggen, 1935)

'T Hoen, C.W.A.P. (1924)- Diverse meeningen over de ontstaanswijze der ijzererts-afzettingen in Z.O. Borneo. Jaarboek. Mijnwezen Nederlandsch Oost-Indie 50 (1921), Verhandelingen 1, p. 288-295.
('Varying opinions on the genesis of iron ores in SE Kalimantan'. Magnetite iron ores of Sungai Doewa in Kusambi/ Kukusan Mts probably formed from weathering of serpentinized peridotite)

Thomas, M.F., M. Thorp & J. MacAlister (1999)- Equatorial weathering, landform development and the formation of white sands in north western Kalimantan, Indonesia. Catena 36, 3, p. 205-232.
(On Pleistocene white sand deposits of coastal NW Kalimantan, may be long-term weathering products of Miocene granodiorites)

Thompson, J.F.H., H.Z. Abidin, R.A. Both, S. Martosuroyo, W.J. Rafferty & A.J.B. Thompson (1994)- Alteration and epithermal mineralization in the Masupa Ria volcanic center, Central Kalimantan, Indonesia. In: T.M. van Leeuwen et al. (eds.) Indonesian mineral deposits- discoveries of the past 25 years, J. Geochemical Exploration 50, 1-3, p. 429-456.
(online at: https://www.researchgate.net/publication/248532526_Alteration_and_epithermal_mineralization_in_the_Masupa_Ria_volcanic_center_Central_Kalimantan_Indonesia)

(Masupa Ria andesitic volcanic center in C Kalimantan with epithermal precious metal-bearing quartz vein, dated 24.6 Ma. Part of NE-SW belt of mid-Tertiary calc-alkaline volcanic arc rocks through C Borneo, generally dated at 14.4-24.0 Ma)

Thorp, M.B., M.F. Thomas, T. Martin & W.B. Whalley (1990)- Late Pleistocene sedimentation and landform development in Western Kalimantan (Indonesian Borneo). Geologie en Mijnbouw 69, 2, p. 133-150.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0MGVDVVdDem5uUmM/view)
(Widespread Pleistocene podzolised white quartz sands 15-20m above Holocene floodplains in coastal regions of W Kalimantan, occuring as major alluvial bodies 15-20m higher than Holocene floodplains inland (see also discussion by Batchelor 1993))

Thorp, M.B. & M.F. Thomas (1993)- Late Pleistocene sedimentation and landform development in western Kalimantan (Indonesian Borneo); Reply. Geologie en Mijnbouw 71, 4, p. 363-368.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0cmU1TG5tamRBYjg/view)
(Reply to comments by Batchelor 1993 on Thorp et al. 1990 paper. Confirm earlier correlations between Late Pleistocene W Malaysian 'Old Alluvium' with W Kalimantan alluvial fan terraces)

Tichelman, G.L. (1931)- De onderafdeeling Barabai (Zuider- en Oosterafdeeling van Borneo). Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 48, p. 461-486 and p. 682-711.
('The Barabai sub-department, SE Borneo'. Geographic descriptions with some geologic-mining info on p. 463-465)

Tjokrokardono, S. (2002)- Studi provinsi Uranium Kalimantan, Kajian mineralisasi Uranium pada batuan metamorf dan granit di Pegunungan Schwaner. Proc. Seminar Iptek nuklir dan pengelolaan sumber daya tambang, Jakarta 2002, p. 66-77.
(online at: www.iaea.org/inis/collection/NCLCollectionStore/_Public/37/092/37092546.pdf)
('Study of the Kalimantan uranium province: assessment of uranium mineralization of metamorphic and granitic rocks at the Schwaner Mountains'. Uranium exploration by CEA-BATAN in SW Kalimantan discovered uranium anomalies in metamorphic and granite rocks of Schwaner Mts. Pinoh metamorphic rocks presumably of Permo-Carboniferous age, with uranium-bearing hydrothermal veins from U Cretaceous (90-81 Ma) Sukadana granite)

Tjokrokardono, S. & A.S. Sastratenaya (1988)- Rich mineralized boulders of the Rirang River, West Kalimantan. Proc. Uranium deposits in Asia and the Pacific; geology and exploration, Jakarta 1985, Int. Atomic Energy Agency (IAEA), Vienna, IAEA-TC-543/6, p. 79-95.
(Rirang River tributary of Kalan River, 400km SE of Pontianak. With boulders of unknown origin, with banded and non-banded monazite uranium mineralization (U-content 0.6- 6.7%). In Kalan Basin, dominated by 3000-4000m thick metasediments and volcanics with tonalite intrusions)

Tjokrokardono, S., D.Soetarno, Sapardi M.S., L. Subiantoro & R. Witjahyati (2004)- Studi geologi regional dan mineralisasi Uranium di Pegunungan Schwaner, Kalimantan Barat dan Tengah. Proc. Seminar Geologi Nuklir dan Sumberdaya Tambang tahun 2004, Jakarta, p. 64-84.
(online at: www.iaea.org/inis/collection/NCLCollectionStore/_Public/39/123/39123070.pdf)
('Study of the regional geology and uranium mineralization in the Schwaner Mountains, West and Central Kalimantan')

Tjokrokardono, S., B. Sutopo, L. Subiantoro & K. Setiawan (2003)- Geologi dan mineralisasi uranium Kalan, Kalimantan Barat, Model termostratigrafi mineralisasi Uranium. In: Kumpulan Laporan hasil penelitian Tahun 2003, Pusat Pengembangan Geologi Nuklir-Batan, p. 27-52.
(online at: http://digilib.batan.go.id/e-prosiding/File%20Prosiding/Geologi/Laporan_Pen._2004-2006_PPGN_berkas_A/artikel/soeprapto_t_27.pdf)
('Geology and uranium mineralization, Kalan, W Kalimantan'. Uranium mineralization at Kalan as fracture fill in Pinoh Metamorphics, intruded by Jurassic- U Cretaceous granitic bodies)

Tobing, R.L. (2013)- Serpih Silat daerah Nanga Serawai, Kabupaten Sintang, Provinsi Kalimantan Barat dan potensinya sebagai serpih gas. Buletin Sumber Daya Geologi 8, 1, p. 1-6.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/659)
('Silat shale in the Nanga-Serawai area, Sintang District, and its shale gas potential'. Late Eocene Silat shale in Melawi Basin, C Kalimantan, deposited in lacustrine and delta environment. Organic material vitrinite (from plants) and liptinite (from plant fats or sea algae). TOC 0.54-1.15%, vitrinite reflectance 0.29-0.45%)

Tschernik, G. (1909)- Resultate der chemischen Untersuchung eines Uranminerals von der Insel Borneo. Bull. Academie Imperiale des Sciences de St. Petersbourg, 3, p. 1203-1212. *(in Russian?)*
('Results of the chemical analysis of a uranium mineral from Borneo island'. Analysis of broggerite (lead-uranium oxyde) from SE Kalimantan. (Presence of uranium minerals in Kalimantan was questioned by Von Koenigswald (1933) and believedht to have come from Chinese pharmacy, but since known to be real; JTvG))

Tschernik, G.P. (1915)- Zur Mineralogie der Insel Borneo. Zeitschrift fur Kristallographie und Mineralogie 55, p. 184-191.
(online at: https://babel.hathitrust.org/cgi/pt?id=nyp. 33433112057900;view=1up;seq=11
('On the mineralogy of the island of Borneo'. Summary of 1912 St Petersburg paper. Report on petrography and chemistry of platinum ores and associated Os-Ru group minerals (Osmiridium), gold and heavy minerals from Tanah Laut, SE Kalimantan)

Ubaghs, J.G.H. (1936)- De geologie van een gebied in Noord Kutai (Oost Borneo), gekenmerkt door *Spiroclypeus*-houdend Eoceen. De Ingenieur in Nederlandsch-Indie (IV) 3, 10, p. IV.183- IV.195.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1936-10.pdf)
('The geology of an area in N Kutai (E Kalimantan), characterized by Spiroclypeus-bearing Eocene'. N margin of Kutei Basin with outcrops of intensely folded Pre-Tertiary (low metamorphic 'Danau Fm' chert, marble, red phyllite and basic volcanics, overlain by less metamorphic ?Cretaceous thin-bedded sands-shales. Unconformably overlain by ~270m basal Tertiary conglomerates (incl. pebbles with Permian fusulinids?; De Neve 1961) and deltaic sandstones. Overlain by Eocene limestone bed with Nummulites, Discocyclina, and Pellatispira, followed by 1000's of m thick marly-sandy series with thin Eocene- Oligocene limestones)

Ubaghs, J.G.H. (1937)- Geologie van het gebied begrensd door de S. Boengalon, S. Telen, S. Mahakam en Straat Makassar. Dienst van den Mijnbouw (Geological Survey), Bandung, Open File report 24/CZ, p. 1-53. *(Unpublished Report)*

Ubaghs, J.G.H. (1940)- De geologie van Mangkalihat (Borneo). Dienst van den Mijnbouw in Nederlandsch-Indie, Geological Survey, Bandung, Open File report F40-14, p. 1-62.
('The geology of Mangkalihat, Borneo'. Unpublished report)

Ubaghs, J.C.H. (1941)- Diamonds in Borneo. Dienst van den Mijnbouw (Geological Survey), Bandung, Report F 41-2, p.
(Likely translated from Dutch original) (Van Leeuwen 2014: Kalimantan diamonds commonly found together with corundum, diaspore, zircon, chromite/spinel, pleonast, rutile and rare tektite)

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(Paleomagnetic study of 40 samples from 11 localities of Jurassic shallow marine rocks in NW Kalimantan, ~50 km S of Sarawak suggests 93° CCW rotation since Jurassic. Agrees well with Schmidtke et al. (1990) data for W Sarawak)

Untung, M. (1996)- Geoscientific study along Jawa-Kalimantan-Sarawak- South China Sea transect. In: G.P. & A.C. Salisbury (eds.) Trans. 5th Circum-Pacific Energy and Mineral Resources Conference, Honolulu 1990, Gulf Publishing, Houston, p. 163-183.
(W Borneo tectonically active from Triassic- Late Cretaceous, with 90° counterclockwise rotation since then)

Utoyo, H. (2014)- Mineralization of the Busang prospect, East Kalimantan. Indonesian Mining J. 17, 1, p. 27-39.
(online at: http://jurnal.tekmira.esdm.go.id/index.php/imj/article/view/342)
(Busang prospect in Kalimantan Volcanic belt, ~150 km SW of Kelian mine. Hosted within volcanic rocks intruded by Oligo-Miocene Atan Diorite. Hydrothermal alteration with gold, minor chalcopyrite, lead, sphalerite, pyrite and marcasite. Low sulfidation epithermal type)

Van Bemmelen, R.W. (1939)- De geologie van het westelijke en zuidelijke deel van de Westerafdeeling van Borneo. Jaarboek Mijnwezen Nederlandsch-Indie (1939), Verhandelingen, p. 187-319.
(Compilation report of earlier mapping of W and S part of W Borneo. Mainly petrographic descriptions. Schwaner Mountains crystalline schists. C and E part described by Zeijlmans in same volume)

Van Bemmelen, R.W. (1949)- Borneo. In: The geology of Indonesia, Government Printing Office, Nijhoff, The Hague, 1, p. 325-360.

Van Es, L.J.C. (1920)- Geologische kaart van Nederlandsch-Indie, schaal 1:1,000,000, Toelichting bij Blad IX (Zuidwest Borneo en Billiton). Jaarboek Mijnwezen Nederlandsch-Indie 47 (1918), Verhandelingen 2, p. 1-35.
(map online at: https://digitalcollections.universiteitleiden.nl/view/item/814745)
(1:1 million geologic overview map and explanatory notes for West Borneo and Billiton)

Van Leeuwen, T.M. (2015)- The Kelian gold deposit, East Kalimantan, Indonesia: its exploration history, evolving geological model and 'invisible' coarse gold. In: N.I. Basuki (ed.) Proc. Indonesian Soc. Economic Geologists (MGEI) 7th Annual Conv., Balikpapan, p. 1-26. *(online at: www.researchgate.net/publication/284716501_THE_KELIAN_GOLD_DEPOSIT_EAST_KALIMAN Etc.)*
(Extensive review of history and geology of Kelian gold mine, NE Kalimantan, first discovered in 1976, exploited 1992-2004. Intermediate/ low sulfidation epithermal deposit associated with E Miocene (~20 Ma) andesite and rhyolite intrusions, and surrounded by Upper Cretaceous volcanoclastics and Eocene sedimentary rocks. Several ore zones)

Van Leeuwen, T.M., T. Leach, A.A. Hawke & M.M. Hawke (1990)- The Kelian disseminated gold deposit, East Kalimantan, Indonesia. J. Geochemical Exploration 35, p. 1-61.
(Kelian one of large Miocene volcanic-hosted gold discoveries, which occur in 400km long NE trending belt in C Kalimantan. Silicic pyroclastics overlain by Late Eocene sediments, which were folded/ faulted along N/ NE trends and intruded by andesitic bodies in E Miocene (K-Ar ages ~23 Ma), followed by hydrothermal alteration and mineralization around 20 Ma. Four stages of alteration/ mineralization. Magmatic-hydrothermal event followed by >900m uplift and erosion in M-L Miocene and basaltic volcanism in Plio-Pleistocene. Second cycle of erosion in Pleistocene removed most of young volcanic cover, exposing deposit as known today (Kelian mine closed in 2003))

Van Leeuwen, T.M. & G.D. Muggeridge (1987)- Exploring for coal in East Kalimantan, Indonesia. Proc. Economic aspects of coal exploration, evaluation and exploitation, Bandung 1986, Econ. Social Comm. Asia Pacific (ESCAP) Series on Coal 5, p. 115-129.
(Coal exploration survey by PT Kaltim Prima Coal in E Kalimantan. Detailed exploration in Pinang area, N of Sangatta, with 5 main coal seams 1.2- 9m thick. Some coal affected by burning down to 40-50m)

Van Leeuwen, T.M., G.D. Muggeridge & S. Putra (1988)- Discovery and exploration of the Pinang coal deposit, East Kalimantan, Indonesia. Proc. Conference Mining prospects and challenges in Indonesia during the fifth development plan, Jakarta 1988, p. 1-20.
(online at: https://www.researchgate.net/profile/Theo-Leeuwen/publication/289535339_Discovery_and_exploration_of_the_Pinang_coal_deposit_East_kalimantan_Indonesia Etc.)

(Pinang Dome coal deposit in Kutai Basin, 90km N of Samarinda, 10km long in N-S direction and 2-6km wide. Six main seams 1-14m thick and 17 thin coal seams in 950m interval of Miocene fluvio-deltaic sequence. High-quality coal with rel. low moisture (4-12%), low ash (<3%), low sulfur (0.2-1.4%) and high rank (VR 0.51-0.67%; burial 2000-3000m). Also some lower quality Eocene coal in area of higher rank (VR 0.65-0.75%))

Van Sandick, J.C.F. & V.J. van Marle (1919)- Verslag eener spoorwegverkenning in Noordwest-Borneo. Mededeelingen Dienst der Staatsspoor- en Tramwegen, Opname No. 13, vol. 1, p. 1-384, vol. 2.
('Report of a reconnaissance for a railroad in NW Borneo'. Extensive description of geography of West Kalimantan, for a potential 217km long railroad line from Pontianak to Sambas (which was never built). With a geological map of NW Borneo compiled from the Geological map of the Netherlands Indies by E.C. Abendanon)

Van Schelle, C.J. (1880)- Verslag over het voorkomen van cinnabar bij de rivier Beroeng, zijtak der rivier Bojan aan de rivier Kapoeas in de Westerafdeeling van Borneo. Jaarboek Mijnwezen Nederlandsch Oost-Indie 9 (1880), 2, p. 15-32.
('Report on the occurrence of cinnabar near the Betung River, tributary of the BojanRiver at the Kapuas River, Western Department of Borneo'. Mercury mineral cinnaber in NW Kalimantan)

Van Schelle, C.J. (1880)- De geologische en mijnbouwkundige onderzoekingen in de Westerafdeeling van Borneo. Jaarboek Mijnwezen Nederlandsch Oost-Indie 9 (1880), 2, p. 33-41.
(Early geological and mining survey of west Kalimantan)

Van Schelle, C.J. (1882)- Beschrijving der Chineesche goudmijn Sim-Pi-Foe. Jaarboek Mijnwezen Nederlandsch Oost-Indie 11? (1882), p. Technisch Administratief Gedeelte, p. 27-71.
('Description of the Chinese gold mine Sim-Pi-Toe', E Borneo)

Van Schelle, C.J. (1883)- Onderzoek van goudaders bij Ajoei-Tsiet. Jaarboek Mijnwezen Nederlandsch Oost-Indie 12 (1883), ?, p. 5-28.
('Investigations of gold veins near Ajoei-Tsiet', W Borneo)

Van Schelle, C.J. (1883)- Eenige gegevens omtrent de goudproductie in een gedeelte der Res. Westerafdeeling van Borneo. Jaarboek Mijnwezen Nederlandsch Oost-Indie 12 (1883), Technisch Administratief Gedeelte, p. 45-69.
('Some data on the gold production in a part of W Kalimantan')

Van Schelle, C.J. (1883)- Beschrijving van de kolenafzetting bij Napan aan de rivier Bojan, in het landschap Boenoet. Jaarboek Mijnwezen Nederlandsch Oost-Indie 12 (1883), Technisch Administratief Gedeelte, p. 92-97.
('Description of the coal deposit near Napan on the Boyan River, in the Bunut area')

Van Schelle, C.J. (1884)- De geologisch-mijnbouwkundige opneming van een gedeelte van Borneo's Westkust. Verslag No. 6. Onderzoek naar cinnaber en antimonium-glans in het boven stroomgebied der Sikajam-Rivier. Jaarboek Mijnwezen Nederlandsch Oost-Indie 13 (1884), Technisch Administratief Gedeelte, p. 123-141.
('The geological-mining investigation of part of Borneo's West coast No. 6: Investigation into cinnaber and antimonium in the upper reaches of the Sikajam River'. Sarawak- Sanggouw border area is area of Chinese alluvial gold and diamond mines. In N part of area mainly folded shales, generally striking NE-SW dipping 30-50° to SE. In S gabbro. Some minor cinnaber only in Kajan gold mining area)

Van Schelle, C.J. (1884)- De geologische opneming van een gedeelte van Borneo's Westkust. Verslag No. 7. Over een onderzoek naar goudaderen en stroomgoud in het Skadouw-gebergte. Jaarboek Mijnwezen Nederlandsch Oost-Indie 13 (1884), Technisch Administratief Gedeelte, p. 219-260.
('The geological- mining investigation of part of Borneo's West coast No. 7: Investigation into gold veins and alluvial gold in the Skadouw Mountains'. Presence of some minor gold-bearing veins. Not much on geology)

Van Schelle, C.J. (1884)- De geologische opneming van een gedeelte van Borneo's Westkust. Verslag No. 8. Voorlopige onderzoekingen naar cinnaber in de Residentie Westerafdeeling van Borneo. Jaarboek Mijnwezen Nederlandsch Oost-Indie 13 (1884), Technisch Administratief Gedeelte, p. 260-276.
('The geological-mining investigation of part of Borneo's West coast No. 8: Preliminary investigations into cinnaber in the Residency of Western Borneo')

Van Schelle, C.J. (1884)- Medeeling omtrent de geologisch-mijnbouwkundige opneming van een gedeelte der Residentie Westerafdeeling van Borneo. Jaarboek Mijnwezen Nederlandsch Oost-Indie 13 (1884), Technisch Administratief Gedeelte, p. 277-303.
('Note on the geological-mining survey of a part of the western part of Borneo'. Systemic survey started in May 1880, still ongoing in 1883, based in Singkawang. Many of the alluvial gold deposits already mined out by Chinese miners)

Van Schelle, C.J. (1885)- De geologisch-mijnbouwkundige opneming van een gedeelte van Borneo's Westkust. Verslag No. 9. Onderzoek naar goudaderen bij Melassan. Jaarboek Mijnwezen Nederlandsch Oost-Indie 14 (1885), Technisch Administratief Gedeelte, p. 117-130.
('The geological-mining investigation of part of Borneo's West coast No. 9: Investigation of gold veins near Melassan'. Report on 1884 survey of area formerly mined for gold by Chinese kongsi's, now abandoned. Presence of quartz vein(s) in weathered 'old clay-shales' with pyrite and minor amounts of gold (0.0005%). Further exploitation deemed uneconomic)

Van Schelle, C.J. (1886)- Mededeeling omtrent de geologisch-mijnbouwkundige opneming van een gedeelte der Residentie Westerafdeeling van Borneo (vervolg). Jaarboek Mijnwezen Nederlandsch Oost-Indie 15 (1886), Technisch Administratief Gedeelte, p. 109-135.
('Communication on the geological-mining investigation of part of the Residency of Western Borneo (continuation)'. Continuation of Van Schelle (1884) on geology of N / NW Kalimantan. Oldest rocks are slates and thin quartzites, believed to be of Devonian age, but fossils too poorly preserved for identication. Steeply dipping, mainly E-W trending, also SE-NW. At two localities with trunks of silicified wood. Igneous rocks include granite and younger porphyry diabase, gabbro, etc. Overlain by U Cretaceous marls, Eocene? sandstones and post-Eocene clastics. Occurrences of diamonds (Landak), gold, etc.)

Van Schelle, C.J. (1886)- De vulkaan Melaboe ter Westerafdeeling van Borneo. Jaarboek Mijnwezen Nederlandsch Oost-Indie 15 (1886), Wetenschappelijk Gedeelte, p. 133-143.
('The Melaboe volcano in Western Department of Borneo'. Small, inactive, collapsed edifice of a previously unknown hornblende andesite volcano in Larah-Loemar sub-district, in area of intensely folded 'Devonian' phyllite terrain. Age of volcanism unknown. No figures (CJvS reporting from Singkawang, Feb. 1886))

Van Schelle, C.J. (1887)- De geologische opneming van een gedeelte van Borneo's westkust. Verslag No. 10: Onderzoek naar goudaderen bij Sikarim. Jaarboek Mijnwezen Nederlandsch Oost-Indie 16 (1887), Technisch Administratief Gedeelte, p. 95-128.
('The geological-mining investigation of part of Borneo's West coast No. 10: Investigations of gold veins near Sikarim')

Verbeek, R.D.M. (1883)- Over het voorkomen van gesteenten der Krijtformatie in de residentie Wester afdeeling van Borneo. Verslagen Koninklijke Akademie van Wetenschappen, Amsterdam, Afd. Natuurkunde, ser. 2, 18, p. 39-43.
(online at: google books)
('On the occurrence of Cretaceous rocks in the Residency Western Borneo'. Fossils collected in 'Patellina marls' from Sajor along Seberuang tributary of Kapuas River in W Kalimantan examined by Prof. Geinitz in Germany, and can definitively be attributed Cretaceous age ('Lower Senonian'). This was the first confirmation of presence of Mesozoic rocks in Indonesia)

Viaene, W., T. Suhanda, N. Vandenberghe, Y. Sunarya & R. Ottenburgs (1981)- Geochemical soil prospecting in Northwest Kalimantan, Indonesia. Proc. 8th International Geochemical Exploration Symposium (IGES 1980), Hannover, J. Geochemical Exploration 15, 1-3, p. 453-470.
(Geochemical analysis of soils in NW Kalimantan found anomalies of Cu, Mo, Au and Bi. Explained by porphyry-type mineralization of mainly chalcopyrite and molybdenite in quartz-enriched granodiorite. Possibility of belt of porphyry-type mineralization in W Kalimantan)

Vogel, F. (1896)- Mollusken aus dem Jura von Borneo. Sammlungen Geologischen Reichs-Museums Leiden, E.J. Brill, ser. 1, 5, p. 127-153.
(online at: www.repository.naturalis.nl/document/552424)
('Molluscs from the Jurassic of Borneo'. Molluscs collected by Wing Easton and Bosscha. Mollusc breccia of Sungei Perdajun in Kendai area, Buduk in Sambas, etc. Occurrence of. Corbula borneensis n.sp., Protocardia crassicostata n.sp., P. tenuicostata n.sp.and Exelissa septemcostata n. sp.)

Vogel, F. (1896)- Mollusken aus dem Jura von Borneo. Jaarboek Mijnwezen Nederlandsch Oost-Indie 25, Wetenschappelijk Gedeelte, p. 1-27.
('Molluscs from the Jurassic of Borneo'. Reprint of Vogel (1896), above)

Vogel, F. (1900)- Neue Mollusken aus dem Jura von Borneo. Sammlungen Geologischen Reichs-Museums Leiden, ser. 1, 6, p. 40-76. *(also in Jaarboek Mijnwezen Nederlandsch Oost-Indie 1899, Wetenschappelijk Gedeelte 2)*
(online at: www.repository.naturalis.nl/document/552402)
('New molluscs from the Jurassic of Borneo'. Additional Upper Jurassic mollusc material from NW Kalimantan (Sungai Pasi, Sungai Riong, etc.), collected by Wing Easton. Common bivalve molluscs (Astarte spp., Protocardia, Corbula, etc.) and gastropods)

Vogel, F. (1902)- Beitrage zur Kenntnis der mesozoischen Formationen in Borneo, 1: Der Nerineensandstein von Bana. Sammlungen Geologischen Reichs-Museums Leiden, ser. 1, 7, p. 208-217.
(online at: www.repository.naturalis.nl/document/552427)
('Contributions to the knowledge of the Mesozoic formatons of Borneo, 1. The Nerinea sandstone of Bana'. Cretaceous molluscs from the Bana, Landak River, W Kalimantan (Itieria scalaris n.sp., Nerinea sp., Exogyra sp., Mytilus arrialoorensis, Arca, Astarte, Lucina, Tellina, Corbula)

Vogel, F. (1904)- Beitrage zur Kenntnis der mesozoischen Formationen in Borneo, 2: Trias in Borneo. Sammlungen Geologischen Reichs-Museums Leiden, ser. 1, 7, p. 217-220.
(online at: www.repository.naturalis.nl/document/552427)
('Contributions to the knowledge of the Mesozoic formatons of Borneo, 2. Triassic in Borneo'. Upper Triassic shale rich in Monotis salinaria, probably from SE of Kendai)

Volz, W. (1905)- Die Insel Pulo Laut bei SO. Borneo als Beispiel einer Hebung durch ein Massenerguss. Neues Jahrbuch Mineralogie Geologie Palaontologie, Beilage Band 20, p. 354-364.
('Pulau Laut island near SE Borneo as example of uplift through a mass eruption'. Main mountains of E half of Pulau Laut island up to 700m high and composed of Post-Eocene porphyrites. Eruptions thought to have uplifted Eocene sediments)

Von Fritsch, K. (1878)- Patellinen von der Westseite von von Borneo. Palaeontographica, Supplement 3, 1, p. 144-146.
('Patellinids from the West side of Borneo'. Descriptions of Patellina scutum and P. trochus from Seberuang River, left tributary of Kapuas River, W Kalimantan (Patellina = mid-Cretaceous larger foram Orbitolina; has since been re-assigned to Orbitolina concava by Martin 1890; JTvG))

Von Gaffron, H. (1853)- Mededeeling aangaande den ijzererts gevonden ten Noorden van Kampong Tambaga in Tanah-Laut (Z.O. kust van Borneo). Natuurkundig Tijdschrift voor Nederlandsch-Indie 5, p. 225-232.

('Note on the iron ore found N of Tambaga village in Tanah Laut (SE coast of Kalimantan)'. Iron ore occurrence on slope of Poattion Dammar hill. Not much detail, no maps)

Von Gaffron, H. (1854)- Geognostische tabel der rotssoorten van den berg Pengaron. Natuurkundig Tijdschrift voor Nederlandsch-Indie 1, 6, p. 145-150.
('Geognostic table of the rock types of the Pengaron hill'. Early cross section of Pengaron hill, Meratus Mts front, site of late 1800's mining of Eocene coal in SE Kalimantan)

Von Gaffron, H. (1857)- Verslag over de goudmijnen van Tanah Lawut (eiland Borneo). Natuurkundig Tijdschrift voor Nederlandsch-Indie 1, 9, p. 30-40.
(Early report on alluvial gold mining by Chinese and dayaks in 'Tanah Laut' area, S Kalimantan)

Von Koenigswald, G.H.R. (1939)- Uber einige Ammoniten und Aptychen aus der Unteren Kreide von Borneo. In: C.P.A. Zeijlmans van Emmichoven (1939)- De geologie van het Centrale en Oostelijk deel van de Westerafdeling van Borneo. Jaarboek Mijnwezen Nederlandsch-Indie 68, Verhandelingen, p. 162-171.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:046469000:00179)
('On some ammonites and aptychs from the Lower Cretaceous of Borneo'. Lower Cretaceous ammonites collected by Zeijlmans in Seberuang area, W Kalimantan, in beds previously ascribed to Upper Cretaceous. Similarities with Jambi, Sumatra, Valanginian noted. Lower Bedungan Fm (unconformable on Permo-Carboniferous Bojan Fm meta-sediments and volcanics) with Valanginian Pecten, Hoplites neocomiensis, Thurmannia (Kilianella) roubaudiana, etc.)

Von Koenigswald, G.H.R. (1961)- Tektites in Borneo and elsewhere. Sarawak Museum Journal 10, p. 319-324.

Wagner, C. (1986)- Mineralogy of the type kajanite from Kalimantan: similarities and differences with typical lamproites. Bulletin de Mineralogie 109, 5, p. 589-598.
(online at: https://www.persee.fr/doc/bulmi_0180-9210_1986_num_109_5_7960)
(Unusual leucite-bearing potassic basalts from Kayan River, C Kalimantan, initially described as 'kajanite', a mica-leucite-basalt by H.A. Brouwer, 1910), with affinities to minettes and lamproites)

Wahyudiono, J. (2017)- Karakteristik petrologi dan geokimia batuan gunungapi berumur Oligosen Akhir-Miosen di daerah Gunung Muro, Kalimantan Tengah. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 18, 2, p. 105-115.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/266/283)
('Petrology and geochemistry characteristics of the Late Oligocene - Miocene volcanic rocks in the Gunung Muro Region, C Kalimantan'. Mt Muro calc-alkaline magmatic (part of Sintang Arc volcanics))

Wake, B.A. (1991)- Gold mineralization at the Muyup prospect, East Kalimantan, Indonesia. Proc. World Gold '91-Gold forum on technology and practice, Cairns 1991, Australasian Institute of Mining and Metallurgy (AusIMM), Parkville, p. 271-278.
(Epithermal gold mineralisation discovered at Muyup prospect in 1986. Five Au vein systems along NW trending faults. Mineralisation hosted by mid-Tertiary intermediate volcanics inlier, intruded by intermediate hypabyssal porphyries (see also papers by Abidin (1998, and others)).

Wakita, K. (2002)- Secrets of lost diamonds- a geological trip Cretaceous accretionary complex in South Kalimantan, Indonesia. Chishitsu News, Geological Survey of Japan, 574, p. 53-67. *(in Japanese)*

Wakita, K. (2002)- Hard kiss of mosquito on the Equator- a geological trip Cretaceous accretionary complex in West Kalimantan. Chishitsu News 576, p. 44-59.
(in Japanese; online at: www.gsj.jp/Pub/News/pdf/2002/08/02_08_09.pdf)

Wakita, K., K. Miyazaki, I. Zulkarnain, J. Sopaheluwakan & P. Sanyoto (1998)- Tectonic implications of new age data for the Meratus complex of South Kalimantan, Indonesia. The Island Arc 7, p. 202-222.

(online at: https://www.academia.edu/76772702/Tectonic_implications_of_new_age_data_for_the_Meratus_Complex_of_south_Kalimantan_Indonesia)
(Meratus Cretaceous subduction complex includes melange with chert (with early M Jurassic- M Cretaceous radiolarians), shale, limestone, basalt, ultramafic rocks and schist. Unconformably covered by Late Cretaceous island arc volcanics and submarine volcanoclastics (Pitap Fm with Cenomanian or older radiolarians). Constraints on tectonic setting: (1) melange caused by subduction of oceanic plate covered by early M Jurassic to late E Cretaceous radiolarian cherts; (2) Aptian-Albian (110-119 Ma) Haruyan Schist, high P-low T metamorphism caused by plate subduction. M Jurassic (165, 180 Ma) intermediate-P metamorphic rocks along N margin; (3) Haruyan Fm, submarine volcanism in immature island arc setting, locally contemporaneous with Meratus Complex melange)

Wang, Y., Z. Liu, S. Murtadha, P.A. Cawood, X. Qian, A. Ghani, C. Gan, Y. Zhang, Y. Wang, S. Li & P. Zhang (2022)- Jurassic subduction of the Paleo-Pacific plate in Southeast Asia: new insights from the igneous and sedimentary rocks in West Borneo. J. Asian Earth Sciences 232, 105111, p. 1-17.
(New zircon U-Pb and isotopic data of igneous rocks and associated sediments in W Borneo (focused on Kerabai Volcanics, Sukadana and Mensibau batholiths and associated sedimentary rocks) document Early (~200-185 Ma) and Late (~160–145 Ma) Jurassic arc-like igneous rocks. In Kuching Zone and S Schwaner Mountains, Jurassic mafic-intermediate igneous rocks originated in supra-subduction zone setting. Jurassic granitoids juvenile crust-dominated origin. Associated sedimentary rocks in Kuching Zone and S Schwaner Mountains largely derived from nearby Jurassic magmatic arc, with zircon age patterns comparable to E Malaysia-Indochina and Sibu zone, but distinct from SE Borneo. West Borneo may be E-ward extension of Triassic Sundaland. W Kuching Zone and western S Schwaner Mts represent S-most part of Andean-type Jurassic East Asian active continental margin. W-ward subduction of Paleo-Pacific plate initiated around earliest Jurassic at ~200 Ma or earlier)

Wang, Y., X. Qian, P.A. Cawood, C. Gan, Y. Zhang, F. Zhang, J.B. Asis, Y. Yan & C. Wang (2024)- Temporal-spatial patterns of Mesozoic Paleo-Pacific and Tethyan supra-subduction systems in SE Asia: Key observations and controversies in Borneo and its surroundings. Earth-Science Reviews 252, 104762, p. 1-31.
(Key paper on Mesozoic tectonic regime of C Indonesia and unraveling of temporal-spatial pattern of Paleo-Pacific and Tethyan subduction systems in SE Asia (mainly Borneo). W Borneo and W Sumatra, have Sundaland affinities (S-most segment of Paleo-Tethyan margin in W Borneo overprinted by Paleo-Pacific-related accretionary orogenesis in Jurassic-Cretaceous. Mesozoic in Sabah with Cathaysian affinities. Mesozoic igneous rocks in NE, NW and SW Borneo define magmatic flare-ups at ~190, 150, 130 and 85 Ma, comparable to coastal S China (long-lived active continental margin with pulsed Paleo-Pacific subduction and rollback). Paleo-Pacific subduction initiated by earliest Triassic in NE Borneo and earliest Jurassic in NW and SW Borneo, but likely ceased at ~ 80 Ma. SE Borneo (and SW Sulawesi) represents E-most segment of Neo-Tethyan Ocean, where N-ward subduction initiated at ~140 Ma and ceased at ~90 Ma. Intersection of Paleo-Pacific and Neotethyan systems in Palangkaraya area, between SW and SE Borneo (NB: Neo-Tethys and Ceno-Tethys of Wang et al. = Mesotethys and Neotethys of earlier authors?; JTvG))

Wang, Y., X. Qian, P.A. Cawood, A. Ghani, C. Gan, S. Wu, Y. Zhang, Y. Wang & P. Zhang (2022)- Cretaceous Tethyan subduction in SE Borneo:geochronological and geochemical constraints from the igneous rocks in the Meratus Complex. J. Asian Earth Sciences 226, 3-4, 105084, p. 1-15.
(Meratus ophiolite 10-40 km wide/ 300 km long and formed in Late Jurassic-E Cretaceous (~150-115 Ma). Spatially-associated Haruyan Volcanics and Belawayan granitoids in E Cretaceous (~140-107 Ma). Haruyan/Pitap Fms dominated by E Cretaceous (~140-115 Ma) volcanics and late E Cretaceous (~115-100 Ma) siliciclastics. Mafic-intermediate igneous rocks in Meratus from slab-related mantle wedge. Data suggest NW Australian affinity for SE Borneo. E Cretaceous fore-arc extends into Bantimala (SW Sulawesi) and Luk Ulo (C Java), all parts of united E Cretaceous Central Indonesian accretionary zone. 'Meratus Ocean' subducted under 'Argo fragment' since ~140 Ma, before its likely assembly with Sundaland at ~100 Ma in response to consumption Neotethys (=Mesotethys?; JTvG))

Wang, Y., X. Qian, S.N. Wu & J.B. Asis (2022)- Mesozoic Paleo-Pacific Andean-type orogenesis revealed by the Triassic-Cretaceous igneous rocks in West Borneo. Acta Geologica Sinica 96, 10, p. 3381-3409. *(in Chinese)*

(In E Mesozoic, SW and NW Borneo (together West Borneo) were part of SE margin of Indochina-East Malay Block and part of Sunda paleocontinent in NNE direction. During Jurassic- Cretaceous, W Borneo experienced subduction and accretion orogeny. Late Cretaceous subduction boundary developed in Lupar Line of Kuching Belt- Palangkaraya in C Kalimantan. (part of long-lived (>120 Ma) Paleo-Pacific Andean-type accretionary orogenic belt developed from W Borneo to SE China, etc.). Subduction characterized by "multi-stage subduction-retreat". At end of Late Cretaceous it was transformed into current W Pacific subduction system)

Wang, Y., S.N. Wu, X. Qian, J.B. Asis, Y. Wang, Y.Z. Zhang, Q.L. Feng, W.T. Wang & P.Z. Zhang (2023)- Early Triassic- Late Cretaceous Paleo-Pacific subduction zone along the East Asia continental margin: fore-arc igneous records in Sabah of NE Borneo. Chinese Science Bull. 68, p. 954-971. *(in Chinese)*
(online at: https://www.sciengine.com/CSB/doi/10.1360/TB-2022-0864)
(Giant Mesozoic arc igneous zone developed along E margin of Asia (Paleo-Pacific subduction), extending from Coastal S China into SE Vietnam and Malay Peninsula through northern S China Sea, then into West Borneo. Paper focuses on Sabah tectonic zone of NE Borneo, proposing that Sabah was located at the SE- most margin of East Cathaysia of South China during Mesozoic)

Wang, Y., S. Wu, X. Qian, P.A.Cawood, X. Lu, C. Gan, J. Bin Asis & P. Zhang (2022)- Early Cretaceous subduction in NW Kalimantan: geochronological and geochemical constraints from the Raya and Mensibau igneous rocks. Gondwana Research 101, p. 243-256. *(online at: www.researchgate.net/publication/354229867_Early_Cretaceous_subduction_in_NW_Kallimantan_Ge Etc.)*
(Kuching zone in NW Kalimantan- Sarawak may be S-extension of Paleo-Pacific subduction of coastal South China and SE Vietnam. Raya Volcanics and Mensibau granitoids formed at 130-144 Ma (E Cretaceous), synchronous with Menunuk Volcanics, but older than Pakong-Serabang mafic rocks and Serian Volcanics (~77-98 Ma) in Sarawak Kuching zone. Temporal-spatial and geochemical accordance for Raya Volcanics and Mensibau batholith document extensive E Cretaceous igneous rocks in NW Kalimantan. Kuching zone is NE-propagated Cretaceous accretionary system developed in response to subduction of Paleo-Pacific plate)

Wang, Y., Y. Wu, X. Qian, P.A. Cawood, J. Zhu, T. Bai, C. Wang & Y. Xu (2025)- Paleoproterozoic metamorphic basement in Central Borneo: linking Indochina and Laurentia in Columbia. Gondwana Research 148, p. 77-95.
(Paleoproterozoic amphibilite and gneiss identified in Embuoi Complex, NW Kalimantan (= Semitau Block). Zircon U-Pb ages of 1898-1820 Ma represent oldest known rocks in Borneo. Tectonic affinity of Embuoi metamorphic complex with Indochina block, both as W extension of SW Laurentia within Columbia Supercontinent. Paleoproterozoic Embuoi orogeny was overprinted by Triassic (259–201 Ma) metamorphism and intruded by Triassic (233–211 Ma) massive granites that correlate with Paleo-Pacific subduction along East Asia active continental margin)

Watters, R.A., G.B.H. Tucker & B. Soesila (1991)- Reconnaissance and follow-up exploration for gold in Central Kalimantan, Indonesia. J. Geochemical Exploration 41, 1-2, p. 103-123.
(Geochemical reconnaissance survey for gold in C Kalimantan delineated seven anomalies, associated with Cretaceous Sepauk Tonalite)

White, L., I. Graham, R. Armstrong & R. Hall (2014)- Tracing the source of Borneo's Cempaka diamond deposit. American Geophysical Union (AGU), Fall Meeting, San Francisco, EP21D-3565, 1p. *(Abstract only)*
(Detrital zircon ages from Cempaka alluvial diamond deposit in SE Kalimantan: 75-110 Ma (2/3; M-U Cretaceous), 223 Ma, 314-319 Ma, 353-367 Ma, 402-414 Ma, 474 Ma, 521 Ma, 549 Ma, 1135-1176 Ma, 1535 Ma and 2716 Ma. Cretaceous zircons euhedral with minor evidence of mechanical abrasion, likely derived from nearby Schwaner Mts granites. Triassic and older grains rounded and likely derived from Australia before Borneo rifted from Gondwana. Some ages resemble those of Merlin and Argyle diamond deposits of Australia. Geochemical data from diamonds implies association with lamproite intrusions)

White, L.T., I. Graham, D. Tanner, R. Hall, R.A. Armstrong, G. Yaxley, L. Barron, L. Spencer & T.M. van Leeuwen (2016)- The provenance of Borneo's enigmatic alluvial diamonds: a case study from Cempaka, SE Kalimantan. Gondwana Research 38, p. 251-272.
(online at: http://searg.rhul.ac.uk/pubs/white_etal_2016%20Cempaka%20Borneo%20diamonds.pdf)

(Diamonds in alluvial deposits across C and S Borneo of unknown primary igneous source. Cempaka diamonds likely derived from at least two sources, one relatively local and/or involved little reworking, and other more distal with several periods of reworking. Distal diamond source interpreted to be recycled from diamond-bearing pipes of block that rifted from NW Australia. Local source possibly diamondiferous diatremes associated with eroded Miocene high-K alkaline intrusions N of Barito Basin, or from ophiolitic rocks exposed in nearby Meratus Mountains. Associated zircons mainly 75-110 Ma, similar to many other Borneo Tertiary sediments, others Triassic and older)

Widagdo, A. (2013)- Struktur geologi dan sebaran batubara daerah Bentian Besar, Kabupaten Kutai Barat, Propinsi Kalimantan Timur. J. Ilmiah Dinamika Rekayasa (UNSOED) 9, 2, p. 1-5.
(online at: https://dinarek.unsoed.ac.id/jurnal/index.php/dinarek/article/view/68/65)
('Geological structure and coal distribution in the Bentian Besar Area, West Kutai Regency, East Kalimantan'. Coal in Upper Kutai Basin in E-M Miocene Pulubalang Fm, in synclinal structure. Not much detail on coal)

Widodo, W., H. Permana, Ernowo & Y.C.A. Swamidharma (2024)- An update to the geology of Sebuku Island, South Kalimantan, Indonesia: Constraints from petrological studies. Rudarsko-Geolosko-naftni Zbornik (Mining-Geology-Petroleum Engineering Bulletin), Zagreb, 39, 5, p. 121-138.
(online at: https://hrcak.srce.hr/en/clanak/466853)
(Sebuku Island has geological similarities with Bobaris-Meratus complex of nearby SE Kalimantan and Pulau Laut. Previous geological research on Sebuku focused on ultramafic rocks, with potential iron ore deposits in derived laterite soils. Jurassic? melange (mainly serpentinitized ultramafics) covered by Late Cretaceous Pitap/ Haruyan volcanic and magmatic rocks (with Kintap-equivalent'? meta-limestone olistolith (with mid-Cretaceous Orbitolina in Meratus Mts; JTvG)), and unconformably overlain by Eocene Tanjung Fm clastics. Sebuku and Meratus uplifts during LateMiocene. Petrography of 34 samples, mainly ultramafics from NE Sebuku)

Widyastanto, A., J. Brojomusti, C.D.P. Dana, Fatratomo & H. Santayana (2019- Mineralogical characteristics of granitoid and mafic intrusive bodies in Ruwai skarn Zn-Pb-Ag deposit: A preliminary study on pre to post mineralization intrusion. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI, Yogyakarta 2019, p. 1–8.
(online at: www.researchgate.net/profile/Cendi-Dana/publication/337702597_Mineralogical_Character Etc.)
(Mafic intrusive bodies (andesite, basalt, diabase) in area of Ruwai Skarn Zn-Pb-Ag deposit in C Kalimantan result of late (post-mineralization) magmatic activity in M-L Cretaceous)

Williams, P.R. & B.H. Harahap (1986)- Geochemistry, age and origin of post subduction intrusive rocks in West Kalimantan and Sarawak. Bull. Geological Research Development Centre (GRDC), Bandung, 12, p. 43-54.
(Major phase of Late Oligocene- E Miocene igneous activity in NW Kalimantan and Sarawak. Mainly I-type granodiorites. Concentrated in thickest parts of Late Cretaceous- Early Tertiary Melawi and Ketungau sedimentary basin and probably represents deep crustal remelting in passive, post-subduction environment)

Williams, P.R. & B.H. Harahap (1987)- Preliminary geochemical and age data from postsubduction intrusive rocks, northwest Borneo. Australian J. Earth Sciences 34, p. 405-415.
(Major phase of Late Oligocene- E Miocene igneous activity in W Kalimantan and Sarawak, NW Borneo, mainly associated with thickest parts of Late Cretaceous- E Tertiary Melawi and Ketungau sedimentary basins. Majority is granodiorite, similar to I-type granitoids. K/Ar ages 23-30.4 Ma from S part of region (Melawi Basin), 16.4-17.9 in N part (Ketungau basin). Age of magmatism, tectonic position and geochemistry suggest it is related to deep crustal re-melting and intrusion in passive, post-subduction environment (Hartono 2006 suggests these are subduction-related adakites; JTvG))

Williams, P.R. & R. Heryanto (1986)- Geological data record, Sintang, 1:250,000. Geological Research Development Centre (GRDC), Bandung, p. *(Unpublished)*
(Explanatory note of Sintang geological map sheet. Tate 1995: includes tin occurrence in Lower Cretaceous Menyukung Granite in W Kalimantan)

Williams, P.R., C.R. Johnston, R.A. Almond & W.H. Simamora (1988)- Late Cretaceous to Early Tertiary structural elements of West Kalimantan. Tectonophysics 148, p. 279-298.

(Three W Kalimantan domains after E Cretaceous-Eocene convergent tectonics: (1) Schwaner Mountains, E-W across S and C West Kalimantan with subduction granitoids intruded into low-grade metamorphic rocks in E Cretaceous; (2) NW Kalimantan Late Carboniferous- Cretaceous sediments and volcanics; (3) NW Kalimantan Cretaceous flysch accretionary complex, a S continuation of mainly Tertiary Sarawak accretionary wedge. Boundary between Cretaceous accretionary domain and NW Kalimantan domain is transform fault marking W limit of Late Cretaceous S-dipping subduction. Growth of accretionary complex resulted in uplift of melange and flysch, on which extensional half graben formed with lacustrine deposits. Sedimentary basin formed between continental rocks to S and emergent accretionary complex to N, in forearc basin position. As accretion proceeded, locus of underthrusting migrated N and second melange ridge and sedimentary basin developed farther N. S-dipping subduction in E part of W Kalimantan in Late Cretaceous- Early Tertiary)

Williams, P.R., S. Supriatna & B. Harahap (1986)- Cretaceous melange in West Kalimantan and its tectonic implications. In: G.H. Teh & S. Paramananthan (eds.) Proc. 5th Regional Congress Geology Mineral Energy Resources of SE Asia (GEOSEA V), Kuala Lumpur 1984, 1, Bull. Geological Society Malaysia 19, p. 69-78.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1986006.pdf)
(Same as Williams et al. (1990) below. Boyan melange of Semitau zone of NW Kalimantan, which separates Cretaceous- E Tertiary Ketungau and Melawi basins, is chaotic mixture of blocks (several m to several km) of greenschist, serpentinite, granite, limestone (incl. mid-Cretaceous Orbitolina Lst), quartzite and radiolarian chert in sheared argilitic matrix (generally steep S-dipping cleavage). Glaucophane schist reported by Zeijlmans (1939) not seen, Also 15km long/ 3 km wide slab of ultramafic rocks. Unlikely that melange is tectonic shear zone related to transcurrent faulting, but may be S part of Late Cretaceous- Paleogene subduction complex of Sarawak)

Williams, P.R., S. Supriatna & B. Harahap (1990)- Cretaceous melange in West Kalimantan and its tectonic implications. Bull. Geological Research Development Centre (GRDC), Bandung, 14, p. 29-37.
(Extensive Boyan tectonic melange in W Kalimantan implies existence of WNW trending suture zone just S of Semitau on Kapuas River. Chaotic sheared argillite with blocks of metamorphics and ultramafics, now recognized as Late Cretaceous melange, not coherent Jurassic as suggested in 1939. Melange bordered by highly deformed Cenomanian- Turonian turbiditic Selangkai Fm, with blocks of shallow detritus, including Orbitolina sandstone. Characteristics of subduction zone, but no known igneous activity of this age)

Williams, P.R., S. Supriatna, C.R. Johnston, R.A. Almond & W.H. Simamora (1989)- A Late Cretaceous to Early Tertiary accretionary complex in West Kalimantan. Bull. Geological Research Development Centre (GRDC), Bandung, 13, p. 9-29. *(Much the same as Williams et al. 1988)*

Williams, P.R., S. Supriatna, D.S. Trail & R. Heryanto (1984)- Tertiary basins of West Kalimantan, associated igneous activity and structural setting. Proc. 13th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 151-160.

Winarno, T., R.K. Ali, H. Simangunsong & A. Almiftahurrizqi (2023)- Characteristics and genesis of laterite bauxite in Sompak District and surrounding areas, Landak Regency, West Kalimantan. Indonesian J. on Geoscience (IJOG) 10, 1, p. 37-49.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/857
(W Kalimantan has large bauxite resources. In Sompak District, Landak, W Kalimantan, laterite bauxite formed by weathering of Al-rich intermediate- alkaline igneous rocks: from granodiorite (medium grade), porphyry quartz diorite (high-grade), andesite porphyry (low-medium grade) and porphyry basalt (high grade))

Wing Easton, N. (1889)- De vulkanen Sitong en Pando, ter Wester-Afdeeling van Borneo. Jaarboek Mijnwezen Nederlandsch Oost-Indie 18 (1889), Wetenschappelijk Gedeelte, Verhandelingen, p. 24-52.
('The volcanoes Sitong and Pando in the Western District of Borneo'. In addition to Melaboe volcano discovered by Van Schelle, two addtional rel. small inactive volcanic cones discovered, G. Sitong and Monggo Pando, E of Sambas River. Mainly composed of hornblende andesite volcanoes, also with basaltic lava flows)

Wing Easton, N. (1894)- Geologisch-mijnbouwkundige opneming van een gedeelte der Westerafdeeling van Borneo, Verslag 11, Het diamantvoorkomen in Landak. Jaarboek Mijnwezen Nederlandsch Oost-Indie 23 (1894), Technisch Administratief Gedeelte, p. 94-130.
('Geological-mining survey of West Kalimantan, Report 11, The diamond occurrence in Landak'. Description of alluvial diamond occurrences and exploitation by local and Chinese miners. Most operations already depleted and abandoned. Diamond occurrences almost all in immediate vicinity of Landak River)

Wing Easton, N. (1895)- Diamanten in Landak, hun voorkomen en ontginbaarheid. Javasche Courant, Batavia, 8 March 1895, p. 1-27.
(online at: https://books.google.com/books?id=sgBWAAAAcAAJ&printsec=frontcover&dq=Taverne Etc.)
('Diamonds in Landak, their occurrence and exploitability'. Diamonds in West Kalimantan present along main Landak River only (not in tributaries and none in Sambas River). Present in shallow gravelly alluvial deposits, often directly on steeply dipping slates. Generally associated with 'leboer'. No European exploration recommended by NWE)

Wing Easton, N. (1899)- Geologisch-mijnbouwkundige opneming van een gedeelte der Westerafdeeling van Borneo, Verslag 12, Het voorkomen van koperertsen in den omtrek van Mandor. Jaarboek Mijnwezen Nederlandsch Oost-Indie 28 (1899), Wetenschappelijk Gedeelte 1, p. 143-167.
('Geological-mining survey of West Kalimantan, Report 12, The occurrence of copper ores in the area of Mandor'. Small veins with copper minerals present, but not deemed economically significant)

Wing Easton, N. (1899)- Voorloopige mededeeling over de geologie van het stroomgebied der Kapoeas-Rivier in de Westerafdeeling van Borneo. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 16, p. 245-258.
('Preliminary communication on the geology of the drainage area of the Kapuas River, W Kalimantan'. Presence of mid-Cretaceous marly limestones with Orbitolina, E Jurassic with ammonites, Late Jurassic, etc. Not much detail)

Wing Easton, N. (1904)- Geologie eines Teiles von West Borneo nebst einen kritischen Uebersicht des dortigen Ertzvorkommens. Jaarboek Mijnwezen Nederlandsch Oost-Indie 33 (1904), Wetenschappelijk Gedeelte, p. 1-542 + Atlas.
(Text online at: http://books.google.com/books/download/Jaarboek_van_het_mijnwegen_in_Nederlands…etc.)
('Geology of a part of West Borneo with a critical overview of its ore deposits'. Final report of years of W Kalimantan geological survey. With paleontology chapters by Martin, Krause and Vogel. Oldest rocks of W Kalimantan highly folded clay-slates (= 'old schists' of Molengraaff?). Overlain by U Triassic micaceous shale and sandstone with Monotis salinaria, E-M Jurassic clastics and marls limestones with ammonites (Harpoceras, Perisphinctes) and bivalves (Exelissa, Corbula, etc.), Cretaceous sandstones, etc.)

Wing Easton, N. (1914)- Geologisch overzicht van West Borneo; verschil en overeenkomst met Centraal en Zuidoost Borneo. Verslagen Geologische. Sectie Geologisch Mijnbouwkundig Genootschap Nederland Kolonien 1, p. 179-189.
('Geological overview of W Borneo; differences and similarities with C and SE Borneo'; Verbeek ref. 2802)

Wing Easton, N. (1917)- Had Borneo vroeger een woestijnklimaat? Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 34, 5, p. 680-695.
(online at: https://www.delpher.nl/nl/tijdschriften/view?coll=dts&page=4&maxperpage=20&identifier=MMUBA13:001663001:00710)
('Did Borneo have a desert climate in the past?'. Thick, massive unfossiliferous, unfolded, Eocene(?) 'Plateau sandstone' of W Kalimantan does not look like normal marine or fluvio-deltaic deposit, and is believed to be represent an eolian deposit, possible with E-W trending dunes. This would imply much drier climate than today. 'Plateau sandstones' are rel. unconsolidated sands, erosional product of granites ('quartz porphyry'), up to 1000m thick. Also called Kajan Sst)

Wing Easton, N. (1919)- Kristallijne schisten in West Borneo. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 4, p. 315-318.
('Crystalline schists in West Borneo'. Rocks originally described from W Kalimantan by Wing Easton in 1904 as diabase, quartz porhyrites etc., should probably be regarded as metamorphic rocks (epidote-chlorite schists, quartzites and amphibolites). Metamorphism must be Early Triassic or older in age)

Wing Easton, N. (1933)- De natuurlijke minerale koolstof en haar ontstaansmogelijkheden. Toepassing op de Borneo-diamanten. De Mijningenieur 14, 4, p. 60-74.
('The natural carbon mineral and it possible origins; applications to Borneo diamonds'. Data and speculations on origin and distribution of diamonds of Kalimantan. Believed to originate from not-yet-located kimberlites)

Wing Easton, N. (1933)- De oorsprong der Borneo diamanten. Geologie en Mijnbouw 20, p. 202-204.
(online at: https://drive.google.com/file/d/1_iQfWDMYohAXgpp83ZllzSnGpMo2NI7R/view)
('The origin of the Borneo diamonds'. Brief discussion suggesting 'Pamali Breccia' in Meratus Mts may be kimberlitic-type source of Kalimantan diamonds, an idea further elaborated by Koolhoven (1935) (but rejected by Bergman et al. 1987 and Burgath & Mohr 1991). (No figures, nothing new))

Wing Easton, N., C.J. van Schelle, M. Koperberg & A.L.E. Gaston (1904)- Geologische Karte der Sultanate Pontianak und Sambas und der Panembahanate Mempawah und Landak in West-Borneo. Jaarboek Mijnwezen Nederlandsch Oost-Indie 33 (1904), Wetenschappelijk Gedeelte, Landsdrukkerij, Batavia, 12 plates.
(maps online at: https://digitalcollections.universiteitleiden.nl/view/item/56552)
('Geological map of the Pontianak and Sambas sultanates and Mempwah and Landak districts in West Borneo'. Atlas to accompany Wing Easton (1904) text, with ten 1:100,000 scale maps, one geologic overview map 1:500,000, one plate of index fossils, one plate of cross-sections)

Witkamp, H. (1925)- Bij een voorlopige schets der Klindjau en Atan (Borneo). Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 42, p. 538-540.
('Preliminary sketch of the Klindjau and Atan rivers (Borneo)'. Brief report of recent geographic survey to northern tributaries of the Mahakam River in the Upper Kutai Basin. No geology. (likely part of Central- East Borneo expedition of 1925. For more detailed map and descriptions of rocks collected see Albrecht (1946); JTvG))

Witkamp, H. (1927)- Beknopt overzicht van de geologische resultaten der Midden-Oost Borneo expeditie 1925. In: D.W. Buijs et al., Midden-Oost Borneo Expeditie 1925, Weltevreden, p. 105-116.
('Brief overview of geological results of the Central- East Borneo expedition 1925'. Summary of geological observations made during geographic expedition. U Telen River area with 'Old Slate Formation', similar to that of W and C Borneo. Intensely folded, steeply dipping, striking E-W in W part of area of investigation (and like in W-C Borneo), farther East strike SSW-NNE, parallel to Tertiary folding directions. Relationship between Old Slate and Danau Fm not clear. Granitic massifes present. Early Tertiary sandstones with abundant petrified wood and limestone unconformable over and probably 'deposited against a wall of Old Slates' (now at 1800m above sea level))

Witkamp, H. (1928)- De Kedang Rantau (O. Borneo). Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 45, p. 34-61.
(Geographic description of Kedang Rantau River in E Kalimantan, a N-S left-hand tributary of the Mahakam River. With one sketch map. No geology)

Witkamp, H. (1928)- Een tocht naar den Goenoeng Ketam (Borneo). Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 45, p. 412-439.
('A trip to the Ketam mountain, Kalimantan'. Mainly geographic description of 1922 survey in Kutai basin, from Muara Pakoe along Mahakam River to SW. Very little on geology: occurrences of Tertiary shale, coral limestone, sandstone; etc.; in farNW folded sand-shale with coal)

Witkamp, H. (1932)- Diamantafzettingen van Landak. De Mijningenieur 13, 3, p. 43-55.

('Diamond deposits of Landak'. Summary of Witkamp report by Van Bemmelen. Diamonds only at gravely base and in lowest alluvial deposits, especially where directly on bedrock, and always associated with 'leboer' rock (lebur = black rounded pebbles, probably mainly corundum?). Diamonds probably reworked from 'Plateau Sandstone' conglomerates; primary igneous source unknown. Little or no remaining potential for diamond exploitation in lower Landak area, as all visible gravel deposits have been thoroughly worked by Chinese and local Malay and Dayak prospectors)

Witkamp, H. (1932)- Langs de Mahakam. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 49, p. 30-56.
('Along the Mahakam'. Travel report of 1930 river trip up to Mamahak, with some geological observations)

Wohler, F. (1866)- Ueber ein neues Mineral von Borneo: Laurit. Konigliche Gesellschaft Wissenschaften Gottingen, Nachrichten, p. 155-160.
('On a new mineral from Borneo: Laurite'. Platinum-group mineral Laurite (RuS2; Ruthenium- Osmium sulfide) from Pontyn River, Meratus Range, SE Kalimantan (probably sourced from Meratus Mts ultrabasic rock). (also in: Annalen der Chemie und Pharmacie 139, p. 116-120))

Wolff, I. (2021)- Diamonds are forever- the long Cempaka diamond story. Coal Asia 71, p. 68-73.

Wurst, A. (2004)- Geology and genesis of the Permata-Batu Badingding-Hulubai and Kerikil Au-Ag low sulfidation epithermal deposits, Mt. Muro, Kalimantan, Indonesia. Ph.D. Thesis, University of Tasmania, School of Earth Sciences, Hobart, p. 1-423.
(online at: http://eprints.utas.edu.au/15789/1/1Wurst_whole_thesis.pdf)
(Permata-Batu Badinding-Hulubai vein and Kerikil breccia-hosted deposits of Mt Muro, Kalimantan, represent two styles of Au-Ag, low sulfidation epithermal deposit. Andesitic-basaltic host rocks correlated with E Miocene Sintang volcanism and Pliocene Metalung volcanism. PBH and Kerikil similar structural trends and NNW dilational settings that are result of NNW-directed compression and dextral movement on major NW striking basement structures)

Xu, C., W. Zhu & Z. Liao (2020)- A review of the Late Mesozoic magmatic arc in Borneo with slab subduction models. J. Petroleum Geology & Experiment 42, 5, p. 711-719. *(in Chinese with English Abstract)*
(online at: https://link.springer.com/article/10.1007/s11771-004-0064-8)

Yang, M. & S.L. Peng (2004)- Geodynamical features and geotectonic evolution of Kalimantan and adjacent areas. J. Central South University of Technology, China, 11, 3, p. 312-315.
(Brief overview of Kalimantan tectonic provinces. No new data, poor English)

Yao, Z.Y., X.Z. Yang, M.H. Zhao & P.F. Yuan (2011)- Geologic characteristics of the Marau lead-zinc ore deposit in Ketapang of Kalimantan Province, Indonesia. Resources Survey Environment 32, 4, p. 285-290. *(in Chinese with English abstract)*
(online at: http://en.cgsjournals.com/article/doi/10.3969/j.issn.1671-4814.2011.04.006)
(Marau deposit newly discovered lead-zinc ore deposit in Ketapang, SW Kalimantan. Main minerals galena, sphalerite, pyrite, pyrrhotite, chalcopyrite, bornite, etc. Controlled by fissures in Mesozoic-Cenozoic volcanics. Tied to subvolcanic intrusions; hydrothermal solution from late calc-alkaline volcanic rocks)

Yuwono, Y.S., S. Priyomarsono, R.C. Maury, J.P. Rampnoux, A.R. Soeria-Atmadja, H. Bellon & P. Chotin (1988)- Petrology of the Cretaceous magmatic rocks from Meratus Range, Southeast Kalimantan. J. Southeast Asian Earth Sciences 2, 1, p. 15-22.
(With exception of Riam Andungan plagiogranites (part of Peridotitic Nappe), all volcanic and plutonic rocks of Aptian-Senonian Manunggul Fm (and plutonic rocks intruding peridotitic nappe) in Meratus Mts are of island-arc calc-alkaline affinity. Subduction-related tectonic environment proposed for Middle- Late Cretaceous of Meratus Range both before (U Aptian- Cenomanian Alino Fm) and after obduction of peridotitic nappe (U Turonian- Senonian Manunggul Fm))

Zaw, K.L., L.D. Setijadji, W. Warmada & K. Watanabe (2011)- Petrogenetic interpretation of granitoid rocks using multicationic parameters in the Sanggau Area, Kalimantan Island, Indonesia. J. Southeast Asian Applied Geology (UGM) 3, 1, p. 45-53.
(online at: http://geologic-risk.ft.ugm.ac.id/fresh/jsaag/vol-3/no-1/jsaag-v3n1p045.pdf)
(Semitau Ridge is most important structural feature in Sanggau area, NW corner of Kalimantan. It is E-SE trending ridge spanning outcrops of Permo-Triassic foliated igneous rocks of Busang Complex (=Late Triassic?; JTvG) in E and Embuoi Complex in Sanggau. Granitoid rocks range from diorite to granite, products of calc-alkaline island arc affinity, segment of island arc. Sintang Intrusion post subduction or syn-collision tectonic setting(?) (no mention of ages; JTvG))

Zaw, K.L., L.D. Setijadji, W. Warmada & K. Watanabe (2011)- Petrochemistry of granitoid rocks from the Singkawang Region, Kalimantan Island, Indonesia. Proc. Int. Symposium on Earth Science and Technology, Fukuoka 2010, p. 20-23.

Zaw, K.L., L.D. Setijadji, W. Warmada & K. Watanabe (2011)- Geochemical characteristics of Mesozoic granitoid rocks and associated mineralization from the Western Kalimantan Island, Indonesia. Proc. Int. Symposium on Earth Science and Technology 2011, p. 321-324.

Zaw, K.L., L.D. Setijadji, W. Warmada & K. Watanabe (2011)- Implications for adakite petrogenesis from the West Kalimantan. Proc. 36th HAGI and 40th IAGI Annual Convention, Makassar, JCM2011-022, p. 1-8.
(online at: https://www.iagi.or.id/web/digital/10/2011_IAGI_Makassar_Implications-for-Adakite.pdf
(Samples from Sintang Intrusive rocks are within adakite field. Sintang Intrusives supposedly post-collision magmatic event, with K-Ar ages of 23.0- 30.4 Ma in Melawi Basin, 16.4- 17.9 Ma in N; and 16.5±4- 19±5 Ma in Sarawak adjacent to Sintang. Some samples within adakite field, but not entirely typical. Magmatic products of ~28.1 Ma chemical characters of adakitic magmatism. Sintang adakites may tie to Luconia Block collision instead of subducted young oceanic plate)

Zaw, K.L., L.D. Setijadji & W. Warmada (2012)- Granitoid rocks and mineralization from the Western Kalimantan Island: geology and geochemical characteristics. LAP LAMBERT Academic Publishing, p. 1-106.
(Print version of K.L. Zaw thesis at Gadjah Mada University. Granitoid rocks of W Kalimantan consistent with magmas formed in volcanic arc setting. Gnerally I-type signatures. Granitoids are product of partial melting of any combination of volcanic-arc environment and active continental margins. Multiple mineralization types associated with Cretaceous granites, some are related with younger Miocene intrusive rocks along marginal parts of granite plutons)

Zeijlmans van Emmichoven, C.P.A. (1935)- Bijdragen tot de geologie van Borneo. 2. Het Eoceen ten Z. van S. Kerijau in het O. deel van het centrale Mullergebergte (Wester-afdeeling van Borneo). De Ingenieur in Nederlandsch-Indie (IV) 2, 11, p. IV.102- IV.105.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1935-11.pdf)
('The Eocene S of S Kerijau in the East part of the central Muller Range.' See also English translation in Haile (1955, p. 279-285). First report of non-metamorphic Upper Eocene in W Kalimantan: non-marine clastics and shallow marine limestones with Nummulites/alveolinids/ discocyclinids in E part of Muller Mountains. Unconformable over intensely folded Cretaceous and 'Danau Fm' and overlain by volcanics of uncertain age)

Zeijlmans van Emmichoven, C.P.A. (1936)- On the supposed Lower Cretaceous age of Orbitolinidae of Japan and the Netherlands Indies. De Ingenieur in Nederlandsch-Indie (IV) 2, 2, p. IV.24- IV.29.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1936-02.pdf)
(Another harsh and probably unfair 6-page critique by Zeijlmans on one line in Yabe & Hanzawa (1931), suggesting Orbitolina from Kalimantan (originally described by Von Fritsch (1879) and Martin (1889) should be assigned to Orbitolina scutum and signify Late Aptian age. ZvE thinks it should be 'Middle Cretaceous' (whatever that means) (German orbitolinid specialist R. Schroeder (in Sikumbang, 1986) also identified the Meratus Mts Orbitolina as Late Aptian species, validating Yabe & Hanzawa (1931) initial conclusions; JTvG)

Zeijlmans van Emmichoven, C.P.A. (1938)- Korte schets van de geologie van Centraal Borneo. De Ingenieur in Nederlandsch-Indie (IV) 5, 9, p. IV.135- IV.149.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1938-09.pdf)
('Brief sketch of the geology of Central Borneo'. Important overview of poorly known Kalimantan-Sarawak border area from Kuching/S China Sea in W to upper reaches of Mahakam River in E. Three E-W trending tectonostratigraphic zones. Oldest rocks crystalline schists, as exposed in Schwaner Mts. Overlain by intensely folded Permo-Carboniferous (dominantly phyllitic abyssal rocks, locally with fusulinids, and basic volcanics; also plants identified by Jongmans (1940) as Pecopteris cf. arborescens and Calamites ex gr. leioderma (p. 138; =Cathaysian Permian; JTvG), Upper Triassic flysch (with Monotis, Halobia and acid volcanic complexes) and folded Cretaceous (locally with Orbitolina). Tertiary mainly represented by Paleogene, locally deformed and metamorphosed)

Zeijlmans van Emmichoven, C.P.A. (1940)- Pretertiary geology of the island of Borneo. Proc. Sixth Pacific Science Congress, Pacific Science Association, San Francisco 1939, p.

Zeijlmans van Emmichoven, C.P.A. (1939)- De geologie van het Centrale en Oostelijk deel van de Westerafdeling van Borneo. Jaarboek Mijnwezen Nederlandsch-Indie 68, Verhandelingen, p. 1-186.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:046469000:00001)
('The geology of the Central and Eastern part of the Western District of Borneo' (see also English translation in Haile (1955, p. 159-272). Overview of work of geological survey in NW Kalimantan and parts of adjacent Sarawak. WNW-ESE trending belt of crystalline schists in W Kalimantan near Sarawak border, overlain by folded Permo-Carboniferous with fusulinid foraminifera, Pecopteris and basic volcanics (no conglomerates). Unconformably overlain by Upper Triassic marine fine clastics with Monotis and Halobia and acid volcanics. Unconformably overlain by relatively complete marine Cretaceous section in Sebaruang area, with Orbitolina at several levels. Upper Cretaceous folding event. Tertiary includes brackish-water Melawi fauna. In Upper Kapuas area intense post-Paleogene folding and metamorphism event. (Geology of W and S part of W Kalimantan described by R.W. van Bemmelen in same volume))

Zeijlmans van Emmichoven, C.P.A. (1940)- Het Schwanergebergte (Westerafdeeling van Borneo). De Ingenieur in Nederlandsch-Indie (IV) 7, 7, p. IV.79- IV.100.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1940-07.pdf)
('The Schwaner Mountains (W Borneo) '. Description of geology and petrology of Schwaner mountains- part 1. First of 2-part somewhat chaotic descriptions of (Permo-Triassic?) tonalite intrusions, 'pre-tonalite' mica schist, 'post-tonalite' sediments (U Triassic?), granodiorite, ?Tertiary volcanics, etc. No maps, cross-sections)

Zeijlmans van Emmichoven, C.P.A. (1940)- Het Schwanergebergte (westerafdeeling van Borneo) - vervolg. De Ingenieur in Nederlandsch-Indie (IV) 7, 8, p. IV.103- IV.122.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1940-08.pdf)
('The Schwaner Mountains (W Borneo), continuation'. Description of geology and petrology of Schwaner mountains. Includes description of probably non-commercial Keraroe iron ore occurrence. Stratigraphy: (1) pre-Carboniferous crystalline schists, (2) Permian- Triassic tonalitic plutons, (3) Upper Triassic post-tonalitic sediments, affected by dynamo-metamorphism by younger, but pre-Cretaceous orogenesis, (4) Mid-Cretaceous?. E-M Triasic and Jurassic absent)

Zeijlmans van Emmichoven, C.P.A. (1941)- Mijnbouwkundige en geologische verkenningen in de Westerafdeeling van Borneo van 9 juli - 12 october 1940. *(Unpublished Geological survey report)*
('Mining and geological reconnaissance in Western Borneo, July-October 1940')

Zeijlmans van Emmichoven, C.P.A. (1955)- The geology of the Central and Western division of Borneo. In: N.S. Haile (ed.) Geological accounts of West Borneo, Geological Survey Department, British Territories in Borneo, Kuching, Bull. 2, p. 159-272.
(English translation of Zeijlmans (1939) original Dutch paper)

Zeijlmans van Emmichoven, C.P.A. & G. Ter Bruggen (1935)- Bijdragen tot de geologie van Borneo. 1. Voorlopige mededeeeling over het Tertiair ten W van het Merengebied in de Wester-afdeeling van Borneo. De Ingenieur in Nederlandsch-Indie (IV) 2, 11, p. IV.99- IV.102.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1935-11.pdf)
('Contributions to the geology of Borneo 1: Provisional report on the Tertiary West of the Lakes district in the Western Division of Borneo'. See also English translation in Haile (1955, p. 273-277). Brackish-water Kantoe Beds clastics with thin coals can be correlated with Melawi Fm and Eocene zone Ta of Pengaron, Barito Basin. In SW overlain by 'Plateau- sandstone')

Zeijlmans van Emmichoven, C.P.A. & J.G.H. Ubaghs (1936)- Bijdragen tot de geologie van Borneo. 3. Beschouwingen over den veronderstelden eoceenen ouderdom van de gehele 'Oude lei formatie' in Centraal Borneo. De Ingenieur in Nederlandsch-Indie (IV) 3 3, p. IV.37- IV.45.
('Contributions to the geology of Borneo 3: A discussion of the supposed Eocene age of the entire 'Old Slate Formation' in Central Borneo'. See also English translation in Haile (1955, p. 125-138). Another unnecessarily harsh critique by ZvE of Ter Bruggen's (1935) work on Eocene age of Central Borneo phyllite formation, which actually does contain some Eocene/ zone Ta larger forams. Z & U believe some metamorphics are Pre-Tertiary in age)

Zhu, J., S. Li & S. Murtadha (2022)- Oldest (ca. 462 Ma) basement in Indonesian Borneo and its implication for the Early Paleozoic tectonic evolution of Southeast Asia. Acta Geologica Sinica (English Ed.) 96, 6, p. 2093-2104.
(online at: https://www.geojournals.cn/dzxben/dzxben/article/abstract/2022endzxb00020)
(Schist samples from Embuoi Complex in NW Kalimantan (Semitau Block) yielded zircon U-Pb ages of ~453 and 462Ma (Ordovician), representing likely formation time of protolith. Schist protolith of magmatic origin. Semitau Block most likely part of, or placed next to, Indochina Block of N Gondwana in E Paleozoic and part of prolonged E Paleozoic arc-related belt associated with subduction of Proto-Tethyan Ocean under N margin of Gondwanaland (NB: no longer oldest rocks in Borneo: Wang et al.(2025) identified Paleoproterozoic rocks in same Embuoi complex of NW Kalimantan; JTvG)

Zientek, M.L., B. Pardiarto, H.R.W. Simandjuntak, A. Wikrama, R.L. Oscarson, A.L. Meier & R.R. Carlson (1992)- Placer and lode platinum-group minerals in South Kalimantan, Indonesia: evidence for derivation from Alaskan-type ultramafic intrusions. Australian J. Earth Sciences 39, p. 405-417.
(Platinum-group minerals (PGM) in placer deposits in several localities in S Kalimantan. Alluvial PGM found along Sungai Tambanio in part derived from chromitite schlieren in dunitic bodies intruded into clinopyroxene cumulates. Chromitite schlieren in serpentinite from one dunitic body with 'M'-shaped pattern typical of mineralization associated with Alaskan-type ultramafic complexes (see also Hattori et al. 2004))

Zulkarnain, I. (2003)- Quartz-chloritoid rocks from Bobaris Range, South Kalimantan, Indonesia. J. RISET Geologi dan Pertambangan (LIPI) 13, 1, p. 27-38.
(Quartz-chloritoid rocks in river on SW flank of Betagah Hill, S of Martapura, in Bobaris Range, S Kalimantan (as pebbles in contact zone between ultramafic and metamorphic rocks). Other pebbles of mica and glaucophane schists found nearby. Bobaris chloritoid classified as Fe-chloritoid, formed under medium pressure. Associated with quartz and muscovite. Absence of other pelitic- derived metamorphic minerals indicates source rocks probably clean sandstone with some clay impurities. Formed in accretionary complex)

Zulkarnain, I., J. Sopaheluwakan & S. Indarto (1995)- Geologi 'Komplek Akresi Kapur' Pegunungan Meratus-Bobaris, Kalimantan Selatan; sebuah tinjauan awal berdasarkan lintasan Pegunungan Bobaris. Proc. Seminar Sehari Geoteknologi dalam indistrialisasi, Puslitbang Geoteknologi LIPI, Bandung, p. 7-24.
(online at: http://pustaka.geotek.lipi.go.id/wp-content/uploads/2016/01/prosiding-1995.pdf)
('Geology of the 'Cretaceous accretionary complex' of the Meratus- Bobaris Mountains, South Kalimantan; a preliminary review of the Bobaris Mountains transect')

Zulkarnain, I., J. Sopaheluwakan, K. Miyazaki & K. Wakita (1996)- Chemistry and radiometric age data of metamorphic rocks from Meratus accretionary complex, South Kalimantan, and its tectonic implication. In:

Sampurno et al. (eds.) Pros. Seminar Nasional Geoteknologi III, Puslitbang Geoteknologi (LIPI), Bandung, p. 687-696.
(online at: http://pustaka.geotek.lipi.go.id/index.php/2016/04/07/prosiding-1996/)
(No direct genetic connection between metamorphic rocks and ultramafic body of Meratus Range. Chemistry of metamorphic rocks variable from basaltic (48% SiO_2), granodioritic (65% SiO_2), clastic sediments (87% SiO_2) and pelitic rock (25% Al_2O_3). Two different radiometric ages of mica schist (180 Ma and 116 Ma), suggesting metamorphic rocks derived from different periods and environments, tectonically mixed during exhumation)

IV.2. East Kalimantan Cenozoic Basins, (bio-)stratigraphy

Abidin, H.Z. (2003)- Occurrence of coal seams within the Lower Tanjung Formation, Astambul District, South Kalimantan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 13, 139, p. 2-15.
(Several 0.5-2.75 m thick coal beds in Eocene Lower Tanjung Fm of Astambul District, 75km NE of Martapura (Barito Basin). Dipping 12-30° toNW and SE)

Achmad, A. (2018)- Key of Meratus Complex uplift: sedimentological approachment of ophiolitic fragments within Warukin Sandstones in Asem -Asem Basin. Proc. 47th Annual Conv. Indonesian Association Geologists (IAGI), Pekanbaru 2018, p. 1-7. *(Extended Abstract + Presentation) (online at: https://www.researchgate.net/publication/345563270_Key_of_Meratus_Complex_Uplift_Sedimentological_Approachment_of_Ophiolitic_Fragments_Within_Warukin_Sandstones_in_Asem_-Asem_Basin)*
(Interpretations of age of Meratus Range uplift vary from Early to Late Miocene. M Miocene Warukin Fm in Asem Asem basin with current directions to SE and S. Fluvial channel sand above 21m thick coal bed rich in quartz, but also with fragments of peridotite, chert, gneiss, etc., suggesting initial uplift and erosion of (NE?) Meratus Range already by M Miocene time)

Achmad, Z. & L. Samuel (1984)- Stratigraphy and depositional cycles in NE Kalimantan basins. Proc. 13th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 109-120.
(Review of NE Kalimantan stratigraphy. Economic basement 'melange' of intensely folded Pretertiary'Danau Fm' marine sediments and E-M Eocene Sembakung/Malio sediments. Cenozoic basin fill starts in Late Eocene. Grouped into five main depositional cycles: (1) Late Eocene- Late Oligocene- regional transgression with non-marine clastics over peneplained surface. Grading upward into E Oligocene Seilor Fm carbonate platform unit with Nummulites, fichteli, Eulepidina and Lepidocyclina. Cycle terminated by Late Oligocene uplift in W; (2) widely distributedl atest Oligocene- early Middle Miocene Taballar Lst platform, drowned by latest E Miocene; Cycle ending with renewed basin margin uplift and volcanism at ~17 Ma; (3) early M- L Miocene renewed phase of delta progradation from W to E after uplift of W basin margin; (4) Late Miocene and E Pliocene renewed uplift of basin margin, new Pliocene deltaic sedimentation and (5) Quaternary: global rise in sea level shifted Pliocene deltas back to near present coastline (paper leverages Shell and other oil company work as well as recent BEICIP studies, and should thus be well anchored in biostratigraphic control; JTvG))

Addison, R., R.K. Harrison, D.H. Land & B.R. Young (1983)- Volcanogenic tonsteins from Tertiary coal measures, East Kalimantan, Indonesia. Int. J. Coal Geology 3, 1, p. 1-30.
(original 1982 BGS/IGS report online at: https://resources.bgs.ac.uk/PublicationPDFs/21383563.pdf)
(Laterally persistent tonsteins (kaolinite-mudstones of wide stratigraphical extent), up to 30cm thick, in coal seams and associated sediments in Miocene SSW of Samarinda. Probably of volcanogenic origin)

Ade, W.C., I.T. McMahon & W. Suwarlan (1988)- Seismic lithology (AVO) interpretation at the Badak and Nilam fields in the Sanga Sanga Block, Kalimantan. Proc. 17th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 325-358.
(Badak and Nilam gas-oil fields of onshore E Kalimantan Kutai Basin contain 7.4 and 6.0 TCF original gas in place. Seismic amplitude responses can be used to detect gas sands)

Ade, W.C. & W. Suwarlan (1989)- Integrated interpretation of C-8 and G-61 sandstones at Badak and Nilam fields in Sanga-Sanga block of East Kalimantan, Indonesia. AAPG Annual Convention, San Antonio 1989. 1p.
(online at: https://www.searchanddiscovery.com/abstracts/html/1989/annual/abstracts/0326.htm)
(Brief Abstract only. Huffco's Badak and Nilam giant gas fields together produce > 1 BCF gas per day from Miocene Balikpapan beds sandstones. Rreservoir sandstones deposited in thick regressive deltaic sequence that includes coals, shales, and occasional limestones. Multiple stacked pay sandstones at depths 5,500'- >13,000'. Individual sandstone thicknesses several feet to >20 ft. Common lateral variations in sandstone thickness)

Adhitiya, R., M.M. Adeyosfi, S.S. Angkasa & F. Sihombing (2012)- Facies and diagenesis of Tabalar and Tendehantu carbonate formation in Mangkalihat Peninsula area: an outcrop preliminary study to Oligocene-Miocene reservoir candidate prospect. Buletin Sumber Daya Geologi 7, 2, p. 78-91.
(online at: http://psdg.bgl.esdm.go.id/buletin_pdf_file/Bul%20Vol7%20no.%202%20thn%202012/..)

Adriansyah, P. Sembiring, M. Badri & A. Akhtar (2005)- High frequency borehole seismic acquisition and its applications for reservoir delineation of the Bunyu Field, onshore Kalimantan, Indonesia. Proc. 30st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 391-404.

Agusta, V.C., A.H. Hamdani & Winantris (2015)- Pliocene pollen and spores from Sajau Coal, Berau Basin, Northeast Kalimantan, Indonesia: environmental and climatic implications. Int. J. Science and Research (IJSR) 4, 2, p. 533-538.
(online at: www.ijsr.net/archive/v4i2/SUB151192.pdf)
(Sajau coal formation with Dacrycarpites australiensis, Monoporites annulatus, Sapotaceoidaepollenites, etc., support Late Pliocene age. Lowest Sajau Fm coals A and B deposited in fluvial conditions; Top Sajau coals K and L in lower deltaic environment with increasing dinoflagellates suggesting marine influence)

Agusta V.C., M. Hendrizan, S.Y. Cahyarini, D.A. Utami & A.U. Nurhidayati (2021)- Pliocene climate in Indonesia: a review. Proc. Int. Conference Ocean and Earth Sciences, Jakarta 2020, IOP Conference Series: Earth and Environmental Science 789, 012054, p. 1-5.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/789/1/012054)
(Warm-wet climate during Late Pliocene coal seam in Berau basin in NE Kalimantan (age based on presence of pollen Dacrycarpites australiensis and Stenochlaenidites papuanus))

Akuanbatin, H. & T. Rosandi (1983)- Lingkungan pengendapan Formasi Tabul dan Formasi Tarakan serta hubungannya dengan potensi hidrokarbon di Pulau Bunyu. Proc. 12th Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, p. 9-20.
(online at: https://www.iagi.or.id/web/digital/37/PIT-1983-Paper-2.pdf)
('Depositional environment of the Tabul and Tarakan Formations and relations with hydrocorarbons on Bunyu Island'. Similar to Akuanbatin et al. 1984)

Akuanbatin, H., T. Rosandi & L. Samuel (1984)- Depositional environment of the hydrocarbon bearing Tabul, Santul and Tarakan Formations at Bunyu Island, NE Kalimantan. Proc. 13th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 425-441.
(Bunyu Island up to 80 hydrocarbon-bearing reservoir zones between 500-2500m in M Miocene- Pleistocene deltaic deposits. Overall shallowing-upward series, progradation from W and SW)

Alam, F., Y. Sebayang, W. Djunarjanto & P.E. Prijanto (2010)- Coal stratigraphy of Separi, East Kalimantan, Indonesia. In: N.I. Basuki & S. Prihatmoko (eds.) Proc. MGEI-IAGI Seminar Kalimantan coal and mineral resources, Balikpapan 2010, p. 13-26.
(Separi area 40 km NE of Samarinda with extensive coal mining. Seven coal-bearing zones in ~1000m thick section of M-L Miocene Balikpapan Fm clastics on Samarinda anticlinorium. Coal seams 0.3- 9.5m thick, labeled A-H. Kutai basin tectoncs (1) M Eocene extension, same time as Makassar Straits; (2) Late Oligocene extension along NW-SE faults; (3) M Miocene inversions mainly on E facing half grabens)

Alam, H., D.W. Paterson, N. Syarifuddin, I. Busono & S.G. Corbin (1999)- Reservoir potential of carbonate rocks in the Kutai Basin region, East Kalimantan, Indonesia. J. Asian Earth Sciences 17, 1-2, p. 203-214.
(Kutai Basin few carbonate reservoirs: Oligocene (Bebulu Lst) to Late Miocene (Dian Lst). Build-ups composed of platy-corals, encrusting red algae and larger foraminifera. Generally isolated mounds, up to 1000' thick. Primary porosity preservation generally poor, due to calcite cementation. Secondary porosity sevelopment limited, due to retardation of subsurface fluid flow by non-permeable layers, and absence of subaerial exposure dissolution and karstification. Porosity mainly vugs, best in coarse-grained shelf-margin facies, not filled by calcite cement. Early hydrocarbon migration may retard diagenesis and preserve porosity)

Alam, S. (2001)- Seismic sequence stratigraphy and depositional history of the Pliocene -Pleistocene fans in the Ganal Block, offshore Kutai Basin, Indonesia. Ph.D. Thesis Texas A&M University, College Station, p. 1-143.
(Seismic stratigraphy study of Pliocene- Pleistocene deep water clastics at Kutai Basin slope and basin floor of Makassar Straits. Six sequences identified, with lowstand features submarine canyons, channels and fan lobes)

Allen, G.P. (1985)- Deltaic sediments in Modern and Miocene Mahakam Delta. Field Guide to Indonesian Petroleum Association (IPA) Excursion, p.

Allen, G.P. (1996)- Sedimentary facies and reservoir geometry in a mixed fluvial and tidal delta system- the Mahakam Delta, Indonesia. Petroleum Exploration Society Australia (PESA) Journal 24, p. 140-155.
(Review of sedimentological characteristics of modem Mahakam delta, E Kalimantan. Dominated by mixture of fluvial and tidal processes, with wave energy practically zero. Modern delta dates from post-Holocene eustatic stillstand and presently depositing 50-70m thick regressive highstand system which downlaps older transgressive Holocene and Late Pleistocene deltaic lowstand deposits)

Allen, G.P. & J.L.C. Chambers (1998)- Sedimentation in the modern and Miocene Mahakam Delta. Indonesian Petroleum Association (IPA), Guidebook, p. 1-236.

Allen, G.P. & J.L.C. Chambers (1998)- Regional setting of the Mahakam Delta. In: Sedimentation in the modern and Miocene Mahakam Delta, Indonesian Petroleum Association (IPA), Fieldtrip guidebook, Chapter 6, p. 79-89.

Allen, G.P. & J.L.C. Chambers (1998)- Regional geology and stratigraphy of the Kutei basin. In: Sedimentation in the modern and Miocene Mahakam Delta, Indonesian Petroleum Association (IPA), Fieldtrip guidebook, Chapter 9, p. 159-171.
(Brief overview tectonic history and stratigraphy Kutei basin)

Allen, G.P., D. Laurier & J.M. Thouvenin (1976)- Sediment distribution patterns in the modern Mahakam Delta. Proc. 5th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 159-178.
(First of many G. Allen studies on modern Mahakam Delta deposits, E Kalimantan)

Allen, G.P., D. Laurier & J. Thouvenin (1979)- Etude sedimentologique du delta de la Mahakam. TOTAL Comp. Francaise Petroles, Notes et Memoires 15, p. 1-156.
('Sedimentological study of the Mahakam Delta'. Comprehensive study of sedimentology of modern Mahakam Delta, a mixed tide- and fluvial-dominated delta in humid equatorial climate)

Allen, G.P. & F. Mercier (1988)- Subsurface sedimentology of deltaic systems. Petroleum Exploration Society Australia (PESA) Journal 12, p. 30-44.
(Review of Mahakam Delta depositional system and depositional cycles)

Allen, G.P. & F. Mercier (1994)- Reservoir facies and geometry in mixed tide and fluvial-dominated delta mouth bars: example from the Modern Mahakam Delta (East Kalimantan). Proc. 23rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 261-273.

Amar, R.A. & B. Sapiie (2018)- Fault-seal analysis in offshore gas fields of South Mahakam area, Kutai Basin, Indonesia. Proc. 42nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA18-60-G, p. 1-21.
(Fault seal analysis of fields in S Mahakam offshore, with Jempang-Metulang, Mandu and Stupa gas fields along N side of Sepinggan Fault (parallel to Adang FZ). Gas reservoirs in M Miocene Sepinggan deltaic sands. High shale content leads to shale smear and high seal capacity of all faults)

Amarullah, D., U. Margani, S.N. Priatna, Priono & Sudiro (2002)- Inventarisasi dan evaluasi endapan batubara Kapubaten Barito Selatan dan Barito Utara, Provinsi Kalimantan Tengah. Kolokium Direktorat Inventarisasi Sumber Daya Mineral (DIM) 2002, p. 20/1- 20/19.
(Inventory and evaluation of coal deposits in South and North Barito Districts, Kalimantan)

Amarullah, D. & D.P. Simatupang (2009)- Coal bed methane potential of Tanjung Formation in Tanah Bumbu, South Kalimantan. In: 11th Regional Congress Geology Mineral Energy Resources of SE Asia (GEOSEA 2009), Kuala Lumpur, p. 35. *(Abstract only)*

(online at: https://gsm.org.my/articles/702001-101669/)
(CSAT-1 well drilled in 2008 in Asem-Asem Basin of SE Kalimantan encounterd 12 coal seams in Eocene Tanjung Fm. Three main seams: E (between 212.34 and 213.30m), I (261.93-264.20m), and J (270.20-275.35m). (see also Simatupang & Amarullah 2010))

Amiarsa, D.P., I.A. Kurniawan, A. Susanto & K.N. Tabri (2012)- Carbonate facies model and paleogeography of Tendehhantu Formation, Northern Kutai Basin, Indonesia. AAPG Int. Convention Exhib., Singapore 2012, Search and Discovery Article 50746, p. 1-10.
(online at: www.searchanddiscovery.com/documents/2012/50746amiarsa/ndx_amiarsa.pdf)
(Study of Tendehhantu Fm limestone at Gunung Sekerat in N Kutai Basin, S of Mangkalihat Ridge and 300km N of Samarinda. Age M Miocene (with Miogypsina, Orbulina, etc.). Interpreted to be atoll with diameter of ~30 km, with E side more forereef bioclastic carbonate and W side backreef lagoonal environment (see also Suessli, 1976))

Amijaya, H., B. Wiranata & F. Anggara (2020)- Occurrence of rare earth element and yttrium (REY) in Tanjung formation coking coal from Sekako area, Central Kalimantan. Proc. 1st Geosciences and Environmental Sciences Symposium (ICST 2020), UGM, Yogyakarta (virtual), E3S Web of Conferences 200, 06008, p. 1-4.
(online at: https://www.e3s-conferences.org/articles/e3sconf/pdf/2020/60/e3sconf_icst2020_06008.pdf)
(Low concentrations of REY elements in Eocene Tanjung Fm coal in Sekako area C Kalimantan, possibly from nearby exposed mafic basalt rocks (NB: REY concentration in coal ash can be 10x higher than in raw coal)

Aminulloh, D., B.T. Tampubolon & S. Sukmono (2021)- The determination of prospective reservoirs in the slope environment of the Tarakan Basin (Indonesia) by using sequence stratigraphy, rock physics and AI inversion. Proc. The 3rd Southeast Asian Conference on Geophysics (SEACG), Bandung 2020, IOP Conference Series: Earth and Environmental Science 873, 012036, p. 1-6.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/873/1/012036/pdf)
(Study of prospective Late Miocene slope sandstone reservoir offshore Tarakan from 'AST-1' well and surrounding area seismic)

Amir, V., R. Tasrianto, D. Witts, R. Morley & W. Nasifi (2017)- Structural re-evaluation of Central Kalimantan: Unlocking the frontier area through satellite mapping, advance biostratigraphy analysis, and Full Tensor Gradiometry. Proc. Asia Petroleum Geoscience Conference and Exhibition (APGCE 2017), EAGE, Kuala Lumpur, Session 14, p. 1-5. *(Extended Abstract) (online at: https://www.researchgate.net/publication/329883963_Structural_Re-Evaluation_of_Central_Kalimantan Etc.)*
(Studies of Barito foredeep in SE Kalimantan and ConocoPhillips Palangkaraya and Kualakurun blocks in'West Barito High' in C Kalimantan. Cenozoic in Palangkaraya PSC is 700-1000m thick M-L Eocene Tanjung Fm)

Amir, V., R. Tasrianto, R. Indrawan & D. Witts (2019)- Kualakurun frontier exploration: surface reconnaissance on petroleum prospectivity in onshore Central Kalimantan area. Proc. 43rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA19-G-158, p. 1-12. *(online at: https://www.researchgate.net/publication/335738096_Kualakurun_Frontier_Exploration_Surface_Reconnaissance_on_Petroleum_Prospectivity_in_Onshore_Central_Kalimantan_Area)*
(ConocoPhillips/ Petronas frontier exploration since 2015 in Kualakurun Block, C Kalimantan. SW of former Unocal Kerendan gas field. Area previously surveyed by BPM in early 1930s. Paleogene sediments around Pre-Tertiary 'basement' outcrops in N, and interpreted as inverted Paleogene rift-fill, an extension of NE-SW trending rift-fabrics seen in Upper Kutai Basin to NE. High-quality Tanjung Fm Eocene source rocks (early-mid oil window maturity), an oil seep and oil-impregnated sandstones.No evidence of 'Adang Fault'. In N several 20 Ma andesite plugs (likely part of 'Sintang Volcanics'). Basement metamorphics and igneous rocks with M Jarassic-Cretaceous K-Ar ages. 1-2 km of sediment may have been removed in last 2-5 Ma (see also Tasrianto, 2019))

Anggara, F., A.A. Patria, B. Rahmat, H. Wibisono, M.Z.J. Putera, H.T.B.M. M. Petrus et al. (2024)- Signature characteristics of coal geochemistry from the Eocene Tanjung Formation and the Miocene Warukin Formation, Barito Basin: Insights into geological control on coal deposition and future critical element prospection. Int. J. Coal Geology 282, 104423, p. 1-20.

(Comparisons of geochemical and other differences between 'transgressive', marine-influenced, huminite-dominated M-L Eocene Tanjung Fm coals and 'regressive' non-marine, high-inertinite M-L Miocene Warukin Fm coals (called 'First report of coal geochemistry from the Barito Basin'; must be a joke)

Anggara, F., H.T.B.M. Petrus, A.A. Patria & A.S.V. Bangun (2020)- Preliminary study of Rare Earth Element and Yttrium (REY) content of coal in Sangatta coalfield, East Kalimantan, Indonesia. Indonesian J. on Geoscience (IJOG) 7, 3, p. 305-314.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/viewFile/418/321)
(Significant REY content in Miocene coals of Pinang Dome, Sangatta, E Kalimantan)

Anggayana, K. (1996)- Mikroskopische und organisch-geochemisch Untersuchungen an Kohlen aus Indonesien, ein Beitrag zur Genese und Fazies verschiedener Kohlenbecken. Dissertation, RWTH Aachen University, Germany, p. 1-225. *(Unpublished)*
('Microscopic and organic-geochemical investigations on coals from Indonesia, a contribution to the genesis and facies of various coal basins')

Anggayana, K., D.R. Kamarullah, A. Suryana & A.H. Widayat (2017)- Methane adsorption characteristics of coals from Sambaliung area, Berau, East Kalimantan and Sawahlunto area, West Sumatra, Indonesia. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 18, 4, p. 183-189.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/333/295)
(Coalbed methane CBM evaluation of two Indonesian coals, Sambaliung (Berau/Tarakan, NE Kalimantan, E-M Miocene Latih Fm) and Sawahlunto, (W Sumatra, Late Oligocene Lower Ombilin Fm). Gas storage capacity of Sambaliung 113-269 scf/ton; Sawahlunto coals 486-561 scf/ton. Adsorption capacity related to coal rank: low at Sambaliung area (vitrinite Rr ~0.38%) and higher at Sawahlunto (Rr ~0.72%))

Anggayana, K., B. Rahmad, H.H.A. Naftali & A.H. Widayat (2014)- Limnic condition in ombrotrophic peat type as the origin of Muara Wahau Coal, Kutei Basin, Indonesia. J. Geological Society India 83, p. 555-562.
(Maceral petrography of E (M?) Miocene upper Muara Wahau Fm coal from three drill cores. Two main seams 8-40m thick. Huminite macerals 73- 88%, liptinite 0.7-6.7%, inertinite 4.3-34%. Coal developed from herbaceous plants in ombrotrophic type of peat. Preservation low and peat relatively wet or limnic)

Anggayana, K., B. Rahmad & A.H. Widayat (2014)- Depositional cycles of Muara Wahau coals, Kutai Basin, East Kalimantan. Indonesian J. on Geoscience (IJOG) 1, 2, p. 109-119.
(online at: http://ijog.bgl.esdm.go.id/index.php/IJOG/article/view/183/180)
(Petrography of 33m cored section through E Miocene Wahau Fm coal)

Anggritya, K.D. & D. Kurniadi (2017)- Palynofacies role in hydrocarbon exploration: a study case from Kutai Basin. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, p. 1-8. *(online at: https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_Palynofacies-role-in-Hydrocarbon-Exploration.pdf)*
(Short paper on palynofacies study of M-L Miocene in wells from Louise Field, Sanga-Sanga anticlinorium, Kutai Basin, E Kalimantan)

Apriyani, N., P. Hutajulu, R. Ramadian & R. Wisnu Y (2016)- Unlocking the CBM potential in Kutai Basin, East Kalimantan: case study on successful early exploration program in Sangatta II Block. Proc. 14th Regional Conference Geology and Mineral Resources of SE Asia (GEOSEA XIV) and 45th Annual Conv. Indonesian Association Geologists (IAGI) (GIC 2016), Bandung, p. 201-215.
(Reportedly successful CBM exploration program in coals in Balikpapan Fm of Sangatta II block)

Apriyani, N., Suharmono, M. Momen, S. Djaelani, A. Sodli, A. Satria & A.S. Murtani (2014)- Integrated cleat analysis and coal quality on CBM Exploration at Sangatta II PSC, Kutai Basin, Indonesia. AAPG International Conference & Exh., Istanbul 2014, Search and Discovery Article 80412, p. 1-31. *(Abstract + Presentation)*
(online at: www.searchanddiscovery.com/documents/2014/80412apriyani/ndx_apriyani.pdf
(Balikpapan Fm. Miocene age coal outcrops three domains of face cleat strike: E-W in Bengalon area; NNW-SSE in N Pinang and NE-SW in S Pinang area. Higher calorific value and low ash content correspond to high

cleat densities. Higher total sulphur corresponded to lower cleat density. Permeability much higher in outcrops (200-5000 md) than in core samples from 260m depth (0.1-19 md))

Ardhie M.N., Canh Van Do, Purwanto, Sulistyo & A. Imran (2013)- Challenge and opportunity of developing brown field. Integration approached of using multiple subsurface data and information. A lesson learned from Mahoni Field, South Asset Kalimantan Operation Chevron Indonesia Company. Proc. 37th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA13-G-180, p. 1-14.
(Mahoni field produced 11 MBO oil since 2001. Peak production of 10,000 BOD in 2002-2003, declining to <900 BOD in 2009. Field consists of multiple fault compartments and reservoirs. M Miocene Upper and Lower Yakin reservoirs produced almost 4.4 MMBO)

Arifin, M. Shamsudduha, A.M. Ramdhan, S.W. Reksalegora & R.G. Taylor (2024)- Characterizing deep groundwater using evidence from oil and gas exploration wells in the Lower Kutai Basin of Indonesia. Hydrogeology Journal 32, p. 1125–1144.
(online at: https://link.springer.com/article/10.1007/s10040-024-02776-0)
(Characteristics of deep groundwater from oil and gas exploration wells in Lower Kutai Basin, E Kalimantan. Top of overpressure at near-surface onshore to ~4 km depth in Mahakam Delta and offshore. Salinity of deep groundwater mainly brackish or saline. Some fresh groundwater down to ~2 km in some onshore wells and in delta;none offshore. Water produced from clay diagenesis possible process of freshening deep groundwater)

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*(online at: www.researchgate.net/profile/Ery-Arifullah/publication/309486628_Ichnological_ Etc.)_*
(Modern Mahakam Delta ichnological characteristics of four deltaic environments: (1) distributary channel: low diversity with Psilonichnus, Skolithos, Ophiomorpha, Monocraterion, Teichichnus, Arenicolites, Planolites, Thallasinoides, escaping traces and Glossifungites ichnofacies; (2) estuarine tidal bar: balanced diversity with Psilonichnus, Ophiomorpha, Arenicolites, Skolithos, Siponichnus, Monocraterion, Paleophycus, Helminthopsis, Teichichnus, Planolites, Chondrites, Paleodictyon, crawling traces, and vertebrate tracks; (3) interdistributary area: medium diversity/ high bioturbation with Arenicolites, Ophiomorpha, Conichnus, Skolithos, Scaubcylindrichnus, Diplocraterion, Rosselia, Teichichnus, Chondrites; (4) mouth bar: with Ophiomorpha, Planolites, grazing traces, crawling traces, fecal casting, and abundant Skolithos-like dwelling tubes)

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('Identification of fossil debris in Miocene beds of the Kutai Basin and its geological implications')

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(Geochemical data indicate biogenic gas was generated by micro-organism activities in Late Miocene-Recent sedimentary section, locally with excellent TOC (up to 7.3%). Thermogenic gas from Late Oligocene- E Miocene post rift sediments throughout Kutai Basin. 2014 gas discovery by PT Saka Energi in offshore S Sesulu PSC in Late Miocene Sepinggan Fm)

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(online at: http://journal.akprind.ac.id/index.php/snast/article/view/756/483)
('Ancient volcano of Nunukan Island, Nunukan district, N Kalimantan'. Several andesite-basalt volcanoes on Mio-Pliocene deltaic clastic deposits of Nunukan Island)

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(online at: http://lib.geologi.ugm.ac.id/ojs/index.php/geo/article/view/12)
('Effect of diagenesis on porosity in Batu Ayau Fm sandstone, Kutai Basin, E Kalimantan'. Diagenetic processes in Eocene Batu Ayau lithic sandstone include compaction, cementation (siderite, pyrite, chlorite, zeolite), dissolution, and overgrowth of authigenic minerals)

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(Sedimentology of outcrop and seismic shotholes over Mutiara field, Sanga Sanga anticline, onshore Kutei basin, SW of Mahakam delta. M-U Miocene Balikpapan- Kampung Baru Fm sediments of paleo-Mahakam Delta. 30 shallow reservoir sands mapped (73% channels, others bar sandstones). Channel width- thickness ratio around 50. Example of M Miocene paleogeography map showing S-ward prograding delta plain-front)

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(online at: https://www.researchgate.net/profile/Yudi-Purnama/publication/334163214_THE_TERTIARY_PALEOGEOGRAPHY_OF_THE_KUTAI_BASIN_AND_ITS_UNEXPLORED_HYDROCARBON_PLAYS)
(New regional paleogeography of Kutai Basin. Kutai- N Makassar basins underlain by NE Schwaner Complex in W, N Meratus accreted continental-oceanic terrane in middle, N Makassar micro-continent in E, and Mangkalihat micro-continent in NE. Initial rifting of Kutai Basin mostly results of slab rollback of 3 subduction zones. Onset of rifting possibly Paleocene (60 Ma), not later than M Eocene (45 Ma). Five NE-SW trending highs and lows bounded by NW-SE strike-slip faults. Paleogeography of Upper and Lower Kutai Sub-basins radically reshaped during latest Oligocene- E Miocene. Several unexplored hydrocarbon plays. With seven M Eocene-Miocene paleogeography maps)

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(S part of U Kutai basin with only one gas discovery (Kerendan). Pre-Tertiary mica-schists overlain by (1)M-L Eocene fluvial-deltaic rift sediments, (2) Oligocene marine post-rift sediments with platform carbonates in S, (3) inversion in E to Late Miocene dominated by deltaic sediments and change in paleo-shoreline orientation from E-W to N-S, (4) Plio-Pleistocene NE-SW thrust faulting)

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(Overpressuring ubiquitous in Kutei Basin. Sequences affected by overpressuring younger from W to E, consistent with easterly progradation. Primary mechanism for overpressure is Disequilibrium Compaction, and is pervasive in sand-poor distal and deeper marine clastics. Three pressure zones: hydrostatic, transition and hard overpressure. Large percentage of reserves in Transition Zone; commercially productive hydrocarbon reservoirs not encountered in Hard Overpressure Zone in Sanga-Sanga PSC. Seal capacity of shales in Transition Zone enhanced relative to Hydrostatic Zone and results in larger hydrocarbon columns)

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Beets, C. (1983)- Miocene (Preangerian) molluscs from Kari Orang, northern Kutai, East Borneo. Scripta Geologica 67, p. 23-47.
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(Tarakan sub-basin 5 provinces separated by normal faults, controlled by Oligocene to Pliocene growth fault systems. Fault development in three periods: Late Oligocene-E Miocene rift faulting, M-L Miocene growth faulting, and Mio-Pliocene growth faulting. Miocene faults rejuvenation of previous faults, coinciding with change from transgression to regression. Hydrocarbons trapped by growth faults: four way dip, roll-over against fault, fault traps, and unconformity closures)

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faults, rejuvenating Eocene-Pliocene extensional faults. Late compression by coupling between Paternoster and Sangkulirang dextral strike slip faults in Plio-Pleistocene)

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(online at: http://sammlungen.ub.uni-frankfurt.de/botanik/periodical/titleinfo/5251671)
('The fossil molluscs of the Eocene of Borneo'. Includes descriptions of molluscs from Eocene Tanjung Fm near Pengaron, Meratus Mts. 18 species of gastropods and many more bivalves, most of them marine, but the lowest clay beds associated with coals have mainly large fresh-brackish water Cyrena species)

Boettger, O. (1877)- Die fossilen Mollusken der Eocanformation auf der Insel Borneo. Jaarboek Mijnwezen Nederlandsch Oost-Indie 6 (1877), 2, p. 16-110.
('The fossil molluscs of the Eocene of Borneo'. Same paper as Palaeontographica (1875) paper above)

Bois, M., Y. Grosjean & L. de Pazzis (1994)- Shale compaction and abnormal pressure evaluation application to the Offshore Mahakam. Proc. 23rd Annual Convention Indonesian Petroleum Association (IPA) 1, p. 245-259.

Bon, J., T.H. Fraser, W. Amris, D.N. Stewart, Z. Abubakar & S. Sosromihardjo (1996)- A review of the exploration potential of the Paleocene Lower Tanjung Formation in the South Barito Basin. Proc. 25th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 69-79.
(Barito Basin ~5000m Cretaceous- Tertiary clastics with minor carbonates. M-Late Miocene compression divided basin along 'Tanjung Line': to N deformed zone with reverse faulted anticlines; to S virtually undisturbed sediments dipping down to axis of asymmetrical basin. Discoveries restricted to inverted area N of "Tanjung Line". Tanjung Fm in undisturbed S Barito Basin shows Paleocene and Cretaceous sediments in Lower Tanjung Fm (previously assigned to Lower Eocene). Primary reservoir basal transgressive sand (63 Ma), equivalent to Z860 sandstone in Tanjung Field. Principal source rocks are coals and coaly claystone with Type III kerogens. Claystones associated with flooding surfaces of sequence-4 seal in Tanjung Field and also expected to provide seals in study area)

Boudagher-Fadel, M.K., A.R. Lord & F.T. Banner (2000)- Some Miogypsinidae (foraminifera) in the Miocene of Borneo and nearby countries. Revue de Paleobiologie, Geneve, 19, 1, p. 137-156.
(Description of larger foram family Miogypsinidae and evolution of Miogypsinodella n. gen. in Te-Tf (Late Oligocene- M Miocene) in NE Borneo. New species Miogypsina sabahensis)

Boudagher-Fadel, M.K., J.J. Noad & A.R. Lord (2000)- Larger foraminifera from Late Oligocene- earliest Miocene reefal limestones of North East Borneo. Revista Espanola Micropaleontologia 32, 3, p. 341-362.
(online at: https://www.researchgate.net/publication/292312904_Larger_foraminifera_from_Late_Oligocene-Earliest_Miocene_reefal_limestones_of_North_East_Borneo)
Gomantong Limestone of E Sabah deposited along E-W trending shoreline in Late Oligocene- E Miocene. Sixteen species described, one new (Lepidocyclina banneri). (see also McMonagle et al. 2011))

Boudagher-Fadel, M.K. & M. Wilson (2000)- A revision of some larger foraminifera of the Miocene of Southeast Kalimantan. Micropaleontology 46, 2, p. 153-165.
(Burdigalian- Serravallian Tf1-Tf2 larger foram assemblages from Batu Putih limestone patch reefs inland from Mahakam Delta. With Lepidocyclina praedelicata n. sp.)

Brahmantio, R., C.M. Adam, A. Laffaure, E. Chavanne & N. Syarifuddin (2008)- Structural uncertainty study: an example from Sisi-Nubi Fields. Proc. 32nd Annual Conv. Indonesian Petroleum Association, Jakarta, IPA08-G-097, p. 1-9.
(Sisi and Nubi gas fields, off Mahakam delta, faulted anticlinal structures, compartmentalized by major NNE-SSW faults, creating 6 main compartments; 4 in Nubi, 2 in Sisi)

Budiartha, K. & I. Hartono (1999)- Applications of hydraulic fracturing to increase oil production in Tanjung Field, Kalimantan, Indonesia: Proc. 27th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 147-154.

Burhan, R.Y.P., A.M. Chairacita, Y. Zetra & E. Mutiara (2019)- Biomarking study of aromatic hydrocarbon fraction crude oil Tarakan, North Kalimantan. Jurnal Teknik ITS 8, 2, p. B32-B38.
(online at: https://ejurnal.its.ac.id/index.php/teknik/article/view/49743)
(Biomarker study of Tarakan Basin crude oils indicate mature oil samples and terrestrial and marine depositional environments)

Burroughs, H.C. (1972)- Attaka Oil Field. Proc. 1st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 128-139.
(Attaka Field 1970 discovery in anticlinal structure in NE part Mahakam Delta. Stacked reservoirs in Early Pliocene deltaic sands)

Burrus, J., E. Brosse, G. Choppin de Janvry, Y. Grosjean & J.L. Oudin (1992)- Basin modelling in the Mahakam Delta based on the integrated 2D model TEMISPACK. Proc. 21st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 23-43.
(Coal-rich, normally pressured delta-plain facies in synclines most effective source rock, not deep overpressured marine shales. Migration mostly parallel to bedding/ updip along structure flanks rather than vertically across bedding)

Burrus, J., E. Brosse, J. De Choppin & Y. Grosjean (1994)- Interactions between tectonism, thermal history, and paleohydrology in the Mahakam Delta, Indonesia: model results, petroleum consequences. AAPG International Conference Exh., Kuala Lumpur 1994, American Assoc. Petroleum Geol. (AAPG) Bull. 78, 7, p. 1186. *(Abstract only)*
(Mahakam Delta 2-d maturity models along 70-km-long transects confirm fluid inclusions evidence that region cooled by up to 25°C in recent time. Cooling caused by topography-driven circulation in Late Miocene Fresh Water Sands, charged along 600m-high Pliocene coastal uplift. Best-fit age of uplift ~3 Ma. Most of flow system has disappeared due to erosion. Discharge of meteoric waters along listric normal faults at periphery of present-

day delta. Observed temperatures and paleotemperatures agree with hypothesis that opening of N Makassar basin was Paleogene rather than Oligocene- E Miocene age sometimes proposed)

Burrus, J., K. Osadetz, M. Gaulier, E. Brosse et al. (1993)- Source rock permeability and petroleum expulsion efficiency: modelling examples from the Mahakam Delta, the Williston Basin and the Paris Basin. Proc. 4th Conf. Petroleum Geology of Northwest Europe, Geological Society, London, p. 1317-1332.

Busono, I., H. Alam & S. Corbin (1997)- Controls on the reservoir quality of Lower Miocene sandstones, Kutei basin. In: J.V.C. Howes & R.A. Noble (eds.) Proc. Int. Conf. Petroleum Systems SE Asia and Australasia, Jakarta 1997, Indonesian Petroleum Association (IPA), p. 745-749.
(Burial depth, temperature and related maturation of carbonaceous material and pressure major controls on diagenesis of sandstones)

Butterworth, P.J., P. Cook, R.A. Ripple, M. Drummond et al. (2001)- Reservoir architecture of an incised-valley fill from the Nilam Field, Kutai Basin, Indonesia. Proc. 28th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 537-555.
(Thick, multi-storey M Miocene G053B reservoir with 180 BCF OGIP interpreted as incised valley fill (IVF) back-stepping sequence, deposited during relative sea level rise. IVF interpretation, rather than highstand distributary channel model based on clear incision and basinward shift in facies, coeval sediment-starved interfluves, and abnormal aspect ratio (3 km wide, 40m thick))

Camp, W.K., E.E. Guritno, D. Drajat & M.E.J. Wilson (2009)- Middle-Lower Eocene turbidites: a new deepwater play concept, Kutei Basin, East Kalimantan, Indonesia. Proc. 33rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA09-G-001, p. 1-15. *(online at: https://www.academia.edu/56947030/Middle_Lower_Eocene_turbidites_a_new_deepwater_play_concept_Kutei_basin_East_Kalimantan_Indonesia)*
(E-M Eocene turbidite deposits penetrated by a few wells (Makassar 1, Birah 1, etc.) and also exposed onshore as M Eocene Sembakung Fm, along uplifted area S of Mangkalihat Peninsula uplift, NE Kalimantan)

Campbell, K. & D. Wayan Ardhana (1988)- Post Convention Field Trip 1988: Barito Basin, South Kalimantan, Guide Book. Indonesian Petroleum Association (IPA), p. 1-54.

Caratini, C. & C. Tissot (1987)- Le sondage Misedor- Etude palynologique. In: A. Combaz (ed.) Geochimie organique des sediments plio-quaternaires du delta de la Mahakam (Indonesie) - le sondage Misedor, Editions TECHNIP, Paris, p. 137-171.
(Palynogical study of 638.6 m deep Misedor core hole on Handil Anticline, SW Mahakam delta. TD in Upper Pliocene, continous deltaic facies. Stratigraphic markers Phyllocadus hypophyllus (Pleistocene- Recent), Podocarpus imbricatus and Stenochlaena laurifolia (latest Miocene- E Pleistocene) help locate Plio-Pleistocene boundary at sequence boundary at ~400m. Several short-lived peaks of Graminae (grass) pollen coincide with relative sea level lowstands and probably reflect development of savannas in drainage area during colder climates)

Caratini, C. & C. Tissot (1988)- Paleogeographical evolution of the Mahakam delta in Kalimantan, Indonesia, during the Quaternary and Late Pliocene. Review Palaeobotany Palynology 55, p. 217-228.
(Mahakam delta MISEDOR well (638.5m) reached U Pliocene. Palynology markers Phyllocladus hypophyllus, Podocarpus imbricatus and Stenochlaena laurifolia helped locate Plio-Pleistocene boundary at ~400m. Uniform paleogeographical features below this depth and great variability of conditions above it. Indications of climatic changes in several periods of low sea level with rise of detritus and high frequencies of grass pollen, due to savanna development in response to colder climatic conditions)

Carbonel, P., C. Caratini & J. Gayet (1987)- Le sondage Misedor- Synthese des etudes geologiques. In: A. Combaz (ed.) Geochimie organique des sediments plio-quaternaires du delta de la Mahakam (Indonesie) - le sondage Misedor, Editions TECHNIP, Paris, p. 173-181.

('The Misedor well- synthesis of geologic studies'. Misedor shallow cored well in Handil Field area of Mahakam Delta penetraded Quaternary (0-400m) and Late Pliocene clastic sediments (400- 638.6m). Four transgressive-regressive sequences in deltaic setting)

Carbonel, P. & T. Hoibian (1988)- The impact of organic matter on ostracods from an equatorial deltaic area, the Mahakam Delta, Southeastern Kalimantan. In: T. Hanai et al. (eds.) Evolutionary biology of Ostracoda, its fundamentals and applications. Proc. 9th Int. Symposium Ostracoda, Shizuoka, Elsevier Developments in Paleontology and Stratigraphy 11, p. 353-366.
(On ostracod fauna in Mahakam delta area. In front of delta mouth number of species decreases, Hemicytheridea reticulata relatively common, and ornamentation of polymorphic species decreases. Between delta mouths ornamentation increases, probably due to less degradation of organic matter here)

Carbonel, P., T. Hoibian & J. Moyes (1987)- Ecosystemes et paleoenvironnements de la zone deltaique de la Mahakam depuis la fin du Neogene. In: A. Combaz (ed.) Geochimie organique des sediments plio-quaternaires du delta de la Mahakam (Indonesie) - le sondage Misedor, Editions TECHNIP, Paris, p. 85-135.
('Ecosystems and paleoenvironments of the Mahakam Delta zone since the end of the Neogene'. Comprehensive overview of delta plain environments and geographic distribution of benthic foraminifera (4 assemblages) and ostracodes (5 assemblages). With data from Misedor core hole on Handil Anticline)

Carbonel, P. & J. Moyes (1987)- Late Quaternary paleoenvironments of the Mahakam Delta (Kalimantan, Indonesia). Palaeogeogr. Palaeoclim. Palaeoecology 61, 3-4, p. 265-284.
(Paleoenvironments in deltas can be defined by biological tracers, mainly benthic foraminifera and ostracods. In 200m of core these biomarkers show four transgressive marine sequences since 125,000 yr B.P., with sharp asymmetry in a transgression/progradation cycle)

Carter, I.S. & R.J. Morley (1996)- Utilising outcrop and palaeontological data to determine a detailed sequence stratigraphy of the Early Miocene deltaic sediments of the Kutai Basin, East Kalimantan. In: C.A. Caughey et al. (eds.) Int. Symposium on Sequence Stratigraphy in SE Asia, Jakarta 1995, Indonesian Petroleum Association (IPA), p. 345-361.
(Sequence stratigraphic subdivision of >5000m of Early Miocene sediment in onshore Kutai Basin establishing 'high-resolution' palynology zonation between 20-16 Ma)

Cartier E.G. & A.K. Yeats (1973)- The Lower Tertiary in Kaltim Shell Contract area, East Kalimantan. Results of 1972-1973 field Surveys (Kaltim Shell), p.
(Unpublished Shell report. Hutchison 1996: Embaluh Group of the Upper Mahakam and Boh rivers of Kalimantan yielded M Eocene planktonic foraminifera)

Cater, M.C. (1981)- Stratigraphy of the offshore area South of Kalimantan, Indonesia. Proc. 10th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 269-284.
(S Kalimantan Offshore Area altered pre-Tertiary, overlain separated unconformably by Eocene-Recent sediments. Karimundjawa Ridge separates main basins to E from Billiton Basin in W. Billiton Basin Oligocene-earliest Miocene in continental facies, more marine conditions in E with variable amounts of limestone)

Cavanna, G.R., E. Caselgrandi, E. Corti, A. Amato del Monte, M. Fervari, M. Bello, J. Aruan and C. Golding (2012)- Integrating the geophysical characterization of seismic thin beds with stochastic reservoir modeling: a case study from the Kutei Basin (Offshore Kalimantan, Indonesia). Proc. Int. Petroleum. Technical Conf. (IPTC), Bangkok 2012, IPTC 14570, p. 1-17.

Chambers, J.L.C., I. Carter, I.R. Cloke, J. Craig, S.J. Moss & D.W. Paterson (2004)- Thin-skinned and thick-skinned inversion-related thrusting- a structural model for the Kutai Basin, Kalimantan, Indonesia. In: K.R. McClay (ed.) Thrust tectonics and hydrocarbon systems, American Assoc. Petroleum Geol. (AAPG), Memoir 82, p. 614-634.
(Regional compression reactivated basement extensional faults, inverting Paleogene depocenters as anticlines often flanked on one side by basement thrusts. Neogene section detached near top overpressured zone and

deformed as thin-skinned fold-thrust belt. Response to inversion of Paleogene rift section controlled in part by heterogeneity in shallow section: syndepositional loading, delta progradation, normal faults, facies changes)

Chambers, J.L.C. & T. Daley (1995)- A tectonic model for the onshore Kutai Basin, East Kalimantan, based on an integrated geological and geophysical interpretation. Proc. 24th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 111-130.
(Models for Samarinda Anticlinorium included gravity slumping, shale diapirism and thrusting. Structures in Runtu Block are rigid deltaic- shelf sediments deformed into box-folds above folded shaly prodelta- bathyal sediments. Detachment at top or within over-pressured shales at base of Lower Miocene deltaics. Gravity data suggests semi-regional uplifts of over-pressured strata. Basement not visible on seismic, but gravity and aeromagnetics show it between 7-14 km deep. Models imply small amounts of shortening across near-surface structures and relatively large uplift. C Kutai Basin inversion of deep Paleogene rift basin gave rise to broad regional folding of shale-rich over-pressured section. Closer spaced folding in near surface, normally pressured, less ductile deltaic -shelf section of Samarinda Anticlinorium result of same inversion)

Chambers, J.L.C. & T.E. Daley (1997)- A tectonic model for the onshore Kutai Basin, East Kalimantan. In: A.J. Fraser, S.J. Matthews & R.W. Murphy (eds.) Petroleum Geology of Southeast Asia. Geological Society, London, Special Publ. 126, p. 375-393.
(Similar to above paper)

Chambers, J.L.C. & S.J. Moss (1999)- Depositional modeling of rift episodes and inversion of the Kutei Basin, Kalimantan, Indonesia. Petroleum Exploration Society Australia (PESA) Journal, 27, p. 9-24.
(Tertiary facies distributions in Kutai Basin re-interpreted and used to build models of tectonic basin evolution and depositional environments arrangements in relationship to major basin phases. Rift-related depocenters may offer alternative exploration target to proven Miocene systems. New understanding of basin development is important for appreciation of resource distribution in this and similar rift basins of Borneo and SE Asia)

Christensen, A.N., C. Jones, L.B. Kocijan, H. Booth, S. Rouxel & B. Kunjan (2018)- Airborne gravity gradiometer survey over the Pelarang Anticline, onshore Kutai Basin, Indonesia. The Australasian Exploration Geoscience Conference (AEGC) Sydney 2018, p. 1-6. *(Extended Abstract)*
(Pelarang Anticline part of NNE-SSW Samarinda Anticlinorium, a detached thrust-and-fold belt in Kutai Basin. Airborne gravity survey suggests detachment fold, ~30km long with steep flanks (70°-80°). Anticline associated with strong, positive gravity anomaly. 2D modelling suggests shale body that is close to breaching surface, and feature cored by high pressure shales)

Christensen, K., A. Nurhono, R.U. Zahar, S. Chipchase, Marwoto, D. Mochtar & B. Simmonds (1998)- The Sepinggan Field: reducing field modelling and reserve calculation cycle time. Proc. 26th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 329-339.
(Sepinggan Field off E Kalimantan complexly faulted deltaic sandstone, shales, and minor carbonates. In deltaic section only mappable units are coals. Over 100 M-L Miocene reservoir zones over more than 5,000')

Cibaj, I. (2009)- A fluvial series in the Middle Miocene of Kutei Basin: a major shift from Proto-Mahakam shallow marine to the continental environment. In: Variations in fluvial-deltaic and coastal reservoirs deposited in tropical environments, AAPG Hedberg Conf., Jakarta 2009, p. 1-11. *(online at: www.searchanddiscovery.com:16080/abstracts/pdf/2010/hedberg_indonesia/abstracts/ndx_cibaj.pdf)*
(In Proto-Mahakam delta outcrops early M Miocene fluvial sand-rich interval, ~700-800m thick, above deeper water marine facies, and overlain by more marine deltaic series)

Chun, J.H., I.G. Hwang, W. Lee, T. Lee & Y. Kim (2022)- Interpretation of origin and methanogenic pathways of coalbed gases from the Asem-Asem Basin, Southeast Kalimantan, Indonesia. Economic and Environmental Geology (Korean Soc. Economic Environmental Geology) 55, 3, p. 261-271. *(in Korean, with English abstract)*
(Chemistry of six gas samples in coal from in Asem-Asem Basin, SE Kalimantan. Compositions of coalbed gases show methane from 87-95% and ethane from 3.7 to 10%. Etc.)

Cibaj, I. (2010)- Fluvial channel complexes in the Middle Miocene of Lower Kutei Basin, East Kalimantan- the stacking pattern of sediments. Proc. 34th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA10-G-053, p. 1-13.
(600m thick M Miocene (N9-N13) section exposed near Samarinda. Basal Batu Putih reefal carbonates (called 10.5 Ma_mfs, but on Fig 1 shown as NN4-NN5= 14-18 Ma; called N8 by Allen & Chambers 1998) abruptly overlain by fluvial channel sands, flood plain shales and 1-3m thick coals. Stacked fluvial parasequences, each 40-50m thick. Transition to fluvial deposits interpreted as SB 10.2 Ma (likely older?; JTvG), with influx of coarse-grained sediment tied to tectonic uplift in hinterland)

Cibaj, I. (2011)- Channel-levee complexes in the slope turbidites of Lower Kutei Basin, East Kalimantan. Proc. 35th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA11 G-078, p. 1-18.
(Description of geometry of sandstone reservoirs in slope turbidite channel- levee complexes in outcrop near Samarinda)

Cibaj, I. (2011)- Field Trip- Channel-levee facies and sea floor fan lobes in the turbidites of Lower Kutei Basin, East Kalimantan. Berita Sedimentogi 21, FOSI- IAGI, p. 15-21.
(Online at: https://journal.iagi.or.id/index.php/FOSI/article/download/208/178)
(New outcrops of late Early- Middle Miocene (NN4-NN5) clastics and Batu Putih limestones on Samarinda Anticlinorium NW of Samarinda. Channel-levee complexes/ slope turbidites and debris flows below Batu Putih carbonates, which are thought to represent shelf break environment. Similar to paper above)

Cibaj, I. (2013)- Miocene stratigraphy and paleogeography of Lower Kutei Basin, East Kalimantan- a synthesis. Proc. 37th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA13-G-090, p. 1-24.
(Review of 3500m thick Miocene section exposed in Samarinda area, Lower Kutei basin, at E flank of Separi anticline. Ranging in age from Late Burdigalian (zone NN4, ~17 Ma) to E Tortonian (~10 Ma). Overall regressive stacking pattern of deposits from slope turbidites of Hutunan village section, through shallow marine and deltaic deposits to fluvial deposits of Harapan Baru section at top.

Cibaj, I., U. Ashari, J.A. Dal, V. Mazingue & M. Bueno (2015)- Sedimentology and stratigraphic stacking patterns of the Sisi-Nubi Field Producing Interval, Lower Kutei Basin, East Kalimantan, Indonesia. Proc. 39th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA15-G-245, p. 1-33.
(Sisi-Nubi field in shallow marine area off Mahakam Delta. Four third-order Genetic Sequences orders (in lower regressive and upper overall transgressive stacking mode) and numerous 5th order parasequences recognized in ~1800-2000m thick U Miocene (~7-5 Ma) Producing interval. Fresh-water sands throughout. In Upper Fresh Water Interval locally small (2-5 km wide) patch reefal carbonate buildups)

Cibaj, I., F. Lafont, E. Chavanne & G. de Tonnac (2006)- Upper Miocene fluvial deposits offshore modern Mahakam Delta. Proc. Jakarta 2006 International Geoscience Conference Exhib., Indonesian Petroleum Association (IPA), Jakarta, 06-PG-29, p. 1-4.
(Producing Upper Miocene (Messinian) Fresh Water Sands Fm offshore Mahakam Delta in Sisi-Nubi Field previously interpreted as deltaic sequence. Recent 3D seismic shows meandering features, evidence of fluvial deposit 30 km offshore from modern delta and <10 km from present shelf break)

Cibaj, I., B. Lambert, U. Ashari, B. Giriansyah, L. Schulbaum, P. Imbert & P. Cordelier (2014)- Sedimentology and stratigraphic stacking patterns of the Peciko Field Main Zone, Lower Kutei Basin, East Kalimantan, Indonesia. Proc. 38th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA14-G-141, p. 1-22.
(Four different orders of stratigraphic stacking pattern in Main Zone of offshore Kutei basin Peciko gas field. Main Zone is 2000m thick M-L Miocene (11-7 Ma) second order Genetic Sequence, subdivided into six ~300m thick third order sequences, subdivided into numerous individual deltaic cycles)

Cibaj, I., B. Lambert, P. Zaugg, U. Ashari, J.A. Dal & P. Imbert (2014)- Stratigraphic stacking patterns of the Mahakam Area, Lower Kutei Basin, East Kalimantan, Indonesia. Proc. 38th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA14-G-145, p. 1-27.

(M Miocene- Recent Mahakam Delta system in Lower Kutei Basin subdivided into four main 2nd order cycles, with boundaries (defined as Base Max. Flooding surfaces) at 15, 11, 7 and 5 Ma. Correspond to major E-ward (basinward) shifts of shelf break/ depocenters thickness)

Cibaj, I., N. Syarifuddin, U. Ashari, A. Wiweko & K.A. Maryunani (2007)- Stratigraphic interpretation of Middle Miocene Mahakam Delta deposits: implications for reservoir distribution and quality. Proc. 31st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA07-G-116, p. 1-11.
(Samarinda area outcrops of 450m M Miocene deltaic deposits studied. Overall thickening-upward sequences interpreted as indicating regressive evolution of deltaic parasequences)

Cibaj, I. & A. Wiweko (2008)- Recognition of progradational shelf deposits in the Middle Miocene of Kutai Basin. Proc. 32nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA08-G-171, p. 1-14.
(Outcrop study of M Miocene progradational deltaic deposits NW of Samarinda. Upward transition from a slope-basin environment to slope and from slope to shelf. No documentation of age control)

Cities Service Co. (1980)- Hydrocarbon plays in Tertiary, S.E. Asia basins. Oil and Gas Journal 78, 29, p. 90-96.

Clark, T., J. Hadiwijoto, B. Zagalai, S. Martinez & D. Staples (1994)- Serang Field re-evaluation. Proc. 23rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 339-353.
(Serang field N of Attaka field, N Mahakam, E Kalimantan, evolved from non-commercial discovery in 1973 to a field with proven reserves of 35 MBO and 275 GCF in Late Miocene deltaic sands)

Clark, T., M. Turk, J. Hadiwijoto & Y. Partono (1999)- Serang Field- discovery within a seismic "fault shadow". Proc. 27th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 323-341.
(Serang field off E Kalimantan. Structure for long time hidden in shadow under large listric normal fault. Main reservoir Upper Miocene fluvio-deltaic channel sands. Reefal carbonates preferentially developed on upthrown block in M Miocene- early late Miocene (reservoir quality rel. poor) and in Pliocene (very porous))

Clauer, N., T. Rinckenbach, F. Weber, F. Sommer, S. Chaudhuri & J.R. O'Neil (1999)- Diagenetic evolution of clay minerals in oil-bearing Neogene sandstones and associated shales, Mahakam delta basin, Kalimantan, Indonesia. American Assoc. Petroleum Geol. (AAPG) Bull. 83, 1, p. 62-87.
(Study of clays in Handil and Tunu fields. Cllay fraction of Mahakam Delta Basin mixed-layer illite/smectite, kaolinite/dickite, detrital illite, and chlorite. Hydrocarbon generation took place in deeper synclinal zones and that oil migrated upward with brines, probably inducing most of illitization in upper sequence)

Cloke, I.R. (1997)- Structural controls on the basin evolution of the Kutai Basin and Makassar Straits. Ph.D. Thesis, University of London, p. 1-376. *(Unpublished)*
(Flexural modelling of Neogene load of Mahakam Delta suggests sediments 20 km landward of present day shelf-break loaded lithosphere with high elastic thickness, corresponding to oceanic lithosphere of 47 Ma. Landward of this point, the elastic thickness is less and suggesting stretched continental crust.)

Cloke, I.R., J. Craig & D.J. Blundell (1999)- Structural controls on the hydrocarbon and mineral deposits within the Kutai Basin, East Kalimantan. In: K.J.W. McCaffrey et al. (eds.) Fractures, fluid flow and mineralization, Geological Society, London, Special Publ. 155, p. 213-232.
(Deep Kutai Basin formed in M Eocene extension, linked to opening of Philippines Sea, Celebes Sea and Makassar Straits. Seismic profiles across N Kutai Basin show M Eocene NNE-SSW and N-S half-graben. Late Oligocene extension on NW-SE trending faults, reactivating basement structures. Syn-rift coals sufficiently deeply buried to generate hydrocarbons prior to inversion. Shortening since E Miocene resulted in breaching of traps and generation of new traps. M Eocene, Late Oligocene- E Miocene and Plio-Pleistocene volcanic activity set up several mineral deposits. Reactivation of NW-SE and NE-SW trending basement structures controlled location of hydrocarbon and mineral deposits)

Cloke, I.R., J. Milsom & D.J.B. Blundell (1999)- Implications of gravity data from East Kalimantan and the Makassar Straits: a solution to the origin of the Makassar Straits? J. Asian Earth Sciences 17, 1-2, p. 61-78.

(Gravity modeling and flexural backstripping suggest N Makassar basin underlain by M Eocene oceanic crust)

Cloke, I.R., S.J. Moss & J. Craig (1997)- The influence of basement reactivation on the extensional and inversional history of the Kutai Basin, Eastern Kalimantan. J. Geological Society, London, 154, p. 157-161.
(online at: www.researchgate.net/publication/249547068_The_influence_of_basement_reactivation_on Etc.)
(Kutai basins formed in M- Late Eocene above Late Cretaceous/Early Tertiary orogenic complex. Basement fabrics influenced extension and inversion. Basement fabric on margins and Tertiary cover dominated by NE-SW, NW-SE and NNE-SSW-trending structures. Larger scale NW-SE narrow linear gravity lows cut NNE-SSW highs on gravity data within basin. NNE-SSW basin-bounding faults overlap in right stepping en-echelon manner. Opposing antithetic and synthetic half-grabens linked by oblique NW-SE transfer faults. Inversion utilized extensional faults as reverse faults; however, NW-SE-oriented structures were reactivated as zones of lateral offset along fold-thrust belt, whilst fault kinks oriented NE-SW reactivated as oblique-slip reverse faults)

Cloke, I.R., S.J. Moss & J. Craig (1999)- Structural controls on the evolution of the Kutai Basin, East Kalimantan. J. Asian Earth Sciences 17, p. 137-156. *(online at: https://www.researchgate.net/publication/229348970_Structural_controls_on_the_evolution_of_the_Kutai_Basin_East_Kalimantan)*
(Kutai Basin formed in M Eocene by extension linked to opening of Makassar Straits. N margin inverted NNE-SSW trending Eocene half-grabens. Late Oligocene extension on NW-SE trending en-echelon faults under different stress regime, indicating rotation of extension direction between 45-90°. Early Miocene N6-N8 inversion along E-facing half-grabens on N and S margins. WNW-vergent thrusts indicate compression from ESE. Miocene collisions with N and E Sundaland triggered punctuated basin inversion. Inversion concentrated in weak continental crust below Kutai Basin and various Sulawesi basins, while stronger oceanic crust or attenuated continental crust of Makassar Straits acted as passive conduit for compressional stresses)

Combaz, A. & M. de Matharel (1978)- Organic sedimentation and genesis of petroleum in Mahakam Delta, Borneo. American Assoc. Petroleum Geol. (AAPG) Bull. 62, 9, p. 1684-1695.
(Mahakam delta organic material in source rocks generally continental and vegetal origin. Oils paraffinic, increase in gravity with depth, and very low sulfur content. Accumulations probably not far from source rocks, but originate at greater depths. Hydrocarbons could have migrated vertically about 3000m along faults)

Core Laboratories (1996)- Regional sequence stratigraphic and geochemical study of the Tarakan Basin, Northeast Kalimantan., p. *(Unpublished Multi-client study)*

Core Laboratories (2006)- Deep water reservoirs, Asia- a regional evaluation, Phase I- Indonesia and The Philippines, Multi-client study, p. *(Unpublished)*
(Study of deep water wells from Makassar Straits, Sulu Sea, S China Sea)

Courteney, S., P. Cockcroft, R. Lorentz, R. Miller, H.L. Ott, S. Wiman et al. (eds.) (1991)- Indonesia- Oil and gas fields atlas, 5, Kalimantan. Indonesian Petroleum Association (IPA), Jakarta, p. 1-25, A1-A8.
(Introduction to Kalimantan geology and summary of oil and gas fields. Oil seeps first described from E Kalimantan in 1865, first oil production in 1899 on Tarakan Island by BPM predecessor)

Crumeyrolle, P. (2003)- Two contrasting styles of Lowstand Deltaic wedges: the Roda Sandstone (Spain) as seen from outcrops and the Late Pleistocene Mahakam Delta (Indonesia) as imaged from 3D and 2D Hr Seismic profiles. In: H.H. Roberts et al. (eds.) Shelf margin deltas and linked down slope petroleum systems- Global significance and future exploration potential, 23rd Annual Gulf Coast SEPM Found. Perkins Conf., Houston, p. 639-645.
(During period of continuous sea level fall Mahakan Delta distributary channels converted into incised valleys with adjacent dendritic tributary channels. Main incised valleys reached shelf break, transporting sediments beyond shelf break. During sea levelrise incised valleys flood and remain largely underfilled)

Crumeyrolle, P. & I. Renaud (2003)- Quaternary incised valleys and low stand deltas imaged with 3D seismic and 2D HR Profiles, Mahakam Delta, Indonesia. AAPG International Conference, Barcelona 2003, Search and Discovery Article 90017, p. 1-8.
(online at: www.searchanddiscovery.com/abstracts/pdf/2003/intl/extend/ndx_82692.pdf)
(Review of Late Pleistocene- Holocene of Mahakam Delta, showing complete cycle of lowstand (incised valleys and prograding lowstand delta) - transgressive (up to 40m thick Halimeda carbonate buildups on interfluves of incised valleys on shelf) to highstand sequence tracts (prograding clastics of modern delta))

Crumeyrolle, P., I. Renaud & J. Suiter (2007)- The use of two- and three-dimensional seismic to understand sediment transfer from fluvial to deepwater via sinuous channels: example from the Mahakam shelf and comparison with outcrop data (South Central Pyrenees). In: R.J. Davies et al. (eds.) Seismic geomorphology: applications to hydrocarbon exploration and production, Geological Society, London, Special Publ. 277, p. 85-103.
(Stratigraphy and depositional environments of Pleistocene Mahakam delta lowstand delta/ fans, as mapped from seismic, used to interpret outcrops of Sobrarbe delta deposits in Pyrenees)

Curiale, J.A., J. Decker, R. Lin & R.J. Morley (2006)- Oils and oil-prone coals of the Kutei Basin, Indonesia. Abstract AAPG International Conference Exh., Perth 2006, American Assoc. Petroleum Geol. (AAPG) Bull. 90 Program Abstracts. *(Abstract only)*
(online at: https://www.searchanddiscovery.com/pdfz/abstracts/pdf/2006/intl_perth/abstracts/ndx_curiale.pdf.html)
(Kutei Basin Miocene and Eocene coals have oil-prone source rock potential. Nine Miocene and Eocene coals (15- 36 Ma) on Borneo compared with oils from same basin. Several coals qualify as oil-prone potential source rocks, but no single coal correlatable with any single oil)

Curiale, J., R. Lin & J. Decker (2005)- Isotopic and molecular characteristics of Miocene-reservoired oil of the Kutei Basin, Indonesia. Organic Geochemistry 36, p. 405-424.
(Thirty-two oils from Miocene sands of Kutei Basin examined. Isotopic data discriminate single megafamily of oils dominated by angiosperm debris. Separable into two sub-families: onshore and continental shelf oils (low lupanoid ratio) and continental slope oils (high lupanoid ratio))

Dalman, R.A.F., T. Missiaen, D.A.S. Ranawijaya, S.B. Kroonenberg, J.E.A. Storms & J.B. Reinink (2009)- The Late Holocene progradation of the mixed fluvial-tidal Mahakam Delta, imaged using very high-resolution shallow seismics. AAPG Hedberg Conference, Jakarta 2009, p. 1-3. *(Extended Abstract)*
(online at: www.searchanddiscovery.com/abstracts/pdf/2010/hedberg_indonesia/abstracts/ndx_dalman.pdf)

Darlan, Y. & Sahudin (2012)- Gas biogenik dan unsur mineral pada sedimen delta Kapuas, Kalimantan Barat. J. Geologi Kelautan 10, 3, p. 133-146
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/222/212)
('Biogenic gas and mineral elements in Kapuas delta sediments, West Kalimantan'. Bacterial-origin biogenic gas in Quaternary clastic sediments of shallow boreholes in Kapuas Delta)

Darman, H. (1998)- Carbonate slope deposit of Bengalun River, East Kalimantan. Berita Sedimentologi (Indonesian Sedimentologists Forum, FOSI) 10, p. 4-6.
(Bengalon River near NE margin Kutei Basin exposes thick Paleogene and Neogene deep marine to fluvio-marine sediments. E Miocene (zone N4) bathyal marine calcareous shales with bioclastic calci-turbidites. Presence of carbonate sediments suggests nearby carbonate-producing shelf)

Darman, H. (1999)- Extracting flow pattern and point-bar characteristics of a modern river: a case study from the Wahau River, East Kalimantan. Proc. 27th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 403-414.
(Study of modern Wahau River deposition)

Darman, H. (1999)- The Neogene tectonics and sedimentation of the Tarakan basin. In: H. Darman & F.H. Sidi (eds.) Tectonics and sedimentation of Indonesia, FOSI-IAGI-ITB Regional Seminar to commemorate 50th anniversary of Van Bemmelen's Geology of Indonesia, Bandung 1999, p. 56-59.
(Tarakan Basin initiated simultaneously with formation of Celebes Sea in M-L Eocene until end of E Miocene. Deltaic sedimentation from W in M Miocene- Pliocene, with significant growth faulting. Latest tectonic phase latest Pliocene- Recent transform movement along 3 major (Semporna, Maratua, N Mangkalihat) and several smaller sinistral wrench faults crossing Makassar Straits, causing up to 1000m of local inversion uplift)

Darman, H. (2003)- Seismic expression of shelf breaks: examples from Borneo/Kalimantan basins. Berita Sedimentologi (Indonesian Sedimentologists Forum- FOSI) 18, p. 8-13.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/229)
(Examples of shelf breaks/clinoforms on previously published seismic examples from offshore Kutai, Tarakan, Sandakan, and NW Borneo)

Darman, H. (2017)- The Paleogene of East Borneo and its facies distribution. Berita Sedimentologi (Indonesian Sedimentologists Forum- FOSI- IAGI) 37, p. 5-13.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/229/199)
(Review of East Kalimantan Barito, Kutei and Tarakan basins, all with M Eocene - U Oligocene Paleogene sediments. M Eocene dominated by fluvial settings, U Eocene common coastal to shallow shelf deposits. Carbonates developed in Oligocene in N and S; in Kutei Basin mainly shelf to bathyal clastics)

Darman, H. (2023)- Paleogene paleogeographic reconstructions of the Kutai Basin: Refinement based on outcrop and subsurface data. Berita Sedimentologi 49, 1, p. 25-52.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/397/377)
(New set of paleogeographic maps of Kutai basin in M Eocene, Late Eocene, E Oligocene and Late Oligocene times. Update of 1970s Shell work. Throughout Paleogene time, center of Kutai Basin was in bathyal facies)

Darman, H. & K. Handoyo (2006)- "Deltaic" reservoir characteristics of giant fields of the Kutei and Baram Basins, Borneo. AAPG 2006 Int. Conf. Exhibition, Perth 2006, Search and Discovery Article 20191, p. 1-6. *(Abstract and Presentation)*
(online at: www.searchanddiscovery.com/documents/2013/20191darman/ndx_darman.pdf)
(Giant fields in two basins surrounding Borneo, Baram and Kutei, producing oil and gas from Miocene deltaic-shallow marine sandstones. Sandstones generally quartz dominated and derived from central part of Borneo. Structures of fields in Kutei Basin generally larger, but reservoirs less continuous (distributary mouth bars, interconnected by channel cuts))

Darman, H. & K. Handoyo (2008)- Deltaic reservoir characteristics of Kutei and Baram giant fields. In: J.A. Katili et al. (eds.) Tectonics and resources of Central and Southeast Asia (Halbouty volume), Pusat Survei Geologi, Bandung, Special Publ. 34, p. 109-123.
(Kutei and Baram giant oil-gas fields both produce mainly from Miocene deltaic- shallow marine sandstones. These are part of progradational sequences, formed after large amounts of generally quartz-rich sediments began to pour from C Kalimantan into deep basins to N, W and E of Borneo in Early Miocene. Sands in Kutei basin structures generally larger, but deltaic reservoirs discontinuous. Baram coastal and shallow marine sandstones generally more continuous, but structures smaller)

Darman, H. & Y. Zaim (1994)- Sedimentologi endapan konglomerat batubara pada facies sungai, di daerah Samarinda, Kalimantan Timur. Buletin Geologi (ITB) 24, 1-2, p. *(also in Berita Sedimentologi 17, 2002)*
('Sedimentology of coal conglomerate deposits within channel facies in Samarinda Region, East Kalimantan'. Conglomerates with rounded-subrounded coal fragments in channel deposits of fluvial-deltaic Balikpapan Fm in Samarinda Region. Coal fragments may be transported wood or reworked fragments from older coal seam)

Darmawan, W., A. Subekti, E. Guritno, J. Smart, H. Mustapha, B. Nugroho & A. Bachtiar (2015)- Structural and stratigraphic evolution and implications for Paleogene syn rift exploration in North East Bangkanai, Upper Kutai

Basin, Indonesia. Proc. 39th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA15-G-112, p. 1-15.
(NE Bangkanai PSC in NW onshore Upper Kutai Basin underwent M-L Eocene rifting (deltaic and shallow marine clastics overlain by Nummulites limestones) and NW-SE strike-slip fault reactivation and E Miocene E-W directed compression, which formed NE-SW and N-S trending inversion structures. Regional uplift in E Miocene triggered start of regressive system and deposited fluvio-deltaic to marine sediments of M Miocene Balikpapan Fm. Latest tectonism in Borneo in Pliocene- Recent. Syn-rift exploration play)

Daulay, B. (1994)- Tertiary coal belt in Eastern Kalimantan, Indonesia: the influence of coal quality on coal utilization. Ph.D. Thesis, University of Wollongong, Australia, p. 1-326.
(online at: https://ro.uow.edu.au/theses/1413/)
(E Kalimantan second largest coal resources in Indonesia after Sumatra coalfields (Bukit Asam, Ombilin), but currently has highest coal production. Coal in Kutei, Barito, Asem Asem and Tarakan Basins, which developed as result of rifting in the Makassar Strait in mid-Tertiary. Economic coal deposits of Miocene age in all basins; economic Eocene coals only in Barito and Asem Asem Basins. Evaluation of lateral and vertical variations in coal thickness and chemical and physical properties, with discussion of economic uses of E Kalimantan coals. Vitrinite and liptinite dominant macerals in both Eocene and Miocene coals. Inertinite is minor component, but higher in Miocene coals. Mineral content low in most coals except in some Eocene coals. Rank of Miocene coals soft brown coal to high volatile bituminous, Eocene coals subbituminous- high volatile bituminous. Miocene coals in Sangatta area locally altered to semi-anthracite by igneous intrusion.)

Daulay, B. & H. Panggabean (2001)- Batubara sebagai sumber hidrokarbon: studi kasus cekungan Kutai dan Barito. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 11, 118, p. 1-17.
('Coal as a source of hydrocarbons: a case study in the Kutai and Barito Basins'. Coals good potential petroleum source rocks)

Debec, P. & G.P. Allen (1996)- Late Quaternary glacio-eustatic sequences and stratal patterns in the Mahakam delta. In: C.A. Caughey et al. (eds.) Proc. Int. Symposium on Sequence Stratigraphy in SE Asia, Jakarta 1995, Indonesian Petroleum Association IPA), p. 381. *(Abstract only)*
(Late Quaternary eustatic cycles formed small-scale depositional sequences in Mahakam delta. High frequency and asymmetry of Pleistocene eustatic cycles and rapid rates of sea-level rise and fall led to differences from published sequence stratigraphic models. 3D seismic maps show narrow, incised fluvial valleys dissected by dendritic erosion pattern (= converted highstand delta distributary channels). Incised valleys same size as deltaic distributaries, relatively straight channels, 1-1.5 km wide and up to 30m of incision. Due to rapid sea-level rise and low tide range transgressive deposits thin and do not fill incised valleys (remain as prominent valley systems on transgressed shelf). During highstand delta progradation shelf valleys fill with prodelta mud. Each depositional sequence two episodes of deltaic progradation: early lowstand, and highstand systems tract)

De Groot, C. (1857)- Bijdragen tot de geologische en mineralogische kennis van Nederlandsch Indie, XVIII. Zuid- en Oosterafdeling van Borneo. Natuurkundig Tijdschrift voor Nederlandsch-Indie 14, p. 1-86.
(online at: https://ia801008.us.archive.org/32/items/natuurkundigtijd14koni/natuurkundigtijd14koni.pdf)
('Contributions to the geological and mineralogical knowledge of the Netherlands Indies, XVIII. The South- and East District of Borneo', Early geological description of SE Kalimantan, surveyed between 1852-1855. With 2 small maps, incl. one of Oranje Nassau coal mine NE of Martapura) (Reprinted in Jaarboek Mijnwezen 1872)

De Man, E., A. Gantyno, S. Huang, K. Petersen, E. Saferi, R. Widiarti, S. Wertanen & S. Rahardjanto (2012)- CBM operational lessons learned- Barito Basin. Proc. 36th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA12-E-194, p. 1-20.

De Matharel, M., G. Klein & T. Oki (1976)- Case history of the Bekapai Field. Proc. 5th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 69-93.
(1972 Bekapai oil field off Mahakam Delta on NNE trending anticline. Two main phases of delta progradation, separated by ?E Pliocene? marine transgression. Hydrocarbons in delta front sands of lower delta)

De Matharel, M., P. Lehman & T. Oki (1980)- Geology of the Bekapai Field. In: M.T. Halbouty (ed.) Giant oil and gas fields of the decade 1968-1978, American Assoc. Petroleum Geol. (AAPG), Memoir 30, p. 459-470.
(Bekapai Field 1972 discovery 15 km off Mahakam Delta. Large faulted anticline, multiple stacked deltaic reservoir sands between 1300-1600m)

De Neve, G.A. (1947)- A new *Archaias* species from East Borneo. Bull. Bureau of Mines and Geological Survey of Indonesia 1, 1, p. 13-16.
(New larger foraminifer species Archaias vandervlerki from E-M Miocene (Tf1-2) Poelobalang beds, Bengalan river region, Bontang, Samarinda. Associated with Austrotrillina howchina, Miogypsina kotoi. Poor figures (May be same as Pseudotaberina malabarica, Burdigalian (Banner & Highton 1989))

Demchuk, T.D & T.A. Moore (1993)- Palynofloral and organic characteristics of Miocene bog-forest, Kalimantan, Indonesia. Organic Geochemistry 20, 2, p. 119-134.
(20m-thick Miocene Warukin Fm Sarongga lignite from SE Kalimantan distinct vertical variations in palynofloras. Three palynofloral zones of bog-forest and mangrove affinity. Palynofloras and low sulphur content suggest predominantly freshwater deposition. Plant material in Miocene lignite mainly derived from arborescent angiosperms Increasing abundances of mangrove pollen suggests encroachment of mangrove swamp toward bog-forest. Little variation in organic characteristics within seam)

Denney, D. (2008)- Reviving the mature Handil Field; from integrated reservoir study to field application. J. Petroleum Technology 60, 1, p. 63-65.
(Summary of Herwin et al. (2007) paper. Mahakam Delta 1974 Handil field production declined from 200,000 BOPD in late 1970s to 12,500 BOPD in 2003. Infill drilling and optimization of enhanced-oil-recovery increased production to 23,000 BOPD)

De Sitter, L.U. (1932)- Nota betreffende de foraminiferenfauna van het Neogeen van Koetai. Jaarboek Mijnwezen Nederlandsch-Indie 59 (1930), Verhandelingen 3, p. 122-125.
('Note on the foraminiferal fauna of the Neogene of Kutai'. Summary of foraminifera distribution and BPM stratigraphy of Kutai Basin, E Kalimantan. Boundary between Beboeloe and Poeloe Balang stage characterized by extinction of Eulepidina. Alveolinella (=Flosculinella) bontangensis restricted to Poeloe Balang stage. With detailed Neogene foraminifera range chart)

De Sitter, L.U. (1948)- Het Quartair in het kustgebied van Koetei ten N van de Mahakam rivier. Geologie en Mijnbouw 10, 9, p. 177-183.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0Y2VnbkxZMHp5eFE/view)
('The Quaternary in the coastal region of Kutai, North of the Mahakam River'. Description of Quaternary coastal terraces and drainage pattern, influenced by peneplain uplift)

Dharmasamadhi, I.N.W. & S.W. Reksalegora (2009)- Using pressure data to build a stratigraphic framework in the deepwater Ranggas Field, Kutai Basin- East Kalimantan. Proc. 33rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA09-G-181, p. 1-19.
(Ranggas field 2001 oil-gas discovery mainly in Late Miocene slope channels in 1585m water depth. Pressure analysis indicates four laterally-continuous pressure sealing shales that can be used for correlation. Numerous thin shales, less than 100' thick, have potential to seal over extensive area)

Di Martino, E. & P.D. Taylor (2012)- Systematics and life history of *Antoniettella exigua*, a new genus and species of cribrimorph bryozoan from the Miocene of East Kalimantan (Indonesia). Boll. Societa Paleontologica Italiana 51, 2, p. 99-108.
(online at: http://paleoitalia.org/media/u/archives/03.DiMartinoTaylor_2012_BSPI_512.pdf)
(New cheilostome bryozoan from rocks around Burdigalian-Langhian boundary near Bontang, Kutai Basin. Colonies encrust undersides of platy scleractinian corals that formed patch reefs in turbid shallow waters)

Di Martino, E. & P.D. Taylor (2012)- Morphology and palaeobiogeography of *Retelepralia*, a distinctive cheilostome bryozoan new to the fossil record. Neues Jahrbuch Geologie Palaontologie, Abhandlungen 263, p., 67-74.
(New species of bryozoan, Retelepralia macmonagleae, from, Late Oligocene W of Sukau, E Sabah)

Di Martino, E. & P.D. Taylor (2014)- Miocene bryozoa from East Kalimantan, Indonesia. Part I: Cyclostomata and 'Anascan' Cheilostomata. Scripta Geologica 146, p. 17-126.
(online at: https://repository.naturalis.nl/pub/469455)
(Descriptions of 51 Miocene (late Burdigalian-Messinian) bryozoan species from 17 sections near Samarinda, Bontang and Sangkulirang in Kutai Basin. Eleven new species of Microeciella, Pseudidmonea, Cranosina, Parellisina, Vincularia and Canda. Bryozoans found mainly encrusting undersides of corals)

Di Martino, E. & P.D. Taylor (2015)- Miocene bryozoa from East Kalimantan, Indonesia. Part II: 'Ascophoran' Cheilostomata. Scripta Geologica 148, p. 1-142.
(online at: https://repository.naturalis.nl/pub/519874)
(Descriptions of 72 Miocene ascophoran-grade cheilostome bryozoa (late Burdigalian-Messinian) from 17 outcrop sections in E Kalimantan. Two new genera and 20 new species)

Di Martino, E., P.D. Taylor & K.G. Johnson (2015)- Bryozoan diversity in the Miocene of the Kutai Basin, East Kalimantan, Indonesia. Palaios 30, p. 109-115.
(online at: www.researchgate.net/publication/272537205_Bryozoan_diversity_in_the_Miocene_of_t Etc.)
(123 species of bryozoans identified in Miocene (17.5- 6.1 Ma) limestones of E Kalimantan. Mainly encrusting species associated with plate-like scleractinian corals)

Di Martino, E., P.D. Taylor, A.B. Kudryavtsev & J.W. Schopf (2016)- Calcitization of aragonitic bryozoans in Cenozoic tropical carbonates from East Kalimantan, Indonesia. Facies 62, 2, p. 1-15.
(online at: www.researchgate.net/publication/293479447_Calcitization_of_aragonitic_bryozoans_in_C Etc.)
(On calcification of originally aragonitic skeletons of cheilostome bryozoa from Miocene of E Kalimantan)

Di Martino, E., P.D. Taylor, V. Novak, N. Santodomingo, A. Rosler, J.C. Braga, K. Johnson & W. Renema (2012)- Bryozoans from a Langhian patch reef in East Kalimantan (Indonesia). In: Indo-Pacific Ancient Ecosystems Group (IPAEG) Conf., Catania 2012, Giornate Paleont. 12, 1p. *(Abstract only)*
(online at: http://ipaeg.org/content/bryozoans-langhian-patch-reef-east-kalimantan-indonesia)
(Langhian patch reef exposed near Bontang, E Kalimanta, with 61 species of bryozoans, almost double number of species (31) previously reported from Cenozoic of Indonesian Archipelago)

Djamas, Y.S. & E. Marks (1978)- Early Neogene foraminiferal biohorizons in E. Kalimantan, Indonesia. In: S. Wiryosujono & E. Marks (eds.) Proc. 2nd Working Group Meeting Biostratigraphic datum-planes of the Pacific Neogene IGCP Project 114, Geological Research Development Centre (GRDC), Bandung, Special Publ. 1, p. 111-124.
(S Mangkalihat- N Kutai material allows some larger and planktonic foram zone calibrations:Late Oligocene N2-N3 correlates with Te1-4, Early Miocene N4-N5 zones correlate with Te5)

Djamil, A.H. & S.O. Bany (2005)- Exploration geology of Sebuku Block, offshore Kalimantan, Indonesia. Proc. 2005 SE Asia Petroleum Exploration Society (SEAPEX) Exploration Conference, Singapore, p. 1-21. *(Abstract + Presentation)*
(Sebuku Block on Paternoster Platform. Makassar Graben kitchen with Eocene source rocks (Lower Tanjung lacustrine shales and fluvio-deltaic shales and coals). Lacustrine shale amorphous organic material (TOC 4-6%, Type II oil prone kerogen) and significant fresh water algae Pediastrum and Botryococcus. Fluvio-deltaic shale TOC 0.7- 2.54%, low HI, moderate gas potential. Coals TOC 20- 43% and HI 181-293, gas prone kerogen. Slicks from leaking gas-condensate and light oil in traps confirm Eocene source. Main reservoir Berai Lst, with gas in Makassar Straits-1 well. Carbonate deposited in basinal setting, with displaced material from adjacent reef/ platform margin. Fractured basement oil test in Pangkat-1. Berai Fm and U Warukin Fm reefal build-ups form exploration targets as well as clastic reservoirs of Lower Tanjung Fm in Makassar graben)

Doeglas, D.J. (1931)- Ostrakoden von N.O.-Borneo. Wetenschappelijke Mededeelingen Dienst Mijnbouw Nederlandsch-Indie, Bandung 17, p. 25-54.
('Ostracodes from NE Borneo'. 16 species of Oligocene- U Miocene ostracodes from 43 localities in NE Kalimantan, sampled by Leupold. Includes 14 new species, 11 of genus Nesidea, one of Cythere, Cytheridea and Cythereis)

Dory, D.M. (1997)- Evolution of structures in the NE Kalimantan Basin, Indonesia. M.Sc. Thesis, University of London, p. 1-40. *(Unpublished)*

Doutch, H.F. (1992)- Aspects of the structural histories of the Tertiary sedimentary basins of East, Central and West Kalimantan and their margins. BMR J. Australian Geology Geophysics 13, 3, p. 237-250.
(online at: www.ga.gov.au/corporate_data/49556/Jou1992_v13_n3.pdf)
(Semitau ridge is ESE trending structural ridge spanning outcrops of Permo-Triassic foliated igneous rocks of Busang Complex in E and Embuoi Complex in Sanggau. Age of Plateau Sandstone in Ketangau Basin Late Eocene, possibly extending into Early Oligocene)

Douville, H. (1905)- Les Foraminiferes dans le Tertiaire de Borneo. Bull. Societe Geologique France, ser. 4, 5, p. 435-464.
(online at: www.biodiversitylibrary.org/item/97249#page/487/mode/1up)
('The foraminifera in the Tertiary of Borneo'. Pioneering work on M Eocene- E Miocene larger forams from SE Kalimantan, collected by Swiss BPM geologist A. Buxtorf. Earlier work by Verbeek (1871) and Fritsch (1878). Eight zones distinguished: (A- Lutetian) M Eocene with Orthophragmina (Discocyclina) omphalus and Nummulites; (B- Bartonian) with thin Orthophragmina (Discocyclina) only; (E,F.G.-Aquitanian (E Miocene) limestones (incl. Batuhapu cave near Pengaron) with large Lepidocyclina; (H-Burdigalian) mainly Lepidocyclina. Description of new genus Spiroclypeus, with two new species S. orbitoideus and S. pleurocentralis. No locality maps, but according to Verbeek (1908, p. 481) from Meratus Mts front between Rantau and Barabai. Also mentions M Eocene Nummulites and Discocyclina from Maros Peak, SW Sulawesi)

Durand, B., A.Y. Huc & J.L. Oudin (1987)- Oil saturation and primary migration observation in shales and coals from the Kerbau wells, Mahakam Delta, Indonesia. Revue Institut Francais Petrole (IFP) 45, p. 173-195.
(online at: https://www.researchgate.net/publication/276274217_Oil_saturation_and_primary_migration_observations_in_shales_and_coals_from_the_kerbau_wells_Mahakam_delta_Indonesia)
(Discussion of mechanics of oil formation, expulsion and migration. Kerbau 1-4 wells in S part of Mahakam delta penetrated Miocene deltaic section, at flank of Handil Field structure, down to ~500m into zone of oil generation. Slight differences in composition between oil generated from coal and form shales. Hydrocarbon productivity higher for coals at equivalent maturity stages. Etc.)

Durand, B. & J.L. Oudin (1980)- Exemple de migration des hydrocarbures dans une serie deltaique: Le delta de la Mahakam, Kalimantan, Indonesie. Proc. 10th World Petroleum Congress, Bucharest 1979, 2, WPC-18101, p. 3-11.
('Example of hydrocarbon migration in a deltaic series: the Mahakam Delta, Kalimantan'. Organic matter from Mahakam Delta Sediments is of terrestrial. Maturation in hydrocarbon fields too low to be source rock, which is located deeper. Migration is of recent age (<5 Ma) and contemporaneous with structuring. Hydrocarbons formed in overpressured zone. Migration yield may be over 10%. Etc.)

Dutrieux, E. (1991)- Study of the ecological functioning of the Mahakam delta (East Kalimantan, Indonesia). Estuarine, Coastal Shelf Science 32, 4, p. 415-420.
(Ecological functioning of Mahakam delta controlled by balance between influx of seawater during high tides and influx of continental water. Marine populations pronounced upstream to downstream zonation. Intermediate zones poor; richest near river mouth. Controlled mainly by physical factors, like salinity)

Duval, B. (2012)- Creative thinking led to 40 years of success in Mahakam, Indonesia. AAPG International Conference Exhib., Singapore 2012, Search and Discovery Article 20185, p. 1-41. *(Presentation)*

(online at: www.searchanddiscovery.com/documents/2012/20185duval/ndx_duval.pdf)
(Review of discovery of oil-gas fields in Mahakam delta since early 1970's)

Duval, B.C., C. Cassaigneau, G. Choppin de Janvry, B. Loiret & L.M. Alibi (1998)- Technology and exploration efficiency in the Mahakam delta province, Indonesia. Proc. 15th World Petroleum Congress, Beijing 1997, 2, p. 187-200.

Duval, B.C., C. Cassaigneau, G. Choppin de Janvry, B. Loiret, M. Leo, Alibi & Y. Grosjean (1998)- Impact of the petroleum system approach to exploration and appraisal efficiency in the Mahakam Delta. Proc. 26th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 277-290.
(New petroleum system model to identify stratigraphic targets near identified kitchens. Peciko recognized as new giant gas- condensate field. Understanding trapping model and hydrodynamic component key factor. Sedimentological studies with pressure measurements greatly contributed to field model. Thin sand reservoirs more continuous than expected. Peciko model applied to Tunu field lead to spectacular reserve additions)

Duval, B.C., G. Choppin de Janvry & B. Loiret (1992)- Detailed geoscience reinterpretation of Indonesia's Mahakam Delta scores. Oil and Gas Journal, August 10, 1992, p. 67-72.
(Brief review of Mahakam Delta petroleum geology/ petroleum system, based on OTC presentation)

Duval, B.C., G. Choppin de Janvry & B. Loiret (1992)- The Mahakam delta province: an ever changing picture and a bright future. Proc. 24th Annual Offshore Technology Conference (OTC), Houston, OTC 6855, p. 393-404.
(Mahakam Delta oil exploration started in 1888, with field geological investigations near oil and gas seepages. First oil discoveries at Sanga Sanga (1897) and Samboja (1909) in uplifted M Miocene sands. In 1970's several giant gas-oil fields discovered offshore. By 1985, proven and probable initial reserves ~2.6 GBO and 20-30 TCF gas.)

Dwiantoro, M., S. Notosiswoyo, K. Anggayana & A.H. Widayat (2013)- Paleoenvironmental interpretation based on lithotype and macerals variation from Ritan's lignite, Upper Kutai Basin, East Kalimantan. Procedia Earth Planetary Science 6, p. 155-162.
(online at: https://www.researchgate.net/publication/257728983_Paleoenvironmental_Interpretation_based_on_Lithotype_and_Macerals_Variation_from_Ritan's_Lignite_Upper_Kutai_Basin_East_Kalimantan)
(Composition of Miocene lignites from Ritan area, Upper Kutai Basin, E Kalimantan. Dominant maceral group huminite (28-79%), liptinite (20-31.5%), inertinite group (6.5- 12%). Vitrinite Reflectance of huminite 0.23-0.35% (transition stage from peat to lignite))

Dwiantoro, M. & Sundoyo (2018)- An initial study to investigate generating hydrocarbon potential of Tertiary Coals from Balikpapan and Pulaubalang Formations in Lower Kutai Basin, East Kalimantan, Indonesia. Proc. Int. Conference Earth Science, Mineral, and Energy, Yogyakarta 2018, IOP Conference Series: Earth and Environmental Science 212, 012018, p. 1-10.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/212/1/012018/pdf)
(M-L Miocene coal from Balikpapan and Pulaubalang Fms in Embalut Coalfield in Lower Kutai Basin, suggest av. TOC of 51% and ~59%, low thermal maturity and common Type III kerogen as potential gas source)

Easwara, I.M., D.S. Ambarsari, S. Sukmono, S. Winardhi, E. Septama, P.D. Wardaya, V.I. Rossa et al. (2021)- Kutei Basin oil bearing sand reservoirs mapping using integrated seismic methods. Proc. 3rd Southeast Asian Conference on Geophysics (SEACG), Bandung 2020, IOP Conference Series: Earth and Environmental Science 873, 012050, p. 1-6.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/873/1/012050)
(Makassar Straits/ Kutai Basin mapping of two (Late Neogene?) upper slope channels in Sadewa Field from 3D seismic (oil reservoirs?))

Edwards, T. (2000)- Redevelopment of the Sembakung oilfield- NE Kalimantan. SEAPEX Press 5, 6, p. 30-38.
(Redevelopment of N Tarakan basin oil field)

Edwards, T. & R. Walia (2002)- Reinterpretation of the Sembakung oilfield, Kalimantan, Indonesia utilizing modern 3D seismic data. In: Canadian Soc. Exploration Geophysicists (CSEG) 2002 Geophysics Conv., p. 1-6. *(Extended Abstract).* *(online at: https://cseg.ca/assets/files/resources/abstracts/2002/Walia_R_Reinterpretation_of_the_Sembakung_CAS-1.pdf)*
(Sembakung field 1975 ARCO discovery onshore Tarakan (Tidung) basin, 80km N of Tarakan island, NE Kalimantan. 19 wells drilled until recent redevelopment. Producing since 1977 from stacked Miocene- Pliocene deltaic sands of Tabul Fm, in structurally controlled traps)

Ellen, H., M.M. Husni, U. Sukanta, R. Abimanyu, Feriyanto & T. Herdiyan (2008)- Middle Miocene Meliat Formation in the Tarakan Island, regional implications for deep exploration opportunity. Proc. 32nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA08-G-048, p. 1-20.
(Most hydrocarbon exploration in Tarakan Basin focused on shallow Upper Miocene-Pliocene deltaics of Tarakan and Santul Fms. In Bangkudulis and Sembakung Fields hydrocarbons in M Miocene Meliat Fm fluvial-deltaic clastics, 630m thick in Barat 1, and likely associated with sand-bearing slope fan facies overlying early lowstand basin floor fan E of island. Base Meliat Fm blocky sand above 16.5 Ma SB, tied to uplift event. Top is transgressive limestone (Kapal Lst))

Emata, W.M., C. Irawan, Y.R. Sinulingga, B. Irawan & Cue Kalimantan (2016)- Challenge and hydrocarbon potential of SN structure on Kutai Basin of East Kalimantan. In: Soc. Petroleum Engineers (SPE) Annual Caspian Technical Conference, Astana, SPE-182539-MS, p. 1-11.

Endharto, M.A.C. (1997)- Reservoir characteristic of sandstones in Kutai Basin and its tectonic setting of East Kalimantan. Geological Research Development Centre Bull. 21, p. 127-149.
(Three sandstone types in Miocene- Recent of Sanga-Sanga PSC in Kutai Basin: (1) E Miocene moderate quartz and lithics; (2) late E Miocene- early M Miocene (lateN7- early N10) volcanogenic, reflecting increase in volcanic activity in W Kalimantan 17- 14.5 Ma; (3) M and Late Miocene (mid N10- N18) high-quartz main reservoirs, reflecting sediment recycling after basin inversion event at 14.5 Ma)

Endharto, M. & A. Bachtiar (1993)- Tipe provenansi dan proses diagenesa batupasir Miosen Awal, Cekungan Kutai, Kalimantan Timur. Proc. 22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung. 2, p. 1044-1060.
(online at: https://www.iagi.or.id/web/digital/53/22nd-Volume-2-(6-9-Des-1993)-442-458.pdf)
('Provenance type and diagenetic processes of Lower Miocene sandstone, Kutei Basin, E Kalimantan'. QFL diagrams suggest 'Recycled orogen'-type provenance for E Miocene Bebulu and Pemaluan sandstones in Sanga-Sanga Block)

Erdi, A., C.A.L. Jackson & J.I. Soto (2023)- Extensional deformation of a shale-dominated delta: Tarakan Basin, offshore Indonesia. Basin Research 35, 3, p. 1071-1101.
(online at: https://onlinelibrary.wiley.com/doi/epdf/10.1111/bre.12747)
(Seismic interpretation over platform region of Tarakan Basin shows up to 74km long normal faults, dipping mainly basinward (E) and locally landward (W), which detach downwards on basal mobile E-M Miocene shale. Base of mobile-shale unit dips seaward (<17°), although older (Eocene-E Miocene), rift-related normal faults formed local structural highs, deforming base of mobile shales. Supra-shale normal faulting started in M Miocene. Updip growth faulting accompanied by downslope growth of margin-parallel shale anticlines. Etc.)

Erriyantoro, E.S., N.I. Basuki, R. Heryanto, L.D. Santy (2011)- Provenance of the Kantu Formation Sandstones, Nanga Kantu Area, Ketungau Basin, West Kalimantan. Proc. 35th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA11-SG-038, p.
(Provenance of Kantu Fm sandstones in Nanga Kantu area, Ketungau Basin, W Kalimantan, most likely from Late Jurassic- E Cretaceous Kapuas Complex/ Lubok Antu Melange and E Cretaceous- M Eocene Rajang Group located N-NE of Ketungau Basin, which were deformed and uplifted by end- Eocene Sarawak Orogeny)

Fardiansyah, I., A. Budiman & C. Prasetyadi (2010)- Identifying rock compressibilities influenced on delta facies at Simpang Pasir Area, Samarinda Seberang, Kutei Basin and its related to reservoir characterization. Proc. 34th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA10-SG-011, p. 1-18.

Farizi, F. (2013)- Analisis potensi shale gas Formasi Tanjung, Cekungan Barito, Kalimantan Selatan. Geological Engineering E-Journal 5, 1, p. 74-83.
(online at: https://ejournal3.undip.ac.id/index.php/geologi/article/view/5814)
('Analysis of shale gas potential in the Tanjung Formation, Barito Basin, South Kalimantan' 100m of shale buried at 2000m with recoverable gas resources of 18.4TCF))

Febriadi, E. (2010)- PT Arutmin discovery of South Kalimantan coal. In: N.I. Basuki & S. Prihatmoko (eds.) Proc. MGEI-IAGI Seminar Kalimantan coal and mineral resources, Balikpapan 2010, p. 27-48.
(Description of coal exploration by PT Arutmin and geology of Eocene and M-L Miocene of Asem Asem and Pulau Laut sub-basins. Company started as affiliate of ARCO/ Utah in 1981, sold to BHP in 1987. Senakin coal mine exploited since 1988. Apparently mainly based on unpublished report of Friederich (1985))

Febrian W.A. & B. Sapiie (2013)- Tectonic inversion impact to coal cleat characteristics of Tanjung Formation, Karangintan Area, Barito Basin, South Kalimantan. Proc. 37th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA13-SG-049, p. 1-18.

Felix, J. (1921)- Fossile Anthozoen von Borneo. Palaontologie von Timor, Schweizerbart, Stuttgart, 9, 15, p. 1-61.
('Fossil corals from Borneo'. Miocene corals from outcrops in four areas of Kutai Basin, collected by BPM geologists)

Ferguson, A.J. (2016)- Kutai Basin exploration: past and future, an example of the use of simpe play types and serendipity for successful exploration and develoment. Proc. IPA 2016 Technical Symposium, Indonesia exploration: where from- where to, Indonesian Petroleum Association (IPA), Jakarta, 32-TS-16, p. 1-17.
(Kutai Basin mature basin, with high success rates drilling on surface anticlines, many of which are inversions of growth faults in delta systems. Two main remaining play types are stratigraphic traps along flanks of structural highs (e.g. Tunu) and drilling for isolated pressure compartments in overpressure zone)

Ferguson, A. & K. McClay (1997)- Structural modelling within the Sanga Sanga PSC, Kutei Basin, Kalimantan: its implication to paleochannel orientation studies and timing of hydrocarbon entrapment. In: J.V.C. Howes & R.A. Noble (eds.) Proc. Int. Conference Petroleum Systems of SE Asia and Australia, Indonesian Petroleum Association (IPA), Jakarta, p. 727-743.
(Sanga Sanga PSC four large fields in M and U Miocene deltaic sandstones in NNE-trending structures of Mahakam fold belt. Gravity glide and strike-slip models do not simulate observed structures; thrusting, inverted extensional faults and differential load models only partially simulate structures. Preferred combined tectonic model for Mahakam fold belt is inversion of delta growth faults to form inverted graben structures, termed inverted delta growth fault model. Change from overall extension to contraction started at 14.0 Ma. Structures trending NNE are close to perpendicular to applied stress and become inverted)

Feriansyah, L.T., J.L.C. Chambers, S.H. Dewantohadi, M. Syaiful, Priantono & D.N. Imanhardjo (1999)- Structural and stratigraphic framework of the Palaeogene in the northern Kutei Basin East Kalimantan. Proc. 27th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 443-455.
(Kutei basin 4 phases: (1) M-L Eocene extension; (2) L Eocene- Oligocene sag; (3) L Oligocene- E Miocene renewed extension/ subsidence; (4) E Miocene- Recent delta progradation coincident with older depocenters inversion; axis of deformation moves progressively E with time. Rapid facies variations in small extensional depocenters (~20 km wide, up to 70 km long). Intrabasinal highs with thin clastics or limestones. More regional depocenter in post-rift phase, beginning end-Late Eocene. Inversion process created two deformation styles: (1) inversion anticlines in Paleogene; (2) detached tight anticlines in thick Neogene. Detached section same amount of shortening (10-15%) as deeper inverted section)

Fernandes, H. & Djuhaeni (2018)- Analisis stratigrafi sikuen interval Pliosen pada lapangan Bunyu Tapa, Kalimantan Utara. Bulletin of Geology (ITB) 2, 1, p. 175-196. *(online at: https://buletingeologi.com/index.php/buletin-geologi/issue/view/4/Paper-4%20vol.%202%20no.%201)*
('Sequence stratigraphy analysis of the Pliocene interval at Bunyu Tapa field, North Kalimantan'. Pliocene Tarakan Fm in Bunyu Tapa oil field in N Kalimantan can be subdivided in 5 delta plain-dominated sequences)

Fikri, H.N., R.F. Sachsenhofer, A. Bechtel & D. Gross (2022)- Organic geochemistry and petrography in Miocene coals in the Barito Basin (Tutupan Mine, Indonesia): evidence for astronomic forcing in kerapah type peats. Int. J. Coal Geology 256, 103997, p. 1-27.
(online at: https://www.sciencedirect.com/science/article/pii/S0166516222000738)
(Extensive M-L Miocene coal seams in Miocene Warukin Fm in Barito Basin. Net thickness of subbituminous-C coal seams in Adaro Tutupan mine >100 m. Coals in seams T110 (46 m thick) and T210 (24 m) low in ash and sulphur, suggesting formation in ombrotrophic mire. Seam T300 (24 m) more detrital minerals, likely formed in rheotrophic and ombrotrophic settings. Angiosperms (incl. dipterocarps) dominated forest swamp vegetation; presence of gymnosperms indicates coal formation occurred in kerapah (watershed) type peat. Geochemical cyclicity in T110 and T210 seams, possibly controlled by climatic fluctuations driven by precession index (17-24 kyr). Huminite most important maceral group; resinite, cutinite, fluorinite and suberinite also abundant)

Fikri, H.N., R.F. Sachsenhofer, A. Bechtel & D. Gross (2022)- Coal deposition in the Barito Basin (Southeast Borneo): The Eocene Tanjung Formation compared to the Miocene Warukin Formation. Int. J. Coal Geology 263, 104117, p. 1-22.
(online at: https://www.sciencedirect.com/science/article/pii/S0166516222001938)
(Coal seams of Late Eocene Tanjung Fm and M Miocene Warukin Fm long known from Meratus front of Barito Basin. Seams laterally continuous and can be traced over >20 km. Thickness of three Eocene seams in TAJ Pit–1D mine 1.4- 3.4 m. Eocene coals deposited in rheotrophic mires with palm/ fern-dominated vegetation. Upward increasing sulphur contents in seams D and B reflect transgression, which ended peat accumulation. M Miocene coals much thicker (up to 50 m) and accumulated in ombrotrophic mires dominated by decay resistant angiosperm trees, so preserved plant tissues more abundant in Miocene coals. Leaf–derived macerals (cutinite, fluorinite) and resinite ubiquitous in Miocene coals, but slightly more abundant in Eocene coals. Part of resinite in Miocene coals derived from dammar resin produced by Dipterocarpaceae)

Fikri, H.N., R.F. Sachsenhofer, A. Bechtel & D. Gross (2023)- Organic geochemistry and petrography of Miocene ombrotrophic coals in the tropical Asem-Asem Basin (Kalimantan, Indonesia): Comparison to coeval subtropical coals in the Eastern Alps. Austrian J. Earth Sciences 116, 1, p. 85-107.
(online at: https://sciendo.com/article/10.17738/ajes.2023.0004)
(M Miocene Warukin Fm in Asem-Asem Basin (SE Kalimantan) contains 20m-thick BL1 coal seam that is mined in Jumbang open pit mine. Comparison with same-age tropical coals from Tutupan mine in Barito Basin (Kalimantan) and M Miocene ~15 Ma subtropical coal frome Leoben Basin in Eastern Alps (Austria). All coals formed in ombrotrophic peatlands. Low-ash, low-sulphur BL1 seam deposited in ombrotrophic coastal mire, with locally increased sulphur in lower part suggesting brackish influence. Vegetation includes abundant dammar resin producing Dipterocarpaceae. Tutupan seams formed in kerapah (inland) ombrotrophic mires, with slightly higher gymnosperm-derived diterpenoids and lower cadinane-type biomarkers. Leoben coal much higher gymnosperm-derived biomarkers and lower resinite due to absence of Dipterocarpaceae. Etc.)

Fitriadi, Z., D. Nugroho & N.I. Basuki (2017)- Studi tipe batuan dan pemodelannya di Blok X, Cekungan Barito. Bulletin of Geology (ITB) 1, 1, p. 65-76.
(online at: http://buletingeologi.com/index.php/buletin-geologi/issue/view/2/09_BG201621)
('Study of rock types and modeling in Block X, Barito Basin'. Interpretation of fluvial depositional facies of (Eocene) Lower Tanjung Fm in wells of Tanjung Field, Barito Basin, SE Kalimantan. Highest porosity-permeability in channel and point bar sands)

Friederich, M.C., T.A. Moore, M.S.W. Lin & R.P. Langford (1995)- Constraints on coal formation in Southeast Kalimantan, Indonesia. Proc. 6th New Zealand Coal Conference, Wellington, 1, p. 137-149.

(SE Kalimantan Eocene coal significantly different from Miocene coal. Eocene coals thinner, laterally continuous, formed from palm/fern vegetation in transgressive setting, creating near-coastal peats as water table rose, and were terminated as sea transgressed over peat. Miocene coals formed in freshwater sequence, locally thick, sudden lateral thickness changes and very low ash and sulphur. Miocene coal component of decay-resistant woody vegetation, Eocene palm/fern coal more susceptible to decay. Miocene coal beds formed as domed peats, which contributed to erratic thickness changes and locally thick coal)

Fukasawa, H., R. Sunaryo & R.H. Napitupulu (1987)- Hydrocarbon generation and migration in the Sangatta area, Kutei Basin. Proc. 16th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 123-139.
(Sangatta field 1939 BPM discovery N of Mahakam delta. Oils tied to M Miocene Balikpapan Fm shales)

Furlan, S., S. Chaudhuri, N. Clauer & F. Sommer (1995)- Geochemistry of formation waters and hydrodynamic evolution of a young and restricted sedimentary basin (Mahakam Delta Basin, Indonesia). Basin Research 7, 1, p. 9-20.
(Chemical and isotopic data on formation waters of oil-fields from Mahakam Delta provide information about mass transfers in sedimentary sequence. Depletions in Ca, Sr and K, etc., in waters related to illitization of smectite, precipitation of carbonate minerals and dissolution of K-feldspar and precipitation of albite)

Furlan, S., N. Clauer, S. Chaudhuri & F. Sommer (1996)- K transfer during burial diagenesis in the Mahakam Delta basin (Kalimantan, Indonesia). Clays & Clay Minerals 44, 2, p. 157-169.
(In Mahakam delta basin Potassium necessary for illitization of illite/smectite mixed-layer minerals mainly from K-feldspar alteration in sandstones and from mica in shales. Most of K-feldspar alteration outside main zone of illitization, which is restricted to upper 2000m. Feldspar grains were altered below this depth, so illitization requires open sedimentary system)

Gallois, J.G.A. (1849)- Exploitatie der steenkolenmijnen op Borneo. Tijdschrift voor Nederlandsch-Indie 1849, 11, p. 335-339.
('Exploitation of the coal mines on Borneo'. Mainly report on recently opened Oranje Nassau coal mine at Pengaron, Barito Basin margin, SE Kalimantan (official opening in 1849). Operations at that time were directed by Von Gaffron. With cross-section showing >10 dipping coal seams)

Gangui, A., T. Rosaz, B. Lambert & D. Roy (2000)- Tectonic evolution of the South Mahakam area and its petroleum implications. AAPG International Conference Exhib. Abstracts, American Assoc. Petroleum Geol. (AAPG) Bull. 84, 9, p. 1428. *(Abstract only)*
(SE part of offshore Mahakam PSC influenced by extension, with E Eocene- early Late Miocene development of NW-SE (transtensional?) normal faults (Maruat, Sesumpu, Sepinggan faults), separating Kutei basin from Paternoster Platform. Associated E-W faults probably related to strike-slip component. Metulang Field is in M Miocene tilted (growth-) fault block. Late Miocene-Pliocene compression (N150-170) caused dextral strike-slip reactivation of main normal faults, causing fault block reactivation (Mandu structure) and "en-echelon" folds (Jumelai Field). Most hydrocarbon accumulations are along major fault migration pathways)

Gany, M.U.A., D. Suyadi & Widodo (1994)- Pengaruh karbonisasi terhadap kualitas batubara, Kotabangun-Kalimantan Timur. Proc. 23rd Annual Conv. Indonesian Association Geologists (IAGI), p. 1153-1159.
(online at: https://www.iagi.or.id/web/digital/54/51.pdf)
('Influence of carbonization on coal quality, Kotabagun, E Kalimantan. Coals in Samarinda area')

Garrigues, P., M.L. Angelin, R. De Sury, J.L. Oudin, M. Ewald (1985)- Etude de la distribution des monomethylphenanthrenes dans une serie de roches meres du delta de Mahakam (Indonesie). Comptes Rendus Academie Sciences, Paris, Ser. 2, 300, 15, p. 747-750.
('Study of distribution of monomethylphenanthrenes in a series of source rocks in the Mahakam Delta')

Garrigues, P., J. Bellocq, P. Albrecht, A. Saliot & M. Ewald (1987)- Etude des marqueurs biogeochimiques tri-, tetra-, et pentaaromatiques dans les sediments quaternaires et Pliocene superieur du delta de la Mahakam

(Indonesie). In: A. Combaz (ed.) Geochimie organique des sediments plio-quaternaires du delta de la Mahakam (Indonesie) - le sondage Misedor, Editions TECHNIP, Paris, p. 317-342.
('Study of tri-, tetra-, et pentaaromatic biogeochemical markers in Quaternary and Upper Pliocene sediments of the Mahakam Delta'. High levels of aromatic derivatives of higher plant constituents. No clear diagenetic evolution)

Garrigues, P., R. De Sury, M.L. Angelin, J. Bellocq, J.L. Oudin & M. Ewald (1988)- Relation of the methylated aromatic hydrocarbon distribution pattern to the maturity of organic matter in ancient sediments from the Mahakam Delta. Geochimica Cosmochimica Acta, 52, 2, p. 375-384.
(New maturation indices based on methyl-anthracenes,-chrysenes and -pyrenes presented, based on experiments on immature coal samples from well in Handil Field, Mahakam delta)

Garrigues, P., A. Saptorahardjo, C. Gonzalez, P. Wehrung, P. Albrecht, A. Saliot & M. Ewald (1986)- Biogeochemical markers in the sediments from Mahakam Delta. Organic Geochemistry 10, p. 959-964.
(Analysis of the tri-, tetra- and pentaaromatic hydrocarbon fractions of sediments from well W of Handil field, Mahakam Delta, indicate predominance of biogeneic polycyclic aromatic hydrocarbons (PAH) diagenetically related to triterpenoid natural precursors (mainly from terrestrial land plant material))

Gastaldi, C., J.P. Biguenet & L. de Pazzis (1997)- A reservoir characterization from seismic attributes. An example from the Peciko Field (Indonesia). The Leading Edge 16, 3, p. 263-266.
(Seismic attributes used to map gas sand distribution in Peciko Field, 20 km S of Mahakam Delta, Reservoirs are Late Miocene (~10 Ma) distributary mouth bars deposited in distal delta front environment)

Gastaldo, R.A., G.P. Allen & A. Huc (1995)- The tidal character of fluvial sediments of the modern Mahakam River delta, Kalimantan, Indonesia. In: B.W. Flemming & A. Bartholoma (eds.) Tidal signatures in modern and ancient sediments, Int. Association of Sedimentologists (IAS), Special Publ. 24, Blackwell, Oxford, p. 171-181.
(Brief sedimentological description of low wave-energy, mixed tide- and fluvially controlled Mahakam delta complex. Medium- to fine-grained terrestrial sediment originates from 75 000 km^2 drainage area. Two active distributary systems, with interdistributary area of tidal channels and former fluvial distributary channels which today are no longer connected to fluvial regime)

Gastaldo, R.A. & A.Y. Huc (1992)- Sediment facies, depositional environments, and distribution of phytoclasts in the recent Mahakam Delta, Kalimantan, Indonesia. Palaios 7, 6, p. 574-590.
(Overview of distribution of sediments, vegetation and plant detritus in modern Mahakam delta)

Gautama, A.B. (1989)- Abnormal pressure behaviour with special emphasis on transition zone, Handil Field, East Kalimantan. Proc. 18th Annual Conv. Indonesian Association Geologists (IAGI), p. 135-160.

Gayet, J. & P. Legigan (1987)- Etude sedimentologique du sondage Misedor (delta de la Mahakam, Kalimantan, Indonesie). In: A. Combaz (ed.) Geochimie organique des sediments plio-quaternaires du delta de la Mahakam (Indonesie) - le sondage Misedor, Editions TECHNIP, Paris, p. 23-71.
('Sedimentological study of the Misedor well (Mahakam delta)')

Gerard, J. & H. Oesterle (1973)- Facies study of the offshore Mahakam area. Proc. 2nd Annual Conv. Indonesian Petroleum Association (IPA), p. 187-194.
(online at: https://www.academia.edu/24309586/FACIES_STUDY_OF_THE_OFFSHORE_MAHAKAM_AREA)
(First Miocene- Pliocene facies maps of Mahakam Delta. Mahakan Delta prograded E since M Miocene and reached maximum extent in Late Miocene- E Pliocene. Delta was bordered to S and N by carbonate sediments and limited to open sea by barrier reefs. Descriptions of deltaic subfacies and associated fauna)

Gerth, H. (1923)- Die Anthozoenfauna des Jungtertiars von Borneo. Sammlungen Geol, Reichs-Museums Leiden, ser. 1, 10, 3, p. 37-136.
(online at: www.repository.naturalis.nl/document/552385)

('The coral fauna of the Late Tertiary of Borneo'. Descriptions of ~120 species of Miocene- Pliocene coral from 52 localities in E Kalimantan and Sabah, from museum collections in Leiden, Utrecht, Basel, etc.)

Geyler, H.Th. (1877)- Ueber fossile Pflanzen von Borneo. Palaeontographica Supplement 3, 1, 2, p. 61-84.
(online at: http://sammlungen.ub.uni-frankfurt.de/botanik/periodical/pageview/5251665)
('On fossil plants from Borneo'. 13 new species of moderately well preserved Eocene flora collected by Verbeek from claystones associated with coal-bearing Tanjung Fm near Pengaron, SE Kalimantan. Eocene floras comparable to present-day tropical vegetation. Incl. Phyllites spp., Nephelium, Entoneuron, Carpites)

Geyler, H.Th. (1879)- Die Eocanformation von Borneo und ihre Versteinerungen. III. Ueber fossile Pflanzen von Borneo. Jaarboek Mijnwezen Nederlandsch Oost-Indie 8 (1879), 2, p. 3-54.
('The Eocene formation of Borneo. On fossil plants from the Eocene of Borneo'. Mainly on material collected by Verbeek from Tanjung Fm near Pengaron. Reprint of Geyler (1877) Palaeontographica paper)

Goulty, N.R. & A.M. Ramdhan (2010)- Overpressure in the Kutai Basin- a radical reappraisal. In: 72nd EAGE Conference & Exhibition, Barcelona 2010, F043, p. 1-5. *(Extended Abstract)*
(Kutai Basin/ Mahakam Delta overpressure encountered in U Miocene at depths of 3-4 km in shelf area. Main mechanism of overpressure generation was thought to be disequilibrium compaction. Mudrocks in area may not be undercompacted, but overcompacted.)

Granier B., J.M. Villain & R. Boichard (1997)- Biohermes holocenes a *Halimeda* au large du delta de la Mahakam, Kalimantan (Indonesie) - Le concept de "section condensee dilatee". In: F.G. Bourroulh-Le Jan (ed.) Carbonates intertropicaux, Memoires Societe Geologique France, n.s., 169, p. 225-230.
('Holocene Halimeda bioherms in front of the Mahakam Delta, Kalimantan- The concept of dilated condensed section')

Grosjean, Y., G.C. De Janvry & B.C. Duval (1994)- Discovery of a giant in a mature deltaic province: Peciko, Indonesia. Proc. 14th World Petroleum Congress, Stavanger, 2, p. 157-160.

Grosjean, Y., P. Zaugg & J.M. Gaulier (2009)- Burial hydrodynamics and subtle hydrocarbon trap evaluation: from the Mahakam Delta to the South Caspian Sea. Int. Petroleum. Technical Conf. (IPTC), Doha, IPTC 13962, p. 1-12.
(On 'Burial Hydrodynamic Trapping' of hydrocarbons in Mahakam Delta (examples Peciko and West Tunu Field). Water expulsion from thick shale section during burial created tilted gas-oil-water contacts, and offsets core of accumulation from anticlinal crest)

Grundy, R. J., D.W. Paterson & F.H. Sidi (1996)- Uplift measurements in Tertiary sediments of the Kutei Basin, East Kalimantan, Indonesia, as it relates to VICO Indonesia's PSC and the surrounding area. Int. Geophysical Conf., Soc. Exploration Geophysicists (SEG), Jakarta 1996, Expanded abstracts, p. 81-85.

Guritno, E.E. & J. Chambers (1999)- North Runtu PSC: the first proven Eocene petroleum play in the Kutai Basin. Proc. 27th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 1-20.
(Paleogene hydrocarbon system proven recently in onshore NE Kutai basin PSC, but uneconomic so far. Prospective areas exist in parts of Paleogene play fairway that have not suffered extensive uplift. System appears limited by reservoir quality in Eocene syn-rift sandstones, due to presence of common basaltic rock fragments, mica and other ductile material)

Guritno, E., W. Muller, D. Drajat & M. Purnama (2012)- The nature of the Mangkalihat Terrane, NE Borneo, Indonesia, Proc. 36th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA12-G-197, p. 1-13.
(Recent exploration well drilling inPopodi PSC (Anadarko) suggests basement of Mangkalihat High probably of oceanic/ophiolitic crust in nature, because Eocene synrift sands are composed of basaltic/ ultrabasic detritus. Outcrop of Pre-Tertiary ophiolite and sandy limestones with Albian- E Cenomanian Orbitolina on NE tip of peninsula. Ophiolite comprises gabbro, basalts and chert with calcite and quartz veins. This rock may represent N suture of Mangkalihat with the basement of Tarakan Basin to N)

Gwinn, J.W., H.M. Helmig & L. Witoelar Kartaadipoetra (1974)- Geology of the Badak field, East Kalimantan, Indonesia. Proc. 3rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 311-331.
(Badak large 1972 gas-oil discovery N of Mahakam Delta. Broad anticline with multiple stacked Late Miocene-Pliocene deltaic sandstones between 4500'- 11,000'. Estimated EUR 6 TCF gas, 50 MBO (see also Huffington & Helmig (1980) papers))

Habibi, M.R., Premonowati & B. Triwibowo (2015)- Geologi dan analisa fasies pengendapan Formasi Tabul berdasarkan data log dan seismik lapangan HSJ Cekungan Tarakan, Kalimantan Timur. Jurnal Ilmiah Geologi Pangea (UPN) 2, 1, p. 56-65.
(online at: https://jurnal.upnyk.ac.id/index.php/jig/article/download/5142/3710)
('Geology and depositional facies analysis of the Tabul Formation based on log and seismic data from the HSJ field in the Tarakan Basin, East Kalimantan'. Late Miocene- E Pliocene Tabul Fm clastics eposited in tide-domianted delta. Field and wells names probably fictitious; JTvG))

Hamdani, A.H., E. Sunardi & Y.A. Sanjaya (2014)- The Coalbed Methane potential from Sajau coal in eastern part of Berau Basin, East Kalimantan. Int. J. Science and Research (IJSR) 3, 3, p. 104-107.
(online at: https://www.ijsr.net/archive/v3i3/MDIwMTMxMDc5.pdf)
(Pliocene coal seams of Sajau Fm in Berau basin, lignite- subbituminous grade and categorized as high gaseous seams. with good CBM development potential)

Handoyo, K. (2003)- Sequence stratigraphy and reservoir heterogeneity of the Serang Field, Kutei Basin, Indonesia. M.Sc. Thesis, Colorado School of Mines, Golden, p. 1-175.
(online at: https://dspace.library.colostate.edu/bitstream/handle/11124/170544/T5727.pdf?sequence=1)
(Late Miocene sandstone reservoirs of offshore Unocal Serang Field (1973), NE of Mahakam Delta, with 10 facies associations. Sequence stratigraphic analysis showed three intermediate-term cycles, divided in short-term cycles. Overall landward-stepping, representing long-term base-level rise. Main reservoirs incised valley fills. Sediment sourced from paleo-Mahakam Delta. Younger cycles greater reservoir heterogeneity. Because of seaward-increasing mud content and bioturbation, rank of sediment bodies that act as reservoir in decreasing order: (1) fluvial/distributary channels, (2) distributary channels and (3) delta front bars)

Harahap, D. (1975)- Notes on log evaluation in the Badak Field, East Kalimantan, Indonesia. Geologi Indonesia (IAGI) 2, 2, p. 39-44.
(Badak Field reservoir rocks are Neogene sands deposited in deltaic environment. Shaliness common in pay sands and resistivity of formation waters varies from bed to bed)

Hartono A. & I. Saputra (2014)- Identifying carbonate play potential in Simenggaris Block, Tarakan Basin. Proc. 39th Annual Conv. Indonesian Association Geophysicists (HAGI), Solo, PIT2014-1174, p. 1-5.
(Hydrocarbon plays in Tarakan Basin generally in M Miocene-Pliocene deltaic sandstones, but potential for carbonate play in Simenggaris Block, as shown by 2000' of carbonate penetrated by PF1 well (1979))

Harun, M.R., B.N. Ardhiansyah & R.T. Putra (2017)- Warukin Deep- The hidden potential of Warukin Field, South Borneo: untouched reserves in mature field. Presentation at AAPG 2017 Asia Pacific Region Technical Symposium, Hidden potential in mature basins: play analogs and best practices, Bandung 2017, AAPG Search and Discovery Article 20409, p. 1-12.
(online at: https://www.searchanddiscovery.com/documents/2017/20409harun/ndx_harun.pdf)
(Warukin Field in N Barito Basin 1965, producing since 1965 from mid-Miocene M Warukin Fm fluvial deltaic sandstone reservoir. Deeper potential in Lower Warukin Fm, penetrated by only 2 of 49 wells in field)

Harun, M.R., R.T. Putra & B.N. Ardhiansyah (2017)- Analog play concept and geophysical study at Warukin field, unlocking hidden potential in mature field. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 70, p. 1-4.
(online at: https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_Analog-Play-Concept-and.pdf)

(Warukin Field in Barito basin small oil field SE of Tanjung field, producing from M-L Miocene M Warukin Fm since 1965 by Pertamina. Remaining potential in deeper zone, and in prospects between existing fields)

Hashimoto, W. (1973)- An unconformity discovered on the Tandjung anticline in the eastern rim of the Barito Basin, Kalimo Kalimantan Selatan, Indonesia. In: T. Kobayashi & R. Toriyama (eds.) Geology and palaeontology of Southeast Asia, University of Tokyo Press, 12, p. 179-188.
(NE Barito Tanjung anticline with 1200m thick Tanjung Fm (500m Eocene basal conglomerates, overlain by clastics, then Late Eocene/Tb limestones). Unconformity between Eocene Tb and Lower Oligocene Tc, characterized by basal Tc sand with thin coal and reworked Tab fauna on Tanjung anticline. In Kahajan wells Eocene/Tb directly overlain by Late Oligocene/Te. Tcd 295m thick in Tanjung area, thickening in Upper Mahakam region to 1800m. Berai Lst 650m thick and mostly Lower Te/ Late Oligocene)

Hashimoto, W. (1974)- Supplementary notes to 'The oil geology of East Kalimantan' by K. Masatani. J. Japanese Association for Petroleum Technology 39, 2, p. 79-94. *(in Japanese)*
(online at: www.jstage.jst.go.jp/article/japt1933/39/2/39_2_79/_pdf)
(Supplement to Masatani (1967) paper on oil geology of E Kalimantan, focusing on geologic development of Meratus Range and E margin of Barito Basin. Cretaceous Manunggul Gp begins with basal conglomerate. Orbitolina identified as Aptian O. lenticularis and overlain by Turonian fossil-bearing formation. Several unconformities in Tertiary of Tanjung oilfield and Meratus front. Kahajan well (W margin Barito basin) Te limestone directly on Eocene Tab, so 'Tcd' reduced thickness to absent S, but thickening to N (1800m in Upper Mahakam region))

Hashimoto, W., K. Kurihara & F. Masuda (1973)- A study on some reticulate *Nummulites* from Kalimantan Selatan, Indonesia. In: T. Kobayashi & R. Toriyama (eds.) Geology and Palaeontology of Southeast Asia, University of Tokyo Press, 13, p. 73-90.
(Biometric study of E Oligocene Nummulites (N. fichteli, N. intermedia) from two zone Tc localities in SE Kalimantan: (1) 'Masoekoe Limestone' near kampong Masukou on N flank of Tandjung oil field anticline and (2) kampong (village) Tunggul Baru, right bank of Riam Kawa River, S of Pengaron. Large microspheric forms previously described as N. intermedius, megalospheric forms are of Nummulites fichteli type)

Hashimoto, W. & K. Matsumaru (1973)- *Nephrolepidina parva* Oppenoorth from the Dahor area, Tandjung, Kalimantan Selatan, Indonesia. In: T. Kobayashi & R. Toriyama (eds.) Geology and Palaeontology of Southeast Asia, University of Tokyo Press, 11, p. 129-136.

Hayashi, Y., T. Inage, I. Suzuki & H. Nagura (1996)- Exploration history and trapping mechanism of Peciko gas field, East Kalimantan, Indonesia. J. Japanese Association for Petroleum Technology 61, 1, p. 25-34.
(online at: https://www.jstage.jst.go.jp/article/japt1933/61/1/61_1_25/_pdf)
(In Japanese with English summary. Peciko gas field in offshore S Mahakam delta. Distribution of gas zones not controlled by distribution of sandstone layers, but by hydrodynamic trapping mechanism related to expulsion of compaction water in prodelta muddy facies E and S of Peciko gas field)

Hehanussa, P.E. (1981)- Basic data from Barito delta, south Kalimantan, Indonesia. LGPN-LIPI, Bandung, p. 1-21.

Hemmes, K., H. Darman, L. Suffendy & Meizarwin (2000)- Depositional systems of the deep-water Tarakan Basin, Indonesia. Proc. 2000 AAPG International Conference Exhib., Bali 2000, 1p. *(Abstract only)*
(Tarakan Basin passive continental margin with Late Eocene-Recent sediments on continental to oceanic crust, created during M-L Eocene opening of Celebes Sea. M Miocene uplift of Borneo hinterland uplift triggered massive influx of turbidites in deep-water area, deposited as fans in front of Tarakan delta and buried by rapidly prograding Plio-Pleistocene Tarakan Delta slope deposits. Potential reservoir systems in deepwater unconfined toe of slope fans, confined intra-slope fans and intra-slope channel-levee systems)

Hemmes, K., H. Darman, L. Suffendy & Meizarwin (2001)- Depositional systems of the deep-water Tarakan Basin, Indonesia. In: A. Setiawan et al. (eds.) Deep-water sedimentation of Southeast Asia, Proc. 2nd Regional Seminar Indonesian Sedimentologists Forum (FOSI), Jakarta, p. 1-4. *(Extended Abstract)*
(Tarakan Basin passive continental margin with Late Eocene-Recent sediments on continental to oceanic crust, created during M-L Eocene opening of Celebes Sea. Rifting ceased in E Oligocene with quiet marine conditions until M Miocene when uplift of Borneo hinterland triggered massive influx of turbidites in deep-marine area, deposited as unconfined toe of slope fans ahead of prograding Tarakan delta. In Plio-Pleistocene deep water fans buried by rapidly prograding delta-slope deposits, which triggered gravity-driven toe thrusting. Small intra-slope basins formed between thrust ridges. In S part of delta, W-dipping normal faults limited progradation, resulting in excessive thickening of Pliocene-Pleistocene deltaic sequence and limiting sediment influx into deep-water area. Several potential deep-water reservoir systems: (1) unconfined toe of slope fans, (2) confined intra-slope fans, and (3) intra-slope channel-levee systems)

Hendrawan, E. Kurniawan, Y. Purwanti,A. Bachtiar & D. Apriadi (1998)- Pemelajaran sedimentologi dari Singkapan batuan Miosen di Cekungan Kutai, Kalimantan Timur. Proc. 27th Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta 1998, Sedimentology, Paleont. Stratigr., 2, p. 1-15.
(online at: https://www.iagi.or.id/web/digital/56/27.pdf)
('Sedimentological study of Singkapan Miocene rocks in the Kutai Basin'. Brief summary of 49 outcrops of Miocene fluvial- delta plain- delta front deposits in onshore Mahakan area.)

Heo, W., W. Lee and D.S. Lee (2015)- Hydraulic fracturing design for coalbed methane in Barito Basin, Indonesia. Geosystem Engineering 18, 3, p. 151-162.

Herdiyanto, R., J.A. Siadary & D. Fadlan (2018)- Complexity of pore pressure and stress analysis in Mahakam median axis of the lower Kutai Basin, Kalimantan, Indonesia. Proc. 42nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA18-144-G, p. 1-14.

Heriawan, M.N. (2007)- Spatial characterization and geological modelingof heterogeneous resource quality in a multiplayer coal deposit. Ph.D. Thesis Kumamoto University, p. 1-121.
(online at: http://reposit.lib.kumamoto-u.ac.jp/bitstream/2298/9145/1/21-157.pdf)
(Geologic modeling of distribution and quality of multi-layer coal deposit from Lati Coal Mine, Tanjung Redeub, S part of Tarakan Basin (Berau), NE Kalimantan). Coal horizons in ~1800m thick M Miocene Berau (Latih) Fm, dominantly delta plain facies, overall progradational series. In Lati area 19 coal seams, individual thickness generally 0.5- 3 m, max. 5.8m. Comparison work on Barito Basin Eocene Tanjung Fm coal)

Heriawan, M.N. & K. Koike (2008)- Identifying spatial heterogeneity of coal resource quality in a multiplayer coal deposit by multivariate geostatistics. Int. J. Coal Geology 73, 3-4, p. 307-330.
(Geostatistical characterization of geometry and quality of multilayer coal deposit in E Kalimantan)

Heriawan, M.N. & K. Koike (2008)- Uncertainty assessment of coal tonnage by spatial modeling of seam distribution and coal quality. Int. J. Coal Geology 76, 3, p. 217-226.
(On spatial modeling of coal seam distribution and coal quality at multiplayer coal deposit in E Kalimantan)

Heriawan, M.N., J. Rivoirard & Syafrizal (2004)- Resources estimation of a coal deposit using ordinary block kriging. Proc. 13th Int. Symposium Mine Planning and Equipment Selection, Wroclaw, Poland, p. 37-43.
(On Tarakan Basin Eocene coal)

Heriyanto, N., A. Nawawi, A.D.M. Mason, F.T. Ingram, D.E. Pedersen & R.C. Davis (1996)- Exploratory update in the North Tanjung Block, South Kalimantan. Proc. 25th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 55-68.
(Results of Permin Tracer 1993-1995 exploration in N Tanjung Block, NE Barito basin. Wells Patas 1 and Ngurit 1 with oil and gas shows. Muya 1 well high-wax oil that can not be produced. Exploration success depends on early formed structures that remained intact after subsequent episodes of structuring)

Heriyanto, N., W. Satoto & S. Sardjono (1991)- Pematangan hidrokarbon dan hipotesa migrasi di Pulau Bunyu, cekungan Tarakan. Proc. 20th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 261-280.
(online at: https://www.iagi.or.id/web/digital/49/20th-(10-12-Des-1991)-18.pdf)
(Maturation of hydrocarbons and hypothesis of migration in Bunyu Island, Tarakan Basin'. Similar to Heriyanto et al. 1992. With map of Top oil window of Tarakan subbasin, wells correlations, etc.)

Heriyanto, N., W. Satoto & S. Sardjono (1992)- An overview of hydrocarbon maturity and its migration aspects in Bunyu Island, Tarakan Basin. Proc. 21st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 1-22.
(Geochemical data in Bunyu Island show gentle rise on top oil window from Bunyu field in SE to Tapa Field in NW. Water-washing of oil in Bunyu field (largest oil field). At Tapa major gas field, hydrocarbon altered by fractionation. Bunyu hydrocarbons from fluvio-deltaic source rocks; Tapa gas from shallow lacustrine- estuarine source. Differences of hydrocarbon type controlled by T gradient, higher in NW than SE. Hydrocarbon migration controlled by tectonic framework and position during Mio-Pliocene tectonism. Basement called Danau Fm. M Miocene regressive deltaics unconformably over E Miocene marine Naintupo Fm, formed after E Miocene tectonism (~N9-N10 unc.?))

Heriyanto, N. & M. Wahyudin (1994)- Reflectance gradient and shale compaction, their relationship to basin configuration during Early Neogene: a NE Kalimantan basin reassesment. Proc. 23rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 2, p. 927-943.
(online at: https://www.iagi.or.id/web/digital/54/31.pdf)
(In Indonesian. Relationships between thermal history, shale compaction and seismic shale velocity in Tarakan Basin. Thermal history in platform area dominated by Neogene intrusions, within main depocenters controlled mainly by sediment burial. Basement at Bangkudulis-1 well M Eocene basalt (43.9 ± 1.30 Ma))

Herwin, H., E. Cassou & H. Yusuf (2007)- Reviving the mature Handil Field: from integrated reservoir study to field application. SPE Asia Pacific Oil and Gas Conference Exhib. (APOGCE), Jakarta 2007, SPE-11082, p. 1-7.
(Giant Handil field in Mahakam Delta was developed by more than 350 wells in 555 accumulations. Field production declining from 200,000 BOPD in late '70s to 12,500 BOPD in 2003. Workover campaigns and horizontal development wells increased production to 23,000 BOPD today)

Heryanto, R. (1993)- Neogene stratigraphy of Kalimantan. Bull. Geological Research Development Centre (GRDC), Bandung, p. 82-91.

Heryanto, R. (2008)- Paleogeografi Cekungan Tersier Barito, Kalimantan. Proc. 37th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 238-257.
(online at: https://www.iagi.or.id/web/digital/14/2008_IAGI_Bandung_Paleogeografi-Cekungan-Tersier.pdf)
('Paleogeography of the Tertiary Barito Basin, Kalimantan'. Overview of Barito basin Tertiary stratigraphy and sketches of Barito Basin paleogeography in Eocene, Oligocene, Miocene and Plio-Pleistocene)

Heryanto, R. (2009)- Karakteristik dan lingkungan pengendapan batubara Formasi Tanjung di daerah Binuang dan sekitarnya, Kalimantan Selatan. Jurnal Geologi Indonesia 4, 4, p. 239-252.
(online at: www.bgl.esdm.go.id/dmdocuments/jurnal20090402.pdf)
('Characteristics and depositional environments of Tanjung Fm coal in the Binuang area, S Kalimantan'. Eocene Tanjung Fm at E margin Barito Basin unconformably overlain by Plio-Pleistocene Dahor Fm. Coarse sst-conglomerate in lower part, mudstone with coals and sandstone in middle, and mainly mudstone in upper parts. Coal seams 50-350cm thick, with common vitrinite in all zones, inertinite highest in E Zone (14-16%). Vitrinite reflectance of coal in W and Middle Zones ~0.45%, in E Zone is 0.45-0.50%, all subbituminous B rank. Depositional environment of coals in W and Middle Zones was delta plain back mangrove- fresh water swamp, in E Zone flood plain wet fresh water swamp)

Heryanto, R. (2010)- Geologi Cekungan Barito. Geological Survey Indonesia (Badan Geologi), Bandung, Special Publ., p. 1-139.

('Geology of the Barito Basin'. Major review of Barito Basin stratigraphy, tectonics, hydrocarbons, coal, etc. Oldest rock in Meratus region is Permo-Carboniferous Lumo granite (319, 260 Ma). Also Jurassic and Cretaceous granites, Jurassic-Cretaceous metamorphic and ophiolitic rocks and Cretaceous sediments in Meratus Mts. Schwaner Mts: Pinoh Metamorphics with E Jurassic K-Ar age (189 Ma; biotite, C. Mouret 1987), Sepauk Tonalite 104-123 Ma (Aptian-Albian). Barito Basin widespread Tertiary deposits start with M-L Eocene coal-bearing Tanjung Fm rift deposits with sandstones ~75-85% quartz (mainly metamorphic provenance). Overlain by ~75-95m thick Berai Lst with Heterostegina borneensis, Miogypsinoides complanata, Spiroclypeus, etc. (= Lower Te, latest Oligocene). M-L Miocene coal-bearing Warukin Fm, followed by Late Miocene onset of Meratus Mts uplift. Etc.))

Heryanto, R. (2014)- Batubara Formasi Tanjung sebagai batuan sumber hidrokarbon di Cekungan Barito. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 15, 3, p. 105-111.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/51/53)
('The Tanjung Formation coal as a hydrocarbon source rock in the Barito Basin'. Coal seams in Eocene M Tanjung Fm in Kualakurun area 50-150 cm thick and potential oil-gas source rocks. Most coals humic and composed mainly of vitrinite (80-90%), with some exinite and inertinite and gas-prone. Some samples sapropelic, dominated by exinite (74%) and vitrinite (17%) and potential oil-prone source rock)

Heryanto, R. & U. Margono (2008)- The provenance and diagenesis of sandstone of the Eocene Tanjung Formation in the Kualakurun area, Central Kalimantan. Jurnal Sumber Daya Geologi (JSDG) 18, 5, p. 291-298.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/249/229)
(Kualakurun area in W margin of Barito Basin. Eocene Tanjung Fm sandstone subarkose, sublitharenite and felspathic litharenite. Grains dominantly quartz with some lithics and feldspar. Derived from Craton Interior and Recycled Orogen, from Pre- Tertiary of Schwaner Mts W of area. Diagenesis indicates paleo-temperature of 80-95° C and burial depth of 2-3 km)

Heryanto, R. & H. Panggabean (2004)- Fasies dan sedimentologi Formasi Tanjung di bagian barat, tengah dan timur tinggian Meratus, Kalimantan Selatan. Jurnal Sumber Daya Geologi (JSDG) 14, 3 (147), p. 78-93.
('Facies and sedimentology of the Tanjung Formation in western, central and eastern Meratus Mountains, South Kalimantan'. Lower and Middle parts of Eocene Tanjung Fm in fluvial facies, upper part in deltaic sandy facies and lagoonal claystone facies. Sandstones quartzose 'Recycled Orogen' provenance. Lithics include volcanics, metamorphics and chert. Paleocurrents from WNW to ESE, probably from Schwaner Mts or Sundaland (Remarkably little feldspar suggesting Meratus Late Cretaceous arc volcanics not source for Tanjung?; JTvG).)

Heryanto, R. & H. Panggabean (2011)- Provenance dan diagenesis batupasir Paleogen di daerah Purukcahu-Muarateweh, Kalimantan Tengah. Jurnal Sumber Daya Geologi (JSDG) 21, 6, p. 335-347.
(Provenance and diagenesis of the Paleogene sandstones in the Purukcahu- Muarateweh area, Central Kalimantan'. Area between Barito and W Kutai Basins. Eocene sandstones of Tanjung, Haloq and Batuayau Fms litharenites of recycled orogen provenance from Schwaner High Permo-Trias metamorphics and Cretaceous granites. Diagenesis suggests paleotemperature of 80-95°C, from depth of 2000- 3000m. Oligo-Miocene sst of Purukcahu and Karamuan Fms feldsphatic litharkose and litharenite, derived from magmatic arc of Malasan Volcanics and recycled orogenics of Schwaner High)

Heryanto, R. & H. Panggabean (2013)- Lingkungan pengendapan Formasi pembawa batubara Warukin di daerah Kandangan dan sekitarnya, Kalimantan Selatan. Jurnal Sumber Daya Geologi (JSDG) 23, 2, p. 93-103.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/93/87)
('Depositional environment of the coal-bearing Warukin Formation in the Kandangan area and surroundings, South Kalimantan'. Miocene Warukin Fm coals in Barito Basin 0.5- 12m thick (some up to 50m thick; JTvG). Macerals mainly vitrinite, less exinite/ liptinite and inertinite. Classified as wet forest swamp deposits)

Hickman, R.G., C. Stuart & T.P. Seeley (2000)- Evolution of the Kutei Basin, East Kalimantan, Indonesia. AAPG International Conference Exhib. Abstracts, American Assoc. Petroleum Geol. (AAPG) Bull. 84, 9, p. 1437-1438.
(Abstract only)

(Kutei basin sedimentation linked to tectonism. Eo- Oligocene rift basins on Cretaceous accretionary prism from E. Kalimantan to S. Sulawesi. Late Oligocene- earliest Miocene carbonate banks and reefs along shale-prone basins. In late E Miocene regional compression and formation of opposing thrust belts in Borneo and Sulawesi and Paleogene rifts were inverted. Uplifts supplied sediment to deltas prograding to present coast by early M Miocene. Continued shortening caused E-ward folding of Miocene deltaics. In Mahakam depocenter large, low relief detached folds at former shelf breaks. N and S of depocenter linked growth faults and toe thrusts. Right-lateral Sangkulirang Bay fault accommodates shortening between Borneo and Sulawesi)

Hidayat, S. (1995)- Mud volcanoes as an indication of geological structure in East Kalimantan, Indonesia. In: J. Ringis (ed.) Proc. 31st Session Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Kuala Lumpur 1994, 2, p. 267-281. *(online at: https://repository.unescap.org/server/api/core/bitstreams/4198bc42-86c9-49fe-843e-60aebea03e54/content)*
(Mud volcanoes on Samarinda anticlinorium (onshore of Mahakam delta). Mud samples with E Miocene (zone N6) planktonic forams, adjacent outcrops M Miocene age (zone N8). Probably caused by overpressure of shale by overthrusting)

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Hidayati, S., E. Guritno, A. Argenton, W. Ziza & I. Del Campana (2007)- Re-visited structural framework of the Tarakan sub-basin Northeast Kalimantan- Indonesia. Proc. 31st Annual Conv. Indonesian Petroleum Association, IPA07-G-109, p. 1-18.
(Tarakan sub-basin affected by E Eocene rifting creating stretched continental or transitional oceanic crust under main basin?), E Oligocene uplift, early M Miocene uplift (start of major deltaic deposition), Late Miocene growth faulting, Late Pliocene- Pleistocene compression. Stable area in W separated from Tarakan Basin depocenter by one major regional normal fault. Major growth fault nearshore linked to toe thrusts in deep water. NW-SE left lateral strike slip faults in basin believed to be continuation of Palu Koro fault system from Sulawesi, and has been active since Pliocene (~5 Ma). Major anticlines that set up Bunyu and Tarakan islands aligned in NW-SE direction, possibly formed above sinistral strike slip zones)

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(In Japanese with English summary. Peciko gas field in Mahakam Delta with tilted gas-water contact, caused by hydraulic gradient between adjacent hydrostatic domain and highly overpressured domain. Average flow rate in gas zone is slow, estimated at 3.1 mm/year)

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(Badak Field in Sanga Sanga PSC, Kutai basin, with 7 TCF gas. Upper G interval transgressive systems tract with generally thin (up to 50'), poor-quality limestone reservoirs interbedded with Miocene clastics. Typically overlie flooding surfaces)

Hooze, J.A. (1886)- Onderzoek naar kolen in de Berausche Landen ter Oostkust van Borneo. Kolenterrein van Goenoeng Sawar, idem over Poeloe Sepinang en dat van Goenoeng Taboer. Jaarboek Mijnwezen Nederlandsch Oost-Indie 15 (1886), Verhandelingen, p. 5-105.
('Investigation of coal in the Berau region, Borneo East coast: coalfields of Gunung Sawar, Pulau Sepinang and Gunung Tabur'. Report on survey work of coal deposits in 1882-1883 in 'Berau lands' of NE Kalimantan (SW part of Tarakan Basin. Gunung Sawar ~14 km SW of Sambaliung on Kaleh River with 11 coal beds in quartz sandstones, with total coal thickness of ~22m. Coalfield across Pulau Sepinang in Berau River also 11 coal beds, but coal closer to lignite and of poor quality. Gunung Tabur area 5 coal beds, total thickness ~7m)

Hooze, J.A. (1887)- Onderzoek naar kolen in het Rijk van Koetai ter Oostkust van Borneo. Jaarboek Mijnwezen Nederlandsch Oost-Indie 16 (1887), Verhandelingen 2, p. 5-94.
('Investigation of coal in the Kingdom of Kutai, East Kalimantan'. Report on coal terrains along Mahakam River above Samarinda, mainly near Batu Panggal. Several areas with 10-18 coal beds with cumulative thickness of 9-23 m)

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Hooze, J.A. (1888)- Onderzoek naar kolen in de Straat Laut en aangrenzende landstreken. Jaarboek Mijnwezen Nederlandsch Oost-Indie 17 (1888), Technisch Administratief Gedeelte, 2, p. 337-429.
('Investigation of coal in Laut straits and adjacent areas'. Fieldwork in Pulau Laut and Tanah Boemboe lands in 1881 by Menten and 1885 by Hooze. With detailed maps and cross-sections)

Hooze, J.A. (1888)- Kolen aan de oostkust van Borneo, van de St Lucia- tot aan de Pamoekan-Baai. Jaarboek Mijnwezen Nederlandsch Oost-Indie 17 (1888), Technisch Administratief Gedeelte, 2, p. 431-470.
('Coal along the East coast of Borneo, from the St Lucia Bay to the Pamukan Bay'. Four coal-bearing horizons: Eocene (Palau Laut, Martapura), Middle Miocene (Sanga-Sanga, Samarinda), Upper Miocene (Samarinda), Lower Pliocene (Balikpapan Bay))

Hotz, W. & L. Rutten (1917)- Geographisch-geologische Beschreibung des Kustengebietes von Koetei zwischen Bontang und dem Santan Fluss (Ost Borneo). Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 2, p. 243-248.
(online at: https://ia601301.us.archive.org/1/items/verhandelingenva2191geol/verhandelingenva2191geol.pdf)
('Geographical-geological description of the coastal area of Kutai between Bontang and the Santan River, E Borneo'. Early geological survey, reporting traverses-cross-sections of folded Miocene-Pliocene sediments)

Huffington, R.M. & H.M. Helmig (1980)- Discovery and development of the Badak field, East Kalimantan, Indonesia. In: M.T. Halbouty (ed.) Giant oil and gas fields of the decade 1968-1978. American Assoc. Petroleum Geol. (AAPG), Memoir 30, p. 441-458.
(Badak giant gas-oil field in Kutai Basin near coast of E Kalimantan, N of Mahakam Delta, 35 km NE of Samarinda, was discovered by Huffco in 1972 (later operated by Virginia Indonesia Co- VICO).Initial reserves >7 TCF gas, since 1977 exported as LNG at Bontang facility)

Huffington, R.M. & H.M. Helmig (1990)- Badak Field- Indonesia. In: AAPG Treatise on petroleum geology 17, Structural traps III: Tectonic fold and fault traps, American Assoc. Petroleum Geol. (AAPG), p. 265-308.
(Badak giant gas-oil field in Kutai Basin is >80km long, N-S trending, unfaulted anticlinal structure, with multiple M Miocene- Pliocene deltaic sandstone reservoirs, estimated reserves 6.5 TCF gas, 96 MB condensate and 47 MB Oil)

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(online at: https://jurnal.ugm.ac.id/jag/article/view/30255/18265)
(Nunukan Island, in Tidung sub-basin N of Tarakan, built mainly by Late Miocene Tabul Fm clastics, deposited in transitional environment. Apparent coarsening upward sequence (but biostrat suggesting inverted section?; JTvG). E coast Pliocene Tarakan Fm fluvio-deltaic conglomerates unconformable over Tabul Fm clastics, suggesting Pliocene and younger deformation/ uplift of paleo-Simengaris Delta (sinistral movement of NW-SE Semporna Fault?), contemporaneous with common basaltic volcanism over NE Borneo, including basaltic intrusions in N Nunukan)

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(online at: https://www.researchgate.net/publication/320826634_Sedimentology_and_Stratigraphy_of_Upper_Tarakan_Formation_Tarakan_Island_North_Kalimantan_Indonesia)
(Tarakan Fm prolific reservoir in Tarakan Basin, NE Kalimantan (since 1901 Pamusian discovery). Pliocene fluvio-deltaic succession 1000-3000m thick. Upper part exposed along spine of Tarakan Island. Outcrop deposits reflect half cycle of system tract. 24m thick studied outcrop section starts with highstand sequence quartz sandstones (distributary channel deposits), capped by bioturbated shales of lower delta plain. Followed by falling-stage polymict conglomerates (braided streams), Etc.)

Husien, N., S. Wahyuni, Erwin & A.S. Budi (2021)- Identification of fossil wood from Samarinda, East Borneo. Proc. Joint Symposium on Tropical Studies (JSTS-19), Advances in Biological Sciences Research 11, p. 253-257.
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(Mio-Pliocene Shoreoxylon petrified wood of Dipterocarpaceae family in Mugirejo village near Samarinda)

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(https://www.iagi.or.id/web/digital/3/2015_IAGI_Balikpapan_Evaluation-of-Paleogene-Potential.pdf)
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(Evaluation of reservoir prospectivity of Sangatta-Bungalun Block from basin modelling and petrophysics of wells Kariorang 1, Sembulu 1, Sekurau 1 and Batuhidup 1)

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(online at: https://www.iagi.or.id/web/digital/62/19.pdf)
('Development of Eocene- Oligocene submarine fans in the Benderang-Tapian Langsat area, Kutai Basin, East Kalimantan'. In Bungalun area of NE part of Kutai Basin Eocene-Oligocene Beriun Fm in bathyal marine facies with submarine fan sandstones (including Late Eocene planktonic foram Hantkenina spp)

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(online at: https://www.iagi.or.id/web/digital/53/22nd-Volume-2-(6-9-Des-1993)-528-538.pdf)
('Mapping of parasequence sets: a way of adjusting the resolution of geological models using seismic stratigraphy interpretation of deltaic sediments'. With examples and facies maps of Sangatta field, E Kalimantan)

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(online at: http://lib.geologi.ugm.ac.id/ojs/index.php/geo/article/view/10)
('Sandstone provenance of the Batu Ayau Fm of the Kutai Basin in the Ritanbaru area, E Kalimantan'. Batu Ayau Fm M Eocene syn rift deposit sandstone exposed in Ritanbar area. Provenance study shows sandstone dominated by volcanics, some metamorphic material and less chert. Provenance type is recycled orogen that changed to magmatic arc)

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(online at: https://www.jstage.jst.go.jp/article/japt1933/55/1/55_1_54/_article/-char/en)
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(online at: https://www.iagi.or.id/web/digital/10/2011_IAGI_Makassar_Tectonic-and-Structural.pdf)
(Sebatik and Nunukan Islands in NE part of Tarakan Basin explored but no discoveries. Oil and gas accumulations on Tarakan and Bunyu Islands first identified by seeps, with main traps NW-SE trending anticlines

that run through the center of each island and plunge to SE. Sebatik Island also dominated by major NW-SE anticlinal fold with high-angle reverse faults. Broader, more open fold may exist on Nunukan. At SE Sebatik Island, several oil seeps, most likely from source area offshore)

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(online at: https://www.mdpi.com/2075-163X/13/10/1259)
(Study of fluvio-deltaic Mentawir Fm in M Miocene Balikpapan Gp in 3 onshore wells in Mahakam Delta complex of Lower Kutai Basin, E Kalmantan. Composed of repeatedly occurring delta plain- delta front- prodelta cycles. Clay fractions consists of kaolinite (38-67%), illite (14-29%), chlorite (2–17%), and mixed-layer illite/smectite (14-30%). Kaolinite abundance indicates humid tropical rainforest hinterland with intensive chemical weathering conditions)

Jamaluddin, M. Wagreich, K. Schopfer, R.F. Sachsenhofer, Maria & D. Rahmawati (2024)- Hydrocarbon potential and depositional environment of the Middle Miocene Balikpapan Formation, lower Kutai Basin, Indonesia: Sedimentology, calcareous nannofossil, organic geochemistry, and organic petrography integrated approach. Int. J. Coal Geology 293, 104591, p. 1-19.
(online at: https://www.sciencedirect.com/science/article/pii/S0166516224001484)
(M Miocene Balikpapan Fm clastics exposed in Samarinda Anticlinorium in Lower Kutai Basin. Poor calcareous nannofossils with Sphenolithus heteromorphus in prodelta shale in Air Putih section indicate zones NN4-NN5 (~early M Miocene). Six fluvial-deltaic to shallow marine associations. Organic matter type III (gas-prone) and type II-III (mixed oil and gas prone) kerogen. Vitrinite reflectance 0.40–0.67% Rr, indicating sediments immature- marginal mature. Coal ranks sub-bituminous- high-volatile bituminous B)

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(Onshore Kutei Basin field with tilted gas-water contacts in most deep zone G reservoirs, connected to overpressured shales. Higher pressure gradient of water legs in flank provides hydrodynamic force to push GWC higher in one flank. Shallow E reservoirs unconnected to overpressured shales and have flat GWC)

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('High-resolution seismic in the Mahakam Delta'. Conventional seismic not adequate to study reservoir or stratigraphic traps in Mahakam Delta. High-resolution seismic techniques used successfully in marine environments, but more difficult in terrestrial environments)

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(Sanga-Sanga field in onshore Mahakam delta 1898 discovery. Produced >255 million barrels of oil. NNE-SSW trending narrow, asymmetrical anticline, 32 x 1 km, 911 wells. Many producing horizons between 250'- 5700')

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('The Sanga-Sanga oilfield in Kutai, E Kalimantan'. Early, detailed description of Sanga Sanga oil field, onshore Mahakam Delta. Discovered in 1898 by mining engineer Menten and exploited by Shell predecessor company. Producing from Tertiary sandstones in large anticline with surface oil seeps. About 100 wells between 1901-1906, almost all <500m deep. Shallow oils rel. heavy)

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(Review of Oligocene-Pliocene stratigraphy/ biostratigraphy of East Kutai Basin)

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(online at: http://seep.paleo.pan.pl/AHS_5.html)
(Late Miocene methane-seep deposit and associated fauna in Kutai Basin. Dominated by large, globular lucinid bivalve Meganodontia sp. nov. (up to 12.4 cm), and elongate bathymodiolin mussel, Gigantidas sp. nov. (up to 8.7 cm long). Also common small lucinid Cardiolucina aff. quadrata and Isorropodon sp., rare lucinid Lucinoma sp. and gastropods Bathybembix, Naticarius, Profundinassa, etc. Probably upper bathyal environment (400-500m). Close affinities to Recent tropical W Pacific seep faunas)

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('Middle Tertiary foraminifera from Bulongan, NE Kalimantan'. Listing of 255 deeper marine foram species, mainly from Late Oligocene marls in Sajau and Binai rivers drainage, SE Bulongan, collected by M. Muhlberg in 1906-1907. First descriptions of planktonic foram marker species like Globigerina binaiensis and G. tripartita)

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(online at: https://www.iagi.or.id/web/digital/44/PIT-IAGI-1986-Vol-2-Paper-9.pdf)
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Koeshidayatullah, A. K. Al-Ramadan & D.L. Cantrell (2013)- Miocene carbonate microfacies distribution of Tendehantu Formation, Mangkalihat Peninsula: approach of reservoir potential using outcrop analogue. AAPG Annual Convention Exhib., Pittsburgh 2013, Search and Discovery Article 50853, p. 1-12.
(online at: https://www.searchanddiscovery.com/documents/2013/50853koeshi/ndx_koeshi.pdf)
(On M Miocene Tendehantu Fm at Antu Mts, Mangkalihat High, E Kalimantan, with four microfacies. Not much detail)

Koeshidayatullah, A. & B. Al-Ghamdi (2013)- Carbonate depositional model and facies distribution on the transpression zone, East Kalimantan. In: 75th EAGE Conference & Exhibition incorporating SPE EUROPEC 2013, p. *(Extended Abstract only)*
(Depositional model of latest E- earliest M Miocene Tendehantu Fm reef- forereef carbonate microfacies at Antu Mountain, Mangkalihat Peninsula, NE Kalimantan)

Krausel, R. (1923)- *Nipadites borneensis* n. sp. eine fossil Palmenfrucht aus Borneo. Senckenbergiana 5, 3/4, p. 77-81.
(On a new species of fossil fruit of Nypa-type mangrove palm from Eocene? from Tiga-Tikoes, Soengei Toekop (tributary of Barito River), near Muara Teweh, C Borneo. Similarities with Nipadites from Eocene of Europe)

Krisnabudhi, A., A. Gunawan, Y.P. Putra, A.N. Amal & F. Ardiansyah (2020)- New insight into Berau sub-basin Northeast Borneo: basin evolution and tectonostratigraphy and their implication to new exploration play concept. Proc. Digital Technical Conference 2020, Indonesian Petroleum Association (IPA), IPA20-G-489, p. 1168-1174.
(online at: https://www.researchgate.net/publication/347381502_New_Insight_Into_Berau_Sub-Basin_North_East_Borneo_Basin_Evolution_and_Tectonostratigraphy_and_Their_Implication_to_New_Exploration_Play_Concept)
(Berau sub-basin two depocenters trending N-S and E-W. Bordered by Mangkalihat High (MKH) in S and Rajang Embaluh Group (REG) in W. Metamorphic REG formed in E Jurassic (190 Ma. In MKH, ophiolite sequence formed during M-L Jurassic based on presence of radiolaria Holocryptocanium sp. in chert- mudstone. In Cretaceous, Berau sub-basin is filled with clastics derived from MKH and REG areas. Paleogene rifting unconformity overlain by shale with tuff of Eocene-Oligocene Sembakung Fm (subduction rollback in NW Borneo). Carbonates dominant in Late Oligocene- E Miocene. Following collision of Kuching high in M-L

Miocene, dominantly deltaic sediment during regional regression phase. Plio-Pleistocene structural reactivation and inversion due to transpressional system with SE-NW pattern. Many oil seeps)

Krisnabudhi A., B. Sapiie, A.M. Riyanto, A. Gunawan & F.F. Rizky (2022)- Mesozoic-Cenozoic stratigraphy and tectonic development of the southern great Tarakan Basin, Northeast Borneo, Indonesia. Rudarsko Geolosko Naftni Zbornik (Mining-Geology-Petroleum Engineering Bulletin, Zagreb), 37, 1, p. 123-138.
(online at: https://hrcak.srce.hr/en/file/394209)
(Southern Great Tarakan Basin three sub-basins, Berau, Muara and South Tarakan. Five mega sequences. Four tectonic phases: (1) contractional Jurassic-Cretaceous (e.g. NW-SE Jurassic or Cretaceous melange Kelinjau metamorphic unit with block fragments of Devonian Heliolites limestone and E-M Jurassic ophiolite sequence in S side of Berau Sub-basin); (2) Eocene-Oligocene extension (related to Makassar Strait opening); (3) Early Neogene subsidence; (4) Late Neogene contraction. NW-SE transpressional structures during contraction phase caused most of existing structures in Paleogene. Transpression caused Great Tarakan Basin to be divided into five sub-basins in Late Miocene-Pliocene. Five horizons with hydrocarbon potential, three in Berau Subbasin, and two main plays in Muara Sub-basin)

Kristanto, R.B. & H. Murti (1992)- Potensi hidrokarbon daerah Sihung cekungan Barito, Kalimantan Selatan- Pendekatan tektionik dan geohirokarbon daerah Tanjung Raya. Proc. 21st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 1, p. 113-130.
(online at: https://www.iagi.or.id/web/digital/51/7.pdf)
('Hydrocarbon potential in the Sihung Area, Barito Basin, South Kalimantan- An exploration concept using a combined tectonic and geohydrocarbon approach in the Tanjung Area'. Pertamina paper. Hydrocarbons in Tanjung Raya area in different formations:Pretertiary- Eocene Tanjung Fm (Tanjung Field), Berai Fm (Tanta), Berai and Lower Warukin (South Dahor), in Warukin Fm in Warukin and Tapian Timur fields. At structural highs hydrocarbons trapped in older rocks)

Kristyarin, D.A., A.T. Rahardjo & P. Bambang (2016)- Paleoecology and paleoclimate of Tanjung Formation Deposition, based on palynological data from Siung Malopot, Central Borneo. Proc. Padjadjaran Earth Dialogue: Int. Symposium on Geophysical Issues (PEDISGI), Bandung 2015), IOP Conference Series: Earth and Environmental Science 29, 012022, p. 1-10.
(Outcrops in Siung Malopot area in N part of Barito basin (277km NE of Palangkaraya) show Late Cretaceous basement of Pitap Fm andesites and granites, unconformably overlain by M-L Eocene Tanjung Fm clastics with intercalations of coal and thin limestones. Palynomorphs Proxapertites cursus, Meyeripollis naharkotensis, Cicatricosisporites eocenicus, C. dorogensis and Palmaepollenites kutchensis indicate Late Eocene Proxapertites operculatus zone. Increasingly more humid climate with age. Depositional environment mainly back-mangrove (abundant Acrosticum auerum), with increasing marine influx in upper parts of Tanjung Fm (hence thin limestone intercalations))

Krol, L.H. (1925)- Eenige cijfers uit de 3 etages van het Eoceen en uit het Jong-Tertiair in de omgeving van Martapoera- Zuid-Oost Borneo. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 8 (Gedenkboek Verbeek, memorial volume), p. 343-356.
(online at: https://books.google.com/books?id=Yy0RAAAAIAAJ&pg)
('Some numerical data on the three stages of the Eocene in the Martapura area, SE Borneo'. Detailed stratigraphic thickness data of Eocene and young-Tertiary near Martapura. Little change from Verbeek 1875, except minor age interpretation changes. Total Eocene thickness 856m (= much thicker than Verbeek's estimates; JTvG))

Kunjan, B., W. Ardjakusumah, K. McDonald, H. Booth, S. Rouxel & A. Norlund Christensen (2020)- Maintaining line of sight in oil and gas exploration: A case study from Mahakam Delta, Indonesia. The Leading Edge 39, 8, p. 558-565.

Kurniadi, M., S.B. Rahmat, D.H. Amijaya & F. Anggara (2024)- Characteristics and potential of coal for coking coal in Meliat Formation, Tarakan Basin, Nunukan, North Kalimantan, Indonesia. Proc. 2nd Int. Conf. Geological

Engineering and Geosciences (ICGOES-2022), Yogyakarta, IOP Conference Series: Earth and Environmental Science 1378, 012011, p. 1-8.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1378/1/012011/pdf0
(Middle Miocene Meliat Fm coals mined in Tarakan basin not suitable for coking coal (high volatile matter, low rank, etc.))

Kurniawan, E., A. Bachtiar, Safarudin & B. Mulyanto (2001)- Paleosols in deltaic sediment: a case study in Semberah Field, Mahakam Delta, Kutai Basin. Proc. 30th Annual Conv. Indonesian Association Geologists (IAGI) & 10th GEOSEA Regional Congress, Yogyakarta, p.
(Common paleosols in (Miocene) deltaic sediments of Semberah Field, Mahakam Delta system)

Kurniawan, E., A. Bachtiar & S. Martodjojo (2011)- Paleosols as an alternative method to define sequence boundary in fluvial system: a case study in Semberah Field, Kutei Basin. Berita Sedimentologi 21, FOSI- IAGI, p. 26-39.
(Online at: https://journal.iagi.or.id/index.php/FOSI/article/view/210)
(Paleosols used to identify sequence boundaries in Late Miocene Balikpapan/ Kampung Baru Fm fluvial-deltaic sequences in outcrops at Semberah field, N part of Samarinda Anticlinorium, Kutai Basin. Total of 52 paleosols, grouped in 6 types, observed in 21 outcrops. Paleosols well developed in Highstand Sequence Tract, in Lowstand ST. Absent or rare in Transgressive ST)

Kurniawan, T., B. Prasetiyo & D. Tangkalalo (2010)- Subsurface surveillance in low permeability oil reservoir at Tanjung Field, Barito Basin, South Kalimantan. Proc. 34th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA10-G-176, p. 1-13.
(Tanjung Field low perm zones in Eocene Lower Tanjung Fm A and B main reservoirs caused by clays smectite and kaolinite. Lowermost Tanjung Fm ~200m of alluvial fan deposits with volcanic conglomerates)

Kusnama (2008)- Batubara Formasi Warukin di daerah Sampit dan sekitarnya, Kalimantan Tengah. Jurnal Geologi Indonesia 3, 1, p. 11-22.
(online at: www.bgl.esdm.go.id/dmdocuments/jurnal20080102.pdf)
('Warukin Fm coal in the Sampit area, C Kalimantan'. Miocene Warukin Fm in Sampit area, W Barito Basin, ~700m thick. Two main coal seams, A and B, 80- 200cm thick, generally banded brittle to friable, claystone partings, subbituminous C- A rank, and deposited in wet-forest swamp with by high plants and shrubs)

Kusnida, D. & L. Arifin (2008)- Karakteristik akustik dan fenomena geologi endapan sedimen Kuarter Delta Mahakam- Kalimantan Timur. J. Geologi Kelautan 6, 3, p. 167-173.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/160/150)
('Acoustic characteristics and geological phenomena of Quaternary sedimentary deposits of the Mahakam Delta -East Kalimantan'. Mahakam delta offshore shallow seismic profiles indicate at least four acoustic intervals (depositional sequences), separated by unconformities)

Kusuma, I. & T. Darin (1989)- The hydrocarbon potential of the Lower Tanjung Formation, Barito Basin, SE Kalimantan. Proc. 18th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta), p. 107-138.
(Tanjung Oil Field 1939 discovery in Eocene, but limited success since. Paleocene-E Eocene rifting gave rise to NW-SE horsts- grabens across Barito basin. E Tertiary structural elements overprinted by Neogene- Recent compression, producing left-lateral reactivation of earlier normal faults. Thickness and facies changes with four distinct stages of deposition in Tanjung Fm, primarily from topography produced by E Tertiary rifting. Terrestrial coals and organic- rich shales of Lower Tanjung Fm prolific hydrocarbon source rocks. At least five E Tertiary rifts identified, each separate self-contained depocenter)

Kusuma, M.I. & A.N. Nafi (1985)- Prospek hidrokarbon Formasi Warukin di cekungan Barito, Kalimantan. Proc. 14th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta 1985, p. 105-124.
(online at: https://www.iagi.or.id/web/digital/40/PIT_IAGI_1985_paper11.pdf

('Hydrocarbon prospects of the Warukin Fm in the Barito Basin, Kalimantan'. Pertamina paper about M Miocene fluvio-deltaic clastics, with locally thick coal beds in upper part. With Warukin (1965) and Tapian Timur (1967) oil fields)

Kusworo, A., S. Reich, F.P Wesselingh, N. Santodomingo, K.G. Johnson, J.A. Todd & W. Renema (2015)- Diversity and paleoecology of Miocene coral-associated molluscs from East Kalimantan (Indonesia). Palaios 30, 1, p. 116-127.
(online at: https://www.researchgate.net/publication/272822199_Diversity_and_paleoecology_of_Miocene_coral-associated_mollusks_from_East_Kalimantan_Indonesia)
(Diverse Tortonian mollusc assemblage from patch of fragmented ramose corals (19 taxa) in Miocene clastics outcrops at Bontang, Kutai Basin. Total of 178 mollusc taxa, dominated by predatory gastropods)

Laffaure, A, P. Dupouy & N. Syarifuddin (2008)- The Sisi-Nubi case history: reservoir characterisation in a challenging geological setting. Proc. 32nd Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA08-G-096, p. 1-8.
(Sisi (1986) and Nubi (1992) gas fields 25 km offshore Mahakam delta in 60-70m of water. Reservoirs Upper Miocene deltaic sands between 1900-3800m, divided into upper 'Fresh Water Sands' and lower overpressured 'Sisi Main Zone'. Deltaic cycles with average thickness of 25m. Fluids mainly gas, with columns from 20-100m for FWS. Anticlinal structures with several compartments. All channel sands >12m could be identified on seismic, but no channels thinner than 5m could be seen on seismic)

Laggoun-Defarge, F., B. Pradier, E. Brosse, S. Belin & J.L. Oudin (1995)- Analyse microtexturale des sediments organiques du delta de la Mahakam (Indonesie); relations avec les environnements de depot. Comptes Rendus Academie Sciences, Paris, II, 320, 11, p. 1055-1061.
('Microtextural analysis of the organic sediments of the Mahakam Delta; relations with environments of deposition'. Petroleum quality of humic organic matter of Mahakam delta is variable and not only correlated to organic composition, but also to relations of organic and mineral constituents. Characteristic organo-mineral microtextures identified in each depositional environment of delta)

Laksono, F.A.T., F. Kusdiantoro, J. Kovacs & W.H. Purnomo (2021)- Analisis kematangan batuan induk hidrokarbon di Formasi Naintupo, Sub-Cekungan Tarakan, Provinsi Kalimantan Utara. Teknik (UNDIP) 42, 1, p. 260-272.
(online at: https://ejournal.undip.ac.id/index.php/teknik/article/view/35821/0)
('Analysis of hydrocarbon source rock maturity in the Naintupo Formation, Tarakan Sub-Basin, North Kalimantan Province'. Geochemical study of hydrocarbon source potential shows(E Miocene?) Naintupo Fm is effective source. Greatest potential is natural gas, especially in S Sembakung-1, Tanjung Bimau-1, Sesayap E1, and Tanjung Kramat-1 wells)

Lalouel, P. (1979)- Log interpretation in deltaic sequences. Proc. 8th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 247-290.
(Examples of log interpretation in Miocene deltaic deposits of Handil Field, Mahakam Delta)

Lambert, B. (2003)- Micropaleontological investigations in the modern Mahakam delta, East Kalimantan (Indonesia). Carnets de Geologie (Notebooks on Geology) 2003/02, p. 1-21.
(online at: http://paleopolis.rediris.es/cg/03/A02/CG2003_A02.pdf)
(Distribution of benthic foraminifera in Mahakam Delta system controlled by three main parameters: fluvial input of fresh water and sediment, tides, and north to south drift current. Delta front environmments and characteristic forams are: (1a) mud flats with Trochammina, Ammotium salsum, Arenoparrella mexicana, Miliammina fusca; (1b) tidal flats (0-2m) with Trochammina, Ammobaculites agglutinans, Eggerelloides scabrum, Ammonia beccarii; (2) internal delta front and river mouth bars with Ammonia beccarii, Elphidium; (3) external delta front (1-5m) with Asterorotalia trispinosa; (4) prodelta (>5m) with Operculina gaymardi, Pseudorotalia conoides, Ammonia annectens)

Lambert, B., B.C. Duval, Y. Grosjean, I.M. Umar & P. Zaugg (2003)- The Peciko case history: impact of an evolving geologic model on the dramatic increase of gas reserves in the Mahakam Delta. In: M.T. Halbouty (ed.) Giant oil and gas fields of the decade 1990-1999, American Assoc. Petroleum Geol. (AAPG), Memoir 78, p. 297-320.
(>6 TCG gas in Late Miocene deltaics. Trap stratigraphic-hydrodynamic at flank of structure)

Lambert, B. & C. Laporte-Galaa (2005)- *Discoaster* zonation of the Miocene of the Kutei Basin, East Kalimantan, Indonesia (Mahakam Delta Offshore). Carnets de Geologie, Memoire 2005/01, p. 1-63.
(online at: http://paleopolis.rediris.es/cg/CG2005_M01)
(Commonly used chronostratigraphic markers (foraminifera, spores and pollen) are rare or absent in most of the Kutei Basin. Calcareous nannofossils present in prodelta shales, but also poor and dominated by Discoasters. Propose modified Miocene nannofossil zonation of 13 zones for Outer Kutei basin, based on Discoasters only)

Lambiase, J.J. & Salahuddin Husein (2015)- The modern Mahakam Delta: an analogue for transgressive-phase deltaic sandstone reservoirs on low energy coastlines. AAPG Workshop 'Modern depositional systems as analogues for Petroleum Systems', Search and Discovery Article 51108, p. 1-38. *(Abstract + Presentation)*
(online at: www.searchanddiscovery.com/documents/2015/51108lambiase/ndx_lambiase.pdf)
(Mahakam Delta currently in transgressive phase, with distributaries filling with sediments and with minor reworking of pre-transgression sediment)

Lambiase, J.J., D. Remus & Salahuddin Husein (2010)- Transgressive successions of the Mahakam Delta province, Indonesia. AAPG Hedberg Conference, Jakarta 2009, Search and Discovery Article 50257, p. 1-5. *(Abstract)*
(online at: www.searchanddiscovery.com/documents/2010/50257lambiase/ndx_lambiase.pdf)
(Transgressive successions important component of M Miocene and younger stratigraphy of Mahakam Delta province and have considerable reservoir potential)

Lambiase, J.J., R.S. Riadi, N. Nirsal & Salahuddin Husein (2014)- The Mahakam Delta, Indonesia: a case study for the deposition and preservation of transgressive deltaic successions. Int. Petroleum Technical Conference, Kuala Lumpur, IPTC-17867-MS, p. 1-4.

Lambiase, J.J., R.S. Riadi, N. Nirsal & Salahuddin Husein (2017)- Transgressive successions of the Mahakam Delta Province, Indonesia. In: G.J. Hampson et al. (eds.) Sedimentology of paralic reservoirs: recent advances, Geological Society, London, Special Publ. 444, p. 335-348.
(Significant portion of Paleo-Mahakam Delta succession deposited during transgressive phases, either from extensive major transgressions or short-lived transgressions within mainly progradational phases. Sandstone facies with significant reservoir potential in transgressive successions: (1) backfilled distributary sandstones (coastline-perpendicular 10-20m thick sand bodies, fining-upward channel sands, becoming more marine upwards; (2) shoreline-parallel, transgressive shoreline sandstones)

Land, D.H. & C.M. Jones (1987)- Coal geology and exploration of part of the Kutei Basin in East Kalimantan, Indonesia. In: A.C. Scott (ed.) Coal and coal-bearing strata: recent advances, Geological Society, London, Special Publ. 32, p. 235-255.
(Survey of ~700 km^2 of Miocene coal-bearing strata near Samarinda identified 1000 Mt of recoverable coal, ranking from lignite A to high-volatile C bituminous, in 43 seams 1.5- 13 m thick. Environments of deposition paralic. Section >3000m thick, divided into four formations, Loa Duri, Loa Kulu, Prangat and Kamboja Fms. Coals low ash, high moisture and generally low sulphur)

Larasati, D., S. Ardi, G. Widiyanto, F.M. Fiqih, D.S. Widarto & A. Guntoro (2016)- Integrated study of regional tectonics, geologic structures, and paleogeography reconstruction to develop CBM cleat model in Tanjung II Block, South Borneo. Proc. 40th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA16-55-G, p. 1-15.
(Coal cleat measurements in Warukin and Tanjung Fms of Barito Basin near Tanjung, tied to regional structure maps. Dominant structural lineament in study area E-SW, while cleat strike lines mainly E-W)

Larasati, D., F.M. Fiqih, R. Idris, D.S. Widarto & B. Sapiie (2015)- Fracture shale gas study of Tanjung Formation, Barito Basin, South Kalimantan. Proc. 39th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA15-G-113, p. 1-21.
(Fractures present in Eocene Tanjung Fm shale, with higher intensity near folds and faults ?)

Larasati, D., K. Suprayogi & A. Akbar (2016)- Crude oil characterization of Tarakan Basin: application of biomarkers. In: The 9th Int. Conference on. Petroleum Geochemistry in the Africa-Asia Region, Bandung 2016, p. 1-8. *(Extended Abstract) (online at: https://www.researchgate.net/publication/320056134_Crude_Oil_Characterization_of_Tarakan_Basin_Application_of_Biomarkers)*
(Most oil samples in Tarakan Basin derived from Miocene source with mixed to humic kerogen, deposited in transitional to peat swamp environment, with higher plant input. Some unexpected Vitrinite Reflectance results)

Larasati, S.D.S., F. Anggara, D.H. Amijaya & S.B. Rahmat (2024)- Microfacies and paleomire reconstruction of coal in the Warukin Formation, Barito Basin, Kandangan Area, South Kalimantan. Proc. Int. Conf. Geological Engineering and Geosciences, Yogyakarta 2023, IOP Conference Series: Earth and Environmental Science 1373, p. 012061, p. 1-23.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1373/1/012061)
(Study of coals in M Miocene Warukin Fm in Barito Basin, SE Kalimantan. Coal deposition in paleomire (wet forest swamp) with repetitions of topogenous and ombrogenous mires. Original vegetation mainly woody plants, also signnificant shrubby plants. Moderate-high gelification indicates peat constantly inundated)

Larrouquet, F., A. Gautama & L. Moinard (2003)- Identification of initial gas net-pay in deltaic reservoirs using wireline acoustic measurements. Proc. SPE Asia Pacific Oil and Gas Conference Exh. (APOGCE), Jakarta 2003, 80545-MS, p. 1-13.
(Acoustic method to distinguish gas from liquid in Mahakam Delta sand reservoirs)

Latouche, C. & N. Maillet (1987)- Etude des corteges argileux dans les formations deltaiques de la Mahakam (Kalimantan, Indonesie), Essais d'interpretation paleogeographique et paleoclimatique. In: A. Combaz (ed.) Geochimie organique des sediments plio-quaternaires du delta de la Mahakam (Indonesie) - le sondage Misedor, Editions TECHNIP, Paris, p. 73-84.
('Study of clay assemblages in deltaic deposits of the Mahakam delta (Kalimantan), attempts of paleogeographic and paleoclimatic interpretation'. Clay minerals in Misedor well 3 assemblages: (1) base to 400m (Late Pliocene): kaolinite dominant; (2) 365-189m (E Pleistocene): smectite dominant; and (3) 189-37m: kaolinite dominant. Smectite presumably derived from erosion of lowlands, during rel. dry period of sealevel lowstand)

Laya, K.P. (2015)- Diagenesis and petrophysical rock-type study of Oligocene Berai carbonate platform in "KX-1" well, Central Kalimantan: implications for depositional and reservoir models. Bull. Earth Sciences Thailand (BEST) 7, 1-2, p. 247-255.
(online at: https://ph01.tci-thaijo.org/index.php/bestjournal/article/view/246680/167682)
(Unocal 1985 Kerendan Field gas discovery in what was intereted as Oligocene Berai Limestone isolated rimmed platform/ atoll system in Upper Kutai Basin, E Kalimantan. However, KX-1well drilled to test W rim of atoll suggested Kerendan carbonate platform developed in land-attached setting in semi-enclosed embayment without raised rims, under oligophotic conditions, related to clastic influx points from N and SW. Etc.)

Laya, K.P., B. Nugroho, N. Hadiyanto & W. Tolioe (2013)- Paleogeographic reconstruction of Upper Kutei Basin: implications for petroleum systems and exploration play concepts. Proc. 37th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA13-G-106, p. 1-16.
(Review of onshore U Kutei Basin, where 1985 Kerendan gas field proves presence of petroleum system. E-M Eocene NNE-SSW trending isolated half-grabens formed on U Cretaceous- Paleocene metasediments and Jurassic- U Cretaceous ophiolitic crust. With 7 E Eocene- M Miocene paleogeographic maps)

Laya, K.P., A. Prasetya, Y. Rizal, E. Guritno, D. Stokes & J. Smart (2014)- Sand fairway and play frameworks on the deepwater slope area of North Kutei Province. Proc. 38th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA14-G-142, p. 1-11.
(On Neogene deepwater slope play in Bontang and SE Sangatta PSC areas, off E Kalimantan. Neogene strata in N Kutai basin deposited in relatively narrow shelf associated with significant hinterland uplift and erosion. Shelf area characterized by extensional listric growth. Neogene deltas in Kalimantan primary sediment source for deepwater sand reservoirs in offshore Lower Kutai Basin. Productive turbidite sandstones with excellent quality on slope as confined canyon/channel-fill systems. Sand deposition strongly controlled by syn-kinematic lows, whereas intra-basinal highs commonly dominated by more silty and muddy deposits)

Laya, K.P., A. Subekti, S. Goesmiyarso & J. Warren (2017)- From isolation to inclusion: the application of isotope analysis to unravel the influences of depositional style and diagenesis in Berai carbonates, Central Kalimantan. Proc. 41st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA17-362-G, p. 1-13.
(online at: www.academia.edu/33268249/FROM_ISOLATION_TO_INCLUSION_THE_APPLICATION Etc.)
(Gas well W Kerendan-1 (2013) core and log analysis shows Oligocene carbonate reservoir of interlayered reservoir-quality grainstone and wacke-packstone units. Persistent presence of clastic materials suggest land-attached setting. Diagenetic events generated secondary porosity during intermediate-deep burial and uplift)

Lefort, J.J., J.P. Thiriet, P. Le Quellec & J.B. Bailey (2000)- Sequence stratigraphy of the offshore Tarakan. AAPG International Conference Exhib., Bali 2000, p. 1-8. *(Extended Abstract)*
(Regressive Upper Miocene- Recent series, with major sequence boundaries and tectonically enhanced angular unconformities. From W to E fluvial sediments pass into deltaic and shelfal deposits. Late Miocene rapid subsidence and active N-S growth faulting trapped deltaic sediments in downthrown paleo-troughs in W, whilst E part comprised sediment starved paleo-highs with marine shales and limestones. In latest Miocene W part tilted and truncated. Pliocene subsidence slower and growth faulting less active. In Bunyu area, delta was able to prograde E far towards paleo shelf-edge, since N-S trending paleohighs no longer present. Pleistocene subsidence rate high and NW-SE arches set-up by reactivation of old lineaments)

Lehmann, F. & F. Baum (1958)- Geological and mining investigations in 1958 of the coal occurrences on Palau Laut in SE Kalimantan. Report Westdeutsches Ingenieur-Buro, April 1939, 7, 5, p. (in Archive Djawatan Geologi, Bandung?) *(Unpublished)*

Lelono, E.B. (2003)- Stratigraphic interpretation of the Middle Miocene deltaic sediment in the Sangatta area, based on quantitative palynological data. Lembaran Publikasi Minyak dan Gas Bumi (Lemigas) 37, 2, p. 3-17.
(online at: https://journal.lemigas.esdm.go.id/index.php/LPMGB/article/view/908)
(Palynology study of M Miocene in 3 wells in Sangatta area, E Kalimantan (Balikpapan Fm progradational package). High abundance of mangrove pollen indicates deltaic sediments. Wells correlated using abundances of mangrove pollen Zonocostites ramonae and freshwater swamp pollen Ilexpollenites sp.)

Lelono, E.B., C.A. Setyaningsih & L. Nugrahaningsih (2014)- Miocene palynology of the Barito Basin, South Kalimantan. Lemigas Scientific Contributions Petroleum Science Technology 37, 1, p. 45-56.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/623)
(Rich palynomorph assemblages in wells P and Q in Miocene of Barito Basin. Identified last occurrence of Florschuetzia trilobata (M-L Miocene boundary) and first occurrence of F. meridionalis (E-M Miocene boundary). Other Miocene markers include Stenochlaenidites papuanus (Late Miocene) and Scolocyamus magnus (E-M Miocene). Brackish mangrove palynomorphs indicate marine influence during deposition (not immediately clear how palynology data relate to Barito basin Tanjung-Berai-Warukin stratigraphy; JTvG))

Lemoy, C., A. Wahyudi & J. Luccioni (1988)- Detailed geological modeling and structural mapping in Bekapai Field: influence on the understanding of fluid movements and implications on oil recovery. Proc. 17th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 33-47.
(Bekapai field, offshore SE Mahakam Delta 1972 discovery, producing since 1974. Anticlinal structure with oil-gas in Late Miocene- Pliocene deltaics)

Lentini, M.R. & H. Darman (1996)- Aspects of the Neogene tectonic history and hydrocarbon geology of the Tarakan Basin. Proc. 25th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 168-172.
(Tarakan Basin one of three major Kalimantan Tertiary deltaic depocenters. Most production on dip-oriented arches in mostly non-marine depositional environment. Forced regressions caused deposition of deltaic reservoirs far downdip in present day deep water. Tarakan Basin initiated simultaneously with formation of Celebes Sea by rifting between M-L Eocene and E Miocene on E-hading en echelon block faults. Increase in accommodation in M Miocene- Pliocene combination of subsidence and gravity-induced listric faulting. Dip-oriented arches formed during latest Pliocene- Recent transpression on wrench faults crossing Makassar Strait)

LeRoy, L.W. (1941)- Small foraminifera from the Late Tertiary of the Netherlands East Indies. 1. Small foraminifera from the Late Tertiary of the Sangkulirang Bay area, East Borneo. Quarterly Colorado School Mines 36, 1, p. 1-62.
(150 species of deep marine small foraminifera from Sangkoelirang marls in NE Kutai basin, collected in 1934 by NPPM (Caltex) geologists. Age presumably latest Miocene- E Pliocene)

Leupold, W. (1927)- Geological description of Northeastern Borneo: the territories of of Bulungan and Berau. Dienst van het Mijnwezen, Bandung, ~600p. *(Unpublished,)*
(Pioneering report on geological mapping survey and micropaleontology of large parts of NE Kalimantan, after almost five years of fieldwork by Swiss geologist Wolfgang Leupoldin 1922-1927. Copy of typescript reportedly in archive of Netherlands Centrum for Biodiversiteit (Naturalis), Leiden, as 'Verslag Boeloengan-Beraoe, Arch. 55 30031 (Larger foraminifera from Leupold NE Kalimantan collections described in papers by Van der Vlerk (1925, 1929); JTvG)

Lie, H.S., R. Fifariz, N.A. Kharisa, S.A. Prabowo, B.S. Murdianto & D, Nugroho (2022)- Santan Delta evolution and its implication to the petroleum system in North of Kutei Basin. Proc. 46th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA22-G-250, p. 1-11.
(On presence of the rel. small Santan delta complex between larger Mahakam and Sangatta Deltas along E coast of Kalimantan. Since 1970's >50 MMBOE of hydrocarbons produced from Late Miocene- Pliocene deltaic reservoirs (KER, MEL fields). Peak sedimentation at end of Late Miocene- E Pliocene, pushing carbonate sedimentation put to shelf margin area. Late Pliocene retrogradation. Etc.))

Lie, H.S., Y. Shaylendra, S.A. Prabowo & A.H.P. Kesumajana (2021)- Presence of exsudatinite macerals in shelf area of Kutei Basin: implication for geochemical and basin modeling understanding. Proc. HAGI-IAGI-IAFMI-IATMI Joint Convention Bandung (JCB) 2021, p. 389-394.
(online at: https://www.iatmi.or.id/proceedings-of-jcb-joint-convention-bandung-2021/)
(Organic geochemistry of coaly source rocks and maturity modeling in Kutei basin suggests this type of source starts to generate oil earlier that other types (at vitrinite R_o 0.55% instead of 'standard' R_o of 0.65%))

Loiret, B. & J.F. Mugniot (1982)- Seismic sequences interpretation, a contribution to the stratigraphical framework of the Mahakam Area. Proc.11th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 323-334.

Lubis, M.I. & S. Djaelani (2016)- Petroleum systems in the southern margin of the Kutei Basin. Proc. IPA 2016 Technical Symposium, Indonesia exploration: where from- where to, Indonesian Petroleum Association (IPA), Jakarta, 24-TS-16, p. 1-12.
(South Sesulu Block at S margin of offshore Kutai Basin, with structural traps formed during end-Early Miocene inversion along left-lateral faults of Adang flexure zone. SIS-A1 well (2015) penetrated good quality M-L Miocene deltaic and upper slope sandstones and tested dry gas from Late Miocene sandstone. Late Oligocene-Miocene coals and shales in S Sesulu area good source rock potential)

Lubis, T., D. Kurniawan & H. Ellen (2011)- Facies modeling of fluvial reservoirs in "M" Field, Tarakan PSC Block. Proc. 36th HAGI and 40th IAGI Annual Conv., Makassar, JCM2011-156, p. 1-16.
(online at: https://www.iagi.or.id/web/digital/10/2011_IAGI_Makassar_Facies-Modeling-of-Fluvial.pdf)

(Mamburungan Field on SE Tarakan Island, NE Kalimantan, discovered in 1985; 30 wells drilled since. At least 80 stacked sandstone reservoirs in Late Miocene- Pliocene Tarakan Fm, fluvial-dominated in upper part, delta-dominated in lower part. Facies analysis of sands from log suggest N-S channel orientations)

Macmillan, S., R Sinulingga & N Supratisno (2000)- Geology of the Lembak Syncline, Kutei Basin, PT Kaltim Prima coal, Kalimantan Timur, Indonesia. In: S. Herudyanto et al. (eds.) Proc. SE Asian Coal Geology Conference, Directorate of Mineral Resources, Bandung, p. 59-67.

Madden, R.H.C. & M.E.J. Wilson (2012)- Diagenesis of Neogene delta-front patch reefs: alteration of coastal, siliciclastic-influenced carbonates from humid Equatorial regions. Journal of Sedimentary Research 82, 11, p. 871-888.
(On diagenetic alteration of E Miocene patch reef of Samarinda area, Kutai Basin, E Borneo, that formed coevally with siliciclastic influx, in humid equatorial setting. No marine cements; dominant diagenetic feature is pervasive neomorphic stabilization and cementation of aragonite reef components to calcite. Meteoric aquifer flow from adjacent landmass main diagenetic fluid. Late-stage fracturing, cementation, and chemical compaction relatively minor features. Continental groundwater flow resulted in pervasive stabilization and calcitization, features rare in arid or temperate counterparts)

Madden, R.H.C. & M.E.J. Wilson (2013)- Diagenesis of a SE Asian Cenozoic carbonate platform margin and its adjacent basinal deposits. Sedimentary Geology 286-287, p. 39-57.
(Study of diagenesis of Kedango Carbonate Platform of Kutai Basin during Eocene- Miocene. Most prevalent and pervasive diagenetic feature is neomorphic alteration and replacement of metastable bioclasts and micritic matrix, together with calcitisation of pore spaces. Burial fluids with marine character inferred as parent diagenetic fluid, since stable-isotope compositions for neomorphic spar consistent with precipitation from SE Asian Oligocene-Miocene seawater in burial environment)

Magnier, P., T. Oki & L.Witoelar Kartaadiputra (1975)- The Mahakam Delta, Kalimantan, Indonesia. Proc. 9th World Petroleum Congress, Tokyo 1975, 2, p. 239-250.

Magnier, P. & B. Samsu (1975)- The Handil oil field in East Kalimantan. Proc. 4th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 41-61.
(1974 discovery in S edge of Mahakam Delta. 11x4 km NNW-SSE trending anticline. Multiple stacked reservoirs, mainly tidal delta plain sands, now between 1400-2300m)

Majesta, C., D. Cook, P. Cardola, D. Kurniawan, I. Buldani, G. Aquillina & F. Prasetia (2016)- Formation evaluation in thin bed reservoirs, a case study from the Kutei Basin, Indonesia. Proc. 40th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA16-G-615, p. 1-13.
(Log analysis case study of Jangkrik Field off E Kalimantan, in Pliocene gas-bearing deepwater canyon-fill turbiditic and debrite reservoir sands)

Mamuaya, J.M.B., E. Biantoro & R. Gir (1995)- The trace of sandstone distribution of Q layers using seismic amplitude and inversion: a case study in Sangatta Field, East Kalimantan. Proc. 24th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 425-441.
(Seismic interpretation of distributary channels in Q-zone in Sangatta Field)

Marbun, A. (1992)- Hydrocarbon source rocks in the Balikpapan Bay area, East Kalimantan, Indonesia. M.Sc. Thesis, University of Wollongong, p. 1-428. *(Unpublished)*

Mardianza, M. Fajar, B. Wibowo, S. Gunawan, M. Rachmalia, A. Silliman, R Schrynemeeckers & M. Arnold (2024)- Derisking exploration and elucidating prospective areas in the frontier West Sangatta Area of East Kalimantan Province in Indonesia. Proc. GESGB-SEAPEX Asia Pacific Conference, Exploring Asia Pacific's Energy Future, London 2024, p. 47-54.
(Microseepage survey in upper Kutai basin, E Kalimantan. Figures poor resolution)

Marino & N. Sunarya (1992)- Aplikasi metoda geofisika pada studi Cekungan pembawa batubara Ketungau, Kalimantan Barat. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 2, 4, p. 9-20.
('Application of geophysical methods to the study of the Ketungau Basin coal, Ketungau, W Kalimantan'. Gravity and seismic refraction work in Ketungau Basin, NW Kalimantan)

Marheni, L., R. Aditiyo, A.E. Putra & E. Anggraeni (2009)- Tertiary tectonic of Barito Basin, South East Kalimantan, and implication for petroleum system. Proc. 38th Annual Conv. Indonesian Association Geologists (IAGI), Semarang, PITIAGI2009-183, p. 1-15.
(online at: https://www.iagi.or.id/web/digital/26/2009_IAGI_Semarang_Tertiary-Tectonic-of-Barito.pdf)
(Student literature review; no new data. Barito basin Eocene rifting, Late-Miocene- Pliocene inversion. Largest oil field is Tanjung (BPM, 1938), with high-paraffin oil in Eocene Tanjung Fm and fractured basement. Warukin and Tapian Timur Fields produce more asphaltic oil from Miocene regressive Warukin Fm sandstones)

Marks, E., Sujatmiko, L. Samuel, H. Dhanutirto, T. Ismoyowati & B.B. Sidik (1982)- Cenozoic stratigraphic nomenclature in East Kutei basin, Kalimantan. Proc. 11th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 147-179.
(E Kutai Basin five deposystems: Pleistocene- Recent Mahakam Group (deltaic Handil Dua Fm to W, marine Attaka Formation to E); M Miocene- Pliocene Kampong Baru Gp (deltaic Tanjung Batu Fm to W, marine Sepinggan Fm to E); M Miocene Balikpapan Gp (uppermost carbonate to marine clastic Klandasan Tongue of Gelingseh Fm and paralic-deltaic Mentawir Fm); E-M Miocene Bebulu Group (carbonate Maruat Fm and deeper water clastic and carbonate Pulau Balang Fm) and Late Oligocene- E Miocene Pamaluan Fm)

Marshall, A.J. & H.O. Schumann (1981)- Stratigraphy and hydrocarbon potential of the Klandasan beds in the Kutei Basin, East Kalimantan, Indonesia. Proc. 10th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 285-295.
(Thick M Miocene (N9-N12) Klandasan Beds predominantly quartz sands, deposited at S margin of Kutei Basin. Interval 2310'-7574' in Bongkaran No. 1 selected as type section of Klandasan Beds)

Marshall, N. (2016)- Improving the age control of Eastern Borneo's Miocene sedimentary record. Ph.D. Thesis University of Utrecht, Utrecht Studies in Earth Sciences 109, p. 1-214.
(online at: https://dspace.library.uu.nl/bitstream/1874/334448/1/Marshall.pdf)
(Collection of studies on Miocene of E Kalimantan (paleoenvironmental reconstruction, magnetostratigraphy, strontium isotope stratigraphy, cyclostratigraphy and paleomagnetic rotations). Mahakam Delta cyclic sediment alternations match Earth's orbital oscillations (20, 40 and 100 kyr cyclicity in M Miocene, 15-11Ma). Paleomag work on Eocene- Miocene sediments indicates Borneo island probably did not rotate drastically since at least ~40 Ma, Late Eocene, but data from Cretaceous basalts do suggest ~40° CCW rotation)

Marshall, N., V. Novak, I. Cibaj, W. Krijgsman, W. Renema, J. Young, N. Fraser, A. Limbong & R. Morley (2015)- Dating Borneo's deltaic deluge: Middle Miocene progradation of the Mahakam Delta. Palaios 30, p. 7-25.
(online at: www.researchgate.net/publication/274695884_Dating_Borneo's_deltaic_deluge_Middle_M Etc.)
(Stratigraphic age model for 4km thick late E Miocene- early Late Miocene section of Samarinda region, E Kalimantan, using magnetostratigraphy, sequence stratigraphy and biostratigraphy. Two thin reef complexes at Samarinda dated at ~15 Ma (Batu Putih; 16m; early zone Tf2 with Lepidosemicyclina polymorpha and Nephrolepidina ferreroi) and 11.6 Ma (Stadion section, 10m; late Tf2 with Lepidosemicyclina and Cycloclypeus annulatus). Mahakam Delta went through major phase of buildout and progradation during Middle and earliest Late Miocene, during which time progradation across former shelf break took place in Samarinda area)

Marshall, N., C. Zeeden, F. Hilgen & W. Krijgsman (2017)- Milankovitch cycles in an equatorial delta from the Miocene of Borneo. Earth Planetary Science Letters 472, p. 229-240. *(online at: https://dspace.library.uu.nl/bitstream/handle/1874/356225/Milankovitch.pdf?sequence=1&isAllowed=y)*
(Paleo-Mahakam delta of E Kalimantan, Borneo developed during globally warm M Miocene in equatorial setting. Statistical analysis of sandstone/shale alternations show distinct pattern of cycles with thicknesses of ~90, ~30, and ~17m, translating into periods of ~100, 40, and 20 kyr, matching orbital eccentricity, obliquity and

precession cycles. Proximal paleo-Mahakam sedimentation dominantly controlled by allogenic orbital forcing, probably as consequence of glacioeustasy (also in Marshall 2016 thesis))

Martin, K. (1914)- Miocane Gastropoden von Ost-Borneo. Sammlungen Geologischen Reichs-Museums Leiden, ser. 1, 9, 1, p. 326-336.
(online at: www.repository.naturalis.nl/document/552439)
('Miocene gastropods from E Kalimantan'. Fossiliferous marls of NE Kutai Basin collected by Rutten. Localities Sungei Gelingseh, Sg. Bungalun and Bontang. With molluscs already known from Java and mainly pointing to Late Miocene ages. With locality map but no other figures)

Maryanto, S. (1996)- Neoformisma bioklastika batugamping Bebulu daerah Tenggarong, Kalimantan Timur. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 6, 62, p. 2-7.
('Neomorphism of bioclasts in the Bebulu Limestone in the Tenggarong area, E Kalimantan'. Diagenesis of Late Oligocene- earliest Miocene limestone in outcrops off Mahakam River, Kutai Basin)

Maryanto, S. (2009)- Diagenesis dan batuan sumber batupasir Formasi Lati di Daerah Berau, Kalimantan Timur, berdasarkan data petrografi. Bull. Scientific Contribution (UNPAD) 7, 2, p. 109-126.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8237/3785)
('Diagenesis and source of sandstone of the Lati formation in the Berau Region, East Kalimantan, based on petrographic data'. MMiocene Lati Fm sandstones of NE Kalimantan classified as litharenites and wackes. Provenance mainly from granitic rocks, with transport to SE (see also Maryanto 2013))

Maryanto, S. (2011)- Stratigrafi dan keterdapatan batubara pada Formasi Lati di daerah Berau, Kalimantan Timur. Buletin Sumber Daya Geologi (BSDG) 6, 2, p. 97-110.
(online at: https://buletinsdg.geologi.esdm.go.id/index.php/bsdg/article/view/BSDG_VOL_6_NO_2_2011_5)
('Stratigraphy and occurrence of coal of Lati Formation in the Berau area, E Kalimantan'. M Miocene Lati Fm up to 400m thick and deposited in delta plain- fluvial swamps. Coal seams locally developed in middle part of formation, more common in upper part. Coal seams intensively cleated, subconchoidal fractured, moderate density, sometimes with very fine siliciclastics partings and up to 6.5m thick)

Maryanto, S. (2013)- Diagenesis and provenance of Lati Sandstones in the Berau Area, East Kalimantan Province, based on petrography data. Jurnal Geologi Indonesia 7, 3, p. 137-144.
(online at: http://jgi.bgl.esdm.go.id/index.php/JGI/article/view/31/23)
(M Miocene deltaic sandstones of Lati Fm, Berau Area, SW Tarakan Basin, NE Kalimantan, classified as litharenite, feldspathic litharenite, etc. Provenance 'recycled orogenic', dominated by granitic rocks, sediments and metamorphics. Transport directions to S and E)

Maryanto, S. (2016)- Sedimentologi batugamping Formasi Berai gunung talikur dan sekitarnya kabupaten Tapin, Kalimantan Selatan, berdasarkan data petrografi. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 17, 2, p. 85-98.
(online at: http://kiosk.geology.esdm.go.id/artikel/pdf/sedimentologi...)
('Limestone sedimentology of the Berai Formation at the Talikur Mountain and its surrounding area, Tapin Regency, South Kalimantan based on petrographic data'. Late Oligocene- E Miocene Berai Fm in NW foothills of Meratus Range ~75m thick with several reefal environments in overall transgressive situation (with pictures of Borelis pygmaeus, Heterostegina borneensis)

Maryanto, S., Rachmansjah & T. Sihombing (2005)- Mekanisme pengendapan batuan sedimen Tersier awal di daerah Tewah, Gunung Mas, Kalimantan Tengah: kaitannya dengan keterdapatan batubara. Jurnal Sumber Daya Geologi (JSDG) 15, 1 (148), p. 38-56.
('The mechanism of deposition of Tertiary sedimentary rocks early in the Tewah area, Gunung Mas, Central Kalimantan: relation with coal formation'. Study of Late Eocene Tanjung Fm in C Kalimantan with basal alluvial fan deposits grading upward into fluvial flood plain with 10-80cm thick coal seams in upper part)

Maryanto, S., Rachmansjah & T. Sihombing (2005)- Lingkungan pengendapan batuan pembawa batubara Formasi Warukin di lintasan Kuala Kurun- Hulu Sungai Manyangan, Gunung Mas, Kalimantan Tengah. Jurnal Sumber Daya Geologi (JSDG) 15, 4 (150), p. 64-81.
('Depositional environment of coal-bearing Warukin formation in the Kuala Kurun- Hulu Manyangan, River section, Gunung Mas, Central Kalimantan'. On 500m thick M-L Miocene coal-bearing deposits in C Kalimantan. At least 8 seams, coals subbituminous with vitrinite reflectance 0.52-0.55% (=~2km of sediment removed?; JTvG), 9-11% water, etc. Associated with quartz-rich sandstones)

Maryanto, S., Rachmansjah, T. Sihombing & S.Wiryosujono (2005)- Sedimentologi batuan pembawa batubara Formasi Lati di lintasan Lati, Berau, Kalimantan Timur. Jurnal Sumber Daya Geologi (JSDG) 15, 4 (150), p. 33-48.
('Sedimentology of rocks below the coals of the (M Miocene) Lati Fm in the Lati section, Berau, E Kalimantan'. Deposition of tide-dominated delta in E-M Miocene)

Maryanto, S. & T. Sihombing (2001)- Stratigrafi Paleogen daerah Kalimantan Selatan: kaitannya dengan keterdapatan batubara. Geological Research Development Centre (GRDC), Bandung, Special Publ. 26, p. 29-51.
('Paleogene stratigraphy of S Kalimantan'. Study of End-Eocene coal-bearing Tanjung Fm in SE Kalimantan. Max. thickness of coal seams in Middle Tanjung Fm is 340 cm, deposited in fluvial- delta plain facies)

Maryono, A. & S.A. Wibisono (2019)- Karakteristik dan lingkungan pengendapan batubara berdasarkan analisis petrografi organik, daerah Jonggon, Kabupaten Kutai Kartanegara, Provinsi Kalimantan Timur. Buletin Sumber Daya Geologi 13, 2, p. 106-116.
(online at: http://103.87.161.68/index.php/bsdg/article/view/BSDG_VOL_13_NO_2_2018_3/pdf)
('Characteristics and depositional environment of coal based on organic petrography analysis, Jonggon area, Kutai Kartanegara Regency, E Kalimantan' Coal from Miocene Balikpapan Fm in Kutai basin WSW of Samarinda, with thickness 0.4- 3.3m. Vitrinite reflectance (Rv) 0.25- 0.45% (lignite - subbituminous rank). Composed mainly of huminite macerals(68- 96%), followed by inertinite (1.2- 26.4%) and liptinite (0.2- 5.6%))

Mason, A.D.M., J.C. Haebig & R.L. McAdoo (1993)- A fresh look at the North Barito Basin, Kalimantan. Proc. 22nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 589-606.
(New opinions on Barito basin. Tanjung Field structure not young thrust fold, but long-lived anticlinal structure, first folding and initial trap formation in Early Oligocene and again in late M Miocene. Also Plio-Pleistocene tectonic pulse associated with Meratus Mts uplift, with opposing sets of thrust faults)

Masatani, K. (1967)- Oil geology of East Kalimantan. J. Japanese Association for Petroleum Technology 32, 4, p. 228-240. (*in Japanese)*
(online at: https://www.jstage.jst.go.jp/article/japt1933/32/4/32_4_228/_pdf)

Maubeuge, F. & I. Lerche (1993)- A north Indonesian basin: geo, thermal and hydrocarbon generation histories. Marine and Petroleum Geology 10, 3, p. 231-245.
(Elf-Aquitaine basin modelling study of unnamed basin, 'offshore north of Kalimantan'. (Location unknown, so who cares; JTvG))

Maubeuge, F. & I. Lerche (1994)- Geopressure evolution and hydrocarbon generation in a North Indonesian basin: two-dimensional quantitative modelling. Marine and Petroleum Geology 11, 1, p. 105-115.
(Elf-Aquitaine study of unnamed basin 'offshore north of Kalimantan', in young deltaic environment (more information from mystery basin; JTvG))

Maulin, H.B., U.A. Saefullah; A. Wicaksono; A. Direzza; M. Purnama & I. Setiawan (2017)- Neogene unconformity surface as evidence to tectonic re-activation- case study in Tarakan sub-basin. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 200, p. 1-5. *(online at: https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_Neogene-Unconformity-Surfaces-as-Evidence.pdf)*
(Tarakan basin overall E-ward prograding delta system complicated by (1) sourcing by multiple feeder rivers (proto-Sesayap, Sesanip and others) and (2) angular unconformities within delta deposits caused by several

tectonic cycles. Late Oligocene uplift of Kucing High, Late Miocene uplift E of Kucing High (Simenggaris area, etc.; creating angular unconformity between Santul and Tarakan Fms), and Pleistocene renewed uplift in same area and folding of present day Bunyu, Tarakan and Ahus structures)

Maulin, H.B., B. Sapiie & I. Gunawan (2019)- The Neogene deformation, unconformity surfaces and uplift features in delta tectonics, Tarakan Sub-Basin. Proc. 43rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 980-992.

Maulin, H.B., B. Sapiie & I. Gunawan (2021): Analisis sesar tumbuh pada sistem deformasi delta tersier di Subcekungan Tarakan, Kalimantan Utara. Bulletin of Geology (ITB) 5, 2, p. 570-579.
(online at: https://buletingeologi.com/index.php/buletin-geologi/article/view/110/43)
('Analysis of growth faulting on Tertiary delta deformation system in Tarakan Basin, North Kalimantan'. Tarakan sub-basin boredered in N by Sampoerna Fault, in S by Mangkalihat Fault. The two regional strike slip faults provide a unique arrangement for delta sedimentation and deformation processes in area)

McClay, K., T. Dooley, A. Ferguson & J. Poblet (2000)- Tectonic evolution of the Sanga Sanga Block, Mahakam Delta, Kalimantan, Indonesia. American Assoc. Petroleum Geol. (AAPG) Bull. 84, p. 765-786.
(online at: http://www.searchanddiscovery.com/documents/mcclay/images/00_0765.pdf)
(Sanga Sanga Block four large fields in M-U Miocene deltaic sandstones, in NE-trending Mahakam fold belt, characterized by long, tight, faulted anticlines and broad synclines. Anticlines cored by overpressured shales and formed by reactivation of early delta-top extensional growth faults. Change from gravity-driven extension to contraction at ~14 Ma (Calvert 2003: ~10.5 Ma inversion event in Kutei basin tied to collision of Banggai-Sula microcontinent with E Sulawesi, but had already started in E Miocene)

Meciani, L. & M. Orsi (2019)- Creative exploration in a mature basin: Jangkrik and Merakes discoveries (Kutei Basin, Indonesia). Proc. 2019 SE Asia Petroleum Exploration Soc (SEAPEX) Conferencee, Singapore, 2019, 2p.
(Abstract only) (online at: https://archives.datapages.com/data/southeast-asia-petroleum-exploration-society/data/030/030001/pdfs/25a.pdf)
(Two ENI gas discoveries in S part of Makaham delta, in water depths 450 m (Jangkrik; 2009) and 1350-1600 m (Merakes; 2014) in Pliocene submarine fan channels)

Milligan, E.N., M.C. Friederich & Meng Sze Wu Lim (1996)- Coal exploration and development in Southeastern Kalimantan, Indonesia. In: G.P. & A.C. Salisbury (eds.) Trans. 5th Circum-Pacific Energy and Mineral Resources Conference, Honolulu 1990, Gulf Publishing, Houston, p. 221-230.
(Early 1980's exploration and development by BHP of Eocene coal in Pasir (Asem Asem) basin, E of Meratus Mts. Eocene coal measures remarkably uniform over area of 20,000 km^2. Coal in one major interval in lower part of Tanjung Fm, total thickness ~13m, with thin bands of claystone. One thin (0.5-1.5m) but persistent coal horizon 50-100m above main horizon. One thin (1-6m) limestone bed rich in Discocyclina, 100+m above coal measures, could be traced over >100km in N-S direction)

Moge, M. & F. Febvre (2001)- Integrated study of a complex deltaic sand reservoir. Soc. Petroleum Engineers (SPE) Paper 68659, p.
(Total Indonesia paper on Mahakam Delta deltaic sands)

Mohler, W. (1943)- Palaeontology and stratigraphy of the Tertiary of SE Borneo. Chishitsuchosajo (Geological Survey, Bandung) Report 24/CX, p. 1-12. *(Unpublished)*
(Unpublished review by W. Mohler, former BPM-Balikpapan paleontologist, during the Japanese occupation allowed to work at the Geological Survey due to Swiss nationality. Used by Van Bemmelen 1948, p. 137-141)

Mohler, W.A. (1946)- *Sigmoilina personata* n.sp., eine Leitform aus dem Eocen von Sudost Borneo und Java. Eclogae Geologicae Helvetiae 39, 2, p. 298-300.
(online at: https://www.e-periodica.ch/digbib/view?pid=egh-001:1946:39#325)

('Sigmoilina personata n.sp., an index species from the Eocene of SE Borneo and Java'. Description of new small miliolid Sigmoilina personata, an index species for Upper Eocene in SE Kalimantan (Asem Asem and many other E Kalimantan localities) and C Java (Nanggulan))

Mohler, W.A. (1946)- *Lepidocyclina crucifera* n.sp. aus dem Burdigalien von Ost-Borneo. Eclogae Geologicae Helvetiae 39, p. 302-309.
(online at: http://retro.seals.ch/digbib/view?pid=egh-001:1946:39::329)
('Lepidocyclina crucifera new species from the Burdigalian of E Kalimantan'. Stellate and advanced nephrolepidine Lepidocyclina with four rays from Sungai Mandai, Berau area. Associated larger foram assemblage includes Miogypsina and Miogypsinoides and suggests zone Tf1, Burdigalian)

Mohler, W.A. (1948)- Uber das Vorkommen von *Alveolina* und *Neoalveolina* in Borneo. Eclogae Geologicae Helvetiae 41, 2, p. 321-329.
(online at: https://www.e-periodica.ch/digbib/view?pid=egh-001:1948:41#335)
('On the occurrence of Alveolina and Neoalveolina in Kalimantan'. Eocene Alveolina rel. common in NE Kalimantan, but not S of Sangkulirang Bay. Also common in Lutetian, M Eocene (Ta), but not in Priabonian. Neoalveolina (N. pygmaeus group = Borelis; JTvG) first occurs at base of Tc/ Oligocene, and commonly associated with the small, reticulate Nummulites fichteli)

Mohler, W.A. (1949)- *Flosculinella reicheli* n.sp. aus dem Tertiar e5 von Borneo. Eclogae Geologicae Helvetiae 42, 2, p. 521-527.
(online at: https://www.e-periodica.ch/digbib/view?pid=egh-001:1949:42#540)
Flosculinella reicheli, a new species of almost globular flosculinellid from foram-rich marl of Te5/Burdigalian age, in Hajup rubber plantation N of Tanjung, Hulu-Sungei area, N Barito basin, E Kalimantan)

Monthioux, M., P. Landais & J.C. Monin (1985)- Comparison between natural and artificial maturation series of humic coals from the Mahakam delta, Indonesia. Organic Geochemistry 8, 4, p. 275-292.
(Laboratory simulation of in-situ hydrocarbon formation from kerogen, comparing Type III-humic organic matter from Mahakam delta to artificial and natural coal series. Natural maturation simulated better when pyrolysis performed under confined conditions)

Monthioux, M., P. Landais & B. Durand (1986)- Comparison between extracts from natural and artificial maturation series of Mahakam delta coals. Organic Geochemistry 10, p. 299-311.

Moore, T.A. (1990)- An alternative method for sampling and petrographically characterizing an Eocene coal bed, Southeast Kalimantan, Indonesia. Ph.D. Thesis. University of Kentucky, Lexington, p. 1-240.

Moore, T.A., M. Bowe & C. Nas (2014)- High heat flow effects on a coalbed methane reservoir, East Kalimantan (Borneo), Indonesia. Int. J. Coal Geology 131, p. 7-31.
(Miocene Balikpapan Fm in Sangatta, E Kalimantan, >1500m thick with common coal seams, <1- >5m thick, and distributed throughout section. Measured gas <1- 13 m^3/t, increasing downhole in cores. Sangatta area higher geothermal gradient (50 °C/km) than most of E Kalimantan, especially near Pinang Dome in SW. Gas in higher rank area could be thermogenic, while gas isotopes from well away from Pinang Dome indicate biogenic origin)

Moore, T.A. & J.C. Ferm (1988)- A modification of procedures for petrographic analysis of Tertiary Indonesian coals. J. Southeast Asian Earth Sciences 2, 3-4, p. 175-183.
(Plant parts and tissues in SE Kalimantan Eocene coals classified on basis of morphology and degree of degradation. Highest concentration and best preservation of plant parts and tissues in banded coal)

Moore, T.A. & J.C. Ferm (1992)- Composition and grain size of an Eocene coal bed in southeastern Kalimantan, Indonesia. Int. J. Coal Geology 21, 1-2, p. 1-30.
(Eocene coal in SE Kalimantan (Asem Asem) composed of plant parts and tissues in matrix of fine-grained particulate and amorphous material. Plant parts consists of stems, roots and leaves. Amorphous matrix consists

of unstructured humic gels and bitumen. Bright banded coal types contain greatest proportion of well-preserved plant parts. Absence of large (>2mm) plant material and roots in Eocene coal different from Miocene lignite and Holocene peat. Eocene coal formed from palms and ferns which are easily degraded, younger lignite and peat formed from woody angiosperms more resistant to decay)

Moore, T.A., J.C. Ferm & G.A. Weisenfluh (1990)- Relationship of megascopic coal types to quality variation within Eocene-age, Indonesian coal beds. Int. J. Coal Geology 16, p. 147-149. *(Abstract)*
(Mineable deposits (>1 m) of Eocene subbituminous-A rank coal in SE Kalimantan variable quality. Occur in podlike bodies ~3×3 km in areal extent. Four major types. Bright coal types low in ash (6-14%). Bright, banded coal types composed of well-preserved plant tissues (20-35%) and moderately high HGI (35-38). Bright, non-banded coal lower of preserved plant structures (<15%) and lower HGI (30-35). Dull coal types higher ash (15-35%) and HGI (35-40). Sulfur content highest at top of coal beds, associated with overlying marine and brackish water sediments. Thicker, unsplit portions of seams composed of bright, low-ash coal. Dull, high-ash coal types occur in thinner, split benches of coal body)

Moore, T.A. & M.C. Friederich (2010)- A probabilistic approach to estimation of coalbed methane gas-in-place for Kalimantan, Indonesia. In: N.I. Basuki & S. Prihatmoko (eds.) Proc. Kalimantan coal and mineral resources, MGEI-IAGI Seminar, Balikpapan 2010, p. 61-71. *(also in Majalah Geologi (IAGI) 25, 3, 161-172)*
(Preliminary study of Eocene and Miocene coal in Asem-Asem area indicates 253 BCF gas in place (P50))

Moore, T.A. & M.C. Friederich, J. Trofimovs, F. Anggara & D.H. Amijaya (2020)- Syn-sedimentary mafic volcanics in the coal-bearing Tanjung Formation (Eocene), Senakin Peninsula, South Kalimantan (Borneo), Indonesia. Indonesian J. on Geoscience (IJOG) 7, 1, p. 65-85.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/653)
(Dark-grey basalt lava and volcaniclastic units in Late Eocene Tanjung Fm extensive distribution in E Senakin Peninsula, SE Kalimantan, below and above the Main Senakin coal seam. Palagonite alteration on margins of clasts and presence of bivalve and coral fragments in clasics below volcaniclastic unit indicates emplacement into marine environment. Basalt unit is designated Tanah Rata Basalt Member of Tanjung Fm)

Moore, T.A. & R.E. Hilbert (1992)- Petrographic and anatomical characteristics of plant material from two peat deposits of Holocene and Miocene age, Kalimantan, Indonesia. Review Palaeobotany Palynology 72, p. 199-227.
(Kalimantan Holocene and Miocene peats two types of organic material: plant organs/tissues and fine-grained matrix (cell walls and fillings, fungal remains, spores-pollen, resin). Some matrix material amorphous)

Moore, T.A. & C. Nas (2013)- The enigma of the Pinang Dome (Kalimantan Timur): a review of its origin, significance and influence on coal rank and coalbed methane properties. Proc. 37th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA13-G-119, p.
(High gravity anomaly values and increase in vitrinite reflectance of Miocene coal support igneous diapir as origin of Pinang Dome in E Kalimantan)

Moore, T.A., J.C. Shearer & S.L. Miller (1996)- Fungal origin of oxidised plant material in the Palangkaraya peat deposit, Kalimantan Tengah, Indonesia: implications for 'inertinite' formation in coal. Int. J. Coal Geology 30, p. 1-23.
(Palangkaraya extensive (Quaternary) surface peat layer 0-6 m thick. Common oxidised plant material formed from fungal alteration)

Moss, S.J. (1998)- Embaluh Group turbidites in Kalimantan- evolution of a remnant oceanic basin in Borneo during the Late Cretaceous to Paleogene. J. Geological Society, London, 195, p. 509-524.
(Turbidites outcrops in NW Borneo: Embaluh Group in Kalimantan and Rajang Group in Sarawak. Previous interpretation of Late Cretaceous- Paleogene deep marine deposition and deformation in accretionary prism implies S-dipping thrusts, N-ward stratigraphic younging, existence of arc- trench system and deformation and metamorphism of turbidites. New fieldwork established S-ward stratigraphic younging in Kalimantan, no evidence for S-dipping thrusts, metamorphism and accretionary complex-related deformation. Bulk of Rajang-Embaluh Gp postdates inboard subduction-related magmatism. Rajang-Embaluh Group turbidites formed in

post-collisional foreland basin or remnant ocean basin. Lack of identifiable mountain belt and linked thrust system, and probable oceanic affinity of crust beneath Rajang-Embaluh Group basin favor latter)

Moss, S.J., A. Carter, S. Baker & A.J. Hurford (1998)- A Late Oligocene tectono-volcanic event in East Kalimantan and the implications for tectonics and sedimentation in Borneo. J. Geological Society, London, 155, 1, p. 177-192.
(online at: www.researchgate.net/profile/Steve-Moss/publication/240674649_A_Late_Oligocene_tectono-volcanic_event_in_East_Kalimantan_and_the_implications_for_tectonics_and_sedimentation_in_Borneo)
(N Kutai Basin rapid Late Oligocene (~25 Ma) cooling of Late Cretaceous sandstone, E Miocene arc volcanism at 23-18 Ma, E-ward shift of W basin margin and inception of delta deposition along new basin margins. Elsewhere in Borneo also major Late Oligocene-E Miocene thrust imbrication and volcanic arc activity, possibly caused by Australia-Philippine Sea Plate collision, Neogene counterclockwise rotation of Borneo or initial impingement of blocks of S China origin with N Borneo- S Palawan)

Moss, S.J. & J.L.C. Chambers (1999)- Tertiary facies architecture in the Kutai Basin, Kalimantan, Indonesia. J. Asian Earth Sciences 17, p. 157-181.
(online at: www.researchgate.net/publication/248352105_Tertiary_facies_architecture_in_the_Kutai Etc.)
(Kutai Basin Jurassic- Cretaceous basement ophiolitic units overlain by Cretaceous turbidite fan. Basin initiated in M Eocene, with rifting and likely sea floor spreading in Makassar Straits, producing fault-bounded depocenters, followed by sag phase sedimentation. Eocene depocenters variable sedimentary fills depending on position. More uniform sedimentation in later Eocene and Oligocene. Tectonic uplift along S and N basin margins and related subsidence of Lower Kutai Basin in Late Oligocene. Subsidence associated with high-level andesitic-dacitic intrusives and associated volcanics. Miocene, basin fill overall regressive style of sedimentation, interrupted by periods of tectonic inversion throughout Miocene to Pliocene)

Moss, S.J. & J.L.C. Chambers (1999)- Depositional modeling and facies architecture of rift and inversion episodes in the Kutai Basin, Kalimantan, Indonesia. Proc. 27th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 1-22.
(Kutai basin initiated in M Eocene in conjunction with rifting/ sea-floor spreading in N Makassar Straits. Sedimentary fill of Eocene N-S/NE-SW trending, fault-bounded depocenters varies with position relative to sediment source, paleo-water depths and half-graben geometry. This contrasts with uniform sedimentary styles in Late Eocene and Oligocene. Late Oligocene ~N3 unconformity reflects uplift of C Kalimantan and extension Lower Kutai Sub-basin is associated with andesitic-dacitic intrusives and volcanics. Volcanism and basin margin erosion supplied large volumes of material E-wards, along with material from inverted Paleogene depocenters. Miocene regressive sedimentation, interrupted by Miocene- Pliocene tectonic inversions)

Moss, S.J., J. Chambers, I. Cloke, D. Satria, J.R. Ali, S. Baker, J. Milsom & A. Carter (1997)- New observations on the sedimentary and tectonic evolution of the Tertiary Kutai Basin, East Kalimantan. In: A.J. Fraser, S.J. Matthews & R.W. Murphy (eds.) Petroleum Geology of Southeast Asia, Geological Society, London, Special Publ. 126, p. 395-416.
(online at: https://www.academia.edu/download/47885362/New_observations_on_the_sedimentary_and_20160808-22908-13k4jtb.pdf)
(Kutai Basin opened in M-L Eocene in Borneo. Extensional faulting in foreland setting S of Late Cretaceous/ Paleogene C Kalimantan fold belt with U Cretaceous granites. Paleogene stratigraphy basal conglomerates, shallow marine clastics and thick bathyal marine shales. Neogene stratigraphy dominated by deltaic clastics and carbonate platforms. Three Tertiary suites of igneous activity, variously interpreted as melting of orogenic root, extensional driven melting and/or subduction related melting. New model relates formation of Kutai Basin to opening of Celebes Sea and collapse of uplifted Late Cretaceous/Paleogene orogenic belt. Mobil Mawai 1 well penetrated overmatureOligocene at surface, suggesting >3-4 km of uplift and erosion)

Moss, S.J. & E.M. Finch (1998)- Geological implications of new biostratigraphic data from East and West Kalimantan, Indonesia. J. Asian Earth Sciences 15, p. 489-506.
(New biostrat data from Cretaceous- Miocene of various parts of Kalimantan)

Munniks de Jong, W.D. (1915)- Aantekeningen over de Tidoengsche landen (Res. Z en O. afd. Van Borneo) bewerkt naar het rapport van W.D. Munninks de Jongh. Jaarboek Mijnwezen Nederlandsch Oost-Indie 42 (1913), Verhandelingen, p. 22-35.
(Summary of reconnaissance survey report by Munniks de Jongh in 'Tidung lands' (NE Kalimantan- Sabah border area). Occurrences of steep hills of Eocene Nummulites limestone (some also with Pellatispira; Rutten 1915a, b). Older 'Sembakoeng beds' are intensely folded shales and sands with bands of red radiolarite rock, similar to Cretaceous Alino-Waringin beds of SE Kalimantan Meratus Mountains. Rutten (1915) found fragments of this radiolarite in Eocene limestone)

Nagasaka, M. (1978)- Exploration of the Mahakam Delta, East Kalimantan, Indonesia. J. Japanese Association for Petroleum Technology 43, 6, p. 407-415.
(online at: https://www.jstage.jst.go.jp/article/japt1933/43/6/43_6_407/_article/-char/en)
(In Japanese, with English summary. In response to rising Kuching High, large amount of paralic sediments deposited to East. Mahakam Delta at least two paleo-deltas in M Miocene-Pliocene. All oil-gas production from paralic sediments, 90% or more are from deltaic sediments. With generalized paleogeographic maps)

Nainggolan, D.A., T. Padmawidjaja & W.H. Simamora (2004)- Interpretasi gayaberat terhadap Cekungan Kutai Barat, dan struktur-struktur lain di Lembar Long Pahangai dan Long Nawan, Kalimantan Timur. Jurnal Sumber Daya Geologi (JSDG) 14, 3 (147), p. 181-195.
('Interpretation of gravity of the W Kutai Basin and structures in the Longpahangai and Longnawan sheets, E Kalimantan')

Napitupulu, H. & I.B. Sosrowidjojo (2002)- The Warukin Formation: an alternative source rock in the Barito Basin. Proc. 31st Annual Conv. Indonesian Association Geologists (IAGI), Surabaya, 1, p. 138-155.
(online at: https://www.iagi.or.id/web/digital/17/THE-WARUKIN-FORMATION-;-AN-ALTERNATIVE-SOURCE-ROCK-IN-THE-BARITO-BASIN.pdf)
(M Miocene coal-bearing Warukin Fm good-excellent hydrocarbon source rocks. Vitrinite reflectance in wells 0.3-0.68% (slightly suppressed?), suggesting lower part of formation could be fully mature in 2 depocenters. Onset oil generation in Bangkau depocenter at ~4 Ma (top oil window 2250m), in Tapian Deep at ~6 Ma (top oil window ~2900m. Modelling suggests oil expulsion of ~2000 MMBO in last few Myrs)

Napitupulu, H. & Yulian B. (1987)- Kematangan batuan induk di lapangan Tapa- Pulau Bunyu. Proc. 16th Annual Conv. Indonesian Association Geologists (IAGI), p.
('Maturation of source rocks in the Tapa field, Bunyu Island')

Nas, C. (1994)- Spatial variation in thickness and coal quality of the Sangatta seam, Kutei Basin, Kalimantan, Indonesia. Ph.D. Thesis, University of Wollongong, Wollongong, NSW, Australia, p. 1-324. *(Unpublished)*
(online at: http://ro.uow.edu.au/cgi/viewcontent.cgi?article=2409&context=theses)
(Late M Miocene Sagatta coal seam is most important seam in Balikpapan Fm of Sangatta coalfield, N Kutai Basin, E Kalimantan. Formed as raised peat bog in floodplain of mixed load fluvial-deltaic system. Average coal thickness 6m. High vitrinite (av. 91%). Low liptinite (av. 3%), inertinite (av. 3%), mineral matter (av. 2%) and sulfur (av. 0.4%))

Nas, C. & Hidartan (2010)- The quality of Central Kalimantan coking coals. Majalah Geologi Indonesia (IAGI) 25, 3, p. 173-185.

Netherwood, R. & A. Wight (1992)- Structurally-controlled, linear reefs in a Pliocene delta front setting, Tarakan Basin, Northeast Kalimantan. In: C.T. Siemers, M.W. Longman et al. (eds.) Carbonate rocks and reservoirs of Indonesia, Indonesian Petroleum Association (IPA), Core Workshop Notes 1, Ch. 3, p. 1-36.
(Sceptre Vanda-1 well targeted 90m clean but cemented and partly shaly Pliocene? limestone. Four depositional facies: coral framestone, coral rudstone, argillaceous coral floatstone-rudstone and laminated silty claystone. Four cleaning-up cycles, representing sequences of reef-growth and progradation. None of cored limestones good reservoir potential)

Nikijuluw, R., Z.A. Suwito, M.A. Arianto & D.A. Anggraini (2005)- Integrated reservoir assessment: a way to identify "overlooked" multi-layered reservoirs. Soc. Petroleum Engineers (SPE) Asia Pacific Oil and Gas Conference and Exhibition, Jakarta, Paper 93198-MS, p. 1-10. *(Extended Abstract)*
(VICO Semberah field 1974 oil-gas discovery in onshore Mahakam Delta, E Kalimantan, in complex multi-layer M-U Miocene fluvio-deltaic sandstone reservoirs. New assessment of previously overlooked thin-bedded Fxx sand series)

Nirsal, N. (2010)- Facies distribution and stratigraphic development in the paleo-Mahakam Delta, Indonesia M.Sc. Thesis, Chulalongkorn University, Bangkok, p. 1-83. *(Unpublished)*

Nirsal, N.B. (2010)- Facies distribution and stratigraphic development in the Palaeo-Mahakam Delta, Indonesia. Bull. Earth Sciences Thailand (BEST) 3, 2, p. 25-27.
(online at: https://ph01.tci-thaijo.org/index.php/bestjournal/article/view/246485/167557
(Brief summary of facies in 200m outcrop section S of Samarinda, E Kalimantan. Transgressive marine beds)

Nisa, F.A., L. Jurnaliah, Winantris & K. Nugrahanto (2024)- Environmental changes during the Late Miocene to Pleistocene using small foraminifera and palynomorphs in the Kutai Basin, East Kalimantan. Bulletin of the Marine Geology 39, 2, p. 97-110.
(online at: https://ejournal.mgi.esdm.go.id/index.php/bomg/article/view/855/640)
(Abundance patterns of small foraminifera and palynomorphs in Late Miocene- Pleistocene in well "FN O-1"in N part of offshore Kutai Basin used for facies and sequence stratigraphic interpretations))

Noeradi, D., B.P. Muritno, Sukowitono, E.A. Subroto & Djuhaeni (2005)- Petroleum system and hydrocarbon prospectivity of the Simenggaris Block and its surrounding areas, Tarakan Basin, East Kalimantan, Indonesia: a new approach by using sequence stratigraphy. Proc. AAPG International Conference Exhibition, Paris 2005, 6p. *(Extended Abstract)* *(online at: https://www.researchgate.net/publication/281457083_Petroleum_System_and_Hydrocarbon_Prospectivity_of_the_Simenggaris_Block Etc.)*
(Eight sequences/ sequence boundaries of Late Oligocene/ Early Miocene-Pliocene age identified in western, onshore part of Tarakan basin)

Noon, S.W., J. Harrington & H. Darman (2003)- The Tarakan Basin, East Kalimantan: proven fluviodeltaic, prospective deep-water and Paleogene plays in a regional stratigraphic context. Proc. 29th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 417-430.
(Tarakan basin four sub-basins Tidung, Tarakan, Berau and Muara. Rift sedimentation underway by 43 Ma (M Eocene) and may have begun in Cretaceous. Rifting continued until tectonic event near Eocene-Oligocene boundary. Basin sag and eustasy controlled sedimentation until M Miocene. Episodic compression, punctuated by eustatic events, characterizes M Miocene- Recent. Neogene source rocks mostly coals and 'fluvio-deltaic, paralic' organic-rich shales. Reservoired oils in shelf settings point to mature Miocene source. Evidence for hydrocarbons from Eocene or older organic matter. Paleogene or older lacustrine, brackish and marine, syn-rift sediments)

Novak, V. & W. Renema (2015)- Larger foraminifera as environmental discriminators in Miocene mixed carbonate-siliciclastic systems. Palaios 30, p. 40-52.
(Larger foraminifera from late E-M Miocene mixed carbonate-siliciclastics near Samarinda and Bontang, E Kalimantan, suggest Batu Putih section paleoenvironments ranged from delta front to shelf edge reefs, Bontang and Stadion sections formed in more restricted environments, under higher terrigenous inputt settings)

Novak, V., N. Santodomingo, A. Rosler, E. Di Martino, J.C. Braga, P.D. Taylor, K.G. Johnson & W. Renema (2013)- Environmental reconstruction of a late Burdigalian (Miocene) patch reef in deltaic deposits (East Kalimantan, Indonesia). Palaeogeogr. Palaeoclim. Palaeoecology 374, p. 110-122.
(online at: https://www.academia.edu/10434967/Environmental_reconstruction_of_a_late_Burdigalian_Miocene_patch_reef_in_deltaic_deposits_East_Kalimantan_Indonesia)

(Paleoenvironment and biodiversity of Late Burdigalian (Tf1 with Miogypsina cf. globulina, Lepidosemicyclina polymorpha, Flosculinella bontangensis, etc.) patch reef developed in mixed carbonate- siliciclastic system. Outcrop at NE margin of Kutai Basin near Bontang. Five facies types distinguished: foraminiferal packstone (FP), bioclastic packstone with foralgal communities (BP), thin-platy coral sheetstone (CS), platy-tabular coral platestone (CP), and shales (S). Assemblages and growth forms of coralline algae no major differences between facies types and dominated by melobesioids and Sporolithon)

Noventiyanto, A. & I. Wahyudi (2011)- How geochemical analysis led to a discovery: South Sebuku-1 case, Bengara I PSC, North East Kalimantan. Proc. 36th HAGI and 40th IAGI Annual Conv., Makassar, JCM2011-360, p. 1-7.
(online at: https://www.iagi.or.id/web/digital/10/2011_IAGI_Makassar_How-Geochemical-Analysis.pdf)
(Sebuku-1, drilled by ARCO in 1976, had hydrocarbon shows in Tabul and Meliat Fms. Heptane content in gas higher than many dry holes in other areas, suggesting leakage from nearby oil or condensate accumulation could be source of light hydrocarbons. Sebuku-1 well was drilled down-dip of N flank of S Sebuku structure. Medco S Sebuku-1 well discovered deltaic reservoirs with gas-condensate in Tabul and Meliat Fms in 2009)

Novian, M.I. & H.D.K. Wijayanti (2012)- Paleogeography and sedimentation dynamics of Ujoh Bilang- Batubelah Limestone Member, upstream Mahakam River, Ujoh Bilang area, East Kalimantan Province. J. Southeast Asian Applied Geology (UGM) 4, 2, p. 99-107.
(online at: https://jurnal.ugm.ac.id/jag/article/view/7201/5640)
(Facies study of outcrops in anticlinal structure along upstream Mahakam River close to Ujoh Bilang village up to Batubelah include M-L Eocene non-marine rift deposits of upper part of Batu Ayau Fm (reddish bioturbated facies looks like Tanjung Fm in Barito Basin; JTvG), Ujoh Bilang Fm (Early Oligocene, with Nummulites, Eulepidina) and massive Batubelah Limestone Mb with Late Oligocene Austrotrillina, Miogypsinoides, etc.)

Novita, D. & K.D. Kusumah (2016)- Karakteristik dan lingkungan pengendapan batubara Formasi Warukin di Desa Kalumpang, Binuang, Kalimantan Selatan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 17, 3, p. 139-152.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/12/5)
('Characteristics and depositional environment of the Warukin coal formation in Kalumpang village, Binuang, South Kalimantan'. Warukin Fm coal near Kulumpung deposited in upper delta plain and floodplain environments. Vitrinite reflectance (Vr) 0.29- 0.49% (lignite- subbituminous = immature- earliest mature))

Nuay, E.S., A.M. Astarita & K. Edwards (1985)- Early Middle Miocene deltaic progradation in the southern Kutai Basin. Proc. 14th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 63-81.
(Eastward prograding M Miocene delta system in Balikpapan area, driven by early M Miocene uplift. Source for well-sorted and rounded quartz-rich sediments probably sandstones of earlier progradational cycle derived directly from granitic Sunda shield. Age of base sandy series ('Omega' horizon) near zone N8-N9 boundary. (Equivalent of E Java Ngrayong sst ?; JTvG))

Nuay, E.S. & A.P. Kadar (1994)- Neogene bioevents in the Kutai basin, Sanga-Sanga contract area, East Kalimantan, Indonesia. In: R. Tsuchi (ed.) Pacific Neogene events in time and space, Contributions to the West Pacific. IGCP-246, Shizuoka University, Japan, p. 87-100.

Nugraha, H.D. & H.B. Maulin (2025)- Hybrid turbidite–contourite systems in the modern Tarakan Basin: seismic sedimentology and analogue for subsurface storage. Frontiers in Earth Science 13, 1614416, p. 1-15.
(online at: https://www.frontiersin.org/journals/earth-science/articles/10.3389/feart.2025.1614416/full)
(Present-day deepwater sedimentation in Tarakan Basin, off NE Kalimantan changes in character from N to S, from predominant bottom-current (contourite) deposits in N; to turbidity and contour currents in center; to mainly turbidity currents in S)

Nugraha, R.H.C. & N.I. Basuki (2012)- Evidence of backstepping carbonate platform during Oligo-Pliocene in Landas Area, eastern tip Mangkalihat Peninsula, Eastern Borneo, Indonesia. Proc. 36th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA12-G-016, p. 1-15.

Nugrahanto, K., I. Syafri & B. Muljana (2021)- Depositional environment of deep-water fan facies: a case study of the Middle Miocene interval at the Kutei and North Makassar Basins. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 22, 1, p. 45-57
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/574/449)
(Regional study with depositional environment maps of M Miocene deep-water facies in deep water Mahakam area of N Makassar Strait. Few or no wells in deep waterdrilled deep enough to reach M Miocene)

Nugrahanto, K., I. Syafri & B. Muljana (2021)- QFL and lithofacies: predicting reservoir quality of the Middle Miocene deep-water facies at Kutei and North Makassar basins. Bulletin of the Marine Geology 36, 1, p. 1-14.
(online at: http://ejournal.mgi.esdm.go.id/index.php/bomg/article/view/706/518)
(Sandstone petrography of offshore M Miocene's deep-water reservoirs. Foram zones N8-early N10 volcanogenic sandstones (volcanic-lithics increasing from <10% to >20%.). Later Middle Miocene sands (N10-N14) high-quartz sandstones (>80% of framework grains); also in early Late Miocene (M-L Miocne also highest sedimentation rates, higher than today, reflecting Sabah uplift and erosion; Hutchison, 2005))

Nugroho, B., E. Guritno, H. Mustapha, W. Darmawan, A. Subekti & C. Davis (2016)- Post rift Oligocene marine source rock, a new petroleum system in Greater Bangkanai, Upper Kutai, Indonesia. Proc. Int. Petroleum Technology Conference (IPTC), Bangkok, IPTC-18922-MS, p. 1-15.
(Kerendan gas field in Bangkanai PSC, onshore Kutai Basin, is Oligocene carbonate gas producer. Gas previously postulated to be generated from Eocene terrestrial source rocks, but recent C isotope data suggest gas generation from marine source rock, not terrestrial in origin)

Nugroho, B., E. Guritno, Y. Rizal & G. Djazuli (2022)- Lower Miocene petroleum system in the Upper Kutai Basin- a hidden potential. Proc. 46th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA22-G-255, p. 1-15.
(Medco paper on hydrocarbon potential of virtually unexplored deeper play in Upper Kutai basin in Lower Miocene delta deposits (Lower Miocene deltaic sands in Upper Kutai Greater Bangkanai area))

Nugroho, S.B. & D. Mandhiri (1993)- Reservoir modeling in the Bunyu Tapa gas field- an integrated study. Proc. 22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 617-626.
(online at: https://www.iagi.or.id/web/digital/53/22nd-Volume-2-(6-9-Des-1993)-11-20.pdf)
(Bunyu Tapa gas field in N Tarakan basin with >84 mappable fluvio-deltaic sand bodies, with thickness of <1->30m. Same paper as Ramli, Nugroho et al. (1993), published in IPA Proceedings)

Nugroho, S.B., B.S. Murti & B.M. Toha (2004)- Implementation of volume interpretation in revealing upside potential in a mature field, the Sangatta oilfield: a case study. In: ASEG 17th Geophysical Conference, Sydney 2004, p. 1-5. *(Extended Abstract)*
(online at: https://www.tandfonline.com/doi/pdf/10.1071/ASEG2004ab109)
(Seismic 3D volume interpretation revealed deeper play potential below mature (1939) Sangatta oil field, N of Mahakam Delta, onshore E Kalimantan)

Nugroho, S.H., P.S. Putra, E. Yulianto & D. Noeradi (2018)- Multivariate statistical analysis for characterization of sedimentary facies of Tarakan sub-basin, North Kalimantan. Marine Georesources & Geotechnology 36, 8, p. 907-917. *(online at: https://www.researchgate.net/profile/Purna-Putra/publication/321354423_Multivariate_statistical_an Etc.)*
(Statistical analuysis of 23 surface sediment samples off NE Kalimantan. Dominance of silt, poorly sorted...))

Nummedal, D., Y.J. Partono, L. Greene, M. Boehm et al. (2000)- High-frequency sequence architecture in upper Miocene and Quaternary strata on the Mahakam Shelf, East Kalimantan, Indonesia. AAPG International Conference Exhib., Bali, Abstracts, American Assoc. Petroleum Geol. (AAPG) Bull. 84, 9, p. 1470-1471.
(Abstract only) (online at: www.searchanddiscovery.com/abstracts/html/2000/intl/abstracts/297.htm)
(U Miocene productive interval in typical Attaka well ~1325 m thick, subdivided in ~35 sequences, averaging ~38 m thick. Age of succession 10.7- 7.3 Ma (3.4 My), suggesting sequences may be Milankovitch 100 ky climate

cycles. Sequences stacked in progradinging pattern. In some sequences, predominantly in lower part of sampled interval, clinoforms downlap onto TST and HST carbonates. 100 ky climate cycles also dominated Late Quaternary sedimentation on Mahakam shelf. Last Quaternary cycle average 40m thick, with erosional basal sequence boundary deeply incised by paleovalleys)

Nursanto, E., A. Idrus, H. Amijaya & S. Pramumijoyo (2013)- Characteristics and liquefaction of coal from Warukin Formation, Tabalong area, South Kalimantan, Indonesia. J. Southeast Asian Applied Geology (UGM) 5, 2, p. 99-104. *(also in Int. J. Economic and Environment Geology 2013, 4, 1, p. 1-4)*
(online at: https://journal.ugm.ac.id/jag/article/view/7211)
(Study of coal quality in M Miocene Warukin Fm in three coal seam outcrops of Tabalong area, Barito Basin)

Nursanto, E. & A. Ilcham (2018)- Characteristic of low rank coal from Warukin Formation, South Kalimantan and their implication for coal liquefaction. In: Int. Conf. Earth Science Mineral and Energy, Yogyakarta 2018, IOP Conference Series: Earth and Environmental Science 212, 012027, p. 1-11.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/212/1/012027/pdf)
(On coal liquefaction potential of Miocene Warukin Fm low-rank coal in Barito Basin, SE Kalimantan)

Nurwono, P.T. (1978)- Producing gas-condensate and oil rim reservoirs from channel sands of the Badak field. Proc. 7th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 383-398.

O'Connor, S., A.M. Ramdhan, Arifin & A.C. Ellis (2023)- The Resistivity log and is role in understanding sediment unloading in the Lower Kutai Basin, Indonesia. Indonesian J. on Geoscience (IJOG) 10, 3, p. 379-392.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/983/436)
(Signiificant overpressure issues in Miocene deltaic deposits in Mahakam Delta area. Resistivity logs can be useful tool for pore pressure prediction in unloaded shale at elevated temperatures in Lower Kutai Basin, when sonic logs are not available)

Oppenoorth, W.F.F. (1930)- Verslag der diepboringen op het eiland Boenjoe. Jaarboek Mijnwezen Nederlandsch Oost-Indie 58 (1929), Verhandelingen, p. 158-186.
('Report of deep drilling on Bunyu Island'. Two 'deep'wells (500m, 342m) drilled in 1923-1925 by Geological Survey, Bandung, on anticlinal structure with small gas seeps on S Bunyu, NE Kalimantan. Drilled with purpose of finding oil. Oil and gas shows encountered, but well stopped short of target. Well 1 drilled in 1923-1924, with gas blowouts and total depth of 492m. Also 7 shallow (125-235m) reconnaissance wells. Detailed well lithology columns show numerous coal beds. With detail map of S Bunyu structure made by Leupold (Umbgrove 1932))

Orange, D.L., P.A. Teas, J. Decker, P. Baillie & T. Johnstone (2009)- Using SeaSeep surveys to identify and sample natural hydrocarbon seeps in offshore frontier basins. Proc. 33rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 1-21.
(High resolution bathymetry and backscatter surveys help identify seafloor hydrocarbon seepage)

Ott, H.L. (1987)- The Kutei Basin- a unique structural history. Proc. 16th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 307-317.
(Structural model, combining tectonic, gravitational and isostatic forces to produce present day compressional surface anticlines in Kutai Basin)

Oudin, J.L. (1987)- Diagenese de la matiere organique dans le bassin de la Mahakam. In: Geologie de la matiere organique, Memoires Societe Geologique France, N.S., 151, p. 107-114.
('Diagenesis of organic matter in the Mahakam Basin')

Oudin, J.L. & P.F. Picard (1982)- Genesis of hydrocarbons in the Mahakam Delta and the relationship between their distribution and the overpressured zones. Proc. 11th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 181-202.
(Oil- gas fields in Mio-Pliocene deltaics with high % of organic material. Though mainly vegetal, good source potential for gas and oil. Oils from different reservoirs in Handil field similar composition, but lighter oils in

shallower reservoirs. Distribution of oil and gas fields primarily depends on kinetics of hydrocarbon expulsion)

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(A 9.5m core from inland peatland in Kalimantan reveals organic matter accumulation started around 26,000 ky, providing oldest reported initiation date for lowland ombrotrophic peat formation in SE Asia)

Palar, S., J.F. Bowen, A. Elim, K.P. Leger, B. Simmonds, G.C. Fryns, M. Hursey & Marwoto (1999)- Sepinggan Field development: a cross-functional team effort to develop bypassed attic oil. Proc. SPE Asia Pacific Oil and Gas Conference Exh. (APOGCE), Jakarta, 1999, p. 1-12.

Panggabean, H. (1991)- Tertiary source rocks, coals and reservoir potential in the Asem-Asem and Barito basins, Southeastern Kalimantan, Indonesia. Ph.D. Thesis, University of Wollongong, p. 1-224.
(online at: http://ro.uow.edu.au/theses/2113/)
(Late Paleocene- E Eocene rifting in SE Borneo created the originally contiguous Barito, Asem-Asem and Kutei basins. Meratus uplift started in Late Miocene. Eocene and Miocene coals. Etc.)

Panggabean, H. (1999)- Paleogene sedimentary rocks and paleogeography in Northeast Kalimantan basins. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 9, 96, p. 2-20.
(Review of Eocene-Oligocene stratigraphy and paleogeography of Tidung, Berau, Muara and Tarakan sub-basins, NE Kalimantan. Initiation of basis probably back-arc extension. Paleogene rocks starts with Eocene basal conglomerates, unconformable on tectonized Cretaceous Danau and Embaluh Fms. Paleogene coals rel. limited. Late Eocene- E Oligocene and early M-Late Miocene (Sabah Orogeny) deformation/ uplift events. Rel. widespread Oligocene limestones. With paleogeographic maps for Late Cretaceous, Eocene and Oligocene)

Panggabean, H. & R. Heryanto (2014)- Karakteristik mikroskopis dan fasies batubara di daerah Kualakurun dan sekitarnya, Kalimantan Tengah. Majalah Geologi Indonesia (IAGI) 29, 3, p. 127-141.
('The microscopic characteristics and coal facies in Kualakurun and surrounding area'. Eocene Tanjung Fm coals at Kahayan River area, W side of Barito Basin, C Kalimantan. Coal bed 0.3-3.0m thick, deposited in delta plain environment. Vitinite 80-92%, liptinite 0.4-5.0%, inertinite 0-10%. Vitrinite reflectance (Rv) 0.48-0.62% (= immature- early mature; = >2km of overburden removed?; JTvG))

Panigoro, H. (1983)- Petrographic characteristics of Badak and Nilam field sandstone reservoirs. Proc. 12th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 191-206.
(E Kalimantan Badak and Nilam fields 140 reservoir sands between 4000'- 13000'. Sandstones quartz arenites and felspathic are main cementing agents, some carbonate and ferruginous cement also observed)

Panigoro, H. (1989)- Exploration implications of porosity and permeability preservation by early migration of hydrocarbon in the Kutei Basin, East Kalimantan, Indonesia. Proc. 18th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 1-15.
(Wet sands generally tighter than hydrocarbon bearing ones, suggesting presence of hydrocarbons inhibited porosity-permeability reduction by diagenesis)

Panjaitan, B., D. Pakpahan & S. Sirait (2014)- Potensi CBM berdasarkan data analisa kimia batubara dan studi geologi regional pada Formasi Warukin dan Formasi Tanjung, cekungan Barito bagian utara, Kalimantan Tengah dan Selatan. Proc. 43rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, PIT IAGI 2014-040, p. 1-5.
(online at: https://www.iagi.or.id/web/digital/6/2014_IAGI_Jakarta_Potensi-CBM-Berdasarkan.pdf)
('CBM potential based on chemical analysis data of coal and regional geological study on the Warukin and Tanjung Fms in N part of the Barito basin, C and S Kalimantan'. Miocene Warukin Fm coal with moisture 3-14%, volatile matter 35-50%, ash 4-20%, sulfur 0.4- 4%, calories 5000-6000 ca /g (sub-bituminous coal quality B A). Eocene Tanjung Fm coal moisture 3-6%, volatile matter 30-50%, 3% ash, sulfur 0.2- 2%, calories 6000-7000 cal/g (bituminous A). Presence of face and butt cleats support potential of CBM)

Panuju, I. Prayitno, G. Rahmat, I. Firdaus & G. Sunardyanto (2007)- Revision of the Late Miocene nannoplankton biostratigraphy for Kutei Basin. Proc. Joint Convention 32nd HAGI, 36th IAGI and 29th IATMI, Bali 2007, JCB2007-098, p. 629-646. *(online at: https://www.iagi.or.id/web/digital/28/2007_IAGI-Bali_Revision-of-the-Late-Miocene-Nannoplankton.pdf)*
(Higher resolution Late Miocene calcareous nannoplankton zonation, based on samples from 23 unidentified wells in Kutai Basin. Seven zones subdividing Martini zones NN9- NN12 zones, based on, from base to top: FO (Base) Discoaster quinqueramus, LO (Top) Minilitha convalis, FO Amaurolithus primus, FO Reticulofenestra rotaria, LO Discoaster berggrenii, LO Reticulofenestra rotaria and LO Discoaster quinqueramus)

Partono, Y.J. (1992)- Low-resistive sandstone reservoirs in the Attaka Field. Proc. 21st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 21-34.
(Giant Attaka oil field in E Kalimantan reservoirs are M- L Miocene multi-layered deltaic- shallow marine sandstones. Both high-resistive and low-resistive hydrocarbon-bearing sandstone layers present)

Pasaribu, D., F. Mustabidin & E.P. Kusumah (2021)- The Samarinda Anticline: surface field study at Sungai Siring, Samarinda, East Kalimantan. Jurnal Teknologia 3, 2, p.

Passe, W.B.B., H.R.E. Nugraha, M.A. Wijaya, L. Sitio & Y. Febriyeni (2008)- Hydrocarbon play in Ketungau-Melawi basins. Proc. 32nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IP08-SG-082, p. 1-9.
(Ketungau- Melawi intra-continental basins of W Kalimantan separated by Semitau Ridge. Semitau Complex ?Triassic metamorphic basement unconformably overlain by Cretaceous marine Pedawan Fm clastics, possible source rocks. Tertiary terrigeneous and marine clastics. Source rock in (Eocene?) Silat and Sekayak Fms. Reservoir rocks in deltaic sandstone of E-M Miocene (should be Eocene; JTvG) Haloq Fm. Paleocurrent and provenance analysis indicate clastic source from N, from uplift of Boyan melange and Lubok Antu melange)

Paterson, D.W., A. Bachtiar, J.A. Bates, J.A. Moon & R.C. Surdam (1997)- Petroleum systems of the Kutai Basin, Kalimantan, Indonesia. In: J.V.C. Howes & R.A. Noble (eds.) Proc. Int. Conference Petroleum Systems of SE Asia and Australasia, Jakarta 1997, Indonesian Petroleum Association (IPA), p. 709-726.
(M- Late Miocene delta plain- delta front coals and carbonaceous shales are source for Lower Kutei Basin oil and gas fields)

Payenberg, T.B., S.C. Lang, G.P. Allen & R. Koch (1999)- Orientations of deltaic and alluvial channels in the Middle Miocene onshore part of the Kutai Basin, East Kalimantan and their potential as hydrocarbon reservoirs. In: H. Darman & F.H. Sidi (eds.) Tectonics and sedimentation of Indonesia, FOSI-IAGI-ITB Regional Seminar to commemorate 50th anniversary of Van Bemmelen's Geology of Indonesia, Bandung 1999, p. 64-66.
(Paleocurrents in M Miocene deltaic sandstones of Mutiara Field, S of Mahakam Delta. Smaller, isolated fluvial-dominated delta distributary channels oriented generally N-S; Amalgamated alluvial channels (incised valleys) orientation mainly WSW-ENE)

Payenberg, T.H.D. & A.D. Miall (2001)- A new geochemical sequence stratigraphic model for the Mahakam Delta and Makassar Slope, Kalimantan, Indonesia: Discussion. American Assoc. Petroleum Geol. (AAPG) Bull. 85, 6, p. 1098-1101.
(Discussion of Peters et al. 2000 paper, taking issue with using outdated cycle chart and undocumented sequence ages)

Payenberg, T.B., F.H. Sidi & S.C. Lang (2003)- Paleocurrents and reservoir orientation of Middle Miocene channel deposits in Mutiara field, Kutei Basin, East Kalimantan. In: F.H. Sidi, D. Nummedal et al. (eds.) Tropical deltas of Southeast Asia- sedimentology, stratigraphy and petroleum geology, Society for Sedimentary Geology (SEPM) Special Publ. 76, p. 255-266.
(Mutiara field producing from M Miocene fluvio-deltaics. Main reservoirs channelized sandstones. Single-story channels overall flow direction to S, parallel to strike of anticlines, probably response to M Miocene tectonic activity. Multi-story incised valley(s) E-W orientation)

Pelton, P.J. (1974)- Exploration of the South Barito Basin reef tract, Kalimantan, Indonesia. Proc. 3rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 153-169.
(Barito basin exploration started in 1937 with unsuccessful NKPM Kahajan and Kuripan wells. Conoco in 1971 drilled four more dry wells, targeting Upper Berai Fm carbonate buildups)

Permana, A.K., A. Kusworo, J. Wahyudiono, Y.A. Sendjaja, H. Panggabean & L. Fauziely (2022)- Chemostratigraphy and paleoenvironment of the Miocene organic rich sediments in the East Kutai Sub-Basin, Indonesia. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 23, 1, p. 1-15.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/660/470)
(Miocene deltaic sediments in Samarinda area good hydrocarbon source rocks in E Kutai sub-basin. Organic matter content in M Miocene higher than Early Miocene)

Permana, A.K., Y.A. Sendjadja, H. Panggabean & L. Fauzely (2018)- Depositional environment and source rocks potential of the Miocene organic rich sediments, Balikpapan Formation, East Kutai Sub Basin, Kalimantan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 19, 3, p. 171-186.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/407/359)
(Organic rich shales of Miocene Balikpapan Fm near Samarinda with TOC up to 15.6%, coals from 2.25% to 57.1%. Organic matter dominated by vitrinite with minor liptinite and inertinite (terrigenous organic matter). Hydrogen index values low (4-248 mgHC/g TOC). Ro ~0.7% shows low-moderate thermal maturation levels)

Pertamina BPPKA (H. Darman et al.) (1996)- Petroleum geology of Indonesian basins. V: Tarakan basin, Northeast Kalimantan. Petroleum geology of Indonesian basins: principles, methods, and application, Jakarta, p. 1-36.

Pertamina BPPKA (A. Bachtiar et al.) (1996)- Petroleum geology of Indonesian basins, XI: Kutai Basin. Petroleum geology of Indonesian basins: principles, methods, and application, Jakarta, p. 1-

Peters, K.E., J.W. Snedden, A. Sulaeman, J.F. Sarg & R.J. Enrico (1999)- New deepwater geochemical model for the Mahakam delta and Makassar slope, Kalimantan. Proc. 27th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 381-395.
(New source model: (1) waxy highstand oils onshore from M-U Miocene coals and shales deposited in coastal plain highstand kitchens; (2) less waxy lowstand-1 oils offshore from M-U Miocene coaly source rocks in deepwater lowstand kitchens. Most lowstand-2 oils higher maturity than lowstand-1 oils and originated from L-M Miocene coaly source rocks. (3) low-maturity, nonwaxy transgressive oils onshore from M Miocene marine shales deposited near maximum flooding surfaces)

Peters, K.E., J.W. Snedden, A. Sulaeman, J.F. Sarg & R.J. Enrico (2000)- A new geochemical sequence stratigraphic model for the Mahakam Delta and Makassar slope, Kalimantan, Indonesia. American Assoc. Petroleum Geol. (AAPG) Bull. 84, 1, p. 12-44.
(online at: https://www.researchgate.net/publication/277837840_A_New_Geochemical-Sequence_Stratigraphic_Model_for_the_Mahakam_Delta_and_Makassar_Slope_Kalimantan_Indonesia)
(Generally accepted geochemical-stratigraphic model for Mahakam-Makassar Straits fails to explain recent discoveries. Revised model upgrades potential of outer shelf. M Miocene source rock interval within oil window based on seismic reinterpretation and source specific kerogen kinetics. Two major and two minor petroleum systems recognized, dominated by terrigenous type III organic matter)

Pieters, P.E., D.S. Trail & S. Supriatna (1987)- Correlation of Early Tertiary rocks across Kalimantan. Proc. 16th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 291-306.
(Major unconformity at base Tertiary across Kalimantan. Basal Tertiary sandstone, dominantly terrestrial and dated as Late Eocene, overlain by mudstone, then sandstone/mudstone unit. Second unconformity truncates this sequence in W Kalimantan and is succeeded by overlapping terrestrial sandstone and Oligocene mudstone. Third unconformity confined to E Kalimantan is overlain by Miocene deltaic sediments. Elongate, W-trending basin filled by Early Tertiary sediments is folded and overthrust along N contact with orogenic complex by N-dipping thrusts. With 3 paleogeographic maps)

Polhaupessy, A.A. (1998)- Palynology of Tanjung Formation, Rantau, South Kalimantan. Proc. 34th Session Coord. Comm. Coastal Offshore Geoscience Programmes E and SE Asia (CCOP), Taejon, Korea 1997, 2, Technical Reports, p. 35-39.
(Palynology of two sections of Tanjung Fm at Linuh and Miyawa, E of Rantau, Barito basin. Contain Late Eocene-Oligocene assemblages of Florschuetzia trilobata, Retistephanocolpites williamsi, Meyeripollis naharkotensis and Verracutosporites usmensis. Depositional environment intertidal backmangrove vegetation system, in transgressive system)

Polhaupessy, A.A. (2007)- Palynocycles of Late Eocene Formation: a case study in Tanjung Formation, South Kalimantan. In: Geologi Indonesia: dinamika dan produknya, Geological Research Development Centre (GRDC), Bandung, Special Publ. 33, 2, p. 149-165.
(Quantitative palynological study of Late Eocene Tanjung Fm in Asem-Asem basin, S Kalimantan, to determine cyclic patterns. Tropical assemblages. Diversity maximum at cycle boundaries, minimum in middle cycle)

Posthumus, O. (1929)- Vischotolieten van N.O. Borneo. Wetenschappelijke Mededeelingen Dienst Mijnbouw Nederlandsch-Indie 9, p. 87-108.
('Fish otoliths of NE Borneo'. Description of fish otoliths from Miocene- Pliocene samples collected in NE Kalimantan Bulungan and Berau areas by Leupold)

Pramudhita, B.A.B., S.A. Siregar, H. Tanjung, M. Faris, R. Indrajaya, Satrio & Y. Kambu (2009)- Palynology analysis and coal characterization: a preliminary study for CBM prospectivity of Balikpapan Fm., Kutei Basin. Proc. 23rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA09-SG-040, p. 1-11.
(Palynogy analysis of outcrops of M Miocene Balikpapan Fm delta plain deposits in Kutai Basin shows four facies-controlled assemblages. Coal 70-95% vitrinite and early mature for thermogenic gas generation, but at peak for biogenic gas generation)

Prasetya, A., K.P. Laya, A. Subekti, Y. Rizal, J. Boast & J.D.C. Smart (2013)- The dynamics of sediment-source catchment areas in North Kutei Basin: implications for deepwater plays prospectivity. Proc. 37th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA13-G-108, p. 1-14.
(Pleistocene-Recent river drainage systems in N Kutei Basin- slope characterized by sediment-starved conditions, but active sediment source into N Kutei Basin in Late Miocene-Pliocene, probably derived from Beriun Massifs, ~100 km to NW)

Prasetyo, B. (2003)- Facies mapping and reservoir potential of the G58 interval using 3D seismic data in Nilam Field, Sanga-Sanga PSC, Indonesia. M.Sc. Thesis, Universiti Brunei Darussalam, Bandar Seri Begawan, p. 1-101. *(Unpublished)*

Prasongko, B.K., S. Notosiswoyo, K. Anggayana & C.I. Abdullah (2007)- Cleat distribution controls on the sulphur content of the Miocene coal seam in the Palaran and Busui areas, East Kalimantan. Jurnal Teknologi Mineral (ITB) 14, 3, p. 145-155.
(online at: www.fttm.itb.ac.id/galeri/Cleat.pdf)
(Correlation between cleat frequency and sulphur content in M-Lt Miocene coal of Busui area, Pasir basin, and Palaran Anticline, Kutai basin. Highest sulphur near fault zones. Coal seams associated with lower delta plain sandstones)

Pratama, D.A.P. & D.H. Amijaya (2015)- Lingkungan pengendapan batubara Formasi Warukin berdasarkan analisis petrografi organik di daerah Paringin, Cekungan Barito, Kalimantan Selatan. Proc. Seminar Nasional Kebumian 8, Dept. Teknik Geologi, Gadjah Mada University, Yogyakarta, p. 582-593.
(online at: https://repository.ugm.ac.id/135493/1/GEO95%20LINGKUNGAN%20PENGEND etc.
('Depositional environment of Warukin Formation coal based on organic petrographic analysis in the Paringin area, Barito Basin, S Kalimantan'. Macerals in Miocene Warukin coals suggest deposition in telmatic environment in transition between lower and upper delta plain environment, as paleomire in wet forest swamp)

Pretkovic, V., J.C. Braga, V. Novak, A. Rosler & W. Renema (2016)- Microbial domes and megaoncoids in Miocene reefs in the Mahakam Delta in East Kalimantan, Indonesia. Palaeogeogr. Palaeoclim. Palaeoecology 449, 1, p. 236-245.
(Coral patch reefs in Miocene Mahakam delta in E Kalimantan developed in shallow marine turbid waters, in delta front- prodelta environment. Langhian patch reefs in limestone quarries of Air Putih area near Samarinda with two types of microbial carbonates: low-relief domes and large nodules ('megaoncoids') around nuclei of coral fragments. Slope of patch reef flank favored falling and rolling of encrusted corals, with continued growth of microbial crusts on all sides of nodules. Both types near base of reef slope)

Priastomo, Y.S., A. Suardiputra, J.A. Anggoro, T.Y. Yoga & J. Sianturi (2021)- Mature field development to periphery area: Tambora west flank development opportunity. Proc. 45th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA21-G-150, p. 1-19.
(On Tambora gas field, at apex of Mahakam Delta, a 1974 discovery, on same anticline as Nilam field)

Priyantoro, A., E. Kusmana & A. Ruswandi (2010)- Facies characteristics of formation from the Upper Kutei sub-basin, East Kalimantan. Proc. 39th Annual Conv. Indonesian Association Geologists (IAGI), Lombok, PIT-IAGI-2010-189, p. 1-11.
(online at: https://www.iagi.or.id/web/digital/12/2010_IAGI_Lombok_Facies-Characteristics-of-Formation.pdf)
((On thick uplifted and exposed Upper Cretaceous- Paleogene section of Upper Kutai Basin. Fluvial Cretaceous-E Eocene, fluvial-deltaic to shallow marine M-L Eocene and shallow marine Oligocene deposits. Sandstones mainly quartz, but also feldspar and rel. common metamorphic rock lithics)

Provale, I. (1908)- Di alcune Nummulitine e Orbitoidine dell'Isola di Borneo. Rivista Italiana Paleontologia 14, p. 55-80.
(online at: https://www.biodiversitylibrary.org/item/51504page/71/mode/1up)
('On some nummulitids and orbitoidal foraminifera from the island of Borneo'. Late Eocene Nummulites, Discocyclina (at that time called Orthophragmina) and Pellatispira (here called Assilina) from 'Oudjou Halang' in C Borneo. Samples collected by Italian BPM geologist Count Guido Bonarelli. No locality maps or stratigraphy)

Provale, I. (1909)- Di alcune Nummulitine e Orbitoidine dell'Isola di Borneo (parte seconda). Rivista Italiana Paleontologia 15, p. 65-96.
(Second part of Provale (1908) paper. Includes larger forams from Late Eocene (e.g. Orthophragmina (= Discocyclina) omphalus Fritsch from Batulicin and Nummulites or Assilina from Pulau Miang) and Oligocene-Miocene Lepidocyclina spp. (incl. Lepidocyclina ferreroi n.sp.) from SE, E and NE Kalimantan. No locality maps or stratigraphy (N.B.: Plate numbers Tav. II and Tav. III appear to have been switched; JTvG))

Purnama, D.I., Y.S. Putra, M. Muhardi, N. Hayati & A. Triwerdhana, (2020)- Identifikasi potensi batuan induk pada Formasi Santul di Sub Cekungan Tarakan, Kalimantan Utara. Prisma Fisika 8, 1, p. 1-4.
(online at: https://jurnal.untan.ac.id/index.php/jpfu/article/view/39637/pdf)

Purnomo, E. & R. Kadir (1992)- Konsep eksplorasi hidrokarbon di Pulau Bunyu, Kabupaten Bulungan, Propinsi Kalimantan Timur. Proc. 21st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 1, p. 147-159.
((online at: https://www.iagi.or.id/web/digital/51/9.pdf)
('A new concept for hydrocarbon exploration in Bunyu Island, Bulungan District, North East Kalimantan'. Bunyu island in Tarakan Basin petroleum exploration by BPM and NKPM since 1930. 14 wells, two producing fields (Tapa, Nibung- Bunyu Lama). Anticlinal structures in blocks at downthrown side of N-S trending growth faults)

Purwanto, T., R. Haryoko, S. Martodjojo & Djuhaeni (1998)- Analisa sekuen stratigrafi resolusi tinggi daerah Sangatta Kalimantan Timur. Proc. 27th Annual Conv. Indonesian Association Geologists (IAGI), 2 (Sedimentology Paleontology Stratigraphy), Yogyakarta, p. 78-90.
(online at: https://www.iagi.or.id/web/digital/56/35.pdf)

('High-resolution sequence stratigraphy analysis in the Sangatta area, E Kalimantan'. Sequence stratigraphic interpretation and correlation of two wells in Sangatta oilfield. Productive zone with 14 sequences and 96 fluvial-deltaic sandstone reservoirs in M Miocene- Recent interval)

Putra, P.I., R. Ranjani, Z. Yahya, R.S. Afifah & Widodo (2015)- Determination of turbidite facies and 3D model based on outcrops and petrographic description in Mahakam area and implication as hydrocarbon source rock in Kutai Basin. Proc. 39th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA15-G-109, p. 1-16.
(Study of marine slope and lobe fan turbidite deposits of Late Oligocene- E Miocene Pamaluan Fm in outcrop of Separi Anticline in W Samarinda area, E Kalimantan. Babulu Limestone deposited conformably above it)

Putra, P.R., Tasiyat, B. Sapiie & A.M. Ramdhan (2017)- Pore-pressure prediction and its relationship to structural style in offshore Tarakan Basin, Northeast Kalimantan. Proc. 41st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA17-523-G, p. 1-14.
(Two main structural styles in offshore Tarakan sub-basin: (1) proximal-shelf deformation dominated by normal-growth faults and (2) distal-slope deformation dominated by toe-thrusts, both result of gravitational sliding on upper E Miocene shale detachment surface. Top overpressure created by fluid expulsion predicted at depth of 2000-3500m TVDss in M-L Miocene shale. Decrease of overpressure in distal direction)

Radke, M., P. Garrigues & H. Willsch (1990)- Methylated dicyclic and tricyclic aromatic hydrocarbons in crude oils from the Handil Field, Indonesia. Organic Geochemistry 15, p. 17-34.
(Organic compounds suggest high maturities of Mahakam Delta Handil field oils. Methylphenanthrene Index indicates origin from source rocks at present depth of >3400m, deeper than previously assumed)

Raguwanti, R., A. Naskawan, D. Tangkalalo & T. Kurniawan (2007)- Innovation technology using acoustic impedance modeling for reservoir characterization at Tanjung oil field, Barito Basin, Southeast Kalimantan, Indonesia. Proc. Joint Convention 32nd HAGI, 36th IAGI and 29th IATMI, Bali 2007, p. 494-503.
(Modeling of six producing sandstone layers and dolerite sill in E-M Eocene Lower Tanjung Fm reservoir interval in Tanjung Field)

Rahmad, B., K. Anggayana, S. Notosiswoyo, S. Widodo & A.H. Widayat (2013)- Occurrence of long-chain n-alkanes in Muara Wahau coal, Upper Kutai Basin, Indonesia. Int. Symposium Earth Science and Technology, CINEST 2012, Procedia Earth Planetary Science 6, p. 38-41.
(online at: http://ww.sciencedirect.com/science/article/pii/S1878522013000064)
(E Miocene Muara Wahau coal of Upper Kutai Basin 8-66m thick. With bimodal distribution of n-alkanes at n-C16 and n-C31. n-C31 may be derived from higher plants, as is unusual high n-C38 in some Kalimantan coals)

Rahmad, B., D. Jaya, S. Raharjo & Suprapto (2016)- Geology and geoheritage of Muara Wahau coal field, East Kalimantan, Indonesia. Proc. Regional Geoheritage Conference 2016, The 9th Indonesia-Malaysia Conference, Yogyakarta 2016, p. 122-130.
(online at: www.academia.edu/38602643/GEOLOGY_AND_GEOHERITAGE_OF_MUARA_WAHAU_ Etc.)
(Outcrop along Telen and Wahau Rivers type locality of Late Oligocene- E Miocene coal-bearing Wahau Fms, and should become geology conservation area in Muara Wahau)

Rahmawati, D., M.D. Balfas, P.I. Rindawati, K. Sasmito, H.F.Rahman & A.F. Rojabi (2023)- Microfacies analysis of the reefal limestone, Marah Formation, East Borneo, Indonesia. Iraqi Geological J. 56, 2D, p. 103-117.
(online at: https://igj-iraq.org/igj/index.php/igj/article/view/1506/1631)
(Larger foraminifera from Priabonian-Aquitanian (Late Eocene- (Oligocene) Marah Fm reefal limestone at Miau Baru village, Gunung Kongbeng, NE margin of Kutai Basin. NE Kalimantan, 325 km N of Samarinda. Late Eocene with Asterocyclina, Pellatispira, Paleonummulites pengaronensis, etc.(zone Tb); E Oligocene with Nummulites fichteli, Lepidocyclina (Tcd); Late Oligocene with Heterostegina borneensis (Lower Te) (see also Yabe (1921))

Rahmawati, D., M.D. Balfas, P.I. Rindawati, K. Sasmito, H.F. Rahman & A.F. Rojabi (2024)- Porosity modification, a key to the carbonate diagenetic environments. Case study: reefal limestone, Marah Formation, Miau Baru, East Borneo, Indonesia. Proc. 2nd Int. Conference Geological Engineering and Geosciences (ICGOES-2022), Yogyakarta, IOP Conference Series: Earth and Environmental Science 1378, 012024, p. 1-18.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1378/1/012024/pdf)
(Over 300m thick Priabonian-Rupelian Marah Fm limestone outcrops at Miau Baru village in N Kutai basin. Kongbeng section petrography shows carbonate porosity modification by dissolution, cementation, etc. Poor reservoir quality)

Ramdhan, A.M. (2010)- Overpressure and compaction in the Lower Kutai Basin, Indonesia. Ph.D. Thesis Durham University, U.K., p. 1-300.
(online at: https://etheses.dur.ac.uk/402/1/THESIS_AGUS_RAMDHAN.pdf?DDD15+=)
(Common overpressure in rapidly buried Miocene successions in Mahakam Delta/ Lower Kutai basin area. Top of transition zone into hard overpressure coincides with onset of gas generation. Etc.)

Ramdhan, A.M., D. Fadlan, S. O'Connor, R. Herdianto, A.E. Radwan & Arifin (2024)- Pore pressure-minimum horizontal stress coupling estimation in Tunu Field, Lower Kutai Basin, Indonesia. Interpretation (SEG-AAPG), August 2024, p. T385-T398.

Ramdhan, A.M. & N.R. Goulty (2010)- Overpressure generating mechanisms in the Peciko field, Lower Kutai Basin, Indonesia. Petroleum Geoscience 16, 4, p. 367-376.
(Peciko Field gas in multiple Miocene deltaic reservoirs. In deeper reservoirs gas trapped hydrodynamically by high lateral overpressure gradients. Top of overpressure below 3 km burial depth, below depth range for smectite to mixed-layer illite/smectite transformation. Gas generation and chemical compaction responsible for overpressure generation, contradicting previous interpretation of disequilibrium compaction)

Ramdhan, A.M. & N.R. Goulty (2011)- Overpressure and mudrock compaction in the Lower Kutai Basin, Indonesia: a radical reappraisal. American Assoc. Petroleum Geol. (AAPG) Bull. 95, 10, p. 1725-1744.
(Overpressure at depths below ~3 km in Lower Kutai Basin generally attributed to disequilibrium compaction, but more likely to be controlled by chemical compaction/ cementation of mudrocks)

Ramdhan, A.M. & N.R. Goulty (2014)- Overpressure in the shelfal area of the Lower Kutai Basin. Proc. 38th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA14-G-357, p. 1-13.
(Overpressure in shelfal area of Lower Kutai Basin commonly believed to be due to disequilibrium compaction. but more likely caused by unloading mechanisms. Top of hard overpressure at T just >130°C, indicating gas generation may be principal process of overpressure generation, with probable additional contribution from clay diagenesis, especially illitization of kaolinite)

Ramdhan, A.M. & N.R. Goulty (2018)- Two-step wireline log analysis of overpressure in the Bekapai Field, Lower Kutai Basin, Indonesia. Petroleum Geoscience 24, 2, p. 208-217.
(online at: http://pg.lyellcollection.org/content/petgeo/24/2/208.full.pdf)
(Interpretation of overpressure from sonic and density wireline logs in oil-gas field off Mahakam Delta)

Ramdhan, A.M. & L.M. Hutasoit (2021)- Contributions of loading and unloading to overpressure: analytical results from the shelfal area of the Lower Kutai Basin, Indonesia. Indonesian J. on Geoscience 9, 1, p. 1-13.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/791/352)

Ramli, R., S.B. Nugroho, J. Bradfield & S. Hansen (1993)- Reservoir modelling in the Bunyu Tapa gas field- an integrated study. Proc. 22nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 225-251.
(Bunyu Tapa 1975 gas field on Bunyu Island, NE Kalimantan, reservoir sands deposited as distributary channel sands. Wells on W edge are on E flank of N-S trending anticline, close to gas-water contact, and separated from eastern wells by N-S trending normal faults)

Ranawijaya, D.A.S., E. Usman, Y. Noviadi & K.T. Dewi (2004)- Paleoclimatology and sea-level changes of Mahakam delta, East Kalimantan, interpreted from integrated geological and geophysical integrated data. In: Q. He et al. (eds.) Proc. 41st Session Coord. Comm. Coastal Offshore Geoscience Programmes E and SE Asia (CCOP), Tsukuba 2004, p. 35-44.
(online at: www.ccop.or.th/download/pub/41as_ii.pdf)
(On evolution of Mahakam Delta in Late Quaternary. Four climatic events controlled sedimentation)

Ranawijaya, D.A.S., E. Usman, Y. Noviadi & K.T. Dewi (2004)- Paleoclimatology and sea-level changes of Mahakam delta, East Kalimantan, based on geological and geophysical integrated data. Bulletin of the Marine Geology (MGI, Bandung), 19, 2, p. 41-58.
(Same paper as above)

Rant, H.F.E. (1856)- Bijdragen tot de geologische en mineralogische kennis van Nederlandsch Indie, XIII. Onderzoek naar kolen aan de rivier Assam-Assam, in de Tanah Laut, Residentie Zuid- en Oosterafdeling van Borneo. Natuurkundig Tijdschrift voor Nederlandsch-Indie 10, p. 277-281.
('Contribution to the geological and mineralogical knowledge of Netherlands Indies, XIII. Investigation into coal along the Asam-Asam River in the Tanah Laut, Residency SE Borneo'. Brief report on investigation of coals along Asam_Asam River near Tabanio and Martapura in 1853. Lignitic coals. No maps)

Rant, H.F.E. (1856)- Bijdragen tot de geologische en mineralogische kennis van Nederlandsch Indie, XIV. Ijzererts in het Tanah Laut, Residentie Zuid- en Oosterafdeling van Borneo. Natuurkundig Tijdschrift voor Nederlandsch-Indie 10, p. 282-
('Contribution to the geological and mineralogical knowledge of Netherlands Indies, XIV. Iron ore in the Tanah Laut, SE Kalimantan Residency'. Also in Jaarboek van het Mijnwezen 1873, 1. Brief report on 1854 investigation of iron ore occurrences at Pematang Damar near Tambaga, Pleiari, and at Pontijn (Pontanio?), SE Kalimantan. Associated with 'greenstone' (serpentinite?). No maps or figures (Also investigated by Von Gaffron in 1844))

Reksalegora, S.W., M.J. Hursey, N. Nurdiansyah, Sukerim et al. (2002)- Development strategy for a highly compartmentalized reservoir in the Middle Miocene Yakin Sandstone, East Kalimantan. Proc. 28th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 671-680.

Renaud, G.P.A. (1874)- Verslag van de kolenmijn Oranje-Nassau te Pengaron, Zuider en Ooster Afdeeling van Borneo. Jaarboek Mijnwezen Nederlandsch Oost-Indie 3, 2, p. 85-117.
('Report on the Oranje Nassau coal mine at Pengaron, SE Borneo'. Mostly mining-technical description and history)

Renema, W., V. Warter, V. Novak, J.R. Young, N. Marshall & F. Hasibuan (2015)- Ages of Miocene fossil localities in the Northern Kutai Basin: (East Kalimantan, Indonesia). Palaios 30, p. 26-39.
(online at: www.researchgate.net/publication/274695861_Ages_OF_Miocene_fossil_localities_in_the_n Etc.)
(Documentation of ages of 12 Miocene (Late Burdigalian- Messinian; ~16- 5 Ma) short-lived reefal limestone localities in siliciclastics-dominated section of NE Kutai Basin)

Rengifo, R., W. Priyantono, S. Perrier, A.I. Julius & R. Phasadaon (2012)- Tunu Main Zone, an innovative approach to integrate massive static and dynamic data into a Live 3D geological model. Proc. 36th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA12-G-019, p. 1-12.
(Reservoir model of Tunu giant gas-condensate field off Mahakam Delta, 75x15 km in size, with >800 wells. Few 1000 stacked independent gas reservoirs. Main zone reservoirs stacked fluvio-deltaic Miocene sands between 2000-5000m subsea. Best reservoirs channel sandstones, mainly E-W oriented)

Rengifo, R., T. Yoga & I. Cibaj (2012)- Tunu shallow gas combine traps, from drilling hazard to massive successful development. Proc. 36th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA12-G-020, p. 1-12.
(Tunu giant gas-condensate field in front of Mahakam Delta, E Kalimantan, with 800 wells drilled so far. Shallow Pliocene reservoirs above 2500m previously viewed as drilling risk, but recently identified as new production

horizons. Two domains: W flank region mainly stratigraphic traps in local structures and sharp lateral boundaries and E crest area with more extensive reservoirs controlled by structure)

Reza, M., I.P. Pratama & A.Y. Pratama (2016)- A new insight to define a chronostratigraphy with sequence stratigraphy and cyclostratigraphy- INPEFA log integrated approach: Miocene Mahakam outcrop study case. Proc. 14th Regional Conference Geology and Mineral Resources of SE Asia (GEOSEA XIV) and 45th Annual Conv. Indonesian Association Geologists (IAGI) (GIC 2016), Bandung, p. 130-133.
(Example of cyclostratigraphy interpretation of outcrops of Miocene near Samarinda area, E Kalimantan)

Riadi, R.S. (2013)- Depositional environments and stratigraphic development of the Grand Taman Sari circuit outcrop: an analogue for transgressive Mahakam Delta successions. Bull. Earth Sciences Thailand (BEST) 6, 2, p. 115-121.
(online at: www.geo.sc.chula.ac.th/BEST/volume6/number2/BEST-13Ridha%20Santika%20Riadi-Vol6No2-pp115-121.pdf)

Riadi, R.S. & J. Lambiase (2015)- Outcrop analogues for subsurface sand body geometries in regressive and transgressive Mahakam Delta successions. Proc. 39th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA15-G-100, p. 1-14.

Riadi, R.S., A.M. Putranto, Y.R. Apranda, T. Nugraha, Y.I. Cakra Putra, D.P. Susanto et al. (2024)- Success story of sub-thrust fault play from New Era exploration phase in Sanga Sanga Area, Kutai Basin, East Kalimantan, Indonesia. Proc. 53rd Annual Conv. Indonesian Association Geologists (IAGI), Balikpapan 2024, p. 1-3.
(online at: https://www.iagi.or.id/web/digital/79/56---Success-Story-of-Sub-Thrust-Fault-Play-from-New-Era-Exploration-Phase-in-Sanga-Sanga-Area,-Kutai-Basin,-East-Kalimantan,-Indonesia---Asnanto.pdf
(Previous wells drilled in sub-thrust fault targets in Sanga Sanga area in Lower Kutai Basin resulted in nine dry wells and only one well discovery. New prospecting method proposed by Pertamina resulted in discovery well below Mutiara Field? (no details))

Rizal, F., D. Nugroho & P. Sumintadireja (2023)- Pendekatan terintegrasi dalam pemodelan fasies reservoir D-10 struktur NKL, Lapangan Sangasanga, Cekungan Kutai, Indonesia. Bulletin of Geology (ITB) 7, 3, p. 1227-1237.
(online at: https://buletingeologi.com/index.php/buletin-geologi/issue/view/20/PR73-2)
('An integrated approach to reservoir facies modeling of D-10 NKL structure, Sangasanga Field, Kutai Basin, Indonesia'. North Kutai Lama (NKL) structure on E flank of N SamarindaAnticlinorium. About 70% of oil came from E Miocene fluvio-deltaic reservoir zone D-10 (not connected to reservoirs at crest of Samarinda anticlinorium))

Rizka, W. Gunawan, A. Kadir, S. Alawiyah & E.J. Wahyudi (2011)- Studi identifikasi struktur dan prospek hidrokarbon berdasarkan metode gaya berat pada cekungan Kutai, Kalimantan Timur. Jurnal Teknologi Mineral (ITB) 18, 4, p. 221-236.
(online at: http://idci.dikti.go.id/pdf/JURNAL/JTM/JTM%20XVIII%202011%20No.4/paper%205.pdf)
(Based on gravity anomalies Kutei Basin has faults/folds of almost NE-SW orientation) and structures are reverse faults and wrench faults. Two sub-basins (1) Upper Kutei with continental basement and (2) Lower Kutei with oceanic basement. Kutei Basin has deep top basement, with up to ~9.4 km of sediment)

Roberts, H.H. & J. Sydow (1996)- The offshore Mahakam delta: stratigraphic response of late Pleistocene-to-modern sea level cycle. Proc. 25th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 147-161.
(Late Pleistocene-to-modern stratigraphy of Mahakam Delta records a progradational continuum from falling stage in sea level, through initial rise, to modern highstand deposition. These results contrast with popular sequence stratigraphic concepts which predict that large, rapid sea level drops, typical of latest Pleistocene, should result in sedimentary bypass of entire shelf)

Roberts, H.H. & J. Sydow (1997)- Siliciclastic- carbonate interactions in a tropical deltaic setting: Mahakam delta of East Kalimantan (Indonesia). Proc. 8th International Coral Reef Symposium, Panama, 2, p. 1773-1778.

(Holocene Mahakam Delta prograded across narrow shelf with carbonate buildups. Size of buildups from 25m mud mounds in inner-middle shelf to 80m at shelf edge. Both types rich in aragonitic Halimeda green alga flakes, probably related to flooding of shelf with nutrient-rich Pacific Intermediate water that flows through Makassar Straits. Clinoforms of lowstand delta downlap and encase carbonate buildups))

Roberts, H.H. & J. Sydow (2003)- Late Quaternary structure and sedimentology of the offshore Mahakam delta, East Kalimantan (Indonesia). In: F.H. Sidi, D. Nummedal et al. (eds.) Tropical deltas of Southeast Asia-sedimentology, stratigraphy and petroleum geology, Society for Sedimentary Geology (SEPM) Special Publ. 76, p. 125-145.
(Alternating clastic deltaics and shelf carbonates reflect high-frequency cyclic sea level changes. Halimeda bioherms on ravinement surface during Early Holocene transgression. Below ravinement surface are falling-stage and lowstand fluvial- delta plain- incised valley deposits)

Roberts, H.H., J. Sydow, R. Fillon & B. Kohl (2002)- Stratigraphic architecture and fundamental sedimentology of two Late Pleistocene deltas: Gulf of Mexico and Indonesia. In: Sequence stratigraphic models for exploration and production: evolving methodology, emerging models, and application histories, Proc. 22nd Annual Bob F. Perkins Research Conference, Gulf Coast Section SEPM (GCSSEPM) Foundation, p. 289-301.
(Sequence architectures of two Late Pleistocene deltas, built during falling to-lowstand relative sea-levels (Mahakam River Delta of E Kalimantan and Mobile River Delta in Gulf of Mexico), differ significantly. Lowstand progradation of Mobile River's Lagniappe delta in numerous lobes incised by complex channel network, and clinoforms downlap outer shelf shale above interglacial condensed section. Mahakam Delta lowstand clinoforms downlap irregular surface of transgressive carbonate bioherms. Both depocenters are multilobate)

Roberts, H.H., J. Sydow, R. Fillon & B. Kohl (2003)- Late Quaternary shelf-edge deltas from Northeastern Gulf of Mexico and Eastern Borneo (Indonesia): a comparison. In: Shelf margin deltas and linked down slope petroleum systems, Proc. 23rd Annual Bob F. Perkins Research Conference, Gulf Coast Section SEPM (GCSSEPM) Foundation, p. 843-847.
(Shorter version of paper above)

Roberts, H.H., J. Sydow, J. Robalin & R. Fillon (2000)- A comparison of two Late Pleistocene shelf-edge deltas (Indonesia and Gulf of Mexico) stratigraphic architecture, systems tracts, bounding surfaces, and reservoir potential. Transactions Gulf Coast Association Geological Societies (GCAGS) 50, p. 361-367.
(Comparison of N Gulf of Mexico (Mobile River) and E Borneo shelf (Mahakam River) Late Pleistocene shelf-edge deltas. Both deltas constructed by falling-to-lowstand deposition associated with latest Pleistocene glacial maximum. Mahakam shelf falling-to-lowstand clinoforms downlap irregular surface of isolated carbonate bioherms built above transgressive surface formed during preceding sea level rise. NE Gulf of Mexico dominated by siliciclastic sedimentation)

Rohmana, R.C., I. Fardiansyah, L. Taufani, A. Budiman & A. Gunawan (2016)- Digital Outcrop Model (DOM) and high-resolution sedimentology of Balikpapan deltaic sandstone: perspective of heterogeneities in thin-bed reservoir. Proc. 40th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA16-243-G, p. 1-14.
(3-D description of outcrop of M Miocene deltaic Balikpapan Fm sands-shales)

Rohmana, R.C., I. Fardiansyah, L. Taufani & D. Harishidayat (2019)- Depositional processes and facies architecture of Balikpapan Sandstone: application of 3D Digital Outcrop Model (DOM) to identify reservoir geometry and distribution in deltaic system. Scientific Contributions Oil and Gas (SCOG), Lemigas 42, 1, p. 35-42.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/379)
(Two facies associations in outcrops of sand-shale of M Miocene Balikpapan Fm in Bukit Damai Indah residence in Balikpapan, i.e., Distal mouth bar complex and Delta front shale)

Rosary, D., A.B. Nicaksana & J.K. Wilkinson (2014)- A correlation of climate stratigraphy with biostratigraphy to confirm stratigraphic units in the Sebatik Area. Proc. 38th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA14-G-258, p. 1-17.

(Review of N Tarakan Basin petroleum geology around Sebatik PSC blocks. 16 stratigraphic packages recognized and correlated in Eocene- Recent interval, using log-derived transform curves considered to reflect climate stratigraphy curves (no indication that actual climate or biostratigraphy data was used; JTvG))

Rosary, D., E. Sunardi, Yuniyanto & A. Krisna (2003)- Facies analysis of the Lower DR Sands, based on core and wireline log interpretation, Attaka Field. Proc. 29th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 1-11.
(Attaka Field 125 km NE of Balikpapan. Lower DR Sand in overpressure sequence at 10050- 10130'. Core and log data from 20 wells show deltaic depositional system, which could be divided into 5 coarsening upward units. Depositional environment interpreted as delta front and prodelta. Sand bars SW-NE orientation)

Rose, R. & P. Hartono (1978)- Geological evolution of the Tertiary Kutai- Melawi Basin, Kalimantan, Indonesia. Proc. 7th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 225-252.
(Kutei basin and Melawi-Ketungau areas connected in Paleogene, with Melawi-Ketungau area open to NW Borneo basin. Schwaner Block of SW Kalimantan and Kuching Arch of C Borneo yielded sediments throughout Tertiary. Major unconformity separates Tertiary (basal Tertiary = Tb/ Late Eocene) from sedimentary, igneous and metamorphic pre-Tertiary rocks. Paleogene deposition transgressive except in Melawi-Ketungau area where it was regressive. Greatest Kalimantan Paleogene carbonate development on Barito and Paternoster platforms. Isopach maps suggest Meratus range was Tertiary depocenter. Meratus graben Eocene- M Miocene sediments uplifted, folded and faulted in M-L Neogene. Obduction in Sabah area accompanied NW rotation which uplifted Kuching High and resulted in deposition of second generation regressive sediments to N and S and provided impetus for gravitational folds. Counter-clockwise rotation accomplished by M Tertiary. Late Neogene obduction of oceanic crust onto E Sulawesi partially closed Meratus graben)

Rosler, A., V. Pretovic, V. Novak, W. Renema & J.C. Braga (2015)- Coralline algae from the Miocene Mahakam Delta (East Kalimantan, Southeast Asia). Palaios 30, p. 83-93.
(online at: www.researchgate.net/publication/281130128_Coralline_algae_from_the_Miocene_Mah Etc.)
(Study of 31 species of crustose coralline algae from 6 localities of E-M Miocene (Burdigalian- Serravallian) reefal limestone in E Kalimantan. Two main assemblages: (1) S: shallow-water, dominated by Neogoniolithon, thick crusts of Spongites and Hydrolithon; (2) D: darker water, with mainly thin crusts of Lithothamnion, Mesophyllum and Sporolithon)

Rotinsulu, L.F., S. Sardjono & N. Heriyanto (1993)- The hydrocarbon generation and trapping mechanism within the northern part of Barito basin, South Kalimantan. Proc. 22nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 607-633.
(Barito Basin two types of source rocks: Tanjung and Lower Warukin Formations shales and coals)

Rowley, K.G. (1973)- Rehabilitation and development of Tarakan Island. Proc. 2nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 217-220.
(Pamusian Field discovered in 1905, cum. production 181 MBO from ~1100 wells, from reservoirs between 180'-7000'. With history of Tarakan Island oil production)

Rueb, J. (1923)- Poeloe Laoet. Mijnwezen (Mijnbouwkundig Maandblad voor Nederland en Kolonien; later re-named Geologie en Mijnbouw) 1, 3, p. 43-50.
(online at: https://www.kngmg.nl/geologie-en-mijnwezen-portal-1923-1931/)
('Pulau Laut'. Brief history of coal exploration and mining on Pulau Laut, SE Kalimantan, since 1800s. Coal deposits had been known from Pulau Laut island since mid-1800s but were long deemed non-commercial, partly due to high ash content. After two expeditions to island in 1900 and 1901, led by German Bergassessor H. Weber, the N.V. Steenkolen Maatschappij Poeloe Laoet was formed in 1903. First coal shipped to Singapore in 1904. Production increased until 1912, but financial results remained unsatisfactory. Mines sold to Netherlands Indies government in 1913, but results still non-commercial, and author recommends closing the mines)

Rullie, S. (1982)- Pengembangan batubara di daerah Kalimantan Timur dan Selatan. Proc. 11th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 129-142.

(online at: https://www.iagi.or.id/web/digital/35/PIT-IAGI-1982-Paper-13.pdf)
('Coal development in the area of E and S Kalimantan')

Ruppert, L.F. & T.A. Moore (1993)- Differentiation of volcanic ash-fall and water-borne detrital layers in the Eocene Senakin coal bed, Tanjung Formation, Indonesia. Organic Geochemistry 20, 2, p. 233-247.
(Thin interbeds in Eocene Senakin coal bed, SE Kalimantan, are volcanic ash-falls and mixed volcanics-clastics, possibly related to volcanism in region between Kalimantan and Sulawesi)

Rutten, L. (1911)- On *Orbitoides* of the Balikpapan Bay, East coast of Borneo. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 15, p. 1122-1139.
(online at: https://dwc.knaw.nl/DL/publications/PU00013345.pdf)
(Miocene lepidocyclinids (called Orbitoides here) from Balikpapan Bay area: star-shaped L. radiata/ L. martini, small L. sumatrensis and large species. Several new species proposed: L. acuta, L. flexuosa, L. polygona. Also new subgenus of E-M Miocene miogypsinids Lepidosemicyclina, with new species L. thecidaeformis and L. polymorpha. Locality map, but no good foram illustrations)

Rutten, L. (1912)- Studien uber Foraminiferen aus Ost-Asien, 1. Uber *Miogypsina* von Ost-Borneo. Sammlungen Geologischen Reichs-Museums Leiden (1), 9, p. 201-213.
(online at: http://www.repository.naturalis.nl/document/552438)
('Studies on foraminifera from East Asia, 1. On Miogypsina from East Kalimantan'. E-M Miocene Miogypsina from Balikpapan Bay and Bontang areas, incl. Miogypsina bifida n.sp., M. (Lepidosemicyclina) polymorpha)

Rutten, L. (1912)- Studien uber Foraminiferen aus Ost-Asien, 2. Uber Foraminiferen aus dem Gebiet des oberen Kapoewas-Moeroeng, Sud-Borneo. Sammlungen Geologischen Reichs-Museums Leiden (1), 9, p. 213-217.
('Studies on foraminifera from East Asia, 2. Foraminifera from the Upper Kapuas- Murung area, South Kalimantan'. Early Miocene foram limestones from Sg, Mahanjong with large Lepidocyclina formosa and Cycloclypeus communis)

Rutten, L. (1913)- Studien uber Foraminiferen aus Ost-Asien, 3. Eine neue *Alveolinella* von Ost-Borneo. Sammlungen Geologischen Reichs-Museums Leiden (1), 9, p. 219-224.
('Studies on foraminifera from East Asia, 3. A new Alveolinella from East Kalimantan'. Alveolinella bontangensis n. sp. from Miocene marl with Miogypsina 20 km W of Bontang. Now assigned to Flosculinella)

Rutten, L. (1914)- Studien uber Foraminiferen aus Ost-Asien, 4. Neue Fundstellen von Tertiaren Foraminiferen in Ost-Borneo. Sammlungen Geologischen Reichs-Museums Leiden (1), 9, p. 281-307.
(online at: www.repository.naturalis.nl/document/552393)
('Studies on foraminifera from East Asia, 4. New localities of Tertiary foraminifera in E Kalimantan'. Mainly on Miocene Lepidocyclina spp. near Balikpapan, Bontang and other localities)

Rutten, L. (1914)- Studien uber Foraminiferen aus Ost-Asien, 6. Lepidocyclinenkalke von Batoe Poetih bei Poeroek Tjahoe, Sud- Borneo. Sammlungen Geologischen Reichs-Museums Leiden (1), 9, p. 320-322.
(online at: www.repository.naturalis.nl/document/552393)
('Studies on foraminifera from East Asia, 6. Lepidocyclina limestones of Batu Putih near Puruk Cahu, South Kalimantan'. Coralline nummulitid limestones described by Hirschi from Batu Putih rich in large Lepidocyclina formosa (= Eulepidina), therefore not Eocene, but Oligocene or E Miocene age)

Rutten, L. (1915)- Studien uber Foraminiferen aus Ost-Asien, 8. Vier Eozanvorkommen aus Ost-Borneo. Sammlungen Geologischen Reichs-Museums Leiden (1), 10, p. 3-10.
(online at: www.repository.naturalis.nl/document/552375)
('Studies on foraminifera from East Asia, 8. Four Eocene localities in East Borneo'. (1) Eocene at Gunung Kadongo along the Bungalun River with Pellatispira (but here still called "Calcarina"), associated with Nummulites and Discocyclina (here called Orthophragmina), (2) Tanjung Mangkalihat (Discocyclina, Nummulites), (3) Tanjung Seilor (Kayan/ Binai Rivers; Alveolina; also with small Nummulites fichteli= E Oligocene ?, NE Kalimantan and (4) black Nummulites limestone from Sebuku River)

Rutten, L. (1915)- Eocene orbitoiden en nummulieten van Paloe Laoet. Jaarboek Mijnwezen Nederlandsch-Indie 43 (1914), Verhandelingen 2, p. 74-77.
(Orthophragmina (=Discocyclina) omphalus and small Nummulites bagelensis collected by Pulau Laut coal mine engineer Ploem from marls above sandstone-coal formation on Pulau Laut, SE Borneo, confirm Eocene age of coal beds (= first marine transgression in Eocene rift section; JTvG). With one plate, showing Orthophragmina omphalus Von Fritsch (= Discocyclina omphalus), with typical central 'belly-button'))

Rutten, L. (1916)- Foraminiferen-kalksteenen uit de Tidoengsche landen (Noord-Oost Borneo). Jaarboek Mijnwezen Nederlandsch-Indie 44 (1915), Verhandelingen 1, p. 29-32.
('Foraminiferal limestones from the Tidung Lands, NE Kalimantan'. Follow-up of Rutten (1915) description of Eocene limestones collected by mining engineer W. Munniks de Jongh (1913) in upper Tarakan basin/ north Borneo border area. With (M Eocene?) Nummulites bagelensis, N. javanus, Discocyclina dispansa and Alveolina. Sample from Sungai Apat also rich in (Late Eocene?) Pellatispira Boussac, previously erroneosly assigned by Rutten modern genus Calcarina)

Rutten, L. (1916)- Veranderingen in de facies van het Tertiair van Oost Koetei. Verslagen Koninklijke Akademie van Wetenschappen, Amsterdam 25, p. 700-709.
(Original Dutch version of Rutten (1917) 'Modifications of the facies of the Tertiary of Kutai' below)

Rutten, L. (1917)- Modifications of the facies in the Tertiary Formation of East-Kutei (Borneo). Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 19, 1, p. 728-736.
(online at: https://dwc.knaw.nl/DL/publications/PU00012397.pdf)
(Observations on Miocene stratigraphy in East Kutei basin outcrops)

Rutten, L. (1920)- Over het voorkomen van *Halimeda* in Oudmiocene kustriffen van Oost Borneo. Verslagen Koninklijke Akademie van Wetenschappen, Amsterdam, 28, p. 1124-1126.
('On the occurrence of Halimeda in Old-Miocene coast reefs of East Borneo'. Calcareous algae Halimeda rel. common in modern coastal reefs in E Indonesia, but rel. uncommon in Miocene limestones. Several E Miocene limestones from E Kalimantan have Halimeda, probably same as recent species H. opuntia)

Rutten, L. (1921)- On the occurrence of *Halimeda* in Old-Miocene coast reefs of East Borneo. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 23, 1, p. 506-508.
(online at: https://dwc.knaw.nl/DL/publications/PU00014672.pdf)
(English version of Dutch paper above))

Rutten, L. (1925)- Tertiaire gesteenten uit noordwestelijk Britsch Borneo en uit Beraoe (O. Borneo). Verslagen Koninklijke Akademie van Wetenschappen, Amsterdam 34, 6, p. 579-583.
('Tertiary rocks from British Borneo and from Berau, E Borneo'. Dutch version of Rutten (1925), below)

Rutten, L. (1925)- Tertiary rocks from Northwestern Borneo and from Berau (E. Borneo). Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam 28, 7, p. 640-644.
(online at: https://dwc.knaw.nl/DL/publications/PU00015203.pdf)
(Rocks from British Borneo include clastics derived from 'old rocks', with relatively rare limestones (described in more detail in Rutten (1925)). Berau rocks collected by Weber from N Sangkulirang from thick Early Oligocene- Miocene marl-limestone dominated section, with larger forams at several levels and with Old Neogene volcanics (described in more detail in Rutten (1926)). Many Tertiary rocks in Berau and British N Borneo have pebbles or sandy grains of ?Mesozoic radiolarite. No maps, illustrations)

Rutten, L. (1925)- De eruptiefgesteenten van de subrecent vulkaantjes Moerai en Beloeh, en andere gesteenten uit het Njawatan-gebied, Zuid Koetai. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (KNAG) (2), 42, p. 642-652.
(online at: https://resolver.kb.nl/resolve?urn=MMUBA13:001677001:pdf)

(Petrographic descriptions and chemical analyses of basaltic young volcanics from Upper Kutai area. Samples collected by H. Witkamp in 1923)

Rutten, L. (1925)- Borneo, geologisch-geografisch bekeken. Zesde Koloniale Vacantiecursus voor Geografen, Amsterdam 1925, Comite voor Indische Lezingen en Leergangen, p. 2-7.
('Geologic- geographic view of Borneo'. Lecture notes of review of Borneo geology. Netherlands Borneo relatively better known than British Borneo, through surveys of 'Dienst van het Mijnwezen' and scientific expeditions. Borneo is aseismic, has no active volcanoes and has therefore commonly been viewed as 'old continent'. However, no rocks proven older than Triassic and locally very thick Tertiary deposits, common young deformation, etc. not compatible with 'old landmass'. Two widespread Mesozoic deposits: (1) Danau Fm (Triassic- Jurassic?) red radiolarites and basic volcanics and (2) Cenomanian Orbitolina-bearing shallow marine sediments. No figures)

Rutten, L. (1926)- Over Tertiaire, foraminiferenhoudende gesteenten uit Beraoe (Oost Borneo). Verhandelingen Kon. Nederlands Geologisch Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 7, 4, p. 297-328.
('On Tertiary foraminifera-bearing rocks from Berau, E Kalimantan'. Oligocene and Miocene larger forams Lepidocyclina, Miogypsina, reticulate Nummulites, etc. from widespread limestones in Berau region, NE Kalimantan, collected by F. Weber (NKPM) and Beucker Andreae. Most Tertiary clastic sediments contain rounded fragments of Mesozoic radiolarite, suggesting significant Pre-Tertiary uplift)

Rutten, M.G. (1948)- On the contemporaneous occurrence of *Lepidocyclina* and *Discocyclina* in Northern Borneo. Geologie en Mijnbouw 10, 8, p. 170-172.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0M2FZWEhucTVNLTA/view)
(Unusual co-occurrence of (Eocene) Discocyclina/ Biplanispira and Lepidocyclina (Nephrolepidina and Eulepidina) in sample from N Borneo originally described by L. Rutten (1925) Possibly Neogene age with reworked Eocene (also mentions common Lockhartia, but is probably Pellatispira; JTvG))

Rutten, M.G. (1950)- Comparison of *Lepidocyclina zeijlmansi* Tan from Borneo with *Lepidocyclina birmanica* Rao from Burmah. Proc. Koninklijke Nederlandse Akademie van Wetenschappen 53, 2, p. 196-198.
(online at: https://dwc.knaw.nl/DL/publications/PU00018769.pdf)
(Larger foram genus Lepidocyclina very rare in Eocene of SE Asia. First and only occurrence is Lepidocyclina zeijlmansi Tan Sin Hok 1936 from northern Central Borneo. L. birmanica Rao 1942 from Eocene of Burma is distinct, but closely related species. Both belong in subgenus Polylepidina)

Sadirsan, W.S., D.N. Imanhardjo & T.W. Kunto (1994)- The ancient Sangatta delta: new insight to the Middle Miocene Northern Kutai Basin deltaic systems, East Kalimantan. Proc. 23rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 45-55.
(M Miocene deltaics in Sangatta Field suggest Sangatta delta system separate from Mahakam Delta to S)

Sachsenhofer, R.F. S. Ajuaba, H.N. Fikri, B. Horsfield, N. Mahlstedt, D. Misch & K. Stojanovic (2025)- The coal-sourced petroleum system in the Barito Basin (S Borneo): Factors controlling quantity and quality of oil from Eocene and Miocene coals. Int. J. Coal Geology 303, 104744, p. 1-20.
(online at: https://www.sciencedirect.com/science/article/pii/S0166516225000618)
(Barito Basin in SE Borneo contains large Eocene and Miocene coal deposits as well as minor petroleum system. All coals contain significant bitumen components (Rock-Eval S2 bitumen) and showed different types of oil generated from Eocene (high wax paraffinic oil) and Miocene coals (paraffinic-naphthenic-aromatic mixed oil with moderate wax content). S2 bitumen at least partly derived from resins. Generated oil types controlled by prevailing resin producing vegetation: palms in Eocene coals and Dipterocarpaceae in Miocene coals)

Safarudin & M.H. Manulang (1989)- Trapping mechanism in Mutiara Field, Kutei Basin, East Kalimantan. Proc. 18th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 399-421.
(Huffco Mutiara field combination structural- stratigraphic trap of N-S trending M-L Miocene delta sandstones draped over NE-SW trending anticline)

Saib, M.D. & B.H. Suwandi (1991)- Interpretation of overpressured zone in Tunu field using Eaton formula and sonic log data. Proc. 20th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 61-85.
(online at: https://www.iagi.or.id/web/digital/49/20th-(10-12-Des-1991)-4.pdf)
(Most wells in Tunu field offshore Mahakam Delta encountered overpressure, probably tied to undercompaction of shales below ~2000- 3000m)

Saib, M.D. & B.H. Suwandi (1992)- Penggunaan metoda D'Exponent untuk mendeteksi tekanan lapisan batuan pada pemboran sumur eksplorasi di daerah kerja Total Indonesia, Delta Mahakam, Kalimantan Timur. Proc. 21st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 1, p. 147-159.
('D-Exponent method usage to detect formation pressure in exploration drilling in Total Indonesie contract area, Mahakam Delta, East Kalimantan')

Saito, K., R.D. Nurim & T. Uchiyama (1988)- Sedimentological and geometrical analysis of sandstones in Pamaguan Field, Kutei Basin- case study Indonesia. World Oil, July 1987, p. 43-46.

Sallee, J.E. & B.R.Wood (1984)- Use of microresistivity from the dipmeter to improve formation evaluation in thin sands, Northeast Kalimantan, Indonesia. J. Petroleum Technology 36, 9, p. 1535-1544.
(On evaluation of U-M Miocene thin-bedded oil sands in Tarakan Basin, which were commonly overlooked in reserves calculations, using dipmeter microresistivity curve processing)

Saller, A. (2017)- Mixed carbonates and siliciclastics North of the Mahakam Delta, offshore East Kalimantan, Indonesia. AAPG Search and Discovery Article #5139351393, 2p. *(Abstract + 3 pages of Posters)*
(online at: https://www.searchanddiscovery.com/documents/2017/51393saller/ndx_saller.pdf)
(Brief review of Late Miocne- Pleistocene carbonate mound growing in front of Mahakam Delta, preferentially as elongared mounds on siliciclastic shelf margin during trangressions. Thinner, roughly circular mounds grew on depositional and structural highs of shelf interior. Most carbonates covered by highstand siliciclastics)

Saller, A., R. Armin, L.O. Ichram & C. Glenn-Sullivan (1992)- Sequence stratigraphy of Upper Eocene and Oligocene limestones, Teweh area, Central Kalimantan. Proc. 21st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 69-92.
(Four major latest Eocene- Oligocene depositional sequences in Teweh area, straddling Barito Platform- Kutai basin. Each sequence 200-500m thick. During sequences 2-4 carbonate shelf in S part Teweh area, basinal shales to N. Overall deepening- backstepping of facies (to S or interior of platform). No evidence for 'global' 29-30 Ma mid-Oligocene Haq et al. 1987 sea level drop, which must either be of less magnitude, or different time. Looks like solid biostratigraphic and Sr-isotope age control, but little supporting data included)

Saller, A., R. Armin, L.O. Ichram & C. Glenn-Sullivan (1993)- Sequence stratigraphy of aggrading and backstepping carbonate shelves, Oligocene, Central Kalimantan, Indonesia. In: R.G. Loucks & J.F. Sarg (eds.) Carbonate sequence stratigraphy: recent developments and applications. American Assoc. Petroleum Geologists (AAPG) Memoir 57, p. 267-290.
(Teweh area of C Kalimantan with four major Oligocene carbonate sequences, each 200-500 m thick, with carbonate shelves developed in S part of Teweh area)

Saller, A.H., J.T. Noah, J.C. Waugaman & A.P. Ruzuar (2003)- Sequence stratigraphy of isolated carbonate buildups in a deltaic province, Kutei Basin, east Kalimantan, Indonesia. AAPG Annual Convention, Houston 2002, Search and Discovery Article 30014, p. 1-9. *(Extended Abstract)*
(online at: www.searchanddiscovery.com/documents/2003/saller/images/saller)
(Kutei basin dominated by clastic deposition, but isolated carbonate buildups also common in Lower Oligocene-Holocene. Buildups accumulated during transgressions, preferentially on structural highs and margins of lowstand deltas. Pliocene outer shelf buildups that grew during single seismic-scale sequence typically 100m thick, 5 km long, 1 km wide. Thicker buildups consist of stacked sequences. Carbonate buildups drowned due to rapidly rising sea level and/or nutrient poisoning associated with approaching deltas)

Saller, A., S.W. Reksalegora & P. Bassant (2010)- Sequence stratigraphy and growth of shelfal carbonates in a deltaic province, Kutai Basin, Offshore East Kalimantan. In: W.A. Morgan, A.D. George et al. (eds.) Cenozoic carbonate systems of Australasia, Soc. Sedimentary Geology (SEPM), Special Publ. 95, p. 147-174. *(online at: https://www.researchgate.net/publication/284512968_Sequence_Stratigraphy_and_Growth_of_Shelfal_Carbonates_in_a_Deltaic_Province_Kutai_Basin_Offshore_East_Kalimantan_Indonesia)*
(Kutai Basin Neogene dominated by deltaics, but carbonates also common. Carbonate-siliciclastic interactions studied in U Pleistocene and U Miocene-Pliocene off N Mahakam delta. U Pleistocene carbonates on siliciclastic shelf margins during ~110 kyr eustatic cycles. Carbonates also in two sequences in uppermost Miocene and lower Pliocene. Mio-Pliocene carbonate buildups on shelf margin ~255 m thick, 5 km long, 1 km wide and composed largely of bioclastic packstone and grainstone. Most Mio-Pliocene shelf-margin buildups filled with water, probably because overlying siliciclastics do not seal)

Saller, A. & S. Vijaya (2002)- Depositional and diagenetic history of the Kerendan carbonate platform, Oligocene, central Kalimantan, Indonesia. J. Petroleum Geology 25, p. 123-150.
(Kerendan Berai Lst platform 11x16 km in W Kutei Basin. Aggradation during Oligocene transgression, contemporaneous with aggradation- backstepping of Barito shelf margin. ~1000m thick, three aggrading seismic sequences. Carbonate deposition started in Late Eocene, ended by drowning in Late Oligocene (~28.6 Ma). Three areas (1) platform interior/ lagoon wackestone-packstones with porosities <5%; (2) raised platform rim, 1-2 km wide, with wacke-, pack-, grain- and boundstones, with grainstones increasing toward platform margin. Greater porosity (5-13%) than platform interior because more grainstone and more dissolution by acidic waters from compacting basinal shales near platform margin; (3) platform margin and slope)

Samson, P., T.D. Rochette & M. Lescoeur (2005)- Peciko geological modelling: optimizing fluid distribution and model resolution of a giant gas field in a shale-dominated deltaic environment. Proc. SPE Asia Pacific Oil and Gas Conference Exh., Jakarta 2005, SPE 93253, p. 1-10.
(Geologic model of Peciko field, SE part of Mahakam Delta. Reservoir sands mainly distributary mouth bars, triangular in outline, and limited extent (1.5- 4.5 km wide, 1-3m thick). Diagrams of distributary mouth bars. See also below)

Samson, P., T.D. Rochette, M. Lescoeur & P. Cordelier (2005)- Peciko geological modelling: possible and relevant scales for modelling a complex giant gas field in a mudstone dominated deltaic environment. Proc. 30th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 345-354.
(Geologic model of large (250 km^2) Peciko field, SE of Mahakam Delta. Complex geology, mud- dominated deltaic reservoir section with 2000m of gross gas column in tens of reservoirs. Total of 96 deltaic cycles)

Samuel, L. (1980)- Relation of depth to hydrocarbon distribution in Bunyu. Island, N.E. Kalimantan. Proc. 9th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 417-432.
(Geothermal gradients on Bunyu Island average 4.28°/100m, ranges 3.7- 5.3°C/100m. Maturation studies indicate present subsurface temperatures maximal in history of deltaic Late Miocene- Pleistocene sediments)

Samuel, L. & S. Muchsin (1975)- Stratigraphy and sedimention in the Kutai Basin, East Kalimantan. Proc. 4th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 27-39.

Santodomingo Aguilar, N. (2014)- Miocene reef-coral diversity of Indonesia: unlocking the murky origins of the Coral Triangle. Ph.D. Thesis University of Utrecht, Utrecht Studies in Earth Sciences 63, p. 1-340.
(online at: https://dspace.library.uu.nl/handle/1874/300545)
(Study of Miocene corals from patch reefs in E Kalimantan; collection of manuscripts. Incl. revision of fossil record of Acropora (31 species) and Isopora in Indo-Pacific. Platy coral assemblages common up to M Miocene (Serravallian), branching coral assemblages become dominant in Late Miocene (Tortonian) and first occurrence of entirely massive coral assemblage (similar to modern) in Messinian)

Santodomingo, N., V. Novak, V. Pretkovic, N. Marshall, E. Di Martino, E.L.G. Capelli, A. Rosler, S. Reich et al. (2015)- A diverse patch reef from turbid habitats in the Middle Miocene (East Kalimantan, Indonesia). Palaios 30, p. 128-149.

(Faunas and facies of small 8-10m thick M Miocene 'Stadion section' patch reef in Mahakan Delta system near Samarinda, E Kalimantan. 69 species of corals, 28 bryozoan and coralline algae (Neogoniolithon, Spongites, Lithoporella, etc.). Key larger foraminifera incl. Nephrolepidina martini, Cycloclypeus annulatus and Lepidosemicyclina bifida. Seven facies types)

Santodomingo, N., W. Renema & K.G. Johnson (2016)- Understanding the murky history of the Coral Triangle: Miocene corals and reef habitats in East Kalimantan (Indonesia). Coral Reefs 35, 3, p. 765-781.
(online at: www.researchgate.net/publication/297595842_Understanding_the_murky_history_of_the_C Etc.)
(Corals from E Kalimantan outcrops contain 79 genera and 234 species. Three different coral assemblages in small patch reefs, developed under influence of high siliciclastic input from Mahakam Delta. Platy coral assemblages (Porites, Leptoseris, etc.) common until Serravallian, branching corals became dominant in Tortonian. By Late Tortonian massive coral assemblages dominated, similar to modern-style coral framework)

Santodomingo, N., C.C. Wallace & K.G. Johnson (2015)- Fossils reveal a high diversity of the staghorn coral genera *Acropora* and *Isopora* (Scleractinia: Acroporidae) in the Neogene of Indonesia. Zoological J. Linnean Society, London, 175, 4, p. 677-763.
(online at: https://academic.oup.com/zoolinnean/article/175/4/677/2449809)
(Extensive collections of Miocene corals from E Kalimantan, Indonesia, with 31 species of Acropora and 2 of Isopora, in E Miocene (max. age 18-20 Ma). 12 extant species already present in E Miocene. Most corals associated with shallow turbid habitats)

Santoso, B. (2009)- Geologic factors controlling mineral content in selected Tertiary coals- southern Kalimantan. Indonesian Mining J. 12, 2, p. 67-74.
(online at: http://jurnal.tekmira.esdm.go.id/index.php/imj/article/view/565/427)
(In Asem-Asem basin average mineral content of Miocene coals (3.9%) lower than Eocene coals (6.7%). Miocene coals bright lithotypes/ vitrinite-rich coal with fewer clay partings; Eocene coals dull lithotypes/vitrinite-poor)

Santoso, B. (2011)- Geologic aspects controlling maceral and mineral matter content of Satui coals- South Kalimantan. Indonesian Mining J. 14, 2, p. 63-73.
(online at: http://jurnal.tekmira.esdm.go.id/index.php/imj/article/view/494/358)
(Coals in Asem-Asem Basin, SE Kalimantan, in Eocene Tanjung and M Miocene Warukin Fms. Eocene(?) coals from Satui area dominated by bright-banded and banded types. Vitrinite and liptinite dominant macerals, minor inertinite Mineral content relatively high. Brighter coal more vitrinite-rich. Vitrinite reflectance 0.48-0.54%)

Santoso, B. (2011)- Organic petrology of selected coal samples of Eocene Kuaro Formation from Pasir- East Kalimantan. Indonesian Mining J. 14, 3, p. 146-153.
(online at: http://jurnal.tekmira.esdm.go.id/index.php/imj/article/view/485/349)
(Coals from Eocene Kuaro Fm in Pasir area in S-most Kutai Basin. Maceral composition similar to most SE Kalimantancoals. Presence of common pyrite and calcite reflects marine incursion. Vitrinite reflectance (Rvmax%) 0.53-0.71% (subbituminous A- high volatile bituminous C))

Santoso, B. (2016)- Factors controlling petrographic composition of Neogene Tenggarong coals, Kutai Basin, East Kalimantan. Indonesian Mining J. 19, 3, p. 119-131.
(online at: https://jurnal.tekmira.esdm.go.id/index.php/imj/article/view/392/521)

Santoso, B. & B. Daulay (2004)- Organic petrology of selected Tertiary Kalimantan coals. Proc. 33rd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, p. 104-114.
(online at: https://www.iagi.or.id/web/digital/16/2004_IAGI_Bandung_Organic-Petrology-Of-Selected.pdf)
(E and S Kalimantan Eocene and Miocene coals dominated by vitrinite, common exinite and rare inertinite. Paleogene coals sub-bituminous to high volatile bituminous rank (Rv max. 0.53-0.67%), Miocene coals brown to sub-bituminous rank (Rv max 0.30-0.57%)

Santoso, B. & B. Daulay (2005)- Type and rank of selected Tertiary Kalimantan coals. Indonesian Mining J. 8, 2, p. 1-12.

Santoso, B. & B. Daulay (2006)- Geologic influence on quality of selected Tertiary Barito coals. Indonesian Mining J. 9, 2, p. 14-22.
(online at: http://jurnal.tekmira.esdm.go.id/index.php/imj/article/view/647/508)
(Petrography of Eocene coals of Tanjung Fm, Barito basin, SE Kalimantan. Coals mainly vitrinite (av. 83%), liptinite (av. 12%), rare inertinite and mineral matter Resinite, cutinite and sporinite are dominant liptinite macerals. Mineral matter mainly clay and pyrite. Vitrinite reflectance of Eocene coal 0.53- 0.64% (sub-bituminous- high-volatile bituminous); Neogene coals 0.30- 0.47% (brown coal- subbituminous)

Santoso, B. & B. Daulay (2006)- Geologic influence on type and rank of selected Tertiary Barito coal, South Kalimantan, Indonesia. In: C. Chou et al. (eds.) Abstracts 23rd Annual Meeting Soc. Organic Petrology, Beijing 2006, p. 214-216. *(Extended Abstract)*

Santoso, B. & B. Daulay (2008)- Importance of organic petrology to type and rank of Miocene Asem-Asem coal- South Kalimantan. Indonesian Mining J. 11, 3, p. 1-10.
(online at: http://jurnal.tekmira.esdm.go.id/index.php/imj/article/view/580/442)
(Coal petrography of 34 samples from Miocene Warukin Fm. Coals composed mainly of vitrinite with subordinate liptinite, low inertinite, and very low mineral content. Vitrinite reflectance Rv 0.25-0.46% (brown coal- sub-bituminous rank))

Santoso, B. & B. Daulay (2009)- Geologic and petrographic aspects for coal exploration in Sangatta- East Kalimantan. Indonesian Mining J. 12, 1, p. 10-22.
(online at: http://jurnal.tekmira.esdm.go.id/index.php/imj/article/view/572/434)
(Miocene coals in folded Balikpapan Fm of Sangatta area, Kutai Basin. Mean vitrinite reflectance Rv 0.48-0.63% (brown coal- subbituminous rank), locally altered by intrusives to semi-anthracite (Rv 1.87%). Coal rank increases from E to W towards Meratus Range and Kuching Highs due to increase in sediment cover in W. Coals composed mainly of vitrinite, with subordinate liptinite, low inertinite and mineral matter, indicative of humid tropical forest vegetation without significant dry season)

Santoso, B. & N.S. Ningrum (2010)- Characteristics of selected Mangkalihat coals according to petrographic and proximate analyses. Indonesian Mining J. 13, 3, p. 128-134.
(online at: http://jurnal.tekmira.esdm.go.id/index.php/imj/article/view/519/383)
(Coals in Eocene Kuaro Fm in Manggkalihat area of E Kalimantan, below Oligocene and younger limestone section. Three seams 1.5-4.0 m thick. Coals with very thin claystone-sandstone laminae and rel. common pyrite, suggesting marine influence during deposition. High moisture (15-19%). Vitrinite reflectance 0.46-0.49% (subbituminous A and B rank))

Santoso, B. & H. Utoyo (2012)- Karakteristik petrografis batubara Sebatik- Kalimantan Timur berdasarkan aspek geologisnya. J. Teknologi Mineral dan Batubara 8, 2, p. 69-77.
(online at: https://garuda.kemdikbud.go.id/documents/detail/587244)
('Petrographic characteristics of Sebatik-East Kalimantan coal according to its geological aspects'. Coal in M Miocene Meliat Fm exploited on Sebatik Island, Nunukan District, NE-most Kalimantan. Four coal horizons, mainly sub-bituminous A rank (possibly upgraded by nearby andesite intrusion). Deposited in fluvio-deltaic environment from forest-type vegetation in humid tropical zone, without significant dry seasom)

Santoso, B. & H. Utoyo (2012)- Faktor pengontrol komposisi maseral dan mineral batu bara Marah Haloq- Kalimantan Timur. J. Teknologi Mineral dan Batubara 8, 3, p. 141-151.
(online at: http://download.garuda.kemdikbud.go.id/article.php?article=588062 Etc.)
('Factors controlling the maceral and mineral composition of Haloq coal - East Kalimantan'. 1.1m thick coal in U Oligocene-Lower Miocene Wahau Fm in Marah Haloq area,-NW Kutai Basin. Vitrinite main maceral, followed by liptinite and inertinite. Rank of the coals is subbituminous C. Marine incursion to fluvial system resulted in wet swampy areas with reducing conditions)

Santy, L.D. & R. Heryanto (2015)- Endapan kipas bawah laut Kapur Akhir di Kalimantan. Jurnal Sumber Daya Geologi (JSDG) 16, 4, p. 195-211.
(online at: http://kiosk.geology.esdm.go.id/artikel/pdf/endapan-kipas-bawah-laut-kapur-akhir-di-kalimantan)
('Late Cretaceous submarine fan deposits in Kalimantan'. In two places: (1) Semitau High, W Kalimantan (Selangkai Fm and Belikai Conglomerate), and (2) Meratus High, SE Kalimantan (Pitap Group))

Sapiie, B., (2021)- Mechanism of gravity-driven deformation using sandbox modeling: a case study of the Tarakan sub-basin, East Kalimantan. Proc. 45th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA21-G-286, p. 1-13.
(Test of hypothesis that gravity driven mechanism is likely responsible for generaion of normal faults system and fold thrust belt in offshore Tarakan Basin)

Sapiie, B., A. Pamumpuni & M. Hadiana (2008)- Balancing cross-section and sandbox modeling of Satui fold-thrust-belt, Asem-Asem Basin, South Kalimantan. Proc. 32nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA08-G-151, p. 1-19.
(NW-SE directed shortening in Asem-Asem basin at SE side of Meratus Range. Late Miocene deformation of Eocene coal-bearing sediments related to major uplift of Meratus Mountains. >24% shortening in mine area)

Sapiie, B. & A. Rifiyanto (2017)- Tectonics and geological factors controlling cleat development in the Barito Basin, Indonesia. J. Engineering Technological Sciences (ITB), 49, 3, p. 322-339.
(online at: http://journals.itb.ac.id/index.php/jets/article/view/3510/2961)
(Late Eocene Tanjung Fm and E-M Miocene Warukin Fm coals in Barito Basin with cleats (micro-fractures) predominantly oriented in WNW-ESE and NNE-SSW directions. Cleat density increases with structural position like fold hinges and fault zones. Cleats form during coalification (shrinkage), and are superimposed by later processes like fluid pressure and tectonic stresses and also affected by composition of the coal)

Sapiie, B., A. Rifiyanto & L.A. Perdana (2014)- Cleats analysis and CBM potential of the Barito Basin, South Kalimantan, Indonesia. AAPG International Conference & Exh., Istanbul 2014, Search and Discovery Article 10653, p. 1-19. *(Extended Abstract)*
(online at: https://www.searchanddiscovery.com/documents/2014/10653sapiie/ndx_sapiie.pdf
(Distribution and orientations in coal in Barito Basin 3 major trends: WNW-ESE, NNW-SSE and NE-SW. Cleat formation in Eocene Tanjung Fm may be related to NW-SE trending rifting, in Miocene Warukin Fm to transpression along Meratus Range which produced NW-SE compressive stress Cleat spacing varies with coal type and ash content. Decreasing cleat spacing from low to high coal rank. Cleat density higher with low ash content. Some coals of Barito Basin have permeability of 20-2000 md)

Saputra, I. & A.Y. Prasetya (2017)- Pulse of depositional environment change in Tarakan Basin: some perspective from onshore Simenggaris Area. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, p. 1-4.
(online at: https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_Pulse-of-Depositional-Environment-Change-in-Tarakan-Basin_compressed.pdf)
(In Tarakan Basin much of Eocene- E Miocene in marine facies. Common Oligocene limestones. Late Middle Miocene huge sediment influx came in into Tarakan basin and deltaic sedimentation began)

Saputra, I. & T. Wibisono (2016)- Strike-slip fault geometry and its significance for petroleum play in Tarakan Basin: a perspective from onshore Simenggaris area. Proc. 40th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA16-488-G, p. 1-8.
(Tarakan Basin with NE-SW trending folds of gravitational fault system related to deltaic sedimentation. Also major NW-SE high-dip faults with flower structures in Bunyu, Tarakan, Ahus and Sebatik Arches, interpreted as younger, transpressional strike-slip faults. Several oil fields near NW-SE trend (Bunyu, Tarakan, Sembakung, Pamusian, etc.). Onshore Tarakan Basin mainly transpressional deformation, offshore mainly affected by gravitational fault system)

Saputra, I., T. Wibisono & A.Y. Prasetya (2018)- Middle Miocene depositional environment shift in the Tarakan Basin: some perspectives from the onshore Simenggaris area. Berita Sedimentologi 40, p. 45-54.
(online at: http://www.iagi.or.id/fosi/berita-sedimentologi-no-40.html)
(Stratigraphic succession in onshore Tarakan Basin two major depositional environments: Eocene-E Miocene marine and upper M Miocene-Pliocene deltaic depositional environment)

Sardjono (1999)- Gravity field and structure of the crust beneath the Kutei Basin, East Kalimantan, Indonesia. In: H. Darman & F.H. Sidi (eds.) Tectonics and sedimentation of Indonesia, FOSI-IAGI-ITB Regional Seminar to commemorate 50th anniversary of Van Bemmelen's Geology of Indonesia, Bandung 1999, p. 62. *(Abstract only)*
(Summary of gravity field of Kutei Basin and surrounding areas. Onshore Bouguer anomalies generally from +10 to +50 mGal; in Balikpapan area depocenter ~75 mGal. Assuming 9000m of sediment and underlying continental crust, anomalies here should be ~-115 mGal. One possible explanation is rise in Moho)

Sardjono, S. & L. Rotinsulu (1992)- The hydrocarbon generation and trapping mechanism within the northern part of Barito Basin, South Kalimantan. Proc. 21st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 1, p. 131-145.
(online at: https://www.iagi.or.id/web/digital/51/8.pdf)
(In NE Barito basin hydrocarbons sourced from two intervals: Eocene Tanjung Fm (lacustrine oil type) and Miocene Lower Warukin Fm (fluviodeltaic oil type). First hydrocarbon generation in M Miocene from Tanjung source; from Warukin source in Plio-Pleistocene)

Satyana, A.H. (1995)- Paleogene unconformities in the Barito Basin, Southeast Kalimantan: a concept for the solution of the "Barito dilemma" and a key to the search for Paleogene structures. Proc. 24th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 263-275.
(Barito basin only 4 commercial discoveries, all in NE part of basin. Multiple unconformities and young inversion. Suggests fields are preserved paleo-traps not affected by young structuring)

Satyana, A.H. (2010)- Geodynamic origins of Kalimantan sedimentary basins. Proc. 39th Annual Conv. Indonesian Association Geologists (IAGI), Lombok 2010, p. 1-8.
(online at: https://www.iagi.or.id/web/digital/12/2010_IAGI_Lombok_Geodynamic-Origins-of-Kalimantan.pdf)
(Sedimentary basins of Kalimantan prolific for petroleum and coal deposits. Paleogene geologic evolution of SE Asia strongly controlled by escape tectonics due to collision of India to Eurasia in M Eocene. Trans-Kalimantan Lupar-Adang-Paternoster strike slip fault, opening of Makassar Strait and opening of S China Sea responsible for formation of sedimentary basins in Kalimantan-Borneo)

Satyana, A.H. & E. Biantoro (1996)- Seismic stratigraphy of Eocene Beriun sands of West Bungalun, East Kalimantan, Indonesia: a contribution to the Palaeogene stratigraphical knowledge of the Kutai Basin. In: C.A. Caughey et al. (eds.) Proc. Symposium on Sequence Stratigraphy in SE Asia, Jakarta 1995, Indonesian Petroleum Association (IPA), p. 383-393.
(online at: https://tektonesiana.org/wp-content/uploads/2021/11/satyana-and-biantoro_seismic-stratigraphy-of-eocene-upper-kutei-basin_ipa_1995_r.pdf)
(Kutei Basin up to 12,000m of sediments. E Eocene- E Oligocene generally transgressive sequences. Eocene in NE Kutei-W Bungalun area with Beriun Fm reservoir-quality sands equivalent to hydrocarbon-bearing Tanjung sands of Barito Basin. At least three seismic stratigraphic sequences. Deposition affected by growth faulting. Interpreted as fan delta deposits in extensional tectonic regime)

Satyana, A.H., M.Eka M.P. & M. Imron (2001)- Coal seams within Eocene Tanjung Formation of the Barito Basin, Southeast Kalimantan: sequence stratigraphic framework and geochemical constraints for source potential. Berita Sedimentologi (Indonesian Forum Sedimentologi, FOSI) 17, 1, p. 14-21, 26.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/236/206)
(Barito Basin M Eocene synrift- postrift Lower Tanjung Fm clastics 7 sequences. Coals in three sequences of postrift phase. Most widespread and thickest coal seams in transition between synrift- postrift phases. Coals deposited in paralic to upper deltaic settings in various systems tracts. Coals TOC 44-73%, hydrogen index (HI)

285-567 mgHC/gTOC and hydrogen to carbon ratio (H/C) of 0.87-1.18, showing coals are liptinitic and can generate oil. Carbon isotopes and biomarkers show Tanjung Fm coals sourced Tanjung field oil)

Satyana, A.H. & R. Idris (1996)- Chronology and intensity of Barito uplifts, Southeast Kalimantan: a geochemical constraint and windows of opportunity. Proc. 25th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 207. *(Poster Abstract)*
(Barito Basin Paleogene mainly extensional deformation. Uplift and inversion of extensional structures starting in Miocene and continuous today. Five uplift events in Tertiary: M Eocene, E-M Oligocene, late Oligocene- E Miocene, M Miocene and Late Miocene- Pleistocene. First two uplift episodes interrupted Paleogene extension. Late Miocene- Pleistocene major uplift event (~1200m). Oligo- Miocene uplift relatively minor (~50m))

Satyana A.H., D. Nugroho & I. Surantoko (1999)- Tectonic controls on the hydrocarbon habitats of the Barito, Kutei and Tarakan Basins, Eastern Kalimantan, Indonesia: major dissimilarities in adjoining basins. J. Asian Earth Sciences 17, 1-2, p. 99-122. *(online at: www.researchgate.net/publication/248352493_Tectonic_controls_on_the_hydrocarbon_habitats_of_the_Barito_Kutei_and_Tarakan_Basins_Eastern_Kalimantan_Indonesia_Major_dissimilarities_in_adjoining_basins)*
(Barito, Kutei, and Tarakan Basins different Tertiary tectonic styles. Barito Basin initial transtension followed by transpression. NE structures increasingly imbricated towards Meratus Mts and involve basement. W and SE Barito Basin weakly deformed. Kutei Basin dominantly tight NNE-SSW trending anticlines, forming Samarinda Anticlinorium in E. Deformation less intense offshore. M Miocene- Recent growth suggested by thinning over structures. W basin area uplifted. Tarakan Basin NNE-SSW normal faults, formed on older NW-SE trending folds and normal to direction of sedimentary thickening, suggesting growth-faults. Onshore older N-S trending folds from collision of Central Range terranes to W of basin. Barito Basin fields in W-verging faulted anticlines. Tarakan Basin NW-SE anticlines with main producing pools in downthrown blocks of faults)

Satyana, A.H. & P.D. Silitonga (1993)- Thin-skinned tectonics and fault-propagation folds: new insights to the tectonic origin of Barito folds, South Kalimantan. Proc. 22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 282-291.
(online at: https://www.iagi.or.id/web/digital/61/30.pdf)
(Barito Basin foredeep at Meratus front with closely spaced folds-thrusts, formed in M Miocene and Plio-Pleistocene, all with high-angle reverse faults. Become increasingly imbricate towards Meratus Range. Strike slip faults cut older structures. Hydrocarbons known only from folds and paleo-highs in N end of foredeep)

Satyana, A.H. & P.D. Silitonga (1994)- Tectonic reversal in East Barito Basin, South Kalimantan: consideration of the types of inversion structures and petroleum system significance. Proc. 23rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 57-74.
(E Barito basin Tertiary structural history characterized by tectonic reversal. Paleogene rifting with NW- SE trending horsts and grabens followed by WNW to ESE Neogene compression with inversion of Paleogene structures. Rift sedimentation resulted in E-M Eocene Lower Tanjung source rocks and reservoir sandstones. Late Eocene- E Oligocene U Tanjung Fm postrift shales effective seal. Inversion started in E-M Miocene (N Kalimantan and E Sulawesi collisions). Plio-Pleistocene inversion might create new traps or destroy previous accumulations and remigrate hydrocarbons. Tanjung Raya fields ideal hydrocarbon-trapping conditions)

Sawada, H., T. Matsuyama, Y. Konda, T. Ishiyama & T. Hashimura (2007)- Middle and Upper Miocene slope channel sandstone reservoir of Sadewa gas field, offshore Mahakam Delta, North Kutei Basin, East Kalimantan, Indonesia; modeling of channel sand body based on exploratory wells and 3D seismic. Proc. JAPT Symposium Exploration and exploitation in deep water, Sendai 2006, J. Japanese Association for Petroleum Technology (Sekiyu Gijutsu Kyokaishi), 72, 1, p. 98-107.
(online at: www.jstage.jst.go.jp/article/japt/72/1/98/_pdf)
(In Japanese with English summary. Sadewa Field 2002 gas discovery on slope in 1000-2800' water off Mahakam delta. Cores of Sadewa reservoir exhibit episodic turbiditic deposition of reworked delta sediments. Slope channel sandstone reservoirs of Sadewa field detected as high-amplitude anomalies in 3D seismic data)

Saxby, R. & R. Latief (1988)- Post Convention Field Trip 1988: Samarinda, East Kalimantan, Guide Book. Indonesian Petroleum Association (IPA), p. 1-19.

Scardina, A., J. Teasdale & H. Darman (2018)- The Greater Tarakan Basin area - New plays and new opportunities. PESGB SEAPEX Asia Pacific E&P Conference, London 2018, 2 p. *(Abstract only)*
(online at: https://www.ges-gb.org.uk/wp-content/uploads/2018/06/PESGB-SEAPEX-2018-Session-4_3-Scardina-et-al_Abstract.pdf)

Schlumberger, C. (1902)- Note sur un *Lepidocyclina* nouveau de Borneo. Sammlungen Geologischen Reichs-Museums Leiden, serie 1, Beitraäge zur Geologie Ost-Asiens und Australiens, 6, p. 250-253.
(online at: https://repository.naturalis.nl/pub/509550/SGRM1S1899006001007.pdf)
('Note on a new Lepidocyclina from Borneo'. Lepidocyclina formosa n.sp. from Teweh, upper Barito area, SE Kalimantan, from sample donated by Prof. K. Martin. (= large star- or saddle-shaped Eulepidina). Associated with Heterostegina margaritata n.sp. (=Spiroclypeus). (Age latest Oligocene- E Miocene, zone Te4-5; JTvG))

Schoell, M., B. Durand & J.L. Oudin (1985)- Migration of oil and gas in the Mahakam Delta, Kalimantan: evidence and quantitative estimate from isotope and biomarker studies. Proc. 14th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 49-56.
(Oils of Nilam field derived from humic organic matter at ~3500-4000m. Gases mature-overmature, formed between ~5000-6000m)

Schoell, M., M. Teschner, H. Wehner, B. Durand & J.L. Oudin (1983)- Maturity related biomarker and stable isotope variations and their application in the Mahakam delta, Kalimantan. In: M. Bjoroy et al. (eds.) Proc. Int. Meeting Organic Geochemistry 1983, Advances in Organic Geochemistry 10, Wiley & Sons, p. 156-163.

Schophuys, H.J. (1936)- Het stroomgebied van de Barito; landbouwkundige kenschets en landbouw voorlichting. Ph.D. Thesis Landbouwhogeschool (Agricultural University) Wageningen, p. 1-207.
(online at: edepot.wur.nl/136042)
('The drainage area of the Barito River; agricultural characterization')

Schurmann, H.M.E. (1925)- Over jong-Tertiaire bruinkolen in Oost Borneo. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 8 (Verbeek memorial volume), p. 429-440.
(online at: https://books.google.com/books?id=Yy0RAAAAIAAJ&pg)
('On Young Tertiary lignites in East Kalimantan'. Mainly discussion on relationship between water content and age of lignite/ coal of Neogene of Kutei basin)

Schurmann, H.M.C. (1927)- Uber jungtertiare Braunkohlen in Ost-Borneo. Braunkohle 26, p. 609-612 and p. 634-641.
('On Young Tertiary lignites in East Kalimantan'. Shortened German version of above 1925 paper)

Schwaner, C. (1850)- Iets omtrent de Borneosche steenkolen. Indisch Archief I, 2, p. 152-157.
('Something about coal from Borneo')

Schwaner, C. (edited by J.H. Croockewit) (1852)- Reis naar, en aanteekeningen betreffende de steenkolen van Batoe Belian (Zuid-Oostkust van Borneo). Natuurkundig Tijdschrift voor Nederlandsch-Indie 3, p. 673-688.
('Trip to, and notes on coal at Batu Belian, SE coast of Borneo'. Posthumously published short report by Schwaner regarding a short survey trip in December 1846, rowing upstream Martapura River from Martapura/ Sungai Raja. Six coal beds at Gunung Garam, SE of Batu Belian, dipping 50-60° to NNW. Similar to coals at Riam, now being exploited, but likely better quality. No maps or figures?)

Schwaner, C. (1853-1854)- Borneo. Beschrijving van het stroomgebied van den Barito en reizen langs eenige voorname rivieren van het Zuid-Oostelijke gedeelte van dat eiland op last van het Gouvernement van

Nederlandsch-Indie, gedaan in de jaren 1843-1847. Van Kampen, Amsterdam, vol. 1 (1853), p. 1-234, vol. 2 (1854), p. 1-200.
(online at: https://books.google.com/books?id=LwVdAAAAcAAJ&source=gbs_similarbooks))
('Borneo: description of the drainage area of the Barito and travels along some important rivers of the SE part of that island undertaken by order of the Netherlands Indies government in 1843-1847'. First geologic-geographic/ anthropological survey work among Dayak natives, etc. in SE Kalimantan, by German naturalist/ geologist Carl A.L.M. Schwaner. Includes discovery of coal deposits in 1844 at Riam Kiwa, SE Kalimantan)

Schwaner, C. (1857)- De steenkolen in het rijk van Bandjermasin. Tijdschrift voor Nederlandsch-Indie 19, 2, 9, p. 129-156.
(online at: https://archive.org/details/tijdschriftvoor30hogoog/page/n138)
('Coal in the Banjarmasin region'. Posthumous paper compiled from 1844? notes of C.A.L.M. Schwaner, who visited the coal deposits of the Banjarmasin area in 1844 and died of malaria in Batavia in 1851. One of first descriptions of coal in SE Kalimantan, which led to exploitation at Pengaron from 1848 onwards. Probably the first to mention the presence of possibly Eocene age fossiliferous 'limestone with 'Numulina' ('Nummulitic Formation') in Borneo. (no maps, no figures))

Schwartz, C.M., G.H. Laughbaum, B.S. Samsu & J.D. Armstrong (1973)- Geology of the Attaka oilfield, East Kalimantan, Indonesia. Proc. 2nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 195-215.
(Attaka first commercial offshore field in Kalimantan in 1970. NNW trending structure. Late Miocene- Pliocene fluvial-deltaic reservoirs between 600'- 7800', with oil produced from 34 sands between 2000-3400'. Structure young anticline, but thinning of sands over crest of structure suggest Late Miocene- Pliocene early growth. Strong positive gravity anomalies under Kutai Basin and Makassar Straits suggestive of oceanic crust basement)

Seigneurin, A., D. Muller, A. Galli & C. Ravenne (1993)- Optimization of the well-spacing with a geostatistical model Tunu Field- Mahakam Area. Proc. 22nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 1-17.
(Reservoir model of >4 TCF Tunu gas field, Mahakam Delta. Multiple distal deltaic reservoir sands, mainly rel. thin (1.5-2 m average) channel mouth bars, with occasional distributary channels. Gas in Tunu Main Zone, immediately below Fresh water sands, from 2200- 4100m deep)

Septama, E., H. Darman & T. Tri Handayani (2017)- Mahakam delta system: the integration of outcrops, modern depositional processes and subsurface data. Indonesian Association Geologists (IAGI), Fieldtrip Guidebook, p. 1-66.

Septama, E., C.M.E. Putra, D. Vitri & T. Widiyanto (2014)- The development scheme in the oilfield with subtle stratigraphic trap, a key to extend mature field life-span in Sangasanga Field, East Kalimantan, Indonesia. AAPG International Conference Exhib., Istanbul, Search and Discovery Article 20285, p. 1-22.
(online at: www.searchanddiscovery.com/documents/2014/20285septama/ndx_septama.pdf)
(Fluvio-deltaic sands of Balikpapan Group in Sanga-Sanga Field prolific hydrocarbon reservoirs, with cumulative production of ~360 MMBO. Most of past oil production from structural traps in Sanga-sanga anticline. New pools expected in stratigraphic traps in distributary and tidal channel-fills, etc.)

Septama, E., P. Suseno, C. Mustopa E.P., G. Nuansa, F. Iswanto & Rizky Andi (2019)- How did channel systems survive the high sea level periods? New sedimentological insights from outcrop, modern analogue and subsurface data in the lower Kutai Basin, E.Kalimantan. Berita Sedimentologi 42, p. 5-21.
(online at: www.iagi.or.id/fosi/files/2019/01/FOSI_BeritaSedimentologi_BS42_January2019.pdf)
(Three typical depositional models of highstand fluvial channels, from 3km outcrop transect in Samarinda anticlinorium (Miocene?))

Setyaningsih, C.A. (2009)- Studi palinologi Formasi Mentawir, Sub Cekungan Kutai Bawah, Kalimantan Timur. Jurnal Widyariset (LIPI) 12, 1, p. 109-115.
(online at: http://widyariset.pusbindiklat.lipi.go.id/index.php/widyariset/article/view/205/198)

('Palynological study of the Mentawir Formation, Lower Kutai subbasin, E Kalimantan'. Palynology of interval 100'-4140' in well 'X' of 'DNA' field. Age mainly M Miocene (F. trilobata zone), 100-850' Late Miocene)

Setiawan, A. (1993)- Development of deltaic sedimentation in the E67/E68/E69 reservoir series, Nilam Field, East Kalimantan. Proc. 22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 847-862.
(online at: https://www.iagi.or.id/web/digital/53/22nd-Volume-2-(6-9-Des-1993)-245-260.pdf)
(E-W trending delta distributary channels in M Miocene 'E' sequences of Balikpapan Fm in Nilam giant gas field, discovered in early 1970's by Huffington/ VICO in onshore Mahakan Delta area)

Setio, N., W. Suwarlan & R. Latief (1989)- The integration of borehole, seismic data, geological field work, paleontological data and SAR in a thrusted area of East Kalimantan. Proc. 18th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 7-30.

Setyobudi, P.T., P.A. Suandhi, A. Bachtiar & A. Miri (2013)- Sedimentology of fluvial-deltaic coal formation in Kutai Basin based on various outcrops, previous geological study and modern Mahakam Delta analogue. Proc. Joint Convention 38th Indonesian Association Geophysicists (HAGI) - 42nd Indonesian Association Geologists (IAGI), Medan, JCM2013-0293, p. 1-7.
(online at: https://www.iagi.or.id/web/digital/8/2013_IAGI_Medan_Sedimentology-of-Fluvial-Deltaic.pdf)
(Review of M Eocene- Miocene paleogeography and coal distribution in Kutai Basin. Highest potential for coal development in fluvial-delta plain facies of M-L Eocene (Tanjung Fm equivalent), Late Oligocene- E Miocene (Pamaluan Fm equiv.) and multiple (4) delta systems in Lower Kutai Basin in M-L Miocene (Balikpapan Fm))

Shiddiq, D., E. Agustine, T.B. Nainggolan, I. Setiadi & S. Zulivandama (2021)- Petrophysical analysis and seismic stratigraphy interpretation to determine hydrocarbon reservoir in Tarakan basin, Bunyu Island waters. Bulletin of the Marine Geology 36, 1, p. 45-56.
(online at: http://ejournal.mgi.esdm.go.id/index.php/bomg/article/view/707/524)

Siagian, H.P. & B.S Widijono (2013)- Anamali gayaberat kaitannya keterdapatan formasi pembawa batubara di daerah Banjarmasin dan sekitarnya, Kalimantan Selatan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 14, 1, p. 29-37.
('Gravity anomaly in relation to the coal-bearing formation in Banjarmasin and surrounding areas, South Kalimantan'.Gravity anomalies grouped into 3 parts: high gravity anomaly of 45-75 mGal tied to Meratus High, anomalies of 20 -45 mGal tied Pretertiary and Tertiary rocks, (3) low gravity anomalies of -15 to 20 mGal reflecting Tertiary sedimentary basins)

Sidarto, G. Burhan, J. Hendryana, S. Kusumadinata & S. Hidayat (1998)- Struktur geologi daerah Sanga-Sanga, Kalimantan Timur. Jurnal Geologi dan Sumberdaya Mineral (JGSM), 8, 82, p. 2-13.
('Geological structure of the Sanga-Sanga area, E Kalimantan')

Sidi, F.H. (1998)- Sequence stratigraphy, stratigraphy, epositional environment and reservoir geology of the Middle Miocene fluvio-deltaic succession in Badak and Nilam fields, East Kalimantan. M.Sc Thesis, Queensland University of Technology, Brisbane, p.

Sidi, F.H. (1999)- Comparison of Paleo-Mahakam Delta with other delta systems. Berita Sedimentologi (Indonesian Sedimentologists Forum FOSI) 12, p. 10-13.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/266/236)
(M-U Miocene (Paleo-Mahakam) delta system in Kutai Basin compared to modern delta systems elsewhere. M Miocene deposits interpreted to be fluvial-dominated delta system, with less tidal influence than modern Mahakam delta)

Sidi, F.H., H.C. Baskara, G.P. Allen & S.C. Lang (1998)- Controls on cyclic sequence architecture in the Middle Miocene paleo-Mahakam Delta system, Badak and Nilam fields, Kutai Basin, East Kalimantan, Indonesia. AAPG International Conference Exhib. Abstracts, American Assoc. Petroleum Geol. (AAPG) Bull. 82, 10, p. 1966-1967.

(Badak and Nilam fields in M Miocene paleo-Mahakam fluvio-deltaic system. Productive horizons numerous isolated mouth bar and distributary channel sandstone reservoirs in basin with high subsidence rates and high sediment influx. High degree of cyclicity at three scales: (1) smallest (100-150') represent delta lobes, parasequences produced by autocyclic processes (2) Intermediate (800-1200') regressive-transgressive parasequence sets; (3) largest (6000-8000') associated with major basin-fill patterns due to progradation of shelf and slope. Larger-scale maximum flooding events cut across regional stratigraphic markers, indicating they are diachronous along depositional strike. Lateral variations in stacking patterns, controlled by migration of zones of sediment influx. Local tectonic effects tend to blur eustatic signatures in basin)

Sidi, F.H., S. Damayanti, H.C. Baskara & I. Turseno (1998)- Stratigraphy and geometry of deltaic reservoirs of the paleo-Mahakam system: an example from sequence stratigraphy study of Nilam gas field, Kutei Basin, East Kalimantan, Indonesia. In: C.A. Caughey & J.V.C. Howes (eds.) Proc. Conference Gas habitats of SE Asia and Australasia, Jakarta 1998, Indonesian Petroleum Association (IPA), p. 179-185.

Sieffermann, G.R. (1990)- Origin of iron carbonate layers in Tertiary coastal sediments of central Kalimantan Province (Borneo), Indonesia. In: J. Parnell et al. (eds.) Sediment-hosted mineral deposits, Int. Association of Sedimentologists (IAS), Special Publ. 11, p. 139-145.
(Siderite layers 20-30cm thick in Miocene coal-bearing series reflect reprecitation of iron in (brackish) coastal plain zone)

Siemers, C.T., S. Sutiyono & S.K. Wiman (1992)- Description and reservoir characterization of a Late Miocene, delta-front coral-reef buildup, Serang Field, Offshore East Kalimantan, Indonesia. In: Carbonate rocks and reservoirs of Indonesia: a core workshop, Indonesian Petroleum Association (IPA), p. 5-1-5-27. *(online at: https://www.academia.edu/9273495/DESCRIPTION_AND_RESERVOIR_CHARACTERIZATION_OF_A_LATE_MIOCENE_DELTA_FRONT_CORE_REEF_BUILDUP_SERANG_FIELD_OFFSHORE_EAST_KAL Etc.)*
(Late Miocene in Serang Field dominated by fluvial/deltaic and shallow-marine siliciclastics. Also numerous carbonate units indicative of coral reef growth in delta-front, marine-shelf setting. The 80-6 Limestone (67'), includes 'Lower reef' (25'; platy corals in argillaceous matrix grading up to massive and branching coral fragments in mud matrix) and 'Upper reef' (42'; platy-coral-bearing wackestone, overlain by argillaceous coral rubble, porous 10' reef-core type coral rubble and 13' of non-porous, reworked mix). Reef overlain by shallow shelf- delta-front calcareous, shelly, silty shale. 80-6 Limestone represents cluster of buildups with lateral extent of >2.5 km and possibly up to10's of kms. Post-depositional degradation of reservoir quality. Extensive recrystallization of skeletal fragments (especially corals, molluscs) and carbonate mud matrix).

Sigit, S. (1962)- Penjelidikan geologi terhadap endapan batubara di daerah Sungup-Selaro, di bagian utara Pulau Laut (Kalimantan Tenggara). Djawatan Geologi Indonesia, Bandung, Publikasi Teknik- Seri Geologi Ekonomi No. 3, p. 1-43.
('Geological investigations of the Sungup-Selaro Region in the northern part of Pulau Laut (SE Kalimantan'). Coal-bearing Eocene in Sungup-Selaro region in N part of Laut island at least 223m thick, with five coal seams. Only one seam, Seam II, with averge thickness of 1.65m, with reserves of economic importance. Average dip of seam about 10° to NW. Also short description of old Japanese mine at Salaro in 1944-1945 by Ishihari Minig Company (also earlier coal production since 1903 by 'Steenkolen Maatschappij Poeloe Laoet'))

Sigit, S. (1963)- Penjelidikan geologi terhadap endapan batubara di Pulau Sebuku (Kalimantan Tenggara). Direktorat Geologi, Bandung, Publikasi Teknik- Seri Geologi Ekonomi No. 5, p. 1-41.
('Geological investigations of the coal deposits of Pulau Sebuku (SE Kalimantan)'. Reconnaissance in S part of Sebuku island, E of Palau Laut, showed Eocene coal only in W part of widespread Eocene formations. Only one seam, irregularly distributed and formed mainly from allochthonous material. Sebuku coal clearly suitable as coal base for large industrial operation such as an iron and steel industry)

Silaban, S.A., S. Ardi, V.S. Agustin (2013)- Preliminary study depositional environment of Batu Ayau Formation and its CBM play evaluation, Upper Kutai Basin, East Kalimantan. Proc. 37th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA13-G-071, p. 1-15.
(Late Eocene- E Oligocene coal-bearing formation in W Kutai Basin)

Simandjuntak, T.O. (1999)- Neogene Dayak Orogeny in Kalimantan. In: I. Busono & H. Alam (eds.) Developments in Indonesian tectonics and structural geology, Proc. 28th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 1, p. 83-90.
(online at: https://www.iagi.or.id/web/digital/63/8.pdf)
Neogene orogeny in Kalimantan mainly characterized by extensional triple junction, associated with Neogene non-arc volcanics)

Simatupang, D.P. & D. Amarullah (2010)- Coal Bed Methane potency of Tanjung Formation in Tanah Bumbu South Kalimantan. Buletin Sumber Daya Geologi 5, 2, p. 1-8.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/427)
(On CBM resources and deep coal potential of Eocene Tanjung Fm coals in Tanah Bumbu Area, Asem-Asem Basin, SE Kalimantan. CSAT-1 well drilled 10 coal seams with 3 main seams (E, I, J) between 212- 275m depth, 1-5m thick. High rank coal. Coal resources between 300- 1000m depth 112.7 M tons, giving potential methane resources estimate of ~430 MSCF, with methane content 1.2- 6.6 ft3/ton of coal)

Simoneit, B.R.T., D.R. Oros, L. Karkowsky, L.Szendera, J. Smolarek-Lach, M. Goryl, M. Bucha et al. (2020)- Terpenoid biomarker of ambers from Miocene tropical palaeoenvironments in Borneo and of their potential extant plant sources, Int. J. Coal Geology 221, 221, 103430, p. *(manuscript online at: https://www.academia.edu/102587343/Terpenoid_biomarkers_of_ambers_from_Miocene_tropical_paleoenvironments_in_Borneo_and_of_their_potential_extant_plant_sources)*
(Main producers of resins forming Miocene ambers in Kalimantan were angiosperms, probably tree resins of Shorea and less likely Hopea, but not Dipterocarpus)

Sinabang, P.V.P., F. Anggara, D.H. Amijaya & S.B. Rahmat (2024)- Microfacies and paleomire reconstruction of coal in the Tanjung Formation, Barito Basin, Kandangan Area, South Kalimantan. Proc. Int. Conf. Geological Engineering and Geosciences, Yogyakarta 2023, IOP Conference Series: Earth and Environmental Science 1373, p. 012060, p. 1-21.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1373/1/012060/pdf)
(On genesis of Kandangan area (Barito Basin) Eocene coal in terrestrial depositional environment influenced by freshwater and marine transgression. Maceral assemblages show four microfacies groups: (1) telovitrinite-rich; (2) detrovitrinite-rich; (3) telovitrinite-liptinite-rich, and (4) inertinite-rich group. Paleomire evolution shows repetition of topogenous mire changing into ombrogenous mire and back to topogenous mire. Etc.)

Sinaga, I.B., R. Nikijuluw & H. Ilham (2006)- A composite analysis for fluid facies interpretation and hydrocarbon identification using advanced gas data. Case study Mutiara wells, East Kalimantan, Indonesia. AAPG International Conference Exhib., Perth 2006, 1p. *(Abstract)*

Singh, P.K., M.P. Singh, A.K. Singh & M. Arora (2010)- Petrographic characteristics of coal from the Lati Formation, Tarakan Basin, East Kalimantan, Indonesia. Int. J. Coal Geology 81, 2, p. 109-116. *(online at: www.academia.edu/10725510/Petrographic_characteristics_of_coal_from_the_Lati_Formation_Tarakan_basin_East_Kalimantan_Indonesia)*
(Coals from outcrops in Tarakan basin high concentration of huminite (telohuminite), low concentrations of liptinite and inertinite macerals. Coals originated under telmatic condition. Predominance of wood derived tissues. High subsidence rates prevailed. Alternating phases of oxic and anoxic moor conditions)

Siregar, M.S. & R. Sunaryo (1980)- Depositional environments and hydrocarbon prospects, Tanjung Formation, Barito Basin, Kalimantan, Indonesia. Proc. 9th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 379-400.
(Eocene Tanjung Fm producing oil since 1960's. Lower member terrestrial-paralic clastics, middle member maine-deltaic clastics, upper member marine shales and thin limestones. Plio-Pleistocene uplift of Meratus Block and NNE-SSW trending anticlines)

Siregar, P.H., D. Ramdan, S.A. Yani, P. Bransden, A. Prasetya, T. Kearney & D.B. Waghorn (2010)- Hydrocarbon potential of the North Kutei Basin: new exploration opportunities based on the new 3D seismic data. Proc. 34th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA10-G-019, p. 1-25.
(3D seismic offshore Sangatta field, N Kutei basin, shows Late Miocene- E Pliocene slope channel play)

Situmorang, B., C.D. Dwiyoga, A. Kustamsi (2006)- The untapped 'unconventional' gas: CBM resources of Kutai Basin with reference to the North Kutai Lama Field, Sangasanga Area, East Kalimantan. Proc. Jakarta 2006 International Geoscience Conference Exhib., Indonesian Petroleum Association (IPA), 06-OT-07, p. 1-11.
(Eleven onshore coal basins of Indonesia contain 453 Tcf coalbed methane resources, of which 80.4 Tcf in Kutai Basin (ARI, 2003). N Kutai Lama (NKL) field main targets for CBM development are M Miocene Prangat and Late Miocene Kamboja Fms and uppermost E Miocene Loa Kulu Fm. Results from two wells between 700-1400m indicate in-place CBM resources of NKL field 147 BCF)

Sjadzali, M.M. & J.M. Kachelmeyer (1986)- Yakin West and Yakin North fields: optimum development trough integrated completion techniques. Proc. 15th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 43-64.
(Yakin West and Yakin North are small Unocal offshore oilfields, in shallow water 8 km S of Balikpapan, E Kalimantan. Discovered in and 1982-1983. Production since 1984-1985, from 17 new wells. Anticlinal structure with unconsolidated E Miocene multi-level reservoirs in deep water facies. Etc.)

Snedden, J.W. & J.F. Sarg (1998)- Large scale synsedimentary tectonic control on stratigraphic sequences in two petroleum provinces of Borneo. Abstract AAPG Annual Convention, Salt Lake City 1998, American Assoc. Petroleum Geol. (AAPG) Bull. 82, 13 (Suppl.), p. 1-4.
(Kutei and Sarawak basins two petroleum producing provinces where tectonics greatly impacted formation of stratigraphic sequences. Sequence bounding unconformities can be used in tectonically active areas to provide chronostratigraphic correlations across several paleoenvironments)

Snedden, J.W. & J.F. Sarg (1998)- Reducing reservoir and source risk in deepwater plays: examples from Southeast Asia. Proc. SEAPEX 12th Offshore South East Asia Conference OSEA 98, Singapore 1998, p. 257-269.
(Offshore Kutai and Sarawak basins sequence stratigraphy interpretation)

Snedden, J.W., J.F. Sarg, M.J. Clutson, M. Maas, T.E. Okon, M.H. Carter et al. (1996)- Using sequence stratigraphic methods in high-sediment supply deltas: examples from the ancient Mahakam and Rajang-Lupar deltas. Proc. 25th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 281-296.

Snedden, J.W., J.F. Sarg & K.E. Peters (2001)- A new geochemical-sequence stratigraphic model for the Mahakam Delta and Makassar Slope, Kalimantan, Indonesia: Reply. American Assoc. Petroleum Geol. (AAPG) Bull. 85. 6, p. 1102-1105.

Soetedja, V., D. Suyana, I N.H. Kontha & Safarudin (1998)- Case history of a marginal oil field development. Proc. SPE Asia Pacific Oil and Gas Conference, Perth 1998, SPE 50054, p. 175-183.
(Semberah Field small 1973 oil discovery in N Mahakam area, 140 km N of Balikpapan, producing since 1991. Paper mainly engineering history of marginal oil field)

Spagnuolo, E.J., P. Wilf, J.P. Zonneveld, D. Shaw, Aswan, Y. Rizal, Y. Zaim, J.I. Bloch &.R.L. Ciochon (2024)- Giant seeds of an extant Australasian legume lineage discovered in Eocene Borneo (South Kalimantan, Indonesia). Int. J. Plant Sciences, 185, 5, p. 482-502.
(online at: https://www.journals.uchicago.edu/doi/epdf/10.1086/730538)
(Three isolated, large (up to 72 mm long) seed casts from M-L Eocene freshwater coastal swamp deposits of Upper Tambak Mb of Tanjung Fm at Wahana Baratama coal mine near Satui, Asem Asem Basin. Described as extinct legume Jantungspermum gunnellii n.gen., n.sp. Resembles Australian black bean tree Castanospermum. With descriptions of associated leaf morphotypes and palynofloras. Discovery suggests Sundaland precollision

origin, a much later Sunda-Sahul migration and eventual Asian extinction for Castanospermum lineage, which today inhabits coastal rainforests of N Australasia)

Stankiewicz, B.A., M.A. Kruge & M. Mastalerz (1996)- A geochemical study of macerals from a Miocene lignite and an Eocene bituminous coal, Indonesia. Organic Geochemistry 24, 5, p. 531-545.
(Study of macerals from Miocene Warukin Fm lignite and Eocene Tanjung Fm high-volatile bituminous C coal from SE Kalimantan. Most Indonesian lignites and low rank coals liptinite-rich (~10%) with low inertinite and high vitrinite. Tropical angiosperm vegetation (Dipterocarpaceae), dominant in swamps of Kalimantan, are prolific resin producers. Suberins from corkified plant cell walls form maceral suberinite in Indonesian lignites. Resins in Eocene coal chemically and botanically different from Miocene and younger dammars)

Storms, J.E.A., R.M. Hoogendoorn, M.A.C. Dam, A.J.F. Hoitink & S.B. Kroonenberg (2005)- Late-Holocene evolution of the Mahakam delta, East Kalimantan, Indonesia. Sedimentary Geology 180, p. 149-166.
(online at: www.academia.edu/58232742/Late_Holocene_evolution_of_the_Mahakam_delta_East_Kal Etc.))
(Late Holocene Mahakam Delta example of mixed tide-fluvial dominated delta system. Delta prograded ~60 km in past 5000 years. Natural levees, crevasse splays and avulsions absent in delta plain. Sand content decreases significantly from fluvial to tidal-dominated areas. Progradational delta system evolved under conditions of slowly rising sea level. Present day sediment load of Mahakam River insufficient to explain sediment volume of subaerial and subaqueous Mahakam delta, suggesting hydraulic conditions in past may have been different)

Stromer, E. (1931)- Die ersten Alt-Tertiaren Saugetier-Reste aus den Sunda-Inseln. Wetenschappelijke Mededeelingen Dienst Mijnbouw Nederlandsch-Indie, Bandung, 17, p. 11-14.
('The first Early Tertiary mammal remains from the Sunda islands'. Two teeth from probable Eocene beds at Gunung Sebumban Ulu, Sedona River, Sanggau area, W Kalimantan, are first record of E Tertiary mammals in Indonesia. Probably belong to small anthracotherid Artiodactylus, a family rel. common in M-U Eocene of mainland SE Asia and Europe)

Stuart, C.J., H.F. Schwing, R.A. Armin, B. Sidik, R. Abdoerrias, W.D. de Boer et al. (1996)- Sequence stratigraphic studies in the Lower Kutai Basin, East Kalimantan, Indonesia. In: C.A. Caughey et al. (eds.) Proc. Int. Symposium on Sequence Stratigraphy in SE Asia, Indonesian Petroleum Association (IPA), Jakarta 1995, p. 365-368.
(Summary paper on Miocene Lower Kutei basin Unocal Miocene stratigraphy work)

Suandhi, P.A., A. Bachtiar, P.T. Setyobudi, E. Nurjadi, A. Mardianza, B.D. Harisasmita, M. Arifai & D. Hendro H.N. (2017)- Sangatta delta evolution with an updated Miocene paleogeography. Berita Sedimentologi 39, p. 25-36.
(online at: www.iagi.or.id/fosi/files/2017/12/FOSI_BeritaSedimentologi_No39_Dec2017.pdf)
(Discussion of Miocene-age Sangatta Delta system (Balikpapan and Kampung Baru Fms) in NE Kutai Basin. Development controlled by Rantau Pulung- Mangkupa paleohigh, bound by NE-SW and N-S strike slip faults that represent Neogene reactivations of old basement faults. Delta development started with small proto-Sangatta Delta in E Miocene and became larger during M-L Miocene after inversion/ uplift at Kuching High to W. More than 10 stacked, E-ward prograding fluvial-deltaic parasequence sets)

Suandhi, P., A. Bachtiar, P.T. Setyobudi, M. Rozalli & Y.S. Purnama (2013)- Paleogen facies model of North Barito area, comprehensive study of sedimentology, stratigraphy and potential reservoir. Proc. 37th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA13-G-149, p. 1-13.
(N Barito basin outcrop study, from Pre-Tertiary metamorphics, M-L Eocene syn-rift clastics, Oligocene post-rift clastics and carbonate, Miocene deltaics, etc.))

Suandhi, P.A., P.T. Setyobudi, A. Bachtiar, E. Nurjadi, A. Mardianza, B.D. Harisasmita, M. Arifai & D. Hendro H.N. (2018)- Sangatta delta evolution with an updated Miocene paleogeography. Proc. 42nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA18-166-G, p. 1-12.
(N Kutai Sangatta delta (Balikpapan and Kampung Baru Fms) development started in E Miocene with at least two fluvial-deltaic parasequence sets prograding to E. Delta became larger in M-L Late Miocene as regional

inversion and uplift took place at Kuching High to W of delta. >10 stacked fluvial- deltaic parasequence sets identified, all showing progradation to E)

Subekti, A., K.P. Laya, E. Guritno & M.N. Krisnayadi (2017)- Greater Bangkanai prospectivity: the application of full-tensor gravity and magnetic survey, onshore Central Kalimantan. Proc. 41st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA17-361-G, p. 1-17.
(Gravity-mag survey in upper Kutai Basin, in area with Kerendan and West Kerendan gas fields in Oligocene carbonates. NE-SW trending surface anticlines are mainly (M Miocene?) inversions of M-L Eocene extensional structures)

Subekti, A., H. Mustapha, E. Guritno, J. Smart, A. Susilo, B. Nugroho, W. Darmawan & M. Wilson (2015)- New insights into the Kerendan Field carbonate morphology Upper Kutai Basin, Central- East Kalimantan. Proc. 39th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA15-G-118, p. 1-16.
(Late Oligocene Berai carbonate play in Upper Kutai Basin underexplored; Kerendan discovered by Unocal in 1982 is only hydrocarbon accumulation, in carbonate platform with two culminations with common gas-water contact. Oligocene carbonate built on NNE-SSW trending Paleogene horsts. Kerendan High created by inversion of rift faults. Kerendan Carbonate system not atoll rim carbonate with interior lagoon as previously interpreted, but open platform carbonate complex with partially developed rim in which platform, coral reefal buildups and carbonate sand aprons developed. Most porosity secondary, diagenetic)

Subroto, E.A. (2015)- The role of coaly materials as source rocks (conventional and unconventional) in the Kutai Basin, Indonesia. In: Hydrocarbons in the tropics: on the edge, Abstracts 32nd Annual Meeting Soc. Organic Petrology, Yogyakarta 2015, p. 123-128. *(Extended Abstract)*
(Five proven and potential types of petroleum source rocks identified in Kutai basin. Most oils tied to deltaic coaly shales. Coaly materials significant role in hydrocarbon generation, conventional and unconventional)

Subroto, E., A. Bachtiar & B. Istadi (2006)- Source rock characterisation in the Kutai Basin, East Kalimantan, Indonesia, based on biomarkers. Proc. Jakarta 2006 International Geoscience Conference Exhib., Indonesian Petroleum Association (IPA), Jakarta06-PG-28, p. 1-4.
(Analyses 73 crude oils and 86 rock samples from Kutai Basin. Based on biomarkers five source types: deltaic coaly shales, marine shales, mixed deltaic and marine shales, marine calcareous shales, and immature deltaic coaly sediments. 62 oils correlate to deltaic coaly shales, remaining 11 correlate to marine shales. No mixed sources detected in crude oils. Vitrinite reflectance data for some sediments appear to be suppressed)

Subroto, E.A., B.P. Muritno, Sukowitono, D. Noeradi & Djuhaeni (2005)- Petroleum geochemistry study in sequence stratigraphic framework in the Simenggaris Block, Tarakan basin, East Kalimantan, Indonesia. Proc. 30th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, IPA05-G-159, p. 421-432.
(Tarakan Basin Simenggaris Block 8 Oligocene-Pliocene sequences, with shales TOC between 0.65- 7%, indicating several may be hydrocarbon source. Almost all sequences contain some coals or carbonaceous materials. Only SB-2 and SB-1 (Naintupo Fm and older) reached optimal maturity. In deeper areas SB-5 to SB-3 (Meliat Fm) are in middle mature stage)

Sudarmono, A. Direza, H.B. Maulin & A. Wicaksono (2017)- Some new insights to tectonic and stratigraphic evolution of the Tarakan sub-basin, North East Kalimantan, Indonesia. Proc. 41st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA17-722-G, p. 1-22.
(Tarakan Basin with E-ward prograding fluvio-deltaic sedimentation since E Miocene, sourced from multiple feeder rivers (Sesayap, Sesanip and others). Deltaics at and E of Bunyu Island deposited on oceanic crust of Celebes Sea. Tarakan sub-basin bounded by left-lateral strike slip faults Sampoerna (in N; Celebes Sea transform fault?) and Maratua and Mangkalihat FZs (in S; continuation of Palu-Koro fault of Sulawesi?). Major tectonic event at end of Late Miocene (end of Santul Fm), which uplifted part of area E of Kucing High. Second major tectonic event in Pleistocene, forming present-day Bunyu, Tarakan and Ahus structures)

Sudradjat A. & A.H. Hamdani (2015)- The tectonic control on the formation of cleats in the coalbeds of Sajau Formation, Berau Basin, Northeast Kalimantan. The 2nd. Int. Conference and 1st Joint Conference Faculty Geology Universitas Padjadjaran Universitas Malaysia Sabah (IGC 2015), p. 187-192.
(online at: http://seminar.ftgeologi.unpad.ac.id/wp-content/uploads/2016/02/The-Tectonic-Control-on-the-Formation-of-Cleats-in-the-Coalbeds-of.pdf)
(Distributions of cleat orientation, spacing, and aperture in Pliocene Sajau Fm lignite seams controlled by main tectonic structures in area)

Sudradjat A. & A.H. Hamdani (2018)- Tectonic control on the formation of cleats in the coal beds of the Sajau Formation, Berau Basin, Northeast Kalimantan. Indonesian J. on Geoscience (IJOG) 5, 3, p. 235-250.
(online at: http://ijog.bgl.esdm.go.id/index.php/IJOG/article/view/286/270)
(Similar to above paper)

Suessli, P. (1978)- The Tendeh Hantu atoll- a Lower Miocene carbonate build-up in Mangkalihat Peninsula, East Kalimantan. Proc. Carbonate Seminar, Jakarta 1976, Indonesian Petroleum Association (IPA), p. 121-122.
(Abstract only)
(Narrow E-W trending high with steep N and S flanks formed in M Oligocene tectonic event, persisted through Mio-Pliocene and developed into Mangkalihat Peninsula. Lower Miocene carbonate buildup outcrops, including Tendeh Hantu 'atoll' sub-circular platform, ~30 km across. Overlain by Pliocene sediments. Coralline sediments of edge dip at 30-50° towards interior of 'atoll'. Most limestones in interior slightly dolomitized packstones. Larger foraminifera Flosculinella globulosa, F. reicheli and Austrotrillina howchini suggest early M Miocene (Lower Tf), age, age-equivalent of nearby zone N9 calciturbidites)

Suggate, R.P. & J.P. Boudou (1996)- Revision of the Mahakam coal series: Rock-Eval and rank(s) relations. J. Petroleum Geology 19, 4, p. 407-423.

Sugiaman, F., A. Cebastiant, K. Werner, A. Saller, D. Glenn & R. May (2007)- Reservoir characterization and modeling of an Upper Miocene deepwater fan reservoir, Gendalo Field, Kutai Basin, Offshore East Kalimantan. Proc. 31st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA07-G-056, p. 1-18.
(Gendalo Field largest deepwater gas discovery off E Kalimantan. Primary reservoir U Miocene thin-bedded turbidites (average sand bed thickness 15 cm), deposited at base-of-slope as unconfined fan. Three internal units mapped based on 3D seismic data and four wells)

Suiter, J.S. (1996)- Shallow 3-D seismic analysis of Late Pleistocene lowstand deltas (Mahakam, Indonesia). Proc. 25th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 347-351.
(Shallow 3D seismic facies analysis of Late Pleistocene Mahakam Delta)

Sujatmiko, A.Salim & B.S. Irawan (1984)- Geology of the Tunu gas field. Proc. 13th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 341-363.

Sukanta, U., Y. Kusnandar, S. Hidayati, H.I. Priyonggo, A. Siravoet al. (2009)- Understanding hydrocarbon-bearing reservoirs and their critical factors for deep water exploration in the Tarakan Basin, North East Kalimantan (Indonesia). Proc. 33rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA09-G-155, p. 1-3.
(Short paper suggesting series of rapid sea level drops in M Miocene- Pliocene lead to deposition of sand-rich turbiditic deposits along slope and basin floor in eastern deep offshore Tarakan basin)

Sulaksana, N. & A.H. Hamdani (2014)- The analysis of remote sensing imagery for predicting structural geology in Berau Basin East Kalimantan. Int. J. Science and Research (IJSR) 3, 4, p. 18-21.
(online at: https://www.ijsr.net/getabstract.php?paperid=20131349)
(20 new faults identified from Lansat satellite imagery in Berau Basin, NE Kalimantan))

Suleiman, A., D.A. Wulandari & A. Bachtiar (1998)- Identifikasi fosil rombakan di lapisan Miosen Cekungan Kutai dan implikasi geologinya. Proc. 27th Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2. Sedimentology Paleontology Stratigraphy, p. 16- 26.
(online at: https://www.iagi.or.id/web/digital/56/28.pdf)
('Identification of reworked fossils in Miocene sediments of the Kutai Basin and its geological implications'. Locally common reworked bathyal foraminifera in Miocene deltaic deposits of Kutai Basin (incl. agglutinants Cyclammina, Bathysiphon, Ammodiscus, large Haplophragmoides) (formerly believed to be in-situ and indicative of bathyal environments; JTvG))

Sulistyo, Z.R., A. Sutanto & H. Sukhendra (2012)- Preliminary study of CBM potential in Jorong-Kintap area, Asem-Asem Basin, South Kalimantan. Proc. 41st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2012-E-05, p. 1-7.
(online at: https://www.iagi.or.id/web/digital/9/2012_IAGI_Yogyakarta_Preliminary-Study-of-CBM.pdf)
(also as PITHAGI2012-002) (Asem-Asem Basin good Coal Bed Methane potential. Main coal bearing formations of Jorong-Kintap area are Miocene Warukin Fm (49 m) and Eocene Tanjung Fm (6.1m). Coals of Warukin Fm total moisture 27%, ash 2.9%, volatile matter 41%, macerals dominated vitrinite (83%), classified as lignite. Eocene coals of Tanjung Fm total moisture 6.1%, ash 11.5%, volatile matter 43%, Ro 0.46%, macerals dominated by vitrinite (78.4%), classified as sub-bituminous B)

Sumotarto, T.A., A. Haris, A. Riyanto & A. Usman (2017)- Shale characterization on Barito field, Southeast Kalimantan for shale hydrocarbon exploration. Proc. 2nd Int. Symposium on Current Progress in Mathematics and Sciences (ISCPMS 2016), Depok, AIP Conference Proceedings 1862, 030195, p. 1-5. *(online at: https://pubs.aip.org/aip/acp/article/1862/1/030195/650365/Shale-characterization-on-Barito-field-Southeast)*
(Eocene Tanjung Fm organic-rich shale potential for unconventional shale gas)

Sunardi, E., V. Isnaniawardhani, I. Cibaj, Amiruddin & I. Haryanto (2014)- The lithological succession in East Kutai Basin, East Kalimantan, Indonesia: revisited in a new data on litho-biostratigraphic. Int. J. Science and Research (IJSR) 3, 4, p. 707-713.
(online at: https://www.ijsr.net/archive/v3i4/MDIwMTMxNTcy.pdf)
(Brief review. Kutai Basin basement slickensided serpentinites (Kuaro, Muru River) and deep marine turbiditic metasediments with polymict conglomerate, and pelagic sediments (Tewe River), interpreted as Jurassic ultramafic complex. Overlain by E Miocene(?) and younger beds with numerous repetitions of prograding patterns (fluvial-deltaic and shallow marine facies, with transgressive carbonate build ups). In Late Miocene retrograding patterns and progressively deeper facies)

Sunaryo, R., S. Martodjojo & A. Wahab (1988)- Detailed geological evaluation of the possible hydrocarbon prospects in the Bungalun area, East Kalimantan. Proc. 17th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 423-446.
(Bungalun Area on SW side Mangkalihat Peninsula. Shallow wells between 1900-1941 with oil shows in thin Late Miocene-Pliocene sands. Underlain by oceanic basalt or melange (Late Cretaceous Danau Fm). Overlain by Eocene Mangkupa- Beriun deepwater? clastics in W and tuffs-dominated Sembulu Fm in E. Oligocene-E Miocene to younger sequences two facies. Peripheral zones mainly limestones, younging to SE: Oligocene Kedango Lst (700m), E Miocene Tabalar Lst (500m) and M Miocene Sekerat Lst (200-300m). Deeper parts of basin mainly fine clastics. Bungalun Basin N-S structural grain, similar to Kutai basin, except E-W direction near Sangkulirang Bay. Change of trend caused by rotation effect of Palu-Koro Fault further E)

Sunoto (1990)- Hubungan jendela minyak dan zone bertekanan lua (dengan sebaran hidrokarbon di Pulau Bunyu). Geologi Indonesia, p. 49-60.
('Relationship between oil window and overpressure zone (with distribution of hydrocarbons in Bunyu Island)')

Sulaeman, Teteh S. (1997)- Late Tertiary palynology of the Handil Field, Kutei Basin, East Kalimantan, Indonesia. Ph.D. Thesis, University of Queensland, p. 1-228. *(Unpublished)*
(Palynostratigraphic study on core samples from Miocene reservoirs 28- 4 in 22 wells in Handil Field, Mahakam Delta. Palynoflora composition: 224 species of fungal spores, 88 species of pollen grains and 14 species of spores.

Four E Miocene- E Pliocene informal stratigraphic assemblages distinguished, based on subzones of Florschuetzia meridionalis Zone)

Supriatna, S., Sukardi & E. Rustandi (1986, 1995)- Peta geologi Lembar Samarinda, Kalimantan, 1815, 1915, 1:250,000. Badan Geologi, Pusat Penelitian dan Pengembangan Geologi, Bandung.
('Geological map of the Samarinda sheet, Kalimantan', 1:250,000. Folded Late Oligocene-Recenet deltaic sediments of Mahakam River and Mahakam Delta systems)

Susianto, A., E.R. Esomar, R. Rahadi & M.N. Ardhie (2012)- The characteristics of the Sepinggan strike slip fault zone and its role in forming structural traps the Southeast Kutei Basin. Proc. 36th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA12-G-062, p. 1-23.
(Sepinggan Fault is SE-NW trending right-lateral strike-slip fault, extending >70 km from offshore SE Balikpapan to onshore S Penajam area. It is part of Adang fault zone. Initially formed as transform during Eocene rifting, reactivated as strike slip in Miocene compression. Several significant hydrocarbon traps formed along fault (Yakin, Sepinggan, Mahoni))

Sutha, N., I.M.A., R. Adi & Z. Arifin S. (2008)- Evaluating hydrocarbon potential at attic position in deltaic multi complex reservoirs case study: "A100" reservoir, Semberah Field. Proc. 37th Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 544-556.
(online at: https://www.iagi.or.id/web/digital/14/2008_IAGI_Bandung_Evaluating-Hydrocarbon-Potential.pdf)
(Semberah field in N part of Sanga-Sanga Block, E Kalimantan, part of ancient Mahakam delta complex, with multi layer M-U Miocene reservoirs. Paleo-environment transition fluvio-tidal delta, dominated by delta plain and delta front sedimentation. Search for additional reserves by evaluating hydrocarbon potential at 'attic position', focused on evaluating channel facies in updip position of wet wells)

Sutiyono, S. (1995)- Magnetic resonance image log use in evaluation of low resistivity pay in the Attaka Field. Proc. 24th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 167-179.

Sutjipto, R. Heryanto (1991)- Sedimentology of the Melawi and Ketungau basins, West Kalimantan, Indonesia. Ph.D. Thesis, University of Wollongong, p. 1-255. *(Unpublished)*
(online at: http://ro.uow.edu.au/theses/1405/)
(Melawi and Ketungau similar basins, separated by Paleocene-E Eocene Semitau High (composed of highly deformed turbiditic Selangkai Fm and U Cretaceous 'Boyan melange' tectonic breccia). Melawi Basin fill up to 7500m thick Eocene- Oligocene, gently folded, in 4 main units: (1) ?Late Eocene Ingar Fm outer shelf mudstone (typical Eocene palynomorphs, also common reworked U Cretaceous marine forams), sandstones derived from magmatic ar detritus from Schwaner Mts in S; (2) Late Eocene fluvial and marine Suwang Gp (Dangkan Sst, Silat Shale), with increasing quartz and decreasing volcanics of recycled orogen-type provenance; (3) Melawi Gp fluvial- lagoonal with Late Eocene Payak Fm/ Sepauk Sst and E Oligocene Tebidah Fm; (4) Oligocene fluvial Kapuas Gp, unconformably over Melawi Gp after E Oligocene minor folding. With Late Oligocene- E Miocene Sintang intrusives. Provenance from S and W in Ingar Fm, mainly from melange/ subduction complex in N in Suwang and Melawi Groups (recycled orogenic material from uplifted Late Cretaceous Boyan and Eocene Lubok Antu melanges?). With palynology analyses by B. Porthault of Elf-Aquitaine (later papers by Sutjipto under name Heryanto; JTvG))

Sutjipto, R. Heryanto (2021)- Karakteristik dan lingkungan pengendapan batubara Formasi Tanjung di daerah Batulicin, Kalimantan Selatan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 21, 3, p. 157-164.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/538/438)
('Characteristics and depositional environment of Tanjung Formation coal in the Batulicin Area, S Kalimantan'. Brief review of Eocene Tanjung coal in Asem Asem basin. Coal seams ~50-250 cm thick. Mean vitrinite reflectance (Rv) of coals ~0.50%. Deposited in delta plain (Looks very similar to Barito Basin at other side of the Meratus Range; presumably same author as Heryanto, R.- JTvG))

Suwardji, A. Buhari, K. Kukuh & R. Prayitno (1994)- Low resistivity reservoir study: Sangatta field, Kalimantan. Proc. 23rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 119-130.

(Identification of previously unrecognized low-resistivity oil reservoirs in Sangatta Field (1936 BPM discovery, developed by Pertamina in 1970's))

Suwarna, N. & B. Hermanto (2007)- Berau coal in East Kalimantan; its petrographics characteristics and depositional environment. Jurnal Geologi Indonesia 2, 4, p. 191-206.
(online at: http://oaji.net/articles/2014/1150-1407911582.pdf)
(E-M Miocene Berau coal in Berau Basin. M Miocene Lati Fm coal high in vitrinite (66-96%), mainly vitrinite B, followed by inertinite (14-27%), exinite (1-7%) and mineral matter (0.4- 10.6%). Vitrinite reflectance 0.40-0.58%. Depositional environment peat swamp in upper delta plain/ alluvial plain. Original vegetation mainly cellulose rich, shrub-like plants, tree ferns, herbaceous plant communities, with minor amount of trees)

Suwarna, N., B. Hermanto, T. Sihombing & K.D. Kusumah (2006)- Coalbed methane potential and coal characteristics in the Lati Region, Berau Basin, East Kalimantan. Jurnal Geologi Indonesia 1, 1, p. 19-30.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/161)
(Miocene coalbed methane potential and coal characteristics in Lati region, Berau basin, E Kalimantan. Volatile matter of Lati coal 32-39.6%, sulfur 0.35-3.0%, ash 2.8-14.5% and moisture 12-20%. Vitrinite reflectance (Rv) 0.42-0.57%, indicating sub-bituminous B- high volatile bituminous C coal rank. Low ash content. Thermally immature- early mature, suggesting gas is biogenic)

Suwarna, N., H. Panggabean, M.H. Hermiyanto & A.K. Permana (2007)- Characterization of unconventional fossil fuels in selected areas of Sumatera and Kalimantan, using organic petrography and geochemistry. Proc. 31st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA07-G079, p. 1-15.
(Studies of oil shales and coalbed methane in Sumatra and Kalimantan)

Suwondo, D.H.H. Nugroho, A. Krisyunianto, A. Bachtiar, A. Suleiman & W. Utomo (2015)- Surface study for subsurface analogue model for hydrocarbon potential evaluation in Pulaulaut Island, Asem-Asem Sub-basin. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI, Balikpapan, JCB2015-290, p. 1-6.
(online at: https://www.iagi.or.id/web/digital/3/2015_IAGI_Balikpapan_Surface-Study-for-Subsurface.pdf)
(Outcrop study of Pulau Laut, SE Kalimantan. Synrift Eocene rocks with source potential in lacustrine shales)

Syarifuddin, N., M. Azhar, C.M. Adam, A. Wiweko, P. Dupouy et al. (2008)- South Mahakam exploration and development: synergies that make it happen. Proc. 32nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA08-G-098, p. 1-9.
(Most of S Mahakam delta fields discovered years ago, but of marginal size and none developed. Fields mainly gas-condensate, incl. Jumelai (1975), Jempang (1990), Stupa (1996) and Metulang (1998). Most gas in M-U Miocene Sepinggan deltaic series at 2850-3700m subsea, except for Jumelai reservoir, which is in M Miocene Jumelai sands. Recent revival of exploration and development)

Syarifuddin, N. & I. Busono (1999)- Regional stress alignments in the Kutai Basin, East Kalimantan, Indonesia: a contribution from a borehole breakout study. J. Asian Earth Sciences 17, p. 123-135.
(Borehole breakout data from 134 wells in Kutai Basin indicate maximum regional stress direction NW-SE, which deviates from anticlinorium trends and from strike of thrust-faults in region. Patterns influenced by reactivation of weak zones related to sediment loading (structural inversion))

Syarifuddin, N. & S. Masitah (2010)- Sisi-Nubi Field Development: Sand control strategy and implementation. Proc. 34th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA10-E-015, p. 1-11.
(Sisi-Nubi 1986-1992 gas discoveries 25 km offshore Mahakam Delta in 60-90m water depth. Reservoirs multi-layered Upper Miocene deltaic deposits between 1900-3800m SS interval. Poorly consolidated fresh-water bearing sands in upper part and relatively poor to tight, partly overpressured sands in deeper part.

Syarifuddin, N. Wahyudi Susanto, Mauricio Bueno, Effendy Siawira (2010)- Optimized well placement and design to maximize recovery in Sisi-Nubi field development. Proc. 34th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA10-G-016, p. 1-8.

Sydow, J. (1996)- Holocene to Late Pleistocene stratigraphy of the Mahakam Delta, Kalimantan, Indonesia. Ph.D. Thesis Louisiana State University, Baton Rouge, p. 1-170.
(online at: https://digitalcommons.lsu.edu/cgi/viewcontent.cgi?article=7163&context=gradschool_disstheses)
(Late Pleistocene depositional cycles of Mahakam shelf stratal geometries indicating progradational continuum from falling sea level stage to initial rise (no Late Pleistocene sediment bypass of entire shelf). Extensive, thick Halimeda carbonate buildups during transgression and highstand flooding of shelf.

Taieb, R. & M.F. Sheppard (1993)- Les eaux de formation du Delta de Mahakam (Indonesie); evidences pour une infiltration d'eaux meteoriques dans les champs a hydrocarbures. Comptes Rendus Academie Sciences, Paris, Ser. 2, 317, 5, p. 623-628.
('The formation waters of the Mahakam Delta, Kalimantan; evidence for infiltration of meteoric waters into the oil fields' (see also Furlan et al., 1995))

Tanean, H., D.W. Paterson & M. Endharto (1996)- Source provenance interpretation of Kutei Basin sandstones and the implications for the tectono-stratigraphic evolution of Kalimantan. Proc. 25th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 333-345.
(Three Miocene- Recent sandstone types, all 'recycled orogenic' provenance. E Miocene (23-17 Ma) and Pliocene- Recent sandstones moderately quartzose with lithics from Cretaceous Rajang metasediments. Volcanic lithics record continuous volcanic activity. End-E- earliest M Miocene sandstones volcanogenic, recording increase in W Kalimantan volcanic activity between 17-14.5 Ma. High-quartz M -L Miocene sandstones form reservoirs in oil and gas fields along coast and offshore, and are recycled products of basin inversion events that advanced from W to E. Onset of basin inversion at zone N10 (14.5 Ma). No associated volcanic activity recorded in sediment)

Tanggara, D.N.S.P. (2022)- The potential of using the Early Eocene-Oligocene Coal's Formation in Tanjung Barito Basin. Interdisciplinary Social Studies 1,8, Special Issue,:p. 1062-1068.
(online at: https://iss.internationaljournallabs.com/index.php/iss/article/view/181/205)
(On utilization of Barito Basin Eocene high volatile coal A bituminous.coals. Potential to be used for benefit of metallurgical industry)

Tan Sin Hok (1936)- *Lepidocyclina zeijlmansi* n.sp., eine neue polylipidine Orbitoide von Zentral Borneo, nebst Bemerkungen uber die verschiedenen Entstehungsweisen der Lepidocyclinen. De Ingenieur in Nederlandsch-Indie (IV, Mijnbouw en Geologie) 3, 1, p. 7-14.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1936-01.pdf)
('Lepidocyclina zeijlmansi n.sp., a new Polylepidinid orbitoidfrom Central Borneo, with remarks on the various origins of the Lepidocyclinids'. (Polylepidina is subgenus of larger foram Lepidocyclina). New, primitive species of Lepidocyclina from Eocene in Tjihan River, tributary of Mahakam River, C Kalimantan. Possibly close to Lep. boetonensis from Eocene(?) of Buton. First record of an Eocene lepidocyclinid from Indonesia)

Tan Sin Hok (1937)- On the genus *Spiroclypeus* Douville with a description of the Eocene *Spiroclypeus vermicularis* nov. sp. from Koetai in East Borneo. De Ingenieur in Nederlandsch-Indie (IV) 4, 10, p. IV.177-IV.193.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1937-10.pdf)
(Review of larger foram genus Spiroclypeus. Stratigraphic range of Spiroclypeus not only Late Oligocene- E Miocene (zone Te), but also in Late Eocene (Tb). On p. 179: mention of Biplanispira in Wani series of Buton)

Thalmann, H.E. (1942)- *Hantkenina* in the Eocene of East Borneo. Stanford University Publications, Geological Sciences. 3, 1, p. 5-24.
(Occurrences of Late Eocene planktonic foram marker genus Hantkenina in marls from (1) Sangkulirang area (Karangan and Batolepo Rivers; associated with thin limestones rich in Asterocyclina, Discocyclina, Nummulites) and (2) Tanjung Selor regions, NE Kalimantan. By Swiss paleontologist Dr. Hans Thalmann, former Chief Paleontologist of NKPM (Stanvac) in Palembang)

Thamrin, M. & Prayitno (1985)- Terrestrial heat flow in East Kalimantan (Barito, Kutei, Tarakan Basins). Proc. 21st Session Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Bandung 1984, 2, Technical Reports, p. 110-121.
(online at: https://repository.unescap.org/items/69c82b4b-501e-4b22-84e9-e8571a408cba)
(E Kalimantan basins average T gradient in 90 wells 3.22°C/ 100m. Normal heat flow values in basins: Barito with 1.80 HFU, Kutei 1.59 HFU and Tarakan-Bunyu with 1.68 HFU)

Thore, P. & P. Spindler (2013)- Breaking the limit of seismic resolution; a synthetic example based on Tunu shallow gas development. The Leading Edge 32, 11, p. 1318-1326
(Seismic resolution commonly assumed to be limited to 1/4th of seismic bandwidth, often too coarse to resolve thin layering inside reservoir zones. New seismic inversion application in U Miocene- Pliocene shallow gas zone of Tunu field, offshore E Kalimantan, could retrieve layers as thin as 1/20th of seismic bandwidth)

Tian, Z., Y. Gao, P. Wang & H. Tang (2024)- Formation and tectonic evolution of ophiolites in the Sabah area (Borneo, SE Asia). In: Petrological, geochemical and geodynamic study of ophiolites and modern oceanic lithosphere, Minerals 14, 11, Special Issue, 1078, p. 1-34.
(online at: https://www.mdpi.com/2075-163X/14/11/1078)
(Ophiolites in Sabah area of N Borneo, with zircon U-Pb ages of ultrabasic and basic rocks ranging from 248-244 Ma (E Triassic) (most other ophiolites in N Borneo younger? JTvG)

Tiranda, H., D. Pasaribu, E. Kusumah & R.S. Riadi (2024)- Deformation of Samarinda Anticlinorium and its implication to the East Kutai Basin tectonic evolution. Proc. Asia Petroleum Geoscience Conference and Exhibition (APGCE), Kuala Lumpur 2024, p. 1-15. *(Presentation) (online at: https://www.researchgate.net/publication/388840761_Deformation_of_Samarinda_Anticlinorium_ Etc.)*
(Formation of Samarinda Anticlinorium in Mahakam delta system formerly interpreted as (1) Miocene- Recent regional inversion/compression (Cloke, Moss, McClay, Chambers, etc.), (2) gravity-driven fold and thrust belt (Ott, 1987) or (3) shale diapirism between major left-lateral strike-slip fault systems (Sangkulirang, Paternoster) (Biantoro et al. 1992). Alternative interpretation tied to Pliocene-Recent deformation in C and W Sulawesi)

Tiwar, S. & J. Taruno P.H. (1980)- The Tanjung (South Kalimantan) and Sei Teras fields (South Sumatra): a case history of petroleum in Pre-Tertiary basement. Proc. 16th Session Committee of Joint Prospecting for Mineral Resources in Asian Offshore Areas (CCOP), Bandung 1979, p. 238-249.
(Part of oil production in Tanjung field, Barito basin, is from Pre-Tertiary weathered and fractured porphyritic volcanics and tuffaceous sandstones. Cumulative production about 21 MB oil and 14 GCF gas)

Tjia, H.D. (1963)- Large deltas in Kalimantan. Contributions Department of Geology, Institute of Technology Bandung (ITB) 53 (Th.H.F. Klompe Memorial Volume), p. 73-90.

Tjia, H.D. (1970)- Eocene directional indicators near Tandjung, Southeast Kalimantan. Bull. of National Institute Geology and Mining (NIGM), Bandung 3, 1, p. 29-32.
(Pebble orientation and imbrication, ripple marks, etc. in basal member of Eocene Tanjung Fm in foothills of Meratus Mts suggest dominant current to NNE- NE)

Tobler, A. (1926)- *Miogypsina* im untersten Neogen von Trinitad und Ost Borneo. Eclogae Geologicae Helvetiae 19, 3, p. 719-721.
(online at: http://retro.seals.ch/digbib/view?pid=egh-001:1925-1926:19::729)
('Miogypsina in the basal Neogene of Trinidad and East Borneo'. Brief paper on occurrence of Miogypsina with Spiroclypeus in Tabalong section, E Kalimantan, collected by BPM geologist A. Buxtorf)

Tobler, A. (1927)- *Maeandropsina* im Tertiar von Ost-Borneo. Eclogae Geologicae Helvetiae 20, 2, p. 321-323.
(online at: https://www.e-periodica.ch/digbib/view?pid=egh-001:1926-1927:20#335)
('Meandropsina in the Tertiary of East Borneo'. Larger foram genus Meandropsina from marly limestone of Samui near Balikpapan, E Kalimantan, from donated collection in Basel. Assigned to E Miocene Zone Tertiary 3y of Van der Vlerk (= likely genus Pseudotaberina, as Meandropsina s.s. is Upper Cretaceous genus; JTvG))

Tokita, K., K. Tsukada, T. Akutsu & H. Honda (2005)- History and functions of petroleum system concepts in the Mahakam Delta province; a view in the history of petroleum production. In: Oil and gas from the Cenozoic non-marine source rocks in East Asia; a point of contact between petroleum system and Earth system, J. Japanese Association for Petroleum Technology (Sekiyu Gijutsu Kyokaishi), Tokyo, 70, 1, p. 66-73. *(in Japanese, with English Abstract)*
(online at: https://www.jstage.jst.go.jp/article/japt/70/1/70_1_66/_pdf/-char/en)
(Review of oil-gas exploration activity and concepts in Tertiary Mahakam Delta province since late 1800s- end of 20th century. More than 3 billion barrels oil-equivalent produced (33 million before 1940). Origin of oil and gas believed to be non-marine. Produced oils mostly waxy, heavy- medium oil. Exploration concept assumed non-marine origin of oil and gas, and reverse faults for oil and gas migration. Exploration targets in deepwater areas need significant supply of coal and coaly mud from delta to deepwater areas in periods of lowstand)

Tossin, S. & R. Kadir (1996)- Tipe reservoir sedimen Miosen Tengah di sub-cekungan Tarakan, Cekungan Tarakan, Kalimantan Timur. Proc. 25th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 495-512.
('Middle Miocene reservoir types in sub-basin Tarakan, E Kalimantan')

Tossin, S. & T.S. Priantono (1994)- Pengaruh deformasi intra Miosen pada perkembangan biostratigrafi daerah Tanjung, Cekungan Barito, Kalimantan Selatan. Proc. 23rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 1, p. 219-227.
(online at: https://www.iagi.or.id/web/digital/62/20.pdf)
('Influence of intra-Miocene deformation on biostratigraphic development in the Tanjung area, Barito Basin, S Kalimantan'. Regional unconformity between Warukin and Dahor Formations (late M Miocene?))

Trevena, A.S., S. Mahadi, S.A. Martinez, Marwoto et al. (1993)- Characterization of Upper Miocene deltaic reservoirs at Attaka field, offshore East Kalimantan, Indonesia. In: C.D. Atkinson et al. (eds.) Clastic rocks and reservoirs of Indonesia; a core workshop, Indonesian Petroleum Association (IPA), Jakarta 1993, p. 91-116.
(Attaka reservoirs fluvial and distributary channels and delta-front bars in series of Upper Miocene sequences. Mean porosity/ permeability for fluvial sandstone cores are 30%/1040 mD; distributary sandstones, 27%/ 390 mD; high-energy, delta-front sandstones, 18%/ 21.5 mD. Shallow sandstones at Attaka field abundant volcanic rock fragments and lower porosity- permeability than underlying more quartz-rich sandstones)

Trevena, A.S., Y.J. Partono & T. Clark (2003)- Reservoir heterogeneity of Miocene- Pliocene deltaic sandstones at Attaka and Serang fields, Kutei Basin, Offshore East Kalimantan, Indonesia. In: F.H. Sidi, D. Nummedal et al. (eds.) Tropical deltas of Southeast Asia- sedimentology, stratigraphy and petroleum geology, Soc. Econ. Paleontol. Mineral. (SEPM) Special Publ. 76, p. 235-254.
(Attaka and Serang fields M-Late Miocene sandstone reservoirs are delta front bars and distributary channels. Delta-front bars burrowed- laminated, fine-grained sandstones, up to 5m thick, and several km wide. Channel sandstones cross-stratified, coarse- to fine-grained, 3-17 m thick and <1.5 km wide). Coarsest grained and thickest sandstones typically in lowstand deposits)

Ubaghs, J.G.H. (1929)- De geologie van Koetai (Z.O. Borneo). Dienst Mijnbouw Nederlandsch-Indie (Indonesian Geological Survey), Bandung, Open File Report F29-03, p. 1-158.
('The geology of Kutai, E Kalimantan')

Ubaghs, J.G.H. (1934)- The geology of the area bordered by the Boengaloen River, Mahakam River and Makassar Strait. Indonesian Geological Survey, Bandung, Open File Report S 37-3, p. 1-54.
(Unpublished; probably WW-II English translation of original Dutch Dienst van het Mijnwezen report)

Ubaghs, J.G.H. & C.P.A. Zeijlmans van Emmichoven (1936)- Beschouwingen over het Palaeogeen van Borneo. De Ingenieur in Nederlandsch-Indie (IV) 3, 9, p. IV.164- IV.172.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1936-09.pdf)

(Critical review of the perceived 'confusing' and partly incorrect Borneo review chapter in Badings (1936; The Paleogene of the Indies Archipelago)

Ucok, H., C. Landeck, K. O'Donnell, D. Staples, W. de Boer & B. Antariksa (1995)- Small field development offshore East Kalimantan. Proc. 24th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 343-360.
(Description of undeveloped 1971 Unocal Santan discovery, 10 miles E of Attaka, in Late Miocene reservoirs)

Umar, L., E. Purnomo & A. Bachtiar (1987)- Prospek hidrokarbon batupasir Formasi Beriun di daerah Sangatta-Bungalun, Cekungan Kutai. Proc. 16th Annual Conv. Indonesian Association Geologists (IAGI), p.
('Hydrocarbon prospects in sandstones of the Beriun Formation in the Sangatta- Bungalun area, Kutai Basin')

Umbgrove, J.H.F. (1927)- Neogene foraminiferen van de Soengei Beboeloe, Pasir (Zuid Oost Borneo). Wetenschappelijke Mededeelingen, Dienst Mijnbouw Nederlandsch-Indie 5, p. 28-41.
(?Middle Miocene 'Upper Tf'? larger foraminifera from Bebulu River section, Pasir, SE Borneo, collected by Ir. G. Pott in 1926. Many large Lepidocyclina formosa, Miogypsina thecidaeformis, etc.)

Umbgrove, J.H.F. (1929)- Anthozoa van Noord-Oost Borneo. Wetenschappelijke Mededeelingen, Dienst Mijnbouw Nederlandsch-Indie, Bandung, 9, p. 45-76.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB24:079043000:00003)
('Anthozoans from NE Borneo'. Low diversity coral assemblages from Late Miocene- Pliocene Menkrawit, Antjang and Domaring beds, collected by Leupold in NE Kalimantan. Mainly branching corals)

Umbgrove, J.H.F. (1936)- *Heterospira*: a new foraminiferal genus from the Tertiary of Borneo. Leidsche Geologische Mededelingen 8, p. 155-157.
(online at: www.repository.naturalis.nl/document/549681)
(Description of Late Eocene larger foram Heterospira mirabilis n. gen., n.sp. from several localities in E Kalimantan. Genus renamed Biplanispira by Umbgrove in 1937, Leidsche Geologische Mededelingen 8, p. 309)

Umbgrove, J.H.F. (1938)- A second species of *Biplanispira* from the Eocene of Borneo. Leidsche Geologische Mededelingen 10, p. 82-89.
(online at: https://repository.naturalis.nl/pub/505753/LGM1938010001003.pdf)
(Biplanispira absurda n.sp. from Late Eocene limestone in SE Kalimantan, collected by G. Pott in Sungei Sangajam, Tanah Bumbu (= Asem-Asem Basin?), with double spiral arrangement of chambers on both sides of a median plane. Associated with Discocyclina, large Nummulites and Pellatispira spp. Considered to be aberrant specimens of Pellatispira madaraszi or Pellatispira mirabilis by Cole (1970))

Usna, I. (1983)- The geological analysis of diamond-bearing gravels in Cempaka- Banyuirang area, S.E. Kalimantan. M.Sc. Thesis, Kensington University, p. 1-107. *(Unpublished)*

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(M Eocene Tanjung Fm in Muara Teweh area in NW Barito basin quartz-rich syn-rift terrestrial clastics with marine transgression in Late Eocene. Formation mature-overmature (Ro up to 1.2%), indicating significant burial and uplift)

Vallet, J. (1983)- Seismic facies study in the Sepasu area of East Kalimantan. Proc. 12th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 359-373.
(Sepasu area on NE margin Kutai basin three major sequences: (1) Phase of M Miocene delta construction; (2) early Late Miocene transgression phase with extensive carbonate deposition; (3) E-ward basin tilting and regression with deltaic deposition in Late Miocene- Pliocene)

Van de Weerd, A.A., R.A. Armin, S. Mahadi & P.L.S. Ware (1987)- Geological setting of the Kerendan gas and condensate discovery, Tertiary sedimentation and paleogeography of the northwestern part of the Kutai Basin, Kalimantan, Indonesia. Proc. 16th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 317-338.
(Four phases of Tertiary sedimentation in NW Kutei Basin. (1) E-M Eocene Tanjung Fm basal coarse clastics grade upwards into shallow-marine clastics, up to 1000m thick, onlap stable Barito Shelf. Syndepositional faults in basal sequence. Oil-productive near Tanjung. E Eocene subsidence synchronous with renewed or accelerated subduction beneath N-NW margin of Borneo; (2) Late Eocene-E Oligocene claystones in deep basins, flanked by shallow marine clastics and carbonates. Phase terminated by minor compressional event, with uplift and erosional truncation of some basement blocks; (3) Late Oligocene transgression, with platform carbonates (Berai Fm) over Barito Shelf and Kutei Basin basement highs and slope carbonates and deep-marine shales (Bongan Fm) in basin. Kerendan 1 gas discovery in isolated Oligocene carbonate platform on basement high in W Kutei Basin. (4) thick uppermost Oligocene-Miocene deltaic and non-marine deposits. Introduction of deltaics probably from areas undergoing inversion and uplift in N part of Kutei Basin and S China Sea area. Inversion and uplift of this part of Kutei Basin probably in Late Miocene)

Van de Weerd, A.A. & R.A. Armin (1992)- Origin and evolution of the Tertiary hydrocarbon-bearing basins in Kalimantan (Borneo), Indonesia. American Assoc. Petroleum Geol. (AAPG) Bull. 76, 11, p. 1778-1803.
(M Eocene formation of Kalimantan extensional basins. Transgressive M Eocene and E Oligocene non-marine and shallow marine clastics, carbonates and deep marine clastics, followed by regressive Late Oligocene-Miocene. Oligocene uplift, erosion, and structural segmentation into smaller basins. Deltaic sedimentation in latest Oligocene in upper Kutei basin, prograding E. By end E Miocene deltas near present Kutei coast. Lower(?) to M Miocene deltaic sediments also in Barito, Asem Asem and Pasir basins, probably contiguous with Kutei. Separate Miocene deltaic depocenter in Tarakan basin. Carbonate sedimentation in shallow areas between deltas. M Oligocene tectonism and magmatism. Inversion of upper Kutei basin and Meratus Mts uplift started in early M Miocene, related to third major plate readjustment in SE Asia. Regionally synchronous Miocene-Pliocene tectonic phases probably related to collisions of microcontinents along Sulawesi)

Vandenbroucke, M., Y. Debyser, M. Fabre, M. Montacer, P. Pillon, L. Jocteur-Monrozier & P. Jeanson (1987)- Geochemie de la matiere organique du sondage Misedor. In: A. Combaz (ed.) Geochimie organique des sediments plio-quaternaires du delta de la Mahakam (Indonesie) - le sondage Misedor, Editions TECHNIP, Paris, p. 257-292.
('Geochemistry of the organic matter of the Misedor well'. Geochemical analyses of organic matter in Late Pliocene- Recent sediments of interval 0-640m in the Misedor well, SW Mahakam Delta. Organic matter all Type III, and derived from same higher land plants as organic matter in deeper water deltaic sediments)

Van der Vlerk, I.M. (1923)- Een nieuwe *Cycloclypeus* soort van Oost-Borneo. Sammlungen Geologischen Reichs-Museums Leiden 10, 3, p. 137-140.
(online at: www.repository.naturalis.nl/document/552419)
('A new Cycloclypeus species from East Borneo'. Sample from Gunung Mlendong near Kari Orang, Kutai basin (no map or stratigraphy info) rich in ?M Miocene larger forams. Contains Cycloclypeus martini n.sp., which looks like and is associated with C. annulatus with concentric rings, but is smaller and has somewhat different embryon. Associated with Cycloclypeus annulatus, Flosculinella bontangensis, Lepidocyclina spp., etc.)

Van der Vlerk, I.M. (1925)- A study of Tertiary Foraminifera from the "Tidoengsche landen" (E. Borneo). Wetenschappelijke Mededeelingen Dienst Mijnbouw Nederlandsch-Indie, Bandung, 3, p. 13-32.
(Late Oligocene- Early Miocene larger forams from 5 localities in Naintoepo and Tempilan beds, upper tributaries of Sebuku River, NE Kalimantan, collected by Mijnwezen geologist W. Leupold. With Lepidocyclina spp., Cycloclypeus, three new species of Spiroclypeus (S. tidoenganensis, S. yabei, S. wolfgangi). Little or no location info)

Van der Vlerk, I.M. (1925)- *Lepidocyclina mediocolumnata* nov. spec. de Pasir (SE-Borneo). Eclogae Geologicae Helvetiae 19, p. 267-269.
(online at: https://www.e-periodica.ch/digbib/view?pid=egh-001:1925-1926:19#281)

(New species of Lepidocyclina (Eulepidina) from Sungei Telakai, Pasir, SE Kalimantan. Associated with Lepidocyclina (Eulepidina) formosa and Spiroclypeus, suggesting Late Oligocene- E Miocene age (zone Te))

Van der Vlerk, I.M. (1929)- Groote foraminiferen van N.O. Borneo. Wetenschappelijke Mededeelingen Dienst Mijnbouw Nederlandsch-Indie, Bandung, 9, p. 3-44.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB24:079043000:00003)
('Larger foraminifera from NE Borneo'. NE Borneo Late Eocene-Miocene larger forams collected by Swiss geologist Wolfgang Leupold from Tidoeungsche Landen (Sebuku area), Bulungan and Mangkalihat Peninsula/ Sangkulirang Bay, NE Kalimantan. Including Eocene Ta-Tb from Bulungan and Taballar Marls of the Mangkalihat Peninsula with Nummulites bagelensis, N. pengaroenensis and other spp, and Discocyclina dispansa, Td with Nummulites fichteli-Eulepidina, Te with Eulepidina-Spiroclypeus, Etc. With Heterostegina borneensis n.sp., assocated with Lepidocycliana (N) isolepidinoids n.sp. from Bulungan area, NE Kalimantan. With stratigraphic table; no maps)

Van de Velde, J. (1925)- De steenkolen-concessies van de N.V. Steenkolen Maatschappij "Parapattan' te Beraoe. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 8 (Gedenkboek Verbeek, memorial volume), p. 553-559.
(online at: https://books.google.com/books?id=Yy0RAAAAIAAJ&pg)
('The coal concessions of the Parapattan coal company at Berau'. Paper about KPM-owned Miocene coal concessions near Teluk Bayurwith Rantau Panjang and Mary mines in Berau River area, N Kutai basin, E Kalimantan, mapped geologically by Dr. F. Weber in 1918, leading to start of exploitation at Rantan Pandjang coal mine in 1920. Coal outcrops part of N-S trending Rantau-Panjang anticline. ~70 coal horizons, 20cm- 5m thick; total coal thickness 111m in 1275m thick unfossiliferous stratigraphic section)

Van Dijk, P. (1882)- Onderzoek naar de ontginbaarheid van steenkolen aan de Riam Kanan, in de Zuider- en Oosterafdeeling van Borneo. Jaarboek Mijnwezen Nederlandsch Oost-Indie 1881, 2, p. 213-237.
('Investigation into the exploitability of coal at the Riam-Kanan river, SE Kalimantan')

Van Gorsel, J.T. (2016)- A photographic journey through the Cretaceous-Tertiary stratigraphy of the Meratus Mountains-Barito Basin margin, SE Kalimantan. Berita Sedimentologi 34, p. 26-34.
(online at: www.iagi.or.id/fosi/files/2016/01/BS34-01142016_FINAL.pdf)
(Outcrop photos along Meratus Mountains fromt))

Van Hettinga Tromp, H. (1933)- De ouderdom en geaardheid der koollagen in het kusttertiair ten zuiden van de Mahakam (O. Borneo) en de mogelijkheid van aardolieaccumulaties. De Mijningenieur 14, 9, p. 150-151.
('The age and nature of coal beds in the coastal Tertiary South of the Mahakam (E Borneo) and the possibility of oil accumulations'. Brief note on presence of low-moisture coal in Te (Late Oligocene- E Miocene) of Benau Baru anticline, which may point to sapropelic coal with potential to generate oil. No figures, tbales)

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(online at: https://dwc.knaw.nl/DL/publications/PU00014967.pdf)
('Description of new crabs from the Tertiary of Borneo'. Decapod crab fossils collected by Kemmerling in Barito Basin described as Ranina (Lophoranina) kemmerlingi (probably from Oligocene) and Calappilia borneoensis (from Eocene marls W of Lemoe village))

Van Straelen, V. (1923)- Description de Raniniens nouveaux des terrains tertiaires de Borneo. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 26, 9-10, p. 777-782.
(online at: https://dwc.knaw.nl/DL/publications/PU00014998.pdf)
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Verbeek, R.D.M. (1871)- Die Nummuliten des Borneo-Kalksteines. Neues Jahrbuch Mineralogie Geologie Palaontologie 1871, B9, p. 1-14.

(online at: https://www.zobodat.at/pdf/Neues-Jb-Min-Geol-Palae_1871_0001-0014.pdf)
('The Nummulites of the Borneo limestone'. First descriptions of Eocene Nummulites from SE Borneo (and Indonesia), incl. Nummulites pengaronensis n.sp and Nummulites sub-brongniarti n. sp. (now usually spelled as N. subbrongniarti). Also Eocene discocyclinids: 'Orbitoides' discus, O. pratti, O. papyracea, O. fortisi (similar material described by Von Fritsch (1878))

Verbeek, R.D.M. (1874)- De Nummulieten uit den Eoceenen kalksteen van Borneo. Jaarboek Mijnwezen Nederlandsch Oost-Indie 3 (1874), 2, p. 133-161.
('The Nummulites from the Eocene limestone of Borneo'. Dutch version of Verbeek (1871) paper in German on Eocene Nummulites from SE Borneo. New Nummulites species from Pengaron area, Barito basin margin, SE Kalimantan)

Verbeek, R.D.M. (1875)- Geologische beschrijving der districten Riam-Kawa en -Kanan in de Zuider- en Ooster-afdeeling van Borneo. Jaarboek Mijnwezen Nederlandsch Oost-Indie 4 (1875), 2, p. 3-130.
('Geologic description of Riam-Kawa and -Kanan districts in the departments of S and E Borneo'. From geological observations made during Verbeek's assignment as supervisor of Pengaron coal mine near Martapura in 1868-1870)

Verbeek, R.D.M. (1875)- Ueber die Gliederung der Eocanformation auf der Insel Borneo (Die Eocanformation von Borneo und ihre Versteinerungen). Palaeontographica, Supplement 3, 1, p. 1-8.
(online at: http://sammlungen.ub.uni-frankfurt.de/botanik/periodical/titleinfo/5251673)
('On the subdivision of the Eocene formation on Borneo Island'. Review of geology of Eocene formations of Pengaron- Martapura area, SE Kalimantan, as introduction to series of paleontological papers by Boettger, Geyler and Von Fritsch. With rel. detailed cross-section of Pengaron area. Eocene subdivided into 3 stages, from bottom to top: (a) sandstone, shale and coal, (b) soft claystone and marls, (c) limestones with Nummulites))

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(Handil Field 1974 oil discovery in Mahakam Delta distributary plain. Broad anticlinal structure with 150 Middle-Late Miocene reservoir sands between 450-2900m. More than 70 lignite/coal marker beds used for correlation of fluvial-deltaic sand bodies)

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(online at: https://edepot.wur.nl/320805)
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(Since 1996, more and more shallow horizontal wells were drilled by Unocal in Attaka, Serang and Yakin fields, Mahakam Delta area, to tap thin oil colums.Discussion of performance of 50 wells. Horizontal wells in thin oil columns provide larger drainage areas, almost doubling reserves and better recovery efficiency)

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Von Ettingshausen, C. (1883)- Zur Tertiarflora von Borneo. Sitzungsberichte Kaiserlichen Akademie Wissenschaften Wien, 88, p. 372-376.
(online at: www.zobodat.at/pdf/SBAWW_88_0372-0384.pdf)
('On the Tertiary flora of Borneo', by Austrian botanist Constantin Freiherr von Ettingshausen. Mainly discussion of relevance of Tertiary plant material described before by Geyler and Heer)

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('The echinoids from the Nummulites beds of Borneo'. Description of rel. poor echinoid assemblage of 6 species, all new, collected by Verbeek in Barito basin, SE Kalimantan)

Von Fritsch, K. (1877)- Fossile Korallen der Nummulitenschichten von Borneo. Palaeontographica Supplement 3, 1, 3, p. 93-135
(online at: http://sammlungen.ub.uni-frankfurt.de/botanik/periodical/titleinfo/5251653)
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('Fossil corals from the Nummulites beds of Borneo' Description of well-preserved coral assemblage from Eocene limestone, by German Prof. K. von Fritsch.,collected by Verbeek in Pengaron area, SE Kalimantan. Mainly new species)

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('Some crustacean remnants from the Eocene formations of Borneo'. Crab fossils from concretions in blue-gray Eocene shale from SE Kalimantan)

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('Some Eocene foraminifera from Borneo'. Descriptions of five types of Discocyclina ('Orbitoides papyracea, O. dispansa, O. epihippum, O. decipiens and O. omphalus) from Verbeek's Etage B with Nummulites pengaronensis in Pengaron area, SE Kalimantan. Also descriptions of mid-Cretaceous orbitolinids, here called 'Patellina scutum' and 'Patellina trochus', from dark grey limestone at Seberuang River, a left tributary of the Kapuas River, W Borneo, from samples collected by Dr. F. Schneider in 1872 and sent to F. Roemer in Breslau, Germany, for further identification (both species later assigned to Orbitolina concava by Martin (1889)) (supplement to paper on Eocene Nummulites by Verbeek (1871))

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('Some Eocene foraminifera from Borneo'. Reprint of Von Fritsch (1877) paper in Palaeontographica)

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(Mahakam delta recent sedimentation)

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(online at: https://www.iagi.or.id/web/digital/53/22nd-Volume-2-(6-9-Des-1993)-292-303.pdf)

(Sembakung Block in Tarakan Basin, NE Kalimantan. Shale from M Miocene Meliat Fm is known effective hydrocarbon source rocks in oil fields like Sembakung and Bangkudulis. Pertamina estimates of volumes of expelled, migrated and trapped hydrocarbons).

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(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/152/148)
('Polydeformation of the Embaluh- Rajang Group in Bayangkara area, East Kalimantan'. Landsat interpretation suggests Cretaceous Embaluh- Rajang Group flysch in NE Kalimantan affected by at least 3 periods of deformation (U Cretaceous, Eocene, ?))

Wain, T. & B. Berod (1989)- The tectonic framework and paleogeographic evolution of the Upper Kutei Basin. Proc. 18th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 55-78.
(Upper Kutei Basin at intersection of two tectonic trends: NW-SE (Adang- Cross Barito) and NNE-SSW (Meratus). Meratus trend reflected by deep magnetic anomalies which divide Upper Kutei into two domains. Surface strata believed to represent Cretaceous imbricated subduction complex with forearc, arc and backarc elements. NNW-SSE Meratus trend Paleogene basin precursor. NW-SE Adang Cross Barito High trend interpreted as part of Trans-Kalimantan tectonic zone linking Paternoster Platform with Lupar fault zone. Upper Kutei Lower Paleogene Basins opened NW parallel to this trend. At end Paleogene this basin closed and SE-ward opening Kutei Basin was established. NW-SE trend activity overprinted NNE-SSW Meratus trend and culminated in Late Miocene-Pliocene with major basin inversion and back-thrusting orthogonal to Adang-Cross Barito trend. NW limit of this back thrusting corresponds to interpreted Cretaceous volcanic arc)

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(Water salinities in Mahakam delta fields similar to range of connate water (fresh water in fluvial channels to sea water in marine mouth bars). However, analyses show present-day composition results from mixing of original connate waters with compaction water expelled from overpressured shales)

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(Late Miocene Tridacna shells show alternating dark and light growth bands. Lighter 18O values in dark growth bands indicate growth during warm seasons. d18O variations suggest seasonal sea-surface temperature variability of ~2.7 and ~4.6 °C)

Weeda, J. (1958)- Oil basin of East Borneo. In: L.G. Weeks (ed.) Habitat of oil. American Assoc. Petroleum Geol. (AAPG), Special Publ. 18, p. 1337-1346.
(Three Tertiary oil production centers in E Borneo: Tarakan-Bunyu, Balikpapan (=Kutai), Tanjung (=Barito). Basin fill history similar to other Indonesian basins: basal sands overlain by shale, overlain by sands. Plio-Pleistocene folding, mainly parallel to coast)

Weimer, R.J. (1975)- Impressions of the geology of the Mahakam delta complex and petroleum exploration. Majalah Geologi Indonesia (IAGI) 2, 2, p. 45-47.
(Mahakam Delta Complex may be small scale aulacogen showing associated delta depocenters. Sedimentary prism underlain by oceanic crust. Interplay of basin development, deltaic sedimentation and intrabasin deformation displayed in E Kalimantan favors large petroleum prospects)

Werdaya, A., M. Alexandra, K. Nugrahanto, R. Anshori, A. Pradipta & Peter Armitage (2017)- Comprehensive evaluation of reservoir quality in the Early Miocene, Kutai Basin, onshore East Kalimantan. Proc. 41st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA17-569-G, p. 1-24.
(E Miocene deltaic-shelfal clastic play in onshore Upper Kutai basin only partly explored. Sandstone reservoir quality linked to deep burial main risk. QFL plots show E Miocene sandtone sub–litharenite to litharenite, with lithics mainly metamorphic and sediment fragments (less quartz than M Miocene sandstones)

Werdaya, A., M. Wulansari & I. Billing (2013)- Gross depositional environment model of the Berai carbonate formation and its implication for reservoir prospectivity in the Barito Basin, South Kalimantan, Indonesia. Proc. 37th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA13-G-001, p. 1-21.
(Depositional environment map of Late Oligocene- E Miocene Berai Limestone in Barito- Asem Asem Basin. Most of Barito Basin part of extensive carbonate platform that continues into Asem Asem and Java Sea. Meratus Uplift is younger feature and no influence of facies. Patch reef facies highest porosity (15-21%))

Wibisono, S.A., E.P. Dwitama & L.O. Prahesthi (2019)- Petrography and geochemistry properties of Pahirangan coal, East Kotawaringin Regency, Central Kalimantan Province. Buletin Sumber Daya Geologi 14, 1, p. 65-78.
(online at: http://103.87.161.68/index.php/bsdg/article/view/BSDG_VOL_14_NO_1_2019_5/pdf)
('Petrography and geochemistry properties of Pahirangan coal, East Kotawaringin Regency, Central Kalimantan Province'. Upper Barito Basin lignitic sub-bituminous coal beds in Mio-Pliocene Dahor Fm near S coast of Kalimantan)

Wibisono, S.A. & E.A. Subroto (2018)- Hubungan peringkat batubara terhadap kandungan Gas Metana Batubara Formasi Warukin Bagian Tengah pada sumur BSCBM-01, Kabupaten Paser, Provinsi Kalimantan Timur. Bulletin of Geology (ITB) 2, 1, p. 149-162. *(online at: https://buletingeologi.com/index.php/buletin-geologi/issue/view/4/Paper-2%20vol.%202%20no.%201)*
('Relationship of coal ranking to Coal Methane Gas content of Middle Warukin Formation at Well BSCBM-01, Paser Regency, East Kalimantan Province'. M Warukin Fm coals from 116-389m in N Barito basin well subbituminous, Type II kerogen, with total biogenic gas content 3-121 scf/ton, percentage methane 12-96%)

Wibisono, T., E.M.I. Kusumah, S.S. Bella, I.A. Siregar & A. Wicaksono (2012)- Characteristics and sandbody geometry of the 72 Reservoir, South Sembakung, Simenggaris Block. Proc. 41st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2012, GG-06, p. 22-27.
(online at: https://www.iagi.or.id/web/digital/9/2012_IAGI_Yogyakarta_Characteristics-and-Sandbody-Geometry.pdf)
(S Sembakung field in Tarakan Basin, NE Kalimantan, with 72 sandstone reservoirs, 10'-60' thick, deposited in tidal deltaic setting and with E-W trending channel facies)

Wibowo, A., J. Towart, J. Dirstein & M. Maklad (1999)- Seismic spectral signatures of the Badak oil and gas field, onshore Kutei Basin, Kalimantan: an example of seismic reservoir imaging and characterization. In: C.A. Caughey & J.V.C. Howes (eds.) Proc. Conference Gas habitats of SE Asia and Australasia, Jakarta 1998, Indonesian Petroleum Association (IPA), p. 187-203.

Wibowo, R.A., T. Setiawan, P.D. Silitonga, D. Tangkalalo & Z. Nurzaman (2006)- Identification of lower Tanjung high gamma ray anomaly as an indicator for production zones at Tanjung Oil Field, Barito Basin, South Kalimantan, Indonesia. Proc. Jakarta 2006 International Geoscience Conference Exhib., Indonesian Petroleum Association (IPA), Jakarta06-VSL-06, p. 1-4. *(Extended Abstract)*

Wibowo, A., B. Srisantoso & W.F. Turnbull (2009)- Improved subsurface analytical methods to identify by-passed zones in a mature gas field. Proc. 33rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA09-E-016, p. 1-17.
(Reservoir study of 1972 Badak gas field in N Mahakam Delta. Cum production 12 TCF. More than 180 producing horizons, with 530 reservoirs)

Wibowo, S., L. Wisanti, A. Ryan, N. Purwatiningsih, J. Sondang & R.A. Wardhana (2014)- Key challenges in mature field development- case study from Tanjung, Indonesia. Proc. 38th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA14-E-036, p.
(Tanjung mature field with 170 wells in Eocene and Miocene sandstones of N Barito Basin. Producing since 1950, peaking at 50k BOD in 1961, but now mostly depleted, with plans for secondary recovery. Initial oil gravity 41°API)

Wicaksono, A., A.M. Ramdhan, H.B. Maulin & B.R. Ma'aarij (2020)- The possibility of hydrodynamic trap in Tarakan sub-basin as an explanation of the existence of water in an identified hydrocarbon zone. In: AAPG Asia Pacific Technical Symposium, Bogor 2019, Search and Discovery Article 1328, p. 1-9.
(online at: www.searchanddiscovery.com/pdfz/documents/2020/11328wicaksono/ndx_wicaksono.pdf.html)

Widayat, A.H., K. Anggayana, T. Indriati, A.Y. Al Hakim, M. Dwiantoro, M. Furqany & M.D. Rifaldi (2021)- Occurrence and genesis of silicified coals in Tanjung Redeb, Embalut, and Loa Kulu, East Kalimantan, Indonesia. Indonesian J. on Geoscience (IJOG) 9, 1, p. 27-43.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/796/354)
(Minor silicification in Miocene coals in Kutai and Berau sub-basins, E Kalimantan, both as layers and nodules within coal seams)

Widiarti, R. & Dardji Noeradi (2008)- Reservoir modeling of shallow zone in Handil Field, Mahakam Delta, East Kalimantan. Proc. 32nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA08-SG-081, p. 1-11.
(Handil Field one of largest fields in Mahakam Delta, producing oil and gas since 1975. Six Miocene reservoir zones. Sequence stratigraphy of Shallow Zone shows 4 reservoir intervals. One reservoir sand trends from NNW in one main channel then splitting into three distributary channels in SSE)

Widiyanto, D.W., D.S. Djohor, H. Pramudito & Untung (2014)- Studi penentuan fasies lingkungan pengendapan batubara dalam pemanfaatan potensi gas metana batubara di daerah Balikpapan, Kalimantan Timur berdasarkan analisis proximate dan petrografi. MINDAGI (Trisakti University) 8, 2, p. 23-36.
(online at: www.trijurnal.lemlit.trisakti.ac.id/index.php/mindagi/article/view/96/96)
('Study of depositional facies of coal in utilization of coalbed methane gas potential in the Balikpapan, East Kalimantan area, based on proximate analysis and petrography'. Core from 130m deep EPL 01 well in Miocene Balikpapan Fm in Penajam area. 11 coal layers 0.2-3.1m thick, lignite- sub bituminous rank (Rv 0.28-0.38%), up to 84% vitrinite. Environment wet forest swamp, dominated by woody plants, in lower delta plain)

Widyantoro, A.& W.S. Santoso (2021)- Seismic forward modeling of Semberah Fluvio-deltaic reservoir. Proc. 45th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA21-G-5, p. 1-11.
(online at: https://www.researchgate.net/publication/354597074_Seismic_Forward_Modeling_of_Semberah_Fluvio-deltaic_Reservoir)
(2D seismic forward modeling in Pertamina Semberah Field in Sanga-Sanga Area, onshore Kutai Basin)

Widodo, S. (2008)- Organic petrology and geochemistry of Miocene coals from Kutai Basin, Mahakam Delta, East Kalimantan, Indonesia: Genesis of coal and depositional environment. Doktoral Dissertation Johann Wolfgang Goethe-University, Frankfurt am Main, p. 1-173. *(Unpublished)*

Widodo, S., A. Bechtel, K. Anggayana & W. Puttmann (2009)- Reconstruction of floral changes during deposition of the Miocene Embalut coal from Kutai Basin, Mahakam Delta, East Kalimantan, Indonesia by use of aromatic hydrocarbon composition and stable carbon isotope ratios of organic matter. Organic Geochemistry 40, 2, p. 206-218.
(online at: https://www.academia.edu/download/34525218/puttmann_geochem-_2009__3e306a.pdf)
(Coals from M Miocene Pulau Balang and Late Miocene Balikpapan Fms in Embalut mine near Mahakam River with common cadene. Miocene climate of Mahakam Delta not uniformly moist, and cooler than present day climate, favoring growth of conifers, especially in montane forests)

Widodo, S., W. Oschmann, A. Bechtel, R.F. Sachsenhofer, K. Anggayana & W. Puettmann (2010)- Distribution of sulfur and pyrite in coal seams from Kutai Basin (East Kalimantan, Indonesia): implications for paleoenvironmental conditions. Int. J. Coal Geology 81, 3, p. 151-162.
(online at: https://www.researchgate.net/publication/229419420_Distribution_of_sulfur_and_pyrite_in_coal_seams_from_Kutai_Basin_East_Kalimantan_Indonesia_Implications_for_paleoenvironmental_conditions)
(Rich ash, sulfur and pyrite (up to 1.4%) contents in Kutai Basin coals (especially C Busang and Sebulu mines) related to Tertiary volcanic activity (Nyaan volcanics; eolian transport to mire during or after peatification)

Wight, A.W.R., L.H. Hare & J.R. Reynolds (1993)- Tarakan Basin, NE Kalimantan, Indonesia: a century of exploration and future hydrocarbon potential. In: G.H. Teh (ed.) Proc. Symposium on tectonic framework and energy resources of the Western margin of the Pacific Basin, Kuala Lumpur 1992, Bull. Geological Society Malaysia 33, p. 263-288.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1993019.pdf)
(Tarakan Basin with four major oil (Pamusian, Bunyu, Sembakung, Juata), one large gas (Bunyu Tapa) and five minor oil fields, in NW-SE trending anticlinal structures, mainly on Tarakan and Bunyu islands. Cum. production >320 MMBO. Reserves mainly in stacked fluvial Pliocene-Pleistocene sandstone reservoirs, but also in 90 Upper Miocene- Pliocene shallow marine reservoirs. Bunyu and Tarakan islands Late Miocene- Pliocene depocenters, inverted in Late Pleistocene. Unlike Kutai, major fold axes sub-parallel to sand fairways, leading to rel. small closures. Oils generated from lacustrine and fluvial sources, at rel. low maturities. Tarakan Basin underlain by metamorphosed Cretaceous island arc spilites of Danau Fm)

Wijaya, P.H., D. Noeradi, Djuhaeni & A.K. Permadi (2010)- Reservoir distribution and quality of Pliocene deposits in Eastern offshore area, its implication to deepwater exploration of Tarakan Basin, East Kalimantan. Proc. 34th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA10-G-128, p. 1-15.

Wijaja, P.H., D. Noeradi, A.K. Permadi, E. Usman & S. Rusl (2011)- Sand distribution modeling of Middle Miocene reservoir of "East Tarakan A Field" in eastern part of Tarakan Island, East Kalimantan. Bulletin of the Marine Geology (MGI, Bandung) 26, 2, p. 119-134.
(online at: http://ejournal.mgi.esdm.go.id/index.php/bomg/article/view/39/40)
('E Tarakan A-1' 2007 well encountered gas in M Miocene Meliat Fm deltaic sands, which also produces hydrocarbons in other onshore Tarakan fields. Sand distribution models suggest E-W trending distributary channel reservoirs)

Wijaya, P.H., D. Noeradi, A.K. Permadi, E. Usman & A.W. Djaja (2012)- Potensi migas berdasarkan integrasi data sumur dan penampang seismik di wilayah offshore cekungan Tarakan, Kalimantan Timur. J. Geologi Kelautan 10, 3, p. 117-131.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/221/211)
('Oil and gas potential based on well and seismic data integration in offshore Tarakan basin, East Kalimantan')

Wijayanti, H.D.K., S.S. Surjono & Soedarmono (2014)- The paleogeography of Berau sub basin, NE Kalimantan. Proc. 43rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, PIT IAGI 2014-161, p. 1-6.
(online at: https://www.iagi.or.id/web/digital/6/2014_IAGI_Jakarta_The-Paleogeography-Of-Berau.pdf)
(M Eocene- Pleistocene facies distribution study of Berau Sub-basin, S-most onshore depocenter of Tarakan Basin. Basin located on passive margin, initiated with formation of Sulawesi Sea by rifting of N Sulawesi from E Kalimantan in M Eocene. M Eocene- E Oligocene transgressive succession to marine conditions. Regression related to regional uplift of W basin margin began in Late Oligocene, followed by transgression. M Miocene uplift created newly emergent area to W and formed W to E prograding delta. Late Miocene tectonic event produced folds and reverse faults, mainly strike slip reactivation on older NE-SW and NW-SE basement fractures. Regressive sedimentation continued until Pleistocene. Tectonic uplift in Pleistocene)

Wilson, M.E.J. (2005)- Development of equatorial delta-front patch reefs during the Neogene, Borneo. Journal of Sedimentary Research 75, 1, p. 114-133.
(Early and Middle Miocene patch reefs formed in turbid waters associated with high siliciclastic input at Mahakam Delta margin. Reefs initiated on unstable substrates on local low-relief bathymetric highs associated

with delta-front channels or distributary mouthbars in process of abandonment. Patch reefs developed only in shallow waters, formed low-relief buildups, lacked rigid frameworks, and had gently sloping margins)

Wilson, M.E.J., W. Camp & M.J. Evans (2010)- Paleogene clastics, Mangkalihat, Borneo: implications for petroleum systems. AAPG Conv., New Orleans 2010, Presentation, p. 1-25.
(online at: www.searchanddiscovery.net/documents/2010/10251wilson/ndx_wilson.pdf)
(Outcrops of Eocene siliciclastics investigated at Mangkalihat Peninsula, NE Kalimantan. M Eocene deep marine Malio Mudstone with interbedded basalts underlain by E-M Eocene marginal marine Sembakung Fm with coals, sandstones, claystones and sandy carbonates, grading upward into carbonate-clastic shelf deposits. Late Eocene Sujau Fm quartz arenites, coals and sandy limestone (picture showing Pellatispira). Clastics in W derived from volcanic and low-grade metamorphic terrain, in E from higher grade metamorphic source with some cherts. Eocene block and basin development influenced environments and sediment pathways)

Wilson, M.E.J., J.L.C. Chambers, M.J. Evans, S.J. Moss & D.S. Nas (1999)- Cenozoic carbonates in Borneo: case studies from northeast Kalimantan. J. Asian Earth Sciences 17, p. 183-201.
(online at: http://searg.rhul.ac.uk/pubs/wilson_etal_1999%20Cenozoic%20carbonates%20in%20Borneo.pdf)
(M Eocene- Plio-Pleistocene carbonates in N Kutai Basin and Mangkalihat Peninsula, NE Kalimantan)

Wilson, M.E.J., J.L.C. Chambers, C. Manning & D.S. Nas (2012)- Spatio-temporal evolution of a Tertiary carbonate platform margin and adjacent basinal deposits. Sedimentary Geology 271-272, p. 1-27.
(online at: www.academia.edu/17164226/Spatio_temporal_evolution_of_a_Tertiary_carbonate_platfo Etc.)
(Evolution of carbonate platform margin of little known Late Eocene- E Miocene Kedango Limestone, which developed in semi-enclosed marine embayment at Bengalon area, NE margin of Kutai Basin and S of Mangkalihat Peninsula. Eleven carbonate facies in 30km long W margin of >600m thick platform and adjacent slope and basinal deposits. Late Eocene packstones with Discocyclina, Nummulites, Pellatispira and Biplanispira. Etc.)

Wilson, M.E.J. & M.J. Evans (2002)- Sedimentology and diagenesis of Tertiary carbonates on the Mangkalihat Peninsula, Borneo: implications for subsurface reservoir quality. Marine and Petroleum Geology 19, p. 873-900.
(online at: www.academia.edu/17164221/Sedimentology_and_diagenesis_of_Tertiary_carbonates_on Etc.)
(Mixed carbonate-siliciclastic shelf with intervening deeper water areas on E part of Mangkalihat Peninsula in the Late Eocene- Oligocene. During Oligo-Miocene shallow-water platform carbonates accumulated over much of Mangkalihat Peninsula. Platform steep, reef-rimmed N margin with marine cements. Platform interior low energy area, affected by leaching of aragonitic bioclasts. Best reservoir quality on platform in grainstones and packstones, towards platform interior from platform margin, with primary and secondary moldic porosity)

Wilson, M.E.J., M.J. Evans, N.H. Oxtoby, D.S. Nas et al. (2007)- Reservoir quality, textural evolution, and origin of fault-associated dolomites. American Assoc. Petroleum Geol. (AAPG) Bull. 91, 9, p. 1247-1272.
(Origin of dolomite near faults in Late Oligocene-E Miocene Taballar Lst of Mangkalihat Peninsuls, NE Borneo. Sr isotope signature suggestive of remobilization of fluids from older limestone)

Wilson, M.E.J. & S.J. Moss (1999)- Cenozoic palaeogeographic evolution of Sulawesi and Borneo. Palaeogeogr. Palaeoclim. Palaeoecology 145, p. 303-337.
(Early Eocene- Pliocene paleogeographic maps on plate tectonic reconstructions illustrate evolution of Borneo and Sulawesi in Tertiary. Progressive accretion of continental and oceanic material from E onto E margin of Sundaland, with resultant development of volcanic arcs. Large tracts of W Sulawesi, E Borneo, E Java Sea and Makassar Straits formed extensive basinal area through much of Tertiary)

Wiman, S.K., A.W.R. Wight & S. Courteney (1995)- Geologic summary of Eastern Kalimantan. In: Seismic Atlas of Indonesian Oil and Gas Fields, II: Java, Kalimantan, Natuna, Irian Jaya, Indonesian Petroleum Association (IPA), Jakarta, p. KAL-1-KAL-19.
(Brief overviews of Kutei, Tarakan, Barito basins)

Win, C.T., D.H. Amijaya, S.S. Surjono, S. Husein & K. Watanabe (2014)- A comparison of maceral and microlithotype indices for interpretation of coals in the Samarinda area, Lower Kutai Basin, Indonesia. Advances in Geology 2014, Art. 571895, p. 1-17.
(online at: https://www.hindawi.com/journals/ageo/2014/571895/)
(Coals from 250m of M Miocene (Seravallian) Balikpapan Fm exposed in section near Samarinda. Coals degraded humodetrinite-rich group, deposited from terrestrial into telmatic condition of peat formation, with vegetation of degraded woody forest type. These formed with intermittent moderate-high flooding as paleopeat environment shifted from mesotrophic to ombrotrophic)

Win, C.T., S.S. Surjono, D.H. Amijaya, S. Husein, A. Aihara & K. Watanabe (2013)- Distribution of pyrite and mineral matter in coal seams from Samarinda area, Lower Kutai Basin, Indonesia. In: ASEAN Forum on clean coal technology, 11th Int. Conference Mining Material and Petroleum Engineering, Chiang Mai 2013, p. 17-24.
(online at: http://mining.eng.cmu.ac.th/wp-content/uploads/2013/11/Clean-Coal-Technology_4_PaperID-35.pdf)
(Samples of coal from Balikpapan Fm near Samarinda with both epigenetic and syngenetic pyrite. Tied to influence of marine conditions, more prominent in lower part of studied section. Epigenetic pyrite and minerals may originate from erosion of E Tertiary marine sediments of C Kalimantan ridge)

Winardi, S., G. Erlangga, S.S. Surjono, S. Husein, Akmaluddin, D.K. Isnani, M.V. Agustin et al. (2019)- Post Mortem as the first step to increase success rate of next exploration in Barito Basin. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI, Yogyakarta, 2019, p. 1-8.
(online at: https://www.researchgate.net/publication/346648026_Post_Mortem_as_the_First_Step_to_Increase_Success_Rate_of_Next_Exploration_in_Barito_Basin)
(Post-mortem analysis of why most Bariti Basin and Bangkanai Block exploration wells failed. One large and 5 small fields discovered with 29 wells. Main reasons: long range migration, trap integrity))

Winantris, H. Hamdani & E. Harlia (2017)- Paleoenvironment of Tanjung Formation Barito Basin- Central Kalimantan. J. Geoscience Engineering Environment Technology (JGEET) 2, 2, p. 110-116.
(online at: http://journal.uir.ac.id/index.php/JGEET/article/download/305/126)
(Late Eocene coals in Tanjung Fm in Muara Teweh area, N Barito Basin, formed in upper delta plain swamp environment with marine influence. Palynomorphs six groups: fresh water and lowland (42%), brackish water swamp (30%), peat and freshwater swamp (18%), marine (8%), backmangrove (1.5%) and upland (1%). Palmae pollen dominant (Dicolcopollis, Proxapertites cursus, P. operculatus, Longapertites and Palmaepollenites kutchensis; P cursus and P. operculatus believed to be limited to Eocene). Also with Magnastriatites howardi, Verrucatosporites usmensis, Retistephanocolpites and Ixonantes, indicative of Late Eocene age)

Winantris, I. Syafri & R. Rinawan (2006)- Kandungan mikrofosil dalam formasi pembawa batubara dari daerah Perian, Kecamatan Muntai, Kabupaten Kutai Kartanegara, Kalimantan Timur. Bull. Scientific Contribution (UNPAD) 4, 1, p. 7-17.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8109/3686)
('Microfossils in the coal-bearing formation in the Perian region, Muntai District, Kutai Regency, East Kalimantan'. Palynomorphs from 4 samples from Perian River in Kutai Basin include Stenochlaenidites papuanus, Florschuetzia meridionalis and F. levipoli, suggesting most likely M Miocene age. Foraminifera rare Miocene forms only. Mainly mangrove and swamp environments)

Wiranata, B., H. Amijaya, F. Anggara, A.R. Perdana, O.F. Isnadiyati & D.N.S. Putra Tanggara (2019)- Total sulfur and ash yield of Tanjung Formation coal in Sekako, Barito Basin, Central Kalimantan: implication of depositional process. J. Southeast Asian Applied Geology (UGM) 4, 2, p. 82-91.
(online at: https://jurnal.ugm.ac.id/jag/article/view/53208/26746)
(Coal samples from Seams A and B of Eocene Tanjung Fm in PT.SuprabariMapanindo Mine in Sekako area, N Barito Basin: low-medium ash yields (2.8- 9.2 %) and generally low total sulfur (<1 %). Formed in topogeneous mire (freshwater swamp) in fluvial setting. One sample with ash yield of 5.8% and sulfur content of 1.6%, formed in mire in invaded by sea water (supported by occurrence of syngenetic framboidal pyrite))

Witts, D. (2011)- Stratigraphy and sedimentology of the Barito Basin, Southeast Kalimantan, Indonesia. Ph.D. Thesis, Royal Holloway, University of London, p. *(Unpublished)*

Witts, D. (2011)- Recognising sediment source areas of a transgressive coastal plain: the Barito Basin, Southeast Kalimantan, Indonesia. In: Conf. Sediment provenance studies in hydrocarbon exploration & production, Geological Society, London, 2011, p. 24-25. *(Abstract only)*
(late M Eocene- E Oligocene Tanjung Fm at base of Tertiary Barito Basin section deposited in tidally-influenced coastal plain setting, undergoing transgression. Paleocurrent data indicate sediment transport into coastal plain by river system flowing to N. Sediment derived from Schwaner Complex in W and Karimunjawa Arch in SW, as indicated by provenance work. Sandstones texturally immature, but compositionally mature, due to tropical weathering processes removing unstable minerals and lithic grains. Karimunjawa Arch was elevated during Eocene and acting as barrier to transport from inland areas of Sundaland))

Witts, D. (2013)- Palaeocurrents and provenance: uplift history of the Meratus Complex, SE Kalimantan. Berita Sedimentologi 28, p. 25-30.
(online at: www.iagi.or.id/fosi/berita-sedimentologi-no-28-borneo.html)
(Paleocurrent and provenance data from W flank of Meratus Mountains. Paleocurrents and sandstone provenance of Kiwa Member suggest N part of Meratus was uplifting in E Miocene. Paleocurrents from M-L Miocene Warukin Fm two distinct trends, first to ESE (present-day Meratus), second to WNW (i.e. away from Meratus; in channel sandstones in uppermost ~500m of formation. Switch in paleocurrents interpreted as recording Late Miocene early stage of uplift of S Meratus Mts)

Witts, D., L. Davies & R. Morley (2014)- Uplift of the Meratus Complex: sedimentology, biostratigraphy, provenance and structure. Proc. 38th Annual Conv., Indonesian Petroleum Association (IPA), Jakarta, IPA14-G-082, p. 1-21. *(online at: https://www.researchgate.net/publication/280152975_Uplift_of_the_Meratus_Complex_Sedimentology_Biostratigraphy_Provenance_and_Structure)*
(SE Kalimantan Meratus Mts emerged diachronously in E Miocene in N, earlier than previously suggested, but in Late Miocene further S. Paleocurrents from Warukin Formation directed towards ESE (i.e. towards present-day Meratus) in lower part, to WNW (i.e. away from Meratus) in upper ~500m of formation (M-U Miocene Tapin Mb). Paleocurrents in E Miocene Kiwa Mb of Montalat Fm indicate sediment transport to NW (zircons age populations same as in Eocene Tanjung Fm, suggesting reworked Tanjung Fm from Meratus High?). Meratus Range probably elongate positive flower structure)

Witts, D., L. Davies, R.J. Morley & L. Anderson (2015)- Neogene deformation of East Kalimantan: a regional perspective. Proc. 39th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA15-G-246, p. 1-22.
(online at: https://www.researchgate.net/publication/280153005_Neogene_Deformation_of_East_Kalimantan_A_Regional_Perspective
(Meratus Complex is mid-Cretaceous collision zone along Sundaland margin. Adang Line- Paternoster Fault separates Barito Basin in S from Kutai Basin in N. Interpreted a Paleogene feature that later facilitated differing responses to compression associated with Australia-Eurasia collision from Miocene onwards. Etc.)

Witts, D., R. Hall, R.J. Morley & M.K. BouDagher-Fadel (2011)- Stratigraphy and sediment provenance, Barito basin. Proc. 35th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA11-G-054, p. 1-18.
(Revised Eocene- Miocene stratigraphy and depositional model for Barito basin surface sediments. M Eocene- E Oligocene Tanjung Fm clastics, minor limestones and coal deposited in fluvio-tidal coastal plain to marginal marine setting, sediment sourced from W and SW and mainly derived from metamorphic rocks. M-L Miocene Warukin Fm marginal marine to fluviodeltaic, sediment was being transported from W for oldest part, mainly derived from Schwaner Complex, lesser extent Rajang-Crocker Gp, partly from E for younger coal-bearing sequences (=Meratus Mts uplift?))

Witts, D., R. Hall, G. Nichols & R.J. Morley (2012)- A new depositional and provenance model for the Tanjung Formation, Barito Basin, SE Kalimantan, Indonesia. J. Asian Earth Sciences 56, p. 77-104.

(Tanjung Fm of Barito Basin deposited from late M Eocene- late Early Oligocene. Most of formation deposited in tidally-influenced coastal plain and estuarine setting, and sediment was transported by rivers flowing to N (NB: Witts et al. 2011 suggest Tanjung Fm from W and SW?; Heryanto & Panggabean 2004 suggested mainly from WNW; JTvG). Heavy minerals and zircon geochronology identified Schwaner Complex W Borneo, Karimunjawa Arch and S continuation of Meratus Complex in Java Sea as main sediment sources)

Wiroyudo, G.K. (1982)- Exploration review of the Bunyu PSC Area. United Nations ESCAP, CCOP, Technical Publication 11, p. 141-154.

Wiweko, A. (1998)- Sedimentary facies and depositional geometry of distributary mouth bars in Tunu Field, Miocene Kutei Basin and comparison with modern Mahakam Delta. Ph.D. Thesis Queensland University of Technology, Brisbane, p.

Wiweko, A. & B. Giriansyah (2000)- Sedimentary facies of the Mahakam Delta: comparison between the Modern and the Miocene. Berita Sedimentologi (Indonesian Sedimentologists Forum FOSI) 12, p. 6-9.
(Modern Mahakam Delta developed in last 5000 years, after decline in rate of Holocene transgression. Deposition dominated by fluvial and tidal processes. U Miocene Paleo-Mahakam delta sediments often slightly coarser grain size, more high-energy flood events, higher sand % and less tidal influence)

Won, S.G., Y.J. Shinn, H.L. Setiawan, J.S. Hadimuljono & Mira Son (2018)- A study on petroleum exploration potential of Barito Basin in southeastern Kalimantan, Indonesia: comparison of petroleum system with adjacent Kutai Basin. J. of Petroleum and Sedimentary Geology (JSPG) (Korea) 1, 1, p. 1-15. *(review in Korean, with English abstract and figures)*
(online at: https://www.jpsg.or.kr/download/download_pdf?pid=jpsg-1-1-1)

Wu, B. & Z. Jin (2022)- Application of Milankovitch cycles in the restoration of high-resolution deposition velocity of Neogene strata in Kutei Basin, Indonesia. Energy Geoscience 2, 100089, p. 1-9.
(Sinopec paper on use of Milankovic cyclicity to determine sedimentation rates.Milankovitch cyclicity extracted from well logs of Late Miocene-Pleistocene clastics in wells in offshore Kutei basin, Makassar Straits. Odd?)

Wulandari, T., A. Sukapradja, A. Krisnaputra & J. Clark (2016)- An integrated reservoir characterization to determine remaining potential in Sisi Nubi Field. Proc. 14th Regional Conference Geology and Mineral Resources of SE Asia (GEOSEA XIV) and 45th Annual Conv. Indonesian Association Geologists (IAGI) (GIC 2016), Bandung, p. 485-494.
(Sisi -Nubi gas fields, 25 km offshore Mahakam delta, discovered in 1986 and 1992 and cumulative production >1 TCF gas, and 26 MMbbl condensates. With 4 main producing intervals, 69 geological layers and >300 fluvial-deltaic reservoir units.)

Yabe, H. (1921)- Notes on some Eocene foraminifera, II. Notes on two foraminiferal limestones from E.D. Borneo. Science Reports Tohoku Imperial University, 2nd ser. (Geol.), 5, 4, p. 100-106.
(online at: https://tohoku.repo.nii.ac.jp/record/10618/files/KJ00004176256.pdf)
(Two Eocene limestone samples from Marah, Bulungan, NE Kalimantan, with Nummulites subbrongniarti, N. pengaronensis, Orthophragmina (=Discocyclina) javana, Assilina orientalis, etc .Samples were collected by Mr. S. Noda during a geological expedition in 1918 (E.D. Borneo = East Dutch Borneo= NE Kalimantan))

Yabe, H. & S. Hanzawa (1924)- A *Lepidocyclina* limestone from Sangkoelirang, Dutch E. Borneo. Japanese J. Geology and Geography Trans. Abstr. 3, 2, p. 71-76.
(M Miocene limestone with Miogypsina polymorpha, Cycloclypeus annulatus, Lepidocyclina angulosa, etc. from Maloewi Anticline, Sangkulirang, E Kalimantan)

Yoga, T.Y, F. Panggabean & Z. Abidin (2009)- Slump scar reconstruction and distribution in Tunu area and its impacts on field development strategy. Proc. 33rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA-G-093, p. 1-13.

(Tunu giant gas field located at E limit of present Mahakam delta. Reservoirs mainly lower M Miocene deltaics between 7.3 Ma regional flooding surface and regional unconformity at 10.5 Ma. Local collapse of edge of deposited sediments during M Miocene produced large slump scars parallel to strike of Tunu anticline)

Yoga, T.Y & F. Tampilang (2016)- Mahakam Delta core workshop: TM-62 core synthesis a tight G zone reservoir, Tambora Field, East Kalimantan. Proc. IPA 2016 Technical Symposium, Indonesia exploration: where from- where to, Indonesian Petroleum Association (IPA), Jakarta, 47-TS-16, p. 1-13.
(Core description of delta distributary channel and mouth bar sand of M-U Miocene G-zone reservoir in Tambora Field, Mahakam Delta)

Yuh, S., A. Anshariy, S. Ariawan, H. Khairy & C.M. Adam (2015)- Application of AVO seismofacies technique to detect undrained prospects in Handil Shallow and Upper Zones, Mahakam Delta, East Kalimantan. Proc. 39th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA15-G-083, p. 1-14.
(Handil field in Mahakam Delta >550 hydrocarbon accumulations between 230-3000m depth in 4-way dip structure. Over 400 wells drilled. AVO analyses of 2011 3D seismic survey helps identify un-drained areas)

Yulihanto, B., B. Wijayanto, Sulistiyono & T. Junaedi (2006)- Hydrocarbon system of the Paleogene sediment of the Melawi Basin, West Kalimantan, Indonesia. Proc. Jakarta 2006 International Geoscience Conference Exhib., Indonesian Petroleum Association (IPA), Jakarta06-PG-11, p. 1-4.
(Melawi Basin intracontinental basin, surrounded by Triassic-Jurassic basement highs composed of granites and schists. Thick Early Cretaceous- Oligocene sediments. Main source rock kerogens of lacustrine-deltaic origin in Cretaceous and Late Eocene-Early Oligocene)

Yuniardi, Y. (2006)- Potensi dan kualitas batubara daerah Lipon Gedang, Kecamatan Sungai Durian, Kabupaten Kotabaru, Kalimantan Selatan. Bull. Scientific Contribution (UNPAD) 4, 1, p. 41-51.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8113/3689)
(On Eocene Tanjung Fm coal potential in Lipon-Gendang area, Sungai Durian District, E of Kandangan Meratus Mts front, SE Kalimantan. Four outcropping coal seams mapped, 0.2- 3m thick. Predicted resources 1,403,550 ton with average caloric value of ~5400 cal/gr and average sulfur 1.47%)

Yuniardi, Y., R. Fakhrudin & L. Jurnaliah (2010)- Zonasi paleontologi Cekungan Kutai Bagian Bawah, daerah Balikpapan dan sekitarnya, Provinsi Kalimantan Timur. Bull. Scientific Contribution (UNPAD) 8, 2, p. 123-129.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8250/3798)
(Paleontological zonation of the Lower Kutai Basin, Balikpapan and surrounding area, East Kalimantan'. Brief general discussion of Miocene- Recent foraminifera, calcareous nannoplankton and palynology biozonations. No details on Kutai Basin)

Yuniardi, Y., U. Mardiana, F. Mohamad, & M.K. Alfadli & A.A. Nur (2020)- Depositional environment and paleocurrent the middle of Warukin Formation based on seismic and well log data in North-East part Barito Basin, South Kalimantan. Bull. Scientific Contribution: Geology (UNPAD) 18, 3, p. 237-242.
(online at: https://jurnal.unpad.ac.id/bsc/article/view/31550/pdf)
(Paleo-current study of area from seismic facies maps and regional conditions in Barito Basin suggest paleo-current directionof Miocene Middle Warukin Fm sandstones is from SW, with sediment supply from NE. (no location, well or other data) (JTvG outcrop experience showed clear Warukin Fm current directions from NW to SE)

Yuniardi, Y., B. Muljana & R. Fakhrudin (2012)- Kronostratigrafi Cekungan Kutai bagian bawah, daerah Balikpapan dan sekitarnya, Kalimantan Timur. Bull. Scientific Contribution (UNPAD) 10, 1, p. 41-57.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8277/3824)
('Chronostratigraphy of the lower Kutai Basin in Balikpapan and surrounding area, East Kalimantan'. Brief review of latest Oligocene- Pliocene biozones in outcrops of Kutai basin. Little location/stratigraphy detail)

Yuniardi, Y., B. Mulyana, A. Hardiono, A.A. Nur, F. Mohammad & M.K. Alfadl (2023)- Sandstone quality assessment from core data of Santul Formation, Tarakan Basin, based on petrography and routine core analysis. Bull. Scientific Contribution (UNPAD), Geology 21, 3, p. 147-154.
(online at: https://jurnal.unpad.ac.id/bsc/article/viewFile/52131/pdf)
(Reservoir quality of M-L Miocene Sentul or Santul Fm sandstone, Tarakan Basin)

Zagalai, B.M. (1994)- A deterministic approach to modeling a giant field with numerous stacked reservoirs. Proc. 23rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 51-64.
(Reservoir model of Attaka Field (2 GBO and 3 TCF gas in place), N of Mahakam Delta. Producing reservoirs stacked over 10,000' of Miocene deltaics)

Zahra, K.A., A.H. Hamdani & R.T. Rosmalina (2015)- Paleoenvironmental Implications from biomarker investigations on the Pliocene Lower Sajau lignite seam in Kasai Area, Berau Basin, Northeast Kalimantan, Indonesia. J. Geoscience and Environment Protection 3, 5, p. 140-152.
(online at: http://file.scirp.org/pdf/GEP_2015080611180523.pdf)
(Pliocene age lignites from Lower Sajau seam in borehole in Kasai Coal Field, Berau Basin. Lignite-grade coal with abundant terpenoid biomarkers including lupane and oleanane indicate angiosperm-dominated vegetation. Also hopanoid biomarkers indicating acidic depositional environment)

Zajuli, M.H.H. (2013)- Batuan sedimen halus kelompok Mandai berdasarkan analisis scanning electron microscope (SEM). Jurnal Sumber Daya Geologi (JSDG) 23, 3, p. 121-127.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/85)
('Fine-grained sedimentary rocks of the Mandai group, based on scanning electron microscope analysis'. In E part of Ketungau Basin (also called Mandai Basin) of NW Kalimantan E Tertiary mudstones of Mandai Gp consist of illite, smectite and kaolinite. Also Botryococcus algae. Diagenesis suggest burial to 2500-4000m)

Zajuli, M.H.H. & Suyono (2011)- Organic geochemistry and Rock-Eval pyrolysis of Eocene fine sediments, East Ketungau Basin, West Kalimantan. Jurnal Geologi Indonesia 6, 2, p. 95-104.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/publisher_detail/4)
(Geochemistry of Eocene Mandai Gp mudstones of E Ketungau Basin, NW Kalimantan, suggest poor to fair, gas-prone source rock potential)

Zajuli, M.H.H. & J. Wahyudiono (2018)- Rock-Eval pyrolysis of the Oligocene fine-grained sedimentary rocks from the Pamaluan Formation, Gunung Bayan Area, West Kutai Basin, East Kalimantan: implication for hydrocarbon source rock potential. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 19, 2, p. 73-82.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/343/338)
(?Late Oligocene shales of coal-bearing Pamaluan Fm in Gunung Bayan area of upper/NW Kutai Basin poor-good quality source rock with gas-prone Type III kerogen. Maturity level mainly immature)

Zetra, Y., I.B. Sosrowidjojo & R.Y.P. Burhan (2016)- Paleoenvironment of brown coal from Sangatta coal mines, East Borneo, Indonesia. Jurnal Teknologi (UTM) 78, 7, p. 121-129.
(online at: https://journals.utm.my/jurnalteknologi/article/view/9166/5462)
(Organic geochemical studies on brown coal (lignite)from Inul area in Sangatta coal mines areas, E Kalimantan. Part of M-L Miocene Balikpapan Fm. Coal orignated from Angiospermae higher land plants, and deposited in oxic environment)

Zetra, Y., I.B. Sosrowidjojo & R.Y.P. Burhan (2016)- Aromatic biomarker from Brown Coal, Sangatta coalfield, East Borneo of Middle Miocene to Late Miocene age. Jurnal Teknologi (UTM) 78, 6, p. 229-238.
(online at: https://journals.utm.my/jurnalteknologi/article/view/8822/5258)
(Organic geochemistry of brown coal samples from Balikpapan Fm in KPC Sangatta coalfield N of Pinang Dome in Kutai Basin, E Kalimantan. Coal low maturity and low caloric values. Biomarker analysis. High abundance of cadene in brown coal show dominance of Dipterocarpaceae vegetation in area during Miocene)

Zetra, Y., R.Y.P. Burhan, M. Fitriyyah & Z.V. Nugrahaeni, (2023)- Aliphatic biomarker signatures of crude oil from Tarakan Subbasin, Tarakan Basin, North Kalimantan, Indonesia. Indonesian J. on Geoscience (IJOG) 10, 2, p. 139-150.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/730/418)
(Organic geochemistry of crude oil from Pamusian Field, Tarakan Basin, NE Kalimantan, have been done. Source of oil mainly from land plants (incl. angiosperm resins) deposited in oxic environment, and disposed to increase biodegradation. Tarakan oil was mature. Some organic compounds suggest bacterial input)

Zhang, Z. & C.S. Wright (2017)- Quantitative interpretations and assessments of a fractured gas hydrate reservoir using three-dimensional seismic and LWD data in Kutei basin, East Kalimantan, offshore Indonesia. Marine and Petroleum Geology 84, p. 257-273.
(Description of fractured gas hydrate reservoir over 500 km region from seismic data in offshore Kutei basin/Makassar Straits)

Zonneveld, J.P, N Adani, Aswan, J.L. Bloch, A. Briguglio, R.L. Ciochon, L.J. Cotton, A.T. Hascaryo, J. Head et al. (2025)- Stratigraphy, paleontology and depositional setting of the upper Eocene (Priabonian) lower Pagat Member, Tanjung Formation, in the Asem Asem Basin, South Kalimantan, Indonesia. Journal of Paleontology 98, S96: p. 1-37.
(online at: https://www.cambridge.org/core/journals/journal-of-paleontology/article/stratigraphy-paleontology-and-depositional-setting-of-the-late-eocene-priabonian-lower-pagat-member-tanjung-formation-in-the-asem-asem-basin-south-kalimantan-indonesia/A0CBEAA3B67CD20A4CDE7C7966AA191A)
(Marine sediments of U Eocene Pagat Mb of Tanjung Fm in Asem Asem Basin near Satui records overall marine transgression from marginal marine and continental Tambak Mb to overlying Oligocene - E Miocene Berai Fm carbonate platform succession. Marine calcareous shales with common foraminiferal packstone /rudstone lenses interpreted as low-relief biostromes). Larger forams include Nummulites, Discocyclina, Pellatispira, Biplanispira, Asterocyclina (= Tb stage), etc. Well illustrated)

Zonneveld, J.P., Y. Zaim, Y. Rizal, Aswan, R.L. Ciochon, T. Smith, J. Head, P. Wilf & J.L. Bloch (2024)- Avian foraging on an intertidal mudflat succession in the Eocene Tanjung Formation, Asem Asem Basin, South Kalimantan, Indonesian Borneo. Palaios 39, 3, p. 67-96.
(Late Eocene Tambak Mb of Tanjung Fm in Wahana Baratama coal mine formed as tidal flat deposits with diverse trace fossil assemblage, including bird feeding and foraging traces)

Zuffardi-Comerci, R. (1928)- Di alcuni foraminiferi terziari dell'isola di Borneo. Boll. Societa Geologica Italiana 47, 2, p. 127-148.
(online at: google books....)
('On some Tertiary foraminifera from the island of Borneo'. Material collected by BPM geologist G. Bonarelli, now in Museum of Torino, Italy. Faunas dominated by Lepidocyclina and Miogypsina. Includes descriptions of 'new' E Miocene larger foram species from Moantung-Amuntai-Bintut-areas (Barito Basin;; JTvG). Proposed new species names Miogypsina verrucosa, M. cupulaeformis, Lepidocyclina amoentai, L. fovelata and Spiroclypeus bintoetensis (N.B.:These species names never found acceptance). All material appears to be from E Miocene Berai Limestone; JTvG)

Zulmi, I., R. Ramadian, F. Fabian, M. Momen & U. Sukanta (2014)- Stratigrafi sikuen resolusi tinggi untuk memahami distribusi reservoir di lapangan Semberah, Cekungan Kutai bagian bawah. Proc. 43rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, PIT IAGI 2014-180, p. 1-11.
(online at: https://www.iagi.or.id/web/digital/6/2014_IAGI_Jakarta_Stratigrafi-Sikuen-Resolusi.pdf)
('High-resolution sequence stratigraphy to understand reservoir distribution in the Semberah Field, Lower Kutai basin'. Detailed correlations of M-L Miocene deltaic sands, shales and minor coals and limestones in Mentawir Fm (Balikpapan Mb) (palynozones Florschuetzia levipoli from 100'- 850', Florschuetzia trilobata from 850'-4140'). At least 6 sequences)

IV.3. North Borneo (Sarawak, Sabah, Brunei and offshore)

Abdul Hadi & T.R. Astin (1995)- Genesis of siderite in the Upper Miocene offshore Sarawak: constraints on pore fluid chemistry and diagenetic history. In: G.H. Teh (ed.) Proc. AAPG-GSM Int. Conference 1994, Southeast Asian basins; oil and gas for the 21st century, Bull. Geological Society Malaysia 37, p. 395-413.
(Authigenic siderite common inshelfal and tidal Upper Miocene reservoir sandstone of Baram field. Siderite cemented zones up to 2m thick. Siderite cement in five different sandstone types and four different crystal morphologies. Rhombic siderite, common in bioturbated and heterogeneous sandstone, has most adverse effect on reservoir characteristics of sandstones, reducing porosity to 10% and permeability to 2 md. Oxygen isotopes compatible with precipitation at shallow burial depth from unaltered seawater)

Abdul Hadi, A.R., K. Xainey, M.S. Ismail & N. Mazshurraiezal (2017)- Sedimentology of the Lambir Formation (Late Miocene), northern Sarawak, Malaysia. In: M. Awang et al. (eds.) Proc. Int. Conf. Integrated Petroleum Engineering and Geosciences (ICIPEG2016), Kuala Lumpur 2016, Springer Verlag, p. 569-580.

Abdul Manaf, M. & R.H.F. Wong (1995)- Seismic sequence stratigraphy of the Tertiary sediments, offshore Sarawak deepwater area, Malaysia. Bull. Geological Society Malaysia 37, p. 345-361.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1995a26.pdf)
(Sarawak deepwater area with eight seismic horizons representing tops of depositional sequences. Six upper horizons (Late Oligocene- Pleistocene) tied to wells and dated based on paleontologic data. Older horizons dated by correlation to global sea-level chart. With seismic facies maps)

Abdul Rahman, A.H.A., D. Menier & M Y. Mansor (2014)- Sequence stratigraphic modelling and reservoir architecture of the shallow marine successions of Baram field, West Baram Delta, offshore Sarawak, East Malaysia. Marine and Petroleum Geology 58, B, p. 687-703.
(Sequence stratigraphic study of Late Miocene Baram field, a medium-sized oilfield located in NE Baram Delta Oil Province, off Sarawak)

Abdul Rahman, M.N.I., D.A. Nazamudin, N.B. Baharim, J. Asis & E.H. Ariffin (2025)- Wave-tide depositional setting on the Middle to Late Miocene outcrops in Miri, Sarawak and Brunei Darussalam, Northwest Borneo. Bull. Geological Society Malaysia 79, p. 75-99.
(online at: https://gsm.org.my/wp-content/uploads/2025/05/8-Rahman-et-al.pdf)
(Miocene Miri, Lambir, and Belait Fms dominated by wave-generated and tide-genrarated facies)

Abdul Rahman, M.N.I., H. Jeofry, M. Abdullah, I. Abd Rahim & S.H. Tahir (2021)- Facies analysis of the Late Eocene deep-marine middle- to outer-fan sequence of the Crocker Formation in Tenom District, Sabah, Malaysia. Bull. Geological Society Malaysia 72, p. 47-62.
(online at: https://gsm.org.my/wp-content/uploads/gsm_file_2/702001-101922-PDF.pdf)
(Late Eocene- M Miocene Crocker Fm in Sabah was deposited in deep-marine environment by turbidity currents)

Abdul Rahman, M.N.I. & S.Hj. Tahir (2018)- Measured section for the possible stratotype of the Miri Formation, at Miri Hill, North Sarawak, Malaysia. Geological Behavior 2, 2, p. 10-16.
(online at: https://geologicalbehavior.com/archives/2gbr2018/2gbr2018-10-16.pdf)
(Complete sequence of M-L Miocene Miri Fm clastics (main reservoir in Miri and Seria oil fields) exposed at Oil Well road and nearby localities SE of Miri town. Depositional facies interpreted as offshore, lower shoreface to foreshore setting in shoreline system. Measured proposed 'type section' 47 m thick (but thickess in Miri and Seria oil fields ~1300-1800m!!; JTvG))

Abdul Rahman, M.N.I. & S.Hj. Tahir (2019)- Middle Miocene wave influenced tidal dominated Lambir Formation, Miri, Sarawak: case study in Tusan Beach and Lambir Hill. Geological Behavior 3, 1, p. 20-27.
(online at: https://geologicalbehavior.com/archives/1gbr2019/1gbr2019-20-27.pdf)
(M Miocene Lambir Fm S of Miri tidal flat deposit with minor wave dominated facies)

Abdullah, N.S. & Harminzar M. (2013)- North Baram & North East Luconia play analysis. Proc. Petroleum Geology Conference Exhibition (PGCE), Kuala Lumpur 2013, P43, p. 1-4. *(Extended Abstract)*

(North Baram and NE Luconia three major play types: (1) Pre-Mid-Miocene Unconformity (Late Oligocene- E Miocene Cycle I-II) play at NE Luconia, (2) Post-MMU play (Upper Cycle V-VI) at N Baram Delta and (3) M-Late Miocene Carbonate buildup play in C Luconia province

Abdullah, Nuraiteng T. & A. Kushairi (1987)- Pedawan Formation of the Penrissen area, Sarawak: a revision of its upper age limit. Warta Geologi (Newsletter Geological Society Malaysia) 13, 2, p. 43-50.
(online at: https://gsmpubl.files.wordpress.com/2014/09/ngsm1987002.pdf)
(Youngest Globotruncana species at top of Pedawan Fm in Penrissen area (S of Kuching) Marginotruncana coronata, Marginotruncana angusticarinata and Dicarinella carinata, signifying U Santonian age)

Abdullah, Nuraiteng T. & C.Y. Yaw (1993)- Distribution of foraminiferal assemblages in the Upper Eocene Batu Gading Limestone, Sarawak. In: T. Thanasuthipitak (ed.) Int. Symposium Biostratigraphy of mainland Southeast Asia: facies and paleontology (BIOSEA), Chiang Mai 1993, 1, p. 231-242.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/1993/..)
(In Batu Gading are off Baram River, Sarawak, S of Brunei, massive U Eocene limestone, disconformably overlain by Late Oligocene limestone breccia with mixed Late Eocene and Late Oligocene taxa, suggesting post-Late Eocene emergence. With abundant Eocene larger foraminifera, incl. Nummulites javanus, N. pengaronensis, Discocyclina, Asterocyclina. Limestones overlain by deep marine beds with earliest Miocene Globigerina sellii-G. binaiensis planktonic foraminifera)

Abdullah, W.H. (1997)- Common liptinitic constituents of Tertiary coals from the Bintulu and Merit Pila coalfields, Sarawak, and their relation to oil generation from coal. Petroleum Geology Conference '96, Kuala Lumpur, Bull. Geological Society Malaysia, 41, p. 85-94.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1997026.pdf)
(Oligocene and Lower Miocene onshore and offshore sequences of Sarawak contain numerous coal seams. Oil possibly sourced from these coals. Study of coals from Bintulu area and Merit-Pila coalfield shows liptinitic constituents commonly considered to indicate oil generation and expulsion from coals)

Abdullah, W.H. (1997)- Evidence of early generation of liquid hydrocarbon from suberinite as visible under the microscope. Organic Geochemistry 27, 7/8, p. 591-596.
(Example of early generation of liquid hydrocarbons from suberinite in coal sample from Merit-Pila coal field, C Sarawak. As observed under microscope, generation of oil-like material, mainly as exsudatinite, from maceral suberinite occurs at maturity level of ~0.4% vitrinite reflectance)

Abdullah, W.H. (1999)- Oil-generating potential of Tertiary coals and other organic-rich sediments of the Nyalau Formation, offshore Sarawak. J. Asian Earth Sciences 17, p. 255-267.
(Coals and organic-rich clastics from Late Oligocene- E Miocene Nyalau Fm believed to be major source rock. Coals dominated by vitrinite, with moderate- low exinite and inertinite. Samples vitrinite reflectance 0.42- 0.72%. Good oil-generating potential anticipated)

Abdullah, W.H. (1999)- Petrographic features of oil-prone coals from the Brunei-Muara District, Negara Brunei Darussalam. In: G.H. Teh (ed.) Proc. 9th Regional Congress Geology Mineral Energy Resources of SE Asia (GEOSEA '98), Kuala Lumpur 1998, Bull. Geological Society Malaysia 43, p. 621-627.
(online at: www.gsm.org.my/products/702001-100779-PDF.pdf)
(M Miocene Belait Fm coals from Brunei-Muara District possess characteristics of oil-prone coals, like: high abundance of hydrogen-rich macerals such as suberinite and liptodetrinite, presence of exsudatinite, oil globules, oil haze and changes in fluorescence intensity. Expulsion of hydrocarbons may start at relatively low thermal maturity level of 0.42 to 0.49%Ro)

Abdullah, W.H. (2002)- Oil staining in the onshore Togopi Formation, Dent Peninsula, NE Sabah Basin. Warta Geologi (Newsletter Geological Society Malaysia) 28, 4, p. 153-156.
(online at: www.gsm.org.my/products/702001-100440-PDF.pdf
(Extensive dark oil staining in white Late Pliocene- Pleistocene Togopi Fm limestone in remote outcrop of, Dent Peninsula, NE Sabah)

Abdullah, W.H. (2002)- Organic petrological characteristics of limnic and paralic coals of Sarawak. In: G.H. Teh (ed.) GSM Annual Geological Conference, Kota Bharu 2002, Bull. Geological Society Malaysia 45, p. 65-69.
(online at: www.gsm.org.my/products/702001-100741-PDF.pdf)
(Study of Tertiary coals from Merit-Pila and the Mukah-Balingian coalfields of Sarawak. Coals deposited in two distinct depositional settings: Mukah-Balingian coals in paralic, lower coastal plain setting, Merit-Pila coals were deposited inland in lacustrine setting)

Abdullah, W.H. (2003)- Coaly source rocks of NW Borneo: role of suberinite and bituminite in oil generation and expulsion. In: G.H. Teh (ed.) Proc. Petroleum Geology Conference Exhibition (PGCE) 2002, Bull. Geological Society Malaysia 47, p. 153-163.
(online at: www.gsm.org.my/products/702001-100602-PDF.pdf)
(Organic petrography suggests suberinite and some others identified as the most oil-prone macerals in NW Borneo coals. Oil-prone macerals most likely fom bark and root tissues of mangrove plants and other suberin-bearing plant species)

Abdullah, W.H. & S.S. Gee (2022)- Geology, resource potential and organic petrography of the Neogene coals in the Miri area of Northwest Sarawak, Malaysia. Warta Geologi 48, 2, p. 66-71.
(online at: https://gsm.org.my/wp-content/uploads/2023/01/NGSM20220202.pdf)
(Three Mio-Pliocene coal-bearing formations in Miri area: Belait, Lambir and Liang. Only sub-bituminous B Tutoh coals from Belait Fm of economic potential. Tutoh coals (6 seams, A-G) dominated by vitrinite group, especially desmocollinite. Lambir Fm sub-bituminous B and Liang Fm lignite of low economic potential)

Abdullah, W.H., M.H. Hakimi, I.E. Shushan & A.H.B. Rahman (2017)- Petroleum source rock characteristics of marine versus coastal settings: A comparative study between Madbi Formation of Masila Basin, Yemen and Nyalau Formation of Sarawak, Malaysia. Bull. Geological Society Malaysia 63 (50th Anniversary Issue 1), p. 103-115.
(online at: www.gsm.org.my/products/702001-101706-PDF.pdf)
(Comparison of two completely different oil source rocks, Jurassic of Yemen and Oligo-Miocene of Sarawak)

Abdullah, W.H., M.J. Hoesni & P. Abolins (1995)- Aspects of oil generation from coals: a Sarawak case study. The importance of exsudatinite and variations in organic facies characteristics. Geological Society of Malaysia Petroleum Geology Conference 1995, Warta Geologi (Newsletter Geological Society Malaysia) 21, 6, p. 403-406. *(Abstract only)*
(online at: https://gsmpubl.files.wordpress.com/2014/09/ngsm1995006.pdf)
(Brief report on petrographic/ geochemical study of Tertiary coals from Sarawak, from Nyalau Fm in Bintulu area and Balingian Province. Two main oil types can be tied to two coal types: oleanane-rich oils from Balingian sourced from exsudatinite-rich coals and oleanane-poor oils from exsudatinite-poor coals)

Abdullah, W.H., V. Kiselev, Y.M. Makeen, T.S. Olayinka & K.A. Mustapha (2014)- Direct liquefaction on low rank Batu Arang coals of Malaysia: influence of petrographic composition. Bull. Geological Society Malaysia 60 (C.S. Hutchison Memorial Issue), p. 95-98.
(online at: https://gsmpubl.files.wordpress.com/2015/04/bgsm2014010.pdf)

Abdullah, W.H. & C.P. Lee (2002)- Hydrocarbon-bearing fissure in the limestone of the Togopi Formation, Dent Peninsula, Sabah. Warta Geologi (Newsletter Geological Society Malaysia) 28, 5, p. 193-196.
(online at: https://gsmpubl.files.wordpress.com/2014/09/ngsm2002005.pdf)
(Geochemistry of dark stained fissure in outcrop, believed to be migrated oil)

Abdullah, W.H., C.P. Lee, P. Gou, M.K. Shuib, T.F. Ng, A.A. Albaghdady, M.F. Mislan & K.A. Mustapha (2013)- Coal-bearing strata of Labuan: mode of occurrences, organic petrographic characteristics and stratigraphic associations. J. Asian Earth Sciences 76, p. 334-345.
(Four Cenozoic units with coal-bearing sediments recognized on Labuan Island, Sabah. From youngest, immature Belait Fm to Setap Shale and Temburong Fm, to oldest W Crocker Fm, with vitrinite reflectance 0.8-

0.9%. Analysed coals mainly mangrove-derived and considered to be oil-prone as suggested by common occurrences of oil haze, suberinite, bituminite, exsudatinite and perhydrous vitrinite)

Abdullah, W.H., S.Y. Lee, M.K. Shuib & M.H.A. Hakimi (2011)- Organic-rich sequences of the Miri Formation, Sarawak: implication for oil generating potential. Proc. 24th National Geoscience Conference 2011 (NGC 2011), Johor Baru, B13, p. 52-53. *(Extended Abstract)*
(online at: http://geology.um.edu.my/gsmpublic/NGC2011/NGC2011_Proceedings.pdf)
(Organic facies in outcrops around Miri, Sarawak. M Miocene Miri Fm with organic-rich sandstone intervals with coal clasts and carbonaceous laminae. Early mature (Vitrinite reflectance Ro 0.35- 0.50%))

Abdullah, W.H., O.S. Togunwa, Y.M. Makeen, M.H. Hakimi, K.A. Mustapha, M.H. Baharuddin, S.G. Sia & F. Tongkul (2017)- Hydrocarbon source potential of Eocene-Miocene sequence of Western Sabah, Malaysia. Marine and Petroleum Geology 83, p. 345-361.
(Organic matter present in all formations studied mainly of terrigenous origin and gas prone (Type III and Type III-IV kerogen), except for minor occurrence of mixed oil-gas prone Type II-III kerogen in Miocene Belait Fm and in slump mass transport deposits of West Crocker Fm)

Abidin, N.S.Z., K.A. Mustapha, W.H. Abdullah & Z. Konjing (2022)- Paleoenvironment reconstruction and peat-forming conditions of Neogene paralic coal sequences from Mukah, Sarawak, Malaysia. Nature Scientific Reports 12, 8870, p. 1-26.
(online at: https://www.nature.com/articles/s41598-022-12668-6.pdf)
(Eight E-M Miocene coal seams (lignite to sub-bituminous B types) in Balingian Fm in Mukah coalfield, Sarawak. Formed in oxygen-defcient and water-saturated precursor mires in freshwater peat swamps. Rich angiosperm pollen (mainly Casuarina, Calamus) indicates lowland forest vegetation, linked to the Kerapah/Kerangas peat forest bordered by rattan, etc. Maximum peat thickness of 35m, suggested to form between 10,000 and 175,000 years ago)

Abidin, N.S.Z., R.R. Raymond & N.S.I. Bashah (2017)- Diagenetic history of late Oligocene-early Miocene carbonates in East Sabah, Malaysia. Proc. 5th Int. Conf. Geological, Geographical, Aerospaces and Earth Sciences, Bali 2017, IOP Conference Series: Earth and Environmental Science 88, 012016, p. 1-7.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/88/1/012016/pdf)
(Diagenesis events in Late Oligocene-E Miocene Gomantong Limestone in Sukau, E Sabah, include micritization, compaction, cementation and stylolite dissolution, resulting in poor reservoir quality)

Abubaker, T., W.H. Abdullah & A.H. Abd. Rahman (2004)- Biomarkers as palaeoenvironment and thermal maturity indicators of the Sandakan Formation (Late Miocene) East Sabah, Malaysia. Malaysian J. Science 23, 2, p. 165-174.
(Biomarker distributions and their application as thermal maturity and paleoenvironmental indicators for Late Miocene Sandakan Fm. Samples analysed thermally immature for oil generation)

Abu Bakar, Z.A., M. Madon & A. Jalil Muhamad (2007)- Deep-marine sedimentary facies in the Belaga Formation (Cretaceous-Eocene), Sarawak: observations from new outcrops in the Sibu and Tatau areas. Bull. Geological Society Malaysia 53, p. 35-45.
(online at: www.gsm.org.my/products/702001-100506-PDF.pdf)
(Description of submarine fan facies in folded, flysch-type deep-marine rocks of Cretaceous- Eocene Belaga Fm of Rajang Group)

Adams, C.G. (1960)- Foraminifera, probably of Triassic or Lower Jurassic age, from Serian area, Sarawak. British Geological Survey (BGS) Report WH/OA/00/121, p.
(Unpublished report by British Museum (Natural History) for British Overseas Geological Surveys (1960-1964); not online)

Adams, C.G. (1959)- Foraminifera from limestone and shale in the Batu Gading area, Middle Baram, East Sarawak. Geological Survey Department British Borneo, Annual Report 1958, p. 73-85.

(Eocene larger foraminifera from Sarawak; see also Adams and Haak, 1962)

Adams, C.G. (1960)- Eocene and Miocene foraminifera from limestone and shale in the middle Baram Valley, Sarawak. British Borneo Geological Survey, Annual Report 1959, p. 64-67.
(Occ. Eocene larger forams, incl. Discocyclina javana, Eorupertia, Halkyardia, Nummulites javanus, etc.)

Adams, C.G. (1964)- Foraminifera of Eocene age from the Darvel Bay area, Sabah. British Geological Survey (BGS) Report WH/OA/00/186, p.
(Unpublished report by British Museum (Natural History) for British Overseas Geological Surveys (1960-1964); not online)

Adams, C.G. (1964)- The age and foraminiferal fauna of the Bukit Sarang limestone, Sarawak, Malaysia. Geological Survey of Malaysia, Borneo Region, Kuching, Annual Report 1963, p. 152-162.
(Bukit Sarang Limestone of Sarawak, 20km SE of Tatau, Bintulu, rel. thin (~90m). With Tc/ Early Oligocene species only: Borelis pygmaeus, Dictyoconus melinauensis n.sp., Halkyardia, Nummulites fichteli, etc.)

Adams, C.G. (1965)- The foraminifera and stratigraphy of the Melinau Limestone, Sarawak, and its importance in Tertiary correlation. Quarterly J. Geological Society of London, 121, p. 283-338.
(Very thick Melinau Lst carbonate platform on NW flank of Mulu anticlinorium in NE Sarawak, up to 7000' thick. No true reef structures. Age Late Eocene- earliest Miocene (Tb- Te), based on larger foraminifera. Zone Tb thickness 1850'; Td rel. thin. Basal samples with Pellatispira orbitoidea, also Nummulites javanus Verbeek, N. cf. semiglobulus, Aktinocyclina and Discocyclina. One new genus, Wilfordia, three new species: Dictyoconus melinauensis, Neoalveolina inflata and Wilfordia sarawakensis. Dictyoconus recorded for first time from Oligocene-age strata)

Adams, C.G. & R. Haak (1962)- The stratigraphical succession in the Batu Gading area, Middle Baram, North Sarawak. In: N.S. Haile, The geology and mineral resources of the Suai-Baram Area, North Sarawak, British Borneo Geological Survey Memoir 13, p. 141-150.
(Along Middle Baram River in NE Sarawak ~120' N-dipping massive Late Eocene limestone unconformably on folded Late Cretaceous Kelalan/ Rajang Fm. (27 mi SW of Melinau) Late Eocene with Tb larger forams Pellatispira, Discocyclina, Aktinocyclina, Nummulites javanus, etc. Overlain (with erosional surface/ E Oligocene hiatus) by 40' thick limestone breccia and bedded limestone with reworked Eocene larger forams and Heterostegina borneensis, Spiroclypeus, Eulepidina, Borelis pygmaeus and Miogypsinoides (Te1-4; interpreted as E Miocene (but nowadays asigned to latest Oligocene; JTvG). Overlain by earliest Miocene (N4-N5) calcareous shales with Globigerinoides, Globigerina binaiensis, G. dissimilis, G. ciperoensis)

Adams, C.G. & H.J.C. Kirk (1962)- The Madai-Baturong Limestone member of the chert- spilite formations, North Borneo. Geological Magazine 99, 4, p. 289-303.
(Madai-Baturong limestone of Semporna Peninsula, SE Sabah, forms important marker horizon in 'oceanic' Chert-Spilite Fm. Steeply NE-dipping, up to 2000' thick at Mt Madai. At Mt Madurong with oolite beds. In lower part with Lower? Cretaceous shallow marine algae (Lithocodium, Cayeuxia, Hensonella) and Dictyoconus foram. Upper part and breccias with U Cretaceous deep marine planktonic foraminifera (Campanian Globotruncana, Heterohelix, Praeglobotruncana). Chert-Spilite Fm uplifted against Upper Tertiary sediments along thrust fault. (interpreted as oceanic seamount deposit by C.P. Lee (2003))

Adams, C.G. & H.J.C. Kirk (1963)- The Madai-Baturong Limestone member of the chert- spilite formations, North Borneo. In: F.H. Fitch (ed.) Proc. British Borneo Geological Conference 1961, Kuching, Geological Survey Department, British Territories in Borneo, Kuching, Bull. 4, p. 79-86.
(Same paper as Adams & Kirk 1962)

Adams, C.G. & G.E. Wilford (1972)- On the age and origin of the Keramit and Selidong Limestones, Sarawak, East Malaysia. Geological Survey of Malaysia, Geological Papers 1, p. 28-42.
(Keramit and Selidong limestones deposited in moderately deep water; Eocene and Oligocene shales with pelagic foraminifera interbedded with calcarenites with Late Oligocene (Lower Te) larger foraminifera)

Adams, E.W., R.E. Besems & S.J. Gough (2012)- "Pre-MMU" carbonates and the influence of age and tectonic regimes on their growth styles, Sarawak, Malaysia. Proc. Petroleum Geology Conference Exhibition (PGCE), Kuala Lumpur 2012, Warta Geologi (Newsletter Geological Society Malaysia) 38, 2, p. 120-121.
(online at: https://gsmpubl.files.wordpress.com/2014/09/warta38_21.pdf)
(Extended Abstract. 'Traditional' offshore Sarawak carbonate exploration is in M-Late Miocene Luconia Province carbonates, above 'M Miocene unconformity (MMU)', when many of the Luconia Province carbonates initiated during major M Miocene flooding. Carbonates also in 'pre-MMU' section. U Eocene-Lw Oligocene carbonates onshore Sarawak, developed speculatively as isolated thrust-top platforms, in front of Rajang accretionary wedge as result of Luconia Block docking against Borneo. Late Oligocene relatively stable, regionally extensive shelf system. Shift from foram-and-algal to coral-dominated carbonate deposition at Oligocene-Miocene boundary)

Adams, E.W., P.F.M. Janssen, S. Ghani, S.J. Gough & P. Winefield (2013)- The Lower Miocene Great Barrier Reef of Sarawak, Malaysia: the exploration potential of Cycle II and III carbonates. Proc. Petroleum Geology Conference Exhibition (PGCE), Kuala Lumpur 2013, O25, p. 1-3. *(Extended Abstract)*
(E Miocene (~20 Ma) widespread passive shelf-margin carbonate deposition in distal part of NW-SE trending paleo-Sarawak shelf, from northern C Luconia in NW to onshore Sarawak in SE. High-relief carbonate platform margin developed, and in some locations continued into M-Late Miocene Luconia Province carbonates. Vast parts of Lower Miocene Cycle II and III carbonates have poor primary reservoir properties)

Adepehin, E.J., C.A. Ali, A.A. Zakaria & Z. Konjing (2020)- Post-depositional controls on siliciclastic tight reservoirs: implications from the Oligocene Nyalau Formation (Cycle 1), onshore Central Sarawak, Borneo. Marine and Petroleum Geology 111, p. 786-806.
(online at: https://www.sciencedirect.com/science/article/pii/S0264817219304519)
(Subsurface tight reservoir sandstones of Oligocene Nyalau Fm in onshore C Sarawak. Porosity reduction by cementation (40-58%), exceeds porosity loss by compaction (22-53%))

Adepehin, E.J., C.A. Ali, A.A. Zakaria & M.S. Sali (2019)- An overview of 20 years' hydrocarbon exploration studies and findings in the Late Cretaceous-to-Tertiary onshore Central Sarawak, NW Borneo: 1997-2017 in retrospect. J. Petroleum Exploration Production Technology 9, 3, p. 1593-1614.
(online at: https://link.springer.com/content/pdf/10.1007/s13202-018-0591-8.pdf)
(Overview of key petroleum exploration findings in onshore C Sarawak Basin in last 2 decades)

Adepehin, E.J., O.M. Bankole & M.H. Arifin (2022)- Poro-perm evolution in Oligo-Miocene coastal sandstones: Constraining the relative influence of sedimentary facies, mineralogy, and diagenesis on analogue reservoir quality of the Nyalau Formation, Borneo. Marine and Petroleum Geology 139, p. 1-22.
(online at: https://www.sciencedirect.com/science/article/pii/S0264817222000678)
(Widely varying reservoir quality in outcrops of Oligo-Miocene Nyalau Fm clastics, Sarawak)

Agostinelli, E., M. Raisuddin, E. Antoinelli & M. Aris (1990)- Miocene- Pliocene palaeogeographic evolution of a tract of Sarawak offshore between Bintulu and Miri. In: G.H. Teh (ed.) 13th Petroleum Geology Seminar, Bull. Geological Society Malaysia 27, p. 117-135.
(online at: www.gsm.org.my/products/702001-101080-PDF.pdf)
(Six Mio-Pliocene paleogeographic maps offshore Sarawak show progressive shift of paleo-shoreline. W Baram line paleo-escarpment evident at least since M Miocene. NE of escarpment filled mainly in Late Miocene-Pliocene by deposits associated with prograding paleo-Baram Delta)

Ahmed, N., H. Baioumy, A.M.A. Salim, A.H. Abd Rahman & M. Jamil (2019)- Facies analysis of deep marine channel to lobe deposits of Maastrichtian Layar member of the Belaga Formation, Rajang Group, Sarawak. NGC2019, Warta Geologi (Newsletter Geological Society Malaysia) 45, 3, p. 229-230. *(Abstract only)*

Ahmed, N., N.A. Siddiqui, A.H.B. Abd Rahman, T. Hanif & S.A. Kasim (2020)- Belaga Formation, a deep marine rock unit of Rajang Group: how it looks like in the field, Central Sarawak, northwestern Borneo. Science International (Lahore) 32, 5, p. 521-525.
(online at: http://www.sci-int.com/pdf/637346623813485245.pdf)
(Upper Cretaceous- Eocene Belaga Fm oldest and most widespread formation in lower Rajang area (Sarawak), believed to be 10-15km thick, and one of SE Asia's largest ancient submarine fans. Three phases: (1) Late Cretaceous- Ey Eocene, (2) E-M Eocene and (3) M- Late Eocene)

Ahmed, N., N.A. Siddiqui, A.H.B. Abd Rahman, M. Jamil, M. Usman, Z. Sajid & F.K. Zaidi (2021)- Evaluation of hydrocarbon source rock potential: deep marine shales of Belaga Formation of Late Cretaceous-Late Eocene, Sarawak, Malaysia. J. King Saud University- Science 33, 1, 101268, p. 1-9.
(online at: www.sciencedirect.com/science/article/pii/S1018364720303815)
(Late Cretaceous- Late Eocene Belaga Fm turbidites in Sibu-Tatau region of Sarawak deposited in extinct ocean basin of proto-South China Sea. Shales low to moderate source rock potential (TOC 0.14- 7.22 wt%, (average 3 %) and wide range of maturity (immature- overmature). Kerogen is of type IV, some gas potential)

Ahmed, N., N.A. Siddiqui, N.Ramasamy, M. Ramkumar, M. Jamil, M. Usman, Z. Sajid & A.H.B. Abd Rahman (2020)- Geochemistry of Eocene Bawang Member turbidites of the Belaga Formation, Borneo: Implications for provenance, palaeoweathering, and tectonic setting. Geological Journal 56, 5, p. 2477-2499.
(Late Cretaceous- Late Eocene Belaga Fm of Rajang Gp (Rajang fold-thrust Belt) mostly exposed in Sibu Zone of C Sarawak. Schwaner Mountains and metamorphic rocks principal provenances for turbiditic sediments, along with some input from W Borneo. Volcanic input in Late Eocene Bawang Mb suggests involvement of some subsequent possible arc setting)

Ahmed, N., N.A. Siddiqui, M. Sanaullah, M. Jamil, M.A.F. Miraj, Z. Sajid, Z. Gul et al. (2021)- The Bawang Member, a unique unit of Belaga Formation in the Miri Zone, Central Sarawak, NW Borneo Malaysia: Revised stratigraphic and sedimentological characteristics. J. Natural Gas Geoscience 6, 1, p. 27-42
(online at: www.sciencedirect.com/science/article/pii/S2468256X21000018)
(Late Eocene Bawang Mb is youngest member of Late Cretaceous- Eocene Belaga Fm, the turbidite sequence of Rajang Group in C Sarawak. Field study in Tatau High, Miri Zone, shows four deep marine fan lithofacies)

Aitchison, J.C. (1994)- Early Cretaceous (pre-Albian) radiolarians from blocks in Ayer Complex melange, eastern Sabah, Malaysia, with comments on their regional tectonic significance and the origins of enveloping melanges. J. Southeast Asian Earth Sciences 9, 3, p. 255-262.
(Red ribbon-bedded chert blocks in Miocene mudstone matrix melange in E Sabah with E Cretaceous radiolarian fauna (pre-Albian?; no diagnostic species), older than age of oceanic basement rocks in Sulu and Celebes Seas. Chert-Spilite Fm of E Sabah, from which blocks probably derived, may represent fragments of early Pacific Ocean seafloor. Blocks incorporated into mud-matrix melange developed during E Miocene NW-directed collision and overthrusting of Sulu volcanic arc onto thinned continental crust rifted from S China)

Akiyama, Y. (1984)- A case history- exploration, evaluation and development of the Mamut porphyry copper deposit. Bull. Geological Society Malaysia 17, p. 237-255
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1984012.pdf)
(Mamut deposit in NW Sabah higher associated gold-silver than normal porphyry copper deposits. Mineralization tied to Late Miocene adamellite intrusions into Eocene- Miocene Trusmadi Fm)

Albaghdady, A., W.H. Abdullah & Lee Chai Peng (2003)- An organic geochemical study of the Miocene sedimentary sequence of Labuan Island, offshore western Sabah, East Malaysia. Bull. Geological Society Malaysia 46, p. 455-460.
(online at: www.gsm.org.my/products/702001-100618-PDF.pdf)
(Labuan island off W coast of Sabah with outcrops of E-M Miocene Temburong, Setap Shale and Belait Fms. Thermal maturity is early mature to mid mature for oil generation)

Alexander, J.B. (1956)- British Borneo. In: Lexique stratigraphique international, Stratigraphic Commision, International Geological Congress, Paris, III (Asie), 7, p. 1-313.
(First edition of North Borneo stratigraphic lexicon; see also Second edition by Fitch (1961))

Algar, S. (2012)- Big oil from "gas-prone" source rocks and leaking traps: Northwest Borneo. AAPG International Conference Exhib., Singapore 2012, Search and Discovery Article 10465, p. 1-40. *(Abstract and Presentation)*
(online at: www.searchanddiscovery.com/documents/2012/10465algar/ndx_algar.pdf)
(Murphy 2002 Kikeh Field oil discovery in offshore Sabah deepwater (>400 MMBO) in deepwater sands in thrust structure. Oil source material M Miocene terrestrial plant material, present mainly in sandstones. Most oil fields on Sabah shelf have abundant crestal faulting; presence of oil fields in 'gas province' probably due to gas leakage via faults)

Algar, S., C. Milton, H. Upshall, J. Roestenburg & P. Crevello (2011)- Mass-transport deposits of the deepwater Northwestern Borneo margin- characterization from seismic-reflection, borehole, and core data with implications for hydrocarbon exploration and exploitation. In: R.C. Shipp et al. (eds.) Mass-transport deposits in deepwater settings, Soc. Sedimentary Geology (SEPM) Special Publ. 96, p. 351-366.
(In Late Miocene to Recent deep water thrust belt off NW Borneo up to 50% of sediments large-scale remobilized mass-transport deposits. MTD's 10-200m thick, composed mainly of claystone. Intercalated with turbidites, which form sandstone reservoirs of petroleum discoveries. Thickest sands often immediately overlying MTDs. MTD lithofacies continuum from debritic claystones to more simply folded claystones)

Ali, A.M. & E. Padmanabhan (2014)- Quartz surface morphology of Tertiary rocks from North East Sarawak, Malaysia: implications for paleo-depositional environment and reservoir rock quality predictions. Petroleum Exploration and Development (China) 41, 6, p. 761-770.
(Study of surface damage of quartz crystals from weathering and diagenesis in Miocene outcrop sandstones from Sarawak. Belait conglomerates with euhedral quartz crystals with mechanical weathering defects, and higher porosity than. Lambir sandstones with more chemical weathering features. Coatings of authigenic clay and iron oxides inhibit or delay cementation, consequently preserving porosity

Ali, M.Y. (1992)- Carbonate cement stratigraphy and timing of hydrocarbon migration: an example from Tigapapan Unit, offshore Sabah. Bull. Geological Society Malaysia 32, p. 185-211.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1992022.pdf)
(Late Miocene Tigapapan Unit one of several hydrocarbon-bearing reservoirs in offshore NW Sabah Basin. Consists of bioclast-rich, clastics, interpreted as progradation storm shoal deposits. Cathodoluminescence, geochemical and isotopic studies indicate 9 stages of carbonate cementation, formed from near surface to 2 km depth. Sr isotope dating of dolomites indicates two events, 10.5 Ma and 8.9 Ma))

Ali, M.Y. (1995)- Carbonate cement stratigraphy and timing of diagenesis in a Miocene mixed carbonate-clastic sequence, offshore Sabah, Malaysia: Constraints from cathodoluminescence, geochemistry, and isotope studies. Sedimentary Geology 99, p. 191-214.
(Similar paper to Ali (1992) on carbonate cementation history in Middle-Late Miocene sandstone reservoir offshore NW Sabah)

Ali, M.Y. (2011)- Stratigraphy of Permo-Triassic Limestone in Malay Peninsula and Thailand. First EAGE South-East Asia Regional Geology Workshop, Palaeozoic Limestones of South-East Asia and South China, 1p.
(Abstract only)
(Widespread distribution of Permo-Triassic limestones in Peninsular Malaysia and Thailand. Permian Chuping Lst and Triassic Kodiang Lst in NW Malay Peninsula, M Permian-M Triassic Gua Musang Lst in Central Belt, M Permian Sumalayang Lst in E Belt, Sotong Lst in subsurface Malay Basin, etc., Many of these correlative with Ratburi Lst in Thailand)

Ali, M.Y. (2014)- An integrated analysis of the depositional control, sedimentology and diagenesis of Cenozoic carbonates from the Sarawak Basin, East Malaysia. Ph.D. Thesis Imperial College, University of London, p. 1-467.

(online at: https://spiral.imperial.ac.uk/handle/10044/1/29605)
(Comprehensive analysis of Cenozoic carbonates from Sarawak Basin, both onshore (4 Late Eocene -E Miocene units) and offshore (4 M-L Miocene build-ups in offshore C Luconia). Carbonate growth mainly controlled by paleo-basement structures: some carbonates on flat rift blocks show flat-top morphology; on tilted sub-blocks often conical shapes. Eustacy probably main controlling mechanism for carbonate growth. Late Eocene Lower Batu Gading Lst massive nummulitic facies with Pellatispira; E Miocene U Batu Gading Lst on disconformity and composed of finely bedded and brecciated limestones. Suai Lst (Te5?) fining-upward parasequences of larger foraminifera dominated by large Eulepidina spp. E Miocene Subis Lst (Te5) rich in corals, foraminifera and algae. Bekenu Lst laminated marls-shale calci-turbidites). Luconia offshore carbonates greater similarity in facies and sequences. Ten stages of calcite cementation/ dolomitisation. Presence of high T minerals indicate late stage corrosive fluids of hydrothermal origin, responsible for porosity- permeability enhancement of reservoirs)

Ali, M.Y., C.M. John & H.D. Johnson (2023)- Diagenesis of the Central Luconia carbonate platforms: the roles of early dolomitization and late hydrothermal fluids in enhancing deep reservoir properties. In: E.C. Rankey & M.C. Poppelreiter (eds.) Cenozoic isolated carbonate platforms- Focus Southeast Asia, Society for Sedimentary Geology (SEPM) Special Publ. 114, p. 1-29.
(C Luconia Miocene carbonate platform buildups one of largest regions of LNG production in world. Reservoirs complex diagenetic evolution: six stages of calcite cementation, 4 stages of dolomitization, and 1 stage of dedolomitization. Also 3 phases of major dissolution, during subaerial exposure. Reservoir properties further enhanced by early dolomitization, followed by hydrothermal-related corrosive fluids at high T (>130° C) that possibly migrated upward from depth prior to hydrocarbon migration, creating high porosity (up to 40%) and permeability (>1000 mD) within hydrocarbon reservoirs)

Ali, S.H., M.C. Poppelreiter; B.B. Saw & M.M.Shah (2023)- Facies, stratigraphy, and diagenesis of a Miocene buildup, Central Luconia Province, Malaysia. In: E.C. Rankey & M.C. Poppelreiter (eds.) Cenozoic isolated carbonate platforms- Focus Southeast Asia, Society for Sedimentary Geology (SEPM) Special Publ. 114, p. 1-24.
(Study of E11 gas field in M-L Miocene carbonate buildup in C Luconia, off Sarawak. Buildup six stratigraphic sequences, each ~50-70 m thick. Tight layers mark upper and lower boundaries of stratigraphic sequences. Larger benthic foraminifera Miogypsina and Austrotrillina restricted to M Miocene Tf1 and Tf2 (19-11.1 Ma); Amphistegina and Cycloclypeus more indicative of Late Miocene stage Tf3 (11.1-7.1 Ma).

Ali, S.H., M.C. Poppelreiter; B.B. Saw, M.M.Shah & Y. Bashir (2021)- Facies, diagenesis and secondary porosity of a Miocene reefal platform of Central Luconia, Malaysia. Carbonates and Evaporites 36, 3, 44, p. 1-25.
(online at: https://independent.academia.edu/SyedHaroonAli)
(Discussion of depositional and diagenetic processes controlling porosity of M-U Miocene carbonates in Central Luconia, offshore Sarawak. EX isolated coral/foraminiferal buildup (~ 600 m thick), with lower 300m as 5 km wide megabank. Upper part reflects platform tilting with backstepping to ~3 km wide buildup. Five stratigraphic intervals separated by slightly argillaceous limestones. Best porosity and permeability in dolomitic limestones, with intercrystalline and vuggy porosity. At least four stages of calcite cementation, three stages of dolomitization, punctuated by two stages of dissolution, compaction, and stylolitization. Etc.)

Alias, F.L. (2014)- Organic petrological and organic geochemical of Tertiary coals within the west middle block of the Pinangah coal field, Sabah, Malaysia. Masters Thesis, University of Malaya, p. 1-140.
(online at: http://studentsrepo.um.edu.my/4870/)
(Coals of E-M Miocene Tanjong Fm in Pinangah coalfield, Maliau Basin, S Sabah, excellent hydrocarbon-generative potential. Coals humic and dominated by vitrinite, >15% liptinite and low inertinite macerals. Bitumen yields 57,300-140,000 ppm. High hydrogen index up to 300 mg HC/g TOC, consistent with Type II and mixed Type II-III kerogen. Vitrinite reflectance 0.42%-0.66 Ro% (immature- early mature). With Rhizophora, Casuriana, Dactylocdalus and Podocarpus pollen. Deposition on lower delta plain)

Alias, F.L., W.H. Abdullah, M.H. Hakimi, M.H. Azhar & R.L. Kugler (2012)- Organic geochemical characteristics and depositional environment of the Tertiary Tanjong Formation coals in the Pinangah area, onshore Sabah, Malaysia. Int. J. Coal Geology 104, p. 9-21.

(Tertiary Tanjong Fm coals in Pinangah Coalfield, S Sabah, are humic, dominated by vitrinite, with significant liptinite and low inertinite macerals. Total organic carbon 51-78%, with bitumen values 57,300-140,000 ppm, therefore source rock with good hydrocarbon-generative potential. Good liquid hydrocarbons generation potential can also be expected from significant liptinitic content (>15%). Vitrinite reflectance Ro 0.42- 0.66%, indicating immature- early mature stage for hydrocarbon generation)

Allen, A.W. (1951)- The geology of the Lundu-Sematon-Tanjong Datu area of the first division of Sarawak. M.Sc. Thesis Durham University, p. 1-170.
(online at: http://etheses.dur.ac.uk/10289/1/10289_7083.PDF?UkUDh:CyT)

Allman-Ward, P. (1998)- Subsurface deepwater challenges in Brunei. Proc. 12th Offshore Southeast Asia Conference Exhibition (OSEA 98), Singapore, SE Asia Petroleum Exploration Society (SEAPEX), p. 219-233.
(Offshore Brunei deepwater play in marine turbidites with variable reservoir development. Only sizeable deepwater finds to date: Brunei Shell Merpati (1992) gas/condensate field and Elf Perdana oil discovery)

Almond, J., P. Vincent & L.R. Williams (1990)- The application of detailed reservoir geological studies in the D18 Field, Balingian Province, offshore Sarawak. Bull. Geological Society Malaysia 27, p. 137-159.
(online at: www.gsm.org.my/products/702001-101079-PDF.pdf)
(Reservoir study of 1981 D18 Field discovery, 56 miles NW of Bintulu, Balingian province, off Sarawak. Productive reservoirs E Miocene (Cycle II) lower coastal plain and delta plain deposits. Geological model with NW to NE progradation and abandonment of small delta lobes in river-dominated lower delta plain setting)

Alshebani, K.A., W.H. Abdullah & A.H. Abd. Rahman (2003)- Biomarker characterization and thermal maturity evaluation of Ganduman Formation, Sahabat area, Dent Peninsula, E Sabah, Malaysia. Bull. Geological Society Malaysia 46, p. 461-466.
(online at: www.gsm.org.my/products/702001-100617-PDF.pdf)
(Pliocene sediments fluvio-deltaic/ lacustrine Ganduman Fm in Sahabat area of Dent Peninsula, E Sabah, still immature for hydrocarbon generation. Extract of one immature sandstone sample thermally mature, suggesting migrated hydrocarbons)

Anderson, J.A.R. & J. Muller (1975)- Palynological study of a Holocene peat and a Miocene coal deposit from NW Borneo. Review Palaeobotany Palynology 19, p. 291-351.
(Palynology study of Holocene raised peat bog near Marudi (Sarawak) and Miocene coal near Berakas (Brunei) and compared with present-day swamp vegetation along NW Borneo coast. 76 pollen and spore types recognized. Floristic composition of mixed swamp forest stage in both bogs closely comparable. Only one spore type, Stenochlaena areolaris became extinct in Borneo)

Anuar, A., P. Abolins, P. Crevello & W.H. Abdullah (2003)- A geochemical evaluation of the west Crocker Formation- clues to deepwater source rock facies. Warta Geologi 29, 6, p. 267-268. *(Abstract only)*
(online at: https://gsmpubl.files.wordpress.com/2014/09/ngsm2003006.pdf)
(Geochemistry of outcrop samples from deep water facies of West Crocker Fm around Kota Kinabalu. Pelagic basin floor shales with low organic content (TOC <0.5%) and unlikely source facies. Biomarkers mainly marine signature (even C27, C28, C29 sterane, presence of C30 steranes, absence of higher plant indicators oleanane and bicadinanes and low Tm/ Ts and Pr/Ph ratios). Fine turbiditic shales (levee/overbank deposits or fine tails of turbidity currents with variable TOC (0.11-2.5%); possible source facies. Shales associated with slumps and debris flows with TOC of 0.42- 2.75%. Debris flows can be very carbonaceous, with TOC up to 69%, with biomarkers with strong terrigenous, higher plant signature (marked C29 preference, lack of C30 steranes, high 18a(H) oleanane), suggesting promising source rock facies. Vitrinite reflectance shows variable maturity of West Crocker Fm (Ro 0.65- >2.0%))

Anuar, A. & R.R.F. Kinghorn (1995)- Sterane and iriterpane biomarker characteristics from oils and sediment extracts of the Middle-Upper Miocene sequences, Northern Sabah basin. In: G.H. Teh (ed.) Proc. AAPG-GSM Int. Conference 1994, SE Asian basins; oil and gas for the 21st century. Bull. Geological Society Malaysia 37, p. 415-436.

(online at: www.gsm.org.my/products/702001-100937-PDF.pdf)
(Biomarker studies on oils and sediments from N Sabah Basin wells show dominantly terrigenous organic matter source for hydrocarbons: high triterpane/sterane ratios, compounds diagnostic of land-derived plant organic matter such as oleanane and resins W, T and R, and predominance of C 29 regular steranes over C27 and C28. Majority of extracted sediments immature (first authors to suggest landplants as main hydrocarbon source in deep marine enviroments around Borneo?; JTvG))

Anuar, A. & A.J. Muhamad (1997)- A comparison of source rock facies and hydrocarbon types of the Middle Miocene sequence, Offshore NW Sabah Basin, Malaysia. In: J.V.C. Howes & R.A. Noble (eds.) Proc. Int. Conference Petroleum Systems of SE Asia and Australasia, Jakarta 1997, Indonesian Petroleum Association (IPA), p. 773-786.
(Potential source rocks in NW Sabah Basin in three broad paleoenvironments: 1) coastal-lower coastal plain; 2) fluviomarine and 3) continental shelf-deep marine areas. Preservation of organic matter seems related to high productivity, high sediment accumulation rates and resistant nature of Type I11 higher land plant waxes to oxidation and biodegradation. Anoxic depositional conditions not essential for organic matter preservation. Oils discovered in each of these settings similar biomarkers: large oleanane peak, common bicadinanes, and C2q-tetracyclic terpane, but only a small portion of source extracts correlates positively with Sabah oils)

Aro, J.J., D. Johari, A.R.M. Yusoff & A.U. Ambun (2005)- Evaluation of the coal resources of the Tutoh Coal Field, Sarawak, Malaysia. Dept. Mineral and Geoscience Malaysia, Kuching, Sarawak, Report JMG.SWK (SAB), p. 1-56. *(Unpublished)*

Asis, J., M.N.I. Abdul Rahman, B. Jasin & S. Tahir (2015)- Late Oligocene and Early Miocene planktic foraminifera from the Temburong Formation, Tenom, Sabah. Bull. Geological Society Malaysia 61, p. 43-47.
(online at: www.gsm.org.my/products/702001-101677-PDF.pdf)
(Temburong Fm at Paal River, Tenom district, SW Sabah, fine-grained flysch deposits of distal part of deep-sea fan. Two shale samples with planktonic foraminifera: (1) Globorotalia ciperoensis Zone (P22; Chattian) and (2) Catapsydrax dissimilis-Praeorbulina sicana Zone (N7; late Burdigalian))

Asis, J. & Basir Jasin (2010)- Radiolaria Kapur dalam kompleks ofiolit Teluk Darvel di Sungai Sipit Lahundai, Kunak, Sabah. Borneo Science 27, p. 1-4.
(online at: http://borneoscience.ums.edu.my/wp-content/uploads/2010/09/)
('Cretaceous radiolaria in the Darvel Bay Ophiolite Complex at the Sipit Lahunday River, Kunak, Sabah'. Darvel Bay Ophiolite Complex consists of mafic-ultramafic association, overlain by bedded chert. Bedded chert has abundant radiolarians and is exposed at Sipit Lahundai River, 22 km from Kunak. Three Aptian- Turonian assemblages)

Asis, J. & Basir Jasin (2011)- Some Cretaceous radiolaria from Darvel Bay Ophiolite complex, Kunak, Sabah. Proc. 24th National Geoscience Conference 2011 (NGC 2011), Johor Baru, B13, p. 82. *(Abstract)*
(online at: http://geology.um.edu.my/gsmpublic/NGC2011/NGC2011_Proceedings.pdf)
(Darvel Bay Ophiolite Complex of SE Sabah withperidotite, gabbro, pillow basalt and reddish-brown chert. Cherts along Kunak-Semporna road with 56 species of radiolaria, of 3 assemblages: I: Aptian-Albian, with Sticomitra simplex, Crucella bossoensis, etc.; II: Albian-Cenomanian, with Xitus mclauglini, Pseudoaulophacus sculptus, Dictyomitra gracilis, etc.; III: Turonian, with Pseudotheocampe tina, Crucella cahensis, Dictyomitra multicostata, etc. Bedded chert with abundant radiolarians indicates high plankton productivity, possibly related to upwelling. Absence of limestone suggests deposition below CCD depth)

Asis, J. & Basir Jasin (2012)- Some Cretaceous radiolaria from Kuamut Melange, Kunak, Sabah. Geological Society Malaysia, Proc. National Geoscience Conference, Kuching 2012, Paper A2, p. 9-10.
(online at: https://gsm.org.my/articles/702001-101659/)
(E Miocene Kuamut melange with broken Paleogene rock formations and dismembered ophiolite blocks embedded in shale matrix. Chert interbedded with folded siliceous shale and contains Aptian- Turonian radiolaria; slightly longer version below)

Asis, J. & Basir Jasin (2012)- Aptian to Turonian radiolaria from the Darvel Bay Ophiolite Complex, Kunak, Sabah. Bull. Geological Society Malaysia 58, p. 89-96.
(online at: https://gsmpubl.files.wordpress.com/2014/08/bgsm2012013.pdf)
(Darvel Bay Ophiolite Complex (formerly known as Chert-Spilite Fm) of E Sabah composed of ultramafics, basalts, etc., capped by red radiolarian chert. Folded bedded cherts with 56 species of Aptian-Turonian radiolarians in three assemblages. I (Aptian-Albian) with Sticomitra simplex, Crucella bossoensis, Xitus clava, Dictyomitra communis, etc.; II (Albian-Cenomanian)with Xitus mclaughlini, Pseudoaulophacus sculptus, Dictyomitra gracilis, etc.; III (Turonian) with Pseudotheocampe tina, Ultranapora cretacea, Alievium superbum, Crucella cachensis, etc. Abundance of radiolarians reflects high planktonic productivity. Absence of limestone indicates deposition below Calcite Compensation Depth)

Asis, J. & Basir Jasin (2013)- Aptian to Turonian radiolarians from chert blocks in the Kuamut Melange, Sabah, Malaysia. Sains Malaysiana 42, 5, p. 561-570.
(online at: http://www.ukm.my/jsm/pdf_files/SM-PDF-42-5-2013/02%20Junaidi.pdf)
(Miocene Kuamut Melange in Kunak district, SE Sabah, probably unconformably overlies Darvel Bay Ophiolite Complex. Consists of broken Paleogene formations and dismembered ophiolite blocks embedded in shale with chert matrix. Fourteen samples from 1-2.5m thick chert-siliceous shale section on pillow basalt, with 45 species of radiolaria. Three assemblages: I (Aptian-Albian), II (Albian-Cenomanian) and III (Turonian). Cherts deposited on floor of marginal ocean basin in Cretaceous and tectonically deformed in melange in M Miocene)

Asis, J. & Basir Jasin (2013)- Miocene larger benthic foraminifera from the Kalumpang Formation, Tawau, Sabah: preliminary interpretation. Proc. National Geoscience Conference (NGC), Ipoh 2013, Geological Society Malaysia, p. 66-68. *(Extended Abstract only)*
(online at: http://geology.um.edu.my/gsmpublic/NGC2013/...)
(Miocene larger foraminifera from Spit Lst unit of Kalumpang Fm in Teck Guan Quarry, Tawau, SE Sabah, with 14 species of larger foraminifera, incl. Lepidocyclina (Nephrolepidina) spp., Lepidocyclina (Eulepidina), Miogypsina, Cycloclypeus (Katacycloclypeus) annulatus, Flosculinella bontangensis, etc. (most likely age Middle Miocene; Langhian; JTvG). See also Asis and Jasin 2015))

Asis, J. & Basir Jasin (2015)- Miocene larger benthic foraminifera from the Kalumpang Formation in Tawau, Sabah. Sains Malaysiana 44, 10, p. 1397-1405.
(online at: www.ukm.my/jsm/pdf_files/SM-PDF-44-10-2015/04%20Junaidi%20Asis.pdf)
(Samples of Kalumpang Fm/ Sipit Mb reefal limestone in 46m thick section at Teck Guan Quarry, 50km E of Tawau, SE Sabah. Formation faulted and thrusted against Cretaceous Darvel Bay Ophiolite Complex at Darvel Bay area. 17 species of larger foraminifera, in two assemblages: (1) Lepidocyclina (N) parva, L. (Eulepidina) formosa (Te5, Aquitanian-Burdigalian; E Miocene); (2) Lepidocyclina (N) sumatrensis, Lepidocyclina (N) angulosa, Miogypsina sp., Katacycloclypeus annulatus, Cycloclypeus spp., Flosculinella bontangensis, etc. (Letter Stage Tf1-2; M Miocene))

Asis, J., S. Tahir, Basir Jasin & B. Musta (2018)- Lower Miocene, larger benthic foraminifera fauna and depositional environment of limestone facies from Batu Luang, Klias Peninsula, Sabah. Bull. Geological Society Malaysia 65, p. 125-130.
(online at: https://gsm.org.my/products/702001-101731-PDF.pdf)
(Limestone unit exposed in Batu Luang with Lepidocyclina (N.) verbeeki assemblage (zone Te5, early Miocene (Aquitanian)). Small reef deposited in shallow marine environment)

Asis, J., S. Tahir, Basir Jasin & B. Musta (2018)- Oligocene-Early Miocene planktonic foraminifera from the Temburong Formation, Klias Peninsula, Sabah, Malaysia. ASM Science Journal, 11, Special Issue 2, p. 207-217.
(online at: https://www.akademisains.gov.my/asmsj/?mdocs-file=3705)
(Three planktonic foram zones in Temburong Fm exposed at Klias Peninsula: P21/N2, N4 and N5 (Chattian to Aquitanian). Deposited as distal part of deep-sea fan)

Asis, J., S. Tahir, B. Jasin, N. Abdullah & B. Musta (2018)- Larger benthic foraminifera from Early Miocene limestone of the Setap Shale Formation at Batu Luang, Klias Peninsula, Sabah, Malaysia. Int. Research J. Earth Sciences 6, 10, p. 12-19.
(online at: http://www.isca.me/EARTH_SCI/Archive/v6/i10/2.ISCA-IRJES-2018-013.pdf)
(Limestone unit of Setap shale Fm exposed at Batu Luang, Klias Peninsula, Sabah. Limestone with encrusting coral in lower part. Upper part massive, with 11 species of larger foraminifera, incl. Austrotrillina, Lepidocyclina (Eulepidina), Lepidocyclina (Nephrolepidina) spp., Miogypsinoides dehaarti, Spirocyclopeus sp. and Tansinhokella, idicative of Te5, earliest Miocene (older than previous work))

Asis, J., S. Tahir, B. Musta & Basir Jasin (2018)- Lower Miocene planktic foraminifera from the Temburong Formation in Menumbok, Klias Peninsula, Sabah. Bull. Geological Society Malaysia 65, p. 59-62.
(online at: https://gsm.org.my/products/702001-101739-PDF.pdf)
(Lower Miocene Temburong Fm exposed at SW Klias Peninsula two local biozones, N4 and N5. Deposited in distal deep-sea fan environment in latest Oligocene- earliest Miocene (U Chattian- Aquitanian))

Asis, J., S. Tahir, B. Musta, Basir Jasin, H.F.W. Soehady & D. Gabda (2019)- Paleoclimate of Upper Oligocene-Lower Miocene Temburong Formation, Klias Peninsula, Sabah, base on planktonic foraminifera assemblage. In: 12th Seminar on Science and Technology, Journal of Physics: Conference Series 1358, 012071, p. 1-9.
(online at: https://iopscience.iop.org/article/10.1088/1742-6596/1358/1/012071/pdf)
(Temburong Fm on Klias Peninsula, Sabah composed of flysch-type deposit. Planktonic foraminifera in 9 samples 3 zones, P21-P22, N4 and N5-N6. Cool climate indicators (Catapsydrax, small Globigerina) more common in Late Oligocene sediment, gradually shifted to warm climatic indices (Globigerinoides spp., Globoqudrina altispira) in Lower Miocene section)

Asis, J., S. Tahir, A.R. Rahim, Z. Konjing, R. Che Kob & H.D. Tjia (2017)- Smaller benthic foraminifera analysis of Kudat Formation, Kudat, Sabah: preliminary Interpretation. Geological Behavior 1, 1, p. 27-29.
(online at: https://geologicalbehavior.com/gbr-01-2017-27-29/)
(Small bathyal-abyssal agglutinated benthic foraminifera (Bathysiphon, Haplophragmoides Rhabdammina, etc.) in mudstone samples of E Miocene Sikuati Mb and Matunggong Mb. Tajau Mb also deep-sea agglutinated foraminifera together with reworked (or displaced?) shallow marine calcareous foraminifera)

Asiwaju, L., K.A. Mustapha, W.H. Abdullah, S.G. Sia & M.H. Hakimi (2024)- Geochemistry of Cenozoic coals from Sarawak Basin, Malaysia: implications for paleoclimate, depositional conditions, and controls on petroleum potential. Int. J. Coal Science Technology 11, 47. p. 1-38.
(online at: https://link.springer.com/article/10.1007/s40789-024-00690-0)
(Study of 40 Tertiary coals from Mukah-Balingian and Merit-Pila coalfelds in Sarawak Basin, N Borneo. a Generally warm and humid climate during accumulation of paleopeats, but Balingian coals accumulated under relatively drier and strongly seasonal paleoclimate in Late Pliocene. Low to moderately-high ash contents of Sarawak Basin coals indicate presence of ombrotrophic and rheotrophic peat deposits)

Atkinson, C.D., M.J.B.G. Goesten, A. Speksnijder & W. van der Vlugt (1986)- Storm-generated sandstone in the Miocene Miri Formation, Seria Field, Brunei (NW Borneo). In: R.J. Knight & R.J. McClean (eds.) Shelf sands and sandstones, Canadian Society of Petroleum Geologists, Memoir 11, p. 213-240.
(Cores from 20-25m thick reservoir interval in U Miocene Miri Fm, Seria field of Baram Delta Basin composed predominantly of silty-sandy shales interspersed with numerous sandstone beds. Sands two main types: (1) thin (0.1-1.5m), fining-upward units with patchy, sheet-like geometry and lateral extent of 100- 1500m (single storm events); and (2) thicker (1.5- 3m), more extensive (>2 km) amalgamated sands (stacked storm sands of the lower-middle shoreface. Overall shelf regression and shoaling, followed by transgression and deepening)

Aziz Bin Ali, Che (1993)- Sedimentology and diagenesis of the E11 carbonate buildup and the Subis Limestone (Miocene), Sarawak, Malaysia. Ph.D. Thesis, University of Reading, p. . *(Unpublished)*

Azman, N.I. & S.N.F. Jamaludin (2017)- Relationship of oil seep in Kudat Peninsula with surrounding rocks based on geochemical analysis. Proc. 5th Int. Conf. Geological, Geographical, Aerospaces and Earth Sciences, Bali 2017, IOP Conference Series: Earth and Environmental Science 88, 012014, p. 1-6.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/88/1/012014/pdf)
(Oil seeps in Sikuati area in central Kudat Peninsula in carbonaceous laminated sediments of E Miocene Sikuati Mb. First reported in 1881, in 'Kampung Minyak Sikutai'. Biomarkers suggest source rock is immature and from peat-coal (fluvio-deltaic) environment)

Bachir, O. (1998)- Asymmetrical deformation, thrusts and microscale fracturation of the Nyalau Formation at Bintulu. Bull. Geological Society Malaysia 42, p. 55-62.
(online at: www.gsm.org.my/products/702001-100856-PDF.pdf)
(Oligo-Miocene Nyalau Fm deltaic sandstones and shales. Episode of deformation in Bintulu area of Sarawak creating ENE-WSW oriented folds-thrusts, with vergence to S. Tied to Late E- M Miocene collision of Luconia block with Borneo)

Back, S., C.K. Morley, M.D. Simmons & J.J. Lambiase (2001)- Depositional environment and sequence stratigraphy of Miocene deltaic cycles exposed along the Jerudong Anticline, Brunei Darussalam. Journal of Sedimentary Research 71, 6, p. 913-921.
(Km-scale prograding delta clinoforms in outcrop. Large clinoforms at base of Miocene Belait delta represent three major sand-shale sequences. Accumulation most likely during relative sea-level lowstand. Overlying 1-1.5 km thick shale unit interpreted as transgressive and early highstand conditions. Rapid progradation of thick sand-dominated shoreface deposits characterizes late highstand. All sediments formed in shoreface to shelfal setting in front of mud-rich delta, not continental-slope to deep-marine environment)

Back, S., F. Strozyk, P.A. Kukla & J.J. Lambiase (2008)- Three-dimensional restoration of original sedimentary geometries in deformed basin fill, onshore Brunei Darussalam, NW Borneo. Basin Research 20, p. 99-117.
(W flank of Jerudong Anticline, onshore Brunei, exposes base of majorMiocene mud-rich delta, including km-scale prograding clinoforms, delta-front turbidites and large- scale syndepositional faults. Lateral continuation of system in subsurface of Belait Syncline is documented on 2D seismic data and wireline logs)

Back, S., H.J. Tioe, T.X. Thang & C.K. Morley (2005)- Stratigraphic development of synkinematic deposits in a large growth-fault system, onshore Brunei Darussalam. J. Geological Society, London, 162, p. 243-257.
(Km-scale syn-sedimentary fault in outcrop in M Miocene deltaics along Jerudong Anticline, onshore Brunei Darussalam)

Bacon, C.A. (2021)- Seismic anisotropy and microseismicity: from crustal formation to subduction termination. Ph.D. Thesis, University of Cambridge, p. 1-220.
(online at: https://www.repository.cam.ac.uk/handle/1810/334765)
(Results of Cambridge Volcano Seismology network in N Borneo (Sabah), in conjunction with recent tomographic model of region, reflect recent (past ~20 Myr) events in tectonic history of N Borneo. In NW Sabah, Crocker Range formed during termination of subduction of proto-S China Sea. In SW Sabah extension played an important role in subsequent tectonic evolution of N Borneo following subduction of Celebes Sea and opening of Sulu Sea. Ongoing extension in region around Mt Kinabalu)

Bacon, C.A., N. Rawlinson, S. Pilia, A. Gilligan, D. Wehner, D.G.Cornwell & F. Tongkul (2022)- The signature of lithospheric anisotropy at post-subduction continental margins: new insight from XKS splitting analysis in northern Borneo. Geochem. Geophysics Geosystems 23, e2022GC010564, p. 1-17.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2022GC010564)
(On seismic anisotropy in lithosphere under N Borneo, related to tectonic processes. N Borneo has undergone two phases of subduction followed by termination in last 25 Myrs. Compression and extension events related to termination and post-subduction processes have left strong imprints in upper 100 km of Earth)

Bailey, P.S. (1963)- The ultramafics of the Silam-Beeston Range, Darvel Bay, North Borneo. M.Sc. Thesis University of Durham, p. *(Unpublished)*

Baioumy, H., A.M.A. Salim, N. Ahmed, M. Maisie & K. Al-Kahtany (2021)- Upper Cretaceous- Upper Eocene mud-dominated turbidites of the Belaga Formation, Sarawak (Malaysia): 30Ma of paleogeographic, paleoclimate and tectonic stability in Sundaland. Marine and Petroleum Geology 126, 104897, p. 1-19.
(online at: www.researchgate.net/profile/Nisar-Ahmed-22/publication/348400144_Upper_Cretaceous...Etc)
(U Cretaceous- U Eocene Belaga Fm (Rajang Gp) deep-water sediments accumulated as one of biggest ancient submarine fans, over 30 Myrs. Five members, seven turbidite lithofacies, dominated by mudstone. All members sourced from felsic-intermediate igneous rocks, probably Cretaceous granites and tonalities of Schwaner Mts to SW. Abundance of kaolinite, etc. indicate warm-humid paleoclimate for 30 Myrs)

Baioumy, H., A.M.A. Salim, M.H. Arifin, M.N.A. Anuar & A.A. Musa (2018)- Geochemical characteristics of the Paleogene-Neogene coals and black shales from Malaysia: implications for their origin and hydrocarbon potential. J. Natural Gas Science Engineering 51, p. 73-88.
(On Cenozoic coals and associated black shales in Peninsular Malaysia (Eocene- Oligocene coals in small basins on West coast), Sarawak (Late Oligocene- Miocene coals in Nyalau, Liang, Begrih and Balingian Fms) and S Sabah (M Miocene coals in Tanjong Fm). All have mixed Type II-III kerogens and hydrogen index suggesting potential for gas and oil generation. Coals and black shales from M Miocene Tanjong Fm formed under wetter climate conditions than others)

Bait, B. (2003)- Geology of Kinabalu field and its water-injection scheme. In: G.H. Teh (ed.) Petroleum Geology Conference and Exhibition 2002, Bull. Geological Society Malaysia 47, p. 165-179.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm2003a12.pdf)
(Geology and development of Late Miocene shallow marine 'L sandstone' reservoir in 1989 Kinabalu oil discovery, offshore Sabah shelf. Hydrocarbons in >30 reservoirs, trapped against Kinabalu growth fault)

Bait, B. & R.M. Banda (1994)- Tertiary basins of North Sarawak Malaysia: a field excursion in the Tatau-Bintulu and Miri areas. AAPG International Conference Exhibition, Miri, 1994.

Bakar, B., S. Hj. Tahir & J. Asis (2017)- Deep marine benthic foraminiferal from Temburong Formation in Labuan Island. Earth Sciences Malaysia, 1, 2, p. 17-22.
(online at: https://earthsciencesmalaysia.com/archives/ESMY/2esmy2017/2esmy2017-17-22.pdf)
(Benthic foraminifera from mudstones of Late Oligocene- E Miocene deep marine flysch-type Temburong and Crocker Fms of Labuan Island, NW Sabah Basin. 37 species identified, dominated by Ammosphaeriodina spp and Bathysiphon spp.; everything else rare. Agglutinated foraminifera assemblages suggest 'upper abyssal' paleo-water depths)

Balaguru, Allagu (1997)- Sedimentologi dan stratigrafi batuan sedimen Miosen di Lembangan Malibau, Sabah. Bull. Geological Society Malaysia 40, p. 177-195. *(online at: https://www.academia.edu/30095203/Sedimentologi_dan_stratigrafi_batuan_sedimen_Miosen_di_Lembangan_Malibau_Sabah_Sedimentology_and_stratigraphy_of_Miocene_sediment_in_the_Malibau_Basin_Sabah)*
(Revision of stratigraphy of Malibau Basin in Sabah, comprising E-M Miocene Tanjong Fm, unconformably overlain by middle M Miocene- early Late Miocene Kapilit Fm)

Balaguru, A. (2001)- Tectonic evolution and sedimentation of the southern Sabah Basin, Malaysia. Ph.D. Thesis, University of London, p. 1-420. *(Unpublished)*

Balaguru, A. (2008)- Tectonic evolution, sedimentation and chronostratigraphic chart of Sabah, Malaysia. Proc. Petroleum Geology Conference Exhibition (PGCE), Kuala Lumpur 2008, EGU, p.. 243-244. *(Poster Abstract)*
(online at: https://www.earthdoc.org/docserver/fulltext/2214-4609/258/P28.pdf)
(At least three major episodes linked to NW-SE compression coinciding with subduction of Proto-South China Sea: (1) Late Eocene (Sarawak Orogeny; collision of Luconia Continental Block; onshore Sarawak only); (2) middle E Miocene (22-20Ma; Sabah Orogeny-BMU-Base Miocene Unc.; collision of Dangerous Ground continental block to NW Borneo and referred as 'Sabah Orogeny') and (3) early M Miocene (15.5Ma, MMU-M Miocene Unc./DRU-Deep Regional Unconformity; collision in N Borneo between Cagayan Arc and Palawan

micro continental block. Late Miocene major folding-uplift event of Shallow Regional Unconformity (SRU, 8.6Ma) probably caused by NW-SE trending strike-slip faulting and transpressional fault movement. Transpression along major strike-slip faults in region probably continued during Late Pliocene and possibly related to propagation of deformation from Sulawesi towards NW Sabah)

Balaguru, A. (2009)- Basin evolution, stratigraphy and petroleum system of the NE Sabah Basin: based on integrated onshore and offshore studies. Proc. Petroleum Geology Conference & Exhibition (PGCE), Kuala Lumpur 2009, p. 1-4.
(At least 3 major tectonic phases in Mio-Pliocene in NE Sabah basin: pre-rift forearc, rift and post-rift inversion. Regional intra-E Miocene unconformity as consequence of collision of Dangerous Ground Block with NW Borneo. End of rifting related to 15.5 Ma collision of Palawan microcontinent and Cagayan arc, producing inversion and M Miocene unconformity. Late Miocene unconformity uplift and erosion related to 8.6 Ma collision of Philippine Block and SE margin of SE Asia)

Balaguru, A. & R. Hall (2009)- Tectonic evolution and sedimentation of Sabah, North Borneo, Malaysia. Extended Abstract AAPG International Conference Exhibition, Cape Town 2008, p. 1-15.
(online at: www.searchanddiscovery.net/documents/2009/30084balaguru/images/balaguru.pdf)
(At least 3 major episodes of NW-SE compression coinciding with ongoing subduction of proto-South China Sea during Late Eocene, E Miocene and M Miocene)

Balaguru, A. & T. Lukie (2012)- Tectono-stratigraphy and development of the Miocene delta systems on an active margin of Northwest Borneo, Malaysia. Proc. Petroleum Geology Conference Exhibition (PGCE), Kuala Lumpur 2012, Warta Geologi (Newsletter Geological Society Malaysia) 38, 2, p. 127-129.
(online at: https://gsmpubl.files.wordpress.com/2014/09/warta38_21.pdf)
(Extended Abstract. Miocene- Recent regressive fluvio-deltaic systems progressively deformed and overlie Oligocene low-metamorphic Crocker accretionary complexes. Three deltaic complexes, generally younging from E to W: (1) mid E Miocene - early M Miocene Meligan Delta is separated by M Miocene unconformity (= Deep Regional unconformity) from (2) M-L Miocene Champion Delta; separated by Late Miocene Shallow Regional Unconformity from (3) Baram Delta)

Balaguru, A. & G. Nichols (2004)- Tertiary stratigraphy and basin evolution, Southern Sabah (Malaysian Borneo). J. Asian Earth Sciences 23, p. 537-554.
(Stratigraphy revision, with recognition of late E Miocene regional unconformity around 22-19 Ma, earlier than generally accepted age of ~17 Ma. Cretaceous? ophiolitic basement overlain by Eocene accretionary complex and Oligocene deep marine forearc sediments. Late Oligocene- E. Miocene melange formation, etc.)

Balaguru, A., G.J. Nichols & R. Hall (2003)- The origin of the 'circular basins' of Sabah, Malaysia. Bull. Geological Society Malaysia 46, p. 335-351.
(online at: https://gsm.org.my/wp-content/uploads/2023/04/bgsm2003055.pdf)
(Sub-circular basins' of Meliau, Malibau and Tidung areas are structurally controlled synclines, interpreted as remnants of single large basin, deformed in NW-SE trending transpressional zones. Recognition in field of E Miocene regional unconformity, possibly equivalent to Deep Regional Unconformity offshore. Below unconformity deposits of Eocene accretionary complex over ophiolitic basement and Oligocene Labang/ Kuamut Fms deep water succession formed in forearc basin, and underwent syn-depositional deformation. Above unconformity is Tanjung Fm of Late E Miocene to M Miocene (NN3-NN5))

Balaguru, A., G.J. Nichols & R. Hall (2003)- Tertiary stratigraphy and basin evolution of Southern Sabah: implications for the tectono-stratigraphic evolution of Sabah, Malaysia. In: G.H. Teh (ed.) Petroleum Geology Conference 2002, Bull. Geological Society Malaysia 47, p. 27-49.
(online at: https://gsm.org.my/articles/702001-100610/)
(Revised stratigraphy and tectonic evolution of S Sabah. E Miocene (Burdigalian; ~22-19 Ma) uplift/erosion event in outcrop, probably equivalent to Deep Regional Unconformity offshore (but usually placed at 17 Ma). Eocene accretionary complex over ophiolitic basement and Late Paleogene deep water forearc basin series, including extensive melange. Localised limestone deposition during E Miocene uplift followed by up to 6000m of

M Miocene deltaic clastics in two coarsening-upward successions. E Miocene unconformity result of deformation and uplift following underthrusting of S China Sea continental crust, which terminated Paleogene subduction beneath N Borneo. Renewed subsidence related to rifting in Sulu Sea. Transpressional deformation in Late Pliocene, possibly related to propagation of deformation from Sulawesi towards NW Sabah)

Balaguru, A., J. Tuner, L. Lim & L. Light (2017)- Unraveling source to sink of the Oligocene to Recent sucessions and stratigraphic nomenclatures of NW Borneo: integrated seismic stratigraphy and onshore evaluation. Proc. Asia Petroleum Geoscience Conference and Exhibition (APGCE 2017), EAGE, Kuala Lumpur, 43088, p. 189-192. *(Extended Abstract)*

Banda, R.M. (1994)- Planktonic foraminiferal biostratigraphy of Miri-Tinjar road section, North Sarawak, Malaysia. In: F. Chand (conv.) Proc. 25th Geological Conference, Technical Papers, 6, Geological Survey of Malaysia, p. 77-116.

Banda, R.M. (1998)- The geology and planktic foraminiferal stratigraphy of the Northwest Borneo basin, Sarawak, Malaysia. Ph.D. Thesis, University of Tsukuba, Japan, p. 1-145.
(online at: www.tulips.tsukuba.ac.jp/limedio/dlam/B14/B1451308/....)
(Overview of NW Borneo/ West Sarawak geology, mainly reflecting Early Cretaceous- Eocene period of S-directed subduction, creating accretionary complexes, which ceased after Late Eocene Luconia Block collision. Followed by study of planktonic foraminifera from overlying Late Oligocene-Pliocene basin)

Banda, R.M. (2000)- The planktic foraminiferal biostratigraphy of the Miri-Gunong Subis area, Sarawak, Malaysia. Technical Papers Min. Geoscience Dept. Malaysia 1, p. 89-131.
(Miri-Gunong Subis area four lithostratigraphic unit: Suai Fm metamorphosed shale (Ga binaiensis Zone; early Early Miocene), Sibuti mudstone (Gs sicanus Zone; Mid Early Miocene), Lambir sandy alternations (Orbulina suturalis-Gr peripheronda Zone; early Mid Miocene) and Miri Fm (barren) sandy alternations)

Banda, R.M. & A.U. Ambun (1997)- Major geological events since Cretaceous in Sarawak, Malaysia. In: M.P.J. Militante (ed.) Third Int. Symposium Int. Geological Correlation Program (IGCP), Project 350, Cretaceous environmental change in East and South Asia. J. Geological Society of the Philippines 52, p. 198-215.
(Sarawak and NE Kalimantan 5 tectonostratigraphic units 1) Borneo Basement of Carboniferous-Triassic volcanics and metamorphics in NW and C Kalimantan; 2) E Cretaceous melange, widespread in Sarawak and Kalimantan, slices of W Sarawak Block, shallow to deep marine sediments and underlying ophiolitic rocks; 3) Folded Rajang Group, 5000' of Early Cretaceous- Paleocene sediments in accretionary prism formed in response to S- directed subduction of oceanic lithosphere from E Cretaceous- Late Eocene; 4) Isolated Basin clastics, and 5) Peripheral Neogene basin clastics. Late Eocene regional deformation and uplift, termed Sarawak Orogen, with development of major faults like Lupar, Sebangkoi and Mersing)

Banda, R.M., Amiruddin, W. Gunawan, A. Yan, Y. Ramli, D. Badang, T. Galina & R. Banjar (2012)- Progress report- Malaysian-Indonesian geological correlation program in the border area Sintang-Silantek area. Geological Society Malaysia, Proc. National Geoscience Conference, Kuching 2012, Paper A20, p. 36-38.
(online at: https://gsm.org.my/articles/702001-101659/)
(In Sintang-Silantek area same geological formations are stretching NW-SE across Sarawak- Kalimantan border but names and stratigraphic nomenclatures differ: (1) in NE tightly folded turbiditic sediments (Kapuas Complex, Lupar Fm) in fault contact with: (2) Lubok Antu= Keriau melange/ Kapuas Complex belt of broken formation, ophiolitic rocks and Jurassic-Cretaceous cherts in sheared shale matrix (Danau Complex, Pakong mafic complex), possibly as young as Paleocene?; (3) in SW sandstone basins of Kantu (= Silantek Fm; Late Eocene?), Tutoop (= Plateau Sst) and Ketangau Fms. Widespread mainly Miocene intrusives in Sintang and Silantek area, named Sintang Intrusives)

Banda, R.M. & E. Honza (1996)- Miocene stratigraphy of northwest Borneo Basin. Warta Geologi (Newsletter Geological Society Malaysia). 22, 3, p. 242-243. *(Brief abstract only)*

(Regional Mapping Programme of Geological Survey of Malaysia in NW Sarawak defined four formations in Miocene of area: Miri Fm (Mid to Late Miocene), Lambir Fm (early M Miocene), Sibuti Fm in mid E Miocene and Suai Fm from early E Miocene. Additional member ise Subis Limestone Mb in the lower part of Sibuti Fm)

Banda, R.M., D. Lakkui, P. Chung & N. Lian (2009)- Lithostratigraphic and biostratigraphic correlations of Miocene sediments in the Pinangah coal basin and surrounding areas, Sabah. In: 11th Regional Congress Geology Mineral Energy Resources of SE Asia (GEOSEA 2009), Kuala Lumpur, p. 50. *(Abstract only)*
(online at: https://gsm.org.my/articles/702001-101669/)
(Summary of mapping coal in outcrops of M Miocene Tanjong Fm, central South Sabah)

Barckhausen, U., D. Franke, D. Behain & H. Meyer (2002)- New insight into the crustal structure of the continental margin offshore NW Sabah/Borneo. EGS 27th General Assembly, Nice, EOS Transactions, American Geophysical Union (AGU) 83 (47, Suppl.), p. 1291-1292. *(Abstract only)*
(Continental margin offshore NW Sabah looks like typical accretionary margin, formed during subduction of proto-S China Sea. Presently inactive. Seaward of Sabah Trough extended continental lithosphere, with rotated fault blocks, half grabens and E Oligocene- E Miocene carbonate platform. Continental crust also under Sabah Trough and adjacent continental slope. Dangerous Grounds' extended continental crust can be traced landward of Sabah Trough beneath sediments of upper plate. Magnetic signatures of young volcanic features continue under continental slope. Tectonic scenario for NW Sabah continental margin: Seafloor spreading in S China Sea from ~30 Ma separated Dangerous Grounds area from SE Asia and ceased in late E Miocene when oceanic crust of proto-S China Sea was fully subducted. In E and/or M Miocene, Borneo rotated CCW and was thrusted onto edge of Dangerous Grounds block. Subducted oceanic crust of proto S China Sea today below E Sabah, not along present NW Sabah Trough)

Barker, S.M., J. Jong, Q.T. Tran, K. Ogawa & S. Noon (2017)- A high resolution bio-sequence stratigraphic interpretation of quaternary geology- a case study from deepwater Sarawak area. Proc. Asia Petroleum Geoscience Conference and Exhibition (APGCE 2017), Kuala Lumpur, 43205, p. 29-37. *(Extended Abstract)*
(Bunguran Trough is intra-continental pull-apart basin in deepwater offshore Sarawak, and distal part of Rajang Delta system. Discussion of Messinian-Holocene sequence/ biostratigraphy in area based on new JX Nippon 'T-1' exploration well, with ~770m thick M Pleistocene and almost 1000m Late Pleistocene- Holocene. New Late Pleistocene- Holocene cycle (cycle IX) proposed for Shell 'NW Borneo cycle scheme')

Bashir, Y., M.A. Faisal, A. Biswas, A. Babasafari, S.H. Ali, Q.S. Imran, N.A. Siddiqui & M. Ehsan (2021)- Seismic expression of Miocene carbonate platform and reservoir characterization through geophysical approach: application in central Luconia, offshore Malaysia. J. Petroleum Exploration and Production 11, p. 1533-1544.
(online at: https://link.springer.com/article/10.1007/s13202-021-01132-2)
(Hardly a new topic in 2021; JTvG))

Bayliss, D.D. (1964)- Foraminifera from the Penrissen area, Sarawak. British Geological Survey (BGS) Report WH/OA/00/166, p.
(Unpublished report by British Museum (Natural History) for British Overseas Geological Surveys (1960-1964); not online)

Bayliss, D.D. (1964)- Foraminifera of Upper Jurassic age in the Bau Limestone, western Sarawak. British Geological Survey (BGS) Report WH/OA/00/171, p.
(Unpublished report by British Museum (Natural History) for British Overseas Geological Surveys (1960-1964); not online)

Bayliss, D.D. (1964)- Foraminifera in limestone of the Bau Formation in the Penrissen area, west Sarawak. British Geological Survey (BGS) Report WH/OA/00/183, p.
(Unpublished report by British Museum (Natural History) for British Overseas Geological Surveys (1960-1964); not online. See also Bayliss (1966, below))

Bayliss, D.D. (1966)- Foraminifera from the Bau Limestone Formation, Sarawak, Malaysia. Annual Report of the Geological Survey, Borneo region Malaysia,1965, Kuching, p. 173-195.
(Bau Limestone SW of Kuching, W Sarawak, ~2750' thick, with rel. low diversity Late Jurassic (Kimmeridgean-Tithonian?) foraminifera assemblages, mainly Nautiloculina oolithica, Pseudocyclammina lituus (3 groups) and Torinosuella peneropliformis (see also Wilford & Kho 1965))

Beattie, D. (1986)- Gravity modeling of a mafic-ultramafic association, Darvel Bay, Sabah, Northern Borneo. B.Sc. Thesis Dalhousie University, Halifax, p. 1-56.
(online at: www.earthsciences.dal.ca/aboutus/publications/theses/BSc/ES_1986_BSc_Beattie_Dwayne.pdf)
(Pre-Tertiary mafic-ultramafic rocks at Darvel Bay, E Sabah, form ophiolite suite and provide evidence for M Tertiary island arc-continent collision zone from SE to NW Sabah. Gravity survey shows positive anomaly of 70 mgal associated with outcropping mafic and ultramafic rocks (see also Ryall & Beattie 1996))

Beauvais, L. & H. Fontaine (1990)- Corals from the Bau limestone formation, Jurassic of Sarawak, Malaysia. In: H. Fontaine (ed.) Ten years of CCOP research on the Pre-Tertiary of East Asia, United Nations ESCAP, CCOP, Technical Publication 20, p. 209-239.
(Well-preserved coral fauna of Late Jurassic (Kimmeridgean- Tithonian, possibly extending into earliest Cretaceous) age from Bau Lst, W Sarawak, incl. Cladophyllia ramaea, Cuneiphyllia, Latiphyllia, Litharaeopsis, etc. Corals belong to species of North Tethys, no species as known from S Tethys. (Limestone similar to some limestones from Sumatra and N Palawan Block, with common species stromatoporoid Cladocoropsis, foram Pseudocyclammina lituus, algae Salpingoporella, etc. JTvG))

Beets, C. (1943)- *Brechites venustulus*, ein neuer Fund aus dem Miocan der Landschaft Serawak, N.W. Borneo. Leidsche Geologische Mededelingen 13, p. 329-333.
(online at: https://repository.naturalis.nl/pub/505600)
(On a new species of tube-shaped pelecypod of genus Brechites from Miocene of Sarawak)

Behain, D. (2005)- Gas hydrate offshore NW Sabah: morpho-tectonic influence of gas hydrate and estimation of concentration of gas hydrate above and free gas below the gas hydrate stability zone. Doct. Thesis Technische Universitat Clausthal, Germany, p. 1-153.
(online at: www.gbv.de/dms/clausthal/E_DISS/2005/db107866.pdf)
(In offshore NW Sabah gas hydrates, with Bottom-Simulating Reflector on seismic, mainly in zone of coast-parallel ridges (top of imbricated thrust anticlines). Minimum water depth for BSR 600m, and 250-350m below seafloor)

Benard, F., C. Muller, J. Letouzey, C. Rangin & S. Tahir (1990)- Evidence of multiphase deformation in the Rajang-Crocker Range (northern Borneo) from Landsat imagery interpretation: geodynamic implications. Tectonophysics 183, p. 321-339.
(Sarawak structural trends essentially E-W, with first deformation in E-M Eocene. Second event marked by N-ward thrusting of Eocene over Oligocene, prior to deposition of M Miocene. In Crocker Belt of Sabah two oblique generations of structures before deposition of U-M Miocene. Tight folds, trending N-S in Brunei, N60E in N Sabah, bending to N130°E in Sandakan area. This pattern affected by late N60E-trending normal faults in C Sabah) (see also Comments by (1) Hutchison, Tectonophysics 204, p. 175-177 and (2) Haile, Tectonophysics 204, p. 178-180))

Ben-Awuah, J. & E. Padmanabhan (2014)- Porosity and permeability modifications by diagenetic processes in fossiliferous sandstones of the West Baram Delta, Offshore Sarawak. Int. J. Petroleum Geoscience Engineering (IJPGE) 2, 2, p. 151-170.
(online at: www.aropub.org/wp-content/uploads/2014/07/AROPUB-IJPGE-14-61.pdf)
((Productive units of M-U Miocene cycles V and VI in Baram Delta have enhanced porosity-permeability from dissolution of fossils. Similar to 2015 paper below)

Ben-Awuah, J. & E. Padmanabhan (2015)- Porosity and permeability modification by diagenetic processes in fossiliferous sandstones of the Baram Delta, Sarawak Basin, Malaysia. In: M. Awang et al. (eds.) 3rd Int. Conf.

Integrated Petroleum Engineering and Geosciences (ICIPEG2014), Kuala Lumpur 2014, Springer Verlag, p. 47-57.
(Productive units of M-U Miocene cycles V and VI in Baram Delta have enhanced porosity-permeability from dissolution of fossils)

Ben-Awuah, J. & E. Padmanabhan (2015)- Effect of bioturbation on reservoir rock quality of sandstones: a case from the Baram Delta, offshore Sarawak, Malaysia. Petroleum Exploration and Development (China) 42, 2, p. 223-231.
(Depending on type of burrow, porosity- permeability of sandstone reservoirs in M-U Miocene of offshore Baram Delta either enhanced (Ophiomorpha burrows with clean sand fill) or reduced (Diplocraterion burrows with clays and organic matter in burrow fills) by bioturbation)

Ben-Awuah, J. & E. Padmanabhan (2017)- Heterogeneity in hydrocarbon and organic matter distribution in the offshore West Baram Delta, Sarawak Basin. In: M. Awang et al. (eds.) Proc. Int. Conf. Integrated Petroleum Engineering and Geosciences (ICIPEG2016), Kuala Lumpur 2016, Springer Verlag, p. 373-384.

Ben-Awuah, J., E. Padmanabhan, S. Andriamihaja, P.O. Amponsah & Y. Ibrahim (2016)- Petrophysical and reservoir characteristics of sedimentary rocks from offshore west Baram Delta, Sarawak Basin, Malaysia. Petroleum and Coal 58, 4, p. 414-429.
(online at: www.vurup.sk/wp-content/uploads/dlm_uploads/2017/07/pc_4_2016_awuah_444.pdf)
(Reservoir quality of M-U Miocene sandstones on offshore W Baram Delta wells. Average porosity 25 %, permeability 1911 mD for coarse grained sandstones, 5.7 % and 1.4 mD for very fine grained sandstones, 16.5% and 23 mD for bioturbated sandstone, etc. Excellent reservoir rock quality in coarse sandstones attributed to lack of cement between grains, good intergranular porosity and pore connectivity)

Ben-Awuah, J., E. Padmanabhan & R. Sokkalingam (2017)- Geochemistry of Miocene sedimentary rocks from offshore West Baram Delta, Sarawak Basin, Malaysia, South China Sea: implications for weathering, provenance, tectonic setting, paleoclimate and paleoenvironment of deposition. Geosciences Journal 21, 2, p. 167-185.
(Geochemistry, provenance, tectonic setting, etc., of offshore Miocene clastics in W Baram Delta Sandstones provenance mainly felsic-intermediate igneous with minor mafic contribution. Passive margin tectonic setting after continental collision and rifting stages of foreland basin. Paleoclimate warm and humid, enhancing chemical weathering)

Bergman, S.C., C.S. Hutchison, D.A. Swauger & J.E. Graves (2000)- K:Ar ages and geochemistry of the Sabah Cenozoic volcanic rocks. Bull. Geological Society Malaysia 44, p. 165-171.
(online at: http://gsmpubl.files.wordpress.com/2014/09/bgsm2000021.pdf)
(M Miocene (~14-19 Ma) K-Ar dates of volcanic rocks of S Dent Peninsula and Semporna Peninsula. Pliocene rift-related, low K tholeiite series subaerial basalts of Kunak area. Miocene volcanics of Semporna and S Dent Peninsulas calc-alkaline affinities with geochemistry indicating subduction related genesis)

Bernard, B.B. (2005)- Proof of an active petroleum system in the Bunguran delta front, deepwater Sarawak, East Malaysia. Proc. 2005 SE Asia Petroleum Exploration Society (SEAPEX) Conference, Singapore, p. 1-36. *(Abstract + Presentation)*
(Geochemical indications of thermogenic gas and non-biodegraded oil seepage in 6 of 10 piston cores from Amerada Hess Block F, off Sarawak)

Berry, K. (2022)- A *Classopollis* "spike" in the *Rugubivesiculites* Zone of the Kayan Sandstone, western Sarawak, Borneo, suggests a Danian age for these deposits. Review Palaeobotany Palynology 304, 104728, p.
(Lower Kayan Sandstones in W Sarawak contain possible Classopollis spike in Rugubivesiculites palynozone, which was probably global phenomenon in Danian, near the K/T boundary. (Classopollis thought to have gone extinct in Cretaceous (J. Muller), but is known to have suvived K/T boundary event in other parts of world; JTvG) and earlier detrital zircon dating suggested 72-71 Ma age)

Besems, R.E. (1993)- Dinoflagellate cyst biostratigraphy of Tertiary and Quaternary deposits of offshore NW Borneo. In: G.H. Teh (ed.) Proc. Symposium Tectonic framework and energy resources of the western margin of the Pacific Basin, Kuala Lumpur 1992, Bull. Geological Society Malaysia 33, p. 65-93.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1993006.pdf)
(Most extensive review of Cenozoic dinoflagellates in SE Asia. Paleogene- Recent dinoflagellate zonation, based on analysis of 56 wells off NW Borneo and regional data)

Bidgood, M.D., M.D. Simmons & C.G.C. Thomas (2000)- Agglutinated foraminifera from Miocene sediments of northwest Borneo. In: M.B. Hart et al. (eds.) Proc. 5th Int. Workshop on Agglutinated foraminifera, Plymouth 1997, Grzybowski Foundation Special Publ. 7, p. 41-58.
(online at: www.gf.tmsoc.org/Documents/IWAF-5/Bidgood+Simmons+Thomas-IWAF5-1997.pdf)
(34 taxa of agglutinated forams in Miocene of Brunei and Sarawak and paleoenvironmental interpretation)

Bundesanstalt Geowissenschaften und Rohstoffe (1990)- Mineral resources investigation in Sabah, East Malaysia, 1980-1984. Geologisches Jahrbuch B74, p. 1-135.
(Collection of papers on mineral exploration activities in Sabah by Malaysian-German co-op, 1980-1984)

Bol, A.J. & B. van Hoorn (1980)- Structural styles in western Sabah offshore. Bull. Geological Society Malaysia 12, p. 1-16.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1980001.pdf)
(Two structural provinces in Neogene basin W of Sabah mainland. In S and C Sabah (between Labuan-Mangalum) Late Miocene main tectonic phase creating steep, narrow, basement-involved anticlines. U Miocene foldbelt separated by important fault zones from province with similar, but Pliocene-age structures (between Mangalum and Kudat))

Bowen, J.M. & J.A. Wright (1957)- Geology of Crocker Range and adjoining areas. Shell Geologic Report 747, 191 p. 1-191. *(Unpublished)*
(Geology/ stratigraphy of Crocker Range in unpublished Shell oil company report. Much of information incorporated in Liechti (1960) book)

Bracco Gartner, G.L., W. Schlager & E.W. Adams (2004)- Seismic expression of the boundaries of a Miocene carbonate platform, Sarawak, Malaysia. In: G.P. Eberli et al. (eds.) Seismic imaging of carbonate reservoirs and systems, American Assoc. Petroleum Geol. (AAPG), Memoir 81, p. 351-365.
(Miocene carbonate platform slope angles 2-25° and 250-300m relief. S slope characterized by bypass or erosion throughout aggrading phase of platform development and buried by shale with onlapping beds transported from S. On N flank, shale started to pile up during platform aggradation. Phases of erosional or bypass conditions were short and alternated with two phases formed when platform debris interfingered with shale. Asymmetry of platform architecture and distribution of sediments most likely due to paleowinds)

Breitfeld, H.T. (2015)- Provenance, stratigraphy and tectonic history of Mesozoic to Cenozoic sedimentary rocks of West and Central Sarawak, Malaysia. Ph.D. Thesis, Royal Holloway, University of London, p. 1-808. *(Unpublished)*

Breitfeld, H.T. (2021)- Provenance of Pleistocene sediments in West Sarawak and evidence for Pliocene acid magmatism in Central Borneo. Berita Sedimentologi 47, p. 5-32.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/51)
(Detrital zircon provenance analysis of two possible (Plio-)Pleistocene fluvial deposits in W Sarawak indicate two different source areas and paleo-river drainages. Deposits at Kampung Jangkar in W Sarawak sourced by uplifted Pueh batholith. Sediments in Petra Jaya (N Kuching city) sourced by recycling of Kayan Sst, Pliocene - Late Miocene zircons acid igneous rocks and M Miocene Bau Suite igneous rocks)

Breitfeld, H.T., S.D. Burley, T. Galin, J. Hennig-Breitfeld & R. Rajali (2023)- The Kuching Formation: A deep marine equivalent of the Sadong Formation, and its implications for the Early Mesozoic tectonic evolution of western and southern Borneo. Bull. Geological Society Malaysia 76, p. 101-129.

(online at: https://gsm.org.my/wp-content/uploads/2023/11/Final-8-Dr-Brietfeld-1.pd)
(Late Triassic Kuching Fm thin-bedded turbidites in Kuching City, W Sarawak, are deep water equivalent of thick, shallow- marginal marine Sadong Fm. Both contain volcaniclastic detritus from W-subducting Paleo-Pacific plate (and associated with Norian granites and volcanics with zircon ages ~207-230 Ma), forming Triassic Andean-type arc which extended from W Borneo (E margin of Asia-Sundaland) in S to S China, Taiwan and Japan in N. Paleoproterozoic- Archean detrital zircons reveal Cathaysian basement source (with distinct ~1850 Ma peak). Quartz-mica schists (Kerait Schist, Tuang Fms; with Triassic cooling ages) in fault-contact with two sedimentary successions may have formed during accretion)

Breitfeld, H.T., T. Galin & R. Hall (2014)- U-Pb detrital zircon ages from Sarawak: changes in provenance reflecting the tectonic evolution of Southeast Asia. American Geophysical Union (AGU), Fall Meeting, San Francisco, V43D-4921, 1p. *(Poster Abstract)*
(Sarawak five Triassic- Cenozoic sedimentary basins. Zircons from Later Triassic of Sadong-Kuching Basin sourced by Carnian- Norian (mainly ~220-260 Ma) volcanic arc and from Cathaysian rocks with Paleoproterozoic zircons (peak at ~1800-1900 Ma). U Jurassic- E Cretaceous sands of Bau-Pedawan Basin (Pedawan Fm) indicate initiation of subduction below W Sarawak in Late Jurassic, but still with common inherited Cathaysian zircons. Subduction beneath Schwaner Mountains in early Late Cretaceous. After uplift forming Pedawan- Kayan unconformity two episodes of extension: (1) Kayan Basin in latest Cretaceous- E Paleocene (Kayan Sst zircons mainly M Cretaceous and Triassic), and (2) Ketungau Basin and Penrissen Sst in M-Late Eocene. Zircons indicate nearby volcanic activity throughout E Cenozoic in NW Borneo. Inherited zircon ages indicate alternation between Borneo and Tin Belt source rocks)

Breitfeld, H.T., T. Galin, R. Hall, I. Sevastjanova, M.A. Forster & G.S. Lister (2015)- Provenance and age of Mesozoic to Cenozoic sedimentary successions and tectonic history of West and Central Sarawak. Proc. Asia Petroleum Geoscience Conference and Exhibition (APGCE), Kuala Lumpur, 25853, p. 1-5. *(Extended Abstract)*
(Provenance study in Triassic-Cenozoic basins of Kuching (W Sarawak) and Sibu Zones (C Sarawak deep marine Rajang Gp) (separated by 'Lupar Line'). Ar-Ar ages of micas from metamorphic rocks in W Sarawak indicate Late Triassic collisional event. Widespread Triassic volcanic and volcaniclastic rocks associated with subduction; Triassic U-Pb magmatic ages from zircons in Jagoi Granodiorite. Triassic Sadong Fm and deep marine equivalent (Kuching Fm), sourced by Triassic (Carnian-Norian) volcanic arc. Pedawan-Kayan regional unconformity marks end of subduction beneath Sarawak and indicates Late Cretaceous collision. Fluvial Kayan Gp divided into Kayan Sst Fm and Penrissen Sst. Kayan Sst U-Pb detrital zircon ages indicate maximum depositional ages of Undan Mb 71 Ma (Maastrichtian; with Cretaceous and Permo-Triassic zircons), Bungo Mb 62 Ma (Danian; dominated by Cretaceous zircons) and Penrissen Sst 47-51 Ma (Late Ypresian- Lutetian). Ketungau Gp records second episode of terrestrial sedimentation in W Sarawak. Basal Silantek Fm no older than 42 Ma (Lutetian), unconformably on Cretaceous accretionary complex, Tutoop Sst (=Late Eocene- E Oligocene Plateau Sst) and Ketungau Fm. Bako-Mintu Sst in upper part no older than 40 Ma (Bartonian). Kuching and Sibu Zones connected with SW Borneo and Sundaland since Cretaceous)

Breitfeld, H.T., T. Galin, R. Hall, I. Sevastjanova, M. Forster & G. Lister (2015)- Proto-South China Sea and South China Sea early history: a view from Sarawak. AAPG Geoscience Technology Workshop (GTW), Tectonic evolution and sedimentation of South China Sea region, Kota Kinabalu 2015, Sabah, AAPG Search and Discovery Article 90236, p. 1-4.
(online at: https://www.searchanddiscovery.com/abstracts/pdf/2015/90236apr/abstracts/ndx_breitfeld.pdf)
(Extended Abstract. New Ar-Ar dating of white micas from supposed basement schists in W Sarawak yielded Triassic ages. Triassic volcanic and volcaniclastic rocks widespread in W Sarawak. Triassic U-Pb magmatic ages from zircons in Jagoi granodiorite, W of Bau. Metamorphism associated with contemporaneous volcanic arc magmatism, recording Triassic subduction and collision)

Breitfeld, H.T. & R. Hall (2018)- The eastern Sundaland margin in the latest Cretaceous to Late Eocene: Sediment provenance and depositional setting of the Kuching and Sibu Zones of Borneo. Gondwana Research 63, p. 34-64. *(manuscript online at: www.researchgate.net/publication/325761450_The_eastern_Sundaland_margin_in_the_latest_Cretaceous_to_Late_Eocene_Sediment_provenance_and_depositional_setting_of_the_Kuching_and_Sibu_Zones_of_Borneo)*

(Kuching Zone in Borneo several large sedimentary basins of Late Cretaceous- Late Eocene age. W Sarawak Kayan Basin with U Cretaceous- Lower Eocene Kayan and Penrissen Sandstones (Late Cretaceous- Paleocene with abundant Cretaceous, Permian-Triassic and Precambrian zircons; Paleocene- E Eocene mainly Cretaceous zircons from Schwaner granites of SW Borneo). In Kuching Zone Ketungau Basin with unconformably overlying M-U Eocene Ketungau Group, with oldest sediments derived from nearby sources, probably Triassic Sadong and Kuching Fms. Kuching sediments can be correlated with deep marine Rajang Gp. Some magmatism but scarcity of contemporaneous zircons indicates it was very minor)

Breitfeld, H.T. & R. Hall (2021)- Metamorphic rocks of the Kuching Zone Sarawak: Comment on Najiatun Najla Mohamad et al. (2020) The geology and stratigraphic framework of the Kuching Zone Sarawak: Current understanding and unresolved issues. Warta Geologi (Newsletter Geological Society Malaysia) 47, 2, p. 126-127.
(online at: https://gsm.org.my/wp-content/uploads/2023/01/NGSM2021024.pdf)
(Brief commentary on publication by N.N. Mohamad et al. (2020), arguing metamorphic rocks of Sarawak not of Upper Carboniferous age. Recent age dating of Pinoh Metamorphics of Kalimantan as Cretaceous. Sarawak Kerait Schist and Tuang Formation (grouped as West Sarawak Metamorphics) are of Triassic age)

Breitfeld, H.T., R. Hall, T. Galin, M.A. Forster & M.K. BouDagher-Fadel (2017)- A Triassic to Cretaceous Sundaland- Pacific subduction margin in West Sarawak, Borneo. Tectonophysics 694, p. 35-56.
(manuscript online at: https://files.core.ac.uk/download/pdf/132609374.pdf)
(Metamorphic rocks in W Sarawak previously assumed to be pre-Carboniferous basement, but new Ar/Ar ages from quartz-mica schists show Late Triassic metamorphism (~216-220 Ma; Norian). Metamorphics associated with Triassic acid and basic igneous rocks. Late Triassic Sadong Fm with youngest zircon ages of ~205, 212 Ma and inherited age peaks of 240-270 Ma and 1.8 Ga. Jagoi Granodiorite ~208 Ma with inherited ages of 240 Ma, reflecting M-L Triassic subduction in W Sarawak (likely W-directed Paleo-Pacific subduction). W Sarawak and NW Kalimantan underlain by continental crust and already part of Sundaland in Triassic. Zircon ages in Cretaceous volcanoclastic Pedawan Fm with major peaks 110-120, 150-160, 220-240, 250-260 Ma, 1.8-1.9 Ga), similar to ages of Schwaner granites of SW Kalimantan plus other sources; interpreted as Cretaceous forearc basin with material from magmatic arc that extended from Vietnam to W Borneo. Youngest ages from zircons in tuff layer from U Pedawan indicate end of subduction at ~86-88 Ma. Cretaceous metamorphism of Serabang, Sejingkat, Sebangan Fms and Lubok Antu- Kapuas (and Boyan?) melange associated with Cretaceous subduction zone. Casting doubt on existence of separate 'Semitau block')

Breitfeld, H.T., R. Hall, T. Galin, M.A. Forster & M.K. BouDagher-Fadel (2018)- Unravelling the stratigraphy and sedimentation history of the uppermost Cretaceous to Eocene sediments of the Kuching Zone in West Sarawak (Malaysia), Borneo. J. Asian Earth Sciences 160, p. 200-223.
(manuscript online at: https://discovery.ucl.ac.uk/id/eprint/10049623/1/Boudagher-Fadel_Unravelling%20the%20stratigraphy%20and%20sedimentation%20history%20of%20the Etc.)
(Kuching Zone in W Sarawak two sedimentary basins (Kayan, Ketungau) that extend into Kalimantan. Uppermost Cretaceous (Maastrichtian) to Lower Eocene Kayan Gp above Pedawan Unconformity, marking end of Paleo-Pacific subduction-related magmatism (above Cretaceous Pedawan Fm forearc sediments). Kayan and Penrissen Sst mainly fluvial- alluvial fan deposits. In late E or early M Eocene, sedimentation in basin ceased and Ketungau Basin developed to E. Change marked by Kayan Unconformity. Sedimentation resumed in M Eocene (Lutetian) with marginal marine Ngili Sst and fluvial Silantek Fm. Top of Ketungau Gp fluvial-dominated Tutoop Sst. Paleocurrent measurements show dominant southern source, suggesting uplift of S Borneo in region of Schwaner Mountains from latest Cretaceous onwards. Ketungau Gp also with reworked Kayan Gp. Kuching Supergroup predominantly horizontal or low dips, with steep dips restricted to faults)

Breitfeld, H.T., R. Hall, S.M. Suggate, M.W.A. van Hattum, J. Hennig-Breitfeld, M.K. BouDagher-Fadel, M. Webb & M. Franzel (2023)- Neogene sedimentary successions in northern and central Sabah: Provenance and tectonic implications. In: M. Montenari (ed.) Stratigraphy of Geo- and Biodynamic Processes, Stratigraphy & Timescales 8 (Marcelle Boudagher-Fadel Memorial Volume), Elsevier, Chapter 3, p. 71-119. *(ms online at: https://www.researchgate.net/profile/Tim-Breitfeld/publication/373957297_Neogene_sedimentary etc.))*
(Paleogene of Sabah characterized by deep marine sedimentation on S side of now-subducted Proto-South China Sea (Crocker, Temburong, etc., formations), With onset of collision in E Miocene (and elimination of Proto-SCS),

several melanges formed, including Kuamut Fm with zircons indicating magmatism associated with PSCS subduction continued after ~21 Ma. Temburong Fm in W Sabah indicates continuation of magmatism until ~19.6 Ma. Deep water turbidite deposition and melange formation ended, marked by Top Crocker Unconformity (TCU). During Neogene, vast amounts of siliciclastic material, up to 12 km thick, were deposited in basins on and around Borneo. Enigmatic Tajau Mb of Kudat Fm, likely deposited during and shortly after collision, with northern, Palawan, source. Etc.)

Breitfeld, H.T., J. Hennig, M.K. BouDagher-Fadel & R. Hall (2017)- The Rajang unconformity: major provenance change between the Eocene and Oligo-Miocene sequences in NW Borneo. American Geophysical Union (AGU) Fall Meeting, New Orleans, EP21A-1829, 1p. *(Poster Presentation)*
(online at: https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/223716)
(Detrital zircon age distributions suggest major change in provenance at unconformity between E-M Eocene deepwater Belaga- Bawang Fms and fluvio-deltaic Oligo-Miocene Tatau-Nyalau Fms. Unconformity previously interpreted as Late Eocene orogeny, but no evidence for subduction or collision event at this time in Sarawak; possibly marks late M Eocene plate reorganisation. Borneo main source of Cretaceous (~120-150 Ma peak?) zircons (Schwaner Mts, W Sarawak). Dominant Triassic (~220-240 Ma peak?) zircon age population in Nyalau Fm indicates either provenance from Malay Peninsula tin belt or Indochina (SE Vietnam). (or unidentified Triassic granites on Borneo? Also persistent ~1800 Ma age peak; HvG))

Breitfeld, H.T., J. Hennig-Breitfeld, G. Anthony, M.K. BouDagher-Fadel, P. Vermeesch, K. Lunsdorf et al. (2023)- The onshore West Baram Delta deposits: Provenance and drainage in the Middle Miocene to Pliocene in NW Borneo and comparison to the Champion Delta. Marine and Petroleum Geology 158, B, 106537, p. 1-33.
(Neogene Baram Delta province in NW Borneo offshore N Sarawak and Brunei. Here subdivided into West Baram delta to S and Champion delta to N. W Baram deposition in deltaic environments in Langhian- E Pliocene. Quartz-rich, detrital zircon age clusters in E Cretaceous and Permian-Triassic, derived from multi-recycled sources, likely underlying Paleogene Rajang Gp turbidites and Oligocene- Lower Miocene Nyalau-Tatau delta deposits. Champion Delta sourced by recycling of Crocker Fm and older turbidites, with potential input from ultra-mafic basement rocks of Sabah)

Breitfeld, H.T., J. Hennig-Breitfeld, M.K. BouDagher-Fadel, R. Hall & T. Galin (2020)- Oligocene-Miocene drainage evolution of NW Borneo: stratigraphy, sedimentology and provenance of Tatau-Nyalau province sediments. J. Asian Earth Sciences 195, 104331, p. 1-26.
(manuscript online at: https://discovery.ucl.ac.uk/id/eprint/10114024/)
(Thick Oligocene- Lower Miocene clastic in Tatau-Nyalau province of N Sarawak Miri Zone. Oldest Nyalau Fm E Oligocene. Sourced mainly by 'Sunda River' system from East Malaya tin belt, with sediments dominated by Permo-Triassic & Precambrian zircons. Around 17 Ma switch to Proto-Rajang delta sediments with mor common Cretaceous zircons, sourced from C Borneo. With documentation of Oligo-Miocene foraminifera)

Breitfeld, H.T., C.G. Macpherson, R. Hall, M. Thirlwall, C.J. Ottley & J. Hennig-Breitfeld (2019)- Adakites without a slab: remelting of hydrous basalt in the crust and shallow mantle of Borneo to produce the Miocene Sintang Suite and Bau Suite magmatism of West Sarawak. Lithos 344-345, p. 100-121. *(manuscript online at: www.researchgate.net/publication/333801362_Adakites_without_a_slab_Remelting_of_hydrous_basalt_in_the_crust_and_shallow_mantle_of_Borneo_to_produce_the_Miocene_Sintang_Suite_and_Bau_Suite_magmatism_of_West_Sarawak)*
(Neogene magmatic rocks of N Kalimantan-W Sarawak:(1) rel. widespread E Miocene Sintang Suite (~18-23 Ma) and (2) younger, short-lived M Miocene Bau Suite (~12-14 Ma). Magmatism in multiple short-lived pulses from ~24 Ma and coeval with magmatic activity in NW and E Kalimantan. Neogene magmatism not related to active subduction (?). Bau Suite mainly adakitic, W Sarawak Sintang Suite mainly non-adakitic. No active subduction zone or slab associated with adakitic magmatism. Mafic mantle-derived magma with felsic magma from remelting of hydrous, mafic rock emplaced into Borneo lithosphere previously, suggesting intraplate, mantle-derived magmatism responsible for remelting older hydrated basaltic rocks in crust)

Breitfeld, H.T., M.W.A, van Hattum, R. Hall, S. Burley, J. Hennig-Breitfeld, M. Franzel, S.M. Suggate, P. Vermeersch & M. Webb (2026)- Evolution of Paleogene to Early Miocene deep-water provenance sources in

Sabah, northern Borneo reveals changing Proto-South China Sea paleogeography. Tectonophysics 918, 230980, p. 1-24.
(online at: https://www.sciencedirect.com/science/article/pii/S004019512500366X)
(Most of Sabah covered with Paleocene- Lower Miocene deep marine turbidite sequences, deposited along S side of Proto-South China Sea (PSCS): Paleocene- E Eocene Sapulut and Trusmadi Fms of C-S Sabah, Oligocene Labang and Kulapis Fms of E Sabah, E Miocene Kudat Fm of NW Sabah and Eo-Oligocene Crocker Fm of western Sabah. Sandstone petrography, heavy mineral analysis and detrital zircon U-Pb geochronology reveals changing sources associated with evolution of PSCS. Volcanic lithics in Labang Fm indicate M Eocene (~40 Ma) peak of volcanism, likely from PSCS subduction volcanic arc to N (?). Also Mesozoic multi-recycling (Triassic and Cretaceous zircon peaks) from southern sources. Lower (Eocene) part of Crocker Fm similar provenance as Rajang Gp in Sarawak. U Crocker Fm similar provenance as Nyalau Fm in Sarawak (deeper marine continuation). In E Miocene, Palawan microcontinent collided with Cagayan Arc (~18 Ma?), resulting in uplift of forearc high and melanges formation in E Sabah. Uplifted forearc likely source for Temburong Fm in W Sabah)

Brondijk, J.F. (1963)- Sedimentation in Northwest Borneo. In: F.H. Fitch (ed.) Proc. British Borneo Geological Conference 1961, Kuching, Geological Survey Department, British Territories in Borneo, Bull. 4, Kuching, p. 19-30.
(Brief note about 'geosynclinal' settings of 32 formations described from U Cretaceous- Late Tertiary in NW Borneo by Liechti et al. 1960. Early recognition of some of Miocene sediments as turbidites)

Brondijk, J.F. (1963)- A reclassification of a part of the Setap Shale Formation as the Temburong Formation. Annual Report Geological Survey Department, British Territories in Borneo 1962, Kuching, p. 56-60.
(Oligocene Temburong Fm introduced for more folded lower part of Tetap Shale (now limited to E Miocene))

Brondijk, J.F. (1963)- Sedimentological investigation in North Borneo and northern Sarawak. Annual Report Geological Survey Department, British Territories in Borneo 1962, Kuching, p. 61-74.

Brondijk, J.F. (1964)- The Danau Formation in NW Borneo. Geological Survey of Malaysia, Borneo Region, Kuching, Annual Report 1963, p. 167-178.
(Danau Fm with folded radiolarian cherts first described by Molengraaff in area of the great lakes of N-C Kalimantan, in ~650 km E-W trending zone with average width of 60 km from W Borneo almost to E coast. Proposal to reinstate name Danau Fm in Sarawak and Sabah for similar deposits like Lupar- Engkilili Fm and Chert-Spilite- Wariu Fms)

Brown, J. (2024)- We used to see eustacy as the key to SE Asia stratigraphy, but now we are not so sure: an application of a new tectono-stratigraphic framework for off the coast of Sarawak Malaysia. SE Asia Petroleum Exploration Society, GESGB-SEAPEX Asia Pacific Conference, London, 15p. *(Abstract + Presentation)*
(As discussed by Lunt (2017, 2020), local tectonics control the Neogene sequences of Sarawak more than eustatic (global) sea level changes. Sarawak 'cycles' redefined as tectonostratigraphic sequences)

Brown, K.M. (1987)- Structural and physical processes in accretionary complexes: the role of fluids in convergent margin development. Ph.D. Thesis, Durham University, p. 1-500.
(online at: http://etheses.dur.ac.uk/7186/1/7186_4368.PDF)
(General study on accretionary prisms and mud volcanoes, with chapter on North Borneo Crocker Range)

Bargan, A.M. (2024)- Geochemical characteristic of the carbonaceous sediments of the Upper Paleozoic Kuantan Group, Malaysia. J. Applied Geology (UGM) 9, 1, p. 26-36.
(online at: https://jurnal.ugm.ac.id/jag/article/view/92708)

Burgan, A.M. & C.A. Ali (2009)- An organic geochemical investigation on organic rich sediments from two Neogene formations in the Klias Peninsula area, West Sabah, Malaysia. Chinese J. Geochemistry 28, 3, p. 264-270.
(Organic geochemistry of Miocene Belait and Setap Shales from Klias Peninsula, SW Sabah. Setap Shale TOC 0.6-1.54% with mean hydrogen index (HI) of 60.1 mg/g. Belait Fm TOC 0.36 - 0.61 wt% with mean HI of 38.2

mg/g. Not enough hydrogen-rich organic matter to be considered good quality source rocks. Maturation level varies from peak oil in Setap Shale to overmature in Belait Fm)

Burgan, A.M. & C.A. Ali (2009)- Characterization of the black shales of the Temburong Formation in West Sabah, East Malaysia. European J. Scientific Research 30, 1, p. 79-98.
(online at: www.eurojournals.com/ejsr_30_1_07.pdf)
(Folded, steeply dipping, Miocene Terumbong Fm turbiditic series at Tenom Pangi Dam site in SW Sabah thermally overmature. TOC's less than 0.5%. Organic matter mostly marine, with land plant contribution transported into marine depositional setting)

Burgan, A.M. & C.A. Ali (2010)- An assessment of paleodepositional environment and maturity of organic matter in sediments of the Setap Shale and Belait formations in West Sabah, East Malaysia by organic geochemical methods. Chinese J. Geochemistry 29, 1, p. 42-52.
(Geochemistry of black shales from two Miocene formations in Klias Peninsula, SW Sabah. Gas chromatograms consistent with open marine depositional environments dominated by marine biological matter. Rel. common gammacerane, indicating anoxic marine hypersaline environment. Common land plant-derived biomarkers, such as bicadinanes and oleananes shows major terrigenous input. Predominance of oleanane indicative of angiosperms and Tertiary age)

Burgan, A.M. & C.A. Ali & S.H. Tahir (2008)- Chemical composition of the Tertiary black shales of West Sabah, East Malaysia. Chinese J. Geochemistry 27, 1, p. 28-35.
(Chemistry of 60 outcrop samples of black shale of Belait, Setap Shale, Temburong and Trusmadi Fms: SiO_2 ~62-65%, MgO 1.8-2.1%, K2O 2.5-3.1%, CaO 0.3-0.5%, Fe2O3 5.8-7.1%, etc.)

Burhanuddin, F.S. & Meor Hakif Amir Hassan (2024)- Sedimentary facies analysis of a thin-bed-dominated turbidite succession in the Miocene Temburong Formation, Kampung Bebuloh, Labuan Island, Malaysia. J. of Palaeogeography 13, 3, p. 401-429.
(online at: https://www.sciencedirect.com/science/article/pii/S2095383624000324)
(Discussion of thin-bedded turbidite facies in E Miocene submarine fan complex exposed on Labuan Island, Sabah, Malaysian Borneo)

Burhannudinnur, M. & C.K. Morley (1997)- Anatomy of growth fault zones in poorly lithified sandstones and shales: implications for reservoir studies and seismic interpretation: part 1, Outcrop study. Petroleum Geoscience 3, p. 211-224.
(Outcrop study of normal faults in poorly lithified Miocene-Pliocene deposits of Miri Fm in NE Brunei (see also Part 2: Morley and Burhannudinnur 1997, Seismic reflection geometries))

Burley, S.D., H.T. Breitfeld, D. Stanbrook, R.J. Morley, J. Kassan, M. Sukarno & D.W. Wantoro (2020)- A tuffaceous volcaniclastic turbidite bed of Early Miocene age in the Temburong Formation of Labuan, North West Borneo and its implications for the Proto-South China Sea subduction in the Burdigalian. The Depositional Record 7, 1, p. 111-146.
(online at: https://onlinelibrary.wiley.com/doi/pdf/10.1002/dep2.132)
(2m thick smectite-rich clay in deep water turbidites and marine mudstones of Temburong Fm on Labuan island, Sabah. Clay is altered, re-sedimented rhyolite-dacite tuff, with zircon U-Pb age 19.6 Ma and with E Miocene (N5) foraminifera and calcareous nannofossils (NN2). Tuff deposited during short-lived volcanic arc magmatic episode, either Sintang volcanics in C Borneo or Cagayan arc NE of Borneo. Associated sandstones yield mainly Cretaceous zircons, indicating switch in provenance during E Miocene from Crocker Fm, which is dominated by Permian-Triassic zircons. Likely reflects E Miocene uplift event of C Borneo. Temburong Fm sourced by reworking of uplifted Rajang Group, Sapulut or Trusmadi formations)

Burton-Johnson, A. (2013)- Origin, emplacement and tectonic relevance of the Mt. Kinabalu granite pluton of Sabah, Borneo. Ph.D. Thesis Durham University, p. 1-262.
(online at: http://etheses.dur.ac.uk/9450/1/Complete_Thesis_-_Post-Viva_-_Mt_Kinabalu_-_Alex_Burton-Johnson_2013.pdf)

(Ophiolitic basement of Sabah not underlain by felsic crust. Sabah Ophiolite emplacement in E Jurassic (~200Ma; similar to Meratus, and older than generally accepted). Emplacement of Mt Kinabalu granite during regional NW-SE extension in SE Asia. Felsic magma of Mt Kinabalu derived by low degree melting of incompatible element enriched basaltic melts (from fertile mantle source))

Burton-Johnson, A., C.G. Macpherson & R. Hall (2017)- Internal structure and emplacement mechanism of composite plutons: evidence from Mt Kinabalu, Borneo. J. Geological Society, London, 174, 1, p. 180-191.
(manuscript online at: http://dro.dur.ac.uk/19338/1/19338.pdf?DDD15+dgl0cm+d700tmt)
(Composite granitic intrusion of Mt Kinabalu in Sabah emplaced in upper-middle crust in Late Miocene over 0.8 Myrs, at contact between ultramafic basement and sedimentary cover. Emplacement during regional NNW-SSE-oriented extension. Six major units, oldest tonalite/granodiorite and two final porphyritic granites. Preferential emplacement of successive units along granite-country rock contact of previous units rather than basement-cover rock contact exploited by initial units)

Burton-Johnson, A., C.G. Macpherson, I.L. Millar, M.J.Whitehouse, C.J. Ottley & G.M.Nowell (2020)- A Triassic to Jurassic arc in north Borneo: geochronology, geochemistry, and genesis of the Segama Valley felsic intrusions and the Sabah ophiolite. Gondwana Research 84, p. 229-244.
(online at: https://dro.dur.ac.uk/30846/1/30846.pdf)
(Felsic intrusions of Segama Valley, Sabah, are arc-derived tonalites, not continental basement. U-Pb zircon emplacement ages E-M Triassic (~241, 251 Ma) and E Jurassic: (~179 Ma); contemporaneous with peaks in magmatism and detrital zircons in Sarawak and W Kalimantan. Most likely setting continuation of Sundaland Paleo-Pacific continental arc, expanding Triassic-Jurassic extent of Borneo and Sundaland arc, and challenging models of Borneo's development through allochthonous terrane accretion in Cretaceous. Propose model of protracted autochthonous growth through supra-subduction extension and associated magmatism)

Burton-Johnson, C.G. Macpherson, J.R. Muraszko, R.J. Harrison & T.A. Jordan (2019)- Tectonic strain recorded by magnetic fabrics (AMS) in plutons, including Mt Kinabalu, Borneo: a tool to explore past tectonic regimes and syn-magmatic deformation. J. Structural Geology 119, p. 50-60.
(Tectonic fabric in Anisotropy of Magnetic Susceptibility (AMS) data of Mt Kinabalu, Borneo, reveals Late Miocene NW-SE extension between 7.9 and 7.3 Ma)

Burton-Johnson, C.G. Macpherson, C.J. Ottley, G.M. Nowell & A.J. Boyce (2019)- Generation of the Mt Kinabalu Granite by crustal contamination of intraplate magma modelled by eEquilibrated major element assimilation with fractional crystallization (EME-AFC). Journal of Petrology 60, 7, p. 1461-1487.
(online at: https://academic-oup-com.eres.qnl.qa/petrology/article/60/7/1461/5532512)
(Mt Kinabalu was generated through low degree melting of upwelling fertile metasomatized mantle driven by regional crustal extension in Late Miocene)

Campbell, C.J. (1956)- Geology of the Usun Apau area. Annual Report Geological Survey Department, British Territories in Borneo 1956, Kuching, p. 86-120.

Carboni, F., S. Back & M.R. Barchi (2019)- Application of the ADS method to predict a “hidden” basal detachment: NW Borneo fold-and-thrust belt. J. Structural Geology 118, p. 210-223.
(online at: https://www.sciencedirect.com/science/article/pii/S0191814118304322?via%3Dihub)
(Area-Depth-strain (ADS) method applied to estimate depth of basal detachment in offshore Sabah NW Borneo fold-thrust belt. Landward-dipping detachment dips~1.9° to ESE between ~5- 8.7 km depth. Most shortening in last ~3.6 Ma, and folding- faulting still active)

Carrillat, A., T. Basu, R. Tsaccis, J. Hall, A. Mansor & M. Brewer (2008)- Integrated geological and geophysical analysis by hierarchical classification: combining seismic stratigraphic and AVO attributes. Petroleum Geosciences 14, 4, p. 339-354.
(Seismic attribute interpretation applied to Greater Samarang sub-block, E Baram Delta, offshore Sabah)

Carter, R.R., J.L.W. van Gils, W. Walton & K.F. Yap (1997)- Application of a new high resolution sequence stratigraphy for reservoir modeling studies of the Upper Miocene deltaic reservoirs of Champion field, offshore Brunei Darussalam. In: K.W. Shanley & B.F. Perkins (eds.) Shallow marine and non-marine reservoirs, Gulf Coast SEPM Foundation 18th Annual Research Conference, p. 67-97.

Casson, N., M. Wannier, J. Lobao & P. George (1998)- Modern morphology- ancient analogue: insights into deep water sedimentation on the active tectonic margin of West Sabah. In: G.H. Teh (ed.) Proc. GEOSEA '98, Kuala Lumpur 1998, Bull. Geological Society Malaysia 43, p. 399-405.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1999040.pdf)
Hydrocarbon potential offshore W Sabah margin heavily dependent on success of deep water M-L Miocene-Pliocene turbidite play. Main prospects in water depths >900m. Analogues other 'turbidite provinces' may not be applicable due to exceptionally large height differential of 7km, over relatively short distance of 200 km between sedimentary hinterland and base of continental slope)

Challis, M., C. Curtis, N.L. Mahadzir, J. Mennie & S.B. Zainal (2015)- The Kebabangan gas field, Malaysia: a 20 year journey continues. Proc. SE Asia Petroleum Exploration Society (SEAPEX) Conference, Singapore 2015, 6.2, p. 1-3. *(Abstract)*
(Kebabangan gas field off NW Sabah started gas production in 2014, 20 years since drilling KBB-1 by Shell/ Petronas. Long believed to be stranded gas resource)

Chang, S.P., S.N.F. Jamaludin, M. Pubellier, N.M. Zainuddin & C.M. Choong (2019)- Collision, melange and circular basins in north Borneo: A genetic link? J. Asian Earth Sciences 181, 103895, p. 1-13.
(NW Borneo (W Sabah) subduction complex which experienced collision, caused by Proto-South China Sea, with post-collision intrusion and gravity tectonics offshore Palawan and Borneo. Accretionary wedge backstop composed of ultramafic rocks and sheared pillow basalts and radiolarite. Successor basins cover collision features to W. Chaotic rocks occasionally brought to surface and overlying strata deformed as circular synclines and anticlines, probably involving diapiric process that pushed low viscosity material upward)

Chen, S.P. (1986)- Coal potential and exploration in Sarawak. In: G.H. Teh & S. Paramananthan (eds.) Proc. 5th Regional Congress Geology Mineral Energy Resources of SE Asia (GEOSEA V), Kuala Lumpur 1984, 2, Bull. Geological Society Malaysia 20, p. 649-665.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1986b31.pdf)
(Several coal deposits in Sarawak may be of economic importance. Silantek is Eocene coal in Ketungau basin at Kalimantan border. Three others Mio-Pliocene. Quality variable, grade from lignite to bituminous)

Chen, S.P. & J.W.E. Lau (1978)- Malaysia, onshore sedimentary basins of Malaysia. 2. Sarawak. In: Stratigraphic correlation between sedimentary basins of the ESCAP region V, ESCAP Atlas of stratigraphy I: Burma, Malaysia, Thailand, Indonesia, Philippines, UN Mineral Resources Development Seres 44, p., p. 20-26.
(online at: https://repository.unescap.org/server/api/core/bitstreams/1dcfad9e-f513-45d4-b845-937a8152367b/content)

Cheong, Y., A. Hilman & J. Kupecz (2017)- A fault seal case study from the Northern Luconia Province, Offshore Sarawak. Proc. Asia Petroleum Geoscience Conference and Exhibition (APGCE 2017), EAGE, Kuala Lumpur, 43970, p. 505-509. *(Extended Abstract)*

Chiang, K.K. (2002)- Geochemistry of the Cenozoic igneous rocks of Borneo and tectonic implications. Ph.D. Thesis, Royal Holloway University of London, p. 1-364. *(Unpublished)*
(Cenozoic arc-like magmatism in Borneo thought to be due to subduction of proto-S China Sea beneath NW Borneo. SE Sabah igneous rocks are extension of subduction of Sulu Sea in SE direction along Sulu trench. Wide range of basaltic to rhyolitic igneous rocks in Kalimantan with 5 phases of igneous activity: Paleocene, Eocene, late Oligocene- E Miocene, late Miocene -Pliocene and Plio-Pleistocene (similar phases of igneous activity in Sabah and Sarawak). SE Sabah igneous rocks divided into three groups. Oligo-Miocene andesites and dacites, Late Miocene-Pliocene andesites and dacites, and Plio-Pleistocene basaltic lavas. Cenozoic igneous rocks of Sarawak 4 phases of activity, coinciding with Phases II-V of Kalimantan and Sabah)

Chiu, S.K. (1990)- The use of SAR imagery for hydrocarbon exploration in Sarawak. In: GSM Petroleum Geology Seminar 1989, Bull. Geological Society Malaysia 27, p. 161-182.
(online at: www.gsm.org.my/products/702001-101078-PDF.pdf)
(SAR survey of Block SK-12 onshore Sarawak allowed more detailed geological and cultural interpretation)

Chouya, S., J. Jong, J. Boay, S. Nakatsuka, S. Lee & P. Millot (2018)- Integrated reservoir fluid characterization in thinly laminated formations- a case study from deepwater Sabah. Bull. Geological Society Malaysia 65, p. 19-36.
(online at: https://gsmpubl.files.wordpress.com/2018/08/bgsm201803.pdf)

Chung, E., Ting King King & O. Al Jaaidi (2012)- Karst modeling of a Miocene carbonate build-up in Central Luconia, SE Asia: challenges in seismic characterisation and geological model building. In: Int. Petroleum Technology Conference (IPTC), Bangkok 2012, 2, IPTC 14539, p. 1023-1028.
(Alpha field one of best imaged isolated carbonate platforms in C Luconia. Dendritic features, interpreted as karst dissolution during sub-aerial exposure. Exploration well encountered total losses while drilling into karst (common in Central Luconia carbonates). Wells nearer to karst more likely to water out quicker)

Chung, K.W., A.H.A. Rahman & C.W. Sum (2012)- Sedimentology stratigraphy and microfossils of mid-Late Tertiary clastic, Sandakan Formation in NE Borneo. Proc. ICIPEG 2012 Conference, Kuala Lumpur 2012, p.
(Extended Abstract only. Sandakan Fm of Segama Group exposed across Sandakan Peninsula, E Sabah. U Miocene part of Segama Group three lithofacies: 1) brackish mudstone, 2) shallow marine sandstone and mudstone and 3) cross-bedded estuarine sandstone)

Chung, K.W., J. Asis, S. Tahir, B. Musta, K. Bidin, R. Rahmat & H. Saleh (2024)- Tidal-influenced shoreline interpretation of Miocene Tanjong Formation in Imbak Canyon, Sabah, Malaysia. Bull. Geological Society Malaysia 77, 1, p. 47-57.
(online at: https://gsm.org.my/articles/bgsm202477-06/)
(Shallow marine E Miocene Tanjong Fm outcrops at Imbak Canyon in Tongod district display tidal signatures)

Chung, K.W., C.W. Sum & A.H.A. Rahman (2015)- Stratigraphic succession and depositional framework of the Sandakan Formation, Sabah. Sains Malaysiana 44, 7, p. 931-940.
(online at: www.ukm.my/jsm/pdf_files/SM-PDF-44-7-2015/03%20Khor%20Wei%20Chung.pdf)
(Sedimentology of Late Miocene Sandakan Fm, exposed across Sandakan Peninsula in E Sabah. Unconformably overlies Garinono Fm. Seven lithofacies in estuary and shallow marine facies)

Chung, W.K. & D. Ghosh (2017)- Growth timing of Southern Field High carbonates, Central Luconia Province. In: M. Awang et al. (eds.) Proc. Int. Conf. Integrated Petroleum Engineering and Geosciences (ICIPEG2016), Kuala Lumpur 2016, Springer Verlag, p. 491-497.
(Growth timing of studied Miocene carbonate platform at C Luconia Province ~4 Myrs, governed by third-order sea-level fluctuations and syndepositional tectonics. First karstification during Burdigalian sea-level drop, over complex horst- graben setting, configured by seafloor expansion of S China Sea, before carbonate initiation. Second major subaerial exposure/ karstification in Langhian. Third subaerial exposure minor karstification. Final drowning in Serravallian without subaerial exposure)

Chung, W.K., D. Menier, S.N.F. Jamaludin & D. Ghosh (2016)- Geomorphology and karstification of the Southern Field High carbonates in Central Luconia Province. Proc. Offshore Technology Conference Asia, Kuala Lumpur 2016, OTC-26650-MS, p. 1-16.
(Miocene carbonate platform development of Southern Field High of C Luconia Province. Initial patchy growth during Burdigalian, followed by build-out and backstepping. Four 3rd order Burdigalian-Serravallian eustatic cycles prior to platform drowning and rapid proto-Borneo clastic influx. With extensive karst development by sub-aerial exposure and re-submergence of carbonate platforms. Karstification mainly along fractures and faults. Final drowning correlated to surge of sea level rise in Serravallian)

Church, J. & Bong Poh Yuk (2012)- The Seria Field, Brunei....80 years on.... Near field exploration going strong! Int. Petroleum. Technical Conf. (IPTC), Bangkok 2012, 3, IPTC 15199, p. 2849-2852.
(Seria oil field in onshore discovered in 1929 and produced >1.1 billion BO. Production peaked 120,000 BOD in 1956. Field still has undeveloped hydrocarbon resources on N flank under shallow surf zone, to be targeted by onshore 'fish-hook wells')

Clark, J. (2017)- Neogene tectonics of Northern Borneo: a simple model to explain complex structures within Miocene-Recent deltaic-deepwater sediments both onshore and offshore. Proc. SEAPEX Exploration Conference 2017, Singapore, Session 7, p. 1-26. *(Extended Abstract + Presentation)*
(All Neogene deformation across N Borneo is result of uplift and erosion of detached, gravity-driven collapse system and shale diapyrism, not product of multi-phase basement tectonics. Deep Regional Unconformity may not be unconformity, rather diachronous mechanical boundary of different responses of overpressured shale and more competent sandy sediments to gravity-driven collapse)

Clark, J., P. Owen, S. O'Brien & B. Dawe (2015)- Central Luconia carbonates- 'Shooting fish in a barrel': insights into success and failure mechanisms in a mature gas province. Proc. 2015 SE Asia Petroleum Exploration Society (SEAPEX) Conference, Singapore, 5.3, p. 1-4. *(Extended Abstract)*
(>110 wells drilled in C Luconia area since 1968, offshore Sarawak, discovering 50 TCF gas-in-place, mainly in Late Miocene carbonate buildups. Lack of charge (migration focus) principal cause of failure in carbonate structures, with presence of seal (presence or absence of 'thief beds') over buildups a secondary factor)

Clark, J., P. Owen, S. O'Brien, B. Dawe (2017)- Central Luconia carbonate exploration- an update after three more SK408 wildcats, has the story changed? In: SEAPEX Exploration Conference 2017, Singapore, Session 7, p. 1-3. *(Extended Abstract + Presentation)*
(In C Luconia province off Sarawak 60 TCF gas in-place discovered, majority in Late Miocene carbonate buildups play. Many carbonate buildups underfilled, probably due to 'thief beds'. Since 2015 paper two more discoveries made in SK408 PSC, including accumulation with gas column height >900m)

Clement, J.F. & A.J. Keij (1958)- Geology of the Kudat Peninsula, North Borneo (Compilation). Royal Dutch Shell Group of Companies in British Borneo, Report GR783, p. *(Unpublished)*
(Unpublished but apparently widely distributed in academic groups)

Clennell, B. (1991)- The origin and tectonic significance of melanges in Eastern Sabah, Malaysia. J. Southeast Asian Earth Sciences 6, 3-4, p. 407-429.
(E Sabah melanges composed mainly of deep water clastics, deposited in C Sabah Basin, mixed with exotic ophiolitic material. Melanges not metamorphosed; vitrinite reflectance data suggest maximum temperature of <120°C in matrix. Ophiolitic blocks commonly have tectonic shearing fabrics associated with low temperature metamorphism and interpreted as inherited from shear in ocean floor environment (e.g. fracture zones) or associated with ophiolite obduction. All melanges of E Sabah formed in series of related events in late E Miocene and earliest M Miocene time. These events, which triggered sedimentary, diapiric and tectonic melange-forming processes, are related to coeval onset of extension and sea floor spreading in SE Sulu Sea)

Clennell, M.B. (1992)- The melanges of Sabah, Malaysia. Ph.D. Thesis, University of London, p. 1-404. *(Unpublished)*

Clennell, M.B. (1996)- Far-field and gravity tectonics in Miocene basins of Sabah, Malaysia. In: R. Hall & D.J. Blundell (eds.) Tectonic evolution of SE Asia, Geological Society, London, Special Publ. 106, p. 307-320.
(Oceanic spreading ceased in S China Sea at ~17 Ma, after start of collisions of Asian mainland continental blocks and NW Borneo and Palawan, causing uplift, erosion and 'Deep Regional Unconformity' in NW Sabah. During compression at S margin of S China Sea, Sulu Sea underwent extension, with rifting in NW and oceanic spreading in SE. E Sabah changed from deep marine clastic depositional environment in Oligocene- E Miocene, to shallow marine and terrestrial sedimentation in M-L Miocene, with melange formation at time of the Deep Regional Unconformity. Inversion of Miocene in E Sabah limited to edges of basement blocks, which moved by

far-field tectonic stresses. Post M Miocene basin evolution Sabah and Sandakan Basin influenced by mud diapirism and sagging of progradational sand-rich sediments into underlying muds and melange units)

Collenette, P. (1955)- The coal deposits and a summary of the geology of the Silimpopon area, Tawau District, colony of North Borneo. Geological Survey Department, British Territories in Borneo, Kuching, Memoir 2, p. 1-74.
(Coal seams of Silimpopon area in gently dipping Miocene strata. Pre-upper Eocene sediments (probably Upper Cretaceous-Lower Eocene) in North. Local igneous masses. Only one coal seam of economic significance)

Collenette, P. (1958)- The geology and mineral resources of the Jesselton- Kinabalu area, North Borneo. Geological Survey Department, British Territories in Borneo, Memoir 6, p. 1-194.
(Geology of area of NW Sabah, mainly dominated by thick series of Eocene- M Miocene sediments, severely folded in M Miocene time, incl. Late Cretaceous- E Eocene Chert-spilite Fm (interbedded spilite-basalt and chert-rich sediments; = Danau Fm of Molengraaff?), Eocene 'flysch-type' deep marine Trusmadi and Crocker Fms, associated with peridotites. Unmetamorphosed facies of Trusmadi dettrital limestone interbeds with M-L Eocene larger forams (Aktinocyclina, Pellatispira, Nummulites). Also Late Miocene Mt Kinabalu granodiorite, Trusmadi Mts phyllites and ultrabasic rocks. With 1:125,000 scale geologic map)

Collenette, P. (1960)- Pensiangan and Upper Kinabatang area. Annual Report Geological Survey Department, British Territories in Borneo 1960, p. 99-106.
('Preview' of Memoir 12, S Sabah (Collenette 1965))

Collenette, P. (1963)- The Miocene backdeep in Borneo. In: F.H. Fitch (ed.) Proc. British Borneo Geological Conference 1961, Kuching, Geological Survey Department, British Territories in Borneo, Bull. 4, Kuching, p. 47-60.
(In C-E Sabah NNE-SSW trending Miocene basinal basinal area, here called a 'backdeep', behind (East of) a N-S 'geanticlinal ridge. Latest Oligocene (Te1-4) and E Miocene (Te5) sediments unconformable on Cretaceous-Eocene deep water sediments of chert-spilite and Crocker Fms. Upper Miocene unconformably oversteps Lower Miocene. Possibly >30,000' of sediments, possibly related to rifting and possible ties with 'Plateau Sandstone' of C Kalimantan (see also Balaguru et al. 2003; Meliau- Tikung 'circular basins'; on trend with Tarakan Basin?; JTvG)

Collenette, P. (1964)- A physiographic classification of North Borneo. J. Tropical Geography 17, p. 28-33.

Collenette, P. (1964)- A short account of the geology and geological history of Mt Kinabalu. Proc. Royal Society (London), B, 161, 982, p. 56-63.
(Mt Kinabalu is E Pliocene circular granodiorite body, intruded into highly folded Eocene- Miocene sediments and associated ultrabasic and basic igneous rocks. Present landform considered to be mid-Pliocene peneplain, arched and deeply dissected, through which Kinabalu granodiorite has risen in isostatic adjustment)

Collenette, P. (1965)- The geology and mineral resources of the Pensiangan and Upper Kinabatangan area, Sabah. Geological Survey of Malaysia, Borneo Region, Kuching, Memoir 12, p. 1-150.
(Geologic map and description of S Sabah, at NE Kalimantan border. Mainly deep-water ('eugeosynclinal') U Cretaceous- U Eocene Rajang Gp sedimentary rocks in NE trending thrust faults of accretionary complex, which have locally undergone metamorphism. Overlain unconformably by shallower facies Oligocene-Miocene Kinabatang Gp, some folded in large 'circular basins' like Meliau and Malibau. Associated with U Cretaceous-Lower Eocene basalt and spilite, Oligocene? gabbro and peridotite and younger basalt and spilite)

Collenette, P. (1966)- The Garinono Formation, Sabah, Malaysia. In: Annual Report of the Geological Survey, Borneo region Malaysia,1965, Kuching, p. 161-167.
(Late Miocene or younger tilloid Garinono Fm around Sandakan and beyond. Bluish mudstones with large blocks from other formations, mainly Crocker and Kalupis Fms sediments, also Cretaceous limestones, chert, etc. Possibly large slump deposit, or olistostrome or 'melange' (see also Clennell, 1996, Halim et al., 2024)))

Collins, D.S., H.D. Johnson & P.A. Allison (2015)- Mixed-energy, coupled storm-flood depositional model: application to Miocene successions in the Baram Delta Province, NW Borneo. AAPG Search and Discovery Article 51133, p. 1-33. *(Abstract + Presentation)*
(online at: www.searchanddiscovery.com/documents/2015/51133collins/ndx_collins.pdf)

Collins, D.S., H.D. Johnson, P.A. Allison & A.R. Damit (2018)- Mixed process, humid-tropical, shoreline-shelf deposition and preservation: Middle Miocene- modern Baram Delta Province, Northwest Borneo. Journal of Sedimentary Research 88, 4, p. 399-430.
(Comparision of outcrop analyses of facies and stratigraphic architecture in M Miocene Belait Fm with process-based geomorphological and sedimentological analyses of coastal-deltaic depositional environments in present-day Baram Delta Province)

Collins, D.S., H.D. Johnson, P.A. Allison, P. Guilpain & A.R. Damit (2017)- Coupled 'storm-flood' depositional model: application to the Miocene- modern Baram Delta Province, north-west Borneo. Sedimentology 64, 5, p. 1203-1235.
(manuscript online at: https://core.ac.uk/download/pdf/77017250.pdf)
(Miocene -Recent Baram Delta Province 9-12 km of coastal-deltaic to shelf sediments over past 15 Myr. Facies analysis of outcrops suggests 'storm-flood' depositional model, with two distinct periods: (1) fair-weather periods dominated by longshore sediment reworking and coastal sand accumulation; and (2) monsoon-driven storm periods characterised by increased wave energy and offshore-directed downwelling storm flow that occur simultaneously with peak fluvial discharge caused by 'storm-floods')

Collins, J.S.H., C. Lee & J. Noad (2003)- Miocene and Pleistocene crabs (Crustacea, Decapoda) from Sabah and Sarawak. J. Systematic Palaeontology 1, 3, p. 187-226.
(Three new genera and 20 new species of Miocene and Pleistocene fossil crabs described from area SW of Miri, Sarawak and Sandakan Peninsula of E Sabah. See also Morris & Collins 1991)

Cottam, M., R. Hall, C. Sperber & R. Armstrong (2010)- Pulsed emplacement of the Mount Kinabalu granite, northern Borneo. J. Geological Society, London, 167, 1, p. 49-60.
(online at: www.researchgate.net/publication/249547491_Pulsed_emplacement_of_the_Mount_Kinaba Etc.)
(Sabah Mt. Kinabalu pluton at least four discrete pulses of intrusion. Concentric growth zones in zircons indicate crystallization between 7.85- 7.22 Ma, and show pluton was emplaced in <800 kyrs. Oldest ages coincide with highest elevations. Inherited zircon ages indicate Upper Unit derived from S China margin attenuated continental crust, subducted beneath Sabah. Middle Unit sourced from melting of crystalline basement in Sabah)

Cottam, M., R. Hall, C. Sperber, B.P. Kohn, M.A. Forster & G.E. Batt (2013)- Neogene rock uplift and erosion in Northern Borneo: evidence from the Kinabalu granite, Mount Kinabalu. J. Geological Society, London, 170, 5, p. 805-816.
(online at: http://searg.rhul.ac.uk/pubs/cottam_etal_2013%20Kinabalu%20exhumation.pdf)
(*Kinabalu granite emplaced between ~7.2-7.8 Ma. Late Miocene- E Pliocene rapid exhumation and uplift of granite demonstrated by radiometric ages of (1) biotite (40Ar/39Ar; 7.3-7.6 Ma), (2) zircon fission-track (6.6-5.8 Ma) and (3) apatite (~5.5 Ma). Emplacement and exhumation of Kinabalu granite not related to Sabah orogeny (terminated in E Miocene), but caused by extension related to subduction rollback of Sulu Arc)*

Cotton, L.J., P.N. Pearson & W. Renema (2014)- Stable isotope stratigraphy and larger benthic foraminiferal extinctions in the Melinau Limestone, Sarawak. J. Asian Earth Sciences 79A, p. 65-71.
(Focused on major extinction of larger foraminifera close to Eocene-Oligocene boundary (Top Tb) in Melinau Limestone, already recognized by G. Adams in 1960s. Isotope analyses (δ13C and δ18O) of rock samples studied by Adams show end-Eocene larger foram extinction event in Melinau Limestone below isotope excursion (although widespread recrystallization is said to hamper isotope interpretations))

Couzens-Schultz, B.A. & K. Azbel (2014)- Predicting pore pressure in active fold-thrust systems: an empirical model for the deepwater Sabah foldbelt. J. Structural Geology 69B, p. 465-480.
(Deepwater Sabah well data used for empirical model for predicting pore pressure in active fold-thrust belt)

Cox, L.R. (1948)- Neogene Mollusca from the Dent Peninsula, British North Borneo. Schweizerische Palaeontologische Abhandlungen 66, 2, p. 3-70.
(Molluscs from Late Miocene- Pliocene sandy marls and clays near E tip of Dent Peninsula. Discusses percentage of living species, geologic ranges and index species).

Crevello, P.D. (2001)- The great Crocker submarine fan: a world-class foredeep turbidite system. Proc. 28th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 378-407.
(Major Late Eocene-Early Miocene submarine fan complex off N Borneo, covering >25,000 km^2)

Crevello, P.D., H.D. Johnson, F. Tongkul & M.R. Wells (2008)- Mixed braided and leveed-channel turbidites, West Crocker Fan system, Northwest Borneo. In: T.H. Nielsen et al. (eds.) Atlas of deep-water outcrops, American Assoc. Petroleum Geol. (AAPG), Studies in Geology 56, p. 50-72.
(Chapters 13-19 on examples of turbidite facies of outcrops in NW Borneo)

Crevello, P., C. Morley, J. Lambiase & M. Simmons (1997)- The interaction of tectonics and depositional systems on the stratigraphy of the active Tertiary shelf margin of Brunei Darussalam. In: J.V.C. Howes & R.A. Noble (eds.) Proc. Int. Conference Petroleum Systems of SE Asia and Australasia., Jakarta, Indonesian Petroleum Association (IPA), p. 767-772.
(M Miocene-Recent stratigraphy of Brunei Darussalam series of seaward younging basins. More than 15 km of deltaic marine sandstone and shale deposited in migrating depocenters. Sediments derived from nearby uplifted Crocker-Rajang accretionary range. Region dominated by at least three delta complexes)

Cui, Y., L. Shao, W. Tang, P. Qiao, G.T. Lai & Y. Yao (2023)- Late Eocene- Early Miocene provenance evolution of the Crocker Fan in the southern South China Sea. Acta Oceanologica Sinica, English Edition, 42, p. 215-226.
(Crocker Fan typical submarine fan, deposited in Late Eocene- E Miocene, and stretches across Sarawak-Sabah. Deposited over Cretaceous-E-M Eocene Rajang Group with angular unconformity. Sediments originated mainly from Malay Peninsula area/ W Sundaland. Extends into southern S China Sea, Etc.)

Cui, Y., Z. Zhao, L. Shao, W. Zhu, P. Qiao, W. Tang & L. Li (2022)- Provenance characteristics and petroleum geological significance of Crocker fan in southern South China Sea. Acta Petrolei Sinica 43, 10, p. 1427-1438.
(online at: http://www.syxb-cps.com.cn/EN/Y2022/V43/I10/1427)
(in Chinese; similar to paper above)

Cullen, A.B. (2010)- The Klias Peninsula and Padas River: NW Borneo, an example of drainage capture in an active tropical foreland basin. AAPG Conv. 2010, New Orleans, Search and Discovery Article 50294, p. 1-7.
(online at: https://www.searchanddiscovery.com/documents/2010/50294cullen/ndx_cullen.pdf)

Cullen, A.B. (2010)- Transverse segmentation of the Baram-Balabac Basin, NW Borneo: refining the model. Petroleum Geoscience 16, p. 3-29.
(W Baram Line separates two petroleum systems: (1) SW: Oligocene sst- Lower Miocene carbonate reservoirs of gas-prone Luconia system; (2) NE: oil-rich Baram-Balabac Basin in M Miocene- E Pliocene sst deposited in foreland basin. Baram-Balabac Basin four structural domains, with NW-SE trending boundaries similar to strike of W Baram Line. Domain boundaries probably deep structures in underlying rifted continental crust. Basin post-dates Sarawak Orogeny Eocene-E Oligocene collision of Dangerous Grounds-Reed Bank with Sabah and Palawan. Minimal Oligo-Miocene subduction of oceanic crust under NW Borneo. Sabah Orogeny and younger inversion events related to underthrusting of Dangerous Grounds driven by S China Sea opening and NW-directed subduction beneath SE Sabah)

Cullen, A. (2011)- Influence of hinterland bedrock lithologies on aspect of Borneo's deepwater fold and thrust belt. Berita Sedimentologi 21, FOSI- IAGI, p. 9-14.
(Online at: www.iagi.or.id/fosi/files/2011/06/FOSI_BeritaSedimentologi_BS-21_June2011_Final.pdf)
(Catchment areas of Borneo's major river systems different bedrock lithologies, affecting provenance type and potential reservoir quality. U Cretaceous-Paleogene deepwater Rajang-Embaluh Gp clastics main source of

reworked quartzose sands shed into Kutei, Tarakan and Baram Basins. Much of Baram basin mud-dominated source, influencing development of raised peat mires, and structural style of deep water fold- thrust belt)

Cullen, A. (2012)- Nature and significance of the West Baram Line, NW Borneo. AAPG International Convention Exhib., Singapore 2012, Search and Discovery Article 30252, p. 1-12.
(online at: www.searchanddiscovery.com/documents/2012/30252cullen/ndx_cullen.pdf)
(Boundary between Luconia-Balingian carbonate province in SW and Baram clastics-dominated basin in NE placed along W Baram and Tinjar Lines. This is is not large-scale E Miocene transform fault, but ancient crustal discontinuity that was persistently re-activated in Cenozoic)

Cullen, A. (2014)- Nature and significance of the West Baram and Tinjar Lines, NW Borneo. Marine and Petroleum Geology 51, p. 197-209.
(West Baram- Tinjar Line not transform boundary between Luconia and Dangerous Grounds, but boundary between domains of continental crust that underwent differential extension in Eocene. Baram Basin underlain by hyperextended continental crust on NE side of Baram Line, with Luconia in SW more rigid block)

Cullen, A. & A. Burton-Johnson (2021)- Comment: New zircon radiometric U-Pb ages and Lu-Hf isotopic data from the ultramafic-mafic sequences of Ranau and Telupid (Sabah, eastern Malaysia): Time to reconsider the geological evolution of Southeast Asia? Geology 49, 11, p. e541.
(Dispute validity of Miocene zircon U-Pb ages reported from ophiolitic rocks in Sabah by Tsikouras et al. (2021). Ultramafic rocks normally devoid of primary zircons, but zircon can crystallize in ophiolitic rocks during hydrothermal alteration. New zircon ages misleading; ophiolite age= Cretaceous)

Cullen, A., C. Macpherson, N.I. Taib, A. Burton-Johnson, D. Geist, T. Spell & R.M. Banda (2013)- Age and petrology of the Usun Apau and Linau Balui volcanics: windows to central Borneo's interior. J. Asian Earth Sciences 76, p. 372-388.
(Usun Apau Plateau in Sarawak along Tinjar Line, which defines onshore part of suture between Luconia and Dangerous Grounds blocks. Plateau made of dacite and andesite erupted between 3.9- 4.1 Ma, and minor basaltic dikes and flows (~2.1 Ma) represening younger episode of volcanism, similar in age and character to Linau Balui basalts 100 km SE of plateau. Volcanics too young to be linked to subduction beneath Borneo. Isotope ratios indicate assimilation of old, possibly Precambrian, continental crust, and similar to Pliocene volcanics of South China Sea and Sulu Arc)

Cullen, A., M.S. Zechmeister, R.D. Elmore & S.J. Pannalal (2012)- Paleomagnetism of the Crocker Formation, northwest Borneo: implications for late Cenozoic tectonics. Geosphere 8, 5, p. 1146-1169.
(online at: https://pubs.geoscienceworld.org/gsa/geosphere/article/8/5/1146/132561/Paleomagnetism-of-the-Crocker-Formation-northwest)
(Paleomagnetic study of Eocene- E Miocene sandstones from NW Sabah Crocker Fm. Sandstones pervasively remagnetized. Mean ChRM directions for 7 locations between Kota Kinabalu and Keningau indicate minor CW rotation, two locations near Tenom record CCW rotation. Remagnetization between 35-15 Ma. Probably early episode of regional CCW rotation before 35 Ma, overprinted by CW rotation of crustal blocks during opening of S China Sea (32-23 Ma), and also locally by CCW rotation after 10 Ma)

Cummings, R.H. (1955)- A preliminary account of foraminifera from the Carbo-Permian, West Sarawak. Annual Report Geological Survey Department, British Territories in Borneo, 1955, p. 79.

Cummings, R.H. (1962)- Limestones of the Terbat Formation, West Sarawak. Annual Report Geological Survey Department, British Territories in Borneo, 1961, p. 36-48.
(Terbat Limestone Fm in W Sarawak with fusulinid foraminifera assigned to E Permian (Wolfcampian = (Asselian- Artinskian?): Pseudoschwagerina zone (Pseudoschwagerina heritschi, P. uber, Paraschwagerina, Schwagerina). Associated small foraminifera suggest correlations with Sumatra and Malaya (incl. Nummolostegina cf. velebitana, Pseudotextularia sumatrensis, Cribrogenerina sumatrana, Climacammina elegans (= similar to Bigenerina/ Cribrostomum elegans from Permian of Sumatra) (For Davydov et al. 2013, these forms signify broad latest Carboniferous- E Permian. See also Fontaine 1990; Sakamoto 2002; JTvG))

Curiale, J., J. Morelos & W. Mueller (2000)- Molecular and isotopic compositional characteristics of Brunei oils; implications for source rock depositional setting. AAPG Annual Convention, Abstracts, p. A28. *(Abstract only)*
(Brunei oils highly paraffinic, enriched in pristane relative to phytane, rich in oleanane and bicadinanes, enriched in C29 steranes relative to C27 and C28, and relatively depleted in extended homohopanes, consistent with presence of angiospermous organic matter and probably implying origin from coals or coaly shales)

Curiale, J., J. Morelos, J. Lambiase & W. Mueller (2000)- Brunei Darussalam- characteristics of selected petroleums and source rocks. Organic Geochemistry 31, 12, p. 1475-1493.
(Three Tertiary deltaic complexes deposited up to 10 km of sediments. Strong correlations between certain molecular maturity indicators and present-day temperature of reservoirs. Liquid hydrocarbon source potential in tidal and coastal embayment facies, and greatest in Miocene coals)

Darman, H. & A.R. Damit (2003)- Structural control on sediment distribution in offshore Brunei Darussalam, South China Sea. Proc. 29th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 347-353.
(Brunei offshore Neogene clastics compartmentalized by faults controlled by gravitational gliding and tectonics. Two types of fault systems, NW dipping down-to-basin faults and SE dipping, counter-regional faults)

Darman, H., A. Sabli, A. Ang, S. Daud, H. Dejong, Bong Poh Yuk, A.R. Damit, M. Tajuddin (2007)- The depositional model of the Upper Miocene section of the eastern offshore area of Brunei Darussalam. Proc. 31st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA07-G-086, p. 1-7.
(Study of Upper Miocene sandstone reservoir distribution on area of Champion, Iron Duke Field and Bugan fields, ~30 km NW of Bandar Seri Begawan. Sediment distribution controlled by structural events)

Dayong, V. & R. Nagarajan (2023)- Interpretation of paleoenvironment using benthic foraminifera from Tertiary rocks, northern Sarawak. Proc. Curtin CGCHDRC 2022, Miri, MATEC Web of Conferences 377, 01002, p. 1-7.
(online at: www.matec-conferences.org/articles/matecconf/pdf/2023/04/matecconf_cgchdrc2022_01002.pdf)
(Brief student paper. 3 Setap Fm shale samples, shallow marine. No age mentioned but probably Late Oligocene-E Miocene))

De Coo, J.C.M. & J.W.E. Lau (1977)- Recognition of reef facies in the Bau limestone (Upper Jurassic- Lower Cretaceous), Sarawak. Geological Survey of Malaysia, Geological Papers 2, p. 72-78.
(Brief survey of facies in Late Jurassic- Early Cretaceous Bau Limestone S of Kuching, W Sarawak. Deposited in reefal setting, mostly oncolite- algal and pelletal back-reef facies. Reef facies rudist-gastropod boundstone and coralgal boundstone. No facies maps)

Dedeche, A.R., B. Pierson & A. Hunter (2013)- Outcrop analogs to the offshore Sarawak Miocene fields, how effective can they be? The Subis limestone as an example. Proc. Petroleum Geology Conference Exhibition (PGCE), Kuala Lumpur 2013, p. 1-30. *(Presentation only)*
(online at: https://seacarledu.files.wordpress.com/2016/06/2015_12_10_dedeche_niah_outcrop-analogs.pdf)
(Gunung Subis large flat-topped limestone hill in Sarawak still represents shape of original E Miocene backstepping isolated carbonate platform. Similar to S China Sea/ Luconia carbonate buildups in terms of growth history, but different diagenetic history)

Dedeche, A.R., B. Pierson & A. Hunter (2013)- Growth history and facies evolution of the Subis Limestone- a carbonate platform exposed onshore Borneo Island, Malaysia. Proc. 75th EAGE Conference & Exhibition, Carbonate depositional environments and diagenesis, London, 1, TuP15 08, p. 55-57. *(Presentation online at: https://seacarledu.files.wordpress.com/2016/06/2015_12_10_dedeche_niah_outcrop-analogs.pdf)*
(Subis Limestone onshore Sarawak (with Niah cave) 2 main sequences: (1) U Oligocene lower sequence, deep marine; (2) Lower Miocene upper sequence; reefal, and forming spectacular limestone hill that reflects original carbonate platform. Good analogue to Sarawak offshore carbonate platforms)

De Heer, P.E. & H.I. Thio (1998)- South Furious Field, the evolution of an interpretation: subsurface model based on latest drilling results. Proc. Offshore South East Asia Conference 1998 (OFFSEA 98), Singapore, SE Asia Petroleum Exploration Society (SEAPEX), p. 125-139.
(S Furious oil field off N Sabah, NE of Labuan Island, 1974 discovery in M Miocene sands in complex compressional wrench structure)

Demyttenaere, R., J.P. Tromp, A. Ibrahim, P. Allman-Ward & T. Meckel (2000)- Brunei deep water exploration: from sea floor images and shallow seismic analogues to depositional models in a slope turbidite setting. In: P. Weimer et al. (eds.) Deep-water reservoirs of the world, GCSSEPM Foundation 20th Annual Research Conference, p. 304-317.

Deraman, F. (2025)- Renewed exploration focus in Sandakan Basin, East Sabah. Proc. SE Asia Petroleum Exploration Society (SEAPEX) Conference, SEC 2025, Singapore, p. 1-11 *(Abstract + Presentation)*
(Petronas revisit of underexplored Sandakan Basin off NE Sabah. Two proven plays: E Miocene reefal buildups and M- L Miocene clastics (shelf-margin wedges, slope channels, basin-floor fans), analogous to nearby fields)

De Silva, S. (1986)- Stratigraphy of the South Mukah- Balingian region, Sarawak. Warta Geologi (Newsletter Geological Society Malaysia), 12, 5, p. 215-220.
(online at: https://gsmpubl.files.wordpress.com/2014/09/ngsm1986005.pdf)
(Onshore W Sarawak S Mukah- Balingian region with intensely folded Eocene Belaga Fm unconformably overlain by gently folded Late Miocene- Pliocene Balingian and younger formations)

Dhonau, T.J. & C.S. Hutchison (1966)- The Darvel Bay area, East Sabah, Malaysia. In: Annual Report of the Geological Survey, Borneo region Malaysia,1965, Kuching, p. 141-160.
(Report on 1965 geological survey work in E Sabah. Exposures of chert-spilite Formation (equated with Danau Fm of Molengraaff (1900) in Kalimantan), underlain by metamorphics (amphibilte, Silumpat gneiss; E Cretaceous age?) and ultramafic rocks))

Dickson, W. & J. Granath (2020)- Geology of the South China Sea and regional tectonics of South East Asia. Part I: Introduction. SEAPEX Press 100, 23-2, p. 32-52.

Dickson, W. & J. Granath (2024)- Geology of the South China Sea and regional tectonics of South East Asia, Part XIV: Northwest Borneo: underpinnings of the Sarawak & Sabah Basins. SEAPEX Press 115, 27, Q1 2024, p. 108-119.
(Review of basement terranes of southern South China Sea and adjacent North Borneo areas. One of a long series of excerpts from the SEATIGER 2005 study in Seapex Press)

Dickson, W., J. Granath & M. Odegard (2022)- Tectonic evolution of the South China Sea region: looking deeper and broader with SEATIGER. Proc. SEAPEX-PESGB Asia Pacific E&P Conference, London 2022, p. 1-4. *(Extended Abstract only)*

Dixey, F. (1957)- British Territories in Borneo. In: Colonial Geological Surveys 1947-1956: A review of progress during the past ten years, Colonial Geology and Mineral Resources, Bulletin Supplement 2, London, p. 88-94.
(Very brief review of activities of the Geological Survey Department, British Territories in Borneo in Kuching, since establishment in 1949-1955. Prior geological activities mainly by Shell group of oil companies and mining companies (coal, bauxite, gold, antimony, mercury, etc.))

Dieseldorff, A. (1906)- Neue Manganerz-Vorkommen in Britisch Nord-Borneo. Zeitschrift fur Praktische Geologie, Berlin, 14, p. 10-11.
('New manganese ore occurrences in British North Borneo'. Brief report on Maruda Bay area occurrences. Little or no geology)

Dill, H.G. & E.E. Horn (1996)- The origin of a hypogene sarabauite-calcite mineralization at the Lucky Hill Au-Sb mine Sarawak, Malaysia. J. Southeast Asian Earth Sciences 14, p. 29-35.

(M Miocene? gold-bearing hypogene Sb mineralization from Lucky Mill Mine in Bau mining district, Sarawak, contains sarabauite and calcite as major constituents. Mineralization two stages, 1: wollastonite, diopside and epidote in Bau Limestone at T >400°C; 2, sarabauite with gold at T above 377°C)

Doust, H. (1977)- Geology and exploration history of offshore Central Sarawak. Proc. First ASEAN Council on Petroleum (ASCOPE) Conference and Exhibition, Jakarta, p. 279-302.
(Same as Doust 1981, below)

Doust, H. (1981)- Geology and exploration history of offshore Central Sarawak. In: M. Halbouty (ed.) Energy Resources of the Pacific Region, American Assoc. Petroleum Geol. (AAPG), Studies in Geology 12, p. 117-132.
(Central part of offshore Sarawak is ~300 km wide continental shelf that forms E-most part of N Sunda shelf. Geologically, it includes NW Borneo basin with Oligocene-Holocene coastal-plain to deeper marine sediments, developed in 8 depositional cycles. Deformation most severe in nearshore part or Balingian Province. Outer shelf (Luconia Province) characterized by an extensive Miocene reefal carbonates. Exploration of shelf area during last 15 years resulted in one oil field and several gas discoveries)

Dronamraju, S.V.C., J. Finol, A.M. Koraini & A.A. Zakaria (2005)- Constraining geological heterogeneity in complex reservoirs: implications for stochastic modeling and reservoir management. In: SPE Asia Pacific Oil and Gas Conference and Exhibition (APOGCE), Jakarta 2005, 93853-MS, p. 1-11.
(Depositional model of Lower Miocene fluvial and deltaic reservoir bodies in D18 field, 20km offshore Bintulu, Sarawak. 80% of production from distributary channels and mouth bars of middle Cycle 2)

Edwards, M.B. (2002)- Sequence stratigraphic responses to shoreline-perpendicular growth faulting in shallow marine reservoirs of the Champion field, offshore Brunei Darussalam, South China Sea: Discussion. American Assoc. Petroleum Geol. (AAPG) Bull. 86, 5, p. 919-921.
(Critical discussion of Hodgetts, Imber et al. (2001) paper, followed by Reply)

Elliott, G.F. (1960)- Limestone, probably of Lower Cretaceous age, and radiolarian chert of Cretaceous age from the Bau Formation, west Sarawak. British Geological Survey (BGS) Report WH/OA/00/134, p.
(Unpublished report by British Museum (Natural History) for British Overseas Geological Surveys (1960-1964); not online)

Elliott, G.F. (1960)- Jurassic limestones from the Bau area, west Sarawak. British Geological Survey (BGS) Report WH/OA/00/135, p.
(Unpublished report by fossil algae specialist G.F. Elliott of British Museum (Natural History,) for British Overseas Geological Surveys (1960-1964); not online)

Elliott, G.F. (1960)- Fossiliferous limestones, some with numerous radiolaria, mostly of Upper Jurassic age from the Bau Formation, west Sarawak. British Geological Survey (BGS) Report WH/OA/00/144, p.
(Unpublished report by British Museum (Natural History) for British Overseas Geological Surveys (1960-1964); not online)

Elliott, G.F. (1964)- Algae and other fossils, mostly of Upper Jurassic age, in the Bau Formation, west Sarawak. British Geological Survey (BGS) Report WH/OA/00/184, p.
(Unpublished report by British Museum (Natural History) for British Overseas Geological Surveys (1960-1964); not online)

Elliott, G.F. (1970)- *Pseudocymopolia*, a Mesozoic Tethyan alga (Family Dasycladaceae). Paleontology 13, 2, p. 323-326. *(online at: https://palass.org/sites/default/files/media/publications/palaeontology/volume_13/vol13_part2_pp323-326.pdf)*
(Flanged dasyclad algae of Late Jurassic- Cretaceous age widely distributed across Tethys. New genus/species Pseudocymopolia orientalis for specimens from Bau Limestone near Tubiti, Sarawak, N Borneo)

Elliott, G.F. (1972)- *Trinocladus exoticus*, a new dasycladacean alga from the Upper Cretaceous of Borneo. Palaeontology 15, 4, p. 619-622.
(online at: http://palaeontology.palass-pubs.org/pdf/Vol%2015/Pages%20619-622.pdf)
(New algal fossil from Upper Cretaceous Chert-Spilite Fm, Sabah. Signifies warm, shallow marine water)

Epting, M. (1980)- Sedimentology of Miocene carbonate buildups, Central Luconia, Offshore Sarawak. Bull. Geological Society Malaysia 12, p. 17-30.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1980002.pdf)
(Central Luconia Miocene carbonate province with >200 buildups seismically mapped, 43 drilled, leading to 20 gas discoveries. Majority with excellent secondary porosity from fresh-water leaching and dolomitization. Four basic facies types)

Epting, M. (1989)- The Miocene carbonate buildups of Central Luconia, offshore Sarawak. In: A.W. Bally (ed.) Atlas of seismic stratigraphy, American Assoc. Petroleum Geol. (AAPG), Studies in Geology 27, p. 168-173.
(Over 60 M-L Miocene carbonate buildups tested in C Luconia province shelf area since 1967. Seven giant gas fields >1 Tcf and >20 smaller gas accumulations. Size and distribution of buildups structurally controlled. Large platform-type buildups on highs, pinnacle-type buildups in areas of stronger subsidence, and closer to the source of clastic material. SW-NE alignment of buildups probably reflects rift-induced structural trends. Most buildups now covered by 1000-2000m of progradational deltaic clastics)

Everett, A.H. (1878)- Notes on the distribution of the useful minerals in Sarawak. J. Straits Branch Royal Asiatic Society 1, p. 13-30.
(Early note on occurrences of gold, coal, diamonds, etc., in Sarawak. No maps)

Faisal, M.M., S.A.K. Omang & S.H. Tahir (1995)- Geology of Kota Kinabalu and its implications to groundwater potential. Bull. Geological Society Malaysia 38, p. 11-20.
(online at: www.gsm.org.my/products/702001-100929-PDF.pdf)
(Kota Kinabalu, Sabah, area underlain by complexly folded and often steeply dipping Late Eocene-Lower Miocene Crocker Fm sands-shales, deformed during middle Late Miocene 2-phase folding with older N-S trend followed by broad NE-SW orientation (Crocker Thrust). Superimposed are Late Miocene E-W trending gentle folds. Only Crocker Fm sandstone units and overlying Quaternary alluvium significant groundwater reservoirs)

Fang, X.D., A.M. Zhang, Y.J. Wang, X.Y. Hu, X. Qian, H. He & M. Chen (2020)- Geochronology and geochemical characteristics of Lundu mafic rocks in Kuching area, Sarawak. Earth Science (China) 46, 6, p. 2133-2144. *(in Chinese)*
(online at: http://www.earth-science.net/en/article/doi/10.3799/dqkx.2020.048)
(Late Cretaceous Lundu gabbroic pluton in Kuching area with zircon crystallization age 83.4±0.9 Ma (Late Cretaceous). Parental magmas likely from mantle source modified by subduction fluid and sediments in back-arc basin setting during subduction of Paleopacific plate. May link with Hainan, SE China, and Vietnam)

Farrant, A.R., P.L. Smart, F.F. Whitaker & D.H. Tarling (1995)- Long-term Quaternary uplift rates inferred from limestone caves in Sarawak, Malaysia. Geology (GSA) 23, p. 357-360.
(Long-term base-level lowering measured in Mulu limestone caves in Sarawak is ~19cm/ ky, and has remained constant over at least last 700 ka. Base-level lowering occurs in response to epeirogenic uplift of more resistant limestones due to regional denudation of softer shales, and flexural isostasy associated with high rates of offshore sedimentation)

Ferdous, N. & A.H. Farazi (2016)- Geochemistry of Tertiary sandstones from southwest Sarawak, Malaysia: implications for provenance and tectonic setting. Acta Geochimica 35, 3, p. 294-308.
(online at: http://english.gyig.cas.cn/pu/papers_CJG/201608/P020160809534849297876.pdf)
(Paleocene- Miocene sandstones from SW Sarawak (Kayan Sst, Plateau Sst, Silantek Fm) sublitharenites, dominantly composed of quartz with minor mica, feldspar and volcanic fragments. Derived from quartz-rich recycled orogenic sources. Felsic igneous source suggested by a low TiO2 compared to CIA, etc.)

Ferguson, A., A. Bouma, L.D. Santy & S. Suliaman (2004)- Control of regional and local structural development on the depositional stacking patterns of deepwater sediments in Offshore Brunei Darussalam. In: R.A. Noble et al. (eds.) Proc. Deepwater and frontier exploration in Asia & Australasia symposium, Jakarta 2004, Indonesian Petroleum Association (IPA), p. 113-125.

Fiah, N.M. & J.J. Lambiase (2014)- Ichnology of shallow marine clastic facies in the Belait Formation, Brunei Darussalam. Bull. Geological Society Malaysia 60 (C.S. Hutchison Memorial Volume), p. 55-63.
(online at: https://gsmpubl.files.wordpress.com/2015/04/bgsm2014006.pdf)
(M-L Miocene Belait Fm in Brunei outcrops with pervasive Cruziana and Skolithos trace fossil assemblages in shallow marine setting. Tidal channel sandstones have low energy Skolithos ichnofacies, sandy and muddy tidal flats have Cruziana ichnofacies. Upper shoreface sandstones have low energy Skolithos ichnofacies, lower shoreface sandstones have Cruziana ichnofacies)

Fitch, F.H. (1955)- The geology and mineral resources of part of the Segama Valley and Darvel Bay area, Colony of North Borneo. Geological Survey Department, British Territories in Borneo, Memoir 4, p. 1-142.
(Mapping of Segama valley- Darvel Bay area, E Sabah. Pre-Late Eocene peridotites asscociated with Late Cretaceous- E Eocene deep marine sediments and volcanics (Chert-spilite formation), deformed into N-dipping thrust sheets. Rare metamorphics, including glaucophane schist. After 'Middle' Eocene folding-uplift locally overlain by Eocene and Miocene formations, with reworked ophiolite debris at base of Tertiary. Period of andesitic volcanism in Early Miocene (Aquitanian). Folding episode between E Miocene (Td-Te1-4; = Oligocene;JTvG) and rel. undeformed Late Miocene (Te5-Tf; = E-M Miocene; JTvG). With 1:125k scale geologic map, with remarkable lack of faults)

Fitch, F.H. (1956)- Problems of stratigraphy and geotectonics in North Borneo. Proc. 8th Pacific Science Congress, Philippines 1953, 2, p. 537-551.
(Status of geologic research in N Borneo, with special reference to age of pre-Tertiary and lower Tertiary sedimentary and intrusive rocks and close tectonic relationship of N Borneo with Philippines)

Fitch, F.H. (1958)- The geology and mineral resources of the Sandakan area and parts of the Kinabatangan and Labuk valleys, North Borneo. Geological Survey Department, British Territories in Borneo, Memoir 9, p. 1-189.
(Area with sedimentary, extrusive, intrusive, and metamorphic rocks of upper Cretaceous-Tertiary age. W quarter of area ultrabasic intrusives of Tingka-Meliau mountains and flanking basalts surrounded by sediments of Eocene Kulapis and Crocker Fms. Flatter country of remainder of area Kulapis Fm, with Aquitanian strata, and Upper Miocene beds that form circular basins. Copper deposits in Sandakan area)

Fitch, F.H. (1961)- Oil in Sarawak, 1910-1960. Annual Report Geological Survey Department, British Territories in Borneo, 1960, Kuching, p. 22-31.
(Summary of Shell commemorative volume of same title. Main event was Miri oilfield discovery by Royal Dutch/Shell subsidiary in 1910. Miri 1 producing mainly from ~1000' depth)

Fitch, F.H. (1961)- British Borneo. In: Lexique stratigraphique international, 2nd Edition, Stratigraphic Comm., International Geological Congress, Paris, III, Asie, 7b, p. 1-126.
(Second edition of North Borneo stratigraphic lexicon (first edition by Alexander (1956))

Fitch, F.H. (1961)- Geological map of Sarawak and part of Brunei, scale 1:2,000,000. Geological Survey Department, Federation of Malaysia, 1961.

Fitch, F.H. (ed.) (1963)- Proceedings of the British Borneo Geological Conference 1961, Kuching, Geological Survey Department, British Territories in Borneo, Bull. 4, Kuching, p. 1-184.
(Collection of 11 papers by Haile, Brondijk, Fitch, Collenette, Wilson, Adams, Wolfenden, Keij, etc.)

Fitch, F.H. (1963)- Possible role of continental core movements in the geological evolution of British Borneo. In: F.H. Fitch (ed.) Proc. British Borneo Geological Conference 1961, Kuching, Geological Survey Department, British Territories in Borneo, Bull. 4, Kuching, p. 31-46.

(Structure of Borneo Island explained as continuous N/ NW-ward movement of its continental core from Late Cretaceous to present, with short pauses in Late Eocene and Middle Miocene, 'underthrusting the floor of the geosyncline'. North Borneo is >100 mile wide belt of steeply dipping deep-water sediments. Mainly thrusting and imbrication, less isoclinal folding. Driving mechanism not clear)

Fitch, F.H. (1963)- Geological relationship between the Philippines and Borneo. The Philippine Geologist (J. Geological Society of the Philippines) 17, 2, p. 41-47.

Fong, Y.N., D.D.-Wan & P.M. Viswanathan (2024)- Observations on palynology of the Tukau Formation in northwest Sarawak, Malaysia. Bull. Geological Society Malaysia 78, p. 75-90.
(online at: https://gsm.org.my/articles/bgsm202478-07/)
(Palynology of 15 samples from 'M Miocene or younger' Tukau Fm in Baram Delta complex, S of Miri, NW Sarawak)

Fontaine, H. (1990)- The Terbat Formation of Sarawak (Malaysia): a very peculiar limestone. In: H. Fontaine (ed.) Ten years of CCOP research on the Pre-Tertiary of East Asia, United Nations ESCAP, CCOP, Technical Publication 20, p. 173-181.
(W Sarawak Terbat Fm dark grey limestone with fusulid foraminifera and little or no corals, described earlier by Krekeler (1932), Cummings (1961) and Sanderson (1966). Locally up to 600m thick. Unlike earlier papers here believed to be mainly of M-U Carboniferous age, ranging up into earliest Permian (Moscovian- E Asselian). Warm water limestones with some similarities to limestones of E Malay Peninsula, E Thailand and Vietnam, but very different from age-equivalent rocks of W Malay Peninsula- Peninsular Thailand ('Sibumasu'). Pebbles of possibly related fusulinid limestone found in conglomerates of Triassic (Sadong Fm), Jurassic (Kedadom Fm) and Cretaceous (Pedawan Fm) ages (also reworked in Paleogene of NW Kutai Basin; JTvG))

Fontaine, H. & W.K. Ho (1989)- Note on the Madai-Baturong limestone, Sabah, East Malaysia; discovery of Caprinidae (Rudists). United Nations ESCAP, CCOP Newsletter, Bangkok, 14, 3-4, p. 27-32.
(Isolated limestone occurrence with Upper (Lower?) Cretaceous caprinid rudists at Gunung at Madai and Baturong hills SE of Lahad Datu, SE Sabah. (probably deposited on seamount in oceanic setting; Lee 2003))

Foo Yuan Han (2010)- Biostratigraphy correlation of the Subis Limestone with equivalent limestone bodies in offshore Balingian province, Sarawak and Prupuh limestones in Java. Proc. ICIPEG 2010, Int. Conference Integr. Petroleum Engineering and Geosciences, Kuala Lumpur 2010, p. 31-32. *(Abstract only)*
(Subis Lst is member of Tangap Fm at Niah. Larger foraminifera include Miogypsina, Nephrolepidina, probably E Miocene age. Similar age limestone in wells in Balingian province, offshore Sarawak and NE Java)

Forrest, J.K., A. Hussain M. Orozco, R.M. Henson, J.P. Bourge, T. Bui et al. (2009)- Samarang Field- seismic to simulation redevelopment evaluation brings new life to an old oilfield, Offshore Sabah, Malaysia. Int. Petroleum Technology Conference (IPTC), Doha, IPTC13162, p. 1-16.
(online at: https://www.slb.com/~/media/Files/technical_papers/130/13162.pdf)
(Samarang field 35 year-old oilfield in E part of Baram Delta. Initially developed by Shell in 1975. Petronas currently operating and reducing production decline rates Large rollover anticline, producing from Late Miocene- E Pliocene deltaic- marine sandstones. Not much on geology)

Foschi, M. & P. Van Rensbergen (2022)- Topseal integrity assessment using seal properties and leakage phenomena. Marine and Petroleum Geology 139, 105573, p. 1-15.
(online at: https://www.sciencedirect.com/science/article/pii/S0264817222000514)
(Large gas-chimney above M-L Miocene reefal buildup of 2.4 TCF Marjoram Gas Field, C Luconia, off Sarawak (2014 discovery). Hosted by clay-dominated sealing sequence with m-scale silt beds. Affected by network of normal faults. Result of gas leakage from crest of ~500m thick carbonate pinnacle-reef below. Gas likely migratied via faults and cross-fault-plane juxtapositions. Leakage driven by 455m long gas column of subjacent Marjoram Gas Field)

Franke, D., U. Barckhausen, I. Heyde, M. Tingay & N. Ramli (2008)- Seismic images of a collision zone offshore NW Sabah/ Borneo. Marine and Petroleum Geology 25, p. 606-624.
(BGR seismic data from S South China Sea, used for investigation of Miocene- Recent compressional sedimentary structures of continental margin off NW Borneo. Closing of Proto-S China Sea began at ~44Ma)

Galin, T. (2013)- Provenance of the deep marine Belaga Formation in the Sibu Zone north of the Lupar Line, Sarawak, Malaysia. M.Sc. Thesis, Royal Holloway, University of London, p. 1-161. *(Unpublished)*

Galin, T., H.T. Breitfeld, R. Hall & I. Sevastjanova (2017)- Provenance of the Cretaceous-Eocene Rajang Group submarine fan, Sarawak, Malaysia from light and heavy mineral assemblages and U-Pb zircon geochronology. Gondwana Research 51, p. 209-233.
(online at: http://searg.rhul.ac.uk/pubs/galin_etal_2017%20Rajang%20provenance%20Sarawak.pdf)
(Rajang Gp clastics in N Borneo thick, large deep-water submarine fan complex. In Sarawak Lupar and Belaga Fms deposited fom latest Cretaceous (Maastrichtian) to late M Eocene. Borneo one of the few places in SE Asia with sediments of this age preserved. Main source regions Schwaner Mts in SW Borneo, and W Borneo/Malay Tin Belt. Heavy mineral assemblages and detrital zircon U-Pb dating show 3 units: (1) Late Cretaceous- E Eocene age zircon-tourmaline-dominated (2) Early to M Eocene zircon-dominated, abundant Cretaceous zircons and few Precambrian zircons derived primarily from Schwaner Mts; (3)M Eocene zircon-tourmaline-dominated. Limited contemporaneous magmatism during Rajang Gp deposition, inconsistent with subduction/ arc setting. Rajang Gp deposited N of shelf edge formed by Lupar Line strike-slip fault)

Gan, C.S., X. Qian, Y. Wang, Q. Feng, Y. Zhang & J. Bin Asis (2022)- Late Cretaceous granitoids along the Northern Kuching Zone: implications for the Paleo-Pacific subduction in Borneo. Lithosphere 2022, 1, 3310613, p. 1-17.
(online at: https://pubs.geoscienceworld.org/gsa/lithosphere/article/2022/1/3310613/613501/Late-Cretaceous-Granitoids-along-the-Northern)
(E-W-trending Kuching zone in Borneo likely S continuation of Cretaceous Paleo-Pacific subduction system magmatism from S China, Vietnam to SE Asia. Late Cretaceous granitoids in N Kuching zone dated at ~77.5-83.6 Ma (E Campanian), i.e. younger ages than igneous rocks in S Kuching zone (~130-144 Ma; Berriasian-Hauterivian)). Granitoids derivated from hybrid source involving meta-sedimentary and meta-igneous rocks. Episodes of Cretaceous igneous rocks in Kuching zone comparable to those in S China and Vietnam)

Ganesan, B.M.S. (1997)- Geology and hydrocarbon potential of the offshore western Sarawak shelfal area. Proc. 3rd Conference Asean Council on Petroleum (ASCOPE), Jakarta 1997, 2, p. 131-148.

Gartrell, A., J. Torres & N.M. Hoggmascall (2012)- A regional approach to understanding basin evolution and play systematics in Brunei- unearthing new opportunities in a mature basin. Int. Petroleum Technology Conference (IPTC), Bangkok 2012, IPTC 15171, p. 2802-2806. *(Extended Abstract)*
(Summary of Shell Brunei integrated geologic study of deepwater Brunei acreage. Deltaic sediments derived from uplifted and eroding hinterland (Crocker Ranges) built out over pre-existing and intermittently active foreland fold-thrust belt. Series of basinward younging extensional growth faults formed due to differential loading in paleo-outer shelf locations. Major anticlinal structures on shelf previously interpreted as shale diapirism now reinterpretated as inversion structures. Etc.)

Gartrell, A., J. Torres & N. Hoggmascall (2012)- A regional approach to understanding basin evolution and play systematics in Brunei- unearthing new opportunities in a mature basin. AAPG International Convention Exhib., Singapore 2012, Search and Discovery Article 10467, p. 1-14.
(online at: www.searchanddiscovery.com/documents/2012/10467gartrell/ndx_gartrell.pdf)
(Presentation. Pretty regional cross-sections, etc., with little or no explanation)

Gassim M.B., S.H. Tahir & S. Sadikun (1995)- Structural geology of the Crocker Formation and its tectonic control, Sabah, Malaysia. Proc. Int. Symposium Geology of Southeast Asia and adjacent areas, Hanoi 1995, Journal of Geology, Hanoi, B, 1995, 5-6, p. 181-196.

(Late Eocene- Early Miocene Crocker Fm turbiditic sediments of W coast Sabah subjected to at least two tectonic events: (1) Early-Middle Miocene folding due to N-S and NW-SE directed compression and (2) Pliocene NE-SW compression, less pronounced than (1))

Gassim, M.B. & S.H. Tahir (1995)- Canggaan bertindan dalam Formasi Crocker di kawasan Tamparuli. Bull. Geological Society Malaysia 38, p. 49-61.
('Superposed deformation in the Crocker Formation of the Tamparuli region'. Measured section of Crocker Fm sandstone-shale along Tuaran-Tamparuli road. Sedimentary structures show beds are inverted. Deformation in two events: early M Miocene folding along NE-SW trend, followed by deformation along NW-SE trend)

Gassim, M.B., S. Tahira & D.A. Brunotte (1993)- Tectonic evolution of Marudu Bay, Sabah. In: B.K. Tan et al. (eds.) 7th Regional Congress Geology Mineral Energy Resources of SE Asia (GEOSEA VII), Bangkok 1991, J. Southeast Asian Earth Sciences 8, p. 513-527.
(Marudu Bay, N Sabah, stratigraphic sequences in ascending order: Chert-Spilite Fm, Crocker Fm, Kudat Fm, S Banggi Fm and Timohing Fm. Igneous rocks, especially serpentinite, also randomly distributed. Several episodes of deformation. Marudu Bay has undergone rifting due to clockwise rotation since M Miocene)

Gastony, G.J. (1969)- Sporangial fragments referred to *Dictophyllum* in Triassic chert from Sarawak. American Journal of Botany 56, 10, p. 1181-1186.
(Sporangial fragments of Mesozoic ferns in Late Triassic (Norian) black chert interbedded with trachytic volcanic rocks of Serian Volcanic Formation, collected by G.E. Wilfor,d in Penrissen Region, W Sarawak. Here referred to Dictyophyllum exile)

Gebregergis, T.M. & W.I.W. Yukoff (2010)- Burial and thermal history model to evaluate source rock, in Tatau Province, offshore Sarawak Basin, Malaysia. AAPG International Conference Exh., Calgary 2010, Search and Discovery Article 40706, p. 1-10.
(online at: www.searchanddiscovery.com/documents/2011/40706gebregergis/ndx_gebregergis.pdf)

Gee, M.J.R., H.S. Uy, J. Warren, C.K. Morley & J.J. Lambiase (2007)- The Brunei slide: a giant submarine landslide on the North West Borneo margin revealed by 3D seismic data. Marine Geology 246, p. 9-23.
(3D seismic data offshore Brunei show giant landslide with volume of 1200 km^3, area of ~5300 km^2 and average thickness of ~240m. It extends for >120 km from Baram Canyon in ~200m water depth to deep basin floor of NW Borneo Trough. Complex deposit, involving chaotic debris flow matrix, with blocks 500-1000m wide and up to 250m thick. Imaging of basal sliding surface reveals striations ~30-120 km long, and ~10-30m deep with significant basal erosion. Also older landslides buried several 100m below basin floor)

Geiger, M.E. (1963)- Paleogeography of Late Cretaceous- Eocene geosyncline in the Northwest Borneo. Geol. Sutvey Malaysia Annual Report 1963, Kuching, p, 179-187.
(Paleogeography of 'Geosynclinal' Late Cretaceous- Eocene in Sarawak and Sabah. Geosynclinal phase ended with Late Eocene orogeny. (not clear what is lumped together where; not overly useful?; JTvG))

Geikie, J.S. (1905)- The occurrence of gold in Upper Sarawak. Transactions of the Institution of Mining and Metallurgy, London, 15, p. 63-79.
(Early description of gold deposits near Bau and Bidi, 15m SW of Kuching. Ore bodies in Jurassic limestone, close to porphyry dike)

Gendang, R., A.S. Hashim & D. Johari (2006)- Limestone resources in the Baram Area. Miri Division, North Sarawak, Minerals Geoscience Dept. Malaysia, IMP 3/2005, p. 1-151.

Gerritsen, S., F. Ernst, C. Field, Y. Abdullah, D.N.P.H. Daud & I. Nizkous (2016)- Velocity model building challenges and solutions in a SE Asian basin: beyond reflection tomography. First Break 34, 10, p. 91-97.
(Examples of seismic velocity building technologies to generate accurate models for imaging and depth conversion in offshore Brunei)

Geyler, H.Th. (1887)- Uber fossile Pflanzen von Labuan. Vega-Expeditionens Vetenskapliga Iakttagelser, Stockholm, IV, p. 473-507.
(online at: https://www.biodiversitylibrary.org/item/131224#page/485/mode/1up)
('On fossil plants from Labuan'. 30 species of plant fossils collected by Baron Nordenskiold from Tertiary coal deposits on Labuan Island, off Sabah, during the global cruise of the Swedish SS Vega Expedition of 1878-1880. Incl. common dipterocarp fossils)

Ghaheri, S. & M. Suhaili Bin Ismail (2017)- Review of tectonic evolution of Sabah, Malaysia. In: M. Awang et al. (eds.) Proc. Int. Conf. Integrated Petroleum Engineering and Geosciences (ICIPEG2016), Kuala Lumpur 2016, Springer Verlag, p. 597-604.
(Sabah structure and tectonic history dominated by Late Oligocene- M Miocene S China Sea seafloor spreading and Sulu Sea subduction. Sabah tectonics started in E Cretaceous. S China Sea subducted under N Borneo margin, forming M Eocene- E Miocene basin sediments. Celebes Sea subducting N-ward under Dent Peninsula in Late Oligocene. Circular basins in E part of Sabah formed in E-M Miocene, thought to be related to SE Sulu Sea Basin rifting. Volcanic arc in Dent Peninsula also formed during this time, due to S-ward subduction of Sulu Sea. In Late Miocene SE Sulu Sea Basin rifting ceased)

Goesten, M.J.B.G. & P.J. Ealey (1986)- Storm generated sandstones and their depositional geometry in a Miocene reservoir from the north coast of Borneo. In: R.J. Knight & R.J. McClean (eds.) Shelf sands and sandstones, Canadian Society of Petroleum Geologists, Memoir 11, p. 339-340.

Goh, H.S., J. Jong, S. McGiveron. & J. Fitton (2017)- A case study of gas hydrates in offshore NW Sabah, Malaysia: implications as a shallow geohazard for exploration drilling and a potential future energy resource. National Geoscience Conference Exhib. 2017, Kuala Lumpur, Warta Geologi (Newsletter Geological Society Malaysia) 43, 3, p. 205-207. *(Abstract Only)*
(online at: https://gsm.org.my/articles/702001-101703/)
(On gas hydrates in deepwater NW Sabah, both drilling geohazard and potential future energy resource)

Goh, K.C. (2012)- Geological setting and mineralization characteristics of the sedimentary rock hosted disseminated Jugan Au deposit, Bau Mining District, Sarawak, Malaysia. B.Sc. Thesis, University of Tasmania.

Gou, P. (2014)- Organic petrographic characteristics of the Crocker Formation, NW Sabah, Malaysia. Bull. Geological Society Malaysia 60 (C.S. Hutchison Memorial Issue), p. 65-75.
(online at: www.gsm.org.my/products/702001-101647-PDF.pdf)
(Average vitrinite reflectance in deep marine Crocker Fm in NW Sabah is 0.82% Ro, indicating average burial depths of 4.1 km. Crocker Fm poor petroleum source rock because of low phytoclast content (<2%) and lack of oil-prone liptinitic macerals)

Gower, R.J.W. (1990)- Early Tertiary plate reconstructions for the South China Sea region: constraints from NW Borneo. J. Southeast Asian Earth Sciences 4, 1, p. 29-35.
(Subduction of oceanic crust beneath NW Borneo in Late Cretaceous- E Tertiary, associated with development of major 'Crocker-Rajang' accretionary complex. Contemporaneous outer arc basin sedimentation in W Sarawak and E Kalimantan consistent with SE-dipping subduction zone. Initiation of major clastic depocenter in Baram-Belait area in E Miocene (Brondijk 1963) indicates major change in sedimentation and deformational style at NW Borneo continental margin)

Granjeon, D. & V. Gervais (2023)- Forward and inverse stratigraphic modeling in exploration and appraisal workflows: insights from Miocene carbonate platforms, Central Luconia, South China Sea. In: E.C. Rankey & M.C. Poppelreiter (eds.) Cenozoic isolated carbonate platforms- Focus Southeast Asia, Society for Sedimentary Geology (SEPM) Special Publ. 114, p.

Grant, C.J. (2003)- The Pink Fan: a classic deep-marine canyon-fill complex, Block G, NW Sabah. In: G.H. Teh (ed.) Petroleum Geology Conference and Exhibition 2002, Bull. Geological Society Malaysia 47, p. 85-94.
(online at: https://gsm.org.my/wp-content/uploads/gsm_file_2/702001-100606-PDF.pdf

(3D-seismic and well data for deep water NW Sabah sand-prone fan systems. Four major Middle-Upper Miocene fan depositional cycles between ~12 and 6 Ma. Pink Fan is youngest, furthest outboard, still connected to its feeder systems, and with two unnamed wells. Four or more separate feeder-fan apron systems)

Grant, C.J. (2004)- The Upper Miocene deepwater fans of Northwest Borneo. In: R.A. Noble et al. (eds.) Deepwater and frontier exploration Symposium, IPA-AAPG Jakarta 2004, p. 421-428.
(Offshore NW Borneo 1992 Shell discovery of large gas volumes in turbidite reservoirs beneath shelf edge, proving existence of large deepwater sand-rich fan systems offshore NW Borneo)

Grant, C.J. (2005)- Sequence boundary mapping and paleogeographic reconstruction: the keys to understanding deepwater fan deposition across the NW Borneo active margin. Proc. 2005 SE Asian Petroleum Exploration Society (SEAPEX) Exploration Conference, Singapore 2005, 1p. *(Abstract only)*

Grant, C., P. Sii, S. Ha, L. Light & P. Winefield (2024)- Exploration Sabah: The past, present, future. Proc. GESGB-SEAPEX Asia Pacific Conference, Exploring Asia Pacific's Energy Future, London 2024, *(2-page Abstract + Powerpoint presentation)*
(Review of Sabah geology and (Shell) exploration history in North Borneo since 1911)

Graves, J.E., C.S. Hutchison, S.C. Bergman & D.A. Swauger (2000)- Age and MORB geochemistry of the Sabah ophiolite basement. Bull. Geological Society Malaysia 44, p. 151-158.
(online at: http://gsmpubl.files.wordpress.com/2014/09/bgsm2000019.pdf)
(Late Jurassic- E Cretaceous (Neocomian) age most likely for ophiolite basement of Sabah, consistent with Barremian-Aptian age of overlying ribbon cherts. K-Ar dates unreliable. Ophiolite suite of Labuk and Segama Highlands of low-K tholeiitic affinity, with geochemistry indicating MORB characteristics. Before uplift, Sabah ophiolitic basement formed part of either W Pacific or E Indian Ocean, still extant as ocean floor W of Australia. Oceanic lithosphere of Sabah not 'proto South China Sea'; no genetic relationship to present day South China Sea. N.S. Haile suggested more appropriate term 'Danau Sea')

Graves, J.E. & D.A. Swauger (1997)- Petroleum systems of the Sandakan Basin, Philippines. In: J.V.C. Howes & R.A. Noble (eds.) Proc. Conf. Petroleum Systems of SE Asia and Australasia, Indonesian Petroleum Association (IPA), p. 799-813.
(Offshore Sandakan basin (Sulu Sea) up to 16 km of Mio-Pliocene sediment, eroded mainly from Eocene-Oligocene Crocker Fm in Sabah, after extensive Miocene uplift. 17 wells drilled, 7 with hydrocarbon tests or shows. Probable Mid-Miocene mixed oil-gas prone source rock. Sandakan basin history: Early Miocene intra-arc rifting accompanied by widespread volcanic activity, M- L Miocene delta aggradation, latest Miocene growth faulting, Pliocene delta progradation, Plio-Pleistocene carbonate deposition)

Greenfield, T., A. Gilligan, S. Pilia, D.G. Cornwell, F. Tongkul, S. Widiyantoro & N. Rawlinson (2022)- Post-subduction tectonics of Sabah, Northern Borneo, inferred from surface wave tomography. Geophysical Research Letters 49, 3, e2021GL096117, p. 1-11.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2021GL096117)
(Two-plane tomography study across Sabah images shear wave velocity structure of crust and upper mantle. Crustal thickness estimated at 25- 55 km and suggests extension in NW-SE direction, presumably due to back-arc processes associated with subduction of Celebes Sea (β-factor 1.3-2). Lithosphere-asthenosphere boundary average depth 100 km. Beneath 50-100 km region of Plio-Pleistocene volcanism in SE, lithosphere thinned to <50 km, supporting recent suggestions of lower lithospheric removal. Uplift through Neogene could be attributed to emplacement of hot asthenosphere layer and subsequent melting and intrusion)

Grissemann, C., H. Henning & A. Yan (1990)- Geophysical contribution to prospecting for massive sulfide deposits in the Bidu Bidu Hills in Sabah, Malaysia. In: Mineral resources investigation in Sabah, East Malaysia, 1980-1984, Geologisches Jahrbuch B74, p. 31-63.
(On exploration of massive sulfide ores in areas of chert-spilite formations in E Sabah)

Haak, R. (1955)- A study of the Miocene Gunong Subis Limestone complex. Shell Group Report, 25948, p. 1-30. *(Unpublished)*
(Haile 1962: Subis Lst member of Setap Shale is isolated reefal carbonate platform dated as latest Oligocene (Te1-4 in Subis 2 well; with Heterostegina borneensis, Miogypsinoides ubaghsi), continuing into basal Miocene (Te5; with Miogypsinoides dehaartii, Sproclypeus spp., Austrotrillina howchini, etc.) at Bukit Subis outcrop. Thickness 5900' in Subis 2 well, more commonly ~3000' thick. Locally common corals)

Hadley, D.F., E. Arochukwu, K. Nishi, M. Sarginson, H. Salleh & M. Omar (2006)- Depositional modelling of Champion Field, Brunei: assessing the impact of reservoir architecture on secondary recovery. Proc. SPE Asia Pacific Oil and Gas Conference, Adelaide 2006, p. 1-30.
(Champion field multi-billion bbl STOIIP oilfield off Brunei, producing since 1972 from >250 wells. Production to date is <20% of original oil in place. Two main reservoir types: (1) stacked shoreface parasequences (majority of reservoirs); (2) tide-dominated sediments channel fill or bar complexes)

Hageman, H. (1987)- Palaeobathymetrical changes in NW Sarawak during Oligocene to Pliocene. Bull. Geological Society Malaysia 21, p. 91-102.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1987005.pdf)
(Comparison of NW Sarawak Oligocene-Pliocene paleobathymetric history with global curve suggest Middle Miocene- Pliocene changes largely controlled by eustacy, but Late Oligocene- E Miocene global changes masked by tectonic movements)

Haile, N.S. (1952)- The coal deposits and geology of part of the Klingkang Range, West Sarawak, with a detailed account of the Silantek and Abok seams. Geological Survey Department, British Territories in Borneo, p. 1-30.
(Tertiary (probably Eocene) coal-bearing beds outcrop along N scarp of Klingkang Range over ~18 miles. Several seams, interbedded with Tertiary estuarine deposits. Coal high-grade bituminous in rank, may be due to metamorphism caused by emplacement of nearby igneous intrusions)

Haile, N.S. (1954)- The geology and mineral resources of the Strap and Sadong Valleys, West Sarawak, including the Klingkang Range Coal. Geological Survey Department, British Territories in Borneo Region, Memoir 1, p. 1-150.
(W Sarawak Strap-Sadong valley area with intensely folded Carboniferous-Permian (grey Terbat Lst with fusulinids, white chert and shale) and U Triassic (clastics with Monotis and Halobia, becoming more sandy to S and E). Unconformably overlain by thick E Tertiary non-marine Silantek Fm shale-dominated series with thin coals and brackish water molluscs and >1000m of Plateau Sandstone. Igneous rocks: pre-Triassic granite, Triassic lavas and tuffs and Tertiary shallow igneous stocks and sills. Workable quantities of probably Eocene-age coal, small amounts of gold, diamonds, bauxite, etc.)

Haile, N.S. (1956)- Limestone reserves in the Batu Gading area on the Baram River. Annual Report Geological Survey Department, British Territories in Borneo, 1956, Kuching, p. 30-38.

Haile, N.S. (1957)- The geology and mineral resources of the Lupar and Saribas Valleys, West Sarawak. Geological Survey Department, Borneo Region, Memoir 7, p. 1-123 + 125,000 scale map.
(Lupar-Saribas valley region complex geology, between two different tectono-stratigraphic regions: to W U Paleozoic- Mesozoic, to NE U Cretaceous- Tertiary sediments. With isoclinally folded, steeply (dominantly S-?) dipping deep marine 'flysch-type' U Cretaceous- Lower Eocene Rajang group geosynclinal sediments and volcanics (in slaty facies in N, pelagic 'Danau/Engkilili' calcareous facies with radiolarian chert in S) (= Lubok Antu melange= Paleo-Eocene melange complex with Cretaceous radiolaria, Orbitolina Lst, Assilina, etc.?; see Tan 1979, Haile 1996; JTvG). Unconformably overlain by 'molasse-type' Upper Eocene- Miocene estuarine and continental beds of Plateau series. Late Tertiary intrusive granitic stocks and laccoliths and dolerite sills. Thin-bedded coals in Plateau series and gold-bearing placers exploited on small scale (Marup))

Haile, N.S. (1957)- New evidence of the age of the Plateau Series in West Sarawak. Annual Report Geological Survey Department, British Territories in Borneo, 1957, p. 77.

(Brief note on presence of Late Eocene (Tb) larger foraminifera Aktinocyclina and Nummulites at base of Kantu Beds (lowest part of Plateau Series), proving Late Eocene or older age of 'Plateau Series transgression' over Pretertiary- Lower Eocene rocks)

Haile, N.S. (1962)- The geology and mineral resources of the Suai-Baram area, North Sarawak. British Borneo Geological Survey Memoir 13, Kuching, p. 1-176.
(online at: https://www.wossac.com/downloads/WOSSAC_1662.pdf)
(Suai-Baram area of N Sarawak part of 'North Borneo geosyncline', S of Miri/ Brunei. With >45,000' thick U Cretaceous -Recent sandstones and shales (but U Cretaceous only in one outcrop). Sediments derived from central granitic part of Borneo and later from recycled Cretaceous and Eocene sediments. Pre-Pliocene strata moderately to highly folded. Regional strike N to NE. Major unconformity between Miocene and U Pliocene (E Pliocene folding) (?). Paleocene limestones. Disconformity between U Eocene and Miocene (should be latest Oligocene?; JTvG)(local angular unconformity below base Setap Shale (latest Oligocene; Te1-4) (basal conglomerate with reworked Cretaceous radiolarian chert), missing E Oligocene in Melinau Lst and Batu Gading Lst. Batu Gading Lst 120m of Late Eocene overlain with hiatus by 40m of latest Oligocene (Te1-4) limestone. Subis Lst Mb of Setap shale with Te5/ E Miocene Miogypsinoides dehaarti/ Spiroclypeus (with appendices by Adams & Haak on Batu Gading Lst and Johnson on calcareous algae))

Haile, N.S. (1963)- The Cretaceous- Cenozoic Northwest Borneo geosyncline. In: F.H. Fitch (ed.) Proc. British Borneo Geological Conference 1961, Kuching, Geological Survey Department, British Territories in Borneo, Bull. 4, Kuching, p. 1-18.
(NW Borneo Geosyncline with thick Upper Cretaceous- Recent sediments in 500 mile long, 200-250 mile wide belt from Lupar Valley in West Sarawak, all of Brunei, to W part of Sabah. Thirty-two formations distinguished (Liechti et al. 1960), grouped here in 4 lithostratigraphic groups: (1) Rajang Gp (U Cretaceous- Oligocene Te 1-4, C Sarawak- N Kalimantan- W Sabah, foredeep eugeosynclinal grading upward to miogeosynclinal, common flysch, also radiolarian cherts and spilite in Lupar and Danau Fms, intensely folded, up to 50,000' thick?); (2) Baram Gp (U Eocene- U Miocene, miogeosynclinal, unconformable over Rajang Gp, 28,000' thick); (3) Plateau Gp (U Eocene- ?Miocene 'molasse-type' sediments in 'backdeep' after Late Eocene folding; Melawi- Ketungau basins; up to 30,000' thick?) (should be foredeep?) and (4) Brunei Gp (U Miocene- Pliocene in coastal areas of Brunei- NE Sarawak; late geosynclinal isolated basins, ~30,000' thick?))

Haile, N.S. (1968)- The Northwest Borneo geosyncline in its geotectonic setting. Bull. Geological Society Malaysia 1, p. 59. *(Abstract only)*
(Summary of Haile (1969) paper. One of last tectonics papers of SE Asia to use geosynclinal theory)

Haile, N.S. (1969)- Geosynclinal theory and the organizational pattern of the North-West Borneo geosyncline. Quarterly J. Geological Society, London, 124, 2, p. 171-188.
(NW Borneo geosyncline of Sarawak, Brunei and W Sabah, ~800 km in NE-SW direction. Thick Late Cretaceous-late Cenozoic sequence, classified into 4 groups: (1) Rajang Gp (Late Cretaceous- E Miocene): thick, folded flysch with chert-ophiolite at base; (2) Baram Gp (Late Eocene- Late Miocene): mainly argillaceous, with sandstones and limestones; (3) Plateau Gp (Late Cretaceous to? Miocene): thick molasse-type continental deposits in S; (4) Brunei Gp (Oligocene to Recent): estuarine and marine deposits with molasse affinities in N. Migration of flysch deposition, orogeny, and molasse deposition, from S to N)

Haile N.S. (1992)- Evidence of multiphase deformation in the Rajang-Crocker Range (northern Borneo) from Landsat imagery interpretation: geodynamic implications- Comment (2). Tectonophysics 204, p. 178-180.
(Critical review of Benard et al. 1990 paper)

Haile, N.S. (1996)- Note on the Engkilili Formation and the age of the Lubok Antu Melange, West Sarawak, Malaysia. Warta Geologi (Newsletter Geological Society Malaysia) 22, 2, p. 67-70.
(online at: https://gsmpubl.files.wordpress.com/2014/09/ngsm1996002.pdf)
(Lupar Valley of W Sarawak is junction of Rajang Group accretionary prism to N and more continental part of W Sarawak to S. Engkilili Fm fossiliferous calcareous shales with Paleocene-E Eocene limestone blocks mapped

by Haile as 'lower Eocene calcareous facies', distinct from the main 'cherty' facies, now known as Lubuk Antu melange, to N. Most likely age of melange ~mid-Eocene; Engkilili Beds possibly slightly older)

Haile, N.S. & H.J.C. Kirk (1956)- Cretaceous of the Baleh headwaters and volcanic rocks of the Nieuwenhuis Mountains. Annual Report Geological Survey Department, British Territories in Borneo, 1956, Kuching, p. 78-86.
(Geology of the Sarawak- Kalimantan border region)

Haile, N.S., S.K. Lam & R.M. Banda (1994)- Relationship of gabbro and pillow lavas in the Lupar Formation, West Sarawak; implications for interpretation of the Lubok Antu Melange and the Lupar Line. In: G.H. Teh (ed.) GSM Petroleum Geology Seminar VIII, 1991, Bull. Geological Society Malaysia. 36, p. 1-9.
(online at: www.gsm.org.my/products/702001-100981-PDF.pdf)
(Lupar Line regarded by many as major suture, but uncertainties regarding relationship of various belts and rock types. Outcrops for Hydroelectric Project show gabbro in U Cretaceous Lupar Fm bedded flysch is intrusive and pillow lavas interbedded (not older oceanic crust emplaced tectonically as faulted slices). Junctions between Lubok Antu Melange and Lupar Fm, and between Lupar and Layar Fm, may be major sutures, whereas Lupar Valley may only be fault zone in broad melange belt)

Haile, N.S. & N.P.Y. Wong (1965)- The geology and mineral resources of Dent Peninsula, Sabah. Geological Survey of Malaysia, Borneo Region, Kuching, Memoir 16, p. 1-199.
(Extensive description of complex geology of easternmost part of Sabah. Oldest rocks ?Cretaceous mica schists of Segama Valley, associated with U Cretaceous- Eocene Chert-Spilite Formation, with serpentinite, etc., possibly in tectonic slices. Formation possibly equivalent of Danau Fm of Molengraaff, Brondijk, etc. in NE Kalimantan, but not proven. Overlain by thick mainly deep marine Oligocene- Neogene clastics series)

Hakimi, M.H. & W.H. Abdullah (2013)- Liquid hydrocarbon generation potential from Tertiary Nyalau Formation coals in the onshore Sarawak, Eastern Malaysia. Int. J. Earth Sciences (Geologische Rundschau) 102, p. 333-348.
(Oligocene- E Miocene coals of Nyalau Fm exposed in N-C onshore Sarawak with TOC of 58-81%, hydrogen index values of 282-510 mg HC/g TOC, Type II and mixed Type II–III kerogens. Vitrinite reflectance 0.47-0.67% Ro, indicating initial oil window maturity. Coals are humic and generally dominated by vitrinite, with significant amounts of liptinite and low amounts of inertinite. Good liquid hydrocarbons generation potential)

Hakimi, M.H., W.H. Abdullah, F.L. Alias, M.H. Azhar & Y.M. Makeen (2013)- Organic petrographic characteristics of Tertiary (Oligocene-Miocene) coals from eastern Malaysia: rank and evidence for petroleum generation. Int. J. Coal Geology 120, p. 71-81.
(Coal samples from Tanjung Fm of Pinangah coalfield (E-M Miocene, Sabah) and Nyalau Fm of Bintulu coal fields (Oligocene- E Miocene, C Sarawak) from N Borneo relatively high hydrogen index values (282 and 516 mg HC/g TOC), indicating coals dominated by Type II to mixed Type II–III kerogens, and considered to generate mainly oil (supported by high % (11-31) of oil-prone liptinite macerals, incl. suberinite)

Hakimi, M.H., W.H. Abdullah, S.G. Sia & Y.M. Makeen (2013)- Organic geochemical and petrographic characteristics of Tertiary coals in the northwest Sarawak, Malaysia: implications for palaeoenvironmental conditions and hydrocarbon generation potential. Marine and Petroleum Geology 48, p. 31-46.
(Tertiary coals from Mukah and Balingian coalfields in W Sarawak good source rock potential. Dominated by Type III kerogen and mixed Type II/III kerogens with HI values of 90-289 mg HC/g TOC. C coals thermally immature (lignite to sub-bituminous C rank), with huminite reflectance of 0.26-0.39%)

Halim, M.F.A. (1994)- Geothermics of the Malaysian sedimentary basins. Bull. Geological Society Malaysia 36, p. 163-174.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1994031.pdf)
(Geothermal gradient database from well and temperature data of wells in Malay basin (101 wells, av. 51.8 °C/km), Sarawak basin (88 wells; av. 43.3 °C/km) and Sabah basin (54 wells; av. 30.5°C/km))

Halim, M.F.A., N.S.Z. Abidin & E. Arifullah (2024)- Provenance, environments, and tectonic signatures of Tanjong-Sandakan Formations, Northeast Sabah, Malaysia: Implications from sedimentology, palynology, and geochemistry. Heliyon 10, 23, e39969, p. 1-40.
(online at: https://www.cell.com/action/showPdf?pii=S2405-8440%2824%2916000-8)
(Well-documented paper on facies, palynology, geochemistry, etc. of Miocene marginal marine formations of Tanjong and Sandakan Fms in NE Sabah. E-M Miocene Sulu Sea rifting extended into Sabah, triggering widespread olistostrome deposits. Etc.)

Hall, R. (2013)- Contraction and extension in northern Borneo driven by subduction rollback. J. Asian Earth Sciences 76, p. 399-411.
(online at: http://searg.rhul.ac.uk/pubs/hall_2013%20Borneo%20extension-rollback.pdf)
(Paleogene subduction of Proto-South China Sea ended with E Miocene collision of Dangerous Grounds/Reed Bank/N Palawan block and Sabah-Cagayan Arc. Much of N Borneo then became emergent, forming Top Crocker Unconformity. N-ward subduction of Celebes Sea initiated Sulu Sea backarc basin, followed by subduction rollback to SE; associated volcanic arc emerged briefly above sea level and collapsed in M Miocene. Rollback drove extension in N Borneo and Palawan. Two main extensional episodes (1) ~16 Ma, marked by Deep Regional Unconformity; (2) ~10 Ma, Shallow Regional Unconformity. Both episodes caused exhumation of deep crust, probably on low angle detachments, followed by granite magmatism. NW Borneo-Palawan Trough interpreted as flexural response to gravity-driven deformation of sediment wedge, caused by uplift on land that resulted from extension, with contribution of deep crustal flow)

Hall, R. (2015)- Trenches, troughs and unconformities; collision, contraction and extension: South China Sea, Borneo-Palawan and Sulu Sea. AAPG Geoscience Technology Workshop (GTW), Tectonic evolution and sedimentation of South China Sea region, Kota Kinabalu 2015, Sabah, AAPG Search and Discovery Article 90236, 3p. *(Extended Abstract)*
(online at: www.searchanddiscovery.com/pdfz/abstracts/pdf/2015/90236apr/abstracts/ndx_hall.pdf.html)
(Mainly summary of Hall (2013))

Hall, R., M.A. Cottam, S. Suggate, F. Tongkul, C. Sperber & G.E. Batt (2008)- The geology of Mount Kinabalu. Sabah Parks Publication 13, p. 1-77.
(online at: http://searg.rhul.ac.uk/pubs/Kinabalu/Kinabalu_handbook_cs3.pdf)
(Mt Kinabalu 4100m high and highest mountain in SE Asia between E Himalayas and New Guinea. Composed mainly of granite that formed at ~7-8 Ma. Partly underlain by serpentinised peridotites and by subducted crust of S China margin)

Hamdan, N.H. & S.N.F. Jamaludin (2018)- Reservoir characteristics of carbonates build-ups in southern Central Luconia Province: a study based on different scales. Bull. Geological Society Malaysia 66, p. 99-105.
(online at: https://gsm.org.my/products/702001-101750-PDF.pdf)
(Reservoir qualities for Cycles III and IV carbonates in two carbonate buildups offshore Sarawak. Pinnacle build-ups fair-good porosity with decreasing occurrence of dolomite with depth; carbonate platform poor- fair porosity due to higher mud content)

Hanapiah, N.M., W.I. Wan Yusoff & M.N.A. Zakariah (2017)- Analysis on the overpressure characterization with respect to depositional environment facies: Case study in Miri area, Baram Delta. Proc. 5th Int. Conf. Geological, Geographical, Aerospaces and Earth Sciences, Bali 2017, IOP Conference Series: Earth and Environmental Science 88, 012018, p. 1-8.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/88/1/012018/pdf)

Hancock, W.G. (1964)- The Mount Tawai peridotite, North Borneo. Ph.D. Thesis University of Durham, p.
(online at: https://etheses.dur.ac.uk/9224/)
(Mt Tawai peridotite is large, N-S trending batholith, in Labuk area in N Borneo (Sabah) ultrabasic belt. Surrounding country rocks are folded Upper Cretaceous and Tertiary sediments and volcanics (Chert-Spilite or Danau Fms), unconformably? overlain by M-U Eocene clastics of Kulapis and Crocker Fms. Sediments are separated from peridotite by fault breccia which contains inclusions of metamorphic rocks. Batholith comprises

at least three partially separated tectonic units. Mainly harzburgite with rare dunite, pyroxenite and gabbro phases. Thermal metamorphism of country rocks to garnet amphibolite facies. Etc.)

Harper, G.C. (1975)- The discovery and development of the Seria oilfield. Brunei Museum, Bandar Seri Begawan, Penerbitan Khas Bil. 10, p. 1-99. *(also reprinted as 2nd edition, 1999, 136p.)*
(Special publication on the giant Seria oilfield onshore Brunei, first discovered in 1929 by British Malayan Petroleum Company, a Royal Dutch/Shell affiliate. Now operated by Brunei Shell Petroleum

Harzhauser, M., H. Raven, B. Landau, L. Kocsis, A. Adnan, M. Zuschin, O. Mandic & A. Briguglio (2018)- Late Miocene gastropods from northern Borneo (Brunei Darussalam, Seria Formation). Palaeontographica A 313, 1-3, p. 1-79.
(Tortonian gastropods from Seria Fm at Ambug Hill section, Tutong District, Brunei. Low-diversity assemblage with 62 species, 37 unknown from other Neogene faunas of Indo-West Pacific Region. 23 new species. Limited relations with Neogene gastropod faunas from Indonesia at species level might be explained by biogeographic isolation between faunas of Java and Celebes seas and from S China Sea)

Hasan, M. (1982)- Some Neogene and Recent marine ostracods from Sabah, Malaysia. Ph.D. Thesis University of Leicester, p. 1-263.
(online at: https://leicester.figshare.com/articles/thesis/Some_Neogene_and_recent_marine_ostracods_from_Sabah_Malaysia_/10188233)
(Ostracod assemblages of Pliocene Togopi Fm and Recent of Darvel Bay, Sabah. 43 genera, many new species)

Hasegawa, S., R. Sorkhabi, S. Iwanaga, N. Sakuyama, M. Naofumi & O.A. Mahmud (2005)- Fault-seal analysis in the Temana Field, offshore Sarawak, Malaysia. In: R. Sorkhabi & Y. Tsuji (eds.) Faults, fluid flow, and petroleum traps, American Assoc. Petroleum Geol. (AAPG), Memoir 85, p. 43-58.
(Fault-seal assessment of normal fault in Tertiary clastics in Temana field, Balingian, offshore Sarawak. Shale smear factor values <6 and clay content ratio >30% on fault surface, indicating across-fault sealing of reservoir rocks on sand-sand interfaces)

Hashimoto, W. (1973)- *Sarawakia ellipsactinoides*, gen. et sp., nov., an *Elipsactinia*-like fossil from the Bau Limestone Formation, Sarawak, Malaysia. In: T. Kobayashi & R. Toriyama (eds.) Geology and Palaeontology of Southeast Asia, University of Tokyo Press,12, p. 207-215.
(New stromatoporoid species from Late Jurassic Bau Limestone, S of Kuching, W Sarawak)

Hashimoto, W. (1982)- Preliminary notes on fossil records of East Malaysia and Brunei. In: T. Kobayasi & R. Toriyama (eds.) Geology and Palaeontology of Southeast Asia, University of Tokyo Press, 23, p. 137-175.
(Including extensive listings of Upper Cretaceous- Eocene palynomorphs (originally from Muller 1968- Plateau Sandstone?))

Hashimoto, W. & K. Matsumaru (1977)- *Orbitolina* from West Sarawak, East Malaysia. In: T. Kobayashi & R. Toriyama (eds.) Geology and Palaeontology of Southeast Asia, University of Tokyo Press, 18, p. 49-57.
(Lower Cretaceous (Aptian) Orbitolina from Pedawan Fm, W Sarawak)

Hashimoto, W. & K. Matsumaru (1981)- Larger foraminifera from Sabah, Malaysia, part 1: Larger foraminifera from the Kudat Peninsula, the Gomantan area and the Semporna Peninsula. In: T. Kobayashi & R. Toriyama (eds.) Geology and Palaeontology of Southeast Asia, University of Tokyo Press, 22, p. 49-54.

Hashimoto, W. & M. Tamura (1968)- Report of geological and palaeontological reconnaissance of Malaysia. Mem. Faculty of Education, Kumamoto University 17, p. 34-50.
(Kakizaki et al. 2013: Pedawan Fm above Bau Limestone of SW Sarawak yields ammonoids of Late Tithonian- E Cretaceous age (e.g. Berriasella or Micracanthoceras sp.))

Hay, A.K. (1999)- Overview of the Baram Delta province, Brunei Darussalam. Berita Sedimentologi (Indonesian Sedimentologists Forum, FOSI) 12, p. 21

(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/269/239)
(Short note. Three main delta systems in Baram Delta Province: (1)Meligan Delta (Proto-Champion, pre-Middle Miocene); (2)Champion Delta (East Baram; mainly M Miocene- E Pliocene) and (3) Baram Delta (E Pliocene-present-day))

Hazebroek, H.P. & D.N.K. Tan (1993)- Tertiary tectonic evolution of the NW Sabah continental margin. In: G.H. Teh (ed.) Proc. Symposium on tectonic framework and energy resources of the Western margin of the Pacific Basin, Kuala Lumpur 1992, Bull. Geological Society Malaysia 33, p. 195-210.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1993015.pdf)
(NW Sabah continental margin 6 tectono-stratigraphic provinces. Two main phases of Tertiary basin development: (1) pre-early M Miocene deep-marine clastic sedimentation; (2) post-early M Miocene clastic shelf/ slope deposition, prograding NW over unconformably underlying sediment wedge. NW Sabah Trough young feature, not Paleogene trench (Baram Delta prism masks Paleogene trench). Tectonic evolution: (1) Late Eocene-early M Miocene oblique subduction of S China Sea oceanic crust beneath NW Sabah; (2) Diachronous collision of S China Sea attenuated continental crust with Sabah and cessation of ocean-floor spreading in early M Miocene, led to uplift and erosion of accretionary prism (Deep Regional Unconformity); (3) Resumption of convergence between Borneo and NW Sabah Platform in middle Late Miocene, with formation of Shallow Regional Unconformity. E Sabah ophiolite complex continues into Palawan)

Hazebroek, H.P., D.N.K. Tan & J.M. Lamy (1992)- Tectonic evolution of the Northwest Sabah continental margin since Late Eocene. AAPG International Conference, Sydney 1992, Search and Discovery Article 91015, p.
(Abstract only; see also Tan and Lamy 1990) (Four-stage tectonic evolution model of NW Sabah shelf (1) Late Eocene - early M Miocene subduction of S China Sea oceanic crust beneath Borneo, with creation of accretionary prism, (2) collision of S China Sea attenuated continental crust with Borneo in early M Miocene, leading to uplift and erosion of accretionary prism and creation of 'Deep regional unconformity', followed by M Miocene- early Late Miocene NW progradation over inboard belt;. (3) Cessation of active subduction in middle Late Miocene accompanied by major tectonic activity, with compressional deformation of Inboard Belt, creating 'Shallow Regional Unconformity'; (4) In Outboard Belt and East Baram Delta, thick prograding wedge built out to NW from Late Miocene- Holocene. Late Pliocene deformation mainly in Outboard Belt and E Baram Delta)

Heller, J., D. Basuki, M. Choo, S. O 'Connor & R. Swarbrick (2014)- Using simple loading models to predict crestal pore pressures in Miocene carbonate exploration targets, Luconia, Sarawak. Proc. 38th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA14-G-169, p. 1-9.
(C Luconia province in offshore Sarawak Basin with numerous Miocene- Recent carbonate build-ups, many with commercial hydrocarbons. Key risk for tall (up to 1km relief) buildups traps is mechanical seal failure, where pore pressure at crest of structure exceeds fracture strength of seal. Overpressure prediction model proposed based on sedimentation rates and stratigraphic ages)

Heng, Y.E, S.S. Keong & D.K. Tan (1992)- Geological map of Sarawak, 2nd Ed., Geological Survey of Malaysia, p.

Henglai, P. R. Fongngern & A. Saller (2024)- The growth and demise of a Middle Miocene carbonate platform in Central Luconia, offshore Malaysia. Marine and Petroleum Geology 163, 106763, p. 1-20.
(online at: https://www.sciencedirect.com/science/article/pii/S0264817224000758)
(Evolution of one of many Miocene independent carbonate platforms in C Luconia, offshore Malaysia. Five depositional facies in core samples. Five main zones, separated by low porosity intervals. In Well D, facies changed upward from bioclastic wacke-packstone at bottom to mainly bioclastic packstone in middle, to coral boundstone near top before being covered by interbedded shale and carbonate. Six seismic facies. Platform shows repeated backstepping of facies at flooding layers followed by aggradation of facies belts up to exposure surfaces, resulting in long-term backstepping of until platform drowned. Sr-isotopes dating near top of platform yielded age of ~12 Ma, suggesting platform drowned earlier than other carbonate platforms in C Luconia (8-10 Ma))

Henglai, P., R. Fongngern, A. Saller, R. Laochamroonvorapongse, P. Thamniyom & S. Lendam (2025)- Diagenetic and depositional controls on reservoir quality in a Middle Miocene carbonate buildup, Central Luconia, offshore Malaysia. Marine and Petroleum Geology 181, 107528, p. 1-24.
(online at: https://www.sciencedirect.com/science/article/pii/S0264817225002454)
(PPT paper on deeply buried M-L Miocene limestone buildup (3600-4400 m; Cycle IV- Lower Cycle V) in eastern C Luconia, with >600m gas column. Low-permeability flooding layers divide reservoir into five zones. Freshwater dissolution below subaerial exposure surfaces created high porosity intervals. Best reservoir in coral boundstones at reef margin (porosity 4–32 %; permeability up to 988 mD). Early replacive dolomitization preserved porosity of 23 % in lower platform. Etc.)

Hennig-Breitfeld, J., H.T. Breitfeld, R. Hall, M. BouDagher-Fadel & M. Thirlwall (2019)- A new upper Paleogene to Neogene stratigraphy for Sarawak and Labuan in northwestern Borneo: paleogeography of the eastern Sundaland margin. Earth-Science Reviews 190, p. 1-32.
(manuscript online at: https://core.ac.uk/download/pdf/266992785.pdf)
(Revised stratigraphy of Miri Zone in N Sarawak. Rajang unconformities identified at ~37 Ma (change from deep marine to fluvial-marginal marine sedimentation) and Nyalau unconformities at ~17 Ma (widespread uplift in Borneo and reorganisation of drainage systems. Coastline orientation changes from NW-SE to NE-SW at ~17 Ma. Mukah-Balingian and Belait Fms similar and reworked from Kuching-Rajang range (see also critical discussion by Lunt (2020) and Reply)

Hennig-Breitfeld, J., H.T. Breitfeld, R. Hall, M. BouDagher-Fadel & M. Thirlwall (2020)- Reply to Discussion A new upper Paleogene to Neogene stratigraphy for Sarawak and Labuan. Earth-Science Reviews 202, 103066, p.
(ms online at: www.researchgate.net/publication/337962038_Reply_to_Discussion_Hennig-Breitfeld_ Etc.)
(Response to Discussion/Comments by P. Lunt (2020))

Hesse, S. (2010)- The tectonic evolution of NW Borneo. Doktoral. Thesis Rheinisch-Westfalischen Technischen Hochschule, Aachen, Germany, p. 1-95.
(online at: http://publications.rwth-aachen.de/record/64045/files/3524.pdf)
(Thesis on seismic interpretation of structure of NW Borneo deepwater fold-thrust belt, composed of three papers, published earlier (Hesse et al. 2009, 2010). Pliocene-Recent gravity-driven shortening decreases from S to N, total shortening increases slightly to N, suggesting basement-driven compression along NW Borneo increases to N. Main thrust activity in Late Pliocene-Holocene. Maximum shortening in C part of study area)

Hesse, S., S. Back & D. Franke (2009)- The deep-water fold-and-thrust belt offshore NW Borneo: gravity-driven versus basement-driven shortening. Geological Society of America (GSA) Bull. 121, p. 939-953.
(Tectonic restorations of NW Borneo fold-and-thrust belt comparing amount of deep-water shortening compared to extension across shelf suggests gravity-driven shortening decreases from S to N, while total amount of shortening increases slightly to N. Basement-driven compression inferred to increase to N. Most of shortening Late Pliocene and younger, ongoing)

Hesse, S., S. Back & D. Franke (2010)- The structural evolution of folds in a deepwater fold and thrust belt- a case study from the Sabah continental margin offshore NW Borneo, SE Asia. Marine and Petroleum Geology 27, 2, p. 442-454.
(2D regional seismic interpretation of deepwater fold and thrust belt offshore Sabah, NW Borneo)

Hesse, S., S. Back & D. Franke (2010)- Deepwater folding and thrusting offshore NW Borneo, SE Asia. In: G.P. Goffey et al. (eds.) Hydrocarbons in contractional belts, Geological Society, London, Special Publ. 348, p. 169-185.
(2D seismic data shows extensive series of folds at leading edges of imbricate thrusts in deepwater offshore NW Borneo. Widest and youngest anticlines near present-day thrust front, narrowest and oldest folds in most landward parts of fold-thrust belt. Main thrust activity Pliocene- Holocene age)

Hinz, K., J. Fritsch, E.H. Kempter, A.M. Mohamed, J. Meyer, D. Mohamed, H. Vosberg, J. Weber & J. Benavidez (1989)- Thrust tectonics along the north-western continental margin of Sabah, NW Borneo. Geologische Rundschau 78, 3, p. 705-730.
(Plate tectonic models suggest inactive subduction zone along NW continental margin of Sabah. BGR seismic data show autochthonous continental terrane with Oligocene- E Miocene carbonate platform, progressively overthrust by allochthonous rock complex)

Hiscott, R.N. (2001)- Depositional sequences controlled by high rates of sediment supply, sea-level variations and growth faulting: the Quaternary Baram Delta of northwestern Borneo. Marine Geology 175, p. 67-102.
(Shelf off Baram Delta is 50-70 km wide, underlain by 8-9 km of post-Eocene upper slope to estuarine deposits. Shelf break is fault scarp at ~130m below sea level. Outer-shelf Quaternary locally >1 km thick. Uppermost Quaternary thickens 2-5x across en echelon shelf-edge growth faults. Five widespread 'key' reflectors, on high-res seismic profiles (downlap surfaces beneath clinoforms, two directly overlying fluvial channels. Widespread 4th-order lowstand- bypass sequence developed during 120-10 ka sea-level cycle, up to 400m thick)

Hiscott, R.N. (2003)- Latest Quaternary Baram prodelta, Northwestern Borneo. In: F.H. Sidi, D. Nummedal et al. (eds.) Tropical deltas of Southeast Asia- sedimentology, stratigraphy and petroleum geology, Soc. Sedimentary Geology (SEPM) Special Publ. 76, p. 89-107.
(Quaternary Baram Delta >1 km thick on outer continental shelf of Brunei, with mud-prone highstand delta lobes, sand-prone lowstand shelf-edge deltas, incised-valley fills and transgressive sheet-like deposits on wave-cut ravinement surfaces. Shelf break defined by prominent fault scarp ~130m below sea level. Rugged slope relief due to growth faulting, mud diapirism, submarine canyons, sediment sliding, levees along turbidity-current channels that head in region of shelf-edge deltas, ETC.)

Hisham, N.F. & N.S.Z. Abidin (2023)- Sedimentology and paleodepositional environment of the Early-Middle Miocene Tanjong Formation, Southeast Sabah: Evidence from bulk geochemistry and palynology analyses. Minerals (MDPI) 13, 4, 494; p. 1-28.
(online at: https://www.mdpi.com/2075-163X/13/4/494)
(E-M Miocene Tanjong Fm in Kalabakan area, SE Sabah, in 7 fluvial-deltaic to shallow marine facies)

Hitam, R. & M. Scherer (1993)- Distribution and maturity of source rocks in Brunei Darussalam. Proc. 5th Asean Council on Petroleum Conference and Exhibition (ASCOPE 93), Bangkok 1993, 5135, p. 1-12.

Ho, F., G. Jaeger & P. Lambregts (2003)- Seismic interpretation of carbonate turbidites in Central Luconia. In: G.H. Teh (ed.) Proc. Petroleum Geology Conference Exhibition (PGCE), Kuala Lumpur 2002, Bull. Geological Society Malaysia 47, p. 77-83.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm2003a06.pdf)
(C Luconia offshore carbonate buildups mainly Middle-Late Miocene age. Growth initiated on highs formed during Late Oligocene rifting. Seismic evidence for carbonate turbidite deposits between buildups)

Ho, Wan Kin (1990)- Central Luconia Middle Miocene carbonate play, Sarawak Basin, Malaysia. United Nations ESCAP, CCOP, Technical Publication 23, p. 67-85.
(Play description of hydrocarbons in widespread Middle Miocene cabonate play of Luconia, offshore Sarawak)

Hodgetts, D., J. Imber, C. Childs, S. Flint, J. Howell, J. Kavanagh, P. Nell & J. Walsh (2001)- Sequence stratigraphic responses to shoreline-perpendicular growth faulting in shallow marine reservoirs of the Champion field, offshore Brunei Darussalam, South China Sea. American Assoc. Petroleum Geol. (AAPG) Bull. 85, 3, p. 433-457.
(Champion field, off Brunei, thick M-U Miocene shallow marine sediments associated with major growth fault systems and deposited as part of paleo-Baram delta. Growth faults strike perpendicular to paleo-shoreline orientation. Depositional responses to growth faulting layer thickening and addition of layers in hanging wall. See also Discussion by Edwards 2002)

Hoesni, M.J. & M.N.C Mood (1995)- History of hydrocarbon generation in the Tembungo field, offshore northwest Sabah. In: G.H. Teh (ed.) Southeast Asian basins: oil and gas for the 21st century, Proc. AAPG-GSM Int. Conference 1994, Bull. Geological Society Malaysia 37, p. 309-320.
(online at: www.gsm.org.my/products/702001-100945-PDF.pdf)
(Tembungo field off Sabah producing oil from Upper Miocene turbidite reservoirs. Oils low sulphur and wax contents and API gravity 38-40°, derived from marginal marine source with significant land plant input. High sedimentation rates in M-L Miocene. Tembungo structure began to grow in Late Miocene (7.2 Ma), with accelerated growth in Early Pliocene. Faults sealing; barrier faults contributed to overpressure. Hydrocarbon generation began at ~9.0 Ma and oil began to be trapped in Tembungo structure in Late Miocene-E Pliocene. Oils most likely sourced from M Miocene sediments)

Hoffmann-Rothe, J. (1994)- Brunei/ Brunei. In: H. Kulke (ed.) Regional petroleum geology of the world, I, Borntraeger, Berlin, p. 739-746.
(Brief review chapter of oil-gas basin and fields of Brunei; in German)

Hoggmascall, N., C. Gibson, D. Blades & J. Torres (2012)- Source to sink modelling in NW Borneo: improving understanding of the deepwater slope delivery system and utilising DEM and shallow analogues for deeper prospectivity. AAPG Int. Conv. Exhib., Singapore 2012, Search and Discovery Article 50755, p. 1-12.
(online at: www.searchanddiscovery.com/documents/2012/50755hoggmascall/ndx_hoggmascall.pdf)
(Summary of integration work on offshore Brunei floodplain to basin floor for intervals in last 12 million years)

Ho Kiam Fui (1976)- Morphogenetic trend of *Lepidocyclina* and its application in time stratigraphy. Geologie en Mijnbouw 55, 3-4, p. 147-158.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0ZlpZYlRsbzN6b1U/view)
(Correlation between Lepidocyclina degree of curvature and planktonic foram zonation in E-M Miocene of C Luconia wells, Sarawak)

Ho Kiam Fui (1978)- Stratigraphic framework for oil exploration in Sarawak. Bull. Geological Society Malaysia 10, p. 1-13.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1978001.pdf)
(Upper Eocene- Pleistocene sequence in Sarawak subdivided into 8 sedimentary cycles, separated by rapid and widespread transgressions. With overview of biozonatons used)

Ho Wan Kin (1990)- Central Luconia Middle Miocene carbonate play, Sarawak Basin, Malaysia. In: CCOP/WRGA Play modelling exercise 1989-1990, United Nations ESCAP, CCOP, Technical Publication 23, p. 67-85.
(Description and hydrocarbon assessment of M-L Miocene carbonate play play, offshore Sarawak. With schematic Late Oligocene- Recent paleogeographic maps and 'Cycle V/VI carbonate buildup distribution map)

Hon, V. (1976)- Some analyses of the Serian Volcanics of the Kuap area. Annual Report Malaysia Geological Survey for 1975, p. 212-220.
(Late Triassic intermediate-basic Serian Volcanics from Kuap area, S of Kuching, W Sarawak, show affinity to tholeiitic series)

Hon, V. (1981)- Physical controls of mineralization in the Bau town area, west Sarawak, Malaysia. Sarawak Mining Bull. 1, p. 43-54.

Hon, V. (1989)- Geological setting and some exploration criteria of gold mineralization in the Bau area, Sarawak, Malaysia. In: Workshop on epithermal gold mineralization. Tsukuba. Japan, 1989, ESCAP Natural Resources Division, Geological Survey of Japan, p. 1-14.

Hon, V. & S.K. Lam (1992)- Geological Map of Sarawak, 2nd Edition, scale 1:500 000. Geological Survey of Malaysia.

Honza, E., J. John & R.M. Banda (2000)- An imbrication model for the Rajang accretionary complex in Sarawak, Borneo. J. Asian Earth Sciences 18, 6, p. 751-759.
(Rajang accretionary complex generally S- dipping and younging N-ward. Interpreted as thrust slices, each 10-15 km wide, formed by accretion at subduction trench. Accretion of Late Jurassic- Cretaceous oceanic crust from Pacific (E) in Late Cretaceous, forming part of arc along E Asia margin from Japan to Kalimantan. E Tertiary bending of S end of arc in Borneo changed direction of subduction to accretion from N)

Hood, F.H. & S. Tahir (2011)- Lithostratigraphy of the Late Neogene sedimentary sequence in Sandakan Peninsula. Proc. 24th National Geoscience Conference 2011 (NGC2011), Johor Baru, P1-27, p. 107-109. *(Extended Abstract)*
(online at: http://geology.um.edu.my/gsmpublic/NGC2011/NGC2011_Proceedings.pdf)
(Sandakan Peninsula outcrops. Oldest exposed unit is M Miocene Garinono Fm, widely distributed in E Sabah, with lower sequence of sedimentary melange/olistostrome and volcanics-dominated upper sequence, part of M Miocene Cagayan Volcanic Arc. Volcanic facies andesite- dacite and tuff- tuffaceous sandstone. Unconformity between volcanics and base of overlying Sandakan Fm also M Miocene age (Globorotalia fohsi fohsi). Sandakan Fm 12km thick mudstones and cross-bedded sandstones. Common lignite seams, fossilized wood and consolidated quartz pebble lenses)

Hoppe, P. (1990)- Photogeological investigations in the area of Mt. Kinabalu and adjacent parts of Sabah, East Malaysia. In: Mineral resources investigation in Sabah, East Malaysia, 1980-1984, Geologisches Jahrbuch B74, p. 115-135.
(Photogeologic interpretation of parts of Sabah to obtain improved regional structure information. Area around Mt Kinabalu is where two subduction zones merge, with 90° bend in folds of Crocker Fm Miocene accretionary complex, etc.)

Houtz, R.E. & D.E. Hayes (1984)- Seismic refraction data from Sunda Shelf. American Assoc. Petroleum Geol. (AAPG) Bull. 68, p. 1870-1878.
(Velocity changes in disturbed sediments on W edge Sarawak basin support claim Borneo subduction melange (accretionary prism) extends into Sarawak basin. Zone of thickened subduction melange sediments may extend N to shelf edge. Basement salient in E part West Natuna basin requires ~45 km shift in W boundary of Cretaceous subduction melange. Crust below Sarawak basin oceanic, implying shelf edge advanced ~300 km N over oceanic crust as result of post-Eocene progradation. Pre-Oligocene sediments thin in Sarawak basin)

Hutchison, C.S. (1968)- Tectogene hypothesis applied to the Pre-Tertiary of Sabah and The Philippines. Bull. Geological Society Malaysia 1, p. 65-79.
(online at: https://gsmpubl.files.wordpress.com/2014/08/bgsm1967008.pdf)
(Sabah correlated with Philippines in Pre-Tertiary arcuate tectogene-geosyncline system (pre-plate tectonics paper))

Hutchison, C.S. (1972)- Alpine-type chromite in North Borneo, with special reference to Darvel Bay. American Mineralogist 57, 5-6, p. 835-856.
(Chromite layers and pods in dunite and serpentinite lenses in peridotite outcrops of Sabah. Association of chromite-bearing ultramafic rocks with gabbro bodies and high-metamorphic tholeitic metabasalts (generally as amphibolite, occasionally hornblende granulite) have formed in oceanic spreading zone)

Hutchison, C.S. (1978)- Ophiolite metamorphism in northeast Borneo. Lithos 11, p. 195-208.
(Darvel Bay ophiolite sequence of mantle harzburgite, gabbro (2 km thick), basalt and associated Late Cretaceous (subsequent work has shown Early Cretaceous age; JTvG) to Eocene age deep marine chert-spilite and Miocene melange and olistostrome deposits. Ophiolite is extension into Borneo of Sulu Archipelago non-volcanic arc (opinion revised in Hutchison, 2000). Parts of ophiolite metamorphosed to gneiss, amphibolite, etc.)

Hutchison, C.S. (1982)- Pre-Tertiary basement of Borneo: what and where? Warta Geologi (Newsletter Geological Society Malaysia) 8, p. 295-297. *(Abstract only)*
(online at: https://gsmpubl.files.wordpress.com/2014/09/ngsm1982006.pdf)

(Brief discussion of poorly known sialic basement terranes of Borneo. No maps)

Hutchison, C.S. (1988)- Stratigraphic-tectonic model for eastern Borneo. Bull. Geological Society Malaysia 22, p. 135-151. *(also in Proc. GEOSEA 6 Conf., Jakarta 1987)*
(online at: https://gsm.org.my/wp-content/uploads/gsm_file_2/702001-101119-PDF.pdf)
(NE Borneo nucleated since late Cretaceous around N Borneo Miri zone microcontinent that rifted off Vietnam/ S China. E margin passive, and grades into oceanic lithosphere of 'chert-spilite zone'. Early Miocene collision of Miri microcontinent, causing folding-thrusting of Rajang group (suggests collision with Sulawesi, followed by Makassar Straits opening, but this had already opened in Eocene; JTvG))

Hutchison, C.S. (1991)- Neogene arc-continent collision in Sabah, Northern Borneo (Malaysia) - Comment. Tectonophysics 200, p. 325-329.
(Critical discussion of Rangin et al. (1990) paper. Palawan-N Borneo Trench not active subduction or collision zone, and quite a few other 'incorrect' details. Miri Zone and Dangerous Grounds are singe continental block and were both foreland in ?Miocene)

Hutchison, C.S. (1992)- Evidence of multiphase deformation in the Rajang-Crocker Range (northern Borneo) from Landsat imagery interpretation: geodynamic implications- Comment (1). Tectonophysics 204, p. 175-177.
(Critical discussion of Benard et al. (1990) paper; see also Haile (1992))

Hutchison, C.S. (1992)- The Southeast Sulu Sea, a Neogene marginal basin with outcropping extensions in Sabah. Bull. Geological Society Malaysia 32, p. 89-108.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1992017.pdf)
(Sulu Sea marginal basin resulting from E Miocene intra-arc rifting. Early stages with explosive volcanic activity and rifting resulting in extensive Ayer, etc. olistostromes, corresponding to Ayer, Tungku and Kuamat, Garinono Fms. Uplift of Crocker Fm to W provide source for major quartz sands in SabahTanjong Fm and major NE flowing delta near Sandakan fed turbidites of deep Sulu Sea. Sabah ophiolite complex predates late early Miocene opening of Sulu Sea basin and represents Lower Cretaceous ocean floor on which arc was built. Rare metabasite with glaucophane)

Hutchison, C.S. (1994)- Melange on the Jerudong Line, Brunei Darussalam, and its regional significance. In: G.H. Teh (ed.) Petroleum Geology Conference 8, Bull. Geological Society Malaysia 36, p. 157-161.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1994030.pdf)
(Large olistostrome deposit S along Jerudong Line, with sandstone blocks up to 3m diameter embedded in Setap Shale. Jerudong Line was Late Miocene submarine continental slope down which unconsolidated sands slumped W into deeper water part of Baram Delta)

Hutchison, C.S. (1996)- The 'Rajang accretionary prism' and Lupar Line' problems of Borneo. In: R. Hall & D. Blundell (eds.) Tectonic evolution of Southeast Asia, Geological Society, London, Special Publ. 106, p. 247-261.
(Rajang Group in Sarawak (and Embaluh Group in Kalimantan and equivalent rocks in Sabah, E Kalimantan) N-facing accretionary prism, composed of Cretaceous- Late Eocene turbiditic sediments, younging N-ward. Compressed into steeply S-dipping phyllite-quartzite complex (= M-Late Eocene Sarawak orogeny; collision between Schwaner Mts Zone and Luconia-Balingian-Miri microcontinent). Unconformably overlain in N and S by M-U Eocene continental- neritic clastics. Sabah W Crocker Fm Oligocene turbidites more shaly in N, and nearshore in S. Several Miocene folding-uplift pulses. Provenance from uplifted U Cretaceous-Eocene of NE Kalimantan and E Sarawak. M-Late Miocene Crocker Fm uplift ('Sabah orogeny' = E-M Miocene;JTvG). Uplift ceased in Late Miocene. Paleocurrents show Upper Eocene basal sandstones provenance from metamorphosed Sibu Zone. Kalimantan Melawi and Mandai basins unconformably over flysch-belt. Basins not forearc, but formed after transformation of accretionary prism to collision complex landmass)

Hutchison, C.S. (2001)- Sundaland half-grabens of Sarawak; implications. Abstracts Petrol. Geological Conference Exhib. 2001, Paper 12, Warta Geologi (Newsletter Geological Society Malaysia) 27, 5, p. 228-230.
(Abstract only)

(Sundaland large continental peninsular landmass with half-grabens rifting from Late Eocene-Oligocene. Sarawak W of West Balingian Line (Tatau or Mukah Province) integral part of this landmass, with NW-SE Late Eocene- pre M Miocene grabens with up to 5km non-marine fill; marine inundation only after M Miocene sag. Similar half grabens simultaneously developed on uplifted Rajang Group of Sibu Zone (Rajang had become part of Sundaland after Late Eocene Sarawak Orogeny. Ketungau Basin of Kalimantan not unique. Sundaland Late Eocene half-grabens are intermontane basins, like Basin and Range province of W North America)

Hutchison, C.S. (2002)- Did the northwest Borneo Trough terminate at the West Baram line; what do the Miocene adakites/diorites indicate? Warta Geologi (Newsletter Geological Society Malaysia) 28, 5, p. 250-251.
(Abstract only). (online at: https://gsm.org.my/wp-content/uploads/gsm_file_2/702001-100441-PDF.pdf)
(NW Borneo Trough represents extinct plate margin and was active trench during spreading of S China Sea marginal basin, from anomalies 11 (31 Ma) to 5c (16 Ma). Belt of E-M Miocene Sintang volcanics extends through Kuching and Bau SSE along length of Ketungau Basin in Kalimantan, indicating NW Borneo active trench continued W and did not terminate at W Baram Line (see also Hutchison (2010))

Hutchison, C.S. (2005)- Geology of North-West Borneo- Sarawak, Brunei and Sabah. Elsevier, Amsterdam, p. 1-421.
(Extensive review of Sarawak, Brunei, Sabah and N Kalimantan geology and stratigraphy)

Hutchison, C.S. (2010)- The North-West Borneo Trough. Marine Geology 271, 1-2, p. 32-43.
(NW Borneo Trough in deepwater Brunei-Sabah with melange wedge along SE margin, best explained as fossil trench-accretionary prism, preserved when subduction ceased in M Miocene with arrival of thinned continental crust at Benioff Zone, choking subduction and causing isostatic uplift of W Cordillera of Sabah. Overlain by undeformed Upper Miocene- Holocene drape. Alternative interpretation was a SW major NW-directed thrust Sheet System over autochthonous Dangerous Grounds terrane of attenuated continental crust of S China Sea passive margin. Enigmas remain in Palawan area, where trough position is bathymetrically obscure in places and position makes it impossible to derive Calamian micro-continent from continental Asia as required from its stratigraphy. In SW Trough terminates abruptly at W Baram Line. Trough contains several spectacular edifices, formerly suggested to be volcanoes or mud volcanoes but are drowned carbonate build-ups)

Hutchison, C.S. (2010)- Oroclines and paleomagnetism in Borneo and South-East Asia. Tectonophysics 496, p. 53-67.
(Oroclinal bending of Borneo is result of indentation and collision by continental Miri Zone- C Luconia Block in Eocene. Collision caused strong compression and uplift of Sibu Zone U Cretaceous- Eocene Rajang-Embaluh Gp turbidite basin, which is floored by oceanic crust of Proto South China Sea. No paleomagetic work on oroclinally bent Sibu Zone rocks in NW limb. Limited paleomagnetic support for required CCW rotation in NE limb. Previous syntheses emphasised CCW rotation or stable non-rotation of Borneo region as coherent entity, without internal deformation, ignoring oroclinal shape defined by geology of island)

Hutchison, C.S. (2011)- Oroclines and paleomagnetism in Borneo and South-East Asia. Proc. Petroleum Geology Conference Exhibition (PGCE), Kuala Lumpur 2011, Warta Geologi (Newsletter Geological Society Malaysia) 37, 1, p. 39. *(Abstract only)*
(online at: https://gsmpubl.files.wordpress.com/2014/09/warta37_1.pdf)
(Oroclinal bending of Borneo resulted from indentation and collision of Miri Zone- C Luconia continental block of N Sundaland into S Sundaland (= Late Eocene 'Sarawak Orogeny'))

Hutchison, C.S., S.C. Bergman, D.A. Swauger & J.E. Graves (2000)- A Miocene collisional belt in north Borneo: uplift mechanism and isostatic adjustment quantified by thermochronology. J. Geological Society, London, 157, p. 783-793.
(Subduction followed by underthrusting of continental lithosphere, driven by Oligocene-Miocene spreading in S China Sea, account for Sabah tectonic features. Isostatic rebound caused Late Miocene uplift of W Cordillera. Strata buried to 4-8 km, then rapidly exhumed and cooled at ~0.6mm/year. Rapid erosion supplied abundant clastics to Baram Delta, E lowlands and Sulu Sea. E Lowlands affected by Miocene Sulu Sea rifting)

Hutchison, C.S. & T.J. Dhonau (1969)- Deformation of an alpine ultramafic association in Darvel Bay, East Sabah, Malaysia. Geologie en Mijnbouw 48, 5, p. 481-494.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0NjFyMklsVGpMdlE/view)
(Early description of Late Mesozoic ophiolites of Darvel Bay, E Sabah. Serpentinized peridotites (folded, with boudinage), associated with gneiss, amphibolite chert-spilite formation, etc.))

Hutchison, C.S. & T.J. Dhonau (1971)- An alpine association of metabasites and ultrabasic rocks in Darvel Bay, East Sabah, Borneo. Overseas Geology and Mineral Resources (Inst. Geological Sciences/ British Geological Survey), London, 10, 4, p. 289-308.
(online at: https://pubs.bgs.ac.uk/publications.html?pubID=B07237)
(Darvel Bay in E Sabah with with 3 closely associated rock groups: two groups of metabasites (Late Jurassic? Silumpat Gneiss Fm and amphibolites, metamorphosed equivalent of Upper Cretaceous-Eocene flysch of Chert-Spilite Fm) and one group of alpine type ultrabasic rocks. Includes 140 +/-20 Ma (basal Cretaceous) K-Ar age for metabasalt from Sabah ophiolite)

Hutchison, C.S. & T. Surat (1991)- Sabah serpentinite sandstone and conglomerate. Warta Geologi (Newsletter Geological Society Malaysia) 17, 2, p. 59-64.
(online at: https://gsmpubl.files.wordpress.com/2014/09/ngsm1991002.pdf)
(Serpentinite conglomerate and sandstone (grit) in Labuk Valley, NE Sabah W of Sandakan. Eroded from uplifted peridotite and/or gabbroic layer of ophiolite. Age unknown. but possibly part of contiguous Oligocene Kulapis Fm or Kamansi Beds)

Ibbotson, R. (2007)- Silimpopon- a Borneo coal mine. Opus Publications, Kota Kinabalu, p. 1-199.
(History of exploitation of Silimpopon coal mine, operating from 1905-1932 in Sabah, upriver from Tawau)

Ibrahim, C.A., L. Light, J. Ngu-Chee Kong & J. Mennie (2012)- Foresee the unforeseen: modeling West Baram Delta overpressure, Offshore Sarawak. AAPG Search and Discovery Article 41109, p.
(online at: www.searchanddiscovery.com/documents/2012/41109ibrahim/ndx_ibrahim.pdf)
(Data from 62 W Baram Delta wells indicates onset of overpressure occurs at different depths, controlled structurally and stratigraphically. Under-compaction overpressure, driven by rapid sedimentation, predominant overpressure mechanism)

Ibrahim, N.A. (2003)- Deposition of the Tembungo deep-water sands. In: G.H. Teh (ed.) Petroleum Geology Conference and Exhibition 2002, Bull. Geological Society Malaysia 47, p. 105-126.
(Core and seismic study of several 100m thick Late Miocene deep-water sands in Tembungo field off Sabah, above the 'Shallow Regional Unconformity' (= ~9 Ma))

Ibrahim, W.E., A.M.A. Salim & Chow Weng Sum (2019)- Mineralogical investigation of fine clastic rocks from Central Sarawak, Malaysia. J. Petroleum Exploration Production Technology 10, p. 21-30.
(online at: https://link.springer.com/content/pdf/10.1007/s13202-019-00751-0.pdf)
(Clay mineralogy of Nyalau, Tatau, Begrih, Liang and Belaga Formations)

Idris, H.A.B.M., J. Jong, D.A. Nuraini B.A.B. & N.F.B.Salim (2015)- Jemuduk-1ST1 post well analysis: implications on hydrocarbon charge and sedimentary fairway development of the Rajang Delta. Proc. 39th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA15-G-017, p. 1-20.
(Jemuduk-1ST1 exploration well off Sarawak tested anticlinal structure (toe thrust) in Bunguran Trough fold-thrust belt, linked to growth faults in Rajang Delta (= W Luconia Delta). Non-economic gas shows throughout Pliocene Cycles VI-VIII clastic reservoirs. Total 350m gross sandy interval, with porosity 16-25%)

Idris, H.A.B.M., A.B. Mustapha, N.F.B. Salim, D.A.N.B.A. Bakar, J. Jong & T. Murray (2015)- "J-1ST1" post well analysis: implications on hydrocarbon charge and sedimentary fairway development of the West Luconia Delta. Proc. SE Asia Petroleum Exploration Society (SEAPEX) Conference, Singapore 2015, 5.1, p. 1-42.
(Extended Abstract + Presentation)
(Similar to Idris et al. 2015. J1ST1 well tested Plio-Pleistocene sands of West Luconia/ Rajang Delta shelf)

Idris, M.B. (1989)- Fossil crabs of Sabah. Warta Geologi (Newsletter Geological Society Malaysia) 15, 5, p. 207-213.
(online at: https://gsmpubl.files.wordpress.com/2014/09/ngsm1989005.pdf)
(Six localities of Late Miocene- Quaternary age in Sabah with crab fossils, incl. Macropthalmus, Scylla, Euphylax and Martinaarcinus)

Idris, M.B. (1992)- CO_2 and N_2 contamination in J32-1, SW Luconia, offshore Sarawak. Bull. Geological Society Malaysia 32, p. 239-246.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1992025.pdf)
(SW Luconia area offshore Sarawak prone to high CO_2 (>60%; especially high in carbonate) and N2 contamination. Recent exploration well J32-1 five gas-bearing reservoirs in Neogene sands and limestones. with CO_2 from 2-76% and N2 from 1-12%). Contaminants commonly thought to be basement derived, but possible other causes)

Idris, M.B. & K.H. Kok (1990)- Stratigraphy of the Mantanani Islands, Sabah. Bull. Geological Society Malaysia 26, p. 35-46.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1990004.pdf)
(Mantanani islands off N Sabah M Miocene bioclastic limestones and calcarenites with Lepidocyclina, overlain by massive conglomerates)

Imai, A. (1994)- Sulfide globules associated with a felsite intrusion in the Mount Kinabalu quartz monzonite, Sabah, East Malaysia: sulfide melt immiscibility in a highly silicic melt. Economic Geology 89, p. 181-185.

Imai, A. (2000)- Genesis of the Mamut porphyry copper deposit, Sabah, East Malaysia. Resource Geology, Tokyo, 50, 1, p. 1-23.
(Sabah Mamut porphyry-type Cu-Au deposit ~10 km SE of Mt Kinabalu genetically related to latest Miocene quartz monzonite porphyry stock ('adamellite'; ~7 Ma), associated with Late Miocene Mt Kinabalu plutonism. Chalcopyrite, pyrrhotite and magnetite are principal ore minerals)

Imai, A. & K. Ozawa (1991)- Tectonic implications of the hydrated garnet peridotites near Mt Kinabalu, Sabah, East Malaysia. J. Southeast Asian Earth Sciences 6, p. 431-445.
(Garnetiferous peridotites part of ultramafic complex in Mt Kinabalu area. Associated with abundant spinel lherzolites and in fault contact with surrounding Tertiary strata. High T peridotite mineral assemblages overprinted by lower T hydrous assemblages with abundant hornblende. Garnet peridotites part of sub-crustal mantle under Kalimantan, metasomatized during ascent due to tectonism)

Ingram, G.M., T.J. Chisholm, C.J. Grant, C.A. Hedlund et al. (2004)- Deepwater North West Borneo: hydrocarbon accumulation in an active fold and thrust belt. Marine and Petroleum Geology 21, p. 879-887.
(Deepwater acreage of NW Borneo active fold- thrust belt with hydrocarbon accumulations. Typical trapping geometries hanging-wall anticlines, foreland folds and ridges and sub-thrust footwall cut-offs. Drilling targets in deformed Miocene-Pliocene clastics, charged from active petroleum system. Major challenge is to avoid drilling traps that expelled hydrocarbons during periods of active deformation)

Ishak, A.Z., Z. Konjing, A.H.A. Rahman, M.S. Ismail &, N.A. Siddiqui (2024)- Palynology of Late Oligocene to Pliocene succession in Temana Field of Balingian Province, offshore Sarawak. Bull. Geological Society Malaysia 78, p. 59-73.
(online at: https://gsm.org.my/articles/bgsm202478-06/)
(Palynology of Late Cenozoic succession in two Temana wells. Three main palynomorph assemblages:(1) Zone-1- Late Oligocene, with abundant Florschuetzia trilobata and common montane and seasonal elements, etc;.(2) Zone-2- E-M Middle Miocene. Dominated by Kerapah Casuarina-type pollen and characterized by increasing mangrove pollen; Zone-3 - Late Miocene-Pliocene. Above major angular unconformity, with high % of rainforest pollen. Cyclical pattern from seasonally dry climate in Oligocene to warm and ever-wet during E-M Miocene, and finally a prolonged humid climate with minor seasonality since Late Miocene)

Ishibashi, T. (1982)- Upper Jurassic and Lower Cretaceous ammonites from Sarawak, Borneo, East Malaysia. In: T. Kobayashi et al. (eds.) Geology and Palaeontology of Southeast Asia, University of Tokyo Press, 23, p. 65-75.
(Ammonites from Lower Pedawan Fm of W Sarawak. Paraboliceras jubar, Virgatosphinctes sp. and Phanerostephanus sp., indicating latest Jurassic (Tithonian) age). Also Early Cretaceous Neocomites, Limaites, Phylloceras, Thurmanniceras from Pedawan Fm)

Ismail, H.H., H. Zhao, S. Rajput, E.A. Jones & N. S. Sobri (2024)- The Sabah's Ophiolite mineralogical studies for evaluation of natural hydrogen potential. Proc. Abu Dhabi International Progressive Energy Congress (ADIPEC), Abu Dhabi 2024, Soc. Petroleum Engineers (SPE), p.
(Sabah ophiolites in Ranau, Telupid and Lahad Datu, composed of crystalline basement and ultramafic-serpentinite rocks of Triassic- E Tertiary age. Unconformably overlain by Eocene-Oligocene Crocker Fm and Paleocene-Eocene Trusmadi Fm in N Sabah. In C Sabah overlain by Eocene-Oligocene Crocker Fm and Kulapis Fm; in S Sabah by Oligocene- M Miocene melange (Kuamut, Ayer and Kalumpang Fms). Serpentinization in samples 25-79% . Overlying sedimentary formations could provide reservoir and seal for H_2 gas)

Ismail, M.I.B. (1999)- Petroleum resources, Sabah. In: Petronas (1999) The petroleum geology and resources of Malaysia, p. 593-602.
(On petroleum resources in 3 Neogene basins: Sabah, NE Sabah (Sandakan) and SE Sabah. Main basin is Sabah Basin off NW Sabah, Discovered recoverable oil 1.2 BB Oil, 7.0 TCF gas in 23 oil and 28 gas fields)

Ismail, M.I., A.R. Eusoff, A.M. Mohamad, S.A. Aziz & B. Mahendran (1995)- The geology of Sarawak deepwater and surrounding areas. In: G.H. Teh (ed.) Southeast Asian Basins, oil and gas for the 21st century, Proc. AAPG-GSM Int. Conference, Kuala Lumpur 1994, Bull. Geological Society Malaysia 37, p. 165-178.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1995a12.pdf)
(Study of 1989 Sarawak deepwater seismic transects. Two tectonostratigraphic provinces. North Luconia 7-8 km of Tertiary sediments, NNE-SSW trending extensional faults, buried hills and local forced folds. On E boundary NNE-SSW fault separates it from NW Sabah Platform with NE-SW trending rifts with only 2-4 km sediment. W Luconia Province up to 13 km of sediments, very thick post M Miocene, with E-W trending growth faults and slumps/ toe thrusts formed by gravity gliding. These overlie normal-faulted section at mid Miocene unconformity. Five sub-megasequences recognised)

Ismail, M.I. & R.B.A. Hassan (1999)- Tinjar province. In: Petronas (1999) The petroleum geology and resources of Malaysia, Chapter 16, p. 395-409.
(Geology and hydrocarbon of area onshore Sarawak with U Eocene- U Miocene sediments, uplifted and folded at end Early Miocene and Late Miocene. No discoveries so far)

Ismail, M.N., A. Rahman & S. Hj. Tahir (2017)-) Wave-dominated shoreline deposits in the Late Miocene sedimentary sequence in the Miri Formation North Sarawak, Malaysia. J. Geological Behavior 1, 2, p. 14-19.
(online at: https://geologicalbehavior.com/archives/2gbr2017/2gbr2017-14-19.pdf)
(Well-developed wave-dominated deposition nearMiri, Sarawak, in Late Miocene shallow marine upward coarsening interval of Miri Fm: abundant hummocky cross-bedding, well-defined swaley cross stratified sandstone interval, and sets of planar cross beds interpreted as formed by swash waves)

Ismail, R. & R. Hall (2022)- Provenance of Neogene sediments in deep water Offshore Sabah, NW Borneo. Proc. Asia Petroleum Geoscience Conference and Exhibition (APGCE 2022), Kuala Lumpur, p. 1-5.

Ismail, R., R. Hall & T. Breitfeld (2017)- Provenance and zircon geochronology of Neogene sediments in offshore Sabah, NW Borneo. Proc. Asia Petroleum Geoscience Conference and Exhibition (APGCE 2017), EAGE, Kuala Lumpur, 43554, p. 175-178. *(Extended Abstract)*
(Sediments of onshore Sarawak and Sabah with age populations of the detrital zircons indicating SW Borneo and Peninsula Malaysia as potential sources for some zircon age groups)

Ismail, W.N.W, S.H. Tahir & Basir Jasin (2014)- Barremian-Aptian radiolaria from Chert-Spilite Formation, Kudat, Sabah. Warta Geologi (Newsletter Geological Society Malaysia) 40, 3-4, p. 59-61.
(online at: www.gsm.org.my/products/702001-101643-PDF.pdf)
(Radiolarian chert in siliceous shale in ophiolitic rocks at Bukit Pangaraban, Kudat, E Sabah, with radiolarians dominated by Thanaria pacifica, Dictyomitra communis, Pseudoeucyrtis hanni and Podobursa typica, suggesting Barremian-Aptian (E Cretaceous) age. Radiolarian chert is from basalt association. Low CaO content suggests deposition below calcite compensation depth. Chert deposited on E Cretaceous oceanic crust and represent oldest rocks in Sabah)

Ittharat, D., P. Thamniyom, A. Suphawajruksakul, S. Thanudamrong, M. Lekkhian, A.A. Jamalullail et al. (2019)- Multidisciplinary approaches for carbonate sweet spot identification and journey of Lang Lebah discovery. Proc. Asia Petroleum Geoscience Conference and Exhibition (APGCE), p.
(Discovery of C Luconia multi-TCF Lang Lebah gas field in Late Miocene carbonate pinnacle)

Iyer, S.R., Ong Swee Keong, N. Asmah, F. Nazihah & Satyanarayana (2010)- An insight into the tectonic framework and structural evolution of a frontier area in Sarawak Offshore Basin, Malaysia. Proc. Petroleum Geology Conference Exhibition (PGCE), Kuala Lumpur 2010, p. 178-181. *(Extended Abstract)*
(Structural fabric off Sarawak characterized by strong overprint of NW-SE to N-S reactivated basement trend, over the older, less distinct, NE-SW trend. Post MMU tectonic setting: quiescent W half, separated by West Balingian zone, from an active wrench- tectonics-dominated E half. Timing of wrench movement shifted from Late Miocene in W to Recent in E)

Iyer, S.R., Ong Swee Keong, F. Nazihah & S.A. Abdullah (2012)- New perspective on evolution of northern provinces of offshore Sarawak Basin, Malaysia. AAPG International Conference Exhib., Singapore 2012, Search and Discovery Article 10482 (2013), p. 1-19. *(Presentation package)*
(online at: www.searchanddiscovery.com/documents/2013/10482iyer/ndx_iyer.pdf)
(Basins offshore Sarawak initiated as Late Cretaceous (?) to Late Eocene intra-cratonic rifts on continental crust on foreland bulge (Phase I), creating N-S and NE-SW-trending half-grabens, dipping to E and SE. Gravity modeling results suggest 15-20 km thick attenuated continental crust. Extension continued, with opening of S China Sea in E Oligocene (Phase II), and subsequent drift phase up to early M Miocene. Well results suggest non-marine to transitional environment for Cycle I -Lower Cycle II, and outer neritic to bathyal for Cycle III. Regional uplift in late E Miocene- M Miocene, resulted in regional Middle Miocene Unconformity. Age of MMU younger towards E. Major NW-SE transtension close to MMU time along SW Luconia fault zone resulted in formation of W Luconia Trough. Late Miocene-Recent NE sag of basin led to a deep-water setting)

Iyer, S.R., H. Rosidah & A.S. Amar (2012)- Maturation of a new play concept in Northern Provinces of offshore Sarawak Basin, Malaysia. Proc. Petroleum Geology Conference Exhibition (PGCE) 2012, Warta Geologi (Newsletter Geological Society Malaysia) 38, 2, p. 125-126. *(Abstract only)*
(online at: http://geology.um.edu.my/gsmpublic/warta/Warta38_2_draft.pdf)
('Sequence-A play concept' is based on seismic evidence: postulated lacustrine sediments ?Lat Cretaceous-Eocene early half- graben fill in first phase of extension)

Jackson, C.A.L. & H.D. Johnson (2009)- Sustained turbidity currents and their interaction with debrite-related topography: Labuan Island, offshore NW Borneo, Malaysia. Sedimentary Geology 219, p. 77-96.
(E Miocene Temburong Fm at Labuan Island off NW Borneo, deposited in a lower slope- proximal basin-floor setting. Two gravity-flow facies: slump-derived debrites and turbidites deposited by sustained turbidity currents. Routing of turbidity currents influenced by topographic relief at top of underlying debrite)

Jackson, C.A.L., A.A. Zakaria, H.D. Johnson, F. Tongkul & P.D. Crevello (2009)- Sedimentology, stratigraphic occurrence and origin of linked debrites in the West Crocker Formation (Oligo-Miocene), Sabah, NW Borneo. Marine and Petroleum Geology 26, 10, p. 1957-1973.
(Oligocene-E Miocene W Crocker Fm of N Borneo large submarine fan, part of accretionary complex. Range of gravity-flow deposits observed (see also Zakaria et al. 2013)

Jacobson, G. (1970)- Geology and mineral resources of the Gunung Kinabalu area, Sabah, E. Malaysia. Geological Survey of Malaysia Report 8, p. 1-111.

Jamaludin, S.N.F., M. Mubin & A.H.A. Latiff (2017)- Imaging of karsts on buried carbonate platform in Central Luconia Province, Malaysia. Proc. 5th Int. Conf. Geological, Geographical, Aerospaces and Earth Sciences, Bali 2017, IOP Conference Series: Earth and Environmental Science 88, 012011, p. 1-7.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/88/1/012011/pdf)
(On seismic recognition of karst networks in offshore N Borneo C Luconia carbonate buildups)

Jamaludin, S.N.F. & M. Pubellier (2013)- Interpretations on seismic volume over two Miocene carbonate platforms in Central Luconia. Proc. National Geoscience Conference (NGC 2013), Ipoh, Geological Society Malaysia, B07, p. 76-78. *(Extended Abstract)*
(online at: www.gsm.org.my/products/702001-101658-PDF.pdf)

Jamaludin, S.N.F., M. Pubellier & D. Menier (2014)- Relationship between syn-depositional faulting and carbonate growth in Central Luconia Province, Malaysia. Bull. Geological Society Malaysia 60 (C.S. Hutchison Memorial Volume), p. 77-83.
(online at: https://gsmpubl.files.wordpress.com/2015/04/bgsm2014008.pdf)
(Seismic interpretation of Miocene carbonate platforms EX and FY in C Luconia Province shows carbonate buildups affected by syndepositional faulting. Faults formed during or just after final rifting of S China Sea)

Jamaludin, S.N.F., M. Pubellier & D. Menier (2017)- Structural restoration of carbonate platform in the southern part of Central Luconia, Malaysia. J. of Earth Science (China) 29, 1, p. 155-168.
(Tectonic events affected growth of Miocene carbonates in C Luconia. Three stages: pre-carbonate (Late Oligocene- E Miocene), syn-carbonate (M-L Miocene) and post-carbonate (Pliocene). Rifting of S China Sea and subduction of proto-South China Sea responsible for pre-carbonate faulting; movement of ancient Baram Line controls strike directions of normal faults in syn-carbonate stage. Subsidence and compaction due to overburden of clastics from prograding deltas main reason for gravitational tectonics in post-carbonate stage)

Jamaludin, S.N.F., M. Pubellier & B. Sautter (2021)- Shallow vs. deep subsurface structures of Central Luconia Province, Offshore Malaysia reveal by aeromagnetic, airborne gravity and seismic data. Applied Sciences (MDPI) 11, 5095, p. 1-25.
(online at: https://www.mdpi.com/2076-3417/11/11/5095)
(Regional aeromagnetic anomalies (reflecting deep crustal features, while gravity anomalies evidence shallow subsurface structures) show orientation of faults/lineaments at shallower depth mainly NW-SE, while deeper sections yielded E-W to NW-SE dominant directions. E-W anomalies may represent remnants of accretion between Luconia crustal block and S boundary of Palawan block)

Jamaludin, S.N.F., B. Sautter, M. Pubellier & M.A. Beg (2021)- The succession of Upper Eocene- Upper Miocene limestone growth and corresponding tectonic events in Luconia shelf, Sarawak, Malaysia. Frontiers in Earth Science 9, 588629, p. 1-20.
(online at: www.frontiersin.org/articles/10.3389/feart.2021.588629/full)
(Three tectonic events affected Luconia shelf limestone growth:(1) Poly-stage closure of Proto South China Sea from U Cretaceous- Lower Miocene led to compressional structures in S, providing elevated topography for U Eocene- Lower Oligocene limestones (based on contrasting seismic reflectors, morphology, and depositional patterns, offshore U Eocene- Lower Oligocene limestone growth correlated to onshore Engkabang-Karap limestone); (2) S part of Luconia continuous compression until Lower Miocene, when N side of Luconia experienced subsidence due to rifting of S China Sea. Compression in S generated anticlines, triggering growth of U Oligocene-Lower Miocene limestone. By end of rifting in Lower Miocene, tectonic quiescence enabled widespread carbonate growth in Luconia in M-U Miocene; (3) Regional compression due to major uplift of Borneo hinterland triggered clastic influx to offshore, perturbating reef growth in Luconia. S side of Luconia crustal fragment anchored into Borneo hinterland, but crustal extension in N Luconia led to a hyper-stretched crust characterized by low angle detachment faults and rotated blocks)

Jamaluddin, T.A. (1989)- Struktur sedimen dalam Formasi Crocker di kawasan Tamparulih, Sabah. Bull. Geological Society Malaysia 24, p. 135-157.
(online at: www.gsm.org.my/products/702001-101307-PDF.pdf)
('Sedimentary structures of the Crocker Formation in the Tamparuli region, Sabah')

Jamalullail, A.A., Ong Swee Keong, N.R.A.N. Ruhadi, T.M.S.T. Hassan, D. Ittharat, P. Thamniyom, S. Thanudamrong, Z. Anas & S. Kampit (2020)- Unravelling an abandoned giant in Central Luconia Province, offshore Sarawak, Malaysia- Success story of Lang Lebah. Leading Edge 39, 8, p. 306-313. *(online at: https://www.researchgate.net/publication/342166988_CENTRAL_LUCONIA_CARBONATE_RESERVOIR_SWEET_SPOT_IDENTIFICATION_OF_LANG_LEBAH-1RDL2)*
(Two exploration wells drilled in 1994 in Lang Lebah Miocene carbonate buildup in C Luconia not fully evaluated at the time due to high overpressure. Postdrill analysis concluded that Lang Lebah had poor reservoir quality, and small gas column. New well at Lang Lebah resulted in major gas discovery in 2019)

James, D.M.D. (ed.) (1984)- The geology and hydrocarbon resources of Negara Brunei Darussalam. Brunei Shell Petroleum/ Muzium Brunei, p. 1-164.
(Elegant review of Brunei geology and hydrocarbons by Shell Brunei personnel)

James, E., H.F.W.S. Erfen, A.A. Ghani, A.V. Chuwat& G.E. Ejiga (2020)- The characteristics and morphology of columnar dacite in Tawau, Sabah. Warta Geologi 46, 2, p. 45-51.
(online at: https://gsm.org.my/wp-content/uploads/2023/01/wg462202002.pdf)
(On unusual columnar jointing in Late Miocene (~9.3 Ma) dacite in road cut E of Tawau town, Sabah)

James, E. & A.A. Ghani (2019)- Zircon U-Pb and Hf isotope constraints on the Neogene Semporna Peninsula volcanic rocks and its tectonic implications. Warta Geologi 45, 3, p. 256-257.

James, E., A.A. Ghani, J. Asis & N. Simon (2019)- Peranan subduksi terhadap batuan volkanik Berusia Neogen di Semenanjung Semporna: perspektif petrologi dan geokimia. Sains Malaysiana 48, 11, p. 2473-2481.
(online at: www.ukm.my/jsm/pdf_files/SM-PDF-48-11-2019/17%20Elvaene%20James.pdf)
('Subduction roles for Neogene volcanic rocks in Semporna Peninsula: petrology and geochemistry perspectives'. Neogene volcanics of Semporna Peninsula. After Miocene subduction by Celebes Sea, subduction-related magmatism was replaced by Oceanic Island Basalt-like magmatism)

James, E., A.A. Ghani, O.O. Akinola & J. Asis (2021)- Petrology and geochemical features of Semporna volcanic rocks, South-east Sabah, Malaysia. Sains Malaysiana 50, 1, p. 9-21.
(online at: https://journalarticle.ukm.my/16387/1/2.pdf)
(Volcanic rocks in Semporna Peninsula, Sabah, are parts of Miocene Sulu Arc subduction system. Basaltic andesite, andesite, dacite to rhyolite, with mostly calc-alkaline affinity with minor tholeiitic features. Formed in island arc setting)

Jamil, A.S.A., M. Anwar & E.S.P. Kiang (1991)- Geochemistry of selected crude oils from Sabah and Sarawak. Bull. Geological Society Malaysia 28, p. 123-149.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1991007.pdf)
(35 crude oils from 15 offshore Sabah and Sarawak oil fields analyzed. Three oil types: (1) normal, non-waxy, (2) waxy and (3) biodegraded. Oils derived from landplant-derived organic matter)

Jamil, M., A.H.A. Rahman, N.A. Siddiqui, N.A. Ibrahim & N. Ahmed (2020)- A contemporary review of sedimentological and stratigraphic framework of the Late Paleogene deep marine sedimentary successions of West Sabah, North-West Borneo. Bull. Geological Society Malaysia 69, p. 53-65.
(online at: https://gsm.org.my/products/702001-101834-PDF.pdf)
(Eocene- Oligocene stratigraphy of Trusmadi, Crocker and Temburong Formations)

Jamil, M., N.A. Siddiqui, N. Ahmed, M. Usman, M. Umar, H. ur Rahim & Q.S. Imran (2021)- Facies analysis and sedimentary architecture of hybrid event beds in submarine lobes: insights from the Crocker Fan, NW Borneo, Malaysia. J. Marine Science and Engineering 9, 10, 1133, p. 1-20.
(online at: https://www.mdpi.com/2077-1312/9/10/1133)
(Hybrid event beds in submarine lobes in deep-marine Late Paleogene Crocker Fan massive or structureless sandstone with mud clasts, etc. Well developed in proximal to medial lobes, while distal lobes mainly contain parallel to cross-laminated clean to muddy hybrid facies. Etc.)

Jamil, M., N.A. Siddiqui, A.H.A. Rahman, N.A. Ibrahim, M.S.B. Ismail, N. Ahmed, M. Usman et al. (2021)- Facies heterogeneity and lobe facies multiscale analysis of deep-marine sand-chale complexity in the West Crocker Formation of Sabah Basin, NW Borneo. Applied Sciences (MDPI) 11, 12, 5513, p. 1-23.
(online at: https://www.mdpi.com/2076-3417/11/12/5513)
(Facies distribution in deep-marine fan lobes in 300m thick section of Oligocene West Crocker Formation near Kota Kinabalu, W Sabah)

Jamil, M., N.A. Siddiqui, M. Umar, M. Usman, N. Ahmed, A.H.A. Rahman & F.K. Zaidi (2021)- Aseismic and seismic impact on development of soft-sediment deformation structures in deep-marine sand-shaly Crocker fan in Sabah, NW Borneo. J. King Saud University- Science 33, 6, 101522,
(online at: https://www.sciencedirect.com/science/article/pii/S101836472100183X)
(Study of soft-sediment deformation structures in Oligocene deep-marine fan of West Crocker Fm, Sabah)

Jamil, M., N.A. Siddiqui, M. Usman, A. Wahid, M. Umar, N. Ahmed, I. Ul Haq, M.A.K. El-Ghali et al. (2022)- Facies analysis and distribution of Late Palaeogene deep-water massive sandstones in submarine-fan lobes, NW Borneo. Geological Journal 57, 11, p. 4489-4507.
(Massive sandstone facies in Late Paleogene of Sabah interpreted as channels and proximal and medial lobe deposits in inner- middle submarine fan setting)

Janjuhah, H.T.& A. Alansari (2020)- Offshore carbonate facies characterization and reservoir quality of Miocene rocks in the southern margin of South China Sea. Acta Geologica Sinica (English Ed.) 94, 5, p. 1547-1561
(Characteristics of Miocene carbonates of Cycles IV and V in C Luconia province. Eight major facies types)

Janjuhah, H.T., A. Alansari & P.R. Santha (2018)- Interrelationship between facies association, diagenetic alteration and reservoir properties evolution in the Middle Miocene carbonate build up, Central Luconia, Offshore Sarawak, Malaysia. Arabian J. Science Engineering 44, 1, p. 341-356.
(C Luconia E-M Miocene Cycle IV-V carbonates subdivided into 8 lithofacies: (1) coated grain to packstone, (2) coral lime grainstone, (3) oncolite lime grain to packstone, (4) skeletal lime packstone and (5) coral lime mud to packstone, etc. Dissolution contributes to porosity enhancement, micritization, compaction and cementation have a negative impact on reservoir quality)

Janjuhah, H.T., J.A. Gamez Vintaned, A.M.A. Salim, I. Faye, M.M. Shah & D.P. Ghosh (2017)- Microfacies and depositional environments of Miocene isolated carbonate platforms from Central Luconia, offshore Sarawak, Malaysia. Acta Geologica Sinica (English Ed.) 91, 5, p. 1778-1796.
(13 microfacies identified in core samples from well in C Luconia M-U Miocene reef complex)

Janjuhah, H.T., G. Kontakiotis, A. Wahid, D.M. Khan, S.D. Zarkogiannis & A. Antonarakou (2021)- Integrated porosity classification and quantification scheme for enhanced carbonate reservoir quality: implications from the Miocene Malaysian carbonates. J. Marine Science and Engineering 9, 12, 1410, p. 1-22.
(online at: https://www.mdpi.com/2077-1312/9/12/1410?type=check_update&version=2)

Janjuhah, H.T., A.M.A. Salim, A.M.A. Alansari & D. Ghosh (2018)- Presence of microporosity in Miocene carbonate platform, Central Luconia, offshore Sarawak, Malaysia. Arabian J. Geosciences 11, 9, 204, p. 1-18.
(Miocene carbonate gas reservoirs in C Luconia with partially water-filled microporosity that overprint wireline logs. Three different types of microporosity, ranging from 10 to 60% of total measured porosity)

Janjuhah, H.T., A.M.A. Salim, M.Y. Ali, D.P. Ghosh & Meor H.A. Hassan (2017)- Development of carbonate buildups and reservoir architecture of Miocene carbonate platforms, Central Luconia, Offshore Sarawak, Malaysia. In: SPE/IATMI Asia Pacific Oil Gas Conference Exhib, Jakarta, SPE-186979-MS, p. 1-12.
(online at: https://umexpert.um.edu.my/file/publication/00006513_154787_66167.pdf)

Janjuhah, H.T., A.M.A. Salim & D.P. Ghosh (2017)- Sedimentology and reservoir geometry of the Miocene carbonate deposits in Central Luconia, Offshore, Sarawak, Malaysia. J. Applied Sciences 17, 4, p. 153-170.
(online at: http://scialert.net/qredirect.php?doi=jas.2017.153.170&linkid=pdf)
(Eight carbonate facies in M-L Miocene reefal buildups of offshore C Luconia province))

Janjuhah, H.T., A.M.A. Salim, D.P. Ghosh & A. Wahid (2017)- Diagenetic process and their effect on reservoir quality in Miocene carbonate reservoir, offshore, Sarawak, Malaysia. In: M. Awang et al. (eds.) Proc. Int. Conf. Integrated Petroleum Engineering and Geosciences (ICIPEG2016), Kuala Lumpur 2016, Springer Verlag, p. 545-558.

Jasin, Basir (1991)- Some larger foraminifera and radiolaria from Telupid olistostrome, Sabah. Warta Geologi (Newsletter Geological Society Malaysia) 17, 5, p. 225-230.
(online at: https://gsmpubl.files.wordpress.com/2014/09/ngsm1991005.pdf)
(Telupid Olistostrome overlies Chert-Spilite Formation and ultramafic rocks, and probably result of submarine sliding. Large limestone boulder with Late Eocene Pellatispira, Biplanispira, Nummulites, Spiroclypeus, Discocyclina, Asterocyclina)

Jasin, Basir (1991)- The Sabah Complex- a lithodemic unit (a new name for the Chert Spilite Formation and its ultramafic association). Warta Geologi (Newsletter Geological Society Malaysia) 17, 6, p. 253-259.
(online at: https://gsmpubl.files.wordpress.com/2014/09/ngsm1991006.pdf)
(Propose to replace name Chert-Spilite Fm with Sabah Complex, including its ultramafic association. Scattered across Sabah. Early Cretaceous radiolaria in chert (Valanginian-Barremian; many 'Tan Sin Hok species', originally described from Roti island, Indonesia; JTvG); mafic-ultramafic volcanic rocks must be older probably Late Jurassic)

Jasin, Basir (1992)- Significance of radiolarian cherts from the Chert-Spilite formation, Telupid, Sabah. Bull. Geological Society Malaysia 31, p. 67-83.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1992005.pdf)
(Thin-bedded, reddish chert-shale in Telupid area, Sabah, overlying Late Jurassic or earliest Cretaceous ocean floor basalt, pillow lava and peridotite. No pelagic limestones. Dismembered ophiolite sequence exposed by obduction or thrusted during Late Cretaceous- Early Paleogene. Chert composed mainly of radiolaria: Early Cretaceous assemblage with Archaeodictyomitra brouweri, A. pseudoscalaris, Pseudodictyomitra lilyae, Hemicryptocapsa pseudopilula, etc. (many 'Tan Sin Hok species'; JTvG), most likely age Late Valanginian-Barremian. Nearby (overlying?) olistostrome with M Eocene limestone blocks)

Jasin, Basir (1993)- Early Cretaceous radiolarians from the chert pebbles in the Lupar Formation, Sarawak. Sains Malaysiana 23, 1, p. 71-79.

Jasin, Basir (1996)- Late Jurassic to Early Cretaceous radiolarian from chert blocks in the Lubok Antu melange, Sarawak, Malaysia. J. Southeast Asian Earth Sciences 13, 1, p. 1-11.
(online at: https://www.researchgate.net/publication/248552461_Late_Jurassic_to_Early_Cretaceous_Radiolaria_from_chert_blocks_in_the_Lubok_Antu_melange_Sarawak_Malaysia)
(Lubok Antu melange with blocks of mudstone, sandstone, chert, limestone, hornfels, basalt, gabbro and serpentinite in sheared, chloritised mudstone matrix (with Early Eocene nannofossils; Hutchison 2005). Common chert blocks in melange, with radiolarians of Late Tithonian, M Valanginian- Barremian and Late Albian-Cenomanian ages (suggesting subducted 'proto-South China Sea' oceanic crust older than this?; = equivalent of Danau Fm of Molengraaff 1902? JTvG))

Jasin, Basir (2000)- Geological significance of radiolarian chert in Sabah. Bull. Geological Society Malaysia 44, p. 35-43.
(online at: http://gsmpubl.files.wordpress.com/2014/09/bgsm2000005.pdf)
(Sabah radiolarian cherts associated with ophiolitic rocks in Chert Spillite Fm and as blocks in chaotic deposits. Ophiolitic chert association from Bukit Pengaraban quarry near Kudat with 17 radiolarian taxa of Barremian-Aptian age (with many 'Tan Sin Hok species'; JTvG). Chert samples from Wariu Complex suggests Albian age. Radiolarian chert originally deposited on oceanic crust close to spreading center. Ophiolitic chert association is oldest rock in Sabah)

Jasin, Basir (2000)- Significance of Mesozoic radiolarian chert in Sabah and Sarawak. In: G.H. Teh et al. (eds.) Proc. Geological Society Malaysia Annual Geological Conference 2000, Pulau Pinang, p. 123-130.
(online at: https://gsmpubl.files.wordpress.com/2014/10/agc2000_17.pdf)
(Mesozoic cherts exposed in W Sarawak and Sabah dated by radiolarian faunas. Oldest chert with E Jurassic (Pliensbachian- E Toarcian Canoptum spp, Parasuum spp., etc.) in dacitic tuff of Binong Pass, overlying Serian Volcanics basalts-andesites. Chert sequence at base of Pedawan Fm with Late Tithonian-Berriasian radiolarians of Tethyan affinity. Lubok Antu melange with chert blocks of three ages: (1) late Tithonian with Parvicingula excelsa and Ristola altissima, (2) M Valanginian- Barremian with Cerops septemporata and (3) late Albian-Cenomanian. Radiolarian chert pebbles from Lupar Fm with Hauterivian-Barremian radiolaria. Chert from Sabah ophiolitic and melange associations Valanginian-Cenomanian. Cherts deep-marine and related to high plankton productivity in E Jurassic and Early to early Late Cretaceous)

Jasin, Basir (2002)- Middle Miocene planktonic Foraminifera and their implications in the geology of Sabah. Geological Society Malaysia Annual Geological Conference 2002, Kota Baru, Bull. Geological Society Malaysia 45, p. 157-162.
(online at: www.gsm.org.my/products/702001-100727-PDF.pdf)
(Planktonic foraminifera from M Miocene of Sabah. Garinono Fm melange in Bidu-Bidu area with early M. Miocene Gs. sicanus zone (N 8). Overlying tuffaceous mudstone with early M Miocene zone N10 (Orbulina, Globorotalia peripheroacuta). Libong Tuffite Fm on Dent Peninsula with middle M Miocene Gr. fohsi fohsi Zone (N12) assemblages. Setap Shale Fm at Kampung Sungai Berdaun, Labuan, with N8 assemblages a.a.)

Jasin, Basir & T.M.T. Ahmad (1995)- Some Paleogene planktonic foraminifera from the Lubok Antu Complex, Sarawak. Warta Geologi (Newsletter of the Geological Society of Malaysia) 21, 3, p. 147-151.
(online at: https://gsmpubl.wordpress.com/wp-content/uploads/2014/09/ngsm1995003.pdf))
(13 species of planktonic foraminifera from mudstone matrix of Lubok Antu melange of Lupar Valley, W Sarawak. Two assemblages:(1) early M Paleocene with Subbotina triloculinoides, S. velascoensis, Morozovella uncinata, M. trinidadensis, etc. (P2); (2) early M Eocene with Morozovella aragonensis, Acarinina bulbrooki, etc. (= much younger than associated Late Jurassic- Cretaceous radiolarian chert blocks; = tectonic deformation near subduction zone))

Jasin, Basir & M.S. Firdaus (2019)- Some deep-marine ichnofossils from Labuan and Klias Peninsula, west of Sabah. Bull. Geological Society Malaysia 67, p. 59-63.
(online at: https://gsm.org.my/products/702001-101785-PDF.pdf)
(Temburong Fm flysch deposited in distal part of submarine fan system. With 25 taxa of ichnofossils of Nereites ichnofacies. Two sub-ichnofacies: Paleodictyon (in thin-bedded distal fan lobe) and Ophiomorpha rudis (in thick-bedded sandstone channels and proximal fan lobes)

Jasin, Basir & N.S. Haile (1993)- Some radiolarians from the chert block of the Lubok Antu Melange, Sarawak. Warta Geologi 19, 5, p. 205-209.
(online at: https://gsmpubl.wordpress.com/wp-content/uploads/2014/09/ngsm1993005.pdf)
(Albian-Cenomanian radiolaria in sample from Bukit Buluk large chert block in Lubok Antu melange. Radiolarian chert probably deposited on basic or ultrabasic igneous rocks. Sixteen species of Pseudodictyomitra, Holocryptocanium, Archaeodictyomitra, Thanaria, etc. (Lubok Antu is near Sarawak- Kalimantan border: L.A. melange is same as Danau Formation of Molengraaff 1900 in Kalimantan?; JTvG))

Jasin, Basir, A. Jantan, Lim P.S. & M.N. Abd. Rahman (1989)- Some microfossils from the Wariu Formation. Sains Malaysiana 18, 1, p. 57-75.

Jasin, Basir, I. Komoo & A.A.F. Abdullah (1993)- Some planktic foraminifera from the Setap Shale, Wilayah Persekutuan Labuan. Sains Malaysiana 22, 1, p. 35-45.
(Early Middle Miocene (N8) planktonics; see also B. Jasin 2002)

Jasin, Basir & A. Madun (1996)- Some Lower Cretaceous radiolaria from the Serabang Complex, Sarawak. Warta Geologi (Newsletter Geological Society Malaysia) 22, 2, p. 61-65.
(online at: https://gsm.org.my/wp-content/uploads/gsm_file_2/702001-101460-PDF.pdf)
(Serabang Complex of Sarawak, W of Kuching, not W continuation of Lubok Antu melange but older. Slaty shale with 11 species of radiolaria: Hemicryptocapsa spp., Archaeodictyomitra lacrimula, Pseudodictyomitra puga, Thanaria conica, T. pulchra, Parvicingula sp. and Xitus sp., indicating Valanginian- M Aptian age)

Jasin, Basir & M. Ramli (1995)- Radiolaria from the Lubok Antu Complex, Sarawak. Warta Geologi (Newsletter of the Geological Society of Malaysia) 21, 3, p. 205-206.
(online at: https://gsmpubl.wordpress.com/wp-content/uploads/2014/09/ngsm1995003.pdf)
(14 samples of chert collected from chert blocks exposed along the Lubok Antu and Batang Ai road. Three radiolarian assemblages, with ages of Tithonian, Valanginian- Barremian and Albian- Cenomanian. Ages of chert blocks in Lubok Antu Complex range from Tithonian (latest Jurassic) to Cenomanian (late Early Cretaceous) (but matrix Paleogene or younger?; see Jasin Basir & Achmad 1995))

Jasin, Basir & U. Said (1999)- Significance of Early Jurassic radiolaria from West Sarawak. In: G.H. Teh (ed.) Proc. 9th Regional Congress Geology Mineral Energy Resources of SE Asia (GEOSEA '98), Kuala Lumpur 1998, Bull. Geological Society Malaysia 43, p. 491-502.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1999050.pdf)
(Pliensbachian (-E Toarcian) radiolarian chert in dacitic tuff-chert series, above Upper Triassic Serian Volcanic/ Sadong Fm, but unconformably? under Late Jurassic Kedadom/ Bau Fm. With Parahsuum simplum, P. directiporatum, Praecocaryomma media, P. decora, etc., suggest Parahsuum directiporatum Zone. Cherts deposited in deep marine marginal basin environment very close to (Serian?) island arc)

Jasin, Basir & U. Said (1999)- Some Late Jurassic- Early Cretaceous radiolarian faunas from the Pedawan Formation, Sarawak. In: G.H. Teh (ed.) Proc. 9th Regional Congress Geology Mineral Energy Resources of SE Asia (GEOSEA '98), Kuala Lumpur 1998, Bull. Geological Society Malaysia 43, p. 611-620.
(online at: https://gsm.org.my/wp-content/uploads/gsm_file_2/702001-100780-PDF.pdf)
(Deepwater Late Tithonian- Berriasian radiolarian chert in lowermost part of 4500m thick latest Jurassic-Cretaceous Pedawan Fm, above Bau Limestone in Bau and Tubeh areas, Sarawak. With Loopus primitivus in lower part, Artocapsa(?) amphorella and Hsuum raricostatum in upper part of ~5m thick chert sequence)

Jasin, Basir, U. Said & A.D. Woei (1996)- Discovery of Early Jurassic radiolaria from the tuff sequence, near Piching, West Sarawak. Warta Geologi (Newsletter Geological Society Malaysia) 22, 5, p. 343-347.
(online at: https://gsmpubl.files.wordpress.com/2014/09/ngsm1996005.pdf)
(17 species of Early Jurassic (Late Pliensbachian- E Toarcian) radiolaria in >50m thick siliceous tuff sequence in Sarawak- Kalimantan border area S of Kuching. Sequence dips ~50° to SW. Overlies Serian Volcanics and probably basal part of Kedadom Fm. Key species Praeconocaryomma media, P. decora, Pantanellium sanrafaelense, Canutus indomitus, Canoptum anulatum and C. rugosum)

Jasin, Basir & Sanudin Tahir (1978)- Middle Miocene planktonic Foraminifera from the Libong Tuffite Formation, Sabah. Sains Malaysiana 16, 1, p. 85-95.
(see also Jasin 2002. Zone N10-N12 planktonic foraminifera in tuffaceous marine sediments)

Jasin, Basir & Sanudin Tahir (1988)- Barremian radiolaria from Chert-Spilite Formation, Kudat, Sabah. Sains Malaysiana 17, 1, p. 67-79.

Jasin, Basir, H. Sanudin Tahir & R.H.S. Abdul (1985)- Lower Cretaceous radiolaria from the Chert-Spilite Formation, Kudat, Sabah. Warta Geologi (Newsletter Geological Society Malaysia) 11, 4, p. 161-162.
(online at: https://gsmpubl.files.wordpress.com/2014/09/ngsm1985004.pdf)
(Brief paper on Lower Cretaceous radiolaria from chert above pillow lava in Chert-Spilite Fm of N Sabah (ocean floor sediments). First paper to conclusively demonstrate Barremian age of basal radiolarites above ophiolite. Including several Tan Sin Hok 1927 species like Conosphaera tuberosa, Hemiaryptocapsa pseudopilula, Stiahocapsa pseudodecora and Archaeodictyomitra pseudoscalaris, suggesting Barremian- E Albian age)

Jasin, Basir, Sanudin Tahir & Z. Harun (1995)- Some Miocene planktonic foraminifera from Bidu-Bidu area, Sabah. Warta Geologi (Newsletter Geological Society Malaysia) 21, 4, p. 241-246.
(online at: https://gsmpubl.files.wordpress.com/2014/09/ngsm1995004.pdf)
(Garinono Fm in Bidu-Bidu area, C Sabah with chaotic melange/ debris flow deposits. Planktonic foraminiferal assemblage from melange mudstone matrix include Globigerinoides bisphericus and Praeorbulina sicana (N8, late E Miocene). Overlain by well bedded tuffaceous mudstone-sandstone sequence with Orbulina universa, O. suturalis and Globorotalia fohsi peripheroacuta (N10; early M Miocene). During M Miocene intense volcanic activity with widespread tuffaceous material in E Sabah)

Jasin, Basir, H.T. Sanudin & F.F. Tating (1991)- Late Eocene planktonic foraminifera from the Crocker Formation, Pun Batu, Sabah. Warta Geologi (Newsletter Geological Society Malaysia) 17, 4, p. 187-191.
(online at: https://gsmpubl.files.wordpress.com/2014/09/ngsm1991004.pdf)
(Red mudstone from Crocker Fm near Pun Batu, SW Sabah, rich in latest Eocene planktonic foraminifera, incl. Turborotalia cerroazulensis, Hantkenina alabamensis, Cribrokantkenina inflata, etc.)

Jasin, Basir & Selvarajah (1988)- Paleogene planktonic Foraminifera from Pulau Kalampunian Kecil, Sabah. Sains Malaysiana 17, 1, p. 99-113.

Jasin, Basir & F. Tongkul (2000)- Fosil radiolaria daripada jujukan ofiolit Lembah Baliojong, Tandek, Sabah. In: Ibrahim Komoo & H.D. Tjia (eds.) Warisan Geologi Malaysia 3, LESTARI, UKM, p. 219-230.
('Radiolarian fossils in the ophiolite sequence in Baliojong Valley, Tandek, Sabah')

Jasin, Basir & F. Tongkul (2013)- Cretaceous radiolarians from Baliojong ophiolite sequence, Sabah, Malaysia. J. Asian Earth Sciences 76, p. 258-265.
(Baliojong ophiolite sequence Baliojong River in N Sabah consists of basalts, overlain by well-bedded cherts, mudstones and sandstones. Ophiolite sequence steeply-dipping, N-S oriented, overturned thrust slices in Cenozoic sediments. Two radiolarian assemblage zones in cherts: (1) Dictyomitra communis Zone (Barremian-Aptian) including Dictyomitra pseudoscalaris (Tan) and Pantanellium squinaboli (Tan) and (2) Pseudodictyomitra pseudomacrocephala Zone (Albian-Cenomanian). Cherts probably first sediment deposited on newly formed Cretaceous oceanic crust, intensely folded before deposition of Paleogene Crocker Fm)

Jefferies, R.P.S. (1960)- Lamellibranchs of probable Upper Triassic age from the Sadong Formation of West Sarawak. British Geological Survey (BGS) Report WH/OA/00/105, p.
(Unpublished report by British Museum (Natural History) for British Overseas Geological Surveys (1960-1964); not online)

Jennings, A.V. (1888)- Notes on the orbitoidal limestone of North Borneo. Geological Magazine 5, 12, p. 529-532.
(Limestones of uncertain location, probably Silungen in Soubis and from Batu Gading, collected by Burls contains 4 species of Discocyclina and Asterocyclina stellata, probably Eocene in age)

Johansson, M. (1999)- Facies analysis of the Plateau Sandstone (Eocene to Early Miocene?), Bako National Park, Sarawak, Malaysia. J. Asian Earth Sciences 17, p. 233-246.
(Sandstones near Kuching, W Sarawak, known as 'Plateau Sandstones', of possible Eocene- E Miocene age. Anomalous kerogen compositions, proximity of onlap surface and paleocurrent directions to NNE, suggest Bako Peninsula sands unrelated to Plateau Sst Fm in Klingang Range on Kalimantan border. New name Bako Sst.

Very thick-bedded sst with lenses of conglomerates and sandy mudstones, formed in braided channel environment)

Johansson, M., S. Faraq, J. Van Doorn, I. Robert & J. Phillips (2022)- The origin and reservoir potential of thin beds in deep in marine sediments, Northwest Borneo. Proc. SEAPEX-PESGB Asia Pacific E&P Conference, London 2022, p. 1-31. *(Abstract + Presentation)*
(On reservoir potential of thin-bedded turbidites off NW Borneo. Incl. Kikeh Field) (distal turbidites, sandy contourites, sady levee, etc.)

Johansson, M., J.A. van Doorn, D.A.V. Stow, J., Roberts, J. Phillips & S. Farag (2023)- Geomorphology of deep marine sediments, Northwest Borneo. Proc. 2023 Southeast Asia Petroleum Exploration Society (SEAPEX) Conference, Singapore, p. 1-34. *(Abstract + Presentation)*
(On modes of downslope deposition of turbiditic sediments from Baram Deta Province to Sabah Trough, off NW Borneo, across a structurally controlled, tectonically-active slope system)

Johnson, H.D., J.W. Chapman & J. Ranggon (1989)- Structural and stratigraphic configuration of the Late Miocene Stage IVC reservoirs in the St. Joseph field, offshore Sabah, NW Borneo. Bull. Geological Society Malaysia 25, p. 79-118.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1989c06.pdf)
(Large, structurally complex field along Lower Pliocene wrench fault zone. Main reservoir Late Miocene marine sands)

Johnson, H.D., T. Kuud & A. Dundang (1989)- Sedimentology and reservoir geology of the Betty field, Baram Delta province, offshore Sarawak, NW Borneo. Bull. Geological Society Malaysia 25, p. 119-161.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1989c07.pdf)
(Moderate size oil field in Baram Delta Province. Structure combination E-W trending delta-related growth faulting and later Pliocene NE-SW trending folding. Reservoirs stacked Miocene shallow marine sandstones)

Johnson, H.D., S. Levell & A.H. Mohamad (1987)- Depositonal controls of reservoir thickness and quality distribution in Upper Miocene shallow marine sandstones (Stage IVD) of the Erb West Field, offshore Sabah. Bull. Geological Society Malaysia 21, p. 195-220.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1987011.pdf)
(Erb West field off W Sabah NE-SW trending anticline, with hydrocarbons in 800' Late Miocene section with shallow marine sandstones. Five main sandstone facies)

Johnson, J.H. (1962)- Calcareous algae from Sarawak. In: N.S.Haile, The geology and mineral resources of the Suai-Baram area, North Sarawak, British Borneo Geological Survey Memoir 13, p. 151-168.
(Descriptions of Late Eocene and E Miocene coralline algae from Bukit Besungai and Batu Gading, E Sarawak. Incl. Lithophyllum borneoense n.sp. and L. besalotos n.sp, Archaeolithothamnium spp., etc.)

Johnson, J.H. (1966)- Tertiary red algae from Borneo. Bull. British Museum (Natural History), Geology, 11, 6, p. 255-280.
(online at: http://archive.org/details/bulletinofbritis11brit)
(41 species of red calcareous algae from Eocene-E Miocene limestones of Melinau Gorge and Paleocene localities of upper Baram and Belukan River regions)

Johnston, J.C. & P.J. Walls (1975)- Geology of the Telupid area, Sabah. Geological Survey of Malaysia, Annual Report for 1973, p. 213-220.
(Incl. glaucophane-bearing metabasalts from Telupid area, possibly part of Chert-Spilite Fm of Sabah)

Jones, M., S. Burley, N. Sharp & N. Wilson (2016)- Pushing the boundaries of exploration in East Malaysia: building on early success. AAPG International Conference Exhibition, Melbourne 2015, Search and Discovery Article110226, p. 1-28. *(Abstract + Presentation)*
(online at: www.searchanddiscovery.com/documents/2016/110226jones/ndx_jones.pdf)

(On Tertiary deep-water sandstones exploration by Murphy Oil in deep water region off NW Sabah, with Kikeh, etc. oil fields)

Jones, R., P. Restrepo-Pace, C. Goulder, Yee Ah Chim & C. Russell (2011)- The romance of NE Sabah's shelf-SB303 exploration potential. Proc. 2011 SE Asia Petroleum Exploration Society (SEAPEX) Conference, Singapore, 18, p. 1-26. *(Abstract + Presentation)*
(Multiple hydrocarbon play types in Miocene carbonate buildups and clastics in Lundin blocks off NW Sabah)

Jong, J., S.A. Abdullah, S.M. Barker & T. Yoshiyama (2015)- Structural restoration and deformation history of the Bunguran and Sabah fold-thrust belts, NW Borneo. Proc. Petroleum Geology Conference Exhibition (PGCE), Kuala Lumpur, 25992, p. 355-359. *(Extended Abstract)*
(Bunguran (= deepwater Rajang Delta) and Sabah (= deepwater Baram Delta) Fold-thrust belts result from complex interplay between gravity-driven deformation and episodic regional thin-skinned compression driven by South China Sea tectonics along margin)

Jong, J., P. Barber, L.H. Chim, Q.T. Tran, H. Kusaka, K. Muramoto & R. Uchimura (2013)- The petroleum systems of onshore West Baram Delta, Northern Sarawak, Malaysia. Proc. Petroleum Geology Conference Exhibition (PGCE) Kuala Lumpur2013, O2, p. 1-4. *(Extended Abstract)*
(Onshore part of W Baram Delta petroleum province in N Sarawak with two distinct petroleum system: (1) southern overmature gas system, sourced from deeply buried Eo-Oligocene basinal shales, charging wrench-induced traps like Engkabang Anticline; (2) permit-wide oil and gas system sourced from peak mature Mid-Late Miocene carbonaceous shales-coals in synclines, charging inversion and compressional fold structures. Expulsion and charge of traps started in Late Miocene and continues to present-day)

Jong, J., P. Barber, Q.T. Tran & R. Uchimura (2015)- The petroleum systems of onshore West Baram Delta, Northern Sarawak, Malaysia. Proc. SE Asia Petroleum Exploration Society (SEAPEX) Conference, Singapore 2015, 5.2, p. 1-4. *(Extended Abstract + Presentation)*
(Onshore W Baram Delta petroleum province in N Sarawak with Eocene-Recent sediment succession, affected by three main deformation episodes: (1) late Cretaceous- Eocene (80-36 Ma) block faulting, with Eocene (rel. tight) platform carbonates on local highs (2) late Oligocene- M Miocene (30-20.5 Ma) wrench movement along West Baram-Tinjar Line, (3) M Pliocene- Recent (4.0-0 Ma) uplift and compression/inversion (e.g. Miri Anticline). With 2014 Adong Kecil West-1 discovery near Miri. Source rocks: (1) southern gas system from overmature Eo-Oligocene basinal shales, (2) northern oil-gas system from mature M-L Miocene carbonaceous shales/ coals in synclinal areas)

Jong, J. & S. Barker (2015)- Sequence stratigraphy, deformation history and gross deposition environmental study of deepwater Block 2F. Proc. Asia Petroleum Geoscience Conference and Exhibition (APGCE 2015), Kuala Lumpur, p. 323-327.
(Block 2F in Bunguran Trough, deepwater Rajang Delta area, off Sarawak in S China Sea. Trough evolved as tectonically-induced sag basin. Oldest known rocks shelfal clastics of E Miocene Cycles I/II, now buried >6000m. Late Miocene Cycle V ~3000m of slope and toe-of-slope deposits, overlain by Plio-Pleistocene sediments with turbiditic fairways forming main objectives in current exploration campaign)

Jong, J., S. Barker, F.L. Kessler & T.Q. Tan (2014)- The Sarawak Bunguran fold belt: structural development in the context of South China Sea tectonics. Proc. 8th Int. Petroleum. Technical Conf. (IPTC), Kuala Lumpur, 18197-MS, p. 1-30.
(Bunguran Trough in offshore Sarawak Deepwater Block 2F with folded Neogene anticlines with reverse faults and thrusts in cores. Bunguran Fold Belt is deepwater setting of Rajang Delta/ W Luconia Delta, for which gravity sliding was advocated as mechanism of deformation. However, steep folds in anticline cores with mainly reverse faults and anticlines in zones of thicker sediment, suggest inversions of sediment depocenters by compressional tectonics. Foldbelt deformation driven by both gravity and regional compression)

Jong, J., S. Barker, F.L. Kessler & T.Q. Tan (2015)- One basin with several sediment sources: stratigraphic records of the Bunguran Trough, Central South China Sea. In: Tectonic evolution and sedimentation of South China Sea region, AAPG Workshop Kota Kinabalu, Search and Discovery Article 30405, p. 1-7. *(Ext. Abstract) (online at: www.searchanddiscovery.com/documents/2015/30405jong/ndx_jong.pdf)*
(Bunguran Trough intra-continental deepwater basin in W Luconia Province, off Sarawak in S China Sea. Sag basin, where two major lineaments crossed. Oldest known rocks E Miocene shelfal clastics, now buried at >6000m, overlain by U Miocene Cycle V 3000m of slope and toe-of-slope deposits, overlain by distal muddy sediments of Muda Fm equivalent. All Pleistocene and older units underwent multiple deformations. Main Neogene sediment supply shifted from Natuna High to Rajang Delta, then back to Natuna area in Pliocene)

Jong, J., S. Barker, F.L. Kessler & T.Q. Tan (2017)- Basin with multiple sediment sources: tectonic evolution, stratigraphic record and preservation potential of the Bunguran Trough, South China Sea. Berita Sedimentologi 38, p. 5-48.
(online at: https://drive.google.com/file/d/0B35lLH-Cki2NV01LNEVCcGl2Z2M/view)
(Deepwater Bunguran Trough off Sarawak is intra-continental pull-apart basin in deepwater Rajang/West Luconia Delta province. Oldest stratigraphy shelf clastic deposits Late Oligocene Cycle I (= Gabus Fm of Natuna Basin), now buried to >7000m. Sediments sourced from: (1) Natuna Arch in Oligocene- E Miocene and Late Pliocene- Pleistocene (feldspatic and quartz-rich turbidites); (2) Rajang/ W Luconia Delta (Neogene) and (3) minor contributions from Dangerous Grounds/ N Luconia and C Luconia Platform areas to N and E)

Jong, J., Goh Hui Sin, S. McGiveron & J. Fitton (2020)- A case study of natural gas hydrates (NGH) in offshore NW Sabah: Identification, shallow geohazard implication for exploration drilling, extraction challenges and potential energy resource estimation. Bull. Geological Society Malaysia 70, p. 57-75.
(online at: https://gsm.org.my/wp-content/uploads/gsm_file_2/702001-101863-PDF.pdf)
(Review of nature and origin of gas hydrates, with occurrences in deep water off NW Sabah (presence assumed from Bottom Simulating Reflectors (BSR's))

Jong, J., H.A.B.M. Idris, P. Barber, F.L. Kessler, Tran Q. Tan & R. Uchimura (2017)- Exploration history and petroleum systems of the onshore Baram Delta, northern Sarawak, Malaysia. Bull. Geological Society Malaysia 63 (50th Anniversary Issue 1), p. 117-143.
(online at: www.gsm.org.my/products/702001-101705-PDF.pdf)
(Review of onshore Baram Delta province in N Sarawak, with M Eocene- Holocene succession and 1910 Miri oilfield discovery. Three episodes of deformation: (1) Late Cretaceous- Eocene (79.5-36 Ma) block faulting, (2) Late Oligocene- M Miocene (30-20.5 Ma) wrench movement and folding; (3) M Pliocene (4 Ma) - Holocene uplift and compressional folding. Two major anticlinal trends: Engkabang-Karap in S, Miri-Asam Paya in N. Two distinct petroleum systems: (1) overmature gas in S, sourced from deep Eo-Oligocene basinal shales with reworked terrestrial organic matter. Earlier oil charge probably in Oligocene before late basin reversal; (2) oil and gas system from peak-mature M-L Miocene carbonaceous shales and coals in synclines, charging inversion compressional structures along N Miri-Asam Paya anticlinal trend, and Miocene at Engkabang-Karap Anticline. Expulsion and charge started in Late Miocene and is continuing to present-day. Exploration results of Eo-Oligocene carbonate play disappointing. Onshore Baram Delta still contains attractive plays)

Jong, J. & F.L. Kessler (2019)- The Setap Shale Formation on either side of the Baram Line divide: facies aspects and tectonic implications. Bull. Geological Society Malaysia 67, p. 53-65.
(online at: https://gsm.org.my/products/702001-101784-PDF.pdf)
(Oligocene-Miocene Setap Shale Fm of different character on either side of W Baram Line in N Sarawak)

Jong, J., K.L. Kessler, S. Noon & T.Q. Tan (2016)- Structural development, depositional model and petroleum system of Paleogene carbonate of the Engkabang-Karap Anticline, onshore Sarawak. Berita Sedimentologi 34, p. 5-25.
(online at: www.iagi.or.id/fosi/files/2016/01/BS34-01142016_FINAL.pdf)
(400 km^2 large Eocene-Oligocene carbonate body of Engkabang-Karap Anticline, onshore Sarawak (equivalent of Melinau Lst). Tight reservoir facies encountered in two Engkabang wells)

Jong, J., M.A. Khamis, W.M.Z.W. Embong, T. Yoshiyama & D. Gillies (2016)- A sequence stratigraphic case study of an exploration permit in Deepwater Sabah: comparison and lessons learned from pre- versus post-drill evaluations. Proc. 40th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA16-51-G, p. 1-24.
(Deepwater Sabah basin with discontinuous Miocene submarine fan reservoir sands)

Jong, J., D.A. Nuraini & M.A. Khamis (2014)- Basin modeling study of deepwater Block R (DWR) offshore Sabah and its correlation with surface geochemical analyses. Proc. International Petroleum Technology Conference (IPTC), Kuala Lumpur, IPTC-18186-MS, p. 1-11.

Kaal, J., W.H. Abdullah, Y.M. Makeen, K.A. Mustapha, L. Asiwaju, S.G. Sia & G. Almendros (2017)- Effects of maturity on the pyrolytic fingerprint of coals from North Borneo. Int. J. Coal Geology 182, p. 1-13.
(Molecular assemblages from Mio-Pliocene coals from Sabah (Pinangah, Sandakan, Silimpopon, Maliau) and Sarawak (Mukah and Balingian coalfields). Coals mainly lignin-derived material and long-chain (≥ C24) ester-bound polymethylene chains. Mature coals enriched in short (C10-C25) free and/or trapped (isoprenoid) hydrocarbons, alkylated phenols and resinite aromatic derivatives. Coals from Pinangah in Sabah more mature than those from Sarawak)

Kaeng, G.C., S. Sausan & Z. Simatupang (2016)- Overpressure mechanisms in compressional tectonic of Borneo deepwater fold-thrust belt. Proc. 40th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA16-496-G, p. 1-9.
(Review of mechanisms causing high overpressure in N Borneo deep-water fold-thrust belts. Active deposition over ongoing lateral compression results in complex sediment compaction mechanism)

Kakizaki, Y., T. Ishikawa, J. Matsuoka & A. Kano (2010)- Lithostratigraphy and Sr-isotope ages of the Bau Limestone Formation of Northwestern Borneo. Japan Geoscience Union Meeting 2010, Makahari, Chiba 1010, p. *(Abstract only)*
(Bau Limestone from two quarries (Marup, SSF; Gunung Panga) 30 km SW of Kuching, W Sarawak. Massive reefal limestone locally rich in corals and rudists. Bunkit Akut quarry 40 km SW of Kuching well-bedded, deeper water equivalent. Sr-isotopes suggest Late Oxfordian- E Kimmeridgean ages)

Kakizaki, Y. & A. Kano (2009)- Lithology and reefal fauna of the Bau Limestone Formation in Northwestern Borneo, Malaysia. J. Geological Society Japan 15, p. 13-14.
(Brief report on Late Jurassic Bau Limestone in Sarawak, in Japanese).

Kakizaki, Y., H. Weissert, T. Hasegawa, T. Ishikawa, J. Matsuoka & A. Kano (2013)- Strontium and carbon isotope stratigraphy of the Late Jurassic shallow marine limestone in western Palaeo-Pacific, northwest Borneo. J. Asian Earth Sciences 73, p. 57-67.
(Sr and C isotope stratigraphy of 202m thick shallow marine carbonate section of Late Jurassic Bau Lst at SSF quarry, SW Sarawak, which was deposited in western Paleo-Pacific. Sr ratios of rudists suggest age of section is latest Oxfordian (155.95 Ma) - Late Kimmeridgian (152.7 Ma), consistent with previous biostratigraphy. δ13C values of Bau Limestone generally ~1‰ lower than Tethyan values)

Kamis, A.M. & W.R. van der Vlugt (1988)- The impact of modern seismic in an old field. Proc. SE Asia Petroleum Exploration Society (SEAPEX) Conference 8, p. 17-27.
(On the use of seimic in resolving structural complexity on Seria Field, Brunei. Field discovered in 1928, 769 wells drilled, Oil-in-place ~2.8 billion barrels. ENE-WSW- trending faulted anticline, with Mio-Pliocene deltaic reservoir sandstones)

Kanno, S. (1978)- Brackish molluscan fauna (Upper Eocene) from the Silantek Formation in West Sarawak, Malaysia. In: T. Kobayashi et al. (eds.) Geology and Palaeontology of Southeast Asia, University of Tokyo Press, 19, p. 103-112.
(Descriptions of brackish water bivalves Corbula dajacensis Martin, Taeniodomus gracilis Kruse, Geloina hashimoto n.sp. and gastropod Paludomos)

Karimi, S.B.S, J.J. Lobao & M.M. Wannier (1997)- Seismic identification of depositional processes in a turbidite fan environment, Deepwater Block SB-G, NW Sabah. Bull. Geological Society Malaysia 41, p. 13-29.
(online at: www.gsm.org.my/products/702001-100873-PDF.pdf)
(Seismic interpretation of Late Miocene- E Pliocene Upper Lingan Fan Unit in deepwater Sabah area, 120 km NW of Kota Kinabalu. With examples of seismic facies of slope channels, leveed channels, mounded facies, etc. (see also Mohamad & Lobao 1997))

Kasama, T., H. Akimoto, S. Hada & G. Jacobson (1970)- Geology of the Mt. Kinabalu area, Sabah, Malaysia. J. Geosciences Osaka City University 13, p. 113-148.
(online at: http://dlisv03.media.osaka-cu.ac.jp/infolib/user_contents/kiyo/DBe0130006.pdf)
(Reconnaissance study of Mt Kinabalu area, at junction of Borneo and Sulu tectonic arcs. Mt Kinabalu 4000m high and composed of granite- granodiorite with K-Ar ages between 7.6- 9.0 Ma. A few younger isotope ages of 1.3 and 1.7 Ma may represent time of rapid uplift. Surrounded by Tertiary sediments of Crocker Fm and Tenumpok Fms, with 1km or more wide metamorphic aureole with hornfels and gneiss. Crocker Fm isoclinally folded, mainly in E-M Miocene (~19-20 Ma), mainly S dipping. E-W belt of ultrabasic rocks S of Mt. Kinabalu.)

Kayes, A.D. (2012)- Synthetic seismic validation of reservoir models of the carbonate gas fields in offshore Sarawak, Malaysia. AAPG Int. Conv. Exhib., Singapore 2012, Search and Discovery Article 41087, p. 1-29.
(online at: www.searchanddiscovery.com/documents/2012/41087kayes/ndx_kayes.pdf)
(Shell Sarawak Gas Asset 20 producing gas fields with >40 Tcf of gas in place. Seismic modeling constrains geological models of Miocene carbonate reservoirs)

Keij, A.J. (1964)- Upper Palaeocene *Distichoplax* Limestones of Kudat Peninsula and Pulau Banggi, Sabah. Geological Survey of Malaysia, Borneo Region, Kuching, Annual Report 1963, p. 153-154.
(Suangpai quarry in Tajau area of N Kudat Peninsula has basal marl with Late Paleocene planktonic forams, overlain by dense white limestone with Discocyclina, Aktinocyclina, Asterocyclina (Ta zone) and the algae Distichoplax biserialis, restricted to Paleocene- E Eocene in other areas of the Tethys. No maps or other stratigraphy info)

Keij, A.J. (1964)- *Distichoplax* from Kudat Peninsula and Banggi island, Sabah, Borneo. Revue de Micropaleontologie 7, 2, p. 115-118.
(Well-illustrated account of Paleocene- E Eocene ?algae Distichoplax biserialis, commonly found in thin limestones across Sarawak and W Sabah with Linderina, Opertorbitolites. In Suangpai Lst of N Kudat Peninsula, with common Discocyclina, Aktinocyclina, Nummulites and Alveolina and nearby marls with Late Paleocene planktonic forams)

Keij, A.J. (1965)- Late Cretaceous and Palaeogene arenaceous foraminifera from flysch deposits in northwestern Borneo. Malaysia Geological Survey Annual Report 1964, p. 155-158.
(Late Cretaceous- Paleogene flysch deposits across >550 mile belt from Sarawak to Sabah (Crocker Range). Forams dominated by monotonous bathyal arenaceous 'Bathysiphon-Cyclammina-Trochammina' assemblages, with rare calcareous benthics and planktonic foraminifera. Subtle varations between relative abundances probably reflect environmental factors like oxygenation)

Keij A.J. (1965)- Note on the echinoid *Temnopleurus toreumaticus* (Leske) from the coastal cliffs of Penanjong. Malaysia Geological Survey Annual Report 1964, p. 159.

Keij, A.J. (1964)- Neogene to Recent species of *Cytherelloidea* (Ostracoda) from northwestern Borneo. Micropaleontology 10, 4, p. 415-430.
(Cytherelloidea common in Neogene-Recent ostracode assemblages of N Borneo. Fifteen species, ten new)

Kessler, F.L. (2009)- Observations on sediments and deformation characteristics, Sarawak Foreland, Borneo Island. Warta Geologi 35, 1, p. 1-10.
(online at: https://gsmpubl.files.wordpress.com/2014/09/warta35_1.pdf)

Kessler, F.L. (2009)- The Baram Line in Sarawak: comments on its anatomy, history and implications for potential non-conventional gas deposits. Warta Geologi (Newsletter Geological Society Malaysia) 35, 3, p. 105-110.
(online at: https://gsmpubl.files.wordpress.com/2014/09/warta35_3.pdf)
(NW-SE trending Baram Line is tectonic discontinuity between stable Luconia Block and mobile Baram Delta Block, acting as boundary for extension and compression in Baram Delta and Sabah. Originated in E-M Miocene, when Baram-Sabah Foredeep opened. Potential for non-conventional gas in Setap Shale recognized)

Kessler, F.L. (2012)- The Jokut Quarry observations on an intensely folded carbonate sequence North-West of Mulu, Sarawak. Warta Geologi (Newsletter Geological Society Malaysia) 38, 1, p. 1-3.
(online at: https://gsmpubl.files.wordpress.com/2014/09/warta38_1.pdf)
(Jokut Quarry almost depleted limestone quarry NE of Mulu Massif. Probably N-most known occurrence of carbonates in this part of Sarawak. Exposed U Oligocene (Lower Te) Selidong Fm carbonates steeply dipping, intensely folded and fractured, floating in intensely folded shales and slates. Carbonates mainly mudstones to packstones, with mounded features)

Kessler, F.L. (2013)- The Batu Gading, Bukit Besungai Hollystone Quarry- observations on an tectonically isolated carbonate sequence northeast of Long Lama, Sarawak. Warta Geologi 39, 1, p. 1-4.
(online at: https://gsmpubl.files.wordpress.com/2014/09/warta-39_1.pdf)
(Batu Gading Hollystone Quarry ENE of Long Lama, one of several isolated carbonate blocks, tectonically confined by regional faults, the nature of which remains uncertain. Carbonates in quarry ~50m thick and of Late Eocene and E Miocene (should be Late Oligocene?; JTvG) ages (E Oligocene missing), predominantly reefal, deposited on wave-cut shelf formed by Rajang Gp deep marine clastics. Carbonate body at least three unconformities, second one angular (forams studied by Adams & Haak, 1962))

Kessler, F.L. (2023)- The sea level rose fast, but Sarawak was rising faster. Warta Geologi 49. 1, p. 8-13.
(online at: https://gsm.org.my/wp-content/uploads/2023/05/NGSM20230102.pdf)
(Since end of Last Gacial period, ~15,550 years ago, melting ice caused sea level rise of ~110 m or 7 mm/year. During same time, Borneo coastline at Tusan Cliff High Terrace, S of Miri, was elevated by 132m)

Kessler, F.L. & W.H. Abdullah (2023)- Estimation of uplift and erosion in the Miri area of northwest Sarawak, Malaysia: A multidisciplinary approach. Bull. Geological Society Malaysia 76, p. 63-79.
(online at: https://gsm.org.my/wp-content/uploads/2023/11/Final-6-Kessler.pdf)
(Sarawak Foreland two types of uplift (using vitrinite maturation data): (I) Neogene regional uplift affecting the entire coastal area, and (II) tectonically focused uplift (U Pliocene anticlinal structures with total uplift of 700-4000m). Since end of Pleistocene, a rise of foreland sections by ~132 m recognized. Erosion of overburden negatively affected petroleum system and hydrocarbon accumulation in Miri area)

Kessler, F.L. & J. Jong (2014)- Habitat and C-14 ages of lignitic terrace deposits along the northern Sarawak coastline. Bull. Geological Society Malaysia 60 (C.S. Hutchison Memorial Issue), p. 27-34.
(online at: https://gsmpubl.files.wordpress.com/2015/04/bgsm2014003.pdf)
(Quaternary lignitic transgressive terrace deposits in coastal locations in Miri area (C-14 ages 28.6- 8.2 ka; Late Pleistocene- E Holocene), unconformably over Pliocene sediments. Thickness 1.5- 7.5 m. Now at different elevations (14-38m altitude) and appear to be block-faulted, implying tectonic movements in Holocene)

Kessler, F.L. & J. Jong (2014)- The origin of Canada Hill- a result of strike-slip deformation and hydraulically powered uplift at the Pleistocene/Holocene border? Bull. Geological Society Malaysia 60 (C.S. Hutchison Memorial Issue), p. 35-44.
(online at: https://gsmpubl.files.wordpress.com/2015/04/bgsm20140041.pdf)
(Canada Hill in center of Miri, Sarawak, roofed by Pleistocene/Holocene terrace deposits, implying very young uplift of complex anticline. Structure explained by strike-slip deformation, in conjunction with diapyric pillow of Setap Fm clay)

Kessler, F.L. & J. Jong (2015)- Incision of rivers in Pleistocene gravel and conglomeratic terraces: further circumstantial evidence for the uplift of Borneo during the Neogene and Quaternary. Bull. Geological Society Malaysia 61, p. 49-57.
(online at: www.gsm.org.my/products/702001-101676-PDF.pdf)
(Incised Pleistocene gravel beds and conglomerates common feature of Baram, Limbang and Temburong drainage systems in NW Sarawak and Brunei. Incision from 9-76 m likely result of strong precipitation, combined with ongoing uplift. Conglomerates almost exclusively from Lower Miocene Meligan Sst, and deposited in nested fluvial terraces. Uplift may be ongoing present day)

Kessler, F.L. & J. Jong (2015)- Tertiary uplift and the Miocene evolution of the NW Borneo shelf margin. Berita Sedimentologi 33, p. 21-46.
(online at: www.iagi.or.id/fosi/files/2015/09/BS33-Marine-Geology-of-Indonesia-II-R1.pdf)
(In NW Borneo transition from muddy M Miocene shelf to unusually sandy one attributed to (1) rise of Borneo part of Sundaland in M-L Miocene, caused by tectonic compression and (2) availability, through erosion of Rajang/Crocker sand source. E-M Miocene Cycle III 'Setap Shale' in Baram Delta rel. lean in sand. First massive regional sand pulse in Baram Delta and Sabah during Cycle IV (Serravallian), post-MMU/DRU times. Continued sand supply established shelf edge that remained almost stationary throughout Mid Cycle V)

Kessler, F.L. & J. Jong (2016)- Northwest Sarawak: a complete geologic profile from the Lower Miocene to the Pliocene covering the Upper Setap Shale, Lambir and Tukau Formations. Warta Geologi 41, 3-4, p. 45-51.
(online at: https://gsmpubl.files.wordpress.com/2016/03/warta41_3-4.pdf)
(~1000m thick outcrop section along 3-4 km of new Miri- Long Lama road (NW Sarawak), with two major regional unconformities: (1) M Miocene Unconformity (MMU) between U Setap Shale and Lambir Fm, and (2) Mio-Pliocene angular unconformity between folded Lambir rocks and unfolded Tukau Fm)

Kessler, F.L. & J. Jong (2016)- Paleogeography and carbonate facies evolution in NW Sarawak from the Late Eocene to the Middle Miocene. Warta Geologi (Newsletter Geological Society Malaysia) 42, 1-2, p. 1-9.
(online at: https://gsmpubl.files.wordpress.com/2016/08/warta42_1_2.pdf)
(After Paleocene-E Eocene Sarawak Orogeny (~40-36 Ma) shallow shelf developed in NW Sarawak, which included Luconia/Tinjar terranes and rimmed recently emerged Rajang Gp hinterlands. Late Eocene benthic foraminiferal limestone banks and ramps developed on sheltered shoals. By E-M Oligocene carbonate deposition slowed. Second episode of carbonate deposition in E-M Miocene, with small coral-algal bioherms)

Kessler, F.L. & J. Jong (2017)- Examples of fault architecture and clay gouging in Neogene clastics of the Miri area, Sarawak. Warta Geologi (Newsletter Geological Society Malaysia) 43, 1, p. 15-20.
(online at: www.gsm.org.my/products/702001-101701-PDF.pdf)
(Good correlation between normal fault throw and fault gouge thickness)

Kessler, F.L. & J. Jong (2017)- Carbonate banks and ramps on the northern shore of Palaeogene and Early Neogene Borneo: observations and implications on stratigraphy and tectonic evolution. Bull. Geological Society Malaysia 63 (50th Anniversary Issue 1), p. 1-26.
(online at: www.gsm.org.my/products/702001-101710-PDF.pdf)
(In NW Sarawak two independent carbonate systems: Late Eocene-Oligocene foraminiferal limestone banks and E-M Miocene coral-algal buildups. No outcrop or well shows continuity of carbonate deposits from Late Eocene to M Miocene. Eo-Oligocene carbonate system formed during deepening of NW Borneo foredeep after Paleocene-E Eocene Sarawak Orogeny; E-M Miocene carbonates originated as foredeep shallowed and eventually disappeared with establishment of shallow, clastic shelf)

Kessler, F.L. & J. Jong (2017)- The roles and implications of several prominent unconformities in Neogene sediments of the greater Miri area, NW Sarawak. Warta Geologi (Newsletter Geological Society Malaysia) 43, 4, p. 1-8.
(Neogene sequence of greater Miri area in NW Sarawak with up to four Neogene unconformities: well-established Mid-Miocene Unconformity (MMU; ~15.5 Ma?) and less well-defined Shallow Regional Unconformity (SRU;

~10 Ma), Intra-Pliocene Unconformity (IPU; 3.6 Ma) and Lower Pleistocene Unconformity (LPU; ~1.6-1.8 Ma). Timings yet-to-be fully established)

Kessler, F.L. & J. Jong (2017)- A study of Neogene sedimentary outcrops of the Greater Miri area- can clay gouging be calibrated in outcrops and shallow subsurface boreholes? Berita Sedimentologi 39, p. 5-24.
(online at: www.iagi.or.id/fosi/files/2017/12/FOSI_BeritaSedimentologi_No39_Dec2017.pdf)
(Fault zones with clay gouge in outcrops and shallow boreholes of Late Miocene- E Pliocene deltaic clastics show no fault sealing capability. Probably due to weathering)

Kessler, F.L. & J. Jong (2018)- Hydrocarbon retention in clastic reservoirs of NW Borneo- examples of hydrocarbon trap, reservoir, seal and implications on hydrocarbon column length. Berita Sedimentologi 40, p. 6-44.
(online at: http://www.iagi.or.id/fosi/berita-sedimentologi-no-40.html)
(Hydrocarbon column length offshore Sarawak, Brunei and NW Sabah mainly controlled by effective and laterally continuous top seal. Seal capacity affected by mineralogy, grain size, diagenesis and lateral continuity. Hydrocarbon columns tend to be longer in clay-prone environments, like outer shelf and deepwater turbidite environments (av. ~250m), and shorter in sand rich shallow marine- deltaic settings (av. 30m))

Kessler, F.L. & J. Jong (2018)- A new limestone and shale outcrop profile on the Coastal Road from Miri to Bekenu. Warta Geologi (Newsletter Geological Society Malaysia) 44, 4, p. 304-306.
(online at: https://gsm.org.my/articles/702001-101766/)
(New 40m thick limestone outcrop in E-M Miocene U Setap Shale Fm near Miri,))

Kessler, F.L. & J. Jong (2019)- Destructive diagensis observed in outcrop examples of Neogene sandstone reservoir and clay contact zones, Miri, Northern Sarawak. Berita Sedimentologi 43, p. 5-14.
(online at: https://www.iagi.or.id/fosi/files/2019/06/FOSI_BeritaSedimentologi_43_June_2019.pdf)
(Outcrop examples of diagenetically-derived iron-rich zones in Pliocene sediments)

Kessler, F.L., J. Jong & M.Madon (2021)- The sedimentary record of Paleogene sequences in Sarawak, Malaysia. Berita Sedimentologi 47, 2, p. 1-24.
(online at: https://www.iagi.or.id/fosi/berita-sedimentologi-no-47-is-now-published.html)
(Paleogene rocks in Sarawak in three tectono-stratigraphic zones and three depositional settings: (1) Miri Zone shelfal clastics, carbonates, and clay-dominated neritic sediments; (2) Sibu Zone (Rajang Fold-Thrust Belt), Late Cretaceous to Late Eocene deep marine clastic-sediments; (3) Kuching Zone Kayan and Plateau sandstones in fluvial-dominated setting. Two major unconformities: (1) Rajang Unconformity,~37 Ma, and Top Eocene unconformity of 33.7 Ma. Presence of Eocene strata likely associated regional extensional tectonism)

Kessler, F.L., J. Jong & M.Madon (2024)- Oil characteristics and the onset of biodegradation on the eastern flank of the Malay Basin, offshore Peninsular Malaysia. Bull. Geological Society Malaysia, 78, p. 91-102.
(online at: https://gsm.org.my/articles/bgsm202478-08/)
(Oil types in E Malay Basin flank area heavier at shallow reservoir levels, but mostly light oil in deeper petroleum reservoirs. Varying amounts of wax, low sulphur, occasionally significant CO_2. Oils in reservoirs with T of <75 °C appear biodegraded, reservoirs with T >90 °C appear unaffected)

Kessler, F.L., J. Jong & R. Nagarajan (2023)- Synopsis of Upper Tukau deposits along the Sungai Rait Road, Miri District, Sarawak, Malaysia. Bull. Geological Society Malaysia 75, p. 73-84.
(online at: https://gsm.org.my/wp-content/uploads/2023/05/BGSM20237506.pdf)
(Discussion of Tukau Fm clastics, which overlie M-L Miocene Belait-Miri and Belait-Lambir Fms)

Khair, H., Z. Zakaria, Y. Ali, R. Som, A. Ali, H. Hady, S. Baharuddin & A. Goodman (2017)- A new insight on the multisource sediment supply of the deep water fields NW Sabah Basin and its effect on the distribution and geometry of hydrocarbon reservoirs. Proc. Asia Petroleum Geoscience Conference and Exhibition (APGCE 2017), EAGE, Kuala Lumpur, 43554, p. 166-174. *(Extended Abstract)*

Khamis, M.A., J. Jong & S.M. Barker (2018)- Deformation profile analysis of a deepwater toe-thrust structural trend- Implications on structural kinematics and sedimentary patterns. Bull. Geological Society Malaysia 65, p. 1-12.
(online at: https://gsmpubl.files.wordpress.com/2018/08/bgsm201801.pdf)
(Offshore NW Sabah deepwater fold-thrust belt with tightly folded and thrusted Miocene-Pleistocene sediments, resulting from interaction between gravitational and compressional forces. Shallow-Regional Unconformity (SRU) separates pre- and post-kinematic phases. Structuration and deformation history of "L-B-P" structures varied along structural trend and play role in controlling sediment fairway distribution patterns)

Khamis, M.A., J. Jong, S.M. Barker, S.A. Abdullah & Y. Watanabe (2018)- Deformation profile analysis of deepwater Sabah toe-thrust structural trends- observations on structural kinematics and implications on sedimentary fairway distribution patterns. Offshore Technology Conference Asia, Kuala Lumpur, OTC-28338-MS, p. 1-22.
(Deepwater NW Sabah toe-thrust dominant NW-SE oriented compression from Early-Late Miocene, during closing of proto-S China Sea and subsequent opening of S China Sea. Deformation history varied along structural trends. Genetic link between structural growth and sediment fairways)

Khan, A.A., W.H. Abdullah, Meor H. Hassan & K. Iskandar (2017)- Tectonics and sedimentation of SW Sarawak basin, Malaysia, NW Borneo. J. Geological Society India 89, 2, p. 197-208.
(online at: www.researchgate.net/publication/314484347_Tectonics_and_sedimentation_of_SW_Sar Etc)
(SW Sarawak basin S-ward sloping basement characterized by passive margin tectonics: Triassic extension, Cretaceous transpression and Oligo-Miocene compression. Deeper basin zone between Schwaner Mts block to S and SW Sarawak basin to N. E-W trending Cretaceous carbonate platform in SW Sarawak basin signify shelf zone where shallow marine sedimentation progressed during Cretaceous transpression. Late Cretaceous- E Eocene Kayan Sst unconformable on Cretaceous Pedawan Fm. NW-SE trending Oligo-Miocene continental volcanic arc. Back-arc extension prevailed in Oligo-Miocene. SW Sarawak basin two sub-basins (Senibong in W, Kuching in E), with wide range of transpressive features. Sri Aman marginal sea-basin characterized by oceanic assemblages, ophiolite, serpentinite and pillow basalt)

Kho, C.H. (1966)- The Bintulu coalfield: prospecting results. Annual Report for 1965 of the Geological Survey of Malaysia, Borneo region, Kuching, p. 40-68.

Kho, C.H. (1968)- Bintulu Area, Central Sarawak, East Malaysia. Explanation of sheet 3/113/13. Geological Survey of Malaysia, Borneo region, Kuching, Report 5, p. 1-83.
(1:50,000 scale geologic map of area around Bintulu town, C Sarawak, with primary purpose evaluation of Miocene coal beds. Oldest beds up to 14,000' thick Nyalau Fm marine-paralic clastics with zone Te4- Te5 (latest Oligocene- E Miocene) foraminifera limestones with Miogypsinoides and Heterostegina borneensis and Lepidocyclina (Eulepidina), etc. Overlain by E Miocene Setap Shale Fm (or lateral equivalent of Nyalau Fm.; Hutchison 2005). Folded in E Pliocene)

Kho, C.H. & G.E. Wilford (1968)- Notes on exposures near Kuching, West Sarawak. In: Geological Papers 1967, Geological Survey Borneo Region, Malaysia, Kuching, Bull. 9, p. 88-93.
(Notes on 25 outcrop localities within 2 hours drive from Kuching, including Carboniferous Terbat fusulinid limestone, U Triassic Sadong and Serian volcanics, U Jurassic-Cretaceous sediments (Kedadom, Bau Limestone, Pedawan Fm) and Tertiary Plateau Sandstone. Good info for geotourism from Kuching)

King, R.C., G. Backe, C.K. Morley, R.R. Hillis & M.R.P. Tingay (2010)- Balancing deformation in NW Borneo: quantifying plate-scale vs. gravitational tectonics in a delta and deepwater fold-thrust belt system. Marine and Petroleum Geology 27, 1, p. 238-246.
(GPS show 4-6 mm/yr of NW Borneo plate-scale shortening, not accommodated by plate-scale structures. Total shortening observed in Baram delta toes does not balance against active extension in delta top; additional shortening therefore attributed to plate-scale shortening across NW Borneo produced by far-field compression)

King, R.C., R.R. Hillis, M.R.P. Tingay & A.R. Damit (2010)- Present-day stresses in Brunei, NW Borneo: superposition of deltaic and active margin tectonics. Basin Research 22, 2, p. 236-247.
(Two present-day stress provinces previously identified across Baram Delta System: (1) inner shelf inverted province with margin-normal (NW-SE) max. horizontal stress orientation and (2) outer shelf extension province with margin-parallel (NE-SW) max. horizontal stress. Borehole breakouts from 12 petroleum wells confirm margin-normal max. horizontal stress orientations of inverted province (mean max. hor. stress orientation of ~117°). NW Borneo continental margin currently tectonically quiescent)

King, R.C., R.R. Hillis, M.R.P. Tingay & C.K.Morley (2009)- Present-day stress and neotectonic provinces of the Baram Delta and deepwater fold-thrust belt. J. Geological Society, London, 166, 2, p. 197-200.
(online at: https://www.researchgate.net/publication/249546278_Present-day_stress_and_neotectonic_provinces_of_the_Baram_Delta_and_deep-water_fold-thrust_belt)
(Present-day stress orientation measurements across Baram delta and deepwater delta toe fold-thrust belt)

King, R.C., M.R.P. Tingay, R.R. Hillis, C.K. Morley & J. Clark (2010)- Present-day stress orientations and tectonic provinces of the NW Borneo collisional margin. J. of Geophysical Research 115, B10415, p. 1-15.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/2009JB006997/epdf)
(Borehole deformation of 55 petroleum wells across NW Borneo collisional margin combined with seismic and outcrop data, define seven tectonic provinces. Baram Delta- Deepwater Fold-Thrust Belt deltaic gravitational tectonics with 3 provinces (inner shelf inverted province, outer shelf extension province and slope to basin floor compression province). Shale and minibasin provinces offshore Sabah. In Balingian province, sH is ESE-WNW, reflecting ESE absolute Sunda plate motions due to absence of thick detachment seen elsewhere in NW Borneo. C Luconia province poorly constrained orientations)

Kirk, H.J.C. (1957)- The geology and mineral resources of the Upper Rajang and adjacent areas. Geological Survey Department, British Territories in Borneo, Kuching, Memoir 8, p. 1-181.

Kirk, H.J.C. (1961)- A preliminary account of Cretaceous to Recent volcanic activity in relation to the geological structure of British Borneo. Proc. 9th Pacific Science Congress, Bangkok 1957, 12, p. 192-197.
(Also in 'Annual Report Geological Survey Department, British Territories in Borneo, 1957, p. 23-29)
(Two main periods of volcanic activity in North Borneo (Sabah): basalt-spilite interbedded with Cretaceous-Eocene sediments and widespread Upper Tertiary- Quaternary basalt- andesite-dacite association eruptions)

Kirk, H.J.C. (1962)- The geology and mineral resources of the Semporna Peninsula, North Borneo. Geological Survey Department, British Territories in Borneo, Kuching, Memoir 14, p. 1-178.
(Also summary in British Borneo Geological Survey Annual Report 1960, p. 106-123). Semporna Peninsula of SE Sabah, S of Darvel Bay, with four main rocks units: (1) intensely folded- thrusted Cretaceous-Eocene Chert-Spilite Fm of greywacke with basalts, chert, Madai-Baturong Lst (Cretaceous seamount) and some gabbro, serpentinite; (2) Oligo-Miocene (Td-Tf) Kalumpang Fm folded clastics, limestones and volcanics (with serpentinite 'intrusions'); (3) Pliocene-Quaternary andesites and basalts; (4) Quaternary sediments. Abundant intrusives of different ages and composition. Most fertile soils on outcrops of younger volcanics, particularly olivine basalts)

Kirk, H.J.C. (1963)- Pliocene and Quaternary volcanic activity in British Borneo. In: F.H. Fitch (ed.) Proc. British Borneo Geological Conference 1961, Kuching, Geological Survey Department, British Territories in Borneo, Bull. 4, Kuching, p. 137-142.
(Two groups of Pliocene and Quaternary volcanism: (1) Upper Rajang area of E Sarawak and (2) Semporna Peninsula of SE Sabah (continuation of Sulu Arc). Mainly explosive eruptions of andesite, dacite and rhyolite in Pliocene, followed by extensive olivine basalts in Quaternary)

Kirk, H.J.C. (1966)- The mineralogy of Pinanduan copper deposit, Sabah, Malaysia. Annual Report of the Geological Survey, Borneo region Malaysia,1965, Kuching, p. 196-204.

(Tertiary? Pinanduan copper deposit in C Sabah within serpentinite on lower slopes of Mt Tavai. Large ultrabasic body in fault contact with unmetamorphosed Crocker Fm sediments. Thin mineralized zones with pyrrhotite, chalcopyrite, valeriite, etc.)

Kirk, H.J.C. (1967)- Hydrothermal mineralisation and igneous rocks in East Malaysia. In: Geological papers 1966, Geological Survey Borneo Region, Malaysia, Kuching, Bull. 8, p. 53-67.
(Brief review of Sarawak and Sabah hydrothermal mineral deposits. Mid-Tertiary to Plio-Pleistocene ages)

Kirk, H.J.C. (1967)- The Mamut copper prospect, Kinabaluh, Sabah. In: Geological papers 1966, Geological Survey Borneo Region, Malaysia, Kuching, Bull. 8, p. 68-80.
(Mamut porphyry copper deposit 40 miles E of Jesselton (Kota Kinabalu), NW Sabah, within Kinabalu National Park SE of Mt Kinabalu. Orebody of finely disseminated copper sulphides likely associated with porphyry intrusion and underlying large Pliocene-age granite batholith. Associated with(low?) gold, silver and molybdenum (Mamut copper mine operational in 1975-1999; see also Imai (2000); JTvG))

Kirk, H.J.C. (1968)- The igneous rocks of Sarawak and Sabah. Geological Survey of Malaysia, Borneo Region, Kuching, Bull. 5, p. 1-210.
(see also 'preview' in Borneo Region Malaysia Geological Survey, Annual Report 1963, p. 82-94. Incl. M Jurassic K-Ar date for biotite in hornfels in Segama Valley, Sabah, suggesting pre-Cretaceous metamorphic basement?)

Kivior, I., S. Markham, S. Damte, S. Randle, M. Shimada, J. Jong, H. Kusaka & Tran Quoc Tan (2011)- Mapping regional sedimentary horizons in the onshore Baram Delta, Sarawak, from magnetic and gravity data using Energy Spectral Analysis. Proc. Petroleum Geology Conference Exhibition (PGCE), Kuala Lumpur, Malaysia, p.

Kob, M.R.C. & M.Y. Ali (2008)- Regional controls on the development of carbonates in East Natuna Basin and Luconia area. Proc. 32nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA-08-G-078, p. 1-6.
(E Natuna basin- Luconia platforms off NW Borneo between areas of subsidence/ faulting in N and compressional tectonics in S. Extensive development of carbonates in Early -Late Miocene. Late Oligocene- E Miocene extension in Luconia and nearby areas, followed by episodic compression in M Miocene. Areas near main uplifted region in E and SW dominated by clastics, carbonates thrived on rifted margin in W. Similar setting in E Natuna. Subsequent compression resulted in inversion and folding, with uplift of parts of E Natuna- Luconia region. Folds formed sites for latest M-Late Miocene carbonate growth. Sea level rise at base Pliocene drowned most of carbonate in region except few buildups in NW, which still thrive today)

Kob, M.R.C. & M. Mohamed (1995)- Chronostratigraphy of Miocene turbiditic sequence of Sabah Basin from nannofossil assemblages. In: G.H. Teh (ed.) Proc. AAPG-GSM Int. Conference Southeast Asian basins: oil and gas for the 21st century, Kuala Lumpur 1994, Bull. Geological Society Malaysia, p. 143-163.
(online at: www.gsm.org.my/products/702001-100955-PDF.pdf)
(Offshore Sabah Basin is Neogene trench-associated basin filled with progradational cycles of marine and coastal sediments. Age-determinations of M-L Miocene strata through quantitative nannofossil analysis more reliable than foraminifera due to floods of reworked forms. Dominant indigenous assemblages differentiated from reworked assemblages through quantitative analysis)

Kob, M.R.C., J. Norazlina, A.H. Samsudin & A. Mansor (2015)- Tectono-stratigraphic evolution and hydrocarbon prospectivity of the North Tarakan Basin, Onshore Sabah. Proc. Asia Petroleum Geoscience Conference and Exhibition (APGCE), Kuala Lumpur, 26151, p. 1-5. *(Extended Abstract)*
(SE Sabah N Tarakan basin Paleogene-Neogene sediments evolved as foreland basin in relation to thrusting of Rajang fold-thrust belt (accretionary complex). Basin uplifted and eroded in stages in E Miocene-Pliocene. E-M Miocene Tanjong, Kapilit and Kalabakan Fms potential oil and gas resources. Conventional traps due to thrust and wrench tectonics. Late Eocene unconformity between Sapulut and Labang Fms= 'Sarawak Orogeny')

Kocsis, L. (2024)- The Elasmobranch fossil record of the Indo-Australian Archipelago since the Miocene: A literature review and new discoveries from Northern Borneo. Diversity 16, 6, 323, p. 1-35.
(online at: https://www.mdpi.com/1424-2818/16/6/323)

(Late Miocene shallow marine elasmobranch fauna (shark teeth) from Ambug Hill and other sites in Brunei, N Borneo. Ten taxa identified, eight new to Indo-Australian Archipelago fossil record (Chiloscyllium, Hemitriakis, Paragaleus, Carcharhinus borneensis, C. limbatus, Lamiopsis, Scoliodon, Rhinobatos). Results compared to other shark teeth occurrences on Java (12), Madura (2), S Sulawesi (2) and Buton (1))

Kocsis, L., G. Botfalvai, Q. Qamarina, H. Razak, E. Kiraly, F. Lugli, O. Wings, M. Lambertz, H. Raven, A. Briguglio & M. Rabi (2020)- Geochemical analyses suggest stratigraphic origin and late Miocene age of reworked vertebrate remains from Penanjong Beach in Brunei Darussalam (Borneo). Historical Biology 33, 11, p.
(Fish and turtle fragments on Brunei beach reworked from local Late Miocene beds (associated bivalve shells with Sr ages of 9.7- 6.6 Ma). Turtle remains oldest known fossil tetrapods from Borneo)

Kocsis, L., A. Briguglio, A. Cipriani, G. Frijia, T. Vennemann, C. Baumgartner & A. Roslim (2022)- Strontium isotope stratigraphy of late Cenozoic fossiliferous marine deposits in North Borneo (Brunei, and Sarawak, Malaysia). J. Asian Earth Sciences 231, 105213, p. 1-14.
(online at: https://www.sciencedirect.com/science/article/pii/S1367912022001365)
(Sr isotope ages of Neogene marine deposits of N Borneo. Oldest (Burdigalian) ages measured for Sibuti Fm in Sarawak (17.71 and 16.7 Ma), followed by Serravallian age in Belait Fm in Brunei (~12.1 Ma). Younger Miri and Seria Fms in Brunei age ranges from 10.5 to 7.0 Ma)

Kocsis, L., A. Briguglio, A. Roslim, H. Razak, S. Coric & G. Frijia (2018)- Stratigraphy and age estimate of Neogene shallow marine fossiliferous deposits in Brunei Darussalam (Ambug Hill, Tutong district). J. Asian Earth Sciences 158, p. 200-209.
(Outcrops of sandstones-clays at Ambug Hill in NE Brunei with layers rich in marine fossils. Calcareous nannoplankton of Late Tortonian- E Messinian (NN11) age, confirmed by Sr-isotope age from bivalves (8.3- 6.2 Ma). Overlain by emersion surface, possibly tied to Me1 (7.25 My) or Me2 (5.73 My) sequence boundary)

Kocsis, L., C.H. Lin, E. Bernard & A. Johari (2024)- Late Miocene teleost fish otoliths from Brunei Darussalam (Borneo) and their implications for palaeoecology and palaeoenvironmental conditions. Historical Biology 36, 12, p. 2642-2676.
(online at: https://www.tandfonline.com/doi/full/10.1080/08912963.2023.2271489
(Late Miocene fish otoliths assemblages in coastal marine deposits in N Borneo (Seria and Miri Fms and Tutong beach. Otoliths dominated by families Sciaenidae and Ariidae; Haemulidae, Engraulidae and Lactaridae common at certain sites. Six new taxa of sciaenids (Advenasciaena bruneiana, Atrobucca borneensis, Bruneisciaena schwarzhansi, Nibea ambugensis, Nibea stintoni, and Protonibea nolfi))

Kocsis, L., H. Razak, A. Briguglio & M. Szabo (2019)- First report on a diverse Neogene cartilaginous fish fauna from Borneo (Ambug Hill, Brunei Darussalam. J. Systematic Palaeontology 17, 10, p. 791-819. *(online at: www.fossilsawfish.com/uploads/3/4/8/7/34873745/fossil_elasmos_miocene_of_borneo_kocsis_etal_2018.pdf)*
(Diverse Late Miocene cartilaginous fish fauna from Brunei (~6.5-8 Ma). Chondrichthyan fish remains 24 taxa of selachians (sharks, etc.) and batoids (rays). Shark fauna dominated by Carcharhiniformes, including teeth extinct giant shark Otodus (Megaselachus) megalodon. Batoids dominated by Myliobatiformes. Dominance of carcharhinid sharks and small rays suggests shallow marine, coastal paleoenvironment)

Kocsis, L., A. Usman A.L. Jourdan, S.H. Hassan, N. Jumat, D. Daud A. Briguglio, F. Slik, L. Rinyu & I. Futo (2020)- The Bruneian record of Borneo amber: a regional review of fossil tree resins in the Indo-Australian Archipelago. Earth-Science Reviews 201, 10, 103005, p.
(manuscript online at: https://discovery.ucl.ac.uk/id/eprint/10090957/1/Kocsis%20et%20al%20-%20Amber%20manuscript%20-%20ESR.pdf)
(Neogene fossilized tree resins (amber, 'dammar') common in SE Asia. M Miocene-Pliocene amber from Brunei all derived from trees of family Dipterocarpaceae, a group of angiosperm tree with 16 genera)

Kon'no, E. (1968)- Some Upper Triassic species of Dipteridaceae from Japan and Borneo. J. Linnean Society, London, Botany, 61, 384, p. 93-105.

(Description of plant fossils Cuxthropteris (=Clathropteris) meniscoides from near SW border of Sarawak, southernmost occurrence of Dipteridaceae flora of SE Asia in Borneo in Upper Triassic)

Kon'no, E. (1972)- Some Late Triassic plants from the Southwestern border of Sarawak, East Malaysia. In:T. Kobayashi & R. Toriyama (eds.) Geology and palaeontology of Southeast Asia, University of Tokyo Press, 10, p. 125-178.
(Plants from beds near basal conglomerates of Halobia-bearing coaly series near Krusin, SW Sarawak. Probably Late Carnian age. 15 species from Sadong Fm, now called'Krusin flora'. With Neocalamites, Clathropteris miniscoides, Dictyophyllum cf. nilssoni, Cladophlebis spp., Todites, etc. Belongs to Dictyophyllum-Clathropteris floral province of E Asia/ SW Pacific, without any European or North Asian floral elements, and similar to Norian Tonkin Flora of N Vietnam. No stratigraphy details (Hutchison 2005: associated in same formation Carnian-Norian bivalves Halobia and Monotis salinaria and sands derived from Serian Volcanics) (Krusin flora classified as Carnian age, and 'East Asian floristic zone', similar to 'Yamaguti Flora' of Japan, by Dobruskina 1994))

Konjing, Z., A.H.A. Rahman, M.S. Ismail & N.A. Siddiqui (2022)- Late Oligocene- Early Miocene palynological succession from marginal marine deposits, Nyalau Formation, Bintulu Sarawak: palynostratigraphy, paleovegetation and paleoclimate significance. Bull. Geological Society Malaysia 74, p. 17-41.
(online at: https://gsm.org.my/wp-content/uploads/2023/01/bgsm74202202.pdf)
(Palynology of marginal marine Nyala Fm outcrops in Sangan, Tatau, Bintulu and Similajau areas, C Sarawak. Three Late Oligocene- E Miocene palynozones, correlatable to Cycles I and II in Sarawak Basin)

Koopman, A. (1996)- Regional geological setting. In: S.T. Sandal (ed.) The geology and hydrocarbon resources of Negara Brunei Darussalam (2nd ed.), Special Publication Muzium Brunei and Brunei Shell Petroleum Company Berhad, Syabas, Bandar Seri Begawan, p. 49-60.

Koopman, A. & J. Schreurs (1996)- The coastal and offshore oil and gas fields. In: S.T. Sandal (ed.) The geology and hydrocarbon resources of Negara Brunei Darussalam (2nd ed.), Special Publ. Muzium Brunei and Brunei Shell Petroleum Company Berhad, Syabas, Bandar Seri Begawan, p. 155-192.

Koopman, A. & J. Schreurs (1996)- The inland hydrocarbon accumulations. In: S.T. Sandal (ed.) The geology and hydrocarbon resources of Negara Brunei Darussalam (2nd ed.), Special Publ. Muzium Brunei and Brunei Shell Petroleum Co. Berhad, Syabas, Bandar Seri Begawan, p. 193-198.

Koopmans, B.N. (1967)- Deformation of the metamorphic rocks and the Chert-Spilite formation in the southern part of the Darvel Bay area, Sabah. In: Geological papers 1966, Geological Survey Borneo Region, Malaysia, Bull. 8, p. 14-24.
(Area S of Darvel Bay in E Sabah with outcrops of folded deep marine U Cretaceous- Eocene 'Chert-Spilite Formation', composed of greywacke, chert, pillow basalts and lenses of pelagic U Cretaceous Madai-Baturong Limestone (also locally with ooilites: seamount deposits?), with common submarine slump features. Formation believed to be equivalent of Danau Fm of Molengraaff (1900) in adjacent Kalimantan. Overlain by Oligo-Miocene andesites of Kalumpang Fm. Underlain by pre-Cretaceous metamorphic rocks (mainly amphibolites, derived from basic-ultrabasic igneous rocks), locally highly deformed. Etc.)

Koopmans, B.N. & P.H. Stauffer (1967)- Glacial phenomena on Mount Kinabalu, Sabah. In: Geological papers 1966, Geological Survey Borneo Region, Malaysia, Bull. 8, p. 25-35.
(Evidence of Pleistocene glacial erosion above 12,000' at on Mt. Kinabalu (elev. 4100m/ 13,455'). Glaciated, with ice cap of ~5.4 km^2 in Pleistocene until about 10,000 years ago. Two (Late?) Pleistocene glaciations, but no clear moraines)

Kosa, E. (2012)- Pore-pressure and subsurface-plumbing patterns in Central Luconia; Offshore Sarawak, Malaysia. In: Delivering value: realising exploration & development potential, Proc. Petroleum Geology Conference Exhibition (PGCE), Kuala Lumpur 2012, p. 1-4. *(Extended Abstract)*

(Hydraulically blown traps and overpressure-related operational issues still encountered in C Luconia carbonate buildup play. Predictive pressure model proposed based on identification of five principal pressure domains, characterised by different drainage mechanisms)

Kosa, E. (2013)- The rivers of Luconia: the effects of sea-level lowstands on the stratigraphy of a mixed carbonate/clastics province; Miocene- Present, Offshore Sarawak, NW Borneo. Proc. Petroleum Geology Conference Exhibition (PGCE), Kuala Lumpur 2013, p. 1-5. *(Extended Abstract)*
(C Luconia gas-producing province with ~250 carbonate build-ups, now mostly covered by clastics. Clastics historically interpreted as marine, pro-delta sediments deposited over drowned carbonates, but re-interpreted as stacked delta lobes with paleo-coastlines extending basinward of most Luconia build-ups. This study suggests evidence for fluvial and other erosional geomorphology and links this to hydrocarbon habitats, carbonate-clastic interactions and reservoir/seal distribution. Fluvial processes exerted major control on carbonate inception inM Miocene, and on hydrocarbon-retention capacity of clastic overburden)

Kosa, E. (2013)- Wings, mushrooms and Christmas trees: insights from carbonate seismic geomorphology into the evolution of Central Luconia. AAPG Int. Conv. Exhib., Singapore 2012, Search and Discovery Article 50783, p. 1-51. *(Presentation and Abstract; see also full paper Kosa et al. (2015))*
(online at: www.searchanddiscovery.com/documents/2013/50783kosa/ndx_kosa.pdf)
(C Luconia gas province off Sarawak, NW Borneo with >200 Miocene-Recent carbonate build-ups identified. Interpretation of carbonate geomorphology from seismic varied through time. Prevalent model of evolution of C Luconia infers 'maximum transgression' initiating carbonate growth in M Miocene, followed by progressive burial of province under Borneo-sourced clastic deltas in Late Miocene. Hydrocarbon columns in C Luconia tend to be short and terminate at intersections of carbonate edifices with clastic sequence boundaries. New model of clastic stratigraphy proposed, of stacked delta-lobes punctuated by exposure and/or flooding surfaces and evolving contemporaneously with carbonates)

Kosa, E. (2015)- Sea-level changes, shoreline journeys, and the seismic stratigraphy of Central Luconia, Miocene-present, offshore Sarawak, NW Borneo. Marine and Petroleum Geology 59, p. 35-55.
(C Luconia province of Sarawak Basin with>200 M Miocene- Recent carbonate build-ups. Clastic sediments around/ between carbonate build-ups interpreted as stacked low-relief deltas, which frequently prograded beyond area of carbonate build-ups. Deltaic topsets juxtaposed against carbonate build-ups hydrocarbon migration routes. Most carbonate reservoirs underfilled; hydrocarbon columns limited to youngest onlapping sequence)

Kosa, E., A. Hafrez, K. Boey, A. Azhar & G. Wee (2012)- Sequence stratigraphy of clastic overburden of the Miocene carbonate gas province in Central Luconia, Offshore Sarawak, NW Borneo: implications for hydrocarbon-retention capacity. In: Int. Petroleum. Technical Conf. (IPTC), Bangkok 2012, IPTC 14578, p. 1208-1213.
(C Luconia, off NW Borneo, mature gas province with >45TCF gas discovered in Miocene carbonate build-ups. Most commercial discoveries in carbonate platforms, but remaining prospectivity mostly in pinnacle-shape carbonates, where commercial volumes require long hydrocarbon columns)

Kosa, E., G.M.D. Warrlich & G. Loftus (2015)- Wings, mushrooms, and Christmas trees: the carbonate seismic geomorphology of Central Luconia, Miocene-present, offshore Sarawak, Northwest Borneo. American Assoc. Petroleum Geol. (AAPG) Bull. 99, 11, p. 2043-2075.
(see also Kosa (2013). C Luconia province of Sarawak Basin off NW Borneowith extensive Miocene-Holocene carbonate buildupse up to 2km thick and with complex seismic geomorphologies. Intermittent carbonate and siliciclastic deposition governed by oscillating sea level and variable siliciclastic input. Location of buildups with respect to deltaic facies and seismic expressions of marginal carbonate strata, locally known as wings, used here to classify carbonate seismic geomorphologies)

Kosaka, H. & K. Wakita (1975)- Geology and mineralization of the Mamut mine, Sabah, Malaysia. Mining Geology 25, 132, p. 303-320. *(In Japanese, with English summary)*
(online at: https://www.jstage.jst.go.jp/article/shigenchishitsu1951/25/132/25_132_303/_pdf)

(Mamut mine in NW Sabah, ~65 km E of Kota Kinabalu, is first porphyry copper mine in Borneo. Commercial operation started in 1975. Ore reserves ~178 Mtons of 0.476 percent copper. Area occupied by U Cretaceous and Tertiary flysch type sediments and igneous rocks. In mineralized area sedimentary rocks mainly Paleocene-Eocene sandstone, with serpentinized ultrabasic rocks and adamellite porphyry intrusions, possibly parts of large batholith under area, represented by Mt. Kinabalu. Late Miocene- E Pliocene K-Ar ages. Size of main adamellite porphyry intrusive ~800x 300m. Ore zone max. width 450m, length 800m and depth 200m)

Kosaka, H. & K. Wakita (1978)- Some geologic features of the Mamut porphyry copper deposit, Sabah, Malaysia. Economic Geology 73, 5, p. 618-627.
(Mamut porphyry copper-gold deposit of Paleocene- Upper Miocene age one of many mineralized centers in NW-SE trending tectonic zone in Sabah, N Borneo. Copper mineralization associated with K-rich adamellite porphyry intrusion. Wall rocks consist of serpentinite and clastic sediments. See also Imai (2000))

Kosters, M., P.F. Hague, R.A. Hofmann & B.L. Hughes (2008)- Integrated modeling of karstification of a Central Luconia Field, Sarawak. In: Int. Petroleum Technical Conference (IPTC 2008), Kuala Lumpur, IPTC 12327, p. 1253-1262.
(Some carbonate fields in C Luconia gas province karstified, as demonstrated by severe drilling losses. Largest gas field (1969 discovery, ~175km NNW of Bintulu, producing since 1987) is elongate Miocene buildup. Seismic study suggests extensive dendritic karst network in zones 3 and 4, mainly in C and E parts of field. Overlying zone 2.3 part of transgressive systems tract with rel. poor porosities and form field-wide baffle)

Krebs, W.N. (2011)- Upper Tertiary chronosequence stratigraphy of offshore Sabah and Sarawak, NW Borneo, Malaysia: a unified scheme based on graphic correlation. Bull. Geological Society Malaysia 57, p. 39-46.
(online at: http://geology.um.edu.my/gsmpublic/BGSM/bgsm57/bgsm2011006.pdf)

Krebs, W.N. & A. van Vliet (2009)- The Middle Miocene Unconformity (MMU): neither Middle Miocene nor unconformity? Proc. Petroleum Geology Conference Exhibition (PGCE). Kuala Lumpur 2009, Geological Society Malaysia, Paper 16. *(Abstract only)*
(online at: http://geology.um.edu.my/gsmpublic/PGCE2009/Draft/Old/Geology%20Papers%20v.0.1.pdf)
(Middle Miocene Unconformity of N Borneo/ S China Sea not true unconformity, but end of late E Miocene extension around 'oceanic' core of S China Sea. Crests of fault-blocks experienced minor submarine erosion. Bako-1 and Mulu-1 wells drilled on paleo-highs, reveal age of MMU is late E Miocene)

Krol, L.H. (1927)- Ervaringen opgedaan op eene reis naar Serawak. De Mijningenieur 8, 5, p. 87- .
('Experiences during a journey to Sarawak')

Krol, L.H. (1927)- Palaeozoicum (?) in Sarawak en Britsch-Noord Borneo. De Mijningenieur 8, p. 113-115.
(On the age of coal-bearing rocks from Sarawak: initially believed to be of Late Paleozoic age (Tennison Woods, 1885, based on presumed presence of Vertebraria and Phyllotheca), but more likely of Tertiary age)

Kuswandaru, G.Y., H.A. Hassan, L.C. Matenco, N.I. Taib & K.A. Mustapha (2019)- Turbidite, debrite, and hybrid event beds in submarine lobe deposits of the Palaeocene to middle Eocene Kapit and Pelagus members, Belaga Formation, Sarawak, Malaysia. Geological Journal 54, 6, p. 3421-3437.
(Study of turbiditic flysch units of Paleocene-M Eocene Kapit and Pelagus Members of the Belaga Fm, Rajang Group, in road-cut exposures around Sibu, Sarawak)

Lai, C.K., X.P. Xia, R. Hall, S. Meffre, B. Tsikouras, M.I.R. Balangue-Tarriela, A. Idrus, E. Ifandi et al. (2021)- Cenozoic evolution of the Sulu Sea arc-basin system: an overview. Tectonics 40, 2, e2020TC006630, p. 1-26.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2020TC006630)
(Circum-Sulu Sea region 7 major magmatic phases in M Eocene-Pleistocene. M Eocene (43 Ma) Sabah ophiolite and Eo-Oligocene (34-33 Ma) C Palawan ophiolite represent intraoceanic subduction setting in Paleogene N Borneo and C-S Palawan.Late-stage Proto-SCS subduction (24-21 Ma) may have formed Panay arc andesite and BABB magmatism in SW Zamboanga Peninsula. Start of final convergence between Palawan Terrane and N Borneo-SW Philippines (~21 Ma) likely caused regional uplift/thrusting, forming Top Crocker Unconformity and

triggered NW-dipping Celebes Sea subduction. Subduction may have formed arc magmatism (21-18 Ma) in Cagayan ridge -Panay- NE Sabah, and opened NW Sulu Sea back-arc basin through continental crust attenuation. Likely subduction rollback in 17-9 Ma, shifting arc magmatism SE to Sulu ridge and opening SE Sulu Sea back-arc basin. NW-dipping Celebes Sea subduction ceased after ~9 Ma, followed by extension-related uplift/exhumation and 4-0.2 Ma intraplate volcanism in NBorneo. SE-dipping Sulu Sea subduction likely occurred along Negros-Sulu trenches, and produced arc volcanism from ~4 Ma)

Lam, K.S. (1988)- Sibu Area, Central Sarawak Malaysia, Explanation Sheet 2/111/12. Report, Geological Survey of Malaysia, Sarawak, p. 1-151.

Lam, K.S. (1983)- Tektite found in Sarawak. Warta Geologi 9, 6, p. 273-275.
(online at: https://gsmpubl.files.wordpress.com/2014/09/ngsm1983006.pdf)
(First record of tektite in Sarawak, from Bukit Nanas Quaternary gravel terrace deposit SW of Limbang. With brilliant black lustre, spherical in shape, diameter 25mm, weight 35g. Limbang tektite may be correlated to nearby finds of tektites in Brunei (Tate 1970) and Kalimantan (Von Koenigswald?) (probably part of Pleistocene (~0.77 Ma) Australasian strewn field))

Lambiase, J. & A. Cullen (2012)- Sediment supply systems of the Champion "Delta" of NW Borneo: implications for the distribution and reservoir quality of associated deepwater sandstones. AAPG International Conference Exh., Singapore 2012, Search and Discovery Article 50775, p. *(Presentation)*
(online at: www.searchanddiscovery.com/documents/2012/50775lambiase/ndx_lambiase.pdf)
(M Miocene- Pliocene sedimentation on NW Borneo margin not product of one large Champion deltaic system, but several structurally active sub-basins segregated Champion shallow marine strata into thick, wave-dominant and tide-dominant successions)

Lambiase, J. & A. Cullen (2013)- Sediment supply systems of the Champion “Delta” of NW Borneo: implications for deepwater reservoir sandstones. J. Asian Earth Sciences 76, p. 356-371.
(M Miocene- Pliocene 'Champion Delta' sedimentation on NW Borneo margin not one simple, large delta. Multiple sand sources from Padas, Limbang and Trusan Rivers)

Lambiase, J.J., A.R. Damit, M.D. Simmons, R. Abdoerrias & A.A. Hussin (2003)- A depositional model and the stratigraphic development of modern and ancient tide-dominated deltas in NW Borneo. In: F.H. Sidi et al. (eds.) Tropical deltas of Southeast Asia; sedimentology, stratigraphy and petroleum geology. Soc. Sedimentary Geology (SEPM) Special Publ. 76, p. 109-123.
(Modern deltas of NW Borneo may be wave-dominated (Baram River) or tide-dominated (deltas within Brunei Bay). Details on Trusan River Delta, outcrops of M-Miocene and younger Belait Fm, etc.)

Lambiase, J.J., A.A.A. Rahim & C. Yaw Peng (2002)- Facies distribution and sedimentary processes on the modern Baram Delta: implications for the reservoir sandstones of NW Borneo. Marine and Petroleum Geology 19, 1, p. 69-78.
(Present-day Baram Delta wave-tide dominated. Tertiary shoreface reservoir sandstones wave-dominant, tidal signatures absent. Modern Baram Delta not appropriate analogue for most shoreface reservoir sands)

Lambiase, J.J. & S. Tulot (2013)- Low energy, low latitude wave-dominated shallow marine depositional systems: examples from northern Borneo. Marine Geophysical Research 34, 3-4, p. 367-377.
(Depositional environments of wave-dominant successions in M-L Miocene Belait and Sandakan Fms in Brunei and NE Sabah)

Lambiase, J.J., T.Y. Tzong, A.G. William, M.D. Bidgood, P. Brenac & A.B. Cullen (2008)- The West Crocker formation of northwest Borneo: a Paleogene accretionary prism. In: A.E. Draut et al. (eds.) Formation and applications of the sedimentary record in arc collision zones, Geological Society of America (GSA), Special Paper 436, p. 171-184.
(West Crocker Fm in NW Borneo interpreted as accretionary prism. Two episodes of syndepositional folding-thrusting. Probable Eocene age differs from accepted Oligocene- E Miocene age and consistent with deposition

of W Crocker Fm during phase of NW Borneo margin tectonism. Sandstones in W Crocker deposited by high-density turbidity currents that constructed progradational lobes in ~1000m or more water. Sandstones with abundant feldspars and lithics suggests first-cycle product of eroded orogenic belt and short transport distance)

Lasman, M.R. (1998)- Channel chasing in the D35 field offshore Sarawak. In: G.H. Teh (ed.) Petroleum geology Conference 1997, Bull. Geological Society Malaysia 42, p. 39-45.
(online at: www.gsm.org.my/products/702001-100858-PDF.pdf)
(D35 oilfield offshore Sarawak in Balingian Province 1983 discovery in E-M Miocene 'Cycle III' delta plain channel deposits. Seismic ampitudes help identify channel sand thickness)

Latiff, A.H A., S.N.F. Jamaludin & M.N.A. Zakariah (2015)- Post-stack seismic data enhancement of thrust-belt area, Sabah Basin. PowerMEMS 2015, IOP Conference Series: Earth and Environmental Science 30, 012006, p. 1-6.
(online at: http://iopscience.iop.org/article/10.1088/1755-1315/30/1/012006/pdf)
(Seismic processing offshore NW Sabah))

Lau, J.W.E. (1974)- The 'rediscovery' of rudist with its associated fauna in the Bau Limestone and its palaeobiogeographic significance in circumglobal correlation and plate tectonic studies. Malaysia Geological Survey, Borneo Region, Annual Report for 1973, p. 188-197.
(Description of macrofauna of Late Jurassic- Early Cretaceous Bau Limestone at Paku Mine E of Bau, W Sarawak. Mainly primitive diceratid rudists, incl. Heterodiceras aff. luci (= Epidiceras speciosum of Skelton 1985?; JTvG) and diverse gastropods (Discotectus, Pileolus, etc)., and rare corals (Cladophyllia, Stylina, Actinastraea))

Lau, J.W.E. (1976)- History of mining in Sarawak. J. Malaysian Historical Society, Sarawak Branch, Kuching, 2, p. 17-32.

Lau, J.W.E. (1977)- Stratigraphic correlation of Tertiary basins in offshore Malaysia, South China Sea. ASCOPE, p. 1-30.

Lee, C.P. (2003)- The Madai-Baturong Limestone in eastern Sabah and its new interpretation as a seamount. Bull. Geological Society Malaysia 46, p. 161-165.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm2003027.pdf)
(Isolated shallow marine limestone bodies up to 300m-600m thick and 2.5-3.5 km wide, surrounded by deepwater deposits of Rajang/ 'Chert-Spilite' formation probably Cretaceous seamount deposits. Algae, Hensonella and small simple Dictyoconus suggest Early Cretaceous age. Jasin (1991) suggested Madai-Baturong Limestone was deposited on horst while Valanginian-Barremian chert of Chert-spilite Fm was deposited in surrounding deep waters)

Lee, D.T.C. (1968)- The Sandakan Formation, East Sabah. In: Geological Papers 1967, Geological Survey Borneo Region, Malaysia, Kuching, Bull. 9, p. 43-50.
(New name Sandakan Fm for Upper Miocene or younger massive mudstone, sandstone and rare thin coal seams in Sandakan Peninsula, E Sabah. Unconformably overlies E-M Miocene Garinono Fm tuff. Measured thickness >7500' (planktonic foraminifera of Gr. fohsi group suggest formation includes M Miocene-age beds; JTvG))

Lee, D.C. (1970)- Sandakan Peninsula, Eastern Sabah, East Malaysia, explanation of sheet 6/117/16, 6/118/13, 5/117/4 and 5/118/1. Geological Survey East Malaysia, Report 6, 75p.

Lee, D.T.C. (1990)- Formation of Pulau Batu Hairan and other islands around Pulau Banggi, Northern Sabah. Bull. Geological Society Malaysia 26, p. 71-76.
(online at: www.gsm.org.my/products/702001-101094-PDF.pdf)
(New island emerged from sea E of Pulau Banggi, N Sabah in 1988. Grey muds and red mudstones with blocks up to several m diameter of sandstone (from Crocker Fm?), chert, and rare ultrabasic rocks (from Chert-spilite

formation). With prominent 10m long radial tensional fractures. Formed by diapyric action, but no gas or mud cones. >40 other small island E and SE of Pulau Banggi probably similar origin)

Lee, D.T.C. & H.S. Weber (1986)- Base metal exploration in Sabah. In: G.H. Teh & S. Paramananthan (eds.) Proc. GEOSEA V Conference, Kuala Lumpur 1984, 1, Bull. Geological Society Malaysia 19, p. 405-419.
(onliine at: https://gsmpubl.wordpress.com/wp-content/uploads/2014/09/bgsm1986030.pdf)
(Base metal explation program since 1980 initially focused on anomalies associated with Late Tertiary volcanics and copper-zinc anomalies related to pillow-lava stage of C Sabah ophiolite assemblages. Follow-up work lead to discovery of Cyprus-type massive sulphide occurrences related to volcanics of Chert-Spilite Formation in Bidu-Bidu hills, NE Sabah)

Legrand, X., S. Sherkati & M.L. Lee (2015)- Evolution of deformation-sedimentation interaction in NW Offshore Sabah: implication for hydrocarbon exploration. Asia Petroleum Geoscience Conference Exhibition (AGGCE), Kuala Lumpur 2015, p. 1-4. *(Extended Abstract)*
(Offshore Sabah subjected to tectonic and gravity deformation since E Tertiary. E Miocene event led to crustal overthickening and uplift of former deep marine thick shale (Setap Fm) to shallow water environment. Relief prepared initial conditionsfor delta-related sequence in M Miocene time. Differential loading triggered mobile shale, forming mini-basins and shale ridges. Late Miocene more shale-prone prograding system. Gravity faults with rollovers and associated outboard, Late Miocene- Pliocene toe-thrusts, linked along shallow detachment. Further offshore imbricate thrust system rooted in deeper detachment)

Leong, K.M. (1972)- The occurrences of *Orbitolina*-bearing limestone in Sabah, Malaysia. In: N.S. Haile (ed.) Regional Conference on the Geology of Southeast Asia, Kuala Lumpur, Abstracts of papers, Geological Society Malaysia, p. 38. *(Abstract only)*
(Hutchison (2005), p. 226-229: Brecciated, probably Aptian-Albian age limestone with Orbitolina lenticularis and Hedbergella in Segama Highlands. Possibly related to Madai-Baturong Lst and part of Eastern Rajang Group, which has been interpreted as seamount deposit in oceanic environment)

Leong, K.M. (1974)- The geology and mineral resources of the Upper Segama Valley and Darvel Bay area, Sabah, Malaysia. Malaysia Geological Survey, Kuching, Memoir 4, p. 1-354.
(Revision of Fitch (1955) monograph on same area of SE part of Sabah. Includes 210 Ma age for granite (dismissed by Hutchison (1988), but re-validated by Graves et al. 2000?))

Leong, K.M. (1975)- New ages from radiolarian cherts of the Chert-Spilite Formation, Sabah. Warta Geologi (Newsletter Geological Society Malaysia) 1, 5, p. 96-98.
(online at: https://gsmpubl.files.wordpress.com/2014/09/ngsm1975005.pdf)
(First Lower Cretaceous (Valanginian- Barremian) age date obtained from sample J7250 of radiolarian chert of Chert-Spilite Fm by W. Riedel, based on Staurosphaera septemporata, Sphaerostylus lanceola and probably Dictyomitra boesii, etc. Previously believed to be mainly Upper Cretaceous age. Same as Leong (1977))

Leong, K.M. (1976)- Miocene chaotic deposits in eastern Sabah: characteristics, origin, and petroleum prospects. Malaysia Geological Survey, Borneo Region, Annual Report 1975, p. 238.

Leong, K.M. (1977)- New ages from radiolarian cherts of the Chert-Spilite Formation of Sabah. Bull. Geological Society Malaysia 8, p. 109-111.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1977007.pdf)
(Lower Cretaceous age for radiolarians from cherts, Sabah, identified by W. Riedel. Valanginian- Barremian species Staurosphaera septemporata, Sphaerostylus lanceolata, etc., in one sample suggest Chert-spilite Fm (= cover of Sabah obducted oceanic crust) older than previously assumed by Geological Survey reports. Other samples with U Cretaceous radiolaria. Same paper as Leong (1975))

Leong, K.M. (1978)- 'The Sabah Blueschist Belt'- a preliminary note. Warta Geologi 4, 2, p. 45-51.
(online at: https://gsmpubl.files.wordpress.com/2014/09/ngsm1978002.pdf)

(Proposed 'Sabah blueschist belt' is partly shear zone and partly sedimentary melange. Belt with blocks of serpentinite, glaucophane schist, amphibolite, etc. in Miocene Ayar Fm extends across C Sabah, trending NW from Dent Peninsula. Probably related to S-dipping subduction zone related to SW movement of Sulu Sea plate during Miocene)

Leong, K.M. (1998)- Sabah crystalline basement; 'spurious' radiometric ages? Continental? Warta Geologi (Newsletter Geological Society Malaysia) 24, 1, p. 5-8.
(online at: https://gsmpubl.files.wordpress.com/2014/09/ngsm1998001.pdf)
(Sabah Upper Segama area with metamorphic (amphibolite) and igneous rocks (granite, granodiorite, diorite, tonalite), some with Jurassic radiometric ages of 150, 160 and 200 Ma. Suggesting possible pre-Cretaceous igneous-metamorphic continental crustal material below Cretaceous 'new oceanic basement' known as Chert-Spilite Formation. Age and composition of Crystalline Basement debated)

Leong K.M. (1999)- Geological setting of Sabah. In: The petroleum geology and resources of Malaysia, Petronas, Kuala Lumpur, Chapter 21, p. 473-497.
(Review of Sabah geology, mainly based on Tongkul (1991). Paleogene and Neogene basins. Common mud volcanoes in E Sabah)

Leong, K.M. (2009)- A discussion on the paper- 'Age and MORB geochemistry of the Sabah ophiolite basement by Graves et al. (2000)'. Warta Geologi (Newsletter Geological Society Malaysia) 35, 1, p. 11-13.
(online at: www.gsm.org.my/products/702001-100403-PDF.pdf)
(Jurassic radiometric ages in Graves et al. (2000) vindicate oldest K-Ar radiometric age (210±3 Ma) from Sabah determined by Leong (1974) from granitoid in Kawag Gibong river, but never accepted by Hutchison (1988, 1989). (NB: 210 Ma= Late Triassic JTvG))

Leong, K.M. (2016)- Discussion on omission of Sabah Pre-Cretaceous geology and geochronology data in Tate (2002), Balaguru et al. (2003), Lee et al. (2004) and Wan Nursaiedah Wan Ismail et al. (2014). Warta Geologi (Newsletter Geological Society Malaysia) 42, 1-2, p. 10-11.
(online at: https://gsmpubl.files.wordpress.com/2016/08/warta42_1_2.pdf)
(Oldest fossiliferous rocks of Sabah are E Cretaceous limestone and chert, but older metamorphic rocks and granite and tonalite (minimum age E Jurassic or Triassic) also present)

Leong, K.M. (2017)- Review of 50-years (1966-2016) debate on age of Sabah crystalline basement granitic rocks: are the granitic rocks in Upper Segama Sabah fragments of supercontinent Pangaea? Proc. 30th National Geoscience Conference (NGC 2017), Kuala Lumpur, DRG29-116, Warta Geologi 43, 3, p. 223-224. *(Extended Abstract)*
(online at: https://gsmpubl.files.wordpress.com/2017/09/ngsm2017_032.pdf)
(Sabah granites often viewed in literature as Cretaceous in age and related to ophiolites, but radiometric ages of 210 and 185 Ma suggest it predates ophiolites and more likely represents Pre-Cretaceous continental basement that originated from continental margin of E Asia during creation of Proto-South China Sea Basin)

Leong, K.M. & A. Anuar (1999)- Northeast Sabah Basin. In: Petronas (1999) The petroleum geology and resources of Malaysia, Kuala Lumpur, p. 543-569.

Leong, K.M. & A. Anuar (1999)- Southeast Sabah Basin. In: Petronas (1999) The petroleum geology and resources of Malaysia, Kuala Lumpur, p. 573-589.

Leong, T.B.G., S.Hj. Tahir & J. Asis (2018)- Stratigraphy of Paleogene sequences in Weston-Sipitang, Sabah. Geological Behavior 2, 1, p. 1-4.
(online at: https://geologicalbehavior.com/archives/1gbr2018/1gbr2018-01-04.pdf)
(Upper Eocene- Lower Miocene deep marine shale-dominated distal fan-basin floor Temburong Fm in SW Sabah partly interfingers with U Oligocene- Lower Miocene sandy turbidite-rich Crocker Fm. Few or no microfossils (e.g. Asis et al. 2015). Overlain unconformably(?) by M-L Miocene shallow marine Meligan Fm))

Levell, B.K. (1987)- The nature and significance of regional unconformities in the hydrocarbon-bearing Neogene sequences offshore West Sabah. Bull. Geological Society Malaysia 21, p. 55-90.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1987004.pdf)
(W Sabah Tertiary trench-associated basin with up to 12 km of mainly siliciclastic sediments. Two phases: (1) pre-M Miocene deep marine, imbricated sediments related to S/ SE ward subduction; (2) M Miocene and later NW-prograding shelf-slope sequences, after cessation of subduction. Boundary is 'Deep Regional Unconformity', marking end of subduction in early M Miocene. Additional unconformities in younger sequence. NW Sabah underlain by six separate basement blocks)

Levell, B.K. & A. Kasumajaya (1985)- Slumping in the Late Miocene shelf-edge offshore west Sabah: a view of a turbidite basin margin. Bull. Geological Society Malaysia 18, p. 1-29.
(online at: www.gsm.org.my/products/702001-101146-PDF.pdf)
(Series of elongate spoon-shaped unconformities mapped along 150km of 250km long Late Miocene shelf edge offshore W Sabah. Interpreted as slump scars, formed by retrogressive submarine slumping. Relief between neighbouring slump scars, overlain by slope clays, may provide stratigraphic trap potential. Slump scar-rich unconformities point to redeposited, sand-prone turbidites downslope)

Liechti, P., F.W. Roe & N.S. Haile (1960)- The geology of Sarawak, Brunei and the western part of North Borneo. British Territories of Borneo, Geological Survey Department, Kuching, Bull. 3, p. 1-360.
(Comprehensive 1960 compilation of North Borneo geology by Shell geologists. With chapter on igneous rocks by Kirk. Region composed mainly of Upper Cretaceous- Miocene geosynclinal formations and Upper Eocene-Pleistocene strata deposited in isolated basins. Igneous activity in Late Paleozoic-Early Mesozoic and Upper Cretaceous-Quaternary. Three pre-Tertiary and four Tertiary phases of folding)

Liechti, P. (1967)- Uber synsedimentare Tektonik und ihre olgeologische Bedeutung. In: Probleme der Bildung von Erdollagerstätten, Freiberger Forschungshefte, Reihe C, 229, p. 31-63.
('On syn-sedimentary tectonics and their significance for oil geology'. With examples of melange deposits of North Borneo)

Light, M.P.R., D.J. Bird, G.A. Posehn & M.A.A Hudi (1994)- Complex transtensional structures and the hydrocarbon potential of the Greater Sarawak Basin as defined by Synthetic Aperture Radar. Bull. Geological Society Malaysia 36, p. 145-156.
(online at: www.gsm.org.my/products/702001-100969-PDF.pdf)
(SAR and other data over onshore Greater Sarawak Basin reveal complex tectonostratigraphic history. West Sarawak Basin and NE Borneo underwent complex transtensional deformation in Tertiary related to strike-slip motion caused by indentation of India against Asia. Sinistral strike-slip zones well developed as Sabah Shear, W Baram-Tinjar Lines and Lupar Line-Paternoster Fault. Onshore extension of seismically defined transverse faults in S China Sea likely controlled migration and accumulation of hydrocarbons in Sarawak. Borneo under compression in M Miocene. Fold interference produced by Cenozoic strike-slip faults and N-advance of Rajang Accretionary Prism well displayed on SAR)

Lim Peng Siong (1980)- The evaluation, assessment and calculation of ore reserves of the Mamut Mine- a case history. Geological Survey of Malaysia, Geological Papers 3, p. 114-125.
(Mamut mine at SE slopes of Mt Kinabalu is the only porphyry copper mine in Sabah)

Lim Peng Siong (1981)- Wullersdorf area, Sabah, Malaysia. Geological Survey of Malaysia, Report 15, p. 1-106.
(Mount Wullerdorf is extinct volcano, Semorna Peninsula, SE Sabah)

Lim Peng Siong (1981)- Gunung Pock area, Sabah, Malaysia. Geological Survey of Malaysia, Report 9, p.

Lim Peng Siong (1988)- Geoology and geothermal potential of the Tawau area, Sabah. Geological Survey of Malaysia, Annual Report for 1987, p. 402-413.

Lim Peng Siong & Y.E. Heng (1985)- Geological map of Sabah, 1: 500,000, 3rd Edition, Geological Survey of Malaysia.

Lim Peng Siong, F. Intang & Chan Fook On (1991)- Geothermal prospecting in the Semporna Peninsula with emphasis on the Tawau area. Geological Society Malaysia, Bulletin 29, p. 135 -155.
(online at: https://gsm.org.my/wp-content/uploads/gsm_file_2/702001-101060-PDF.pdf)
(Geothermal manifestations in Late Miocene- Quaternary Semporna volcanic belt, SE Sabah, which is SW extension of recently inactivated volcanic arc of Sulu Archipelago)

Lim, Peng Siong & S. Tunggah (1989)- Geology and coal potential of the northeastern Meliau Basin, Sabah. Proc. 20th Geological Conference 1989, Technical Papers 1, Geological Survey of Malaysia, p.

Lim, S.F., S.C. Kurniawan, M.H.H. Mohammad, Z. Mohammad, Tuan Harith, J. Margotta et al. (2019)- Relationship between karst development, collapse sinkholes, & fault trends to develop the first Central Luconia's carbonate karst island model. Proc. Asia Petroleum Geoscience Conference and Exhibition (APGCE 2019), Kuala Lumpur, p. 1-6. *(online at: https://www.researchgate.net/publication/339324626_Relationship_between_Karst_Development_Collapse_Sinkholes_Fault_Trends_to_Develop_the_First_Central_Luconia's_Carbonate_Karst_Island_Model)*
(3D seismic views of Luconia carbonate buildups and collapse sinkholes)

Lim, W.Y., L.C. Peng & N.T. Abdullah (2012)- Sediment and fauna of the Arip Limestone of the Tatau Formation, Sarawak, Malaysia. Geological Society Malaysia, Proc. National Geoscience Conference, Kuching 2012, Paper P1-10, p. 105. *(Abstract only)*
(online at: https://gsm.org.my/articles/702001-101659/)
(Occurrence of M-U Eocene Arip limestone of Tatua Fm in SW Tatau area. With Nummulites, Discocyclina, Pellatispira and planktonic foraminifera)

Linang, H.T., S. Pilia, N. Rawlinson, C.A. Bacon, A. Gilligan, D. G. Cornwell & F. Tongkul (2022)- Collision-induced subduction polarity reversal explains the crustal structure of Northern Borneo: new results From Virtual Deep Seismic Sounding (VDSS). Geophysical Research Letters 49, 19, e2022GL099123, p. 1-10.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2022GL099123)
(N Borneo experienced two sequential subduction episodes of opposite polarity in Neogene. Investigation of crustal thickness variations through Virtual Deep Seismic Sounding reveal area of thin crust in C and SE Sabah that appears to extend NE into Sulu Sea rift basin. Earthquake focal mechanisms suggest extension ongoing, but now dominated by orogen collapse in NW. Pervasive regional extension over last 15-20 My)

Lindsay, R.O. & R.K. Foster (2002)- Correcting a false assumption-offshore Brunei. The Leading Edge 21, p. 536.
(Classic AVO/ inversion seismic-analysis procedures failed in deepwater offshore Brunei. No geology)

Lu Hongbo & R.C. Shipp (2011)- Impact of a large mass-transport deposit on a field development in the upper slope of southwestern Sabah, Malaysia, offshore northwest Borneo. In: R.C. Shipp et al. (eds.) Mass-transport deposits in deepwater settings, Soc. Sedimentary Geology (SEPM) Special Publ. 96, p. 199-220.
(Description of large submarine mass failures on upper continental slope. One of features fan-like outline in plan view, up to 10 km wide, up to 40 km dip extent and thickness up to176 m)

Lubis, L.A., S. Bashah & D.P. Ghosh (2015)- Comparison of different rock physics models to evaluate the impact of pore types on velocity-porosity relationship in carbonates of Central Luconia Sarawak. In: M. Awang et al. (eds.) Third Int. Conference Integrated Petroleum Engineering and Geosciences (ICIPEG2014), Kuala Lumpur 2014, Springer Verlag, p. 387-393.

Lukie, T. & A. Balaguru (2012)- Sequence stratigraphic, sedimentologic and petrographic insights of the Miocene (Stage IVA) outcrops of the Klias Peninsula and Labuan Island, Sabah, Malaysia, Borneo. AAPG International Conference Exhib., Singapore 2012, Search and Discovery Article 10468, p. 1-37. *(Presentation)*

(online at: www.searchanddiscovery.com/documents/2012/10468lukie/ndx_lukie.pdf)
(Outcrop study of fluvial and deltaic sediments in Sabah))

Lunt, P. (2014)- A review of the foraminiferal biostratigraphy of the Melinau Limestone, Sarawak. Berita Sedimentologi 29, p. 41-50.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/141)
(Study of Melinau limestone, Sarawak shows age range from late M Eocene (Letter Stage Ta) to E Miocene (Te5, ~20.3 Ma). Strontium dating and biostratigraphy shows significant change in sedimentary rates or preserved thickness during mid-Oligocene (latest Tc or intra-Td times). Termination of Melinau limestone with initial event near Oligocene-Miocene boundary (Te4-Te5 boundary) and youngest limestones dated as Te5)

Lunt, P. (2019)- A new view of integrating stratigraphic and tectonic analysis in South China Sea and north Borneo basins. J. Asian Earth Sciences 177, p. 220-239.
(S China Sea and N Borneo region traditionally divided into provinces, each with distinct stratigraphy. Oligo-Miocene transition questions viability of commonly cited slab-pull tectonic model)

Lunt, P. (2020)- Discussion on: A new upper Paleogene to Neogene stratigraphy for Sarawak and Labuan in northwestern Borneo: Paleogeography of the eastern Sundaland margin. Earth-Science Reviews 202, 102980, p. 1-5.
(Commentary on Hennig-Breitfeld et al. (2019) paper, disputing elements of stratigraphic model)

Lunt, P. (2022)- Re-examination of the Base Miocene Unconformity in west Sabah, Malaysia, and stratigraphic evidence against a slab-pull subduction model. J. Asian Earth Sciences 230, 105193, p. 1-16.
(Two unconformities described in N Borneo: Base Miocene Unconformity (~24 Ma) and Deep Regional Unconformity (12-13 Ma). Both developed when deformation abruptly stopped, leaving erosional surfaces that were then transgressed. Results incompatible with widely cited plate tectonic models that describe closure of postulated Proto-South China Sea around mid-Early Miocene)

Lunt, P. (2022)- Field and well evidence for large unconformities in north Sarawak, compared to southern Sabah, Malaysia. Bull. Geological Society Malaysia 74, 1, p. 69-83.
(online at: https://gsm.org.my/products/702001-101966-PDF.pdf
(No major unconformity in stratigraphic record of N Sarawak or SW Sabah near end of E Miocene (~17-15 Ma), as frequently suggested. Well and outcrop data show two unconformities in SW Sabah: (1) Base Stage III; BMU, ~24 Ma and (2) Top Stage III, DRU; ~13-12 Ma). Offshore W Sarawak third unconformity: MMU, ~16 Ma) which fades towards onshore Sarawak)

Lunt, P. (2023)- Tectono-stratigraphic framework of Luconia carbonates. In: E.C. Rankey & M.C. Poppelreiter (eds.) Cenozoic isolated carbonate platforms- Focus Southeast Asia, Society for Sedimentary Geology (SEPM) Special Publ. 114, p. 49-69.
(Miocene carbonates around Sarawak. Onset, termination, and location of two main carbonate units, Subis/Lower Cycle II limestones and Luconia limestone, each begin with subsidence event, and terminated by influxes of siliciclastic sediments due to hinterland uplift. Intra–Late Miocene decline of Luconia Limestone platforms correlated to uplift of onshore Sarawak (Tinjar Province) and renewed siliciclastic sedimentation (time of major uplift in N Borneo)

Lunt, P. & J.H.M. Jais (2015)- Correlating Borneo outcrop to offshore geology; a regional perspective. AAPG Geoscience Technology Workshop (GTW), Tectonic evolution and sedimentation of South China Sea region, Kota Kinabalu 2015, Sabah, AAPG Search and Discovery Article 90236, p. 1-3.
(online at: www.searchanddiscovery.com/abstracts/pdf/2015/90236apr/abstracts/ndx_lunt.pdf)
(Extended Abstract; no figures. Many mismatches in stratigraphic correlations between E Natuna, Sarawak, Kalimantan, Sabah and Palawan. Three main unconformities: (1) M Miocene Unconformity (MMU) peaks in NN4 (= late E Miocene); (2) Top Crocker (TCU) at ~Oligo-Miocene boundary; (3) Deep Regional Unc. (DRU) compressional event in W Sabah and Palawan starting in latest E Miocene and ending in mid M Miocene, leaving angular contact once sedimentation renewed (tied to end of subduction off E Sabah, terminating activity of Sulu

volcanic arc). Old plate tectonic model of NW-ward subduction with trench on E side of Sabah (Rangin, 1989) preferred over current model of S-ward subduction of Mesozoic oceanic crust under Sabah and Sulu Sea)

Lunt, P., N.M.N. Liaw & K.A. Laksamana (2025)- A review of the Palaeogene geology of central Sarawak around Tatau. Berita Sedimentologi 51, 2, p. 1-36.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/514/453)
(Review of confusing terminology, ages, and facies descriptions of Paleogene of Central Sarawak. We document numerous errors in fact and also use new analyses to validate old Geological Survey data. Identified two distinct unconformities previously merged as one 'Rajang Unconformity'. Etc.)

Lunt, P., N.M.N. Liaw & K.A. Laksamana (2025)- Palaeogene geology of central Sarawak; new fieldwork compared to Subis-2 and other wells. Berita Sedimentologi 51, 2, p. 37-62.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/515/454)
(Subis-2 well (1951-53) and Tatau area ~160 km away both subject to strong uplift in E Oligocene, although lacking deformation seen in Sibu Zone to S ('Sarawak Orogeny').New tectono-stratigraphic history proposed)

Lunt, P. & X. Luan (2025)- A review of the Letter Stages of Sundaland and their relevance to Sarawak geology. Bull. Geological Society Malaysia 80, p. 5-19.
(online at: https://gsm.org.my/articles/bgsm202580-02/)
(Review and update of first biostratigraphic subdivision, based on larger foraminifera, of Cenozoic stratigraphy of SE Asia, first developed at the Geological Survey of the East Indies (Indonesia) in Bandung in 1927. This system became known as Letter Classification, and its subdivisions were called 'Letter Stages'. Since 1970s, the Letter Stages have been integrated with planktonic microfossil zones and palynology datums, thus allowing correlation of geological change across different depositional facies. Etc.)

Lunt, P. & M. Madon (2017)- A review of the Sarawak cycles: history and modern application. Bull. Geological Society Malaysia 63 (50th Anniversary Issue 1), p. 77-101.
(online at: www.gsm.org.my/products/702001-101707-PDF.pdf)
(Major review of Late Eocene-Pleistocene depositional cycles I-VIII, used by Shell since 1960's for Sarawak/ Brunei Tertiary. Cycles originally defined by initial transgression changing to regression, and probably reflect interplays between tectonic and eustatic events. Initial (unpublished) definitions updated through time, but most biostrat support data unpublished. Cycles I-III, seem to be linked to regional extension and subsidence. Cycle I-II boundary close to Oligocene- Miocene boundary, coinciding with Top Crocker Unconformity in Sabah and onset of seafloor spreading in W South China Sea. Base Cycle IV transgression at ~15.5 Ma called 'break-up unconformity' by Hutchison (2004), based on strongly rifted topography called 'M Miocene Unconformity' (MMU); followed by accelerated sediment supply. Base Cycle V at ~12-13 Ma. Etc.)

Lunt, P. & M. Madon (2017)- Onshore to offshore correlation of northern Borneo; a regional perspective. Bull. Geological Society Malaysia 64 (50th Anniversary Issue 2), p. 101-122.
(online at: www.gsm.org.my/products/702001-101714-PDF.pdf)
(Review of Oligocene - Pleistocene stratigraphy of N Borneo, with emphasis on dating regional unconformities: Top Crocker Unconformity (TCU; Oligo-Miocene boundary, ~23 Ma); Deep Regional Unconformity (DRU, late M Miocene, ~12 Ma; 'Sabah Orogeny' (around E-M Miocene boundary, with uplift in C Borneo and accelerated progradation of deltic deposits to N))

Macpherson, C.G., K.K. Chiang, R. Hall, G.M. Nowell, P.R. Castillo & M.F. Thirlwall (2010)- Plio-Pleistocene intra-plate magmatism from the southern Sulu Arc, Semporna Peninsula, Sabah, Borneo: implications for high-Nb basalt in subduction zones. J. Volcanology Geothermal Research 190, 1-2, p. 25-38.
(manuscript online at: https://www.researchgate.net/publication/47746954_Plio-Pleistocene_intra-plate_magmatism_from_the_southern_Sulu_Arc_Semporna_peninsula_Sabah_Borneo_Implications_for_high-Nb_basalt_in_subduction_zones)
(Chemistry of Plio-Pleistocene high-Nb basalts/ basaltic andesites from Semporna Peninsula at S end of Sulu Arc. Semporna basalts not associated with adakitic magmatism, which is frequent in some subduction zones)

Madden, R.H.C., M.E.J. Wilson, M. Mihaljevic, J.M. Pandolfi & K. Welsh (2017)- Unravelling the depositional origins and diagenetic alteration of carbonate breccias. Sedimentary Geology 357, p. 33-52.
(online at: http://marinepalaeoecology.org/wp-content/uploads/2011/09/Unravelling-deposition-origins-breccias.pdf)
(Batu Gading Limestone isolated outcrops along Baram River, ~80 km SE of Miri, Sarawak, and part of Melinau Limestone Fm. Unconformably overlies Cretaceous turbiditic Kelalan Fm. Basal transgressive sequence 40m thick with Late Eocene larger foraminifera Pellatispira, Discocyclina and Nummulites (probably deepening-upward series), overlain by 10m thick limestone breccia with mixed clasts of Late Eocene and Late Oligocene age (Te1-4; with Heterostegina borneensis and Miogypsinoides), overlain by deep marine Miocene beds. Breccia formation probably in submarine slope setting)

Madon, M. (1994)- The stratigraphy of northern Labuan, NW Sabah Basin, East Malaysia. In: G.H. Teh (ed.) Petroleum Geology Conference VIII, Bull. Geological Society Malaysia 36, p. 19-30.
(online at: www.gsm.org.my/products/702001-100979-PDF.pdf)
(Labuan Island Neogene basin with >12 km of sediments. 'Basement' of basin Paleocene-Eocene Rajang Gp foldbelt, consisting of highly deformed deepwater deposits (accretionary wedge s formed during Late Eocene- M Miocene subduction under Sabah), underlain by ?Jurassic-Lower Cretaceous complex of ultramafic intrusive rocks, radiolarian chert, and spilite. M Miocene regional uplift at end of subduction caused erosion of Rajang foldbelt and regional DRU unconformity. On Labuan deformed argillaceous strata under Belait conglomerate ridge near Layang-Layangan typical of Temburong Fm, suggesting Setap Shale Fm is absent)

Madon, M. (1997)- Sedimentological aspects of the Temburong and Belait formations, Labuan (offshore west Sabah). In: G.H. Teh (ed.) Petroleum Geology Conference '96, Kuala Lumpur, Bull. Geological Society Malaysia 41, p. 61-84.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1997025.pdf)
(E-M Miocene Temburong Fm (= lower Setap Shale) and Belait Fm of Labuan Island off W Sabah overall shallowing-upward sequence from relatively deep water and unstable slopes to shallow nearshore facies)

Madon, M. (1999)- North Luconia Province. In: The petroleum geology and resources of Malaysia, Chapter 19, Petronas, Kuala Lumpur, p. 443-454.
(Review of deepwater offshore N Sarawak N Luconia province. Hydrocarbon exploraton unsuccessful so far)

Madon, M.B. (1999)- Geological setting of Sarawak. In: The petroleum geology and resources of Malaysia, Petronas, Kuala Lumpur, Chapter 12, p. 275-290.
(Review of Sarawak geology. Petroleum produced mainly from Neogene of offshore Sarawak basin. Kuching zone in W-most Sarawak is part of W Borneo/ Sundaland continental basement core, which extends S into Kalimantan, with oldest rocks pre-U Carboniferous Kerait Fm metamorphics, U Carboniferous- Triassic limestones with Late Triassic intermediate volcanics, overlain by Jurassic-Cretaceous siliciclastics, etc. Sibu zone intensely deformed Late Cretaceous-Eocene turbidites of Rajang accretionary prism, equivalent of Selangkai Fm in Kalimantan. Miri zone less deformed U Eocene- Recent sediments. Sarawak Basin originated as Oligocene- E Miocene foreland basin after collision of Luconia Block with W Borneo Basement)

Madon, M. (2020)- Sand injectites in the West Crocker Formation, Kota Kinabalu, Sabah. Bull. Geological Society Malaysia 69, p. 11-26.
(online at: https://gsm.org.my/products/702001-101837-PDF.pdf)
(Sand injectites common in turbidite sequences of Late Eocene-Oligocene West Crocker Fm (), as dykes, sills and pipes and may ber conduits for vertical fluid movement and sediment remobilization)

Madon, M. (2021)- Deep-sea trace fossils in the West Crocker Formation, Sabah (Malaysia), and their palaeoenvironmental significance. Bull. Geological Society Malaysia 71, p. 23-46.
(online at: https://gsm.org.my/wp-content/uploads/gsm_file_2/702001-101901-PDF.pdf)
(Trace fossils in Eocene-Oligocene West Crocker Fm "flysch", Kota Kinabalu, Sabah, commonly as hypichnial reliefs on sole of thin turbiditic sandstone beds (mainly Bouma Tc division) in thin-bedded heterolithic sandstone-mudstone facies interpreted as submarine fan lobe deposits. Nereites ichnofacies indicate bathyal-abyssal water

depths (>2000 m). With Ophiomorpha, Palaeophycus, Planolites, Nereites, etc. Sand-rich channel axis and proximal fan deposits tend to be dominated by Ophiomorpha rudis sub-ichnofacies; Paleodictyon sub-ichnofacies more typical of lower energy lobe/fan fringe environments)

Madon, M. (2022)- Gas hydrate resource potential of deepwater Sabah, Malaysia: A preliminary assessment. Bull. Geological Society Malaysia 74, p. 1-15.
(online at: https://gsm.org.my/wp-content/uploads/2023/01/bgsm74202201.pdf)
(Presence of gas hydrates inferred from bottom-simulating reflectors (BSR) in seismic reflection profiles Based on average geothermal gradient of 62.5 °C/km, thickness of gas hydrate stability zone predicted to vary with water depth from 0m at 640 m water depth to 300m at 2900m water depth. Total in-place methane resource from Sabah hydrates iestimated to range from 72-852 TCF (mean of 364 TCF. Not clear how much of in situ gas is technically and economically recoverable)

Madon, M. (2023)- The Paleo-Lupar: Bathymetric and seismic evidence for a submerged Late Pleistocene river valley on the Sunda Shelf, off Sarawak. Warta Geologi 49, 2, p. 45–54.
(online at: https://gsm.org.my/articles/warta-geologi-492-geological-notes-1/)
(Bathymetric and seismic evidence of submerged Late Pleistocene Paleo-Lupar river valley on Sunda Shelf, off Sarawak. Detectable from water depths of ~40m near Lupar river mouth to >100 m to N, closer to shelf edge: ~30 km-wide submarine valley, with individual channels that can be >80 m deeper than surrounding seabed (one of several major paleorivers that drained Sunda Shelf during Last Glacial Maximum at ~ 21 ka)

Madon, M. & P. Abolins (1999)- Balingian Province. In: The petroleum geology and resources of Malaysia, Chapter 14, Petronas, Kuala Lumpur, p. 345-367.
(Review of offshore Sarawak hydrocarbon province, with 4 main fields (Temana, Bayan, D18, D35) in Late Oligocene- E Miocene deltaic clastics)

Madon, M., Cheng L.Kim & R. Wong (2013)- The structure and stratigraphy of deepwater Sarawak, Malaysia: Implications for tectonic evolution. J. Asian Earth Sciences 76, p. 312-333.
(History of N Luconia Province, Sarawak deepwater area, related to tectonic history of S China Sea. Sarawak Basin initiated as foreland basin as result of collision of Luconia block with Sarawak (Sarawak Orogeny), with deep foreland basin ('flysch') phase in Late Eocene-Oligocene, followed by 'molasse' phase of shallow marine shelf progradation to present day. E Miocene Unconformity caused by relative uplift and submarine erosion between ~19-17 Ma, with 500-2600m of missing section, equivalent to 8-10 My time gap. EMU extends over entire NW Borneo margin and related to Sabah Orogeny which marks cessation of sea-floor spreading in S China Sea and collision of Dangerous Grounds block with Sabah. Sarawak basin part of remnant ocean basin that closed by oblique collision along NW Borneo margin. Closure started in Late Eocene in Sarawak and moved progressively NE into Sabah until M Miocene)

Madon, M. & A. Hadi Abd Rahman (2007)- Penecontemporaneous deformation in the Nyalau Formation (Oligo-Miocene), Central Sarawak. Bull. Geological Society Malaysia 53, p. 67-73.
(online at: www.gsm.org.my/products/702001-100502-PDF.pdf)
(Outcrops of Late Oligocene- E Miocene Nyalau Fm in Tg. Similajau and Bintulu areas show common penecontemporaneous deformation (thrusts/ folds, slumps, etc.), indicating tectonic controls on sedimentation in Sarawak foreland basin)

Madon, M. & M.H.A. Hassan & J. Jong (2022)- An erosional unconformity at the top of the Nyalau Formation near Bintulu, Central Sarawak (Malaysia): its regional context and significance. Bull. Geological Society Malaysia 73, p. 35-52.
(online at: https://gsm.org.my/products/702001-101952-PDF.pdf)
(Erosional unconformity at top fluvio-deltaic Nyalau Fm (Oligocene-Early Miocene) in Miri zone, NE of Bintulu, C Sarawak. Overlain by relatively undeformed E-M Miocene post-Nyalau Fm)

Madon, M. & R.B.A. Hassan (1999)- Tatau Province. In: The petroleum geology and resources of Malaysia, Chapter 17, Petronas, Kuala Lumpur, p. 413-426.

(Review of offshore Sarawak Tatau hydrocarbon province, with gas-oil fields in non-marine U Oligocene- Lw Miocene clastics and M-U Miocene carbonates. Characterized by NNW trending E Miocene normal faults)

Madon, M. & R.B.A. Hassan (1999)- West Luconia Province. In: The petroleum geology and resources of Malaysia, Chapter 18, Petronas, Kuala Lumpur, p. 428-439.
(W Luconia Province in W part of Sarawak continental shelf. Major Oligocene- Miocene West Luconia Delta system developed between C Luconia carbonate platform in E and Natuna Platform in W. Underexplored area, with hydrocarbon shows in U Miocene)

Madon, M. & J. Jong (2021)- Geothermal gradient and heat flow maps of offshore Malaysia: some updates and observations. Bull. Geological Society Malaysia 71, p. 159-183.
(online at: https://gsm.org.my/products/702001-101890-PDF.pdf)
(Updated heat flow map for Malay Basin- Natuna-North Borneo areas. Malay Basin high geothermal gradients (av. 47 °C/km), attributed to crustal thinning due to extension. Sarawak Basin similar high gradients (~45 °C/km). Baram Delta area and Sabah Shelf considerably lower (~29- ~34 °C/km), underlain by former collisional margin. Deep-water areas off Sarawak and Sabah (N Luconia and Sabah Platform) high geothermal gradients (av. 80 °C/km in N Luconia and 87 °C/km in Sabah Platform), consistent underlain by extended continental terrane of S China Sea margin)

Madon, M. & J. Jong (2022)- The crustal structure and evolution of the Bunguran Trough, offshore Sarawak, Malaysia. Marine and Petroleum Geology 139,105608, p. 1-33.
(Bunguran Trough is deep Tertiary depocenter in the W Luconia Delta Province, offshore Sarawak. At center of trough, top acoustic basement is ~15 km deep, buried beneath thick Late Eocene- Quaternary sediments of proto-Rajang-Lupar River delta system. Average crustal thickness 5.3 km (extremely thin compared to extended continental crust; ~15-22 km). May have developed as rift basin with at least two phases of extension before major inversion event, marked by M Miocene Unconformity)

Madon, M. & J. Jong (2022)- Crustal structure and evolution of the Bunguran Trough: new insights from gravity and seismic data. Proc. Asia Petroleum Geoscience Conference and Exhibition (APGCE), Kuala Lumpur, p. 1-28. *(Abstract + Presentation)* *(online at: https://www.researchgate.net/publication/365870832_Crustal_structure_and_evolution_of_the_Bunguran_Trough_new_insights_from_gravity_and_seismic_data)*
(Bunguran Trough is enigmatic 15 km-deep basin W of C Luconia province, that straddles Sarawak shelf-slope region, off N Borneo, and is deepest part of Cenozoic Sarawak Basin, No gravity or bathymetric expression, origin not well understood (crustal extension by pull-apart or rifting?). Average thickness of Bunguran Trough crust calculated from gravity/ sediment thichness data is 5.3 km, whereas beneath N Luconia is 16 km)

Madon, M. & J. Jong (2022)- The structural-stratigraphic framework and petroleum systems of the Sandakan Basin, offshore East Sabah, Malaysia. Bull. Geological Society Malaysia 74, p. 135-160.
(online at: https://gsm.org.my/wp-content/uploads/2023/01/bgsm74202209.pdf)
(Sandakan Basin off E Sabah Sulu Sea margin, with 19 wells drilled between 1970s - 2015. Five pre-1995 wells tested hydrocarbons, but no commercial discoveries. Two proven play types: (1) synrift E-M Miocene "Segama play", and (2) M-L Miocene "Sebahat play" in E and S-prograding deltaic and shelf sequences. Best reservoir facies shoreface sands, with porosities >20%, particularly at depths <2000m. Sandakan Basin affected by several compressional deformation events, expressed as major erosional unconformities, incl. M Miocene ("D2 event", 13.0 Ma) and Late Miocene ("D3 event", 8.6 Ma). Unconformities result of compression and faulting, creating traps but also pose risk to trap integrity and preservation. Hydrocarbon generation and migration in Late Miocene- E Pliocene and continuing today)

Madon, M. & J. Jong (2023)- Multi-phase subsidence history of the Sarawak continental margin and its regional significance. Bull. Geological Society Malaysia 76, p. 81-99.
(online at: https://gsm.org.my/articles/bgsm202375-07-2/)
(Osshore Sarawak Basin multi-phase history of extension and uplift. Rapid subsidence during Late Eocene Oligocene early rift phase (~ 37-28 Ma), followed by gradual post-rift thermal subsidence (~28–22 Ma). Second

phase of extension in E Miocene (~22-17 Ma) followed by major episode of compressional deformation, uplift and erosion, culminating in major unconformity at ~16 Ma (M Miocene Unconformity; MMU; recognised in Bunguran Trough and N Luconia regions as major hiatus). Since Late Miocene increase in subsidence, probably due to progradation of Sarawak shelf. Subsidence history similar to other parts of S China Sea margin, suggesting all are related to rifting and sea-floor spreading in SW S China Sea)

Madon, M.B., F.L. Kessler, J.D. Jong & M.K.A. Amin (2020)- "Fractured basement" play in the Sabah Basin? - the Crocker and Kudat formations as hydrocarbon reservoirs and their risk factors. Bull. Geological Society Malaysia 69, p. 157-171.
(online at: https://gsm.org.my/products/702001-101825-PDF.pdf)
(Exploration activities in Sabah Basin, off W Sabah Inboard Belt may be approaching maturity. Sedimentary formations below Deep Regional Unconformity generally considered part of economic basement, but hydrocarbons shows indicate potential "basement" play in Crocker and equivalent formations)

Madon, M., K.M. Leong & Azlina Anuar (1999)- Sabah Basin. In: The petroleum geology and resources of Malaysia, Chapter 22, Petronas, Kuala Lumpur, p. 501-542.
(NW Sabah Basin mainly offshore with >12km of early M Miocene and younger sedimentary basin, formed after uplift and exhumation of underlying Oligocene- E Miocene and older unmetamorphosed turbidites of 'Crocker fold-thrust belt', with upper and lower Rajang units separated by major Late Eocene unconformity. Pre-and post lower M Miocene sediments separated by 'Deep Regional Unconformity'. Basin includes Baram Delta complex, which extends west into Sarawak and Brunei. Several oil-gas fields, incl. Tembungo, Barton, Erb South, Ketam, etc.)

Madon, M., H. Linang & S. Pilia (2025)- Seismic-constrained gravity inversion of Moho depth beneath Sabah, Malaysia: regional and tectonic implications. Tectonophysics 914, 230916, p.
(Moho depths beneath Sabah estimated by gravity inversion. Moho depth beneath Sabah determined to be between 21-55 km. Low-gravity area in E Sabah suggests thick rift sedimentation and thermal anomaly due to iddle- Late Miocene Sulu Sea backa-rc rifting. Sabah not in complete isostatic equilibrium, and parts of region appear to be highly overcompensated)

Madon, M., J. Norazlina, A. Ayub, K.S.M. Nor, S.M. Najmi, I.A. Zamzamie & A. Yusof (2015)- Structural evolution of the NW Sabah deepwater fold and thrust belts and its implication for hydrocarbon prospectivity. Proc. Asia Petroleum Geoscience Conference and Exhibition (APGCE), Kuala Lumpur, p. 317-321. *(Extended Abstract)*
(NW Sabah deepwater fold-thrust belt may be viewed as deformed sedimentary fill of Sabah Trough foreland basin. Deformation along margin appears diachronous, increasing N-wards. Mainly forward/seaward-breaking thrusts, while landward-verging backthrusts in N resulted in complex interference fold-thrust structures)

Mahmud, O.A.B. (1999)- Petroleum resources, Sarawak. In: The petroleum geology and resources of Malaysia, Petronas, Kuala Lumpur, p. 457-472.

Mahmud, O.A., H.D. Tjia & M.I. Ismail (2001)- Interpretation of newly acquired aerogravity data enhances the prospectivity of the Tinjar Province, onshore Sarawak. In: G.H. Teh et al. (eds.) Proc. Geological Society Malaysia, Annual Geological Conference 2001, Pangkor, p. 19-26.
(online at: https://gsmpubl.files.wordpress.com/2014/10/agc2001_04.pdf)
(No commercial discoveries in onshore Sarawak since 1910 Miri field. Tinjar Province of onshore N-C Sarawak underexplored, due to assumption of shallow basement after Oligo-Miocene uplift and erosion. Shallow basement not supported by seismic or gravity-magnetic data. New aerogravity and magnetic data showed up to 5000m sediment in Tinjar Province and surrounding area, with series of highs and lows)

Majid, M.F.A., M.S. Ismail, A.H.A. Rahman & M.A. Mohamed (2017)- Facies distribution and petrophysical properties of shoreface- offshore transition environment in Sandakan Formation, NE Sabah Basin. Proc. 5th Int. Conf. Geological, Geographical, Aerospaces and Earth Sciences, Bali 2017, IOP Conference Series: Earth and Environmental Science 88, 012023, p. 1-8.

(online at: http://iopscience.iop.org/article/10.1088/1755-1315/88/1/012023/pdf)
(Outcrop study in Sandakan, NE Sabah, of Miocene shallow marine sandstone of Sandakan Fm. Shoreface to offshore transitional environments, with common Hummocky Cross Stratified sandstone)

Makeen, Y.M., M.H. Hakimi, W.H. Abdullah, K.A. Mustapha, M.H.A. Hassan, I.E. Shushan et al. (2020)- Basin modelling and bulk kinetics of heterogeneous organic-rich Nyalau Formation sediments of the Sarawak Basin, Malaysia. J. Petroleum Science Engineering 195, 107595, p. 1-15.
(online at: https://www.sciencedirect.com/science/article/pii/S092041052030663X)
(Late Oligocene- E Miocene Nyalau Fm of Sarawak y remarkable source rock for oil-gas. Basin modelling in the offshore basin suggests onset of petroleum generation from Nyalau in E Miocene (23-16 Ma), and peak generation in M Miocene (18-12 Ma). (?))

Makhankova, A., B. Sautter, M.J. Mathew, D. Menier & M. Poppelreiter (2021)- Seismic stratigraphy and sedimentology of a Miocene carbonate platform in Luconia, South China Sea. Geological Journal 56, 1, p. 1-17.
(Evolution of M Miocene isolated carbonate buildup of C Luconia. Five seismic units: (a) initiation as several isolated buildups, (b) coalescence, progradation and aggradation, (c) aggradation and retrogradation, associated with minor backstepping and major karstification, (d) retrogradation associated with major backstepping events, and (e) drowning stage)

Mansor, H.E., J. Asis & Meor H.A. Hassan (2017)- Oligocene-Miocene large benthic foraminifera from the Tajau Sandstone Member, Kudat Formation, Sabah. Proc. 30th National Geoscience Conference Exhib. (NGC 2017), Kuala Lumpur, DRG29-112, Warta Geologi (Newsletter Geological Society Malaysia) 43, 3, p. 220-221. *(Extended Abstract)*
(online at: https://gsmpubl.files.wordpress.com/2017/09/ngsm2017_032.pdf)
(Tajau Sst Member of Kudat Peninsula, Sabah, gently folded thick pebbly coarse sandstones with Late Oligocene (Te1-4) larger foram assemblage (Heterostegina borneensis, Lepidocyclina (Eulepidina), etc.))

Mansor, H.E. & Meor H.A. Hassan (2021)- Facies and bed type characteristics of channel-lobe transition deposits from the Oligocene-Miocene Tajau Sandstone Member, Kudat Formation, Sabah, Malaysia. Geological Journal 56, 11, p. 5642-5672.
(Channel-lobe transition zones of submarine fan complex exposed in Late Oligocene- E Miocene Tajau Sst of Kudat Fm, northern Sabah)

Mansor, H.E., Meor H.A. Hassan & J. Asis (2021)- A deep marine origin for the Tajau Sandstone Member of the Kudat Formation, Kudat Peninsula, Sabah: evidence from facies analysis and ichnology. Sains Malaysiana 50, 2, p. 301-313.
(online at: http://journalarticle.ukm.my/16490/1/3.pdf)
(Oligocene Tajau Sst on Kudat Peninsula, N. Sabah, deep marine facies)

Mansor, M.Y., J.W. Snedden, J.F. Sarg, B.S. Smith, T. Kolich & M. Carter (1999)- Pre-drill predictions versus post-drill results: use of sequence stratigraphic methods in reduction of exploration risk, Sarawak deep-water blocks, Malaysia. J. Asian Earth Sciences 17, 1-2, p. 247-254.
(Sequence stratigraphic methods used to assess reservoir, source and seal distribution in Mobil-operated deep-water blocks of Sarawak. Wells Mulu-1 and Bako-1 penetrated high-quality shallow marine sandstone reservoirs in E-M Miocene. Lack of hydrocarbon charge may be due to position relative to coaly source. With small paleogeographic maps of E Miocene)

Mantaring, A., F. Matsuda & M. Okamoto (1995)- Analysis of overpressure zones at the southern margin of the Baram Delta Province and their implications to hydrocarbon expulsion, migration and entrapment. In: G.H. Teh (ed.) Proc.AAPG-GSM Int. Conference Southeast Asian basins; oil and gas for the 21st century, Kuala Lumpur 1994, Bull. Geological Society Malaysia 37, p. 179-190.
(online at: www.gsm.org.my/products/702001-100953-PDF.pdf)
(Baram Delta province, on- and offshore N Sarawak, Malaysia, Brunei, with thick, rapidly deposited Late Eocene-Pleistocene marine- deltaic sediments, leading to common overpressure. Overpressure zones normally in thick

marine claystones below or at base of major oil and gas accumulation. Onshore Sarawak, S of Baram Delta Province thick Late Eocene- Miocene uplifted after latest Miocene, with abnormal pressure zones in three different settings)

Mathew, M.J. (2016)- Geomorphology and morphotectonic analysis of North Borneo. Doct. Thesis, Universite de Bretagne Loire, p. 1-140.
(online at: www.theses.fr/2016LORIS408.pdf)
(Collection of papers on geomorphology and morphotectonic analysis of Rajang and Baram drainage basins of Sarawak. Characterized by high denudation rates since Miocene. At end of Miocene rapid uplift of possibly whole Interior Highlands and coastal areas of Sarawak. Enhanced post 5 Ma erosion rates led to rapid progradation of deltas and Plio-Quaternary sediments that reach thicknesses of >6 km)

Mathew, M., A. Makhankova, D. Menier, B. Sautter, C. Betzler & B. Pierson (2020)- The emergence of Miocene reefs in South China Sea and its resilient adaptability under varying eustatic, climatic and oceanographic conditions. Nature Scientific Reports 10, 7141, p. 1-16.
(online at: www.nature.com/articles/s41598-020-64119-9.pdf)
(During Miocene, extensive carbonate deposition over wide ranges in SE Asia despite perturbations of global climate and thermohaline circulation. Mechanisms of its emergence, adaptability in siliciclastic-dominated margins and demise, especially in southern S China Sea (meaning mainly offhore Sarawak, N Borneo; JTvG) remain enigmatic. Evolution of carbonate platforms ~15.5-9.5Ma initially tied to tectonics and eustasy, and after ~9.5Ma, to changes in global climate)

Mathew, M.J., D. Menier, A.H. Abdul Rahman, N.A. Siddiqui, M. Pubellier & M. Hassaan (2014)- Tertiary Sarawak Basin origin: a small step in demystifying the ambiguity. AAPG International Conference & Exhibition, Istanbul 2014, Search and Discovery Article 10642, p. 1-9. *(Extended Abstract)*
(online at: www.searchanddiscovery.com/documents/2014/10642mathew/ndx_mathew.pdf)
(Oligocene- Recent tectonic subsidence plots from 7 offshore Sarawak wells show rapid initial subsidence and gradual decrease in subsidence rate with time, indicative of rift origin following McKenzie model)

Mathew, M.J., D. Menier, N.A. Siddiqui, S.G. Kumar & C. Authemayou (2016)- Active tectonic deformation along rejuvenated faults in tropical Borneo: inferences obtained from tectono-geomorphic evaluation. Geomorphology 267, p. 1-15.

Mathew, M.J., D. Menier, N.A. Siddiqui, M. Ramkumar, M. Santosh, S. Kumar & M. Hassaan (2016)- Drainage basin and topographic analysis of a tropical landscape: insights into surface and tectonic processes in northern Borneo. J. Asian Earth Sciences 124, p. 14-27.
(Geomorphic analysis of Rajang and Baram drainage basins, N Borneo. Landscape of N Borneo experienced rapid uplift after 5 Ma and undergoing active folding of Rajang Group thrust belts today)

Mat Zin, Ismail C. (1992)- Regional seismostratigraphic study of the Tembungo area, offshore West Sabah. Bull. Bull. Geological Society Malaysia 32, p. 109-134.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1992018.pdf)
(Seismic stratigraphic study of Late Miocene hydrocarbon-bearing Stage IVD turbidite sequence around Tembungo field, offshore W Sabah. Turbidite sequence, characterised by oblique seismic reflection pattern, deposited in sedimentary bypass system tract as result of wrench-related uplift of Bunbury-St. Joseph area)

Mat Zin, Ismail C. (1994)- Dent Group and its equivalent in the offshore Kinabatangan area, East Sabah. In: G.H. Teh (ed.) Petroleum Geology Conference VIII, Bull. Geological Society Malaysia 36, p. 127-143.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1994028.pd)
(Dent Peninsula in E Sabah with thick Miocene deltaics (Dent Group), unconformably overlying Oligocene - E Miocene (and older?) Segama Gp conglomeratic rocks with ultrabasic, etc. boulders. Onshore Dent Peninsula Togopi Fm mainly marls, Ganduman Fm delta plain deposits grading to shallow marine deltaic and marine eastward, argillaceous Sabahat Fm marine deposit) Three major uplifts of regional significance occurred in E Miocene (deformation of Segama Gp), Late Miocene and Late Pliocene times)

Mat Zin, Ismail C. (1996)- Tertiary tectonics and sedimentation history of the Sarawak basin, East Malaysia. Ph.D. Thesis Durham University, p. 1-277.
(online at: http://etheses.dur.ac.uk/5198/1/5198_2651.PDF)
(Seismic stratigraphic study of offshore Sarawak Basin. Seven regional unconformities in Tertiary sedimentary succession of Sarawak Basin, some related to eustatic sea-level falls; others probably tectonic in origin. Sarawak Basin best explained as result of NW-SE trending right lateral fault movement in Oligocene- Pliocene. Rapid subsidence in early stage of basin formation. Tectonism in region combination of strike-slip movements and counter-clockwise rotation of Borneo in Oligo-Miocene. Five major dextral strike-slip lineaments: Igan-Oya Line, Mukah Line, W Balingian Line, Tinjar Line and W Baram Line)

Mat Zin, Ismail C. (1997)- Tectonics evolution and sedimentation history of the Sarawak Basin. In: G.H. Teh (ed.) Petroleum Geology Conference '96, Kuala Lumpur, Bull. Geological Society Malaysia 41, p. 41-52.
(online at: www.gsm.org.my/products/702001-100871-PDF.pdf)
(Seismic stratigraphy of offshore Sarawak Basin shows 7 unconformities in Tertiary section. Development of basin started in late Oligocene, with deposition along coastline in NW-SE direction (along ~W Balingian Line; parallel to major structural lineaments) and became oriented to present day NE-SW direction in Late Miocene. Basin formed as result of NW-SE trending right-lateral fault movement in Late Oligocene-Miocene. Deposition and preservation of coastal plain and shallow marine sediments continued in E, while W area remained as high until Late Miocene)

Mat Zin, Ismail C. (1997)- Subsidence history of Sarawak Basin. Proc. 6th Asean Council on Petroleum Conference and Exhibition (ASCOPE 97), Jakarta, 1, p. 107-127.

Mat Zin, Ismail C. (1998)- Subsidence nature of a strike-slip related basin: an example learned from the Sarawak Basin. In: G.H. Teh (ed.) Petroleum geology conference 1997, Bull. Geological Society Malaysia 42, p. 63-83.
(online at: www.gsm.org.my/products/702001-100855-PDF.pdf)
(Subsidence profile of Sarawak Basin suggests basin formed by strike-slip tectonism, not foreland lithospheric flexure by subduction of S China Sea oceanic crust beneath NW Sarawak. Burial history curves for wells show rapid early subsidence followed by later phase of slower subsidence, indicative of rift-type tectonic origin. These are followed by compressional basin inversion events or continued with thermal subsidence similar to rift basin profile. Stretching factors and heat-flow show consistent with strike-slip tectonics)

Mat Zin, Ismail C. (1999)- Tertiary tectonic model of North-West Borneo. In: G.H. Teh (ed.) Proc. 9th Regional Congress Geology Mineral Energy Resources of SE Asia (GEOSEA '98), Kuala Lumpur 1998, Bull. Geological Society Malaysia 43, p. 417-432.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1999042.pdf)
(Sarawak Basin dominated by NE-SW strike-slip tectonism. Onshore Lupar Melange Lupar Melange in SW Sarawak ~20 km wide, composed of blocks in sheared pelitic matrix with Lower Eocene microfauna; chert blocks with E-M Cretaceous radiolaria. Commonly interpreted as subduction melange, but may beformed by strike-slip tectonics. Eight other NW-SE trending strike slip zones identified on- and offshore Sarawak)

Mat Zin, Ismail C. (2000)- Stratigraphic position of the Rangsi Conglomerate in Sarawak. In: G.H. Teh et al. (ed.) Geological Society Malaysia Annual Conference 2000, Pulau Pinang, p. 131-136.
(online at: https://gsmpubl.files.wordpress.com/2014/10/agc2000_18.pdf)
(Rangsi conglomerate that outcropping in Tatau Horst area in Sarawak long regarded as (Late Eocene) basal unit of Tatau Fm. Seismic stratigraphic suggests Rangsi conglomerate much younger than Tatau Fm, possibly equivalent to Balingian Fm of Late Miocene age. 'Tatau Horst' not extensional horst, but positive flower structure, formed as result of Miocene transpressional strike-slip episode)

Mat Zin, Ismail C. & J. Sipan (1994)- Application of sequence stratigraphic techniques on the non-marine sequences: an example from the Balingian Province, Sarawak. Bull. Geological Society Malaysia 36, p. 105-117.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1994026.pdf)

(Sequence stratigraphic interpretation of non-marine lower coastal plain deposits of late Oligocene- E Miocene sediments Cycle I and II in onshore Balingian Province, onshore C Sarawak)

Mat Zin, Ismail C. & R.E. Swarbrick (1997)- The tectonic evolution and associated sedimentation history of Sarawak Basin, eastern Malaysia: a guide for future hydrocarbon exploration. In: A.J. Fraser, S.J. Matthews & R.W. Murphy (eds.) Petroleum Geology of Southeast Asia. Geological Society, London, Special Publ. 126, p. 237-245.
(Seismic-stratigraphy of offshore Sarawak shows seven unconformities in Tertiary sediments, Development of Sarawak Basin started in Late Oligocene with deposition along NW-SE coastline, perpendicular to present-day coastline. Coastline oriented to present-day NE-SW in Late Miocene. Oils generated from land plant dominated source rocks. Basin formed as result of Late Oligocene- Miocene NW-SE trending right-lateral fault movement. Movement progressive younging in E-ward direction)

Mat Zin, Ismail C. & M.E. Tucker (1999)- An alternative stratigraphic scheme for the Sarawak Basin. J. Asian Earth Sciences 17, 1-2, p. 215-232.
(Sequence stratigraphic model of Sarawak basin. Eight major sequences in mid-Oligocene- Pleistocene, separated by seven regional unconformities. Oldest unconformity between basement (Belaga Fm) and overlying Late Oligocene sediments. New sequences named T1S- T7S. Sequences probably tectonically induced, rather than related to global eustatic sea-level falls.)

Maulana, H. & H.S. Hakimi (2013)- Mass Transport Complex (MTC) control on the basin floor stratigraphic succession and sand deposition: an observation from deepwater Brunei. Berita Sedimentologi 28, p. 41-44.
(online at: www.iagi.or.id/fosi/berita-sedimentologi-no-28-borneo.html)
(Description of large, recent Brunei Mega mass transport complex, sourced from Baram Canyon)

Maulana, H., F. Mosca, W. Dharmasamadhi & Y. Yunus (2017)- 3D basin modeling for hydrocarbon phase prediction using geochemical properties of coals from North Luconia Basin, ofshore Malaysia and Nam Con Son Basin, offshore Vietnam. Proc. Asia Petroleum Geoscience Conference and Exhibition (APGCE 2017), EAGE, Kuala Lumpur, 43093, p. 256-259. *(Extended Abstract)*

Mazumder, R., F.B.M. Anthony, B.T.S. Say, S. Roy, A. Al Hajri, T. Ohta, S. De & O. Catuneanu (2021)- Cretaceous fore-arc sedimentation and contemporary basin tectonics in Northwestern Borneo: new sedimentological insights from Pedawan formation, Kuching zone, East Malaysia. Journal of Geology 129, 4, p. 391-415.
(Cretaceous Pedawan Fm in Kuching Zone compositionally and texturally immature. Lower Pedawan Fm mudstone-dominated, progressively more sandstone upward. Deformed horizons interpreted as seismites. Provenance recycled orogenic and arc. Formed in turbiditic deepwater depositional setting as part of long-lived subduction complex in E Sundaland during which several crustal fragments accreted to Borneo)

Mazumder, R., S. De, B. Teo Jun Sien, J. Tang Zhong Heng, O. Catuneanu, R.Yang & S.Marriott (2021)- Causes and consequences of Oligocene-Miocene relative sea level change in Asia: an example from the Labuan Island (Sabah), Malaysia. J. Asian Earth Sciences 212, 104746, p. 1-15.
(Labuan Island emergent part of NE-plunging anticline. Stratigraphic succession: Crocker Fm, Temburong Fm, Setap shale Fm and Belait Fm)

McDonald, R.C. (1985)- Tower karst geomorphology in northern Borneo. Zeitschrift fur Geomorphologie, N.F., 29, 4, p. 483-495. *(online at: https://www.researchgate.net/publication/323643383_Tower_karst_geomorphology_in_northern_Borneo)*
(Investigation of Miocene Melinau Limestone topography in Mulu area of Sarawak)

McGilvery, T.A. & D.L. Cook (2003)- The influence of local gradients on accommodation space and linked depositional elements across a stepped slope profile, offshore Brunei. In: H.R. Roberts et al. (eds.) Shelf margin deltas and linked down slope petroleum systems: global significance and future exploration potential, Proc. 23rd Annual Bob F. Perkins Research Conference, Gulf Coast Section SEPM (GCSSEPM), p. 387-419.

(Review of sediment deposition on modern continental slope offshore Brunei)

McGilvery, T.A. & D.L. Cook (2004)- Depositional elements of the slope/basin depositional system Offshore Brunei. In: R.A. Noble et al. (eds.) Proc. Deepwater and Frontier Exploration in Asia & Australia Symposium, Jakarta, Indonesian Petroleum Association (IPA), DFE04-OR-019, p. 1-13.
(Modern continental slope deposition off Brunei. 'Stepped slope' resulting from basinward thrusting and deltaic sediment loading. Elongate, structurally controlled mini-basins 2-10 km wide, 20-60 kmlong. Primary elements: 1) Sediment dispersal fairways 2-5 km wide; 2) Distributary channel/lobe complexes of sheet deposits and low relief channels; 3) Mass wasting features; 4) Submarine canyons developed by mass wasting along forelimbs of thrust structures)

McGilvery, T.A. & D.L.Cook (2004)- Flow paths and water bottom gradients across a stepped slope profile, Offshore Brunei. In: R.A. Noble et al. (eds.) Proc. Deepwater and Frontier Exploration in Asia & Australia Symposium, Jakarta, Indonesian Petroleum Association (IPA), DFE04-PO-020, p. 1-7.

McGilvery, T.A., G. Haddad & D.L.Cook (2004)- Seafloor and shallow subsurface examples of mass transport complexes, Offshore Brunei. Proc. Offshore Technology Conference (OTC), Houston, 16780, p. *(Extended Abstract)*

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(online at: www.gsm.org.my/products/702001-101686-PDF.pdf)
(Seismic profiles and maps description of 500m diameter mud volcano caldera at 1100m water depth offshore Sabah. Mud volcano overlies toe-thrust anticline and has well-defined caldera)

McGiveron, S. & J. Jong (2018)- A case study and model of shallow water flow (SWF) from Sabah deepwater drilling operations, offshore Malaysia. Warta Geologi (Newsletter Geological Society Malaysia) 44, 2, p. 39-47.
(online at: gsmpubl.files.wordpress.com/2018/08/ngsm2018_02.pdf)
(Shallow water flow in Mass Transport Deposits in deepwater wells off NW Sabah)

McGiveron, S. & J. Jong (2018)- Complex geothermal gradients and their implications, deepwater Sabah, Malaysia. Bull. Geological Society Malaysia 66, p. 15-23.
(online at: https://gsm.org.my/products/702001-101760-PDF.pdf)

McManus, J. & R.B. Tate (1983)- Obduction in Sabah. Proc. SE Asia Petroleum Exploration Society (SEAPEX) 6, p. 58-65.
(Part of Sulu Sea floor (Late Cretaceous-Eocene 'chert-spilite Fm' of Darvel Bay and associated ultrabasic rocks) obducted in Early Miocene(?) onto N margin of Borneo microcontinent. Intensely sheared and imbricated. Resting on partly metamorphosed sediments of Eocene- Oligocene age (Ta- Te1-4))

McManus, J. & R.B. Tate (1986)- Mud volcanoes and the origin of certain chaotic deposits in Sabah, East Malaysia. In: G.H. Teh & S. Paramananthan (eds.) Proc. 5th Regional Congress Geology Mineral Energy Resources of SE Asia (GEOSEA V), Kuala Lumpur 1984, 1, Bull. Geological Society Malaysia 19, p. 193-205.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1986016.pdf)
(Chaotic deposits common in post-Eocene in Sabah and mapped as slump breccias, but probably products of mud volcanism (Garinono, Wariu, Kuamut, Ayer Fms). Mud volcanism linked to M Miocene collisional event)

McMonagle, L.B. (2008)- Scleractinian reef-coral diversity in the Oligocene of Sabah, Borneo.
(online at: http://londonevolutionarynetwork.files.wordpress.com/2010/02/2008conferencebook.pdf)
(Abstract only. Modern Indo-W Pacific characterised by highest global species diversity in reef corals. Reef-coral fauna collected from Oligocene patch-reef facies in Gomantong Fm of Sabah, Malaysia (late Early to early Late Oligocene) doubled number of coral species previously known from Oligocene of Borneo, and suggests apparent paucity of Paleogene corals from SE Asia could be result of sampling bias. Coral diversification had occurred by Early Oligocene, rather than at Oligocene/Miocene boundary)

McMonagle, L.B., P. Lunt, M.E.J. Wilson, K.G. Johnson, C. Manning & J. Young (2011)- A re-assessment of age dating of fossiliferous limestones in eastern Sabah, Borneo: implications for understanding the origins of the Indo-Pacific marine biodiversity hotspot. Palaeogeogr. Palaeoclim. Palaeoecology 305, p. 28-42.
(Shallow marine limestones rel. rare onshore N Borneo and show punctuated development, in area underlain by oceanic crust and dominated by deep marine sedimentation. Re-dating of limestones in E Sabah: (1) Lower Kinabatangan Lst mid-Oligocene (coral-rich, larger foram zone Te1, nannofossil zone NP24, Sr isotope ages 28.8-27.6 Ma); (2) Gomantong Lst Early Miocene (Larger foram zone Te5/earliest Tf1, Sr age 21.0 Ma); (3) Togopi Limestone with Alveolinella quoyi and abraded Calcarina (Pliocene-Pleistocene; Sr age 1.72 Ma)

Meju, M.A., A.S. Saleh, A.B. Karpiah, P.S. Das, R.V. Miller, J.H.W. Kho, B.G.T. Alleyne, E.D. Rice-Oxley & X. Legrand (2024)- Upper mantle flow and crustal deformation patterns beneath the Dangerous Grounds and Borneo where multiple plates converge in South China Sea revealed by 3-D anisotropic magnetotelluric imaging. Geophysical J. International 239, 3, p. 1879-1899.
(online at: https://academic.oup.com/gji/article/239/3/1879/7842021)
(Petronas/EMGS supra-regional magnetotelluric (MT) study acquired offshore N Borneo to understand lithospheric structure in complex region where three tectonic plates converge)

Menier, D., M. Mathew, M. Pubellier, F. Sapin, B. Delcaillau, N. Siddiqui, M. Ramkumar & M. Santosh (2017)- Landscape response to progressive tectonic and climatic forcing in NW Borneo: implications for geological and geomorphic controls on flood hazard. Nature Scientific Reports 7, 457, p. 1-18.
(online at: https://www.nature.com/articles/s41598-017-00620-y.pdf)
(On consequences of uplift and orographic-precipitation on evolution of orogens and landscapes of NW Sabah)

Menier, D., B. Pierson, A. Chalabi, K.K. Ting & M. Pubellier (2014)- Morphological indicators of structural control, relative sea-level fluctuations and platform drowning on present-day and Miocene carbonate platforms. Marine and Petroleum Geology 58, B, p. 776-788.
(online at: https://seacarledu.files.wordpress.com/2016/06/menier-and-others-2014.pdf)
(Analysis of seismic morphologies of M-L Miocene carbonate platforms of C Luconia Platform off Sarawak (mainly 'Mega-Platform') and satellite images of possible Recent analogues in Tun Sakaran Marine Park, S Sulu Sea, off Sabah)

Meor, H.Hassan, H.D. Johnson, P.A. Allison & Wan H. Abdullah (2013)- Sedimentology and stratigraphic development of the upper Nyalau Formation (Early Miocene), Sarawak, Malaysia: a mixed wave- and tide-influenced coastal system. J. Asian Earth Sciences 76, p. 301-311.
(online at: https://umexpert.um.edu.my/file/publication/00004125_92877.pdf)
(Facies analysis of Lower Miocene U Nyalau Fm, exposed around Bintulu, Sarawak. Wave- and tide-dominated coastal system (shoreface, fluvio-tidal channels, bay and mangrove facies associations))

Meor, H.Hassan, H.D. Johnson, P.A. Allison & Wan H. Abdullah (2017)- Sedimentology and stratigraphic architecture of a Miocene retrogradational, tide-dominated delta system: Balingian Province, offshore Sarawak, Malaysia. In: G.J. Hampson et al. (eds.) Sedimentology of paralic reservoirs: recent advances, Geological Society, London, Special Publ. 444, p. 215-250.
(Balingian Province of NW Borneo with oil production mainly from Early Miocene (cycle II) coastal plain deposits. Four types of vertical facies successions. Cycle II tide-dominated delta system, partly analogous to modern Rajang Delta and Lupar Embayment of S Sarawak. Fluvio-tidal channel and tide-dominated delta successions represent periods of progradation; wave-dominated shoreface and barrier lagoon successions during transgression and/or delta lobe abandonment. Several high-order sequences stacked into two lower-order, ~100-300m thick fining-upwards megasequences)

Metcalfe, I. (1985)- Lower Permian conodonts from the Terbat Formation. Warta Geologi (Newsletter Geological Society Malaysia), 11, 1, p. 1-4.
(online at: https://gsmpubl.files.wordpress.com/2014/09/ngsm1985001.pdf)

(Sparse uppermost Carboniferous- early Lower Permian conodont assemblage from Terbat Lst at Gunung Selabor near Indonesian border SSE of Kuching. First record of conodonts from N Borneo, incl. Anahignathodus and Streptognathodus elongatus. Color Alteration Index of 4 suggests heating to 190-300°C)

Mihaljevic, M. (2014)- The Eocene-Miocene evolution of coral reefs from the Central Indo-Pacific. Ph.D. Thesis, The University of Queenslandp. 1-275.
(Reconstructions of late M Eocene- E Miocene paleoenvironments and marine carbonate producers . Dominant carbonate producer changed from large benthic foraminifera to corals during Oligocene Increase in coral abundance led to change in carbonate platform type from ramp to isolated platforms. New coral collections in Oligo-Miocene of North Borneo and the Philippines)

Mihaljevic, M. (2019)- Oligocene-Miocene scleractinians from the Central Indo-Pacific: Malaysian Borneo and the Philippines. Palaeontologia Electronica 22.3.61, p. 1-55.
(online at: https://palaeo-electronica.org/content/pdfs/978.pdf)
(Late Oligocene- E Miocene corals from Sarawak (E Miocene Melinau and Subis Lst), Negros and Cebu (Late Oligocene, Philippines). 44 morphospecies, 30 genera)

Mihaljevic, M., W. Renema, K. Welsh & J.M. Pandolfi (2014)- Eocene- Miocene shallow-water carbonate platforms and increased habitat diversity in Sarawak, Malaysia. Palaios 29, 7, p. 378-391.
(online at: http://marinepalaeoecology.org/wp-content/uploads/2011/09/Mihaljevic-et-al-2014-PALAIOS.pdf)
(Indo-Pacific marine biodiversity hotspot originated between Late Eocene and E Miocene, coinciding with increase in availability of shallow-marine habitats driven by opening of S China Sea and collision of Australia with Pacific arcs and SE Asian margin. Carbonate platform environments in Sarawak (ramp-like late M Eocene-E Miocene Melinau carbonate platform and unattached basal Miocene Subis carbonate platform) suggest increase in habitat diversity from Eocene to Miocene. Corals first appear in Oligocene, but true reef facies not observed until Miocene)

Mihaljevic, M. & A.J. Rosenblatt (2018)- A new fossil species of *Clypeaster* (Echinoidea) from Malaysian Borneo and an overview of the Central Indo-Pacific echinoid fossil record. Swiss J. of Palaeontology 137, 2, p. 389-404.
(New E-M Miocene echinoid species from Sarawak, Clypeaster sarawakensis. Similar to modern C. rarispinus. Central Indo-Pacific echinoid fossil record shows rapid diversity increase at Oligocene-Miocene boundary)

Milroy, W.V. (1953)- Geology of West Sarawak with notes on the palaeontology of west Sarawak by W.E. Crew and comments on the geology of W Sarawak by P. Liechti. Report GR602, Royal Dutch Shell, p. *(Unpublished)*
(Hashimoto et al. 1975, p. 286: incl. occurrence of Maastrichtian larger foram Lepidorbitoides cf blanfoldi in Engkilili Fm)

Milsom, J., R.A. Holt, C.S. Hutchison, S.C. Bergman, D.A. Swauger & J.E. Graves (2001)- Discussion of a Miocene collisional belt in North Borneo: uplift mechanism and isostatic adjustment quantified by thermochronology. J. Geological Society, London, 158, p. 396-400.
(Milsom & Holt critique of Hutchison et al. (2000) paper 'Miocene collisional belt N Borneo', and reply by Hutchison. Hutchison et al. interpretations of deep structure of Sabah incompatible with Holt (1998) data on gravity field)

Milsom, J., R. Holt, D.B. Ayub & R. Smail (1997)- Gravity anomalies and deep structural controls at the Sabah-Palawan margin, South China Sea. In: A.J. Fraser, S.J. Matthews & R.W. Murphy (eds.) Petroleum Geology of Southeast Asia, Geological Society, London, Special Publ. 126, p. 417-427.
(SE margin of S China Sea divided into segments with differing gravity patterns by NE-SW lineaments (W Baram-Tinjar Line, Balabac Line). Sabah Trough gravity low is foreland basin on extended continental crust of terrane derived from Eurasian margin (with Palawan), which collided with Sabah margin in E-M Miocene)

Mohamad, M. & J.J. Lobao (1997)- The Lingan Fan: Late Miocene-Early Pliocene turbidite fan complex, North West Sabah. In: J.V.C. Howes & R.A. Noble (eds.) Proc. Int. Conference Petroleum Systems of SE Asia & Australia, Jakarta, Indonesian Petroleum Association (IPA), p. 787-798.
(Seismic facies study of Late Miocene/Early Pliocene Lingan Fan complex of turbidite fans offshore NW Sabah. Fan system divided into 4 seismic sequences. Turbidite systems first pond into higher, more proximal basins and reach more distal basins by successive fill and spill processes. Four seismic facies identified)

Mohamad, N.N., A.H.A. Rahman & M.S. Ismail (2020)- The geology and stratigraphic framework of the Kuching Zone Sarawak: current understanding and unresolved issues. Warta Geologi 46, 2, p. 52-58.
(online at: https://gsm.org.my/products/702001-101841-PDF.pdf)
(Geological record of Kuching Zone extends back to >300 Ma. Pre-Upper Carboniferous Kerait Fm metamorphics are oldest rock. U Triassic Serian arc volcanics. U Jurassic- Cretaceous marine sediments. Late Mesozoic metamorphics assigned to various formations with uncertain protoliths and origin, interpreted to be related to Cretaceous-Cenozoic accretionary setting. Still unresolved issues (see also Response by Breitfeld & Hall, 2021))

Mohamed, A., A.H. Abd Rahman & M.S. Ismail (2015)- Sedimentary facies of the West Crocker Formation North Kota Kinabalu-Tuaran Area, Sabah, Malaysia. Journal of Physics: Conference Series 660, 012004, IOP Publishing, p. 1-6.
(online at: http://iopscience.iop.org/article/10.1088/1755-1315/30/1/012004/pdf)
(Sedimentology study of new outcrops in W Crocker Fm in Sabah suggests deposition in sand-rich submarine fan setting, with inner fan channel-levee complex, mid-fan channelised lobes, and outer fan facies)

Mohamed, Idris & O.C Meng (1992)- Sequence stratigraphy of Tertiary sediments offshore Sarawak (Balingian and Luconia provinces). In: Symposium on the Tectonic framework and energy resources of the western margin of the Pacific Basin. Warta Geologi (Newsletter Geological Society Malaysia) 18, 6, p. 277-278 *(Abstract only)*.

Mohammad, A.M. & R.H.F. Wong (1995)- Seismic sequence stratigraphy of the Tertiary sediments, offshore Sarawak deepwater area, Malaysia. In: G.H. Teh (ed.) Proc. AAPG-GSM Int. Conference 1994, Southeast Asian basins; oil and gas for the 21st century, Bull. Geological Society Malaysia 37, p. 345-361.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1995a26.pdf)
(Sarawak deepwater seismic sequence stratigrapy study identified eight sequences, grouped into four supersequences A, B, C and D, tied to regional tectonic events of S China Sea. Higher order sequences also interpreted from paleontologic, lithologic, paleofacies data and GR-logs from four wells. Four main seismic facies, ranging from non-marine to deepmarine. Seismic facies maps for Oligocene-Lower Miocene Ss C indicate all four facies, overall transgressive stacking, and NW-SE trending paleoshoreline. M Miocene-Recent Ss D suggests mainly outer shelf- deep marine facies and E-W trending paleoshoreline)

Mohammad, Y.b. Ali. & P. Abolins (1999)- Central Luconia Province. In: Petronas (1999) The petroleum geology and resources of Malaysia, p. 371-391.

Morgan, A.B. (1974)- Chemistry and mineralogy of garnet pyroxenites from Sabah, Malaysia. Contributions to Mineralogy and Petrology 48, p. 301-314.
(Garnet pyroxenites ('eclogites') and corundum-garnet amphibolites from Dent Peninsula of E Sabah occur as exotic blocks in Late Miocene slump breccia deposit of Segama Gp. Bulk composition and mineralogy similar to garnet pyroxenite lenses within ultramafic rocks. Estimated T and P for pyroxenites ~850° C and ~19 kbar (= mantle depth, ~65km?)

Morley, C.K. (2003)- Outcrop examples of mudstone intrusions from the Jerudong anticline, Brunei Darussalam and inferences for hydrocarbon reservoirs. In: P. van Rensbergen et al. (eds.) Subsurface sediment mobilization, Geological Society, London, Special Publ. 216, p. 381-394.
(Mudstone intrusions in Jerudong area represent natural hydraulic fractures developed above mobile mudstone diapir sourced from M Miocene Setap Fm. Intrusion geometries influenced by pre-existing normal faults)

Morley, C.K. (2007)- Interaction between critical wedge geometry and sediment supply in a deep-water fold belt. Geology (GSA) 35, 2, p. 139-142.
(On low angle dips of surface and basal detachment faults of Late Miocene–Holocene deep-water fold-and-thrust belt of offshore NW Borneo)

Morley, C.K. (2009)- Geometry of an oblique thrust fault zone in a deepwater fold belt from 3D seismic data. J. Structural Geology 31, 12, p. 1540-1555.
(Late Pliocene-Recent growth of 12 km long, deepwater anticline at distal margin of Baram Delta Province)

Morley, C.K. (2009)- Growth of folds in a deep-water setting. Geosphere 5, 2, p. 59-89.
(online at: https://www.researchgate.net/publication/249517943_Growth_of_folds_in_a_deep-water_setting)
(Seismic data of deep-water area off NW Borneo provide picture of interaction between sedimentary processes on continental slope and growth of major folds over time period of ~3.5-5 Ma)

Morley, C.K. & S. Back (2008)- Estimating hinterland exhumation from late orogenic basin volume, NW Borneo. J. Geological Society, London, 165, 1, p. 353-366.
(Miocene- recent sediment volumes for Baram Deltaic Province estimated. Volume restoration onto sediment source area determined exhumation of ~5 km from 17 Ma- Recent. Denudation for M Miocene, Late Miocene and Pliocene- Recent proceeded at similar rates. Initial uplift of central Borneo attributed to buoyancy of thinned continental crust that jammed subduction zone under NW Borneo in E Miocene. Absence of decay in erosion rates from M Miocene-Recent suggests additional uplift possibly related to slab detachment)

Morley, C.K., S. Back, P. van Rensbergen, P. Crevello & J.J. Lambiase (2003)- Characteristics of repeated, detached, Miocene-Pliocene tectonic inversion events in a large delta province on an active margin, Brunei Darussalam, Borneo. J. Structural Geology 25, p. 1147-1169.
(Baram Delta province evolved in M Miocene- present day from foreland basin to shelf margin. Episodic folding events caused uplift of hinterland, delta progradation and inversion of gravity-related faults. Region best understood as development of W-verging thrust belt in M Miocene foreland basin with major folds forming in M Miocene. Onshore thrust and inversion features dominantly N-S-trending and began activity in M Miocene. In Late Miocene (7.5 Ma) NE-SW inversion folds developed. Continuation of deformation into Pliocene largely confined to offshore; onshore N-S structures not reactivated in Pliocene)

Morley, C.K. & M. Burhannudinnur (1997)- Anatomy of growth fault zones in poorly lithified sandstones and shales: implications for reservoir studies and seismic interpretation: part 2, Seismic reflection geometries. Petroleum Geoscience 3, 3, p. 225-231.
(Seismic reflection data across growth faults off NW Borneo show many of small-scale fault geometries recognized in outcrop can also be interpreted on seismic data. Some fault zones single fault plane; others up to 1km wide bundles of overlapping fault planes connected by hard and soft linkage geometries)

Morley, C.K., P. Crevello & Z.H. Ahmad (1998)- Shale tectonics and deformation associated with active diapirism: the Jerudong Anticline, Brunei Darussalam. J. Geological Society, London, 155, p. 475-490.
(Jerudong anticline of Brunei outcrop example of multiple phases of diapir growth and interaction with country rock. N-S-trending anticline overlies high-angle transpressional basement fault zone. Deformation history: (1) M Miocene E-W to NE-SW-trending growth faulting and shale-diapir growth; (2) Late Miocene- E Pliocene transpression. Continued uplift and erosion elevated overpressured horizons to where hydraulic fracturing reached surface and Holocene-age mud volcanoes developed)

Morley, C.K., R. King, R. Hillis, M. Tingay & G. Backe (2011)- Deepwater fold and thrust belt classification, tectonics, structure and hydrocarbon prospectivity: a review. Earth-Science Reviews 104, p. 41-91.
(Overview of deepwater fold-thrust systems. Includes examples from NW Borneo)

Morley, C.K., W. Promrak, W. Apuanram, P. Chaiyo, S. Chantraprasert, D. Ong, A. Suphawajruksakul et al. (2022)- A major Miocene deepwater mud canopy system: The North Sabah- Pagasa Wedge, northwestern Borneo. Geosphere 19, p. 291-334.

(online at: https://pubs.geoscienceworld.org/gsa/geosphere/article/19/1/291/619254/A-major-Miocene-deepwater-mud-canopy-system-The)
(Key paper on enigmatic deepwater "shale nappe or thrust sheet" of N Sabah-Pagasa Wedge off Sabah, in region of major mobile shale activity with mini-basins, mud pipes, mud volcanoes, etc. Pagasa Wedge is shale-prone unit of folded and imbricated E-M Miocene sediment with slivers of Oligocene- E Miocene Nido Lst. Aarea of dense mud canopies (coalesced mud flows) development ~1900 km^2. Loading by up to 4 km thick clastics in series of mini-basins triggered mud volcanism in overpressured shales, which built extensive mud canopies and vent complexes. Extensive mud volcanoes indicates large volumes of gas had to be generated)

Morley, C.K., M. Tingay, R. Hillis & R. King (2008)- Relationship between structural style, overpressures, and modern stress, Baram Delta Province, northwest Borneo. J. of Geophysical Research: Solid Earth 113, B094101, p. 1-23.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/full/10.1029/2007JB005324)
(Baram Delta differs from most large (passive margin) deltas in location on active postcollisional margin. Structural style and evolution influenced both by gravity-driven deformation and regional stress. Key features: (1) late development of the toe fold and thrust belt (latest Miocene-Recent) with respect to 17 Ma recent development of growth faults on the shelf; (2) a narrow active region of extension on the outer shelf upper slope; (3) absence of well-developed shale diapirs; and (4) inner shelf onshore folding, thrusting, and growth fault inversion)

Morley, C.K., M. Tingay, J. Warren, P. Boonyasaknanon & A. Julapour (2014)- Comparison of modern fluid distribution, pressure and flow in sediments associated with anticlines growing in deepwater (Brunei) and continental environments (Iran). Marine and Petroleum Geology 51, p. 210-229.
(On structural development, overpressure generation and fluid type/migration in deep-water offshore Brunei and outcrops in Central Basin of Iran)

Morley, R.J. (1998)- Palynological evidence for Tertiary plant dispersals in the SE Asian region in relation to plate tectonics and climate. In: R. Hall & J.D. Holloway (eds.) Biogeography and geological evolution of SE Asia, Backhuys Publishers, Leiden, p. 211-234.
(online at; http://searg.rhul.ac.uk/publications/books/biogeography/biogeog_pdfs/Morley.pdf)
(Includes re-evaluation of Muller (1968) conclusions on palynological ages of Pedawan Fm (most likely Albian-Santonian) and Kayan/ Plateau sandstone (more likely Paleocene than Late Cretaceous-Eocene))

Morley, R.J., S.S. Hasan, H.P. Morley, J.H.M. Jais, A. Mansor, M.R. Aripin, M.H. Nordin & M.H. Rohaizar (2021)- Sequence biostratigraphic framework for the Oligocene to Pliocene of Malaysia: High-frequency depositional cycles driven by polar glaciation. Palaeogeogr. Palaeoclim. Palaeoecology 561, 110058, p. 1-37.
(online at: www.sciencedirect.com/science/article/pii/S003101822030506X)
(Quantitative biostratigraphic data from 101 wells in Malay, Sarawak and Sabah basins placed into Oligocene-Pliocene chronostratigraphic framework of 41 climate-driven transgressive-regressive cycles)

Morris, S.F. & J.S.H. Collins (1991)- Neogene crabs from Brunei, Sabah and Sarawak. Bull. British Museum (Natural History), Geology, 47, p. 1-33.
(online at: www.biodiversitylibrary.org/)
(Descriptions of 36 species of Mio-Pliocene crab fossils from 17 localities in NW Borneo. Abnormally high proportion of leucosiids)

Morrison, K. & W.C. Lee (2003)- Sequence stratigraphic framework of Northwest Borneo. In: G.H. Teh (ed.) Petroleum Geology Conference Exh. 2002, Bull. Geological Society Malaysia 47, p. 127-138.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm2003a09.pdf)
(Eocene- Recent depositional sequences of Sarawak, Sabah and Brunei, tied to Haq et al. (1988) global cycle chart. Major regional unconformities (mostly tectonic events): near Base Miocene/22.2 Ma; Deep Regional Unconformity/ 15.5 Ma; late Middle Miocene/12.1 Ma/uplift event; early Late Miocene/10.6 Ma/eustatic, Shallow regional Unconformity/Late Miocene/8.5 Ma; latest Miocene/5.6 Ma/ eustatic; latest Pliocene/~2 Ma/compression)

Motley, J. (1852)- Report on the geological phenomena on the island of Labuan and neighborhood. J. Indian Archipelago and Eastern Asia, Singapore, 6, 10, p. 555-573.
(Labuan island off Sabah, where coal was mined by British companies between 1847 and 1911)

Muda, J. (2010)- Oil seepages at Kampung Minyak, Kudat Peninsula, Northern Sabah: potential for geotourism development. Bull. Geological Society Malaysia 54, p. 49-52.
(online at: http://geology.um.edu.my/gsmpublic/BGSM/bgsm56/bgsm2010007.pdf)
(On oil seeps on Kudat Peninsula in NW Sabah, known since late 1800's, emanating from E Miocene Kudat Fm clastics, and its tourism potential(but no commercial hydrocarbons in onshore Sabah area))

Mubin, M., S. Jirin, Z.Z.T. Harith, M. Fauzi, A. Kadir, A.A.S. Shamsuddin & A.F.A. Ghani (2022)- Insights on deepwater turbidite sedimentary features from outcrops in onshore Northwest Sabah, Malaysia. Proc. Int. Conf. Earth Resources (ICER 2020), Sarawak 2021, IOP Conference Series: Earth and Environmental Science 1003, 012007, p. 1-18. *(also in Proc. APGCE 2022, Kuala Lumpur)*
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1003/1/012007/pdf)
(Sedimentary features in Oligocene-Miocene deepwater turbiditic outcrops in NW Sabah)

Muda, J. & F. Tongkul (2008)- Geoheritage resources of the Baliajong River: Potential for geotourism development. Bull. Geological Society Malaysia 54, p. 139-145.
(online at: http://geology.um.edu.my/gsmpublic/BGSM/bgsm54/bgsm2008021.pdf)
(Baliajong River ~3 km NE of Tandek, E of Marudu Bay, N Sabah, with outcrop of Lower Cretaceous-Paleocene oceanic crust (formerly 'Chert-spilite Fm'), comprising N-S trending imbricated gabbro and interbedded pillow basalts and mid-Cretaceous red, bedded radiolarian cherts, forming basement rock of N Sabah. Deformed basement overlain by Miocene (22-15 Ma) Crocker Fm clastics, which were folded at 15 Ma. Failed manganese mining operation in 1903-1908. Area promoted as geotourism destination)

Mueller, F.P. (1915)- Tektite from British Borneo. Geological Magazine, ser. 6, 2, 5, p. 206-211.
(online at: http://doc.rero.ch/record/303887/files/S0016756800177726.pdf)
(Four black lustrous tektites 1.5-3 cm in diameter, found in 1913 near Tutong Station, SW of Brunei town, washed out of white quartz sand 1-2' below surface, in terrace deposit ~40' above sea level. With first map of distribution of billitonites/ tektites of Malaysia- Indonesian region?)

Muff, R. (1990)- Geological, geochemical, and ore microscopic investigations of the massive, cupriferous sulfide occurrences at West Sualog in the Bidu Bidu Ophiolite Complex, Sabah, East Malaysia. In: Mineral resources investigation in Sabah, East Malaysia, 1980-1984, Geologisches Jahrbuch B74, p. 65-95.
(On stratabound copper-bearing massive sulphides in upper part of basic volcanic sequence of ophiolite complex in U Cretaceous- Eocene Sabah Melange Complex, overlain by fine-clastic sedimentary rocks)

Muhamad, Abdul J. & M.J. Hoesni (1992)- Possible source for the Tembungo oils: evidence from biomarker fingerprints. Bull. Geological Society Malaysia 32, p. 213-232.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1992023.pdf)
(Tembungo field off NW Sabah faulted anticline, with similar oils in Late Miocene sandstones in different fault blocks: paraffinic, low sulfur and waxy. Biomarkers suggest terrigenous source rocks with abundant land plant organic matter)

Muller, J. (1964)- Palynological contributions to the history of Tertiary vegetation in N.W. Borneo. In: D. Murchison & T.S. Westoll (eds.) Coal and coal-bearing strata, Elsevier Publishing, Amsterdam, p. 39-40.

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Muller, J. (1964)- Montane pollen from the Tertiary of NW. Borneo. Blumea 14, 1, p. 231-235.
(online at: https://repository.naturalis.nl/pub/524733/BLUM1966014001006.pdf)

(Part of Jan Muller's pioneering work on SE Asia Tertiary palynology during his stay in Borneo with Shell from 1958-1964. Majority of spores-pollen in Oligocene- Pliocene sediments of NW Borneo derived from various types of tropical lowland vegetation such as mangrove, peat swamp forest and mixed Dipterocarp forest. Some pollen types reflect montane vegetation, including Podocarpus imbricatus and types of Phyllocladus, Pinus, Picea, Tsuga, Ephedra and Alnus. Many of these 'Asiatic montane' pollen are all mainland Asia types that do not occur in Borneo mountains today.Their presence suggests a mountainous area bordering the basins of deposition)

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(online at: www.micropress.org/micropen2/articles/1/4/58391_articles_article_file_1406.pdf)
(Pioneering study of palynology of U Cretaceous- Eocene section of Sarawak. Pedawan Fm is of Cenomanian-Turonian age, Plateau Sandstone of Senonian- Eocene age (Senonian age of basal Plateau Sst supported by Said et al. (1996) but Plateau Sst mainly viewed as Paleocene- E Eocene by Morley (1998), Hutchison (2005))

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(online at: https://pdfs.semanticscholar.org/a33d/3d8228d73ea9448301c8c132dea1d224a1af.pdf)
(Geological mapping of proposed Baleh National Park, Sarawak, in 2015. Plateau underlain by volcanic rocks, E-W mountain chains by deep marine interbedded slate, siltstone, sandstone and mud clast conglomerate of Layar Mb of Late Cretaceous Belaga Fm. Bukit Tiban cliffs formed of Late Miocene volcanic eruption)

Murtaza, M., A.R.A. Hadi, J. Mutterlose, N. Najla & M.B. Nasir (2020)- The first record of belemnite genus *Hibolithes* from Late Jurassic- Early Cretaceous turbidites from Malaysia. Acta Geologica Sinica (English Edition) 95, 2, p. 333-341.
(Fragments of belemnite genus Hibolithes in Jurassic- Cretaceous Pedawan Fm in Sarawak. Probably Tithonian-Hauterivian age. Occurrence of Hibolithes reflects near-global distribution of this genus (Hibolithes is widespread in Late Jurassic of Tethyan realm; JTvG))

Murtaza, M., A.R.A. Hadi, & C.W. Sum (2015)- The shallow marine succession of Begrih Formation (Pliocene), Mukah Area, Sarawak: facies, stratigraphic characteristics, and paleoenvironmental interpretation. In: M. Awang et al. (eds.) 3rd Int. Conference Integrated Petroleum Engineering and Geosciences (ICIPEG2014), Kuala Lumpur 2014, Springer Verlag, p. 337-362.
(Facies analysis of Pliocene Begrih Fm exposed along Mukah-Selangau road, NW Sarawak. 15 facies deposited in shallow marine setting with pronounced storms, wave, fluvial, and tidal influence)

Murtaza, M., A.R.A. Hadi, C.W. Sum & Z. Konjing (2018)- Facies associations, depositional environments and stratigraphic framework of the Early Miocene-Pleistocene successions of the Mukah-Balingian area, Sarawak, Malaysia. J. Asian Earth Sciences 152, p. 23-38.
(Outcrop sections along Mukah-Selangau road dominated by fluvial, floodplain and estuarine related coal-bearing deposits (E-M Miocene Balingian, Late Miocene Begrih and M Pliocene- Pleistocene Liang Fms). Multiple regressive-transgressive cycles, with sediments derived from uplifted Penian high and Rajang Gp)

Mustafar, M.A., W.J.F. Simons, K.M. Omar & B.A.C. Ambrosius (2014)- Monitoring of local deformations in North Borneo. In: 25th Congress Int. Federation Surveyors (FIG), Kuala Lumpur, TS11, p. 1-12.
(online at: www.fig.net/resources/proceedings/fig_proceedings/fig2014/papers/ts11a/)

Mustafar, M.A., W.J.F. Simons, F. Tongkul, C. Satirapod, K.M. Omar & P.N.A.M. Visser (2017)- Quantifying deformation in North Borneo with GPS. J. Geodesy 91, p. 1241-1259.
(online at: https://link.springer.com/content/pdf/10.1007%2Fs00190-017-1024-z.pdf)
(GPS survey results indicate extension along coastal regions of Sarawak and Brunei (5-9 mm/ year W-directed movement) but strain rate tensors in Sabah reveal only insignificant extension, while compression occurs throughout NW Borneo. CW microblock rotation of N part of N Borneo. Low subsidence rates along W coast of Sabah, but inconsistent trends between Crocker and Trusmadi Mts. Unable to confirm hypothesis of gravity

sliding as main driving force. Ongoing Sundaland- Philippine Sea plate convergence may still play role in present-day deformation)

Mustapha, K.A. & W.H. Abdullah (2013)- Petroleum source rock evaluation of the Sebahat and Ganduman Formations, Dent Peninsula, Eastern Sabah, Malaysia. J. Asian Earth Sciences 76, p. 346-355.
(Evaluation of petroleum potential of M Miocene- E Pliocene Sebahat Fm and Pliocene Ganduman Fm. Thermally immature onshore, but continue into Sandakan sub-basin of S Sulu Sea)

Mustapha, K.A., W.H. Abdullah, Z. Konjing, S.S. Gee & A.M. Koraini (2017)- Organic geochemistry and palynology of coals and coal-bearing mangrove sediments of the Neogene Sandakan Formation, Northeast Sabah, Malaysia. Catena 158, p. 30-45.
(Coals in mangrove sediments of Sandakan Fm of Sandakan Peninsulawith vitrinite reflectance (Ro) 0.31-0.49%, indicating immature- very early mature for hydrocarbon generation. Dominated by Type III kerogen, with some Type II/III. Presence of dinoflagellate cysts and offshore mudstones consistent with rel. high sulphur content from marine inundations. Palynomorphs with abundant mangrove and freshwater pollen Presence of Florschuetzia levipoli, F. meridionalis and F. semilobata suggests E-M Miocene age)

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(online at: https://www.researchgate.net/publication/285768130_The_Bau_Gold_District-East_Malaysia)
(Gold and platinum in Miocene fault-controlled veins and replacements in 500m thick U Jurassic- Lower Cretaceous Bau Limestone in SW Sarawak. Associated with NNE-striking belt of M Miocene granodiorite porphyry stocks and dykes. Oldest rocks Late Triassic- Jurassic Serian andesitic volcanics and coeval intrusives. Antimony ore mining in area by Chinese since 1820, increasing significantly after 1850)

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(Massive copper-bearing pyrite mineralization in sequence of altered basalt and mudstone close to contact with ultrabasic rocks)

Nagano, K., S. Takenouchi, H. Imai & T. Shoji (1977)- Fluid inclusion study of the Mamut porphyry copper deposit, Sabah, Malaysia. Mining Geology 27, 143, p. 201-212.
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(Provenance study of Miocene Sibuti Fm clastics, Sarawak, suggests recycled continental nature, mainly from metasedimentary source (Rajang Fm) in collision zone)

Nagarajan, R., J.S. Armstrong-Altrin, F.L. Kessler & J. Jong (2017)- Petrological and geochemical constraints on provenance, paleoweathering, and tectonic setting of clastic sediments from the Neogene Lambir and Sibuti Formations, Northwest Borneo. In: R. Mazumder (ed.) Sediment provenance: influences on compositional change from source to sink, Chapter 7, Elsevier, Amsterdam, p. 123-153.
(Petrography and geochemistry suggest Miocene Lambir and Sibuti Fms clastics derived from recycled sedimentary/metasedimentary sources in evolving passive-to-active continental margin setting)

Nagarajan, R., J. Jong & F.L. Kessler (2017)- Provenance of the Neogene sedimentary rocks from the Tukau and Belait Formations, Northeastern Borneo by mineralogy and geochemistry. Warta Geologi 43, 2, p. 10-16.
(online at: https://gsmpubl.files.wordpress.com/2017/09/ngsm2017_02.pdf)

(Miocene quartz-rich clastics of Tukau and Belait Fms sourced from area comparable to Rajang-Crocker mountain belt in Borneo hinterland. Tukau Fm supplied from moderately-weathered continental hinterland composed of acidic igneous and/or metamorphic lithologies, and older sediments. Miocene Belait Fm reflects stronger weathering and significant input of mafic minerals (i.e. biotite, Mg-chromites))

Nagarajan, R., F.L. Kessler, J. Jong, R. Muthuvairavasamy, A.A. Muhammad, V. Dayong, L. Shanmugarajah, N. Vusak, K. Sivanasvaran & D. Kinanthi (2021)- Geochemistry of the Palaeocene-Eocene Upper Kelalan Formation, NW Borneo: implications on palaeoweathering, tectonic setting, and provenance. Geological Journal 56, 5, p. 2500-2527.
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Nagarajan, R., P.D. Roy, M.P. Jonathan, R. Lozano, F.L. Kessler & M.V. Prasanna (2014)- Geochemistry of Neogene sedimentary rocks from Borneo Basin, East Malaysia: paleo-weathering, provenance and tectonic setting. Chemie der Erde- Geochemistry 74, p. 139-146.
(Neogene sediments of Sarawak classified as extremely weathered sandstones, with post-depositional K-metasomatism and zircon enrichment through sediment recycling. Geochemical characteristics suggest mixed-nature provenance. Enriched Cr in quartz arenite and Fe-sandstone related to contribution from ophiolite or fractionation of Cr-bearing minerals)

Nagarajan, R., P.D. Roy, F.L. Kessler, J. Jong, V. Dayong & M.P. Jonathan (2017)- An integrated study of geochemistry and mineralogy of the Upper Tukau Formation, Borneo Island (East Malaysia): sediment provenance, depositional setting and tectonic implications. J. Asian Earth Sciences 143, p. 77-94.
(Late Miocene or younger (~10–2.6 Ma) Tukau Fm of Sarawak formation unconfomably overlies M Miocene Lambir Fm. Clastics highly mature and recycled from weathered sedimentary- metasedimentary sources, with granitoids and mafic-ultramafic rocks. Cretaceous and Triassic-age detrital zircons from felsic rock, tie to granitoids of Schwaner Mts (Kalimantan) and Tin Belt granites, but probably recycled via Rajang Group, uplifted and eroded in Neogene. Chromian spinels indicate minor influence of mafic- ultramafic rocks. Deposited in passive margin with passive collisional and rift settings)

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(New realgar-like red mineral in hydrothermal ore deposits in U Jurassic- Cretaceous of Sarabau Au-Ag mine near Bau, SW of Kuching)

Nakamura, T., T. Miyake, N. Kanao & N. Tomizawa (1970)- Exploration and prospecting in Mamut Mine, Sabah, Malaysia. Mining Geology 20, 100, p. 106-113.
(online at: www.journalarchive.jst.go.jp...) (In Japanese, with English abstract)
(Mamut mine 7 miles N of Ranau on E flank of Mt. Kinabalu. Originally located during 1965 geochemical survey. Ore deposit of Mamut-2 mine is low grade gold-bearing 'porphyry copper'. Pyrite, chalcopyrite and chalcocite form bulk of sulphides, associated with minor molybdenite and bornite)

Newton, R. Bullen (1897)- On a Jurassic Lamellibranch and some other associated fossils from the Sarawak River Limestones of Borneo; with a sketch of the Mesozoic fauna of that island. Geological Magazine IV, 4, p. 407-415.

(Review of Jurassic- Cretaceous macrofossils known from Borneo, and description of M Jurassic bivalve Alectryonia amor in British Museum collection, probably from Sarawak River, with distinct European affinity.)

Newton-Smith, J. (1967)- Bidu-Bidu Hills area, Sabah, East Malaysia:Explanation of sheet 5-117-2 and 5-117-1. Geological Survey of Malaysia, Borneo Region, Report 4, Kuching, p. 1-109.
(Mapping of Bidu-Bidu area in C Sabah. Area consists of Chert-spilite Fm, ultrabasic rocks, basic rocks, Miocene Garinono Fm melange and Kamansi Beds tuffaceous sediments)

Newton-Smith, J. (1977)- Geology and mineralization at the Mamut copper prospect. Sabah. Geological Survey of Malaysia, Geological Papers 2, p. 55-65.
(Additional observations on Tertiary porphyry copper type ore body on SE slope of Mt Kinabalu, first described by Kirk (1967))

Newton-Smith, J. & G.E. Wilford (1968)- Radiocarbon age determination on wood from Kambarangoh, Sabah. In: Geological Papers 1967, Geological Survey Borneo Region, Malaysia, Kuching, Bull. 9, p. 36-37.
(Wood from glacial tilloid on southern slopes of Mt Kinabalu has radiocarbon age of 34.3 +/- 2 ka (Late Pleistocene) providing age of ice cover of Mt Kinabalu)

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(Sub-recent crustacean fossils from Jambusan Caves in Bau (Sarawak) assigned to two species of potamid freshwater crabs (Brachyura) that are still extant in area, Isolapotamon bauense and I. consobrinum. Two species were probably collected for food by early human inhabitants of Sarawak)

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(Some 200 Miocene carbonate buildups mapped in Luconia Province, offshore Sarawak. Vertical and lateral porosity variations in carbonate reservoirs can be calibrated to seismic amplitude and acoustic impedance)

Nijman, M., S. Paris & J. Boyd-Gorst (2012)- New opportunities through reservoir performance reviews and facies based dynamic modelling of a mature oil field under waterflood. Int. Petroleum Technical Conference (IPTC), Bangkok 2012, p. 1-11.
(Champion Field in Brunei Darussalam, producing since 1972. Field geologically complex, with >500 stacked sandstones reservoirs, heavily faulted, at depths from 200-1500m subsea. Primary and secondary recovery from pattern waterflood since 1984. Reservoir modeling effort is part of ongoing Champion Waterflood project, which aims to increase recoverable reserves and production capacity from mature field)

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Noad, J. (2001)- The Gomantong Limestone of eastern Borneo: a sedimentological comparison with the near-contemporaneous Luconia Province. Palaeogeogr. Palaeoclim. Palaeoecology 175, p. 273-302.
(online at: www.researchgate.net/publication/222887624_The_Gomantong_Limestone_of_eastern_Bor Etc.)
(C Sabah basin was Eocene-Miocene E-W trending foreland basin, with carbonates in E. Late Oligocene- earliest Miocene (Te5) Gomantong Lst outcrops in E. Sabah interpreted as shelf with fringing and patch reefs. Carbonate deposition ended with 'rejuvenation of C Sabah basin' around E-M Miocene boundary, ~16 Ma)

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(online at: www.iagi.or.id/fosi/berita-sedimentologi-no-28-borneo.html)

(Outcrop study on Miocene Sandakan Fm on Sandakan Peninsulla, E Sabah showed five facies belts, from mangrove deposits through shoreface sediments to open marine. Paleocurrent data show sediment dispersion across paleo-Sandakan Basin, from N-directed flow through mangrove channels into longshore drift on shallow marine, coastal shelf to a belt of tempestite deposits cut by N-directed rip current channels)

Noad, J. & R. Preece (2014)- Making sense of mud: the use of benthic foraminifera in mudstone sedimentology, Sabah, North Borneo. Berita Sedimentologi 29, p. 53-65.
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Nuttall, C.P. (1961)- Gastropoda from the Miri and Seria Formations, Tutong Road, Brunei. In: G.E. Wilford, The geology and mineral resources of Brunei and adjacent parts of Sarawak, British Borneo Geological Survey Memoir 10, p. 73-87.
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Nuttall, C.P. (1964)- Report on Mollusca from the Sebahat Formation, Tunku River, Dent Peninsula, Sabah. Geological Survey of Malaysia, Borneo Region, Kuching, Annual Report 1963, p. 165-166.
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(online at: https://www.sciencedirect.com/science/article/pii/S1367912022000499)
(Analyses of Late Miocene NW-trending deepwater channel deposits off Brunei-Sabah. Reservoir sandstones lithic-rich, suggesting sediment sourced supply Crocker Fm hinterland, probably through paleo-Padas River.

Composition differs from quartz-rich rock contemporaneous deepwater reservoir comprising reworked quartz-rich Meligan sandstones.and reflect Late Miocene multi-source sediment supply system from NW Borneo)

Ogawa, K. & S. Back (2022)- Deepwater fold-thrust belt contraction driven by mixed deformation components. Tectonophysics 841, 229574, p. 1-14.
(online at: https://www.sciencedirect.com/science/article/pii/S0040195122003687)
(Fold-thrust belt on NW Borneo margin shows variety of deformation styles. Folds and faults formed by different contraction systems, active at same time)

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(Major review of petroleum system offshore deepwater NW Borneo. Most likely source rock in M Miocene corresponds to main detachment layer (anomalously low interval velocity on seismic). Modeled hydrocarbon expulsion started in Late Miocene for oil and in Pliocene for gas. Thrust development preceded expulsions)

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(Distribution of oils in Miocene Kamunsu and Kinarut turbiditic reservoirs in Bestari-1 well, offshore Sabah)

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(Bunguran Trough intra-continental basin in deepwater setting of Rajang Delta, off Sarawak. Characterised by deepwater clastic deposition of post-M Miocene Unconformity sediments. Pre-MMU sediments now buried to >6000m One potential source rock intervals currently mature for hydrocarbon generation in post-MMU sequences is Lower Pliocene section)

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(Pliocene amplitude anomaly drilled by Unocal in Philippines part of Sandakan Basin off Sabah encountered numerous thin, uneconomic gas zones)

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(online at: http://repository.tamu.edu/bitstream/handle/1969.1/ETD-TAMU-1795/OLAVE-HOCES-THESIS.pdf)
(Many isolated carbonate platforms in C Luconia in M-Late Miocene. Flooding at ~16.5 Ma initiated near-simultaneous carbonate sedimentation. Five growth stages. SE C Luconia platforms thicker and larger, reflecting greater subsidence to SE. First platforms drowned in E at ~12.5-9.7 Ma, affected by siliciclastic sediments and high local subsidence. Platforms drowned later (~6.3-5.5 Ma) caused by rapid sea-level rise and local subsidence. C Luconia carbonate platforms drowned earlier (latest Late Miocene) than E Natuna platforms (E Pliocene))

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(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1995004.pdf)
(Mantle-sequence peridotites of Darvel Bay Ophiolite mainly depleted harzburgites. Less depleted (refractory) mantle than harzburgites of Oman, Papuan and Halmahera ophiolites and represent supra-subduction zone (SSZ) ophiolite type)

Omang, S.A.K. (1996)- Sub-ophiolite metamorphic rocks in the Tungku area, Lahad Datu, eastern Sabah, Malaysia; origin and tectonic significance. In: G.H. Teh (ed.) Petroleum geology conference, Kuala Lumpur 1995, Bull. Geological Society Malaysia 39, p. 51-64.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1996006.pdf)
(Sub-ophiolite metamorphic garnet amphibolites (clasts in late E Miocene- M Miocene melange) formed at high P-T and interpreted as derived from metamorphic sole below Darvel Bay Ophiolite Complex, formed during subduction of ocean crust and emplacement of ophiolite complex. Garnet amphibolites were oceanic crust MORB tholeiites, metamorphosed in upper mantle and deformed and recrystallised with mylonitic textures in amphibolite facies. K/Ar age of 76± 21 Ma (Cretaceous- Eocene!) coincides with Late Cretaceous-Paleogene age of subduction beneath Darvel Bay Ophiolite inferred from stratigraphic evidence)

Omang, S.A.K. (1996)- Petrology and geochemistry of the volcanic rocks associated with the Darvel Bay Ophiolite, Lahad Datu, eastern Sabah, Malaysia. In: G.H. Teh (ed.) Petroleum geology conference, Kuala Lumpur 1995, Bull. Geological Society Malaysia 39, p. 65-80.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1996007.pdf)
(At least three unrelated volcanic rock groups in ophiolitic terrain of Darvel Bay area. Group I and II may be related to oceanic crust formation, Group III to M Miocene volcanic arc activity of Dent Peninsula)

Omang, S.A.K. & A.J. Barber (1996)- Origin and tectonic significance of the metamorphic rocks associated with the Darvel Bay Ophiolite, Sabah, Malaysia. In: R. Hall & D.J. Blundell (eds.) Tectonic evolution of SE Asia, Geological Society, London, Special Publ. 106, p. 263-279.
(Banded hornblende gneiss, amphibolite and schists form lenses in 8 km wide belt in Darvel Bay Ophiolite Complex, representing gabbros, plagiogranites, basaltic dykes, basaltic volcanics and cherts formed at spreading ridge in supra-subduction zone environment, deformed at high T- low P along transform fault. Garnet pyroxenites and amphibolites found as clasts in Miocene volcanic agglomerates formed at high-P, and derived from metamorphic sole formed during ocean crust subduction and emplacement of ophiolite complex)

Omang, S.A.K., M.M. Faisal & S.H. Tahir (1994)- The Kudat Ophiolite Complex, northern Sabah, Malaysia- field description and discussion. Warta Geologi (Newsletter Geological Society Malaysia) 20, 5, p. 337-346.
(online at: https://gsmpubl.files.wordpress.com/2014/09/ngsm1994005.pdf)
(Scattered M Jurassic- E Cretaceous ophiolitic rocks in Kudat Fault Zone, N-most Sabah, here named Kudat Ophiolite Complex. Represents dismembered ophiolite sequence, with most components of ophiolite present: sheared and brecciated serpentinite, plagiogranite, doleritic to basaltic dykes and submarine pillow basalt overlain by radiolarian chert with Lower Cretaceous radiolaria (Basir Jasin et al. 1985). May represent supra-subduction zone ophiolite type (= Kinabalu Suture of Tjia 1988))

Omang, S.A.K., W.A.W. Mohamed & S.H. Tahir & S.A. Rahim (1992)- The Darvel Bay ophiolite complex, SE Sabah, Malaysia- preliminary interpretations. Warta Geologi (Newsletter Geological Society Malaysia) 18, 3, p. 81-88.
(Darvel Bay ophiolite complex of E Sabah consists of ultramafic (mantle peridotite and ultramafic cumulate), gabbro (gabbroic rocks, amphibolites and plagiogranites) and volcanic-sedimentary units (basaltic lavas and Cretaceous radiolarian cherts). Complex bounded by E-M Miocen melanges to N and S, with blocks of ophiolite. Complex interpreted as part of the oceanic crust segment which lay between Sundaland craton and the Philippines archipelago and was obducted onto Sabah in Late Paleogene to Neogene time)

Omang, S.A.K. & S.H. Tahir (1995)- Cretaceous and Neogene lavas of Sabah; origin and tectonic significance. Bull. Geological Society Malaysia 38, p. 21-30.
(online as: www.gsm.org.my/products/702001-100928-PDF.pdf)
(Cretaceous Telupid basalt low-K tholeiitic lava or "boninitic suite", formed in response to intra-oceanic subduction. As subduction proceeded, magma composition changed to calc-alkaline suite (high-K Neogene Tungku and Tanjung Batu andesites). Volcanics evolution starts with oceanic island arc, where supra-subduction zone extension led to genesis of tholeiitic/ boninitic lava (Telupid basalt), followed by volcanic arc (Tungku

andesite), followed by arc-splitting, as extension continued, Sulu Sea marginal basin formed. Partial closing of Sulu Sea caused S-ward subduction beneath older arc and formation of Tanjung Batu andesite)

Ong, P.Y. & S.N.F. Jamaludin (2023)- Fracture network analysis of karstified Subis Limestone build-up in Niah, Sarawak. Applied Sciences (MDPI) 13, 12110, p. 1-22.
(online at: https://www.mdpi.com/2076-3417/13/22/12110)
(Outcrop-based fracture network characterisation of near-surface paleo-karst at Late Oligocene- E Miocene Subis Limestone in Niah National Park, Sarawak. Two main fracture sets. NE-SW and NW-SE and 79 potential dolines identified. Fractures in Subis paleo-karsts appear isolated. Etc.)

Ooi Phey Chee, M. Poppelreiter, D. Ghosh & R. Lazar (2017)- Study of Central Luconia Miocene carbonate buildup: integration of geological, modern carbonates and 3D seismic characterization Proc. 30th National Geoscience Conference Exhib. (NGC 2017), Kuala Lumpur, PDPT16-107, Warta Geologi 43, 3, p. 290-291. *(Extended Abstract)*
(online at: https://gsmpubl.files.wordpress.com/2017/09/ngsm2017_032.pdf)
(Brief review of geologic model of 3x5km M-L Miocene carbonate buildup of TX Field, 170km N of Bintulu, offshore Sarawak)

Ooi Phey Chee, M. Poppelreiter, D. Ghosh, R. Lazar & U. Djuraev (2018)- Study of a TX field Miocene carbonate build-up: integration of sedimentological data with modern carbonate analogue and 3D seismic characterization to establish carbonate facies modelling workflow. Bull. Geological Society Malaysia 65, p. 135-140.
(online at: https://gsmpubl.files.wordpress.com/2018/08/bgsm201816.pdf)
(C Luconia Province with >200 Miocene carbonate build-ups, many gas-bearing. Facies modelling of carbonate build-up from integrated core, modern carbonate platform and 3D seismic data)

Osli, L.N., M.R. Shalaby & M.A. Islam (2021)- Source rock characteristics and hydrocarbon generation potential in Brunei-Muara district, Brunei Darussalam: a comparative case study from selected Miocene-Quaternary formations. J. Petroleum Exploration and Production Technology 11, p. 1679-1703.
(online at: https://link.springer.com/content/pdf/10.1007/s13202-021-01142-0.pdf
(Geochemistry of outcrop samples of Miocene-Pliocene formations. All immature- early mature)

Osli, L.N., M.R. Shalaby, M.A. Islam, S. Kalaitzidis, M.E. Damoulianou et al. (2022)- Organic matter characteristics and hydrocarbon generating potential of the Miocene Belait Formation, Brunei-Muara district, Brunei Darussalam. J. Petroleum Science Engineering 208, 109503, p.
(online at: https://www.sciencedirect.com/science/article/pii/S092041052101144X)
(Coal and carbonaceous samples from Miocene Belait Fm 'good-excellent' hydrocarbon potential)

Osmaston, H. (1980)- Patterns in trees, rivers and rocks in the Mulu Park, Sarawak. The Geographical Journal 146, p. 33-50.
(Study of geomorphology and geological control in Mulu Park karst terrain in Sarawak)

Othman, M.I., M. Sone, K.T. Yong, Y. Wong & L. Kocsis (2026)- Large-leaved *Dryobalanops* (Dipterocarpaceae) from the Miocene coal basin of Borneo: The early dispersal of the out-of-India genus in Southeast Asia. J. of Palaeogeography, 100340 *(in press)*
(manuscript online at: https://www.sciencedirect.com/science/article/pii/S2095383626000179)
(Dipterocarp rainforest tree genus Dryobalanops today found only in Peninsular Malaysia, Sumatra, and Borneo (West Malesia floristic province). New species D. rajangensis described from E MioceneMerit-Pila coal basin in C Sarawak. Associated with abundant amber. It marks earliest occurrence of the genus outside India)

Ovinda & J.J. Lambiase (2017)- Lateral facies and permeability changes in upper shoreface sandstones, Berakas Syncline, Brunei Darussalam. Indonesian J. on Geoscience (IJOG) 4, 1, p. 11-20.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/333/228)
(Facies and permeability changes in outcrops of M Miocene Belait Fm in Berakas Syncline, Brunei)

Oyediran, A.T., A.M.A. Salim & A.A.A.S. Almasgari (2020)- Central Luconia carbonate build-ups: a review and future outlook. Proc. Third International Conference on Separation Technology 2020 (ICoST 2020), Advances in Engineering Research 200, p. 35-44.
(online at: https://www.atlantis-press.com/proceedings/icost-20/125950021)
(In C Luconia, offshore Sarawak, ~200-250 carbonate buildups that account for 40-70% of country's gas reserves. Most reservoirs have high CO_2 and widespread karst. Geo-sequestration of CO_2 not cost effective)

Paganoni, M., J.A. Cartwright, M. Foschi, C.R. Shipp & P. van Rensbergen (2018)- Relationship between fluid-escape pipes and hydrate distribution in offshore Sabah (NW Borneo). Marine Geology 395, p. 82-103.
(Fluid-escape pipes observed on seismic data from offshore Sabah serve as conduits for methane-rich fluids and define preferred locations for formation of gas hydrates. Fluid-escape pipes can be locations of hydrates concentrations up to seafloor if pipe is presently active)

Percival, T.J. & A.H. Hofstra (2002)- Bau, Malaysia; SRHDG deposit associated with Miocene magmatism. Geological Society of America, 2002 Annual Meeting, Abstracts with Programs 34, 6, p. 142. *(Abstract only)*
(Bau district, NW Borneo, produced 37.3 t gold. It is in thrust sheet comprised of Late Jurassic- M Cretaceous limestone and clastics and Late Triassic island arc volcanics that is overthrust by L Jurassic- L Cretaceous siliciclastic turbidites. M Miocene magmatism due to SE subduction of Proto- S China Sea under Borneo. Numerous 10-13 Ma, I-type, intermediate to felsic porphyry stocks intrude >30 km long NNE transtensional fault zone. Au deposits at intersection of NNE fault system and ENE-striking anticline)

Percival, T.J., A.H. Hofstra, P.C. Gibson, D.C. Noble, A.S. Radtke, W.C. Bagby, W.J. Pickthorn & E.H. McKee (2018)- Sedimentary Rock-Hosted Gold Deposits related to epizonal intrusions, Bau District, Island of Borneo, Sarawak, East Malaysia. In: J.L. Muntean (ed.) Diversity in Carlin-style gold deposits, SEG Reviews in Economic Geology 20, Chapter 8, p. 259-298.
(Bau mining district produced gold, antimony and mercury from calcic skarn, calcite-quartz veins, etc., around microgranodiorite intrusions with Cu-(Mo) quartz stockwork mineralization. Bau at W end of Eocene-Miocene C Kalimantan NNE-trending, adakitic, magmatic belt. New K-Ar date on hydrothermal sericite 10.4 Ma; nearby Miocene intrusions dated at 11.6- 9.3 Ma. Subvolcanic intrusions and gold deposits localized by NNE-striking normal faults that transect marine calcareous Upper Jurassic Bau Fm and siliciclastics of Lower Cretaceous Pedawan Fm, exposed along axis of NE-trending Bau anticline)

Percival, T.J., A.S. Radtke & W.C. Bagby (1990)- Relationships among carbonate-replacement gold deposits, gold skarns, and intrusive rocks, Bau Mining District, Sarawak, Malaysia. Mining Geology 40, 1, p. 1-16.
(online at: https://www.jstage.jst.go.jp/article/shigenchishitsu1951/40/219/40_219_1/_pdf)
(Three distinct styles of gold mineralization in U Jurassic Bau Limestone, associated with M Miocene calk-alkaline micro-granodiorite porphyry stocks in Bau mining district, 24 km SW of Kuching. Most gold produced from 'Carlin-type' carbonate-replacement deposits. Common gold deposits along Tai Parit fault suggest major conduit for hydrothermal fluids)

Petronas (1999)- The petroleum geology and resources of Malaysia. Petronas, Kuala Lumpur, p. 1-665.
(Comprehensive overview geology and oil and gas fields of Malaysia (incl. N Borneo))

Pilia, S., D.R. Davies, R. Hall, C. Bacon, A. Gilligan, T. Greenfield, F. Tongkul, S.C. Kramer et al. (2023)- Post-subduction tectonics induced by extension from a lithospheric drip. Nature Geoscience 16, 7, p. 646-652.
(earlier manuscript online at: https://www.researchsquare.com/article/rs-861968/v1)
(Interpretation of new passive-seismic data in Sabah, where subduction ceased in Late Miocene and was followed by puzzling tectonic response. Thermo-mechanical simulations illustrate how significant extension from downwelling 'lithospheric drip' can thin crust in an adjacent orogenic belt (Crocker Range), facilitating lower crustal melting and possible exhumation of subcontinental material (new paradigm for core-complex formation) (see also similar paper by Greenfield et al., 2022))

Pilia, S., N. Rawlinson, A. Gilligan & F. Tongkul (2019)- Deciphering the fate of plunging tectonic plates in Borneo. EOS Transactions American Geophysical Union (AGU), 100, p.

(write-up online at: https://doi.org/10.1029/2019EO123475)
(Interpretation of new data from passive seismic network in Sabah)

Pilia, S., N. Rawlinson, R. Hall, D.G. Cornwell, A. Gilligan & F. Tongkul (2023)- Seismic signature of subduction termination from teleseismic P- and S-wave arrival-time tomography: The case of northern Borneo. Gondwana Research 115, 4, p. 57-70.
(online at: https://www.researchgate.net/publication/365951104_Seismic_signature_of_subduction_termination_from_teleseismic_P-_and_S-wave_arrival-time_tomography_the_case_of_northern_Borneo)
(N Borneo site of two sequential subduction episodes of opposite polarity since mid-Paleogene, with several enigmatic post-subduction features (<10 Ma): subsidence followed by rapid uplift, local intraplate volcanism, possible orogen collapse, and Kinabalu pluton as third highest peak in SE Asia. 3-D tomographic images from seismic network show high-velocity perturbation in W Sabah interpreted as upper-mantle remnant of Proto S China Sea slab. Tomographic models evidence for lithospheric removal in E Sabah via drip instability)

Pilz, R. (1913)- Geologische Studien in Britisch Nordborneo. Jahresberichte der Freiberger Geologischen Gesellschaft 6, p. 12-39.
('Geological studies in British North Borneo'. Early reconnaissance survey of Sabah by German oil company mining engineer Richard Pilz for the British North Borneo Company in 1909-1911). Recognized: (1) presence of Jurassic-Cretaceous deep marine sediments with radiolaria (Danau Fm of Molengraaff, 1900), overlain by Tertiary clastics and carbonates and (2) young age of Kinabalu volcanics and pluton (see also Wannier 2017))

Pimm, A.C. (1965)- Serian Area, West Sarawak, East Malaysia. Geological Survey of Malaysia, Borneo Region, Kuching, Report 3, p. 1-92.
(Serian area in W Sarawak- W Kalimantan border area, SE of Kuching. Pre-Upper Carboniferous Kerait schists, similar to 'NW Kalimantan Domain'. Overlain by steeply-dipping, NW striking, brecciated Late Carboniferous-E Permian Terbat Fm interbedded fusulinid limestone, chert and shale, at least 3000' thick. Unconformably overlain by Late Triassic (late Carnian-Norian) Sadong Fm clastics and tuffs with Halobia and late Norian? Serian Fm andesitic-basaltic volcanics. Sadong-Serian Fms folded before deposition of Late Jurassic Bau Limestone. Unconformably overlain by ?Eocene Silantek Fm clastics. Intrusives dated as M Miocene in S part of area, continuing into Kalimantan. With 1:50,000 scale geologic map)

Pimm, A.C. (1967)- Bau Mining District, West Sarawak, Malaysia. Part II- Krokong. Geological Survey of Malaysia, Borneo Region, Kuching, Bull. 7, 2, p. 1-97.

Pimm, A.C. (1967)- Triassic volcanic rocks in East and West Malaysia. In: Geological papers 1966, Geological Survey Borneo Region, Malaysia, Kuching, Bull. 8, p. 36-40.
(Two different suites of Triassic volcanic rocks in East Malaysia (Sarawak, North Borneo; Late Triassic) and West Malaysia (central Malay Peninsula; M Triassic), both preceded by orogenies)

Pour, A.B. (2014)- Remote sensing aspects of Bau Gold District, Serawak, Malaysia. In: I. Basuki & A.Z. Dahlius (eds.) Sundaland Resources, Proc. Annual Conv. Indonesian Soc. Economic Geologists (MGEI), Palembang, p. 393-413.
(Lithological-structural mapping with remote sensing of mineralized zones in Bau gold field in W Sarawak with Carlin style gold deposits. Late Triassic Serian Volcanics overlain by Late Jurassic- Cretaceous sediments. E Jurassic deformation event, with 190 Ma Jagoi granodiorite. M Miocene Bau Trend porphyritic granodiorites with porphyry-copper style mineralization, skarn, limestone polymetallic replacement, epithermal precious metal, disseminated gold, and Ba-Hg deposits)

Pour, A.B. & M. Hashim (2014)- Structural geology mapping using PALSAR data in the Bau gold mining district, Sarawak, Malaysia. Advances in Space Research 54, p. 644-654.
(Synthetic Aperture Radar data useful in remote sensing of tropical/sub-tropical regions. Bau gold mining district in W Sarawak similar to Carlin style gold deposits, but mineralization more structurally controlled. Most quartz-gold bearing veins in high-angle faults, fractures and joints in massive units of Bau Limestone. Four deformation events in district: (D1) ENE trending parallel faults, pre- E Jurassic, associated with E Jurassic Jagoi

Granodiorite? (= Late Triassic; Breitfeld et al. 2017); (D2) SW-NE oriented compressional tight folds, (D3) E-W to NW-SE trending folds, folding Tertiary molasse; (D4) NNE trending lineaments along which M Miocene microgranodiorites emplaced, probably right-lateral transcurrent faults)

Pour, A.B., M. Hashim & M. Marghany (2013)- Exploration of gold mineralization in a tropical region using Earth Observing-1 (EO1) and JERS-1 SAR data: a case study from Bau gold field, Sarawak, Malaysia. Arabian J. Geosciences 7, p. 2393-2406.
(Similar to papers above. Bau gold mining district near Kuching, SW Sarawak, is Carlin-style gold deposit. Hydrothermally alteration mineral zones detected along SSW-o NNE structural trend of Tai Parit fault. Etc.)

Pour, A.B., M. Hashim & J. van Genderen (2013)- Detection of hydrothermal alteration zones in a tropical region using satellite remote sensing data: Bau goldfield, Sarawak, Malaysia. Ore Geology Reviews 54, p. 181-196.

Prasetyo, T., A. Firth & M.R. Lasman (2007)- A relationship of overpressure, diagenesis and hydrocarbon accumulation, East Balingian Basin, Offshore Sarawak- Malaysia. Proc. 31st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA07-G-070, p. 1-15.
(E Balingian Basin oil-gas fields in large NE-SW trending folds, resulting from episodic inversion events which started in late M Miocene (11.7 Ma). Deeper reservoirs of East Balingian generally overpressured and of low quality (quartz overgrowths, dolomite cement), even where hydrocarbon-bearing. Top overpressure varies between different stratigraphic units, but all in thick shale-prone sequences)

Prosser, D.J. & R.R. Carter (1997)- Permeability heterogeneity within the Jerudong Formation: an outcrop analogue for subsurface Miocene reservoirs in Brunei. In: A.J. Fraser et al. (eds.) Petroleum geology of Southeast Asia, Geological Society, London, Special Publ. 126, p. 195-235.
(Permeability measurements on outcrop of 56m of Late Miocene (E Tortonian) Jerudong Fm at Punyit Beach, Brunei, show large variations)

Prouteau, G., R.C. Maury, C. Rangin, E. Suparka, H. Bellon, M. Pubellier & J. Cotten (1996)- Les adakites miocenes du NW de Borneo, temoins de la fermeture de la proto-mer de Chine. Comptes Rendus Academie Sciences, Paris 323, ser. IIa, 11, p. 925-932.
('The Miocene adakites of NW Borneo, witnesses of the closing of the proto-South China Sea'. Early Miocene Sintang granodiorite intrusives aged 18.3 and 19.2 Ma, with characteristics of oceanic slab melts (adakites). Youngest rocks (16.5, 16.7 Ma) are calc-alkaline dacites. Sintang adakites coeval with subduction of Proto South China Sea Basin which may have started at ~20 Ma)

Prouteau, G., R.C. Maury, F.G. Sajona, M. Pubellier, J. Cotton & H. Bellon (2001)- Le magmatisme post-collisionnel du Nord-Ouest de Borneo, produit de la fusion d'un fragment de croute oceanique ancre dans le manteau superieur. Bull. Societe Geologique France 172, 3, p. 319-332.
('The post-collisional magmatism of NW Borneo: product of melting of a fragment of oceanic crust in the upper mantle'. Magmas in Sarawak formed by melting of subducted oceanic crust in upper mantle, as evidenced by Miocene adakites. Two kinds of intrusions: High-medium K calc-alkaline diorites in N of study area (Lower Miocene; 22.3-23.7 Ma); microtonalites and dacites near Kuching and S Sarawak (M-U Miocene, 14.6- 6.4 Ma). Lower Miocene diorites characteristic of subduction-related magmas. M-U Miocene microtonalites and dacites also adakitic features: SiO_2-rich (65-70%) and sodic; rare pyroxenes, etc.)

Rahim, A., D. Kleibacker, J. Baker, S. Ong & T. Muda (2017)- Unlocking new Cycle-I exploration opportunities, Eastern Margin of Central Luconia, Offshore Sarawak. Proc. Asia Petroleum Geoscience Conference and Exhibition (APGCE 2017), EAGE, Kuala Lumpur, 43063, p. 289-293. *(Extended Abstract)*

Rahim, A.R., Z. Konjing, J. Asis, N. Jalil, A.J. Muhamad, N. Ibrahim, A.M. Koraini, R.C. Kob, H. Mazlan & H.D. Tjia (2017)- Tectonostratigraphic terranes of Kudat Peninsula, Sabah. Bull. Geological Society Malaysia 64 (50th Anniversary Issue 2), p. 123-139.
(online at: www.gsm.org.my/products/702001-101713-PDF.pdf)

(Four geological terranes make up Kudat Peninsula: (1) N Sabah exotic Terrane (Eocene sandstones with M-L Eocene Suang Pai Lst with Discocyclina, Pellatispira, etc.), separated by (2) Kudat Fault Zone (up to 6 km wide horst with E Cretaceous ophiolite and oceanic crust) from (3) Slump Terrane (wide area from Sikuati to Kota Marudu, consisting of mainly lower slope turbidites with slump intervals). S-most terrane is (4) Mengaris Duplex (latest Eocene to Oligocene West Crocker Fm turbidites)

Rahman, M.H., B.J. Pierson & K.K. Ting (2012)- A review of porosity classification in carbonates: challenges in Miocene reservoirs of Central Luconia, offshore Sarawak, Malaysia. Int. Conference Integrated Petroleum Engineering and Geosciences (ICIPEG), Kuala Lumpur, Malaysia, p. 1-6. *(online at: https://www.researchgate.net/publication/314938172_A_review_of_porosity_classification_in_carbonates_challenges_in_Miocene_reservoirs_of_Central_Luconia_offshore_Sarawak_Malaysia)*

Rahman, M.H., B.J. Pierson & W.I.W. Yusoff (2011)- Quantification of microporosity and its effects on permeability and sonic velocity in Miocene carbonate reservoirs, offshore Sarawak, Malaysia. National Postgraduate Conference, Perak 2011, p. 1-6. *(online at: https://www.researchgate.net/publication/314938920_Quantification_of_Microporosity_and_Its_effects_on_Permeability_and_Sonic_Velocity_in_Miocene_Carbonate_Reservoirs_Offshore_Sarawak_Malaysia)*

Rahman, M.H., B.J. Pierson & W.I.W. Yusoff (2012)- Classification of microporosity in carbonates: examples from Miocene carbonate reservoirs of Central Luconia, Offshore Sarawak, Malaysia. Proc. Int. Petroleum. Technical Conference (IPTC), Bangkok 2012, IPTC 14583, p. 1-12. *(Extended Abstract)*
(Five types of microtextures in C Luconia Miocene carbonates: a) chalky moldic limestone, b) argillaceous tight limestone, c) moldic limestone, d) Moldic dolomitic limestone and e) chalky limestone)

Rahman, S.S.A., M.A. Beg, G.J. Soto, Saw Bing Bing, L.A. Lubis, M.C. Poppelreiter (2021)- Seismic multiatributes characterisation of karst distribution pattern in an isolated Middle Miocene carbonate platform: FX Field, Central Luconia Province Malaysia. Petroleum and Coal 63, 1, p. 139-150.
(online at: https://www.vurup.sk/wp-content/uploads/2021/01/PC-X_Rahman_216.pdf)
(C Luconia province, offshore Sarawak, with widespread (250) M Miocene isolated carbonate build-ups. Sea-level fluctuations, tectonics, topography, and wind directions play huge role in morphologies. FX field in central region. Seismic attributs highlight reef rim karst architecture, talus, etc.)

Rahman, S.S.A., M.H. Husen, G.J. Soto, Saw Bing Bing, N.H.M. Jamin, R Rosli & M.C. Poppelreiter (2021)- Application of spectral decomposition technique to delineate the evolution of karst on carbonate platforms of Central Luconia, Offshore Sarawak, Malaysia. Applied Sciences (MDPI) 11, 24, p. 1-17.
(online at: https://www.mdpi.com/2076-3417/11/24/11627)
(Study of karstification in Miocene carbonate platforms in C Luconia province, offshore Sarawak, where >200 mapped platforms have been identified. Drilling data and seismic interpretation of Jintan and M1 platforms revealed extensive dendritic patterns (av. 70–100 m deep, 3–5 km long, and circular geobodies of 1 km wide) on upper platform. Multiple karst intervals. Backstepping of platform margin by 12 km observed in both platforms)

Rahman, S.S.A., M.C. Poppelreiter, G. Jimenez, A. Yusliandi & R. Rosli (2023)- Karst in Miocene carbonate buildups of Central Luconia Province, Offshore Sarawak, Malaysia. In: E.C. Rankey & M.C. Poppelreiter (eds.) Cenozoic isolated carbonate platforms- Focus Southeast Asia, Society for Sedimentary Geology (SEPM) Special Publ. 114, p. 1-17.
(250 Miocene carbonate buildups mapped offshore in C Luconia province of Sarawak; ~65 buildups drilled. Almost every field has encountered indications for high permeability zones likely associated with karst. Seismic attributes in Jintan and F6 platforms show karst as dendritic, round, and elongated patterns of several 100m in diameter and 10s of m deep, and particularly well-developed below backstepping buildup geomorphology. Particularly strong mud losses toward center of buildups)

Rahman, Z.A. (1999)- Structural pattern of the Crocker Formation in southern part of Beaufort area, Sabah. Borneo Science 6, p. 11-20.

(online at: http://borneoscience.ums.edu.my/wp-content/uploads/2011/08/2.-Structural-Pattern-Of-The-Crocker-Formation-In-Southern-Part-Of-Beaufort-Area-Sabah.pdf)
(Oligocene- E Miocene deep marine Crocker Fm in SW Sabah deformed by M Miocene faulting-folding, under NW-SE compression)

Rahmat, R.L., S.L. Chung, A. Abdul Ghani, H.Y. Lee & Y. Iizuka (2020)- Zircon U-Pb ages and geochemical characteristics of mafic rocks from northern Sabah Ophiolite (Borneo), Malaysia. Proc. 30th Goldschmidt Conference 2020, 1p. *(Abstract only) (online at: https://goldschmidtabstracts.info/2020/2197.pdf.)*
(North Sabah Ophiolite, associated with Cretaceous ages radiolarian chert. New zircon U-Pb ages of gabbro from ophiolites complex yield ages of 122 Ma and 128Ma. Most zircon crystals oscillatory zoning, indicating magmatic origin. BABB geochemical signature. Possibly remnant of Proto South China Sea)

Ramasamy, N., F.L. Kessler, J. Jong, R. Muthuvairavasamy, A.A. Muhammad, V. Dayong, L. Shanmugarajah et al. (2021)- Geochemistry of the Palaeocene- Eocene Upper Kelalan Formation, NW Borneo: implications on palaeoweathering, tectonic setting, and provenance. Geological Journal 56, 5, p. 2500-2527.
(Chemical weathering indices show source area of W Borneo Paleo-Eocene has undergone moderate- intense chemical weathering. Majority of sediments derived from felsic source (i.e. granites) with minor input from metasedimentary/ metamorphic terrain, probably Schwaner Mts)

Ramkumar, M., R. Nagarajan, M.J. Mathew, B. Sautter, N.A. Siddiqui, B.B. Saw, M. Santosh, D. Menier & M.C. Poppelreiter (2020)- Relict hydrocarbon seep in the Oligocene-Miocene Subis carbonate platform, Malaysia: implications on hydrocarbon generation and migration pathways and potential sealing by shale gouging. Geological Journal 56, 5, p. 2571-2582.
(Hydrocarbon remnants in exposed Subis carbonate platform along post-depositional fault plane located along E flank of Subis Miocene reefal buildup)

Ramkumar, M., M. Santosh, R. Nagarajan, S.S. Li, M. Mathew, D. Menier, N. Siddiqui, J. Rai, A. Sharma et al. (2017)- Late Middle Miocene volcanism in Northwest Borneo, Southeast Asia: implications for tectonics, paleoclimate and stratigraphic marker. Palaeogeogr. Palaeoclim. Palaeoecology 490, p. 141-162.
(manuscript online at: https://archimer.ifremer.fr/doc/00638/75003/88243.pdf)
(Zircon dating of 6 cm thick tephra layer in thick coal near Mukah, Sarawak, suggests latest M Miocene volcanic event (main zircon age peak ~11.4- 11.8 Ma). Also older inherited zircons)

Ramli, M.N. & Ho Kiam Fui (1984)- Depositional environments and diagenesis of the F6 reef complex, central Luconia province, offshore Sarawak, Malaysia. Proc. Joint ASCOPE/ CCOP Workshop on hydrocarbon occurrences in carbonate rocks, Surabaya 1982, ASCOPE Technical Paper 2, Jakarta, p. 269-292.

Ramli, M.Y. (1992)- Paranchangan fault zone; the southern sector, Sabah. In: Y.E. Heng (ed.) Proc. 23rd Geological Conference Technical Paper, Geological Survey of Malaysia, p. 131-140.

Rangin, C. (1991)- Neogene arc-continent collision in Sabah, northern Borneo (Malaysia) - Reply. Tectonophysics 200, p. 330-332.
(Reply to Hutchison (1991) critique of Rangin (1990) paper)

Rangin, C., H. Bellon, F. Benard, J. Letouzey, C. Muller & S. Tahir (1990)- Neogene arc-continent collision in Sabah, N. Borneo (Malaysia). Tectonophysics 183, p. 305-319.
(Sabah arc-continent collision in early M Miocene, followed by intraplate shortening, still active today. Late Oligocene-M Miocene volcanic arc imbricated with melanges and thrust NW-ward on polyphase-deformed Late Cretaceous-M Miocene turbiditic sequence (Crocker Range). Intraplate shortening seen in thrusting- folding offshore Sabah along Palawan-N Borneo Trench and broad folds and strike-slip faulting in previously sutured terranes. Collision result of final stage of S-ward subduction of Proto-S China Sea or back thrusting of Sulu volcanic arc during Celebes Sea subduction to N. K-Ar age of 137 Ma for gabbro of Sabah oceanic crust basement, 6 Ma cooling age for Kinabalu granodiorite) (see also comments and reply by Hutchison (1991))

Rankey, E.C., M. Schlaich, S. Mokhtar, G. Ghon, S.H. Ali & M. Poppelreiter (2019)- Seismic architecture.of a Miocene isolated carbonate platform and associated off-platform strata (Central Luconia Province, Offshore Malaysia). Marine and Petroleum Geology 102, p. 477-495.
(online at: https://carbonates.ku.edu/wp-content/uploads/2019/01/2019-Rankey-etal-Seismic-architecture-of-a-Miocene-isolated-carbonate-platform-and-associated-off-platform-strata-central-Luconia-province-offshore-Malasyia.pdf)
(Seismic stratigraphy and well data describe heterogeneities within C Luconia M-L Miocene isolated carbonate buildup)

Razak, H. & L. Kocsis (2018)- Late Miocene *Otodus* (*Megaselachus*) *megalodon* from Brunei Darussalam: body length estimation and habitat reconstruction. Neues Jahrbuch Geologie Palaontologie, Abhandlungen, 288, 3, p. 299-306.
(Otodus megalodon biggest shark that ever lived. Previous known occurrences from Indo-Pacific region only from Java and Madura (Martin 1887, Kouman 1949, Leriche 1954). Size of teeth of Late Miocene Brunei megalodon near Tutong suggest fish length of 5.5- 7.1 m, probably a juvenile (adults >10m))

Redfield, A.H. (1922)- Petroleum in Borneo. Economic Geology 17, 5, p. 313-349.
(Early review of petroleum discoveries on Borneo, including Tarakan, Sanga Sanga in E Kalimantan and Miri district of Brunei)

Reinhard, M. (1922)- Contributions to the physiography and geology of the South-East Coast of British North Borneo. The Geographical Journal 63, 2, p. 121-134.
(One of earliest geologic maps and descriptions of Sabah, surveyed in 1913-1914 for 'Nederlandsche Koloniale Petroleum Maatschappij')

Reinhard, M. & E. Wenk (1951)- Geology of the colony of North Borneo. Bull. Geological Survey Department, British Territories in Borneo, 1, p. 1-160.
(Early compilation of North Borneo geology, commissioned by Shell. Cretaceous? pre-Eocene Danau Fm of flysch, radiolarian chert, ophiolitic rocks (serpentinite, gabbro) and manganese ore, always intensely folded/ imbricated. Slate Formation probably older than Danau Fm, both often hard to distinguish from Danau Fm. Etc.)

Restrepo-Pace, P.A. (2025)- NW Sabah Basin: Re-examining the remaining HC potential using new 3D Regional Mega merge data, DW calibration wells and 2D thermokinematic modelling. Proc. SE Asia Petroleum Exploration Society (SEAPEX) Conference, SEC 2025, Singapore, 120p. *(Abstract + Presentation)*
(Two distinct petroleum systems in NW Sabah Basin: (1) Inboard Oligocene-Present Deltaic System, with updip extensional and down-dip contractional domains; (2) Outboard Palaeocene-Oligocene Extensional Domain, in present-day deepwater region. Basin produced ~ 5.5 BBOE, primarily in "contractional domain", which consists of Tertiary prograding deltaic clastic wedge derived from uplifted Borneo Ranges. NW Sabah Basin initially developed during Palaeocene-Oligocene as trans-tensional system, subsequently flexed and loaded by deltaic sediments from Oligocene to the present day, Etc.)

Rice-Oxley, E.D. (1991)- Palaeoenvironments of the Lower Miocene to Pliocene sediments in offshore N.W. Sabah area. Bull. Geological Society Malaysia 28, p. 165-194.
(online at: www.gsm.org.my/products/702001-101064-PDF.pdf)
(Biostratigraphy and seismic stratigraphy used in Miocene-Pliocene in offshore NW Sabah to define paleo-shelf edges/ paleo-coastlines and 4 seismic facies. Offshore Sabah pre-early M Miocene deposition of deep marine Stage III sediments. Post-early M Miocene deposition of Stage IV shelf/slope deposits, punctuated by major erosional events reflecting periods of tectonism (7 regional unconformities). With 10 paleoenvironmental maps)

Rijks, E.J.H. (1981)- Baram Delta geology and hydrocarbon occurrence. Bull. Geological Society Malaysia 14, p. 1-18.
(online at: www.gsm.org.my/products/702001-101200-PDF.pdf)
(Baram Delta thoroughly explored, classic delta province, containing bulk of Sarawak oil reserves. With 11 oil fields, 2 gas fields, one onshore (Miri, 1910). Delta depocenter developed in Late Eocene and from early M

Miocene onward characterized by multiple regressive phases of sedimentation. Tectonic interaction of N-hading growth faults and NE-SW trending latest Miocene folds)

Robinson, K. (1984)- Assessment of undiscovered recoverable petroleum resources in Tertiary sedimentary basins of Malaysia and Brunei. U.S. Geological Survey (USGS), Open File Report 84-328, p. 1-19.
(online at: http://pubs.usgs.gov/of/1984/0328/report.pdf)
(In W Malaysia, commercial discoveries of oil and gas only in Malay Basin. Geothermal gradients moderate to high (3.5°F/100' in N of basin in Thai waters, to 2°F/100' at S end of basin in Malaysian waters). N part of basin tends to be gas prone, S part both oil and gas prone. In E Malaysia and Brunei discoveries in Balingian, C Luconia, and Baram Delta Provinces of Sarawak Basin, and in Sabah Basin. Balingian, Baram Delta and Sabah Basin primarily oil prone. Geothermal gradients from rel. high 2.3°F/100' in Balingian Province to low 1.4°F/100' and 1.75°F/100' in Baram Delta and Sabah Basin. C Luconia essentially gas prone, with geothermal gradient 2.4°F/100'. Gas contained in carbonate platform build-ups and large pinnacle structures)

Robinson, K. (1985)- Assessment of undiscovered conventionally recoverable petroleum resources in Tertiary sedimentary basins of Malaysia and Brunei. Bull. Geological Society Malaysia 18, p. 119-131.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1985005.pdf)
(Modified from Robinson (1984). Undiscovered petroleum resources assessment suggests mean 8 billion B Oil and 80 TCF gas remaining to be discovered in Malaysia and Brunei)

Robinson, K., P. Baltensperger, A. Thomas & S. Noon (2009)- The Middle Miocene unconformity (MMU) and globigerinid sands in deepwater Sarawak. In: Programme and abstracts Petroleum Geology Conference Exh., Kuala Lumpur 2009, Geological Society Malaysia, Paper 17, p. 1-3. *(Abstract only)*
(online at: http://geology.um.edu.my/gsmpublic/PGCE2009/Draft/Old/Geology%20Papers%20v.0.1.pdf)
(Talang 1 well gas in planktonic foraminifera sands of early M Miocene age (N8, 16.1- 16.3 Ma Sr age), immediately above 'Mid-Miocene angular unconformity', on flank of rotated fault block. Underlying "Mid Miocene unconformity" dated as Early Miocene (zone N6) in age with Sr isotope age of 18.5-19.0 Ma)

Roe, F.W. (1954)- Outline of the geology of British Borneo. Annual Report Geological Survey Department, British Territories in Borneo, 1954, Kuching, p. 6-22.

Roe, F.W. (1955)- Mineral resources map of the British Territories in Borneo. Geological Survey Department, British Territories in Borneo, Kuching.
(online at: https://collections.lib.uwm.edu/digital/iiif/agdm/6639/full/full/0/default.jpg)
(Map at 1:1 million scale, showing North Borneo distribution of occurrences of gold, mercury, antomony, aluminium (bauxite), manganese, copper, chromite, oil, coal, phosphate, diamonds, etc.)

Roe, F.W. (1955)- Radioactive age determinations of West Sarawak igneous rocks. Annual Report Geological Survey Department, British Territories in Borneo, 1955, Kuching, p. 76-77.
(Klompe 1962: Granites from NW Borneo radiometrically dated as 185 and 210 Ma, although Roe and Haile believed these granites were emplaced in late Permian- E Triassic and E Permian - late Carboniferous)

Roe, F.W. (1957)- Sketch map showing the geology of Borneo, scale 1:2000,000. Annual Report Geological Survey Department, British Territories in Borneo, 1957, Kuching, p.
(map online at: https://openresearch-repository.anu.edu.au/handle/1885/107974)

Roe, F.W. (1964)- The geological relationship between Mt Kinabalu and neighbouring regions. Proc. Royal Society (London), B, 161, 982, p. 49-56.
(Mt Kinabalu in Sabah 13,455' high. Main peaks granodiorite, intruded across two areas of ultrabasic rocks. Recent radiometric dates by Snelling on biotite 9 ± 2 Ma and 1.3 ± 0.7 Ma. Sundaland rocks may extend into Sabah: biotite hornfels in Segama Valley dated as 160 ± 8 Ma (E Jurassic) age of metamorphism)

Ronghe, S. & S. Pambayuning (2002)- Depth-induced impedance variations in reservoir sands; implications for predicting lithology and fluid distributions offshore Brunei Darussalam. The Leading Edge 21, p. 388-393.

(On the use of seismic impedance to delineate extent of hydrocarbon-bearing sand reservoirs)

Roohi, G. (1994)- Biostratigraphy and palaeoecology of the Subis limestone, Sarawak, East Malaysia. M.Sc Thesis University of Malaya, Kuala Lumpur, p. 1-168. *(Unpublished)*
(Early Miocene Subis Limestone of Sarawak. With Niah caves, 65 km SW of Miri)

Roohi, G. (1998)- Biostratigraphy and paleoecology of the Subis Limestone (Early Miocene) Sarawak, East Malaysia and correlation with the Neogene of the Indus Basin, Pakistan. Pakistan J. Hydrocarbon Research 10, p. 81-104.

Roslim, A., A. Briguglio, L. Kocsis, F. Abd. Rahman, I.F. Bahrein, S. Goeting & H. Razak (2020)- Palaeoenvironmental interpretation of Late Miocene outcrops (Miri and Seria formations) along Jalan Tutong in Brunei Darussalam. Bull. Geological Society Malaysia 70, 1, p. 39-56.
(online at: https://gsm.org.my/products/702001-101864-PDF.pdf)
(Outcrops of Miri and Seria Fms in Brunei interpreted as shallow-marine deposits)

Roslim, A., A. Briguglio, L. Kocsis, S. Coric & H. Gebhardt (2019)- Large rotaliid foraminifera as biostratigraphic and palaeoenvironmental indicators in northwest Borneo: an example from a late Miocene section in Brunei Darussalam. J. Asian Earth Sciences 170, p. 20-28.
(Outcrop of Ambug Hill, E of Tutong, with 9.5 m clay- and fossil-rich Late Miocene marine sequence. With 50 foram taxa, dominated by two rotaliid species: Cavarotalia annectens and Heterolepa dutemplei)

Roslim, A., A. Briguglio, L. Kocsis, S. Goeting & C.C. Hofmann (2021)- Palynology of Miocene sediments in Brunei Darussalam: first SEM investigations of pollen and spores, and their taxonomy and palaeoenvironmental interpretation. Palaeontographica, B. Palaeobotany-Palaeophytology, 301, 4-6, p. 77-139.
(First SEM images of pollen and spores from Miocene sediments in Brunei (62 pollen and spore taxa). Recovered families indicate mixed Dipterocarpaceae forests ranging from hinterland to peat swamp areas)

Rosmadi, N.S.B.S., N. Sulaiman, N. Sulaiman & J.Asis (2022)- Biostratigraphy and paleodepositional environment of the Temburong Formation at Batu Luang, Klias Peninsula, Sabah based on calcareous nannofossil. J. Tropical Resources Sustainable Science (JTRSS), 10, 1, p. 20-27.
(online at: http://journal.umk.edu.my/index.php/jtrss/article/view/894)
(Calcareous nannofossils in Temburong Fm shales with thin turbidites at Batu Luang, Klias Peninsula, indicate zones NP25-NN4, or Late Oligocene- E Miocene age (see also Asis et al. 2018))

Rulliyansyah, A. & B.J. Pierson (2010)- Contrasting dolomite textures of Miocene carbonate platforms in Central Luconia, Sarawak, Malaysia. Proc. Petroleum Geology Conference Exhib. (PGCE), Kuala Lumpur 2010, p. *(Extended Abstract)*
(online at: https://www.academia.edu/27948031/Rulliyansyah_PGCEM_PAPER)
(Dolomite common in Miocene carbonate platforms of C Luconia, Sarawak. Dolomitization associated with mixing zone diagenesis, in early replacive phase. Stable isotope compositions suggest dolomite could have formed from slightly depleted seawater or fluids that have been diluted by meteoric water. Etc.)

Rutten, L. (1915)- Studien uber Foraminiferen aus Ost-Asien, 9. Tertiare Foraminiferen von den Inseln Balambangan und Banguey, nordlich von Borneo. Sammlungen Geologischen Reichs-Museums Leiden 10, p. 11-18.
(online at: www.repository.naturalis.nl/document/552375)
('Studies on foraminifera from East Asia, 9. Miocene and Eocene larger forams from Balambangan and Banguey islands, North of British Borneo'. M Miocene marls with Lepidocyclina angulosa, Cycloclypeus annulatus, Oligocene with Nummulites fichteli, Eocene with Orthophragmina (= Discocyclina), etc., collected by Hotz from two islands N of Sabah, Balambangan and Banguey (= Banggi))

Rutten, L. (1921)- Over den ouderdom der Tertiaire oliehoudende afzeetingen van Klias-schiereiland en Poeloe Laboean (Noordwest Borneo). Verslagen Koninklijke Akademie van Wetenschappen, Amsterdam 29, p. 1140-1149.
('On the age of the Tertiary oil-bearing deposits of the peninsula of Klias and Pulu Labuan'. Dutch version of Rutten (1921) below)

Rutten, L. (1921)- On the age of the Tertiary oil-bearing deposits of the peninsula of Klias and Pulu Labuan (N.W. Borneo). Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 23, 8, p. 1142-1150.
(online at: https://dwc.knaw.nl/DL/publications/PU00014767.pdf)
(Samples from Klias Peninsula and Klias island off N Borneo with E-M Miocene larger forams. Recognizes 'stupendous uplift' of Central Borneo, generating huge volumes of Neogene clastics in E, SE and NW. In Sangkulirang area, E Borneo, Neogene deposits more pelagic to East, 'pointing to an old marine territory in Makassar Strait'. Oil-producing beds of Tarakan island field are of Tertiary h age (Plio-Pleistocene))

Rutten, L. (1925)- Over fossielhoudende Tertiaire kalksteenen uit Britsch Noord Borneo. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 8 (Verbeek Memorial Volume), p. 415-428.
(online at: https://books.google.com/books?id=Yy0RAAAAIAAJ&pg)
('On fossiliferous Tertiary limestones from British North Borneo'. Kudat Peninsula N of Kinabalu Eocene limestones with Discocyclina, Spiroclypeus and Pellatispira, but some samples with younger Lepidocyclina)

Ryall, P.J.C. & D. Beattie (1996)- A gravity high in Darvel Bay. In: G.H. Teh (ed.) Petroleum geology conference, Kuala Lumpur 1995, Bull. Geological Society Malaysia 39, p. 113-122.
(online at: www.gsm.org.my/products/702001-100902-PDF.pdf)
(Gravity survey along coastlines and on islands of Darvel Bay shows broad WNW-striking gravity high of 60 mgal, with maximum on S coast of Pulau Sakar, suggesting extensive ultramafic body beneath Darvel Bay)

Sadikun, S. (1997)- Some quantitative studies on wireline logs of the Baram Delta Field. Bull. Geological Society Malaysia 41, p. 139-150.
(online at: https://gsm.org.my/wp-content/uploads/gsm_file_2/702001-100864-PDF.pdf)

Sahari, S., A.A. Shah, D. Aaisyah, N. Batmanathan & A. Shahbuddin (2023)- Active detachment faulting controls folding and faulting in western Borneo, SE Asia. J. Asian Earth Sciences: X, 9, 100133, p. 1-15.
(online at: https://www.sciencedirect.com/science/article/pii/S2590056022000548)
(Baram Delta province in Brunei-Sarawak debated nature of deformation: basement-driven active tectonics or gravitational sliding. Satellite-based mapping reveal major ~NE-SW trending detachment fault in Brunei and adjacent regions (Tutoh fault), with numerous associated secondary faults and folds. Topographic expression and recent strikeslip faulting on Tutoh fault system suggest fault remains active, challenging the model pf gravitational tectonics as only cause of active deformation in Borneo)

Said, M.Y. (2020)- Provenance of Oligocene to Early Miocene Sediments in Sarawak, NW Borneo. Ph.D. Thesis Royal Holloway University of London, 470 p. *(Unpublished)*
(Offshore Sarawak eight stratigraphic cycles I-VIII. Oligocene- E Miocene Cycle I (equivalent of onshore Nyalau Fm) sandstones quartz-rich, compositionally mature and texturally sub mature- immature. Zircon imprints show two sediment source areas for Cycle I and II clastics, Malay Peninsula (Permo-Triassic, Paleozoic, Precambrian populations) and Borneo (mainly reworked materials from Kuching-Belaga Range))

Said, U., M.R. Umor & A. Jantan (1996)- On the lowermost palynomorphs assemblage in the Kayan Sandstone from Gunung Senggi, Bau, Sarawak. Warta Geologi (Newsletter Geological Society Malaysia) 22, 3, p. 244.
(online at: https://gsmpubl.files.wordpress.com/2014/09/ngsm1996003.pdf)
(Abstract only. Kayan Sst overlies Cretaceous Pedawan Fm with slight angular unconformity in area N of Bau, W Sarawak. At Gunung Senggi basal rocks are N and NW-dipping shale and sandstone of Pedawan Fm. Towards top arenaceous rocks of Kayan Sst dip in opposite direction and contain well-preserved palynomorphs dominated by Balmeisporites holodictyus, Dictyophyllidites equiexinus, Alisporites similis, also Araucariacites australis,

Polypodiaceoisporites retirugatus, Reticolpites sarawakensis, etc. Assemblage assignable to Senonian Rugubivesiculites zone of Muller (1968). Palynomorphs from Gunung Senggi considered to be lowermost palynological zone of Kayan Sst)

Sakamoto, T. & T. Ishibashi (2002)- Paleontological study of fusulinoidean fossils from the Terbat Formation, Sarawak, East Malaysia. Memoirs Faculty of Science, Kyushu University, Ser. D, Earth Planetary Science 31, 2, p. 29-57.
(online at: https://catalog.lib.kyushu-u.ac.jp/opac_download_md/1546835/31_02_p029.pdf)
(U Carboniferous- basal Permian Terbat Fm limestone, chert and shale, S of Kuching, W Sarawak, with diverse fusulinid foram assemblage of M Moscovian (lower U Carboniferous) to U Asselian (basal Permian) ages (29 species, 18 genera: Millerella, Ozawainella, Pseudostaffella, Fusiella, Schubertella, Boultonia, Profusulinella, Fusulinella, Beedeina, Fusulina, Quasifusulina, Darvasites, Chusenella, Rugosofusulina, Paraschwagerina Triticites, Sphaeroschwagerina). Correlates with faunas from E Tethys, including Thailand, S China, Japan (see also earlier work on fusulinids from this area by Cummings (1955), Sanderson (1960), Vachard (1990))

Salim, N.F.B., H.A.B.M. Idris, D.A.N.B.A. Bakar, K. Ogawa, T.Q. Tan & J. Jong (2015)- Jelawat-1ST1 post-well analysis revisited & the main reason for failure in finding effective hydrocarbon accumulation. Proc. Asia Petroleum Geoscience Conference and Exhibition (APGCE), Kuala Lumpur, 25867, p. 1-5. *(Extended Abstract)*
(Jelawat-1ST1 2004 wildcat tested anticline in Bunguran Trough fold-thrust belt, deepwater Rajang Delta. Late Miocene Cycle V turbidites with high amplitude anomalies deepest objective, but only tight reservoirs with minor gas shows. No other effective reservoirs in overlying section. Modelling suggests adequate hydrocarbon generation and migration, but ineffective regional top seal)

Salleh, Z., A.S.A. Jamil, K.R. Mohamed & C.A. Ali (2008)- Hydrocarbon generation potential of the coals and shales around the Eucalyptus campsite area, Maliau Basin, Sabah. Bull. Geological Society Malaysia 54, p. 147-158.
(Shales and coals of M Miocene Kapilit Fm, Maliau Basin, SE Sabah, good- very good hydrocarbon generating potential. Vitrinite Reflectance of most samples 0.57- 0.70%, indicating early oil generation stage)

Saller, A. & G. Blake (2003)- Sequence stratigraphy and syndepositional tectonics of Upper Miocene and Pliocene deltaic sediments, Offshore Brunei Darussalam. In: F.H. Sidi, D. Nummedal et al. (eds.) Tropical deltas of Southeast Asia-sedimentology, stratigraphy and petroleum geology, Society for Sedimentary Geology (SEPM) Special Publ. 76, p. 219-234. *(online at: https://www.researchgate.net/publication/289598693_Sequence_stratigraphy_and_syndepositional_tectonics_of_upper_Miocene_and_Pliocene_deltaic_sediments_offshore_Brunei_Darussalam)*
(Two main Late Miocene-Pleistocene delta systems on Brunei shelf, Champion and Baram. 'Fourth-order' sequences of 100-200k years average duration, probably close to 100 ky Milankovich frequency)

Salman, N.F.I., M. Elsaadany & A.H.A. Latiff (2024)- Karst geomorphology analysis for geohazard assessment via seismic relief and dip attributes in Jx carbonate field, Central Luconia Province, Malaysia. Bull. Geological Society Malaysia 78, p. 39-57.
(online at: https://gsm.org.my/wp-content/uploads/2024/11/5-FINAL-Karst-geomorphology-analysis.pdf)
(Carbonate reservoirs in Central Luconia Province off Sarawak underwent significant karstification during Miocene, with detrimental impact on drilling operations. Dendritic karst networks and circular karst collapses or sinkholes most common karst features observed on seismic data in area of JX field (1992). With comparison study of karst at Niah Caves, Miri, Sarawak)

Samsudin, N.M., A.H.A. Rahman & M.S. Ismail (2021)- Sedimentology and facies analysis of the Pedawan Formation along Borneo Heights road, Siburan Area, Kuching, Sarawak, Malaysia. Petroleum and Coal 63, 4, p. 1004-1018.
(*online at: https://www.vurup.sk/wp-content/uploads/2022/01/PC-X_Samsudin_70.pdf)*
(Outcrops of Late Jurassic- Cretaceous Pedawan Fm clastics along the Borneo Heights road in Siburan area, W Sarawak, seven lithofacies interpreted to be deep marine slope to the fan lobe facies. Microfossils rare small benthic foramininfera only)

Samsudin, N.M., A.H.A. Rahman & M.S. Ismail (2021)- Soft-sediment structures in mud-dominated turbidites of Pedawan Formation (Upper Jurassic- Cretaceous) along Jambusan-Semadang Road, Siburan, Sarawak, Malaysia. Petroleum and Coal 63, 4, p. 1048-1058.
(online at: https://www.vurup.sk/wp-content/uploads/2022/01/PC-X_Samsudin_92_rev1.pdf)
(Highly deformed, thick, deep marine Cretaceous sediments in Siburan area, Kuching zone, SW Sarawak)

Sandal, S.T. (ed.) (1996)- The geology and hydrocarbon resources of Negara Brunei Darussalam, 1996 Revision. Brunei Shell Petroleum Co. and Brunei Museum, Bandar Seri Begawan, Syabas, p. 1-243.
(summary online at: www.bsp.com.bn/panagaclub/pnhs_old/geology/web/...)
(Standard work on geology and oil-gas of Brunei, mainly by Brunei Shell geologists. This is updated version of James et al. (1984) book)

Sanderson, G.A. (1966)- Presence of Carboniferous in West Sarawak. American Assoc. Petroleum Geol. (AAPG) Bull. 50, 3, p. 578-580.
(Preliminary note on Terbat Limestone Fm, Upper Sadong valley, W Sarawak. With three different fusulinid assemblages, probably Late Carboniferous and Early Permian in age. Not much detail)

Sanudin, H.T. & T.H. Tan (1986)- The Sabah Melange- a stratigraphic unit? Warta Geologi 12, 2, p. 58-59.
(online at: https://gsmpubl.files.wordpress.com/2014/09/ngsm1986002.pdf)
(Outcrops of "Chert-Spilite Formation" in Sabah invariably associated with sheared ophiolitic rocks and olistholiths. Outcrops of chert and spilite in melanges are broken blocks of ophiolite suites. Sedimentary formations with chert and spilite, all having features of melange, should be grouped as one mappable body and named 'Sabah Melange')

Sanudin, H.T., B.G. Muhammad, J.J. Pereira & C.J. Quek (1992)- Occurrence of melange in the Bengkoka Peninsula, Sabah. Warta Geologi (Newsletter Geological Society Malaysia) 18, 1, p. 1-7.
(online at: https://gsmpubl.files.wordpress.com/2014/09/ngsm1992001.pdf)

Sapawi, A., M.L. Anwar & E. Seah P.K. (1991)- Geochemistry of selected crude oils from Sabah and Sarawak. Bull. Geological Society Malaysia 28, p. 123-139.
(online at: https://gsm.org.my/wp-content/uploads/gsm_file_2/702001-101066-PDF.pdf)
(Oils from 15 offshore Sabah and Sarawak fields three different types (waxy, normal non-waxy and biodegraded). Biomarkers show sourced from landplant-derived organic matter. High pristine/phytane ratio over 3.0 suggests source rocks probably from peat swamp environments)

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('Impact of erosion/ sedimentation on the structural configuration of an accretionary wedge: the example of the NW Borneo Wedge; geological, seismic and thermal approach')

Sapin, F., I. Hermawan, M. Pubellier, C. Vigny & J.C. Ringenbach (2013)- The recent convergence on the NW Borneo Wedge- a crustal-scale gravity gliding evidenced from GPS. Geophysical J. International 193, 2, p. 549-556.
(online at: https://gji.oxfordjournals.org/content/193/2/549.full.pdf+html)
(Frontal fold-and-thrust belt in deep water NW Borneo Wedge ('toe-thrusts') traditionally considered as inactive and attributed to thin-skin gravity-driven Baram and Champion deltas. However, some evidence of convergence and compression from GPS velocities and stress field from borehole analysis between NW Borneo and Sunda Plate (Dangerous Grounds). Recent compression on frontal FTB is result of orogenic collapse of NW Borneo in Sabah- N Sarawak since 1.9 Ma, after lithospheric convergence ceased at 3.6 Ma)

Sapin, F., M. Pubellier, A. Lahfid, D. Janots, C. Aubourg & J.C. Ringenbach (2011)- Onshore record of the subduction of a crustal salient: example of the NW Borneo wedge. Terra Nova 23, 4, p. 232-240.

(online at: www.researchgate.net/publication/252742765_Geodynamic_evolution_of_the_NW_Borneo Etc.)
(Subducted horst in NW Borneo Wedge evidenced by strong bend of structural trend of Rajang-Crocker Belt and area with 'hummocky', texture representing dismantled packages of sediments, also some large back and out-of-sequence thrusts in internal zones and complex folds rooted on shear structures in accretionary wedge)

Sapin, F., M. Pubellier, J.C. Ringenbach & T. Rives (2011)- The Brunei fold-and-thrust belt: tectonically- or gravity-driven? AAPG Hedberg Conf., Tirrenia 2009, p. 1-6. *(Extended Abstract)*
(online at: www.searchanddiscovery.com/abstracts/pdf/2011/2009hedberg-italy/abstracts/ndx_sapin.pdf)
(NW Borneo Margin commonly considered as inactive because of absence of seismicity, but recent GPS studies (Socquet 2003, Simons et al. 2007) show relative motion between NW Borneo coastline and fixed Sunda Plate of 6 mm/yr, attributed to convergence in NW Borneo Trench. Champion deltaic province prograded over active fold-thrust belt. Brunei deepwater fold-and-thrust belt active since M Miocene, but mainly gravity-driven since Late Miocene, with lithospheric convergence accommodated in Brunei onshore area)

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(On 'counterregional normal faults' on seismic data from Tertiary Niger delta and Brunei Champion- Baram Basin delta system. Faults initiated on apex of early folds, as shelf-break propagated seaward)

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(online at: https://geologicalbehavior.com/archives/2gbr2018/2gbr2018-17-20.pdf)
(Sebatik Island at border between SE Sabah (Malaysia) and NE Kalimantan (Indonesia), geologically part of N Tarakan Basin. Outcrops of sandstones-shales of the M Miocene Sebatik Member of the U Kalumpang Fm. Depositional facies tidal flat-dominated shoreline)

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(online at: www.gsm.org.my/products/702001-101595-PDF.pdf)
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(Three biofacies in Debbestone limestone quarry in coral-rich E Miocene Subis Limestone near Niah, Sarawak, indicative of protected or a back-reef depositional environment)

Saw, Bing Bing, M. Ramkumar, J. Rai; J.A. Gamez Vintaned, G. Jimenez, S.H. Ali & M. Poppelreiter (2023)- The evolution of carbonate systems during the Oligocene-Miocene transition: an example of Subis Limestone, Malaysia. In: E.C. Rankey & M.C. Poppelreiter (eds.) Cenozoic isolated carbonate platforms- Focus Southeast Asia, Society for Sedimentary Geology (SEPM) Special Publ. 114, p. 1-15.
(Subis carbonate platform near Batu Niah, Sarawak, of latest Oligocene (Te4 with Miogypsinoides) to E Miocene (Te5) age. Oligocene -Miocene boundary coincides with sharp change from foraminifera-dominated facies to coral-dominated facies)

Saw, B.B., M. Schlaich, M.C. Poppelreiter, M. Ramkumar, P. Lunt, J.A.G. Vintaned & Syed Haroon Ali, (2019)- Facies, depositional environments, and anatomy of the Subis build-up in Sarawak, Malaysia: implications on other Miocene isolated carbonate build-ups. Facies, 65, 28, p. 1-14.
(online at: www.researchgate.net/profile/Muthuvairavasamy-Ramkumar/publication/332653744_Facies Etc.)
(E Miocene Subis build-up exposed in coastal Sarawak, with exposed thickness of 390 m. Limestone composed of massive and branching corals, coralline red algae, benthic foraminifera, bivalves, gastropods, echinoids, and occasionally bryozoans and sponges. Three major backstepping events)

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(Togopi Fm of Dent Peninsula near E coast of Sabah with Plio-Pleistocene sediments with 28 species of Pliocene corals from quarries previously dated as 4.5-3.4 Ma, 21 of which extant species. Rel. high diversity of corals casts doubt on impact of Plio-Pleistocene extinction previously reported from C Indo-Pacific)

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Scherer, F.C. (1980)- Exploration in East Malaysia over the past decade. In: M.T. Halbouty (ed.) Giant oil and gas fields of the decade 1968-1978, American Assoc. Petroleum Geol. (AAPG), Memoir 30, p. 423-440.
(N Borneo exploration resulted in discovery of 2 large oil fields, 6 large gas fields and several smaller oil fields. Descriptions of giant fields Baronia (1967- Baram Delta), Samarang (1972- S Sabah) and Central Luconia gas fields (1968-1975, C Sarawak, mainly in M-L Miocene carbonates))

Schlee, D., P.H. Chan, J. Dorani & F.K. Voong (1992)- Riesenbernsteine in Sarawak, Nord-Borneo. Lapis 17, 9, p. 13-23.
('Giant amber stones from Sarawak'. Large (up to 3.5m long, >10cm thick) slabs of fossil resin (amber), associated with coaly beds in Miocene Nyala Fm)

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('On the geology of NW Borneo and a newly-formed island'. Discussion of folded Tertiary around Brunei Bay, Klias Peninsula and Labuan Island and 'birth' of new mud diapyr island off W side of Klias Peninsula in 1897)

Schmidtke, E. (1988)- Paleomagnetic study of the Sundaland continental massif: implications for Southeast Asian tectonics. M.A. Thesis, University of California, Santa Barbara, p. 1-101. *(Unpublished)*

Schmidtke, E.A., M.D. Fuller & R.B. Haston (1990)- Paleomagnetic data from Sarawak, Malaysian Borneo, and the late Mesozoic and Cenozoic tectonics of Sundaland. Tectonics 9, 1, p. 123-140.
(Paleomagnetic data from 231 samples of W Sarawak U Jurassic-Miocene show increasing CCW declination deflection with age. Samples from mid-Cretaceous Orbitolina limestone near Pedawan ~90° CCW rotation. Oligo-Miocene intrusions CCW rotations of 52° (26 Ma) and 22° (17 Ma). Sites in U Eocene- Oligocene Silantek Fm ~41° CCW rotation. CCW rotation extends into Malay Peninsula, suggesting W Borneo and Malay Peninsula stable block in latest Cretaceous-Cenozoic, with up to 108° CCW rotation. Cenozoic rotation also possibly between Indochina and Borneo. Sense of rotation does not support 'propagating extrusion tectonics' model of Tapponnier et al. (1982, 1986) for Cenozoic of Sundaland)

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(Summary of Brunei petroleum geology)

Schreurs, J. (1997)- The petroleum geology of Negara Brunei Darussalem; an update. In: J.V.C. Howes & R.A. Noble (eds.) Proc. Int. Conference Petroleum Systems of SE Asia and Australasia, Jakarta 1997, Indonesian Petroleum Association (IPA), p. 751-766.
(Summary of Sandal et al. (1996) Shell book on geology and hydrocarbons of Brunei. Brunei in Neogene Baram Delta Province. Three main delta phases in overall regressive system: (1) Meligan Delta (Proto-Champion, early Baram Delta), pre-M Miocene, only preserved as erosional remnants in uplifted hinterland; (2) Champion Delta

(E Baram Delta), axis of progradation along Brunei- Sabah border, M-Late Miocene (14.2-7.4 Ma); (3) Baram Delta, main axis in Brunei's W Offshore, E Pliocene (5.2 Ma) - Recent)

Schuh, W.D. (1993)- Geology, geochemistry, and ore deposits of the Bau gold mining district, Sarawak, Malaysia. Ph.D. Thesis University of Arizona, p. 1-395.
(online at: http://arizona.openrepository.com/arizona/handle/10150/187561)
(Study of ore deposits and structural- tectonic setting of Bau area, W Sarawak. In Late Triassic, Bau was in island arc- back-arc basin environment (Serian andesitic volcanics). E Jurassic deformation and uplift followed by active margin development with subduction of W Pacific oceanic plate under NW Kalimantan block. Erosion of Serian Volcanics produced turbidites of Latest Jurassic- Late Cretaceous Pedawan Fm. Coeval development of rudist patch reefs on unstable shelf edge of overriding plate until Cenomanian. Early Tertiary molasse deposition ended with M Eocene event. Crustal-scale dextral strike-slip fault system (Bau Trend) developed during M Miocene post-subduction regional extension. Principal gold mineralization in M-L Miocene (12-10 Ma), when I-type, calc-alkaline granodiorites intruded along Bau Trend and intersection with ENE fracture zones. Central Bau underlain by ENE trending plutonic body at depth)

Schulz-Rojahn, J.P., P. Walshe & I. Suhaili (2004)- Champion West field development, Brunei: a study in seal, compartmentalisation and fluid fill uncertainty. Proc. SPE Asia Pacific Oil and Gas Conference Exh. (APOGCE), Perth 2004, p. 1-13.
(Paper addressing management of contact uncertainty in Champion field, with common thin, multi-layered, intensely faulted sandstone reservoirs with complex fluid fill distributions)

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(Mass transport complexes make up significant part of sediments in deepwater Sabah Trough off NW Borneo. MTCs vary in scale from 100s of m wide/ 10s of m thick to amalgamated bodies of 100s of km^{2}with thicknesses of 100s of m. Both debritic facies and coherent slump facies recognised)

Shalaby, M.R., N. Mahlstedt, L.N. Osli & M.A. Islam (2021)- PhaseKinetics for assessing the compositional evolution of petroleum generated from the early to Late Miocene source rock, Belait Formation, Brunei-Muara district, Brunei Darussalam. J. Petroleum Science Engineering 206, 108965, p. 1-16.
(Source rock potential study of Miocene Belait Fm, Brunei)

Sharkawi, N.A S, G.M. Paul, W.S. Prasetyotomo, H. Mansor, M.A. Samung, M.H.M Ripin et al. (2022)- Comprehensive approach of reservoir quality through carbonate type identification in Early Miocene carbonate plays, Central Luconia. Proc. Asia Petroleum Geoscience Conference and Exhibition (APGCE 2022), Kuala Lumpur, p. 1-4.
(Carbonate deposition in C Luconia Province started during E Miocene and continued until present day in some areas. E Miocene carbonates have limited penetrations and underexplored. Seismic facies work identified 6 different types of Early Miocene carbonates build ups)

Shoukat, N., S.H. Ali, N.A. Siddiqui, A. Wahid & Y. Bashir (2023)- Diagenesis and sequence stratigraphy of Miocene, Nyalau Formation, Sarawak, Malaysia: A case study for clastic reservoirs. Kuwait J. of Science 50, 4, p. 790-802.
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(Main diagenetic processes in E Miocene Nyalau Fm are compaction, dissolution and cementation)

Shoukat, N., N.A. Siddiqui, A.H.B. Abd Rahman & S.H. Ali (2019)- Sedimentology and depositional environments of the early Miocene Nyalau Formation, Bintulu area, Sarawak, Malaysia. Petroleum and Coal 61, 5, p. 973-982.
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(Lithofacies types of E Miocene exposures of Nyalau Fm around Bintulu, Sarawak)

Shoukat, N., N.A. Siddiqui, M.S.B. Ismail & S.H. Ali (2022)- Depositional environment and diagenesis of early Miocene Nyalau Formation, Sarawak, Malaysia. In: 2nd Int. Conf. Earth Resources (ICER 2020), Sarawak, IOP Conference Series: Earth and Environmental Science 1003, 012044, p. 1-5.
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(online at: www.searchanddiscovery.com/documents/2007/07040shoup/images/shoup.pdf)
(Study of Temana Field, Balingian Province, offshore Sarawak, with >100 Oligo-Miocene deltaic reservoir compartments. Channel sandstone reservoirs in estuarine settings where connected laminated overbank deposits provide aquifer support have recovery efficiencies up to 50%. Channel sands without connected overbank deposits have recovery efficiency of 30%.)

Shuib, M.K. (2003)- A dextral strike-slip model for the Miri Structure. Bull. Geological Society Malaysia 47, p. 95-103.
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(Miri Field structure result of interplay between compression and tensional wrenching (NNE-trending dextral strike-slip))

Sia, S.G. & W.H. Abdullah (2011)- Concentration and association of minor and trace elements in Mukah coal from Sarawak, Malaysia, with emphasis on the potentially hazardous trace elements. Int. J. Coal Geology 88, 4, p. 179-193.
(On hazardous elements in coal from Mukah field, which is enriched in As, Cr, Cu, Pb, Sb, Th, and Zn. Field with 12 coal seams in U Miocene Balingian Fm (E Miocene?; see Sia et al. 2014), which is unconformably overlain by E Pliocene Begrih Fm. Balingian Fm with brackish water forams Ammodiscus, Glomospira, Haplophragmoides, Trochammina)

Sia, S.G. & W.H. Abdullah (2012)- Geochemical and petrographical characteristics of low-rank Balingian coal from Sarawak, Malaysia: its implications on depositional conditions and thermal maturity. Int. J. Coal Geology 96-97, p. 22-38.
(Geochemical and coal petrographical analyses of low-rank U Pliocene Balingian coal from Sarawak. Characterised by high moisture, low ash and low sulphur contents. Low ash and sulphur content, together with lack of epiclastic partings indicate coal deposition in ombrotrophic raised bogs)

Sia, S.G. & W.H. Abdullah (2012)- Enrichment of arsenic, lead, and antimony in Balingian coal from Sarawak, Malaysia: modes of occurrence, origin, and partitioning behaviour during coal combustion. Int. J. Coal Geology 101, p. 1-15.
(Balingian Coal from U Pliocene Liang Fm in Sarawak highly enriched in As, Pb and Sb and vaporized and released into atmosphere during coal combustion. Enrichment may be related to nearby Sb-As mineralization. Liang Fm unconformably overlies Lower Pliocene Begrih Fm in N and Eocene Belaga Fm in S)

Sia, S.G., W.H. Abdullah, Z. Konjing & A.M. Koraini (2014)- The age, palaeoclimate, palaeovegetation, coal seam architecture/mire types, paleodepositional environments and thermal maturity of syn-collision paralic coal from Mukah, Sarawak, Malaysia. J. Asian Earth Sciences 81, p. 1-19.
(online at: https://umexpert.um.edu.my/file/publication/00004125_105774.pdf)
(Mukah coal in Balingian Fm previously assigned Late Miocene age, but abundance of Casuarina pollen associated with Dacrydium, Stenochlaena palustris, Florschuetzia levipoli and Stenochlaena areolaris indicate palynozone PR9, Early Miocene, i.e. during collision between Luconia- Dangerous Grounds Block with Borneo. Coal with common detrohuminite without enrichment of liptinite group macerals. Low sulphur content and evidence from palynomorphs in seams show coal was deposited in freshwater mires with little or no marine influence. Fauna present in host rock formation suggests brackish-water deposition)

Sia, S.G., W.H. Abdullah, Z. Konjing & J. John (2019)- Floristic and climatic changes at the Balingian Province of the Sarawak Basin, Malaysia, in response to Neogene global cooling, aridification and grassland expansion. Catena 173, p. 445-455.
(online at: https://www.academia.edu/43001958/Floristic_and_climatic_changes_at_the_Balingian_Pr Etc.)
(Increased seasonality or reduced rainfall as result of Neogene global cooling and aridification in onshore Balingian Province, but everwet climates persisted. Flora in region changed from predominantly Kerangas forest (heath forest) in E Miocene to species-rich peat swamp forest in Pliocene)

Siddiqui, N.A., M.J. Mathew, M. Ramkumar, B.S.M. Usman, A.H.A. Rahman, M.A.K. El-Ghali et al. (2020)- Sedimentological characterization, petrophysical properties and reservoir quality assessment of the onshore Sandakan Formation, Borneo. J. Petroleum Science and Engineering 186, 106771, p. 1-16.
(Analysis of well-exposed M Miocene- Pliocene shallow-marine sandstone deposits of Sandakan Fm, N Borneo)

Siddiqui, N.A., A.H.A. Rahman, C.W. Sum, M.J. Mathew & D. Menier (2014)- Facies characteristics and static reservoir connectivity of some siliciclastic Tertiary outcrop successions in Bintulu and Miri, Sarawak, East Malaysia. AAPG International Conference & Exhibition, Istanbul 2014, Search and Discovery Article 51035, p. 1-21. *(Extended Abstract)*
(online at: www.searchanddiscovery.com/documents/2014/51035siddiqui/ndx_siddiqui.pdf)
(Outcrop analysis and characterization of sandstones in Miocene Nyalau and Miri Fms marginal- shallow marine succession in Bintulu and Miri area, Sarawak)

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Siddiqui, N.A., A.H.A. Rahman, C.W. Sum & M. Murtaza (2017)- Sandstone facies reservoir properties and 2D-connectivity of siliciclastic Miri Formation, Borneo. In: M. Awang et al. (eds.) Proc. Int. Conf. Integrated Petroleum Engineering and Geosciences (ICIPEG2016), Kuala Lumpur 2016, Springer Verlag, p. 581-595.

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(Digital imaging and reservoir quality analysis of 750m outcrop of Late Miocene or younger, shallow marine-deltaic Sandakan Fm, Sabah)

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(online at: www.jurnalteknologi.utm.my/index.php/jurnalteknologi/article/view/3677/3373)
(Deepwater NW Sabah and Sabah Trough seismic shows 8 Paleocene- Recent seismic stratigraphic units, 6 seismic facies and 5 sequence boundaries)

Sidek, A., U. Hamzah, A.R. Samsudin, M.H. Arifin & R. Junin (2015)- Deep crustal profile across NW Sabah Basin: integrated potential field data and seismic reflection. ARPN J. Engineering Applied Sciences 11, 3, p. 1401-1411.
(online at: https://www.arpnjournals.org/jeas/research_papers/rp_2016/jeas_0216_3513.pdf)
(Crustal profile model across Deepwater Fold and Thrust Belt, Sabah Trough, Dangerous Grounds Province and Thrust Sheet Zone. Formation of half-grabens and normal faults in Dangerous Grounds which subducted beneath Sabah Trough. Moho depth (top upper mantle) range 26-33km)

Sidek, M.A.b.M. & U. Hamzah (2018)- Structural analysis of Northwest Sabah basin by 2D reconstruction of seismic sections. J. Geoscience Engineering Environment Technology (JGEET) 3, 2, p. 69-76.
(online at: http://journal.uir.ac.id/index.php/JGEET/article/view/1413/1043)

(Fold-thrust-foldbelt in NW Sabah basin affecting M Miocene- Recent deposits in deformational zone between Sunda Shelf, Sulu Sea and S China Sea. Restoration of M Miocene- Recent packages. NW-SE compression, with total shortening >14.7 km in SW to 0.9 km in NE. Shortening decreasing towards Pliocene-younger deposits)

Sim, D. & G. Jaeger (2004)- Tectonostratigraphy and trap styles of the half-graben sub-province in West Luconia, offshore Sarawak. Proc. Petroleum Geology Conference Exhibition (PGCE), Kuala Lumpur 2003, Bull. Geological Society Malaysia 49, p. 107-110.
(online at: http://www.gsm.org.my/products/702001-100559-PDF.pdf)
(Half-Graben sub-province in W Luconia, offshore Sarawak, characterised by NNW trending, SW-dipping extensional faults, creating sub-basins within half-grabens during M Miocene. Syn-rift carbonates at base of half-graben drowned as result of rapid graben subsidence and influx of clastics. M Miocene fluviomarine sediments filled half-grabens. Rifting ended at start of Late Miocene. Post-rift sediments two main hiatuses: U Miocene (~10.6 Ma) and Lower Pliocene (~5.6 Ma). Miocene-Pliocene boundary last major deformation, with faulted anticlinal structures in NW area, attributed to wrench-related inversion of extensional faults)

Sim, A.C.Y., D.E.L. Ong, L.Y. Tai, W.H. Ting et al.(2016)- Characteristics of hardpan calcrete of the Nyalau Formation and impact on design of foundations. Geotechnical Engineering 47, 4, p. 1-9.
(online at: https://www.researchgate.net/publication/310595811_Characteristics_of_Hardpan_Calcrete_of_the_Nyalau_Formation_and_Impact_on_Design_of_Foundations)
(Miocene Nyalau Fm, Bintulu, Sarawak composed of thick series of shallow marine and paralic sediments, mainly sandstones. Also lesser known 'limestone', described here as hardpan calcrete. Possibly formed in M Pleistocene below alluvium with inland peat swamp deposits, creating difficulties for for foundation works)

Simmons, M.D., M.D. Bidgood, P. Brenac, P.D. Crevello, J.J. Lambiase & C.K. Morley (1999)- Microfossil assemblages as proxies for precise palaeoenvironmental determination- an example from Miocene sediments from north-west Borneo. In: R.W. Jones & M.D. Simmons (eds.) Biostratigraphy in production and development geology, Geological Society, London, Special Publ. 152, p. 219-241.
(Palynomorphs and foraminifera allow distinction of paleoenvironments where core is absent in Miocene deltaic-marine clastics formations of Brunei-Sabah)

Simon, Khor, M. Hakif & M.P.J. Barbeito (2014)- Sedimentology and stratigraphy of the Miocene Kampung Opak limestone (Sibuti Formation), Bekenu, Sarawak. Bull. Geological Society Malaysia 60 (C.S. Hutchison Memorial Issue), p. 45-53.
(online at: https://gsmpubl.files.wordpress.com/2015/04/bgsm2014005.pdf)
(Kampung Opak Limestone in Sibuti Fm, onshore Sarawak, 44m thick wackestone-mudstones with Miogypsina and marls with M Miocene (N9- N13) planktonic foraminifera, probably representing distal margins of carbonate platform)

Sleumer, B.H.G. (1978)- The Subis Limestone Complex- Sarawak, Malaysia. Proc. Carbonate Seminar, Indonesian Petroleum Association, Jakarta 1976, p. 120-121. *(Abstract only)*
(Subis Lst, 100 km S of Miri, ~1000' thick isolated carbonate buildup with caves in Sarawak. Age early E Miocene (larger foram zone Te5; Eulepidina+ Miogypsina). Contemporaneous Setap Fm shales belong to G. binaiensis planktonic foram zone)

Sorkhabi, R. (2010)- Miri 1910: the centenary of oil discovery in Sarawak. GEO Expro 7, 2, p. 44-49.
(online at: www.geoexpro.com/magazine/vol-7-no-2)
(1910 oil discovery in U Miocene Miri Fm of N Sarawak by Anglo-Saxon Petroleum (Royal Dutch/Shell Group) in area of oil seeps. Peak production reached 15,211 BOPD in 1929. Total production by end-1940 ~7 MBO; 597 wells had been drilled in the field. Field closed in 1972)

Sorkhabi, R. (2011)- Kota Kinabalu, Sabah; a turbidite paradise. GEO ExPro 8, 5, p. 52-56.
(online at: www.geoexpro.com/magazine/vol-8-no-5)
(Kota Kinabalu built on Late Eocene- E Miocene turbidites of the foothills of the Crocker Range)

Sorkhabi, R. (2012)- Borneo's petroleum plays. GEO ExPro 9, 4, p. 21-24.
(online at: www.geoexpro.com/magazine/vol-9-no-4)
(Brief review of oil exploration in Kalimantan and North Borneo since 1897)

Sorkhabi, R. & S. Hasegawa (2005)- Fault zone architecture and permeability distribution in the Neogene clastics of Northern Sarawak (Miri Airport road outcrop), Malaysia. In: R. Sorkhabi & Y. Tsuji (eds.) Faults, fluid flow and petroleum traps, American Assoc. Petroleum Geol. (AAPG), Memoir 85, p. 139-151.

Sperber, C.M. (2009)- The thermotectonic development of Mount Kinabalu, Sabah, Malaysia. Ph.D. Thesis Royal Holloway, University of London, p. *(Unpublished)*
(Mount Kinabalu is 4095m high post-orogenic granitic intrusion, emplaced far from active plate boundaries at ~8 Ma. Thermochronological study suggests exhumation rates of ~0.40 mm/yr for central zone and ~0.60 mm/yr for marginal zone of igneous body)

Staub, J.R., H.L. Among & R.A. Gastaldo (2000)- Seasonal sediment transport and deposition in the Rajang River delta, Sarawak, East Malaysia. Sedimentary Geology 133, p. 249-264.
(Description of sedimentary processes in Rajang Delta, NW Borneo, and variations in deposition between wet and dry seasons)

Staub, J.R. & J.S. Esterle (1993)- Provenance and sediment dispersal in the Rajang River delta/ coastal plain system, Sarawak, East Malaysia. Sedimentary Geology 85, p. 191-201.
(Rajang delta in embayment formed by folded Mesozoic and Cenozoic sediments of C Borneo Massif. Alluvial valley floodplain, abandoned tidally flushed delta plain and actively accreting rectilinear delta/coastal plain. 50-80% of surface area covered by peat 1-20m thick. Margins of thick, domed peat deposits interfinger with and are overlain by root-penetrated siliciclastic sediments)

Staub, J.R. & J.S. Esterle (1994)- Peat-accumulating depositional systems of Sarawak, East Malaysia. Sedimentary Geology 89, p. 91-106.
(Prograding coastal depositional systems of Sarawak contain domed peat-accumulating environments in which low-ash, low-sulfur peats are being deposited in areas of clastic sedimentation. Depositional systems are as large as 11,400 km^2, individual peat deposits >20m thick and 1000 km^2 in area. Basal high-ash, high-sulfur, degraded peats overlain by low-ash, low-sulfur, well preserved peats)

Staub, J.R. & R.A. Gastaldo (2003)- Late Quaternary sedimentation and peat development in the Rajang River Delta, Sarawak, East Malaysia. In: F.H. Sidi et al. (eds.) Tropical deltas of Southeast Asia; sedimentology, stratigraphy, and petroleum geology. Soc. Sedimentary Geology (SEPM), Special Publ. 76, p. 71-87.
(Thick, domed peat deposits on Rajang delta tide-influenced alluvial valley and coastal plain. NE-striking shoreline terrace sands along landward margin of delta and coastal plain and gravel outcrops in alluvial valley expression of VIIa/ 125 ka highstand surface. Lignite near present coast at 80m depth represents IIIb highstand surface, indicating 40m of subsidence in last 40 ka. Gravel dominates base of incised-valley fill 10km wide- 45m thick and overlain by fining-upward succession with tidally influenced upper part. Interfluve areas in landward half of NE delta plain and adjacent coastal plain with >10m Recent peat deposits on Pleistocene began accumulating between 7.3- 5.8 ka as rate of sea-level rise slowed. Seaward half of NE delta plain, delta front, and prodelta up to 40m thick seaward-thickening wedge, accumulated in last 5 ka, with basal gravel lag over rooted alluvial soil, overlain by delta-front and prodelta clays- silts, delta-front distributary-mouth sands and shoreline sands. Young (<5 ka), thin (<10m) peat on top of wedge in this part of delta plain)

Stauffer, P.H. (1967)- Studies in the Crocker Formation, Sabah. Geological papers 1966, Geological Survey Borneo Region, Malaysia, Kuching, Bull. 8, p. 1-13.
(Pioneering paper on the deformed flysch-type clastic deposits of the Paleogene Crocker Fm in the greater Jesselton (Kota Kinabalu) area in W Sabah. First to recognize the Crocker Fm as deep marine turbidite deposits, in two separate submarine fan complexes. Recognized all typical turbidite features like graded bedding, flute casts at base of sand beds, clay rip-up clasts near top of sand beds, synsedimentary slumping, etc. Paleocurrents mainly in northerly directions)

Stauffer, P.H. & D.T.C. Lee (1972)- Sedimentology of the Sandakan formation, East Sabah. Geological Survey of Malaysia, Geological Papers 1, p. 10-17.

Stephens, E.A. (1956)- The manganese deposits of North Borneo. In: J.G. Reyna (ed.) Symposium sobre yacimientos de manganeso, 4, Asia y Oceanica, Reports 20th Session International Geological Congress, Mexico, 4, p. 297-312.
(Manganese mineralization in N Borneo associated with radiolarian chert in Paleocene- Lower Eocene 'Chert-Spilite Formation', which is capped by M Eocene- Miocene sandstone, shale, and limestone. Ore mainly psilomelane and pyrolusite. Manganese probably introduced simultaneously with extrusion of basic lavas, contemporaneous with silicification. Tropical weathering subsequently concentrated manganese. Ores rel. low-grade and attempts at commercial exploitation so far unsuccessful)

Stephens, E.A. (1956)- The geology and mineral resources of the Kota Belud and Kudat area, North Borneo, with an account of Taritipan manganese deposits. Geological Survey Department, British Territories in Borneo, Memoir 5, p. 1-137.
(Kota Belud Kudat region with Chert-Spilite Fm Cretaceous- Early Eocene cherts (with manganese ores in Taritipan district), spilites and related geosynclinal deposits, with intermediate-ultrabasic igneous intrusives. Thick Eocene sands-shales and (mainly N of Kudat) Miocene shallow marine sediments and andesites. Oil seeps near Sikuati)

Stinton, F.C. (1963)- Teleostian otoliths from the Upper Tertiary strata of Sarawak, Brunei and North Borneo. British Borneo Geological Survey, Annual Report 1962, p. 75-92.
(18 species (14 new) of marine fish otoliths from M-U Miocene- E Pliocene Miri and Seria Fms of Brunei and Sarawak and Togopi Fm of E Sabah)

Straub, K.M. & D. Mohrig (2009)- Constructional canyons built by sheet-like turbidity currents: observations from offshore Brunei Darussalam. Journal of Sedimentary Research 79, 1, p. 24-39.
(online at: https://www.researchgate.net/publication/228739399_Constructional_Canyons_Built_by_Sheet-Like_Turbidity_Currents_Observations_from_Offshore_Brunei_Darussalam)
(Seismic examples of Quaternary canyons in 900m of water off Brunei, not formed by erosion, but in net deposition conditions)

Straub, K.M., D. Mohrig & C.Pirmez (2012)- Architecture of an aggradational tributary submarine channel network on the continental slope offshore Brunei Darussalam. In: E. Bradford et al. (eds.) Application of the principles of seismic geomorphology to continental slope and base-of-slope systems: case studies from seafloor and near-seafloor analogues, Soc. Sedimentary Geology (SEPM) Special Publ. 99, p. 13-30.
(online at: https://www.researchgate.net/publication/351496037_ARCHITECTURE_OF_AN_AGGRADATIONAL_ TRIBUTARY_SUBMARINE-CHANNEL_NETWORK_ON_THE_CONTINENTAL Etc.))
(3D seismic study of submarine channels network downslope from shelf-edge of Champion Delta, off Brunei)

Suggate, S. (2011)- Provenance of Neogene sandstones of Sabah, Northern Borneo. Ph.D. Thesis, Royal Holloway, University of London, p. 1-441. *(Unpublished)*

Suggate, S. (2011)- Provenance of Neogene sandstones, Sabah, Northern Borneo. In: Conf. Sediment provenance studies in hydrocarbon exploration & production, Geological Society, London 2011, p. 32. *(Abstract only)*
(E Miocene Sabah Orogeny deformed/ exposed pre-Neogene rocks in N Borneo (Top Crocker Unconformity) Most Neogene sands compositionally and texturally mature, and recycled from pre-Neogene sediments, ultimately derived from Schwaner Mts and Malay-Thai Tin Belt Granites, with some input from N Borneo ophiolitic basement, and Cenozoic volcanic rocks. Exception is oldest member of E Miocene Kudat Fm, which is immature, with granites and metamorphic rocks of Palawan Microcontinental Block contributing significant amounts of sediment. Jurassic zircon populations indicate S China source. Also garnet composition supports derivation of garnets from Palawan)

Suggate, S.M., M.A. Cottam, R. Hall, I. Sevastjanova, M.A. Forster, L.T. White, R.A. Armstrong, A. Carter & E. Mojares (2014)- South China continental margin signature for sandstones and granites from Palawan, Philippines. Gondwana Research 26, 2, p. 699-718.
(online at: http://searg.rhul.ac.uk/pubs/suggate_etal_2014%20Palawan.pdf)
(Heavy mineral analysis and U-Pb dating of detrital zircons from metasediments and Cenozoic sandstones and U-Pb dating of zircons from Cenozoic granites of N Palawan Continental Terrane and S Palawan Terrane. NPCT metasediments zircons maximum Late Cretaceous depositional age, derived from sediments deposited on S China margin before rifting/ opening of South China Sea. Miocene SPT sandstones with similar heavy mineral assemblages. Palawan Terrane sandstones similar to Lower Miocene Kudat Fm of N Borneo (and different from other Borneo sandstones), suggesting sediment transport from Palawan to Borneo in E Miocene following arc-continent collision. C Palawan granite Eocene age (42Ma). Capoas granite age 13.8-13.5 Ma, with inherited zircon ages implying melting of S China-derived continental crust with Cenozoic rift-related and arc material)

Suggate, S.M. & R. Hall (2013)- Using detrital garnet compositions to determine provenance: a new compositional database and procedure. In: R.A. Scott et al. (eds.) Sediment provenance studies in hydrocarbon exploration and production, Geological Society, London, Special Publ. 386, p. 373-371.
(Detrital garnet compositions suggest Neogene sandstones of N Sabah derived from metamorphic and igneous garnets from Palawan Block in E Miocene)

Sulaiman, N.B. (2017)- Controls on the geometry and evolution of deep-water fold thrust belt of the NW Borneo. Ph.D. Thesis University of Leeds, p. 1-163. *(online at: http://etheses.whiterose.ac.uk/18877/1/Sulaiman_NB_%20Earth%20and%20Environment_PhD_2017.pdf)*
(On the offshore NW Sabah gravity-driven extensional-compressional system. Pulses of M Miocene- Recent proximal uplift started in E (now onshore) part of NW Borneo and increased slope elevation and sediment supply to basin. Shortening resulted in response to gravity spreading of uplifted continental interior)

Swauger, D.A., S.C. Bergman, A.P. Marillo, E.S. Pagado & T. Surat (1995)- Tertiary stratigraphy and tectonic framework of Sabah, Malaysia: a field and laboratory study. Proc. 8th Regional Conference Geology Minerals, and Energy Resources of SE Asia (GEOSEA 95), Manila, p. 35-36.

Swauger, D.A., C.S. Hutchison, S.C. Bergman & J.E. Graves (2000)- Age and emplacement of the Mount Kinabalu pluton. Bull. Geological Society Malaysia 44, p. 159-163.
(online at: www.gsm.org.my/products/702001-100753-PDF.pdf)
(Radiometric dates of Mt Kinabalu pluton reflect Middle-Late Miocene igneous cooling history: hornblende 13.7 Ma, biotite 10.3 Ma and zircon 8.8 Ma)

Swinburn, P.M. (1993)- Tectonic styles of the Balingian Province. Warta Geologi 19, 6, p. 269-270. *(Abstract only)*
(Balingian Province off Sarawak bounded to N by more stable C Luconia Province. To W and E are W Balingian and W Baram Lines, both major NW-SE trending lineations, and may represent old transform faults. Deformation in Tertiary times related to periodic movement along major bounding transform faults and opening of S China Sea. Balingian Province 3 sub-provinces: (1) E Balingian, with strong, late Miocene to Pliocene wrench-related deformation; (2) SW Balingian, with Oligocene- E Miocene wrench-related deformation; (3) NW Balingian several phases of strong deformation from Oligocene- Pliocene)

Syafiq, H., A.A. Shah & M.G.G. Rachman (2024)- Shuttle radar topography-based analysis reveals the active Borneo Island Fault in Borneo, SE Asia. J. Asian Earth Sciences: X, 100184, p. 1-20.
(online at: https://www.sciencedirect.com/science/article/pii/S2590056024000124)
(Interpretation of regional faults of northern Borneo from Shuttle radar topography, earthquake data, etc. (Borneo Fault, Tinjar Line, Lupar Line, etc.))

Syazwani, N., B.J. Pierson & A.W. Hunter (2013)- Diagenetic responses to sea level changes on Pleistocene-Holocene carbonates in the Celebes Sea, East Sabah, Malaysia. Proc. 75th EAGE Conference & Exhibition, Carbonate depositional environments and diagenesis, London, 1, Tu P15 07, p. 52-54.

(On diagenesis of elevated Quaternary reef limestone in Celebes Sea, E of Sabah)

Tahir, S.H. & A. Jantan (1994)- Stratigraphy of the Middle Miocene volcanic facies, Dent Peninsula, Sabah. Warta Geologi (Newsletter Geological Society Malaysia) 20, 3, p. 225-227. *(Abstract only)*
(online at: https://gsmpubl.files.wordpress.com/2014/09/ngsm1994003.pdf)
(M Miocene volcanic facies of Dent Peninsula, E Sabah, here named Silabukan Fm, 2000m thick and with 3 members. Probably submarine island arc volcanics and part of Sulu Arc. Uncormably over Dent melange/ Crocker Fm accretionary complex. Major phase of uplift coincident with early pulse of volcanic activity in early M Miocene (base planktonic foram zone N10))

Tahir, S.H., B. Musta & I.A. Rahim (2010)- Geological heritage features of Tawau volcanic sequence, Sabah. Geological Society Malaysia 56, p. 79-85.
(online at: www.gsm.org.my/products/702001-100383-PDF.pdf)
(Description of Early Cretaceous oceanic crust/ Neogene volcanic arc terrane of Semporna Peninsula, SE Sabah near Kalimantan border. Oldest rocks fragmented oceanic crust material (Chert-Spilite Fm), emplaced in Albian-Cenomanian (similar age as Meratus Mts?). Overlain by thick, folded M Miocene volcanic island arc deposits, overlain by Plio-Pleistocene volcanics. Sabah deformation phases in M Eocene, M Miocene and Plio-Pleistocene. Two volcanic arc phases: (1) related to closing of Celebes and Sulu marginal basins in M Miocene and (2) related to S Philippine Sea Plate in Plio-Pleistocene)

Tahir, S.H., S.A.K. Omang & M.M. Faisal (1995)- Middle Miocene volcanic sequence in Eastern Sabah. Borneo Science 1, 1, p. 9-27.
(online at: wwwsst.ums.edu.my/data/file/NMXJD058e7Up.pdf)
(M Miocene calc-alkaline volcanic arc deposits of Segama Gp in Dent Peninsula and Kalumpang Fm in Semporna Peninsula, E Sabah are parts of volcanic arc. Remnants of volcanic arc extend N-ward into Sulu Ridge and volcanism ended in late M Miocene. Arc assemblage overlies late E- early M Miocene melange. Probably submarine stratovolcano, with mainly pyroclastics, breccias, some lava flows, lenses of shallow marine carbonates and open marine tuffaceous shales with common planktonic foraminifera, incl. Orbulina, Globorotalia praefohsi, Gr. fohsi and Gr. fohsi robusta (= zones N11-N12, ~12-14 Ma)).

Tahir, S., K.V. Siong, B. Musta & J. Asis (2017)- Facies and sandstone characteristics of the Kudat Formation. Sabah, Malaysia. J. Geological Behavior 1, 2, p. 20-25.
(online at: https://geologicalbehavior.com/archives/2gbr2017/2gbr2017-20-25.pdf)
(Late Early- early M Miocene Kudat Fm of Kudat Peninsula in N Borneo, composed of sandstone- mudstone with limestone lenses. Divided into Tajau Mb and Sikuati Mb. Major shoreface deposits in late E Miocene. Porosity in sandstone ~12%, mainly secondary, from dissolution of carbonate cement and unstable grains)

Taib, N.E. (2012)- Plio-Pleistocene volcanism in the Upper Rajang Valley- a window into the crust under the Rajang Group. Geological Society Malaysia, Proc. National Geoscience Conference, Kuching 2012, Paper A15, p. 28. *(Abstract only) (online at: https://gsm.org.my/articles/702001-101659/)*
(Plio-Pleistocene bimodal volcanic edifices in upper Rajang valley (Niewenhuis Mts, Usun Apau, Hose Mts, Linau-Balui volcanics and others in N Kalimantan). Ar/Ar ages of Usun Apau dacites 4 Ma, Usun Apau and Linau-Balui basalts 2-2.5 Ma. Usun Basalts reminiscent of Oceanic Island Basalts (OIB), associated with mantle plumes and rifting/extension. Bimodal volcanism also associated with rifting and extension. Similarities to basalts from S Sulu Arc on Semporna pensinsula, interpreted earlier as contamination of mantle melts with radiogenic component from Paleozoic lower crust)

Taira, K. & W. Hashimoto (1971)- C-14 age calculated for raised coral reef limestones near Semporna, Sabah, North Borneo, Malaysia. In: T. Kobayashi & R. Toriyama (eds.) Geology and palaeontology of Southeast Asia, University of Tokyo Press, 9, p. 161-164.
(C-14 dating of oyster in raised coral limestone on Sipangao island 21' above high tide ~28,000 BP or older. On Danawan island coral cliffs >40' high)

Tamura, M. (1973)- Two species of lower Cretaceous *Parvamussium* from Kyushu, Japan, and Sarawak, Borneo. In: T. Kobayashi & R. Toriyama (eds.) Geology and palaeontology of Southeast Asia, University of Tokyo Press, 11, p. 119-124.
(Lower Cretaceous pectinid bivalve from Sarawak, S of Kuching. Also report perisphinctid ammonite from Bau series black shale, probably Berriasella or Microanthoceras indicating Tithonian-Berriasian age)

Tamura, M. & C. Hon (1977)- *Monotis subcircularis* Gabb from Sarawak, East Malaysia. In: T. Kobayashi et al. (eds.) Geology and Palaeontology of Southeast Asia, University of Tokyo Press, 18, p. 29-31.
(Late Triassic thin-shelled bivalve Monotis subcircularis found at Kuap, Sarawak. Identified as M. subcircularis, but more likely Monotis (Eomonotis) according to Silberling (1985))

Tamura, M. & C. Hon (1977)- Upper Jurassic bivalves from the Kedadom formation of Sarawak, Malaysia. In: T. Kobayashi & R. Toriyama (eds.) Geology and palaeontology of Southeast Asia, University of Tokyo Press, 18, p. 33-47.
(Kedadom Limestone Fm of W Sarawak rich in bivalves (Nuculana, Grammatodon, Somapecten, Lucina, Neoburmesia, etc.) show Callovian or Kimmeridgean to Berriasian age and related to Torinosu fauna on Pacific side of Japan (Kobayashi 1978, Hayami 1984) (similar to Vogel (1896, 1900) faunas from W Kalimantan?; also viewed as 'Torinosu-type fauna' by Tamura 1959; JTvG))

Tan Chun Hock (2021)- Facies distribution and stratigraphic development on a shale-cored Ridge, Klias Peninsula, Malaysia. Bull. Earth Sciences Thailand (BEST) 3, 2, p. 9-11.
(online at: https://ph01.tci-thaijo.org/index.php/bestjournal/article/view/246479/167551)
(Klias Ridge (Klias Peninsula, Sabah) is shale-cored ridge, draped by shallow marine sandstones that form prolific petroleum reservoirs in subsurface. Klias outcrops interpretes as shallow marine facies))

Tan, D.N.K. (1975)- Preliminary notes on the melange in the Lupar Valley. Annual Report Geological Survey of Malaysia 1974, p. 219-228.

Tan, D.N.K. (1978)- Lower Cretaceous age for the chert in the Lupar Valley, West Sarawak. Warta Geologi (Newsletter Geological Society Malaysia) 4, 6, p. 173-176.
(online at: https://gsmpubl.files.wordpress.com/2014/09/ngsm1978006.pdf)
(Radiolaria assemblages identified by Pessagno from 5 exotic chert blocks in Lubok Antu melange of Lupar Valley, W Sarawak. Believed to be same as radiolaria studied by Hinde in Molengraaff (1902) from cherts in adjoining Upper Kapuas Valley in NW Kalimantan. Radiolaria studied by Pessagno indicate E Cretaceous age, most likely Valanginian-Barremian (incl. Thanaria conica, Parvacingula spp., Pantanellium spp, Archaeodictyomitra, etc.)

Tan, D.N.K. (1979)- Lupar Valley, West Sarawak; Explanation of sheets 1-111-14, 1-111-15, and 1-111-16. Geological Survey of Malaysia Report 13, p. 1-159.
(Hutchison 2005: Lupar Line complex composed of imbricated U Cretaceous flysch with paleocurrents SW to NE (Lupar Fm), chaotic melange (Lubok Antu melange with E-M Eocene microfauna in matrix) and ophiolitic rocks (Pakong mafic complex: gabbro and pillow basalts))

Tan, D.N.K. (1982)- The Lubok Antu melange, Lupar Valley, West Sarawak: a Lower Tertiary subduction complex. Bull. Geological Society Malaysia 15, p. 31-46.
(online at: www.gsm.org.my/products/702001-101188-PDF.pdf)
(Lower Tertiary Lubok Antu melange in W Sarawak 10.5 km wide in Lupar Valley, extending SE into Kalimantan. S of melange is U Cretaceous Lupar Formation = Danau Complex of Molengraaff (1902), with turbidite flow directions to NE. N of melange is Pakong mafic complex with overturned pillow lavas dipping steeply to NE. Melange contains of blocks of Lower Cretaceous (Valanginian-Barremian) radiolarian chert, mid-Cretaceous Orbitolina limestone, U Cretaceous greywacke and slate, Paleo-Eocene limestone with Distichoplax, Discocyclina and Nummulites, calcareous shale, mudstone, sandstone, basalt, spilite, gabbro and serpentinite in pervasively sheared pelitic matrix, locally with E Eocene foraminifera and nannofossils. Also recognition of low-

grade prehnite-pumpellyite facies metamorphics. Geotectonic setting is Late Cretaceous- E Tertiary SW-dipping subduction of oceanic crust under West Borneo continental basement)

Tan, D.N.K. (1983)- Nomenclature of the Upper Cretaceous-Tertiary molasse deposits of West Sarawak. Annual Report Geological Survey of Malaysia 1981, p. 348-355.
(Introduction of name Plateau Sandstone, used earlier in Kalimantan, to massive molasse deposits in W Sarawak by Liechti et al. (1961) caused much confusion. Some sands assigned to this should be 'Kayan Sst')

Tan, D.N.K. (1984)- Palaeocurrents in the Tertiary sedimentary deposits in western Sarawak. Bull. Geological Society Malaysia 17, p. 258-264.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1984013.pdf)
Tertiary fluvial-deltaic sediments from 7 localities in W Sarawak investigated for paleocurrent indicators. Local mean directions to NW, N, NE, NNE and ESE suggest provenance of these rocks is Carboniferous-Permian and Mesozoic sedimentary, igneous and metamorphic rocks of present Bau-Kuching-Serian area)

Tan, D.N.K. (1986)- Palaeogeographic development of West Sarawak. In: G.H. Teh & S. Paramananthan (eds.) Proc. 5th Regional Congress Geology Mineral Energy Resources of SE Asia (GEOSEA V), Kuala Lumpur 1984, 1, Bull. Geological Society Malaysia 19, p. 39-49.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1986004.pdf)
(Four paleogeographic maps of W Sarawak: Carbo-Permian, Triassic, Jurassic-Cretaceous and Lower Tertiary. Carbo-Permian data limited. M-L Triassic Sadong Fm mixed continental- shallow marine deposits and Serian Volcanics. Early Jurassic orogeny/ uplift, feeding Late Jurassic-Cretaceous Kedadom and Pedawan Fms, and offshore deep-sea pelagic deposits. By Early Tertiary most of W Sarawak uplifted; intermontane basins with Silantek Fm, Kayan Sst and Plateau Sst)

Tan, D.N.K., B.A.R. Abdul Hadi, A. Azlina, B. Boniface & K.T. Chow (1999)- West Baram Delta. In: Petronas (1999) The petroleum geology and resources of Malaysia, Ch. 13, p. 293-341.
(Baram Delta is NW prograding delta system since M Miocene. Onshore Brunei exploration resulted in discovery of one large field (Miri,1910) and 27 unsuccessful wells. Offshore Brunei and Sabah 11 oil-gas discoveries by Shell between 1955-1988. Additional fields discovered in 1990's. Structures dominated by gravity tectonics (rotated fault blocks with growth faults. Oils generally light, low sulfur, derived from landplant material)

Tan, D.N.K. & J.M. Lamy (1990)- Tectonic evolution of the NW Sabah continental margin since the Late Eocene. Bull. Geological Society Malaysia 27, p. 241-260.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1990027.pdf)
(NW Sabah Shelf tectono-stratigraphic provinces. Four tectonic stages: (1) Late Eocene- early M Miocene subduction of proto-S China Sea oceanic crust under Borneo; (2) early M Miocene collison of S China Sea continental crust with Borneo, with uplift and erosion of accretionary prism and 'Deep Regional Unconformity'; (3) cessation of subduction in M-L Miocene accompanied by compressional deformation associated with deep-seated N-S shear zones in inboard belt (4) Late Miocene-Holocene: inboard belt stable and eroding, outboard belt E Baram Delta, prograding to NW)

Tang, H. (2021)- Characteristics of the density and magnetic susceptibility of rocks in Northern Borneo and their constraints on the lithologic identification of the Mesozoic rocks in the Southern South China Sea. Acta Geologica Sinica (English Ed.) 95, 1, p. 280-293 *(online at: https://www.researchgate.net/publication/348459637_Characteristics_of_the_Density_and_Magnetic_S Etc.)*
(Magnetic susceptibility and specific gravity measurements of 540 samples in N Borneo used for interpretation of gravity magnetic data in southern S China Sea. Results suggest Mesozoic sedimentary rocks distributed over large area of southern SCS)

Tashakor, M., S. Modabberi, A. van der Ent & G.Echevarria, G. (2018)- Impacts of ultramafic outcrops in Peninsular Malaysia and Sabah on soil and water quality. Environmental Monitoring and Assessment 190, 6, 333, p.

(Extreme levels of contamination for Cr and high- moderate contamination for Ni and Co in soils and surface waters near ultramafic terrains on Malay Peninsula and Sabah (Ranau), but within permissible ranges of WHO/ INWQS standards. Subsurface waters strongly enriched by these elements and exceeded these standards)

Tate, R.B. (1970)- Tektites in Brunei. Brunei Museum J. 2, 2, p. 253-259.
(Tektites from Jerudong Fm near the Brunei coast dated as ~730,000 yrs old. Originated from large M Pleistocene Australasian tektite shower (but associated with 30,000 year old wood, so tektites possibly reworked into younger younger terrace deposits?))

Tate, R.B. (1976)- Palaeo-environmental studies in Brunei. Proc. SE Asia Petroleum Exploration Society (SEAPEX), Singapore, 3, p. 102-124.
(Measured sections of Brunei Neogene deltaic deposits with interpretations of paleoenvironments)

Tate, R.B. (1991)- Cross-border correlation of geological formations in Sarawak and Kalimantan. Bull. Geological Society Malaysia 28, p. 63-95.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1991004.pdf)
(Correlation charts to reconcile new stratigraphy established by Kalimantan Australian- Indonesian mapping team and Sarawak)

Tate, R.B. (1992)- The Mulu Shear Zone- a major structural feature of NW Borneo. Bull. Geological Society Malaysia 31, p. 51-65.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1992004.pdf)
(Major regional NE-SW trending shear zone from NE Sarawak- Brunei to Sabah. Affects basal Melinau Limestone. Oldest movements probably post-Eocene, youngest sediments·affected by NE shears probably Pliocene or even younger in offshore areas. Possibly tied to oblique subduction, but transcurrent movement continues after end of subduction in M Miocene?)

Tate, R.B. (1994)- The sedimentology and tectonics of the Temburong Formation- deformation of early Cenozoic deltaic sequences in NW Borneo. Bull. Geological Society Malaysia, p. 97-112.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1994010.pdf)
(Oligocene?-age Temburong Fm in E Brunei deposited mostly in shallow water, subsaline embayment or lower alluvial floodplain. Rocks metamorphosed to sericite grade. Deformation probably between U Oligocene- Lower Miocene)

Tate, R.B. (1995)- The Balingian shear zone, West Balingian and West Baram lines, Sarawak, and their importance in the early Cenozoic evolution of NW Borneo. Bull. Geological Society Malaysia 38, p. 141-151.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1995013.pdf)
(Major zone of WNW- trending intense deformation near Sg. Balingian between Sibu and Bintulu, probably continuing offshore along gravity lineament. W Balingian and W Baram Lines mark boundaries of offshore hydrocarbon provinces and together with new shear zone, form fundamental tectonic framework for this part of NW Borneo. Distribution of heat flow, igneous rocks, Oligocene deltas and Oligocene-Miocene carbonates across N Sarawak and N Kalimantan appear to be related to framework which extends across C Borneo)

Tate, R.B. & V. Hon (1991)- The oldest rocks in Borneo; a note on the Tuang Formation, West Sarawak and its importance in relation to the presence of a "Basement" in West Borneo. Warta Geologi (Newsletter Geological Society Malaysia) 17, 5, p. 221-224.
(online at: https://gsmpubl.files.wordpress.com/2014/09/ngsm1991005.pdf)
(Oldest rocks in W Sarawak are Tuang and Kerait schists, possibly equivalent units and possibly correlative with Pinoh Metamorphics of C Kalimantan. Low grade (greenschist) metamorphic rocks, presumably of pre-Late Carboniferous age. Tuang Fm probably meta-turbidites and ultrabasic rocks, possibly Permian-Carboniferous ocean floor)

Tavakoli, A. (2021)- Geochemistry and petrology of selected sediments from Bukit Song, Miri, Sarawak, Malaysia, with emphasis on organic matter characterization. J. Petroleum Exploration Production Technology 11, p. 3663-3688.
(online at: https://link.springer.com/article/10.1007/s13202-021-01275-2)
(Late Eocene and younger stratigraphy of the Miri Zone in Sarawak mainly molasse deposits from erosion of thrust sheets whilst uplift and deformation still progressing. M-U Miocene Lambir Fm at Bukit Song immature and low hydrocarbon generating potential)

Tenison-Woods, J.E. (1885)- The Borneo coal-fields. Nature 31, 23 April 1885, p. 583-584
(online at: https://www.nature.com/articles/031583a0.pdf)
(Brief early review of Tertiary coal occurrences on Labuan island (mines now abandoned) and Moarra, Brunei, N Borneo, largely based on notes by the late Mr.Motley, by British-Australian Catholic priest and naturalist Julian Edmund Tenison-Woods (1832-1889))

Teoh Ying Jia (2009)- Characteristics of sedimentary facies and reservoir properties of some Tertiary sandstones in Sabah And Sarawak, East Malaysia. M.Sc. Thesis Universiti Sains Malaysia, p. 1-115.
(partly online at: http://eprints.usm.my/8935/)

Teoh Ying Jia & A.H. Abd Rahman (2009)- Comparative analysis of facies and reservoir characteristics of Miri Formation (Miri) and Nyalau Formation (Bintulu), Sarawak. Bull. Geological Society Malaysia 55, p. 39-45.
(Outcrop study of sandstones of tidal- shallow marine M Miocene Miri and Nyalau Fms in Sarawak)

Thies, K., M. Ahmad, H. Mohamad, R. Bischke, J. Boyer & D.Tearpock (2006)- Structural and stratigraphic development of extensional basins: a case study offshore deepwater Sarawak and Northwest Sabah, Malaysia. AAPG Annual Convention 2005, Search and Discovery Article 10103, p. 1-6.
(online at: www.searchanddiscovery.net/documents/2006/06026thies/images/thies.pdf)
(Half-grabens of deepwater Sarawak and Sabah two or more regressive cycles of rift fill, related to early rifting from ~43-30 Ma and S China Sea seafloor spreading between 30-16 Ma, separating Dangerous Grounds-Luconia microplates from Eurasia. Collision of Luconia Block with Kalimantan Block in M Oligocene and Dangerous Grounds block in M Miocene, terminating half-grabens extension. Lower part of rift-fill cycles predominantly bathyal facies; upper parts more sand prone inner neritic to fluvio-marine)

Tian, Z., Y. Gao, P. Wang & H. Tang (2024)- Formation and tectonic evolution of ophiolites in the Sabah area (Borneo, SE Asia). Minerals 14, 11, 1078, p. 1-34.
(online at: https://www.mdpi.com/2075-163X/14/11/1078)
(Sabah ophiolites mainly in Darvel Bay, Segama Highlands, Telupid, Kinabalu, and Banggi areas. Youngest zircon U-Pb ages of ultrabasic- basic rocks 248-244 Ma (~M Triassic) (but broad age ranges of 81-2578 Ma shown in text, suggesting formations elsewhere? Also older than ages suggested by Wang et al. (2023); JTvG). C Sabah REE show N-MORB-type characteristics; in NW and SE E-MORB-type. Trace elements show magmatic source influenced by melts and fluids from subducting Paleo-Tethys Ocean plate. In E Triassic fast subduction of Paleo-Tethys Ocean plate and retreating of Paleo-Pacific plate resulted in upwelling of mantle material in relatively small extensional settings, leading to formation of ophiolites. In Jurassic- E Cretaceous, Paleo-Pacific plate was subducted, and Sabah ophiolite moved to continental crust of S China or Sundaland margin as fore-arc ophiolites. From Late Cretaceous-Miocene, with expansion of Proto-S China Sea and S China Sea oceans, Sabah ophiolites drifted S with microplate fragments and sutured with E Borneo in ~Miocene)

Ting, Ching Soon (1992)- Jurassic-Cretaceous palaeogeography of the Jagoi-Serikin area as indicated by the Bau Limestone Formation. Bull. Geological Society Malaysia 31, p. 21-38.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1992002.pdf)
(Bau Lst near Kuching, W Sarawak, is Late Jurassic- E Cretaceous fringing reef complex, deposited on and around basement high of Jagoi granodiorite (with earliest Jurassic ~195 Ma radiometric age, but Late Triassic 208 Ma, according to Breitfeld et al. 2017). Back-reef facies closest to landmass (Jagoi granodiorite, Gunung Kisam) at edge of basin with Pedawan Fm deposition)

Ting, K.K., O.S. Al-Jaaidi & B.J. Pierson (2014)- Evolution of the Megaplatform Miocene carbonate build up in the Central Luconia and its comparisons with recent modern analogue from the Celebes Sea. NW Borneo Shell Geosciences ConferenceAt: Miri, Malaysia, p. 1 *(Poster Presentation) (online at: www.researchgate.net/publication/263847569_Evolution_of_the_Megaplatform_Miocene_carbonate_build_up_in_the_Central_Luconia_and_its_comparisons_with_recent_modern_analogue_from_the_Celebes_Sea)*

Ting, K.K., B.J. Pierson & O.S. Al-Jaaidi (2012)- Application of stable isotope analysis from Central Luconia, Sarawak: insights into reservoir development and diagenesis. Proc. Petroleum Geology Conference Exhibition (PGCE 2012), Kuala Lumpur, Warta Geologi (Newsletter Geological Society Malaysia) 38, 2, p. 176-177.
(*Abstract)*
(Mega-Platform 1.2-km- thick Miocene carbonate platform in N part of offshore Sarawak Luconia province. Study of isotopic composition of diagenetic cement. Meteoric calcite cement relatively low oxygen isotopic ratios due to addition of lighter meteoric-derived 16O. Carbonate precipitated directly from seawater exhibits 87Sr/86Sr ratio of sea water at time of precipitation. Later diagenetic carbonates incorporate 87Sr released during dissolution and recrystallization, inheriting 87Sr/86Sr ratios of formation waters from which they crystallised, typically with Sr ratios greater than contemporaneous seawater)

Ting, K.K., B.J. Pierson & O.S. Al-Jaaidi (2012)- The tectonic overprint and evolution of large-scale carbonate platforms in Central Luconia, Offshore Sarawak, Malaysia. AAPG International Conference Exhib., Singapore 2012, Article 90155, p. 1-34 *(Presentation) (online at: https://www.researchgate.net/publication/263895573_The_Tectonic_Overprint_and_Evolution_of_Large-Scale_Carbonate_Platforms_in_Central_Luconia_Offshore_Sarawak_Malaysia)*
(Late Miocene carbonate platforms of offshore Luconia Province of Sarawak. Faulting created topography that allowed the initiation of carbonate platform deposition on closely spaced horsts, which later coalesced to form composite platform(s). Also syn-depositional movements during growth of platforms. Late-phase fragmentation/ separation of parts of platform, prior to drowning)

Ting, K.K., B.J. Pierson, O.S. Al-Jaaidi & P.F. Hague (2011)- Effects of syn-depositional tectonics on platform geometry and reservoir characters in Miocene carbonate platforms of Central Luconia, Sarawak. Int. Petroleum. Technical Conf. (IPTC), Bangkok 2011, IPTC 14247, p. 245-261. *(online at: www.researchgate.net/publication/263379006_Effects_of_syn-depositional_tectonics_on_platform_geo Etc.)*
(Evidence of syn-depositional tectonic movements in 'Mega Platform', a 30x50km large and 1.2km thick M-L Miocene carbonate platform (cluster of 6 buildups), in N part of C Luconia Basin. In Luconia Province carbonate reefs started to grow during Miocene on uplifted half graben footwalls)

Ting, K.K., Y.E. Tan, E. Chiew, E.L. Lee, A.N. Azudin & N.A. Ishak (2021)- Assessing controls on isolated carbonate platform development in Central Luconia, NW Borneo, from a regional 3D seismic facies and geomorphology investigation. In: J. Hendry et al. (eds.) Seismic characterization of carbonate platforms and reservoirs. Geological Society, London, Special Publ. 509, p. 29-55.
(M-L Miocene carbonate platforms of C Luconia provine, S China Sea. In N eastern flanks dominantly aggradational and steep, western flanks more progradation)

Tingay, M.R.P. (2003)- In situ stress and overpressures of Brunei Darussalam. Ph.D. Thesis, Adelaide University, Australia, p. 1-271.
(online at: https://digital.library.adelaide.edu.au/dspace/handle/2440/508180)
(Study of stress and overpressure from 157 wells in 61 fields in Brunei. Overpressure observed in 54 fields in underlying prodelta shales and inner shelf deltaic sequences)

Tingay, M.R.P., R.R. Hillis, C.K. Morley, R.C. King, R.E. Swarbrick & A.R. Damit (2009)- Present-day stress and neotectonics of Brunei: implications for petroleum exploration and production. American Assoc. Petroleum Geol. (AAPG) Bull. 93, 1, p. 75-100. *(online at: https://www.researchgate.net/publication/249897909_Present-day_stress_and_neotectonics_of_Brunei_Implications_for_petroleum_exploration_and_production)*

(Present-day stress in Tertiary Baram Delta exhibits range of values that reflect NW Borneo active margin (situated underneath the basin) and local stresses generated within delta)

Tingay, M.R.P., R.R. Hillis, C.K. Morley, R.E. Swarbrick & S.J. Drake (2005)- Present-day stress orientation in Brunei: a snapshot of prograding tectonics in a Tertiary delta. J. Geological Society, London, 162, 1, p. 39-49. *(online at: https://www.researchgate.net/publication/46888915_Present-day_stress_orientation_in_Brunei_A_snapshot_of_'prograding_tectonics'_in_a_Tertiary_delta)*
(Baram Delta on active margin. Structures margin-parallel gravity tectonics and margin-normal transpressive tectonics associated with active margin. Maximum horizontal stress margin-normal (NW-SE) in proximal parts of basin and margin-parallel (NE-SW) in outer shelf. Rotations result of 'deltaic' and 'basement-associated' tectonic regimes that 'prograde' basinwards. Proximity of active margin resulted in uplift and inversion of hinterland that forced delta system to prograde rapidly. Zone of active deltaic growth faulting 'prograded' as delta rapidly prograded across shelf. After uplift and delta progradation, old growth faults of inner shelf ceased being active and successively reactivated by similarly 'prograding' margin-normal inversion front)

Tingay, M.R.P., R.R. Hillis, C.K. Morley, R.E. Swarbrick & S.J. Drake (2005)- 'Prograding' tectonics in Brunei: regional implications for fault sealing. In: Alaska Rocks 2005, The 40th U.S. Symposium Rock Mechanics (USRMS): Rock mechanics for energy, mineral and infrastructure development in the Northern Region, Anchorage, ARMA/USRMS 05-785, p. 1-14.
(online at: www.asprg.adelaide.edu.au/asm/papers/tingay2005b.pdf)
(Baram Delta province of Brunei built on active margin. Structures are result of both margin-parallel gravity-driven deltaic tectonics and margin-normal transpressive tectonics associated with active margin. Breakouts and DITFs observed in 19 wells suggest maximum horizontal stress oriented margin-normal (NW-SE) in proximal parts of basin and margin-parallel (NE-SW) in distal region. Margin-normal σHmax direction perpendicular to strike of Miocene-Pliocene normal growth faults, suggesting ~90° rotation over time. All major fields located in inner shelf region of Brunei where faults not optimally aligned for present-day reactivation and seal breach)

Tingay, M.R.P., R.R. Hillis, C.K. Morley, R.E. Swarbrick & E.C. Okpere (2003)- Pore pressure/ stress coupling in Brunei Darussalam; implications for shale injection. In: P. van Rensbergen et al. (eds.) Subsurface sediment mobilization, Geological Society, London, Special Publ. 216, p. 369-379. *(online at: www.researchgate.net/publication/249551286_Pore_pressurestress_coupling_in_Brunei_Daruss Etc.)*
(Shale dykes, diapirs and mud volcanoes common in Brunei. Outcrop examples show shale intruded along faults and tensile fractures. Changes in pore pressure are coupled with changes in total minimum horizontal stress, so rocks can sustain greater pore pressure prior to failure than predicted)

Tingay, M.R.P., R.R. Hillis, C.K. Morley, R.E. Swarbrick & E.C. Okpere (2003)- Variation in vertical stress in the Baram Basin, Brunei: tectonic and geomechanical implications. Marine and Petroleum Geology 20, p. 1201-1212.
(Vertical stress determined in 24 fields in Baram Basin, using density log and checkshot velocity data. Basin shows variation in vertical stress gradient between 18.3 and 24.3 MPa/km at 1500m depth below surface. Variation caused by bulk rock density change of 2.48-2.07 g/cm3 from hinterland to delta front. Differential uplift of hinterland and undercompaction caused density and hence vertical stress variation)

Tingay, M.R.P., R.R. Hillis, R.E. Swarbrick & C.K. Morley (2005)- Origin and petrophysical log response of overpressures in the Baram Delta Province, Brunei. Proc. 30th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 381-390.

Tingay, M.R.P., R.R. Hillis, R.E. Swarbrick, C.K. Morley & A.R. Damit (2007)- 'Vertically transferred' overpressures in Brunei: evidence for a new mechanism for the formation of high-magnitude overpressure. Geology (GSA) 35, 11, p. 1023-1026. *(online at: https://www.researchgate.net/publication/252693630_Vertically_transferred'_overpressures_in_Brunei_Evidence_for_a_new_mechanism_for_the_formation_of_high-magnitude_overpressure)*
(Pore pressure data from 61 fields across Baram Delta province reveal two types of overpressure: basal pro-delta shales overpressures generated by disequilibrium compaction, overlying sand/shale deltaic sequence

overpressures generated by fluid expansion. Fluid expansion overpressures in fields that were inverted during Pliocene, which resulted in large-scale fluid migration from prodelta shales into deltaic sequences)

Tingay, M.R.P., R.R. Hillis, R.E. Swarbrick, C.K. Morley & A.R. Damit (2009)- Origin of overpressure and pore-pressure prediction in the Baram Delta province, Brunei. American Assoc. Petroleum Geol. (AAPG) Bull. 93, 1, p. 51-74.
(online at: https://www.researchgate.net/publication/249897908_Origin_of_overpressure_and_pore-pressure_prediction_in_the_Baram_province_Brunei)
(Baram Delta overpressures in inner shelf deltaic sequences and prodelta shales, generated by disequilibrium compaction in prodelta shales and by fluid expansion in inner-shelf deltaic sequences. Overpressures in inner-shelf deltaics vertically transferred into reservoir units via faults from prodelta shales. Sediments overpressured by disequilibrium compaction different physical properties to those overpressured by vertical transfer)

Tjia, H.D. (1970)- Transcurrent faulting in the Sarawak-Kiri region, Sarawak, East Malaysia. Geological Magazine 107, 3, p. 217-224.
(Left-lateral, NNW-SSE trending transcurrent fault in Sarawak-kiri valley, W Sarawak. Belongs to important fracture zone that extends into Kalimantan, and continues in N direction along edge of Sunda Shelf beneath S China Sea. Continental part of SE Asia rotated counter-clockwise up to Lower Paleogene)

Tjia, H.D. (1972)- Structural pattern of Bau Limestone Formation, Sarawak. Sains Malaysiana (Malaysian J. Science) 1, B, p. 173-182.
(Abrupt change in trend from SSW-NNE to NW-SE, compression directions reflected in topography, etc.)

Tjia, H.D. (1974)- Sense of tectonic transport in intensely deformed Trusmadi and Crocker sediments, Ranua-Tenompok area, Sabah. Sains Malaysiana 3, 2, p. 129-161.

Tjia, H.D. (1983)- Quarternary tectonics of Sabah and Sarawak, East Malaysia. Sains Malaysiana 12, p. 191-215.

Tjia, H.D. (1988)- Accretion tectonics in Sabah: Kinabalu Suture and East Sabah accreted terrane. Bull. Geological Society Malaysia 22, p. 237-251.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1988012.pdf)
(Kinabalu suture zone 80 km wide belt with Triassic? to M Miocene rocks across Sabah from Darvel Bay-Telupid- Marudu Bay to Banggi and Balambangan islands. Three collisional rock assemblages: (1) Cretaceous-Paleocene chert-spilite Fms, (2) Paleocene- Oligocene turbiditic Trusmadi Fm and Crocker Fms and (3) Oligocene-M Miocene Garinono-Kalabakan olistostromes. W Sabah is continental piece from Asian continent, E Sabah is oceanic basin. By end M Miocene Sabah terrane welded to mainland Borneo)

Tjia, H.D. (1998)- The Dulit Triangle in Sarawak: a most striking example of detachment tectonics. In: G.H. Teh (ed.) Petroleum geology Conference 1997, Bull. Geological Society Malaysia 42, p. 95-100.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1998009.pdf)
(Dulit triangle conspicuous kink in NE and ENE structural trendlines of C and N Sarawak. Structures of triangle comprise open synclines of Neogene Belait Fm and tight folds in U Oligocene-Lw Miocene Nyalau Fm that were bent about vertical axes into NE and SE trending structures)

Tjia, H.D. (2003)- Northwest Sabah overthrust system. Proc. GSM Annual Geological Conference 2003, Bull. Geological Society Malaysia 46, p. 5-10.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm2003002.pdf)
(Study of folding/ thrusting in outcrops of Crocker and Trusmadi Fm turbidites of Sabah and their regional context. Suggest major 300km wide NW-verging overhrust sheet formed around E-M Miocene boundary and producing Deep Regional Unconformity (DMU))

Tjia, H.D. (2007)- Kundasang (Sabah) at the intersection of regional fault zones of Quaternary age. Bull. Geological Society Malaysia 53, p. 59-66.
(online at: www.gsm.org.my/products/702001-100503-PDF.pdf)

Tjia, H.D. (2012)- The paleo-orientations of Northwestern Borneo and adjacent to South China Sea Basins. Jurnal Geologi Indonesia (Indonesian J. on Geoscience) 7, 2, p. 67-76.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/400)
(Limited paleomagnetic data from W. Kalimantan and SW Sarawak indicate CCW rotation of >50° during Cenozoic. However, region consists of mosaic-like assemblage of diverse tectono-stratigraphic terranes, each with separate tectonic development. Stress fields changed in different ways in different terranes and indicate that regional, progressive CCW rotation of Borneo not possible)

Tjia, H.D. (2015)- Sole markings of extraordinary size and variety in Crocker sandstones of Sabah. Bull. Geological Society Malaysia 61, p. 11-21.
(online at: www.gsm.org.my/products/702001-101680-PDF.pdf)
(Eocene- E Miocene Crocker Fm of Sabah with large sole markings near Kaung Village on mid-slope of Mount Kinabalu, incl. >10m long groove casts. Effects of turbulent flow. Nereites-Zoophycos ichnofacies with Paleodictyon confirm bathyal-abyssal depth of deposition. In other localities of Crocker Fm in Sabah, paleocurrents ran N-ward, exception near Kaung Village where S-directed)

Tjia, H.D. (2016)- Temburong and Setap in Northwestern Borneo: equivalent or different formations? Berita Sedimentologi 35, p. 65-72.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/viewFile/104/75)
(On marine Oligocene- E Miocene Temburong Fm and mainly late Early- M Miocene Setap Fm in N Sarawak, Brunei Darussalam and SW Sabah)

Tjia, H.D. & M.I. Ismail (1994)- Tectonic implications of well-bore breakouts in Malaysian basins. Bull. Geological Society Malaysia 36, p. 175-186.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1994032.pdf)
(Over 100 well-bore breakout directions in Malay, Sarawak, Sabah and Sandakan basins show consistent correlation with current and past tectonic stress fields. Younger layers of Malay Basin (above 5500') breakouts oriented NE, consistent with shallow-focus earthquake stress trajectories associated with subduction of Indian Ocean Plate W of Sumatra. In older layers breakouts responded to N-S regional compression. Etc.)

Tjia, H.D., M.I. Ismail & O.A. Mahmud (1998)- The Tubau Lineament (Sarawak) is a strike-slip fault zone. Warta Geologi (Newsletter Geological Society Malaysia) 24, 3, p. 129-132.
(online at: https://gsmpubl.files.wordpress.com/2014/09/ngsm1998003.pdf)
(N-S Tubau Lineament 25-km left-stepping change of Bukit Mersing Line, 25-km of linear Tubau river valley, and as long axis of Ulu Suai Dome which adds ~30 km to lineament. Tubau Lineament originated as pre-Upper Miocene time left-lateral strike slip fault zone with ~25 km displacement)

Tjia, H.D., I. Komoo, P.S. Lim & Tungah Surat (1991)- The Maliau Basin, Sabah: geology and tectonic setting. Bull. Geological Society Malaysia 27, p. 261-292.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1990028.pdf)
(Circular E Maliau Basin, Sabah, is landward extension of Tarakan Basin. Fieldwork found good quality coal seams in E-M Miocene Tanjung Fm. Majority of current indicators to NE. Miocene uplifted to 1600m above SL)

Tjia, H.D., I. Komoo, C.A. Ali & S.H. Tahir (1992)- Geology of Taman Bukit Tawau, Semporna Peninsula, Sabah. Bull. Geological Society Malaysia 31, p. 113-131.
(online at: www.gsm.org.my/products/702001-101046-PDF.pdf)
(Volcanic mountains in SE Sabah up to 1320m high are Quaternary dacitic, andesitic and basaltic volcanics)

Tjia, H.D., B. Sidi & C.L. Teoh (1987)- Superimposed deformation and vergence of lower Tertiary sediments near Tatau, Sarawak. Bull. Geological Society Malaysia, 21, p. 251-271.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1987013.pdf)
(Outcrops along trunk road near Tatau, C Sarawak, include Late Eocene- E Oligocene turbidites (associated with explosive volcanics), unconformably overlain by less deformed M Oligocene- M Miocene neritic- littoral

sediments. Two tectonic vergences:earlier N-ward vergence with large recumbent folds and later W-vergence with smaller overturned folds. E Tertiary deposition in fore-arc basin on ocean side of magmatic arc)

Togunwa, O.S., W.H. Abdullah, M.H. Hakimi & P.J. Barbeito (2015)- Organic geochemical and petrographic characteristics of Neogene organic-rich sediments from the onshore West Baram Delta Province, Sarawak Basin: implications for source rocks and hydrocarbon generation potential. Marine and Petroleum Geology 63, p. 115-126.
(M-L Miocene outcrop samples in W Baram Province S of Miri, Sarawak Basin, generally organic rich (TOC 1-11%), but mainly gas-prone Type III kerogen (hydrogen Index <105 mg HC/g). Vitrinite reflectance Ro of 0.39-0.48% indicates immature- very early mature kerogens. Offshore equivalents buried deeper and could be effective petroleum (gas) source rock)

Tokuyama, A. & S Yoshida (1974)- Kinabalu fault, a large strike-slip fault in Sabah, East Malaysia. In: T. Kobayashi & R. Toriyama (eds.) Geology and Palaeontology of Southeast Asia 14, University of Tokyo Press, p. 171-188.
(Series of NW-SE trending left-lateral strike-slip fault zones with possible 300km of displacement across Sabah-Kinabulu, supposedly linking up with Palu-Koru fault of Sulawesi)

Tongkul, F. (1987)- Sedimentology and structure of the Crocker Formation in the Kota Kinabalu area, Sabah, East Malaysia. Ph.D. Thesis University of London, p. 1-318. *(Unpublished)*

Tongkul, F. (1989)- Sedimentology and structure of the Crocker Formation in the Kota Kinabalu area, Sabah, East Malaysia. In: B. Situmorang (ed.) Proc. 6th Regional Conference Geology mineral hydrocarbon Resources of SE Asia (GEOSEA VI), Jakarta 1987, IAGI, p. 135-156.
(online at: https://www.iagi.or.id/web/digital/45/PIT-IAGI-1987-Paper-10.pdf)
(Crocker Fm Eocene- E Miocene flysch-type outcrops in NW Sabah composed of lower shaly unit, upper sandy sequence, interpreted as large N-prograding Eocene-Oligocene submarine fan system. Deposition of coarse sediment peaked in Oligocene. Sediment source Borneo/Sunda Shelf to SW (quartz-rich continental, current directions generally to N). Fan sediments imbricated into series of E-dipping thrust slices, 200-600m thick, with resistant ridges repeating every 1-2km, formed during subduction/ accretion against Borneo in Late Oligocene-E Miocene. Termination of deformation followed by major uplift of Crocker complex in M-L Miocene, after collision of Dangerous Grounds microcontinent)

Tongkul, F. (1989)- Geological control on the birth of the Pulau Batu Hairan mud volcano, Kudat, Sabah. Warta Geologi (Newsletter Geological Society Malaysia) 14, 4, p. 153-165.
(online at: https://gsmpubl.files.wordpress.com/2014/09/ngsm1988004.pdf)
(Birth of new island E of Pulau Banggi in N Sabah, due to mud volcanism related to N-S trending fractures and N-S compression in overpressured muds. Rock fragments in mud are sandstone, siltstone, limestone, chert, basalt/spilite and serpentinite)

Tongkul, F. (1990)- Structural styles and tectonics of Western and Northern Sabah. Bull. Geological Society Malaysia 27, p. 227-240.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1990026.pdf)
(Deformational episodes of W and N Sabah E Cretaceous-Pliocene igneous and sedimentary rocks: (1) Late Cretaceous- E Eocene basement (chert-spilite oceanic formation) deformation/ uplift; (2) M Miocene NW-SE and N-S directed thrusting of M Eocene- E Miocene Crocker- Kudat sediments (3) gentle deformation of U Miocene-Pliocene sediments)

Tongkul, F. (1991)- Basin development and deposition of the Bongaya Formation in the Pitas area, northern Sabah. Bull. Geological Society Malaysia 29, p. 183-193.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1991016.pdf)
(Small basin in Bengkoka Peninsula of N Sabah with Late Miocene Bongaya sediments controlled by earlier faults trending NE-SW, N-S and NW-SE on underlying, uplifted Crocker and Chert-Spilite Fms. Nearly circular basin sediments sourced from older uplifted rocks to E, S and SE by overlapping fluvio-deltaic fan lobes)

Tongkul, F. (1991)- Tectonic evolution of Sabah, Malaysia. J. Southeast Asian Earth Sciences 6, p. 395-406.
(online at: https://www.academia.edu/61028778/Tectonic_evolution_of_Sabah_Malaysia)
(SE-ward subduction in front of rifted continental block of S China under emergent oceanic basement in E Sabah controlled development of NE-SW trending basin with M Eocene-E Miocene sediments. Opening of S China Sea Basin in M Oligocene-M Miocene caused further subduction and narrowing of basin. M Eocene-E Miocene sediments compressed into fold-thrust belt trending ~NE-SW in W Sabah and NW-SE in N and E Sabah. Subduction accompanied by volcanic activity in E Sabah in E-M Miocene. Deformed sedimentary pile and underlying oceanic basement then subjected to NW-SE extension related to E-M Miocene opening of Sulu Sea Basin. This resulted in development of extensive chaotic deposits in E and C Sabah and also controlled development of circular basins for deposition of thick, Early- Late Miocene sediments. Continued extension resulted in further SE-ward subduction in SE Sabah, producing Late Miocene-Quaternary volcanics)

Tongkul, F. (1993)- Tectonic control on the development of the Neogene basins in Sabah, East Malaysia. In: G.H. Teh (ed.) Proc. Symposium Tectonic framework and energy resources of the Western Margin of the Pacific Basin, Kuala Lumpur 1992, Bull. Geological Society Malaysia 33, p. 95-103.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1993007.pdf)
(Two structural trends, NE-SW and NW-SE, controlled Miocene basin evolution in Sabah)

Tongkul, F. (1994)- The geology of northern Sabah: its relationship to the opening of the South China Sea. Tectonophysics 235, p. 131-137.
(N Sabah E Cretaceous-Pliocene sedimentary and igneous rocks. Three deformation episodes associated with NW-SE and N-S oriented compression: (1) Late Cretaceous- E Eocene uplifted oceanic basement, site for deposition of M Eocene- E Miocene Crocker and Kudat Fms, sourced from continental basement in SW; (2) Latest Oligocene and early M Miocene N-S directed imbricate thrusting, controlling E-W trending basins development filled with U Miocene S Banggi and Bongaya Fms; (3) Minor continuation of N-S compressional deformation. Deformation episodes related to S-ward movements of continental blocks separated from S margin of China during opening of S China Sea subbasins)

Tongkul, F. (1995)- The Paleogene basins of Sabah, East Malaysia. In: G.H. Teh (ed.) Proc. AAPG-GSM Int. Conference Southeast Asian Basins: oil and gas for the 21st century, Kuala Lumpur, Bull. Geological Society Malaysia 37, p. 301-308.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1995a20.pdf)
(Paleogene basins of Sabah developed in two stages: (1) latest Mesozoic? wide NE-SW trending basin, with continental block to NW and emergent oceanic basement to SE. Paleogene mainly deep water clastic sediments, with limestone lenses; (2) M Eocene? deformation divided basin into two parallel basins, also NE-SW. Basins independently filled by shallow to deep water late Paleogene sediments derived axially from SW and laterally from NW and SE. Basins finally closed in E Miocene, with Paleogene fold-thrust belt of Sabah)

Tongkul, F. (1997)- An ancient oceanic crust in Tandek, Sabah - a unique geological heritage. Sabah Society Journal 14, p. 1-10.
(Outcrop of Cretaceous oceanic crust and ocean floor ('chert-spilite'). See also Muda and Tongkul, 2008)

Tongkul, F. (1997)- Sedimentation and tectonics of Paleogene sediments in central Sarawak. Bull. Geological Society Malaysia 40, p. 135-155.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1997011.pdf)
(Deposition of Paleogene sediments in C Sarawak occurred in four stages, with depocenters generally advancing and younging to NE in response to progressive SWt subduction-accretion of Mesozoic oceanic lithosphere under W Sarawak)

Tongkul, F. (1997)- Polyphase deformation in the Telupid Area, Sabah, Malaysia. J. Asian Earth Sciences 15, p. 175-184.
(Telupid area in C Sabah Mesozoic ophiolitic basement, overlain by Cretaceous- Oligocene sediments. At least three deformation phases: (1) M Eocene folding- thrusting of basement and older Paleogene sediments trending

N70E, (2) early Lower Miocene imbrication of basement rock and overlying sediments to NE; (3) early M Miocene thrusting of deformed basement rock and overlying sediments to NW)

Tongkul, F. (1999)- Batuan kerak lautan kuno Sungai Baliojong, Tandek, Kota Marudu, Sabah. In: I. Komoo & M.S. Leman (eds.) Warisan Geologi Malaysia 2, LESTARI, UKM, p. 299-328.
('Ancient oceanic crust in the Baliojong River, Tandek, Kota Marudu, Sabah')

Tongkul, F. (1999)- Regional geological correlation of Paleogene sedimentary rocks between Sabah and Sarawak, Malaysia. In: G.H. Teh (ed.) Proc. 9th Regional Congress Geology Mineral Energy Resources of SE Asia (GEOSEA '98), Kuala Lumpur 1998, Bull. Geological Society Malaysia 43, p. 31-39.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1999004.pdf)
Three groups of Paleogene sedimentary rock units can be correlated regionally between Sabah and Sarawak: (1) intensely deformed, Paleocene- E Eocene turbiditic clastic sediments, partly metamorphosed to slate and metasandstone; (2) 'E Crocker' steeply dipping late Lower Eocene- early U Eocene submarine fan sandstone-shale with thrust transport directions generally to N and NW, and (3) 'W Crocker' U Eocene- U Oligocene sandstone- shale, with local conglomerate, limestone and marl, with deformation similar to Unit 2. Paleogene sediments deposited in large basin along NW Borneo. Deposition and deformation of sediments in successive stages: younger sediments were deposited on top or in front of older accreted sediments in response to NW-SE closure of elongate basin)

Tongkul, F. (2006)- The structural style of Lower Miocene sedimentary rocks, Kudat Peninsula, Malaysia. Proc. Petroleum Geology Conference Exhibition (PGCE), Kuala Lumpur 2003, Bull. Geological Society Malaysia 49, p. 119-124.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm2004019.pdf)
(Kudat Peninsula mostly Lower Miocene sediments, deformed into large-scale folds on three major WNW-ESE trending imbricate thrust slices. Deformation probably caused by progressive N-S transpression related to M Miocene collision of Dangerous Ground/ Reed Bank with NW Sabah along NW Borneo Trough)

Tongkul, F. (2017)- Active tectonics in Sabah- seismicity and active faults. Bull. Geological Society Malaysia 64 (50th Anniversary Issue 2), p. 27-36.
(online at: www.gsm.org.my/products/702001-101721-PDF.pdf)
(Sabah under WNW-ESE compressive stress due to W-ward movements of Philippine-Pacific plate against SE-moving Eurasian plate, causing NE-SW trending active thrust faults and NW-SE trending strike-slip faults. Resultant regional folding/ warping of upper crust produced uplifted NE-SW belt in W Sabah (Crocker-Trusmadi Range) and is thought to be driving extensional tectonics, creating 6 elongate Quaternary graben-like basins (Tenom, Keningau, Tambunan, Ranau, Timbua and Marak-Parak))

Tongkul, F. (2021)- An overview of earthquake science in Malaysia. Akademi Sains Malysia (ASM) Science J. 14, p. 1-12.
(online at: www.akademisains.gov.my/asmsj/article/an-overview-of-earthquake-science-in-malaysia/)

Tongkul, F., H. Benedick & F.K. Chang (2006)- Geology of slopes in the Crocker Range, Sabah, Malaysia. J. Nepal Geological Society 34, Special Issue, p. 73-80.
(online at: https://www.nepjol.info/index.php/JNGS/article/view/3188)
(Sabah's Crocker Range comprised mostly of folded Eocene sedimentary rocks, with units of Mesozoic oceanic crust and Late Miocene granitoid intrusions (e.g. Kinabalu). A total of 48 slopes facing potential failure problems were studied. Multiple potential situations of slope failures recognised)

Tongkul, F. & F.K. Chang (2003)- Structural geology of the Tertiary Maliau Basin, Sabah. In: G.H. Teh (ed.) Petroleum Geology Conference Exhib. 2002, Bull. Geological Society Malaysia 47, p. 51-61.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm2003a04.pdf)
(Maliau Basin saucer-shaped basin in C and S Sabah. 7500m thick clastics section, mainly M Miocene age and deltaic- coastal facies)

Torres, J., A. Gartrell & N. Hoggmascall (2011)- Redefining a sequence stratigraphic framework for the Miocene to Present in Brunei Darussalam: roles of local tectonics, eustacy and sediment supply. Int. Petroleum. Technical Conf. (IPTC), Bangkok 2011, IPTC 15167, p. 2790-2801.
(Summary of Brunei Shell work on M Miocene- Recent deltaic sequences of Baram-Balbac Basin. Previous studies used global sequence framework and underestimated local autocyclic forcing. Revised tectono-stratigraphic framework established ten 3rd order Late Miocene- Present sequences. Some can be tied to regional compressional pulses, two sequence boundaries now calibrated to two major global eustatic falls (11.7 and 5.73 Ma). 11.7 Ma event shows ~15 km basinward shift of shelf edge, but no sub-aerial erosion on emerged shelf. The 5.73 Ma event (near Top Discoaster quinqueramus) shows modest basinward shift of shelf edge, widespread canyon incision along margin and major incision of fluvial system feeding Champion Delta)

Tsikouras, B., C.K. Lai, E. Ifandi, N.A. Norazme, C.H. Teo & X.P. Xia (2021)- New zircon radiometric U-Pb ages and Lu-Hf isotopic data from the ultramafic-mafic sequences of Ranau and Telupid (Sabah, eastern Malaysia): Time to reconsider the geological evolution of Southeast Asia? Geology 49, 7, p. 789-793.
(online at: https://pubs.geoscienceworld.org/gsa/geology/article/49/7/789/595632/New-zircon-radiometric-U-Pb-ages-and-Lu-Hf)
(New zircon U-Pb geochronology shows ages of Ranau peridotites and Telupid ophiolite suite in C Sabah not Jurassic-Cretaceous, but formed during Late Miocene magmatic episode (9.2-10.5 Ma). Interpreted to reflect infiltration of melts in Ranau subcontinental peridotites during extension, and concurrent seafloor spreading forming Telupid ophiolite in narrow back-arc basin further S. Older zircons from Ranau peridotites Cretaceous, Devonian and Neoproterozoic. Zircon Lu-Hf isotopic data suggest derivation from depleted mantle. Sulu Sea, which expanded through much of Miocene, possibly extends to SW into C Sabah. Telupid oceanic strand formed during split, collapse, and rollback of Sulu arc due to subduction of Celebes Sea under Sabah. (results disputed by Cullen & Burton-Johnson, 2021; see also Reply, Tsikouras et al., 2021))

Tumanda, F.P., R.M. Banda & J.J. Lau (1993)- Cretaceous radiolaria from Lundu-Sematan and Lupar Valley, Sarawak, Malaysia. Proc. IGCP321 Gondwana Dispersion and Asian Accretion, Int. Symposium, Kuala Lumpur, Malaysia, Abstract 43, p. 70. *(Abstract only)*

Ujie, H. (1970)- Miocene foraminiferal faunas from the Sandakan Formation, North Borneo. In: T. Kobayasi & R. Toriyama (eds.) Geology and Palaeontology of Southeast Asia, University of Tokyo Press, 8, p. 165-185.
(Sandakan Fm on Sandakan Peninsula, NE Sabah, >4500m thick clastic series, mostly barren, 3 samples with M Miocene planktonic forams (Gr. fohsi zone))

Ujie, H. (1977)- New species and subspecies of benthonic foraminifera from the Miocene Sandakan Formation, North Borneo. In: T. Kobayasi & R. Toriyama (eds.) Geology and Palaeontology. Southeast Asia, University of Tokyo Press, 18, p. 87-102.
(Descriptions of marine benthic forams from Middle Miocene Sandakan Fm. New species of Bolivina, Ammonia, Pseudorotalia borneensis, Gyroidina, etc. No stratigraphy or biozonations)

Ulfa, Y., N. Sapari & Z.Z.T. Harith (2011)- Combined tide and storm influence on facies sedimentation of Miocene Miri Formation, Sarawak.Eksplorium 32, 2, p. 77-89.
(online at: jurnal.batan.go.id/index.php/eksplorium/article/download/2814/2586)
(Outcrop facies study of M-L Miri Fm in Miri Field area, Sarawak. Two main facies associations: (1) tide-dominated estuary; and (2) wave and storm- dominated facies)

Unjah, T., Basir Jasin & Uyop Said (2000)- Aspek paleontologi Formasi Pedawan Kawasan Batu Kitang- Bau, Sarawak. In: G.H. Teh et al. (eds.) Proc. Geological Society Malaysia Annual Geological Conference 2000, Pulau Pinang, p. 159-163.
(online at: https://gsmpubl.files.wordpress.com/2014/10/agc2000_22.pdf)
('Paleontological aspects of the Pedawan Formation at Batu Kitang- Bau, Sarawak'. Brief discussion of palynomorphs and macrofaunas in Cretaceous Pedawan Fm, SW Sarawak)

Usman, M., N.A. Siddiqui, S. Zhang, M. Ramkumar, M. Mathew, B. Sautter & M.A. Beg (2020)- Ichnofacies and sedimentary structures: a passive relationship with permeability of a sandstone reservoir from NW Borneo. J. Asian Earth Sciences 192, 103992, p.
(Evaluation of three ichnofacies (i.e., Psilonichnus, Skolithos and Cruziana) in exposed rocks of Sandakan Fm. Deposited in transitional environment. Permeability network in bioturbated horizons of sandstone and interbedded mudstone very high (250–950 mD). Presence of ichnofacies in sedimentary reservoir horizons can substantially increase secondary porosity and enhance pore connectivit)

Vachard, D. (1990)- A new biozonation of the limestones from Terbat area, Sarawak, Malaysia. In: H. Fontaine (ed.) Ten years of CCOP research on the Pre-Tertiary of East Asia, United Nations ESCAP, CCOP, Technical Publication 20, p. 183-208.
(Terbat Lst of W Sarawak- NW Kalimantan border area with 7 diverse M Carboniferous- earliest Permian fusulinid assemblages: M Carboniferous with (1) Profusulinella- Goksuella and (2) Beedeina- Komia; (3) latest Carboniferous with (3) Dutkevichites and (4) Pseudofusulina-Ozawainella; (5) earliest Permian (lower Asselian) with Occidentoschwagerina fusulinoides, Ozawainella (=Nummulostegina velebitana of Cummings); (6) M-U Asselian with Ozawaiella angulata, Schwagerina, Boultonia willsi, Tricitites and (7) U Artinskian with Langella ex. gr. perforata (= Padangia perforata Lange 1925) and common Permocalculus. Sarawak assemblages most similar to S and N China and Alps)

Vahrenkamp, V.C. (1998)- Miocene carbonates of the Luconian Province, Offshore Sarawak: implications for regional geology and reservoir properties from Strontium-isotope stratigraphy. In: G.H. Teh (ed.) Geological Society Malaysia Petrol. Geological Conference, Kuala Lumpur 1997, Bull. Geological Society Malaysia 42, p. 1-13.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1998001.pdf)
(Luconia province E-M Miocene carbonate platforms growth and demise correlated with 2nd-order eustatic sea-level cycle. Sr isotopes suggest late E Miocene- Middle/Late Miocene boundary ages. Major karst horizons, flooding, aggradation and progradation packages linked to 3rd order eustatic sea-level fluctuations. Simultaneous with 2nd order sea-level drop (late M Miocene) influx of siliciclastics split province into S part with low relief carbonate banks and N part with high relief platforms. All growth terminated at end M Miocene. Low relief banks buried, high relief platforms karstified prior to drowning (Late Miocene-Pliocene). Porosity-permeability distribution linked to duration of exposure and burial diagenesis)

Vahrenkamp, V.C., F. David, P. Duijndam, M. Newall & P. Crevello (2004)- Growth architecture, faulting, and karstification of a Middle Miocene carbonate platform, Luconia Province, Offshore Sarawak, Malaysia. In: G.P. Eberli et al. (eds.) Seismic imaging of carbonate reservoirs and systems, American Assoc. Petroleum Geol. (AAPG), Memoir 81, p. 329-350.
(Mega Platform is 30x50-km large and 1.2-km-thick carbonate platform, originating in late Early- early M Miocene on structural high. First aggraded, then backstepped in M Miocene. Several transgressive, aggradational, and progradational cycles overprinted by karst events. Demise of platform either drowning from combined subsidence- eustatic sea level rise, or much-later drowning, preceded by period of exposure resulting from second-order sea level fall and decrease in subsidence caused by onset of Late Miocene tectonism in Borneo. Hiatus of ~5 m.y. before platform was buried by deep-marine siliciclastics prograding from large NW Borneo deltas. Growth architecture, faulting and karstification key to exploiting hydrocarbon reservoirs)

Vahrenkamp, V.C., Y. Kamari & S.A. Rahman (1998)- Three dimensional reservoir geological model and multiple scenario volumetrics of the F23 Miocene carbonate build-up, Luconia Province, offshore Sarawak. Bull. Geological Society Malaysia 42, p. 15-26.
(online at: www.gsm.org.my/products/702001-100860-PDF.pdf)
(Gas reservoirs in M Miocene carbonate builups of C Luconia with complex internal reservoir architecture influenced by paleo-wind pattern and sea level fluctuations, with backstepping, progradational and aggradational growth phases. Transgressive systems dense argillaceous limestones, possibly isolating gas volumes. During repeated periods of flooding platform backstepped up-wind, then prograded down-wind again during sea level high stands. Most likely gas volume in F23 field 3.98 Tcf)

Van Borren, L.K., A. Koopman & A.J. Schreurs (1996)- Stratigraphy. In: S.T.Sandal (ed.) The geology and hydrocarbon resources of Negara Brunei Darussalam (2nd ed.), Special Publ. Muzium Brunei and Brunei Shell Petroleum Company Berhad, Syabas, Bandar Seri Begawan, p. 81-128.
(Includes review of biostratigraphy in Brunei region (p. 81-96))

Van den Brink, H. (2001)- Neogene dinoflagellate cysts from a deep water well, offshore Sabah, northern Borneo. Berita Sedimentologi 16, p. 22-25.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/241)
(Study of marine dinoflagellate cysts in U Miocene- Pliocene of deep water well offshore Sabah. Potential useful 'tops' in Pliocene: Hystrichokolpoma rigaudiae, H. okinawinum, Dapsilidinium pastielsi, Lingulodinium pycnospinosum. For U Miocene: Selenopemphix brevispinosa and Systematophora placacantha)

Van den Brink, H. (2002)- Neogene dinoflagellate cysts from a deep water well, offshore Sabah, northern Borneo. Proc. 34th Annual Meeting American Assoc. Stratigrigraphic Palynologists (AASP), p. 278-279. *(Abstract only)*
(Attempt to establish dinoflagellate cyst biozonation for Late Miocene- Recent in deep-water wells off Sabah and Brunei. Palynological assemblages dominated by land plant material; marine elements (dinoflagellate cysts, acritarchs, algae) only 2-5% of microflora. Dinoflagellate cyst assemblages similar to open oceanic assemblages from E Indian Ocean and NE Australian margin)

Van den Brink, H. (2019)- The stratigraphic distribution of Neogene dinoflagellate cysts from a deep water well, Offshore Sabah, Northern Borneo. Berita Sedimentologi 43, p. 15-28.
(online at: https://www.iagi.or.id/fosi/files/2019/06/FOSI_BeritaSedimentologi_43_June_2019.pdf)
(Late Miocene- Pliocene dinoflagellate cyst distribution in well Kebabangan-1, deep water offshore Sabah. Dinoflagellate cysts recovered from mud-rich shelfal topsets and underlying mud-rich slope fan systems, while basal sand-rich base-of-slope fans barren of palynomorphs)

Van der Zee, W. & J.L. Urai (2005)- Processes of normal fault evolution in a siliciclastic sequence: a case study from Miri, Sarawak, Malaysia. J. Structural Geology 27, 12, p. 2281-2300.
(Outcrop observations of normal faults formed at shallow depth in deltaic sand-clay sequence near Miri used to study early stages of fault development)

Van Ditzhuijzen, P.J.D. & J.A. de Waal (1984)- Reservoir compaction and surface subsidence in the Central Luconia gas bearing carbonates, offshore Sarawak. Proc. 5th Offshore South East Asia Conference, SE Asia Expl. Soc. (SEAPEX), Singapore, p. 27-40.
(Pores in carbonates with common moldic porosity may collapse as reservoirs are depleted, and cause subsidence)

Van Hattum, M.W.A. (2005)- Provenance of Cenozoic sedimentary rocks in Northern Borneo. Ph.D. Thesis Royal Holloway College, University of London, p. 1-467. *(Unpublished)*

Van Hattum, M., R. Hall & G.J. Nichols (2003)- Provenance of northern Borneo sediments. Proc. 29th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 305-319.
(Upper Cretaceous- Eocene sediments mature quartzose, possibly derived from mainland SE Asia/Indochina. In Eocene shift to relatively immature recycled orogenic sands. Eo- Oligocene Crocker Fm mainly derived from granites; ultimate source probably S Borneo Schwaner Mountains)

Van Hattum, M.W.A., R. Hall, A.L. Pickard & G.J. Nichols (2006)- Southeast Asian sediments not from Asia: provenance and geochronology of North Borneo sandstones. Geology (GSA) 34, 7, p. 589-592.
(online at: http://searg.rhul.ac.uk/pubs/van_hattum_etal_2006%20Borneo%20sediments.pdf)
(Eocene- Lower Miocene Crocker turbidite sst of N Borneo derived from Borneo and SE Asia, not from Asian sources after India-Eurasia collision. Compositionally mature due to tropical weathering, but mostly first-cycle sandstones from granitic and subordinate metamorphic, sedimentary and ophiolitic rocks. Detrital zircons Archean- Eocene ages, mostly Mesozoic. Main source Cretaceous granites of Schwaner Mts in SW Borneo in Eocene, Permo-Triassic granites and Proterozoic basement of Malay-Thai Tin Belt in Oligocene)

Van Hattum, M.W.A., R. Hall, A.L. Pickard & G.J. Nichols (2013)- Provenance and geochronology of Cenozoic sandstones of northern Borneo. J. Asian Earth Sciences 76, p. 266-282.
(online at: http://searg.rhul.ac.uk/pubs/van_hattum_etal_2013%20Sabah%20Crocker%20provenance.pdf)
(Crocker Fan of Sabah deposited during subduction of Proto-South China Sea in Eocene- E Miocene. Collision of microcontinental blocks with N Borneo in E Miocene terminated deep water sedimentation and resulted in regional Top Crocker Unconformity, followed by sedimentation of fluvio-deltaic- shallow marine facies in late E Miocene. Crocker Fan sandstones derived from sources in Borneo and nearby SE Asia. Sandstones mostly from granitic sources, with some metamorphic, sedimentary and ophiolitic material. In Eocene sands mainly Cretaceous zircons (~90-130 Ma; from granites of Schwaner Mts). In Oligocene sands more common zircons from Permian-Triassic granites (~213-268 Ma) and Paleoproterozoic (~1850 Ma) from basement of Malay Tin Belt. Miocene fluvio-deltaics mostly recycled from deformed Crocker Fan. Lower Miocene Tajau Sst of Kudat Fm in N Sabah derived mainly from granitic and high-grade metamorphic source rock, probably from N, from continental crust from S China and subduction-related metamorphic rocks)

Van Heck, S.E. (2001)- Calcareous nannoplankton and planktonic foraminifera from the Neogene offshore Northwest Borneo. Berita Sedimentologi 16, p. 14-21.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/240/210)
(Summary of succession of M Miocene and younger foram and nannoplankton biostratigraphic events recognized in deepwater NW Borneo wells)

Vannucchi, P., A. Maltman, G. Bettelli & B. Clennell (2003)- On the nature of scaly fabric and scaly clay. J. Structural Geology 25, 5, p. 673-688.
(On scaly clay fabric, including chapter on scaly clay in E-M Miocene East Sabah melange)

Van Rensbergen, P. & C.K. Morley (2000)- 3D seismic study of a shale expulsion syncline at the base of the Champion delta, offshore Brunei and its implication for the early structural evolution of large delta systems. Marine and Petroleum Geology 17, p. 861-872.
(Example of Late Miocene expulsion rollover syncline related to mobile shale, described from 3D seismic)

Van Rensbergen, P., C.K. Morley, D.W. Ang, T.Q. Hoan & N.T. Lam (1999)- Structural evolution of shale diapirs from reactive rise to mud volcanism: 3D seismic data from the Baram Delta, offshore Brunei Darussalam. J. Geological Society, London, 156, p. 633-650.
(Two areas of shale diapyrism in Baram Delta)

Van Rensbergen, P. & C.K. Morley (2003)- Re-evaluation of mobile shale occurrences on seismic sections of the Champion and Baram Deltas, offshore Brunei. In: P. Van Rensbergen et al. (eds.) Subsurface sediment mobilization, Geological Society, London, Special Publ. 216, p. 395-409.
(3D seismic data in Baram and Champion delta provinces show chaotic areas, conventionally interpreted as shale diapers, have dimmed but coherent reflectivity. Dimming attributed to sediment intrusive complexes, overpressured fluids, gas clouds or processing artefacts. M Miocene-Recent Champion and Baram deltaic provinces characterized by gravity tectonics-related structures, also affected by episodic contraction, with inversion of some growth faults. Emplacement of shale pipes, gas clouds and intrusive complexes generally later (Pliocene) than underlying reactive diapirs (Late Miocene))

Van Vliet, A. & W.N. Krebs (2009)- The Middle Miocene Unconformity (MMU) in North Luconia, deepwater Sarawak: how unconformable is the unconformity? Warta Geologi (Newsletter Geological Society Malaysia) 35, 3, p. 131-133.
(online at: https://gsmpubl.files.wordpress.com/2014/09/warta35_4.pdf)
(M Miocene Unconformity (MMU) of S China Sea in most places neither M Miocene age, nor true widespread break in stratigraphic record. Crustal extension in late E Miocene resulted in listric faulting, fault-block rotation and accelerated subsidence around 'oceanic' core of S China Sea. Crests of fault-blocks experienced minor (mainly submarine) erosion)

Van Vliet, A. & M.M. Schwander (1989)- Stratigraphic interpretation of a regional seismic section across the Labuan Syncline and its flank structures, Sabah, North Borneo. In: A.W. Bally (ed.) Atlas of seismic stratigraphy, American Assoc. Petroleum Geol. (AAPG), Studies in Geology 27, p. 163-167.

Van Vliet, A. & M. Wannier (2023)- Exploration history of the Central Luconia carbonate gas play. In: E.C. Rankey & M.C. Poppelreiter (eds.) Cenozoic isolated carbonate platforms- Focus Southeast Asia, Society for Sedimentary Geology (SEPM) Special Publ. 114, p. 203-219.
(Central Luconia province on Sarawak Shelf characterized by widespread M-L Miocene carbonate buildups, which have been a target of petroleum exploration since late 1960s, leading to discovery and development of world-class gas resource (no oil). Large number of carbonate buildups, virtually all gas-bearing. Over 100 exploration wells drilled, mainly by Shell, since 1968, also Oxy, Petronas, etc.))

Van Vugt, N., G. Warrlich, N.M.N. Liam, C.L.-Hua, T. Tam & B.S.M. Din (2023)- Reservoir modelling strategies for Miocene isolated carbonate platforms. In: E.C. Rankey & M.C. Poppelreiter (eds.) Cenozoic isolated carbonate platforms- Focus Southeast Asia, Society for Sedimentary Geology (SEPM) Special Publ. 114, p. 1-16.
(Shell simulation models of carbonate buildups, as analogs of Central Luconia Miocene carbonate buildups)

Vijayan, V.R., C. Foss & H. Stagg (2013)- Crustal character and thickness over the Dangerous Grounds and beneath the Northwest Borneo Trough. J. Asian Earth Sciences 76, p. 389-398.
(Crustal thickness across Luconia Province and Dangerous Grounds is 25-30 km. NW Borneo/ Sabah Trough is underlain by thinned crust (25-20 km total crustal thickness), without tectonic discontinuity)

Villareal-Tirona, A.M., M.I. R. Balangue-Tarriela & R. Shaw (2022)- Sulfidation and gold precipitation in the Jugan gold deposit in Bau, Sarawak, East Malaysia: Insights from correlation plots and factor analysis. Bull. Geological Society Malaysia 74, p. 55-67.
(online at: https://gsm.org.my/wp-content/uploads/2023/01/bgsm74202204.pdf)
(Jugan Gold Deposit in Bau Mineral District in SW Sarawak (often viewed as Carlin-type deposits). JGD was mined in 1900s by local Chinese to extract eluvial gold. JGD mineralization gold-bearing sulfide minerals associated with carbonate mineral assemblage, and tied to M Miocene intrusives? High bismuth loadings on main Au-mineralization stage. Inferred to be sedimentary-hosted gold deposit)

Vogt, E.T. & M.F.J. Flower (1989)- Genesis of the Kinabalu (Sabah) granitoids at a subduction-collisional junction. Contributions to Mineralogy and Petrology 103, 4, p. 493-509.
(Kinabalu batholith is Late Neogene granitoid in NW Sabah, where subducted S China Sea lithosphere of extinct Borneo-Palawan subduction zone interacted with collisionally thickened crust of N Sabah collision suture. Intruded into melange lithologies of Trusmadi and Crocker Fms. Exposed batholith with small core of biotite-quartz monzodiorite grading to hornblende-quartz monzonite. Unusual zonation from inner low-K to outer high-K compositions)

Wahab, M.H., A. Asraff, J.J. Ismail & C.A. Ibrahim (2013)- Significant hydrocarbon accumulation in deep overpressured play of West Baram Delta: a breakthrough. In: Petroleum Geoscience Conf. Exhib. (PGCE 2013), Kuala Lumpur, p. 1-3. *(Extended Abstract)*
(Two recent HPHT wells successfully tested deep overpressured play in W Baram Delta, offshore Miri, with discoveries of gas and condensate at >4500m below mudline. Reservoir pressure ~14,000 psi. 200m net gas sand penetrated with all gas bearing reservoirs filled to structural spill (~650m of vertical gas colum). No maps, well names, etc.)

Wakita, K. (1981)- The alteration and mineralization of serpentinite of the Mamut porphyry copper deposit. Mining Geology 31, 5, p. 351-365.
(online at: www.journalarchive.jst.go.jp/..)
(Mamut porphyry copper deposit associated with Upper Miocene adamellite porphyry intrusion. Localized in intrusion and in serpentinite and clastic sediments wall rocks. Four types of serpentinite alteration)

Walker, T. (1993)- Sandakan Basin prospects rise following modern reappraisal. Oil and Gas Journal, 10 May, p. 43-47.

Wang, P.C., S.Z. Li, L.L. Guo, S.H. Jiang, I.D. Somerville, S.J. Zhao, B.D. Zhu, J. Chen et al. (2016)- Mesozoic and Cenozoic accretionary orogenic processes in Borneo and their mechanisms. In: Evolution of West Pacific Ocean, South China Sea and Indian Ocean, Geological Journal 51, Suppl. S1, p. 464-489.
(online at: www.researchgate.net/profile/Yanhui-Suo/publication/304610535_Mesozoic_and_Cenozoic Etc.)
(Borneo Accretionary Orogen Mesozoic- Cenozoic accretionary orogeny, with intensely deformed Rajang-Crocker Gp accretionary prism, ophiolites and calc-alkaline igneous rocks. Four episodes of Sabah deformation: (D1) displacement foliation (S1) and NNE-trending thrusts (Sabah Orogeny; 23-16 Ma); (D2) WNW- or NW-striking thrusts (formation of Deep Regional Uncomformity at 16 Ma), followed by NNW-SSE-trending thrusts and folds; (D3) Shallow Regional Uncomformity at 10 Ma; (D4) NNE-trending sinistral strike-slip faults and WNW-trending dextral faults (NW-SE-trending extension after multi-stage collisional events). Accretionary orogen related to evolution of Proto-S China Sea, which continuously subducted under Borneo Block and closed in Late Eocene- E Miocene. BAO still active, as thrusting and subduction of Dangerous Grounds under Borneo Block. NNE-trending faults considered as transform faults, rotating to present-day NW-trending faults due to CCW rotation of entire Borneo Block. Previous NNE-trending Tinjar Fault major boundary, with Oligocene- E Miocene strata and igneous rocks to NE, and Cretaceous-Late Eocene to SW)

Wang, Y., Y. Wang, X. Qian, J.B. Asis, P.A. Cawood, S. Wu, Y. Zhang, Q. Feng & X. Lu (2023)- "Where, when and why" for the arc-trench gap from Mesozoic Paleo-Pacific subduction zone: Sabah Triassic-Cretaceous igneous records in East Borneo. Gondwana Research 117, 4, p. 117-138.
(Geochronological and isotopic data for Mesozoic Sabah ophiolites and Segama non-ophiolitic basement in NE Borneo. Main phases of ophiolite formation: ~185-140 Ma (Telupid; Jurassic),~135-112 Ma (Kudat; E Cretaceous) and ~130-85 Ma (Darvel Bay; middle-late Cretaceous) ophiolites in Sabah. Mafic rocks within ophiolites classified as MORB and arc-like rocks. Segama non-ophiolitic igneous rocks dated at 251-178 Ma, classified as adakites and high-Mg andesite. Magmatic flare-ups at ~251-203, ~185-153 Ma, ~135-112 Ma and ~95-85 Ma in Sabah comparable with Coastal S China and W Borneo, and indicating Jurassic-Cretaceous orogenesis in Sabah. Sabah tectonically located at East Cathaysia margin of S China in Mesozoic. It was a long-lived (>150 Ma) Triassic- Cretaceous (~251-85Ma) Andean-type active continental margin with multi-staged pulsed subduction and rollback in East Asia)

Wang, Y., A. Zhang, X. Qian, J.B. Asis, Q. Feng, C. Gan, Y. Zhang, P.A. Cawood, W. Wang & P. Zhang (2021)- Cretaceous Kuching accretionary orogenesis in Malaysia Sarawak: geochronological and geochemical constraints from mafic and sedimentary rocks. Lithos 400-401, 106425, p. 1-14.
(Kuching zone most important tectonic boundary in Borneo, separating Sibu zone in C Sarawak from Schwaner Mountains granitoids in SW Borneo. Late Cretaceous Pakong-Serabang basalts and Serian mafic rocks dated at ~77-98 Ma. Serian Volcanics derived from mantle wedge with input of recycled sedimentary components. Detrital zircons from associated sandstones similar ages to E Malay Peninsula and SE Vietnam. NW Borneo SW of Sarawak Kuching zone was part of Indochina/ E Malay Peninsular Malaysia in SE Asia prior to Jurassic, re-activated as active continental margin in Cretaceous. Accretionary orogenesis along Kuching zone likely initiated at or before E Cretaceous and ended in latest Cretaceous in response to W-ward subduction of Paleo-Pacific slab. (Previously-mapped Triassic Serian Volcanics should be separated into upper Cretaceous "Serian Volcanics" and volcanic member of Sadong Formation (eruption ages ~77-89 Ma) (Lupar Complex, originally called Danau Formation by G. Molengraaff, 1902))

Wanner, J. (1922)- Beitrage zur Geologie und Geographie von Nordost-Borneo. Ergebnisse einer von Dr. Stamm in den 1913 und 1914 ausgefuhrten Reise nach Borneo. Neues Jahrbuch Geologie Palaontologie, Beilage Band 45, 1921, p. 149-213.
('Contributions to the geology and geography of NE Borneo'. Summary of results of field survey in North Borneo, in areas of Darvel Bay, Siagau River and Sandakan Bay by K. Stamm for NKPM in 1913-1914)

Wannier, M. (2009)- Carbonate platforms in wedge-top basins: an example from the Gunung Mulu National Park, Northern Sarawak (Malaysia). Marine and Petroleum Geology 26, 2, p. 177-207.

(Melinau carbonate platform of NE Sarawak initiated in M Eocene on rotating slice of Rajang accretionary prism. Differential loading enhanced rotation of mobile substratum and created asymmetrical wedge-top basin. Extensional S margin of basin ~2200m thick Eocene-Oligocene carbonates. Backstepping and dismemberment of carbonate system started in latest Oligocene; deep-marine sedimentation prevalent in E Miocene)

Wannier, M. (2023)- Stratigraphy, sedimentology, and ecology of the Subis Limestone and the Late Oligocene/Early Miocene carbonates in the Sarawak Basin (Borneo, Malaysia). In: E.C. Rankey & M.C. Poppelreiter (eds.) Cenozoic isolated carbonate platforms- Focus Southeast Asia, Society for Sedimentary Geology (SEPM) Special Publ. 114, p. 1-24.
(Late Chattian-Aquitanian in Niah area of Sarawak documents transition from larger foraminifera-dominated, calcitic environments to scleractinian coral-dominated, aragonitic environments in SE Asia. Carbonate sedimentation started with Eulepidina-dominated larger foraminifera argillaceous shoals, raising from seabed at ~60 m in water depth up to near sea level in ~23.5-22.3 Ma. After period of siliciclastic deposition, a roughly circular carbonate platform !25 km^2 in area formed at ~21.2 Ma (Subis Limestone). Smaller patch reefs coalesced through time to form larger isolated carbonate buildup that grew up at least until end of Aquitanian at 20.4 Ma, with preserved thickness of 260-280 m and paleo-relief of ~100 m)

Wannier, M., P. Lesslar, C. Lee, H. Raven, R. Sorkhabi & A. Ibrahim (2011)- Geological excursions around Miri, Sarawak, 1910-2010, Celebrating the 100th anniversary of the discovery of the Miri oil field. Belle's Bookshop, Ecomedia, Miri, Sarawak, p. 1-279.
(Shell geologists review of geology of Miri oilfield, Sarawak (discovered 1910, peak production 1929) and outcrop descriptions of Miocene- Quaternary deltaic sediments and faults around Miri anticline, Niah National Park with caves in E-M Miocene Subis Lst, Mulu National Park with caves in Late Eocene- Oligocene Melinau Lst, etc. With notes on fossils, mud volcanoes, tektites)

Warren, J.K., A. Cheung & J.A. Cartwright (2010)- Organic geochemical, isotopic, and seismic indicators of fluid flow in pressurized growth anticlines and mud volcanoes in modern deep-water slope and rise sediments of offshore Brunei Darussalam: implications for hydrocarbon exploration in other mud- and salt-diapir provinces. In: L. Wood (ed.) Shale tectonics, American Assoc. Petroleum Geol. (AAPG), Memoir 93, Chapter 10, p. 163-196.
(online at: https://www.researchgate.net/publication/285870003_Organic_geochemical_isotopic_and_seismic_indicators_of_fluid_flow_in_pressurized_growth_anticlines_and_mud_volcanoes_in_modern_ Etc.)

Warrlich, G.M.D., E.W. Adams, A. Ryba, T. Tam, C. Burgess, M. Angelatos, A. Binda & D.A. Stevens (2015)- The impact of carbonate reservoir heterogeneities on hydrocarbon flow & recovery: Lessons learned from Central Luconia. Proc. Asia Petroleum Geoscience Conference and Exhibition (APGCE 2015), EAGE, Kuala Lumpur, p. 1-5.

Warrlich, G.M.D., E.W. Adams, A. Ryba, T.C.F. Tam, K.K. Ting & H.K. Tang (2019)- What matters for flow and recovery in carbonate gas reservoirs: Insights from the mature Central Luconia Province, offshore Sarawak, Malaysia. American Assoc. Petroleum Geol. (AAPG) Bull. 103, 3, p. 691-721. *(online at: https://www.researchgate.net/publication/331452267_What_matters_for_flow_and_recovery_in_carbonate_gas_reservoirs_Insights_from_the_mature_Central_Luconia_Province_offshore_Sarawak_Malaysia)*
(Key factors affecting oil-gas flow in Miocene carbonate reservoirs in C Luconia, offshore Sarawak. Reservoir heterogeneities impacting flow grouped into 'horizontal heterogeneities' (argillaceous flooding layers, exposure karst) and 'vertical heterogeneities' (especially along platform margins; fault-bounded reef margins, karsts, etc. can be vertical conduits for aquifer inflow)

Warrlich, G.M.D., E.W. Adams, T.C.F. Tam, E. Kosa, K.K. Ting & A.D. Kayes (2013)- The value of regional correlation and analogues in managing a mature asset: examples from the Central Luconia gas fields. Petroleum Geoscience Conf. Exhib. (PGCE 2013), Kuala Lumpar, p. 1-5. *(Extended Abstract)* *(online at: https://www.researchgate.net/publication/288237381_The_value_of_regional_correlation_and_analogues_in_managing_a_mature_asset_Examples_from_the_central_luconia_gas_fields)*

(Consistent, sequence-stratigraphic correlation framework in C Luconia gas fields and use of modern-day and fossil outcrop analogues aid in planning development wells, predicting recovery factors and optimizing recovery. Gas recovery depends on presence or absence of argillaceous tight layers formed during flooding events in reservoir, as well as their relative position to GWC)

Warrlich, G.M.D., D. Palm, H. van Alebeek, D. Volchkov, S.C. Hong, E.W. Adams, A. Ryba et al. (2014)- Scenario-based pore pressure prediction to reduce drilling risks, examples from the Sarawak Asset, North West Borneo, Malaysia: Int. Petroleum. Technical Conf. (IPTC), Kuala Lumpur, Paper 17952, p. 1-13.

Warrlich, G., C. Taberner, W. Asyee, B. Stephenson, M. Esteban, M. Bya-Ferrero, A. Dombrowski & J.H. van Konijnenburg (2010)- The impact of postdepositional processes on reservoir properties: two case studies of Tertiary carbonate buildup gas fields in Southeast Asia (Malampaya and E11). In: W.A. Morgan et al. (eds.) Cenozoic carbonate systems of Australasia, Soc. Sedimentary Geology (SEPM), Special Publ. 95, p. 99-127.
(Comparison of two Tertiary gas-bearing carbonate buildups formed in similar depositional environments and ages: E11 in Luconia, off N Borneo and Malampaya, off Philippines. Diagenetic histories different: (1) E11 secondary porosity formed by dolomitization and late leaching; (2) Malampaya by exposure and burial-related leaching. Low-porosity zones in Malampaya result of meteoric diagenesis during exposure and late cementation; in E11 non-leached, deeper-water argillaceous wackestones. Early diagenetic alterations follow depositional trends. Diagenetic overprints in burial realm may be guided by faults)

Watanabe, Y., H. Natori & G. Lingkai (1995)- Geochemical characteristics of the Tertiary argillaceous rocks from central-Northeast Sarawak, Malaysia. J. Sedimentological Society of Japan 41, p. 3-15.
(online at: https://www.jstage.jst.go.jp/article/jssj1972/41/41/41_41_3/_article)
(Geochemical analyses of Lower Neogene marine argillaceous rocks from outcrops in C NE Sarawak shows mostly granitic provenance without mafic- ultramafic components. Higher horizons more enriched in exposed weathered materials from uplift of hinterland. Hydrocarbon source potential poor due to post-depositional oxidation)

Watters, D.G., R.C. Maskall, I.M. Warrilow & V. Liew (1999)- A sleeping giant awakened: further development of the Seria Field, Brunei Darussalam, after almost 70 years of production. Petroleum Geoscience 5, 2, p. 147-159.
(Seria Field 1929 discovery in large WSW-ENE trending anticline. Produced 164 Mm3 (>1 billion barrels)of oil from 778 wells by 1996 (34% of in-place volumes). 3D seismic used to identify undrilled closures and areas of unswept oil in field)

Weber, H.S. & D.T.C. Lee (1990)- Mineral resources investigation in Sabah, East Malaysia, 1980-1984; selected results and conclusions. In: Mineral resources investigation in Sabah, East Malaysia, 1980-1984, Geologisches Jahrbuch B74, p. 3-29.
(Results of German mineral resources survey in Sabah. Focused on lead-zinc-copper anomalies associated with Late Tertiary volcanic belt of Semporna Peninsula and copper-zinc anomalies associated with Late Cretaceous-E Tertiary ophiolites of C Sabah)

Weng, H.C., E. Rollett, K. Maguire, G. Stone, S. Hayon & L.B. Leong (2011)- Identification, significance and correlation of Mass Transport Complexes in Malaysian deepwater fields. Int. Petroleum Technology Conference (IPTC) 2011, Bangkok, IPTC-14781-MS, p. 1851-1864.
(Distribution of Mass Transport Complexes in deepwater Sabah strong control on distribution of reservoir and seal. MTCs typically exhibiting high angle chaotic dips, are denser than overlying and underlying sediments, and generate strong seismic markers)

Wenk, E. (1946)- Gunong Kinabalu, der Viertausender von Borneo. Die Alpen, Bern, 22, 12, p. 334-341.
('Mount Kinabalu, the four-thousander of Borneo'. Description of Sabah mountain by Swiss Shell geologist)

White, A.W., M. Archer, S.J. Hand, H. Godthelp & A.K. Gillespie (2023)- A new broad-snouted fossil carettochelyid turtle from a previously unknown Caenozoic deposit in Sarawak, Malaysia. Alcheringa 47, 4, p. 614-623.
(https://www.tandfonline.com/doi/full/10.1080/03115518.2023.2243503)
(Incomplete skull of a previously unknown carettochelyid freshwater or estuarine turtle Carettochelys niahensis sp. nov. found in or below E Miocene Subis Limestone in Niah Great Cave, Sarawak)

Whittaker, J.E. & R.L. Hodgkinson (1979)- Foraminifera of the Togopi Formation, eastern Sabah, Malaysia. Bull. British Museum (Natural History), Geology, 31, p. 1-120.
(online at: www31.us.archive.org/details/bulletinofbritis31brit)
(125 species of foraminifera described from Late Miocene Togopi River section. Species names Ammonia togopiensis n.sp. introduced for Billman et al. (1980) marker species Ammonia ikebei; Asterorotalia pulchra for more commonly used name Asterorotalia trispinosa)

Whittle, A.P. & G.A. Short (1978)- The petroleum geology of the Tembungo Field, East Malaysia offshore. Proc.SE Asia Petroleum Exploration Society (SEAPEX) Offshore South East Asia Conference 6, Singapore, p. 1-11.
(Tembungo 1971 first oil and gas discovery offshore Sabah in anticlinal structure with Late Miocene turbidite reservoir sands. Reserves ~15 MBO)

Wicker, J.J. & J.E.F Stearn (1999)- Baram Field- the 3D marine re-processing challenge. In: G.H. Teh (ed.) Proc. 9th Regional Congress Geology Mineral Energy Resources of SE Asia (GEOSEA '98), Kuala Lumpur 1998, Bull. Geological Society Malaysia 43, p. 439-450.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1999044.pdf)
(Baram Field 1963 Shell discovery offshore Sarawak is largest field in Baram Delta Province (EUR 283 MMBO). Complex structure and stratigraphy, with >746 hydrocarbon-bearing reservoirs identified. Re-processing of 1988 seismic survey improved interpretation)

Wilf, P., X. Zou, M.P. Donovan, L. Kocsis, A. Briguglio, D. Shaw, J.W.F. Slik & J.J. Lambiase (2022)- First fossil-leaf floras from Brunei Darussalam show dipterocarp dominance in Borneo by the Pliocene. PeerJ 10, 4, e12949, p. 1-84.
(online at: https://peerj.com/articles/12949/)
(Plant fossils from Early Pliocene lowland fern-dominated swamp (Berakas Beach) and Plio-Pleistocene mangrove swamp (Kampong Lugu) depositional environments in Brunei. Macroflora 'compression assemblages' dominated by dipterocarp leaves, particularly Dryobalanops. Palynofloras diluted by material from wider range of environments and show higher diversity, with rare dipterocarps (<1%!))

Wilford, G.E. (1955)- The geology and mineral resources of the Kuching-Lundu area, West Sarawak, including the Bau mining district. Geological Survey Department, British Territories in Borneo, Memoir 3, p. 1-254.
(Kuching-Lundu area is westernmost part of Sarawak. N Borneo composed of sedimentary rocks from probably Devonian to Quaternary age and variety of volcanic and intrusive igneous rocks. Structurally part of Sunda shelf, an extension of continental Asia. Gold and diamonds mined in early 19th century. Gold, antimony, and mercury ores genetically associated with Tertiary acid intrusions. With 1:125,000 geologic map of study area and 1:50,000 map of Bau gold mining district)

Wilford, G.E. (1957)- Geology of Brunei and adjoining areas of Sarawak- Tektites. Annual Report Geological Survey Department, British Territories in Borneo, 1957, Kuching, p. 121-124.
(Black, glossy rounded pebbles from Quaternary alluvial sands and gravels in Brunei, interpreted as tektites/ glassy meteorites)

Wilford, G.E. (1957)- Antimony in the lower Rajang area of the Third Division. British Borneo Geological Survey, Annual Report for 1956, p. 39-56.

Wilford, G.E. (1961)- The geology and mineral resources of Brunei and adjacent parts of Sarawak with descriptions of Seria and Miri oilfields. Geological Survey Department, British Territories in Borneo, Memoir 10, p. 1-319.
(Major review of Brunei geology. Area part of center of 'NW Borneo geosyncline', with great thicknesses of Paleocene- Recent sediments (possibly >100,000'). Presence of (reworked?). Pleistocene tektites in gravel pits in young terrace deposits (K-Ar date of tektite from Pentuan Hill 730,000 years))

Wilford, G.E. (1964)- The geology of Sarawak and Sabah caves. Geological Survey of Malaysia, Borneo Region, Kuching, Bull. 6, p. 1-181.
(Caves in all larger limestone outcrops of North Borneo. Mainly Permian (Terbat Fm), Jurassic and Cretaceous (Bau Fm) ages in W Sarawak, mainly Eocene- Miocene ages (Melinau Lst, Tangap Fm) in E Sarawak, Cretaceous (Madai-Baturong Lst) and Miocene (Gomantong Lst) in Sabah. Most limestones fine-grained and very low porosity. One 'lava tunnel' in basalt near Darvel Bay, E Sabah. Limited geology info)

Wilford, G.E. (1967)- The effects of late Tertiary and Quaternary tectonic movements on the geomorphological evolution of Brunei and adjacent parts of Sarawak. J. Tropical Geography, Singapore, 24, p. 50-56.

Wilford, G.E. (1968)- Notes on the geomorphology of Sabah. In: P. Collenette & J. Goh (eds.) Geological Papers 1967, Geological Survey Borneo Region, Malaysia, Kuching, Bull. 9, p. 1-22.
(Sabah's present relief formed by differential uplift, warping and tilting since Late Pliocene or E Pleistocene partial peneplanation. Five regions distinguished)

Wilford, G.E. (1968)- Notes on the geomorphology of the Kalabakan area, Sabah. In: P. Collenette & J. Goh (eds.) Geological Papers 1967, Geological Survey Borneo Region, Malaysia, Kuching, Bull. 9, p. 23-31.
(Kalabak Fm in Sabah flysch-type deposits of Te5 (basal Miocene) age, but with slumped limestone blocks of Eocene zone Ta (with *Asterocyclina, Discocyclina, Fasciolites/ Alveolina*) and E Oligocene zoneTd (with *Nummulites fichteli, Lepidocyclina (Eulepidina*))

Wilford, G.E. & C.H. Kho (1965)- The geology and mineral resources of the Penrissen area, West Sarawak, Malaysia. Geological Survey of Malaysia, Borneo Region, Kuching, Report 2, p. 1-195.
(Description of geology and 1:50,000 scale geologic map of area S of Kuching along NW Kalimantan border. Named after 4350' high Penrissen Peak, which is on border, composed of Plateau Sandstone. Oldest rock U Triassic Sadong Fm (with U Triassic bivalves Halobia, Grammatodon, Monotis salinaria, etc.) and Serian Volcanics. Triassic unconformably overlain by Kedadom Fm with Kimmeridgian ammonoids Lithacoceras and Subplanites sp. Conformably overlain by Bau Lst with latest Jurassic- E Cretaceous algae (Cladocoropsis, Clypeina, Salpingoporella, Thaumatoporella, etc.) and foraminifera (Pseudocyclammina lituus, Nautiloculina oolithica). Widespread Cretaceous Pedawan Fm with radiolaria, Etc.)

William, A.G., J.J. Lambiase, S. Back & M.K. Jamiran (2003)- Sedimentology of the Jalan Selaiman and Bukit Melinsung outcrops, western Sabah: is the West Crocker Formation an analogue for Neogene turbidites offshore? In: G.H. Teh (ed.) Petroleum Geology Conference Exhib. 2002, Bull. Geological Society Malaysia 47, p. 63-75.
(online at: www.gsm.org.my/products/702001-100608-PDF.pdf)
(Outcrop study of~500m of Oligocene- E Miocene West Crocker Fm turbidites, W Sabah. Texturally immature sands. Paleocurrent directions consistently to N, oblique to NE-SW marginal basin, possibly derived from uplifted Rajang accretionary prism)

Williams, T.M., N. Breward, B. Smith, L.P. Siong, T. Suarat & A. Kadir (1993)- Drainage geochemistry around a large Cu-Au porphyry mining operation in Sabah, East Malaysia. British Geological Survey (BGS), Report WC/93/044, p. 1-45. *(Unpublished, open access report)*
(online at: https://resources.bgs.ac.uk/PublicationPDFs/19789308.pdf)
(Hydrogeochemical study in 1993 of groundwaters around Mamut Cu-Au porphyry mine at S margin of Kinabalu Massif, C Sabah, associated with Miocene intrusions. Mining started in 1975, mine waste contamination plumes in aquifers)

Wilson, M.E.J., E. Chang Ee Wah, S. Dorobek & P. Lunt (2013)- Onshore to offshore trends in carbonate sequence development, diagenesis and reservoir quality across a land-attached shelf in SE Asia. Marine and Petroleum Geology 45, p. 349-376. *(online at: http://searg.rhul.ac.uk/pubs/wilson_etal_2013%20Offshore%20Borneo%20carbonate%20trends.pdf)*
(Onshore to offshore trends in carbonate development and reservoir quality assessed across Late Oligocene-Miocene of NW Borneo (Sarawak) shelf from outcrops and wells. Carbonates developed as localised build-ups and more continuous sheet-like deposits in near-coast to shelf margin positions. Most samples show evidence for marine micritisation and in shelf margin positions isopachous cements. Burial diagenesis predominates (compaction, neomorphism, fracturing, late leaching, dolomitisation). Some early, probable meteoric leaching affected inner shelf deposits prior to pervasive calcite cement formation, probably reflecting alteration from terrestrial groundwaters in meteoric aquifers derived from humid landmass of Borneo. Best porosity (20-35%) in outer shelf- shelf margin high energy grainstones and rudstones that experienced minimal clastic influx, most commonly from backstepping to aggradational carbonate sequences)

Wilson, R.A.M. (1961)- The geology and mineral resources of the Banggi island and Sugut River area, North Borneo. Geological Survey Department, British Territories in Borneo, Memoir 15, p. 1-143.
(Geology of NE Borneo Banggi and Balamban Islands off N tip of Sabah and mainland Sugut river area. Thick Late Eocene-Miocene Crocker Fm geosynclinal sequence on mainland, mainly S/ SW dipping. On islands imbricated, sheared (strike N, shearing towards W), Chert-Spilite Fm of Upper Cretaceous or Lower Eocene pillow lavas, basaltic intrusions and chert beds, brecciated and intruded by serpentinite sheets and younger ultrabasic plutonics. S Banggi Fm with E Miocene (Te5) limestones, some with reworked Eocene Discocyclina and ?Pellatispira). M Miocene (lower Tf) Balambangan Lst with Miogypsina, Katacycloclypeus annulatus)

Wilson, R.A.M. (1963)- The Chert-Spilite Formation of North Borneo. In: F.H. Fitch (ed.) Proc. British Borneo Geological Conference 1961, Kuching, Bull. Geological Survey Department, British Territories in Borneo, 4, Kuching, p. 61-78.
('Chert-spilite Fm sediments form NE/NNE trending discontinuous 'ophiolitic' belt across C-E Sabah, from Sempurna Peninsula in SE to Kota Belud in NW and Balambangan- Banggi Islands in N. Mainly deep marine radiolarian cherts, basaltic volcanics (pillow lavas), graywacke sandstones and serpentinite sheets of Cretaceous- Eocene age. All strongly imbricated and often look like slickensided breccias. Also breccias with boulders in clay matrix. Relationships with underlying and overlying formations not clear. Most of tectonic activity predates Crocker and Kulapis Fm)

Wilson, R.A.M. (1964)- The geology and mineral resources of the Labuan and Padas Valley area, Sabah, Malaysia. Geological Survey of Malaysia, Borneo Region, Kuching, Memoir 17, p. 1-150.
(Extensive description and maps of geology of SW Sabah and Labuan island. Area is part of 'NW Borneo geosyncline'. Oldest rocks U Cretaceous- Eocene deep marine 'flysch-type' sediments and dolerite intrusions of Sapulut Fm. Overlain by very thick Eocene-Miocene sand-dominated Crocker Fm turbidites. Oligocene-Miocene Temburong Fm predominantly argillaceous turbiditic series possibly partly facies equivalent of upper Crocker Fm. Etc. With map of some of Labuan island coal field workings since the late 1840s)

Wolfenden, E.B. (1960)- The geology and mineral resources of the lower Rajang Valley and adjoining areas, Sarawak. Geological Survey Department, British Territories in Borneo, Memoir 11, p. 1-167.
(Area of C Sarawak with mainly Upper Cretaceous- Recent sediments and rare Tertiary intrusive and extrusive igneous rocks. Thick Upper Cretaceous- Upper Eocene deep water Rajang Fm series of mildly dynamically metamorphosed argillaceous rocks, sandstone, and conglomerate, intensely folded in Late Eocene. Oldest rocks Upper Cretaceous (with Globotruncana, Orbitolina) - U Eocene Belaga Fm (incl. Pellatispira, Discocyclina, planktonics). Tatau Fm with rich Eocene- Oligocene foraminifera. In NE thick Upper Eocene- Pliocene sandstones and shales with thin Late Eocene limestones and volcanics. Upper Eocene- Pliocene rocks folded)

Wolfenden, E.B. (1961)- Molluscs from the Bau Formation of the Tebakang area, First Division. Annual Report Geological Survey Department, British Territories in Borneo, 1960, Kuching, p. 47-
(Brief note on Late Jurassic fauna in conglomeratic shale of Bau Lst Fm of W Sarawak: ammonites (Lithacoceras or Subplanites), bivalves (Nuculana, Cucullaea, Astare, Corbula). No figures)

Wolfenden, E.B. (1961)- Bauxite in Sarawak. Economic Geology 56, 5, p. 972-981.
(online at: https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.859.1990&rep=rep1&type=pdf)
(Tropical weathering of basic and intermediate igneous rocks generated bauxite (= >40% alumina) deposits of W Sarawak, W of Lupar River. Highest-grade material (Munggu Belian) formed from pyroxene andesite; other parent materials gabbro, diorite, plagioclase amphibolite and altered andesites and basalts. Bauxite consists mainly of gibbsite. In Sarawak local local company Sematan Bauxite Ltd started mining bauxite in 1957 at Munggu Belian and Bukit Gebong near, Sematan)

Wolfenden, E.B. (1963)- Bauxite in West Sarawak. In: F.H. Fitch (ed.) Proc. British Borneo Geological Conference 1961, Kuching, Bull. Geological Survey Department, British Territories in Borneo, 4, p. 119-136.
(Bauxite deposits (= rocks with >40% alumina) in W Sarawak only W of Lupar River (rel. old 'Continental core' of Borneo). Possibly commercial deposits near Sematan. Formed from tropical weathering of intermediate-basic igneous rocks (andesite, gabbro and altered dolerite))

Wolfenden, E.B. (1965)- Geochemical behaviour of trace elements during bauxite formation in Sarawak, Malaysia. Geochimica Cosmochimica Acta 29, 9, p. 1051-1062.
(Bauxite and kaolinitic clay formed by weathering of andesite lava under humid tropical conditions in W Sarawak. At Sematan bauxite is ~10' thick on hills and extends under surrounding alluvial sand and clay where composition secondarily modified (swamp bauxite). During formation of hill bauxite, Cr, Zr and Ga are concentrated, Ni, Co, P, Mn, Sr and Y are depleted. No geology details)

Wolfenden, E.B. (1965)- Bau mining district, West Sarawak, Malaysia, Part 1: Bau. Geological Survey of Malaysia, Borneo Region, Kuching, Bull. 7, 1, p. 1-147.
(Geologic map of part of W Sarawak, SW of Kuching, an area with long history of gold-siver mining. Includes description of >1800' thick, massive Upper Jurassic Bau Limestone with foram Pseudocyclammina lituus, algae Thaumatoporella parvovesiculifera, stromatoporoid Cladocoropsis mirabilis and also Calpionella. Locally with sandstone- pebbly sandstones with abundant igneous rock fragments at base, unconformable on U Triassic basaltic Serian volcanics. Conformably overlain by >10,000' of marine Cretaceous Pedawan Fm, now mostly eroded in Bau region. Upper Cretaceous folding phase, strongest NW of Bau, rel. minor to SE, followed by deposition of Plateau Sandstone. Also probably M Miocene folding phase. Acidic igneous intrusions of probably M Miocene age.)

Wolfenden, E.B. & N.S. Haile (1963)- Sematan and Lundu Area, West Sarawak. Explanation of sheets 1-109-3, 1-109-4, 1-109-7, 1-109-8 and 2-109-15. Geological Survey Department, British Territories in Borneo, Kuching, Report 1, p. 1-159.
(Geologic maps at 1:50,000 scale of W-most part of Sarawak, W of Kuching, bordering W Kalimantan. Oldest rocks thick, intensely folded and locally metamorphosed Jurassic- Cretaceous Serabang Fm flysch, radiolarian chert and ultrabasics (mainly gabbro-dolerite). Interpreted as 'geosynclinal' series (Hamilton 1979 and Hutchison 2005 suggest this is Lower Cretaceous melange, similar to Lubuk Antu/ 'Lupar Line' further East; it is accretionary prism formed during Early Cretaceous subduction of Proto China Sea from N. Unconformably overlain by gently-dipping Paleogene? Plateau Sandstone. With descriptions of bauxite occurrences)

Wolfenden, E.B. & H.J.C. Kirk (1967)- Bauxite and laterite in British Territories in Borneo. The Philippine Geologist (J. Geological Society of the Philippines) 21, 3, p. 102-116.
(Bauxite was found at Sematan in W Sarawak in 1949. Further prospecting in Sarawak and N Borneo from 1950-1952 not successful. In Sarawak some laterite associated with bauxite, but not economic. Bauxite and laterite present in N Borneo, but extent little known)

Wong, N.Y.P. & L.K. Meng (1968)- Unconformity between the Chert-Spilite Formation and Crystalline Basement around Sungai Agob and Sungai Dabakan, East Sabah. In: P. Collenette & J. Goh (eds.) Geological Papers 1967, Geological Survey Borneo Region, Malaysia, Kuching, Bull. 9, p. 32-33.
(Unmetamorphosed tuffaceous and (Late? Cretaceous) foraminiferal limestone at base of Chert-Spilite Fm unconformably overlies brecciated hornblende gneiss at top of Crystalline Basement)

Wong, R.H.F. (1993)- Sequence stratigraphy of the Middle Miocene-Pliocene Southern offshore Sandakan Basin, East Sabah. In: G.H. Teh (ed.) Proc. Symposium on the Tectonic framework and energy resources of the western margin of the Pacific Basin, Kuala Lumpur 1992, Bull. Geological Society Malaysia 33, p. 129-142.
(Offshore Sandakan Basin sequence stratigraphic study based on seismic and 8 wells. Three main units: (1) M Miocene- early U Miocene (moderate progradation; five 3rd order sequences); (2) middle U Miocene (high progradation, low aggradation; three 3rd order sequences); (3) late U Miocene- Pliocene (high aggradation, low progradation; five 3rd order sequences. Shelf edges mainly N-S trending and prograding East)

Wong, R. (1996)- Seismic sequence stratigraphic interpretation enhances remaining hydrocarbon potential of the SE Collins Field. In: G.H. Teh (ed.) Petroleum Geology Conference 1995, Bull. Geological Society Malaysia 39, p. 223-240.
(online at: www.gsm.org.my/products/702001-100895-PDF.pdf)
(SE Collins field 1972 marginal oil field discovery in complexly faulted central portion of the Inboard Belt of NW Sabah Basin. Elongated, N-S anticlinal structure with reverse faults on N, W and S. Main reservoirs M Miocene sands. New sequence stratigraphic study lead to doubling of reserves estimate)

Wong, R.H.F. (1997)- Sequence stratigraphy of the Upper Miocene Stage IVC in the Labuan-Paisley Syncline, NW Sabah Basin. Bull. Geological Society Malaysia 41, p. 53-60.
(online at: www.gsm.org.my/products/702001-100870-PDF.pdf)
(Sequence stratigraphic study of U Miocene Stage IVe in Labuan-Paisley Syncline, NW Sabah Basin)

Wong, Y.L. (2012)- Stratigraphy of the Ransi Member of the Middle Eocene to Oligocene Tatau Formation in the Tatau-Bintulu area, Sarawak, East Malaysia. M.Sc. Thesis, University Malaya, Kuala Lumpur, p. 1-256.
(online at: http://studentsrepo.um.edu.my/3871/)
(Ransi conglomerate-sandstone originally dated as U Miocene-Pliocene, but basal part of U Eocene- Oligocene Tatau Fm. Separated from underlying more tightly folded Belaga Fm by angular unconformity. Conglomerate mainly angular- subangular clasts of chert, quartz, igneous and metamorphic fragments. Igneous clasts rhyolite similar to M Eocene igneous intrusion at Bukit Piring in Tatau Area. Source of Ransi beds mainly from chert and metamorphic rocks of older Rajang Gp to S, as indicated by paleocurrent determinations. Volcanic clasts suggest volcanic source in hinterland during deposition. Arip Lst (equivalent to or younger than Ransi Mb) in Tatau Formation to SW with M-L Eocene microfossils such as Discocyclina, Nummulites, Pellatispira)

Woods, J., G.R. Gaafar & Shin Ni Chai (2012)- Chemostratigraphic correlation of Miocene turbidite sequences Offshore Sabah, Malaysia. Proc. 36th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA12-G-076, p.
(Brief review of use of geochemical rock data for sand correlations)

Worth, W.J. (1940)- Notes on mineral research in North Borneo. The Asiatic Review, London, 36, 126, p. 359-371.

Wu, J.E. (2010)- 4D evolution of deepwater fold and thrust belt, NW Borneo, South China Sea. Ph.D. Thesis University of London, p. 1-616. *(Unpublished)*

Wu, J.E., K. McClay & J. de Vera (2019)- Growth of triangle zone fold-thrusts within the NW Borneo deep-water fold belt, offshore Sabah, southern South China Sea. Geosphere 16, 1, p. 329-356.
(online at: https://pubs.geoscienceworld.org/gsa/geosphere/article/16/1/329/579770/Growth-of-triangle-zone-fold-thrusts-within-the-NW)
(NW Borneo deep-water fold-and-thrust belt, off Sabah, contains structurally complex region of 3-4 seafloor ridges outboard of shelf-slope break. Interpret as formed by imbricate thrusts above multiple detachments. Estimate ~8 km minimum shortening since Late Miocene, ~10 Ma)

Xie, X., W. Tang, G. Zhang, Z. Zhao, S. Song, S. Liu, Y. Wang & J. Guo (2023)- The gradual subduction-collision evolution model of Proto-South China Sea and its control on oil and gas. Acta Oceanologica Sinica 42, 3, p. 123-137,
(online at: http://www.aosocean.com/en/article/doi/10.1007/s13131-022-2132-z)
(Series of arc-shaped ophiolite belts and calc-alkaline magmatic rocks in N Borneo, gradually younging from W to E, reflecting subduction and collision of Proto-South China Sea (PSCS). Three accretion zones from S to N in Borneo: Kuching belt (S ofLuparLine; Late Paleozoic metasdiments and Mesozoic marine sediments); Sibu belt (late Cretaceous–Miocene thick turbidites and ophiolite melange) and Miri belt. Latter two typical succession from oceanic basement at bottom, to deep-sea flysch deposits (Rajang-Crocker Gp), and molasse at top, recording subduction-collision-orogeny. S China margin-derived Zengmu, Nansha, and Liyue-Palawan blocks collided with Borneo block and Kagayan Ridge successively from W to E, forming several foreland basin systems. PSCS closed from W to E. Two main orogenic movements:Late Eocene Sarawak orogeny (uplift of Rajang Gp) and ~M Miocene Sabah orogeny (upliftof Crocker Gp, focused in NW Sabah. Etc.).

Xue, F.J., G. Sen, M.A. Beg & H.H.B. Abu Bakar (2016)- Effective karst modelling for carbonate build-ups in Central Luconia, Offshore Malaysia. In: 3rd EAGE Integrated Reservoir Modelling Conference, Kuala Lumpur, p. 1-4. *(Extended Abstract)*
(On mapping karst features on 3D seismic over large offshore Miocene carbonate buildup in C Luconia)

Yabe, H. (1918)- Notes on a *Carpenteria* Limestone from B.N. Borneo. Science Reports Tohoku Imperial University, Sendai, Japan, Ser. 2 (Geol.), 5, p. 15-30.
(online at: https://tohoku.repo.nii.ac.jp/record/10612/files/KJ00004176241.pdf)
(Three limestone samples from Kinatabang River, British N Borneo, with Cycloclypeus annulatus and common Carpenteria (interpreted by Yabe to be Oligocene, but more likely M Miocene?; JTvG))

Yabe, H. & S. Hanzawa (1925)- A *Lepidocyclina* limestone from Klias Peninsula, B.N. Borneo. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 8 (Gedenkboek Verbeek, memorial volume), p. 617-632.
(online at: https://books.google.com/books?id=Yy0RAAAAIAAJ&pg)
(Early Miocene limestone with Lepidocyclina, Miogypsina, Spiroclypeus from Klias Peninsula)

Yabe, H. & S. Hanzawa (1926)- A foraminiferous limestone, with a questionable fauna, from Klias Peninsula, British North Borneo. Science Reports Tohoku Imperial University, Sendai, Japan, Ser. 2 (Geol.), 9, 1, p. 1-7.
(online at: http://ir.library.tohoku.ac.jp/re/bitstream/10097/30195/1/KJ00004178169.pdf)
(Discusssion of Rutten (1925) and examples of breccia-like limestone in Sungei Bum Bum, Kudat Peninsula, with mixed Eocene (Pellatispira, Discocyclina, Nummulites) and Late Oligocene-E Miocene (Spiroclypeus, Lepidocyclina) larger forams (N.B. Spiroclypeus and Lepidocyclina now also known to occur in Late Eocene; JTvG))

Yan, A.S.W. (1991)- Features of volcanic-hosted epithermal gold mineralization in the Nagos and Mantri areas, Sabah. Proc. 22nd Geological Conference, Geological Survey of Malaysia, Kuala Lumpur, Technical Paper 3, p. 1-16.

Yanagida, J. & J. Lau (1978)- The Upper Jurassic and Middle Cretaceous Terebratulidae from the Bau Limestone formation in West Sarawak, Malaysia. In: T. Kobayashi & R. Toriyama (eds.) Geology and Palaeontology of Southeast Asia, University of Tokyo Press, 19, p. 35-47.
(Bau Limestone E of Paku, 4 km E of Bau, SW Sarawak, contains Oxfordian- lower Kimmeridgean terebratulid brachiopods, incl. Neumayrithyris torinosuensis (originally described from Jurassic Torinosu series in Japan) and Ornatothyris bauensis n.sp.)

Yin, E.H. (1985)- Geological map of Sabah, East Malaysia, 3rd edition. Geological Survey of Malaysia.

Yin, E.H. (1992)- Regional geology- Sarawak. Malaysia Geological Survey Annual Report 1991, p. 58-74.

Yin, E.H. (1992)- Regional geology- Sabah. Malaysia Geological Survey Annual Report 1991, p. 74-82.

Yokoyama, K., Y. Tsutsumi & W.S.K. Bong (2015)- Age distributions of monazites in the Late Cretaceous to Late Eocene turbidite from northwestern Borneo and its tectonic setting. Bull. National Museum Nature Science, Tokyo, C 41, p. 29-43.
(online at: www.kahaku.go.jp/research/publication/geology/download/41/L_BNMNS_C41_29-43.pdf)
(Late Cretaceous- Late Eocene turbidites of Rajang Gp widely distributed in NW part of Borneo. Three main peaks in monazite age distributions of recent sands in 4 rivers: 200-300 (~240?) Ma, 400-500 (~440) Ma and 1850-1900 Ma, and weak cluster at 700-1100 Ma. Age distributions suggest detrital grains not from Indochina Peninsula, but from S China Craton.)

Yu, Y., Z. Xu, S. S. Gao, K.H. Liu & J. Gao (2021)- Layered mantle heterogeneities associated with post-subducted slab segments. Earth Planetary Science Letters 571, 117115, p. 1-11.
(One proposed driving mechanisms for formation of S China Sea is slab-pull of Mesozoic Proto-South China Sea ocean, which subducted under N Borneo between Eocene E Miocene. However, the present-day depth extent of the slabs and even the existence of the PSCS remain highly debated. Seismic data suggest Mantle Transition Zone thickening beneath S margin of SCS, supporting existence of the PSCS. Dehydration melting from the slab segments may be viable mechanism for extensive post-spreading magmatism in southern SCS)

Yusliandi, A., B. Sautter & M.C. Poppelreiter (2019)- The various controls on the platform architecture of carbonate buildups in the Central Luconia Province, Offshore Sarawak. Petroleum and Coal 61, 6, p. 1425-1437.
(online at: www.vurup.sk/wp-content/uploads/2019/11/PC-X-2019_Yusliandi-153rev2.pdf)
(Platform architecture of M-LMiocene carbonate buildups on Jintan High, C Luconia. At Jintan several former isolated carbonate buildups amalgamated into 1200m thick, 30x50km wide Mega Platform. Mega Platform grew on paleo-high formed due to normal faulting during Late Oligocene- E Miocene rifting of S China Sea. 6 seismic units. Flooding (major backstepping) of Mega Platform in Late Miocene. Tight zones are slightly argillaceous limestone, formed during flooding intervals. Windward angle of buildups steeper than leeward margin, more favorable for reef growth; leeward margins mainly coral debris)

Zaiauri, W.M., W. Embong, H. Mohamad & K. Mansor (2008)- New perspective on exploration prospect analysis: a case study on the Central Luconia carbonates, Sarawak, East Malaysia. Proc. Int. Petroleum Technical Conference (IPTC), Kuala Lumpur 2008, 12792-MS, p. 1-3 *(Extended Abstract)*
(>70% of major gas discoveries in Malaysia in M-L Miocene carbonate reservoirs of C Luconia Province. Many remaining carbonate structures (pinnacles) believed to be (1) too small, (2) severely overpressured and therefore capable of holding only short gas columns; (3) contain high CO_2 and H_2S, and (3) likely leak through thief beds in overburden. Recent gas discoveries include Petronas PC4-1 which found 640m gas column at normal pressure and with minimal H_2S and CO_2)

Zainuddin, N.M., S.N.F. Jamaludin, C.C. Meng & M.S. Ismail (2019)- The geology of Kudat Peninsula, Sabah: new insights from field geology and subsurface interpretation. Bull. Geological Society Malaysia 68, p. 99-107.
(online at: https://gsm.org.my/products/702001-101807-PDF.pdf)
(Kudat Peninsula at N tip of N Borneo with Ophiolite Basement, overlain by Crocker Fm, Kudat Fm and meange unit. Kudat Peninsula underlain mainly by intensely folded Kudat Fm)

Zakaria, N.L., P.S. Das, A.K. Upadhyay, S.N.F. Harun, T.M.S. Tg Hassan & N. Omar (2022)- Unearthing NW Sabah Platform & Sabah Trough potential through tectonostratigraphic evolution understanding. Proc. Asia Petroleum Geoscience Conference and Exhibition (APGCE 2022), Kuala Lumpur, p. 1-5.

Zakaria, A.A., H.D. Johnson, C.A.L. Jackson & F. Tongkul (2013)- Sedimentary facies analysis and depositional model of the Palaeogene West Crocker submarine fan system, NW Borneo. J. Asian Earth Sciences 76, p. 283-300.
(Sedimentological analysis of Paleogene W Crocker Fm around Kota Kinabalu, SW Sabah. Large submarine fan system at tectonically active margin of NW Borneo, interpreted as multiple-sourced, shelf-fed, Type II, low-efficiency, sand-rich depositional system)

Zakaria, A.A., H.D. Johnson, C.A.L. Jackson & F. Tongkul (2013)- Sedimentology of the major W Crocker submarine fan system; analogue to the younger productive fans, NW Sabah Basin. In: Petroleum Geoscience Conf. Exhib. (PGCE 2013), Kuala Lumpur, P13, p. 1-5. *(Extended Abstract)*
(W Crocker Fm outcrops in NW Sabah near Kota Kinabalu. Represents large (25,000 km^2), Oligocene - E Miocene sand-dominated basin-floor submarine fan, deposited in accretionary foredeep basin. One of largest Cenozoic basin floor fan systems in SE Asia. Five facies associations. Multiple-sourced, shelf-fed, Type II, low-efficiency and sand-rich system. Probably several small lobes. Fan built out N-ward with sediment supply from SW. Fan system later accreted, uplifted and imbricated into series of thrust slices (see also Tongkul 1987, Crevello 2001, Jackson et al. 2009))

Zakaria, A.A., H.D. Johnson, C.A.L. Jackson & M.N.M. Yusoff (2013)- Mass Transport Complex (MTC) on NW Borneo Slope; influence of thrust related folding on its stratigraphic development. In: Petroleum Geoscience Conf. Exhib. (PGCE 2013), Kuala Lumpur, P37, p. 1-5. *(Extended Abstract)*
(Lingan fan system on steep (2-4º) NW Borneo margin off Sabah, located in a toe-thrust foldbelt area in front of E Baram Delta. With mass transport complexes in channelised fan systems

Zampetti, V. (2004)- Interdependence of seismic imaging and sedimentology (Miocene carbonate platforms, South China Sea). Doct. Thesis Vrije Universiteit, Amsterdam, p. 1-134. *(Unpublished)*

Zampetti, V. (2010)- Controlling factors of a Miocene carbonate platform: implications for platform architecture and off-platform reservoirs (Luconia Province, Malaysia). In: W.A. Morgan, A.D. George et al. (eds.) Cenozoic carbonate systems of Australasia, Soc. Sedimentary Geology (SEPM), Special Publ. 95, p. 129-145.
(Growth of Luconia Province carbonate platform began in Late Oligocene- Early Miocene by coalescence of isolated patch reefs, and includes phases of progradation, backstepping and occasional collapse of platform flanks, terminated by gradual drowning. Platform margins asymmetry related to ocean currents rather than wind. Platform affected by strike-slip deformation during sedimentation. Platform material also deposited as slide masses in adjacent basin floor, passing into debris-flow and turbidites and can extend many km's across basin floor. Much secondary porosity dissolution during deep burial)

Zampetti, V., W. Schlager, J.H. van Konijnenburg & A.J. Everts (2003)- Depositional history and origin of porosity in a Miocene carbonate platform of Central Luconia, offshore Sarawak. In: G.H. Teh (ed.) Petroleum Geology Conference Exhib. 2002, Bull. Geological Society Malaysia 47, p. 139-152.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm2003a10.pdf)
(Seismic and core study of unidentified M-Late Miocene carbonate platform in Luconia province. Buildup growth primarily vertical aggradtion, with flat top, with backstepping of margin. Two phases of progradation, youngest steep and with segments of slope collapsing in large landslides. Porosity very heterogeneous, mostly secondary and related to dissolution under deep burial conditions)

Zampetti, V., W. Schlager, J.H. van Konijnenburg & A.J. Everts (2004)- Architecture and growth history of a Miocene carbonate platform from 3D seismic reflection data; Luconia province, offshore Sarawak, Malaysia. Marine and Petroleum Geology 21, 5, p. 517-534.
(online at: http://www.personal.kent.edu/~jortiz/carbonates/seismic1.pdf)
(Luconia carbonate platform growth started in Late Oligocene-E Miocene by coalescence of isolated patch reefs. Growth history includes phases of progradation, backstepping and collapse of platform flanks. Most pronounced seismic reflections correspond to flooding events. Subaerial exposure demonstrated in only one case. Platform growth terminated by gradual drowningin Late Miocene)

Zampetti, V., W. Schlager, J.H. van Konijnenburg & A.J. Everts (2004)- 3-D Seismic characterization of submarine landslides on a Miocene carbonate platform (Luconia Province, Malaysia). Journal of Sedimentary Research 74, 6, p. 817-830.
(Submarine landslides on flanks of Miocene carbonate platform. Chaotic deposits basinward of slide scar widen in transport direction and end in indistinct lobes. Slide masses extend for 1.5 km into basin, with130m maximum thickness. Slide deposit on W flank two events, separated by smooth reflection interpreted as hemipelagic mud

between carbonate-rich slide masses. Syndepositional faulting affects geometry of platform margins, particularly at time of slope failure)

Zhang, A., J.B. Asis, X. Fang, H. Li, S.A.K. Omang, M. Chen, Q. Fang, D. Li, & T. Peng (2022)- Late Cretaceous fore–arc spreading in the northern Kuching Zone of West Borneo, SE Asia: constraints from the Pakong Mafic Complex. J. Asian Earth Sciences 230, 105189, p. 1-13.
(Pakong mafic rocks along Lupar Line in N Kuching Zone of West Sarawak, with gabbro zircon ages of ~78.5 Ma. Pakong mafic rocks two groups, (1) affinity to N-MORB (derived from 10-30% partial melting of depleted lherzolite mantle modified by subduction fluids), and (2) E-MORB-like REE pattern (mixing between Group 1 magmas and OIB-type melts). Propose Late Cretaceous fore-arc spreading along Lupar Line, induced by rollback of subducting Paleo-Pacific plate rather than Proto-South China Sea slab)

Zhang, A., L. Ma, H. Li, J. Asis, X. Fang, Q. Fang, M. Chen, M. Ren & X. Dong (2025)- Detrital zircon U-Pb dating and Hf Isotopes of the Crocker Fan sandstones in Sabah, North Borneo: constraints on their provenance and the tectonic evolution of Borneo. J. of Earth Science (China) 36, p. 894–909.
(U-Pb dating and Hf isotopes of detrital zircons from Trusmadi and Crocker Fms in Crocker Fan of Sabah show similar age spectra to Rajang Fan sediments in Sarawak, with two main age clusters at 130-80 Ma (Cretaceous) and 280-200 Ma (Permo-Triassic). Jurassic–Cretaceous zircons derived from erosion of contemporaneous magmatic rocks; part of Permian-Triassic ones could be recycling of Jurassic deposits in SW Borneo. Initial provenance of Permo-Triassic detritus could be Tin belt of Malay Peninsula. Rajang and Crocker fans formed in fore-arc extensional rift basin related to retreat of subducted Paleo-Pacific Plate beneath N Borneo)

Zhang, X.C., H.Y. Li, Y. Yao & W.H. Chen (2025)- On-land evidence for subduction of the proto–South China Sea beneath northern Borneo and tectonic reconstruction of Southeast Asia during the early Permian-Oligocene. Geological Society of America (GSA) Bull. 137, 5-6, p. 2632-2646.
(Petrographic, geochronologic and geochemical data from tuffs and Eocene-Pliocene sediments in Sabah, N Borneo. Oligocene tuffs (~28 Ma) indicative of oceanic arc origins and likely resulted from subduction of Proto-South China Sea. Along with Eocene mid-ocean-ridge-like mafic rocks in Sabah, indicating a younger oceanic basin had formed within proto–S China Sea, with subduction zone extending from E Sabah to Palawan. S Sabah was part of Paleo-Tethys Ocean before integrating into Paleo-Pacific domain since Triassic)

Zhang, X.R., S.L. Chung, A.A. Ghani, R. Rahmat, Y.J. Hsin, H.Y. Lee, P.P. Liu & J. Xi (2023)- Time to reconsider the enigmatic tail of eastern Paleo-Tethys: new insights from Borneo. Lithos 442-443, 107089, p. 1-11.
(Detrital zircon age data from Paleocene-Pliocene sandstones in Sabah and relevant regions show consistent Precambrian age profiles for W and SW Borneo that resemble N Australia (Kimberley to Pine Creek), but differ from NW/NE Australia- Birds Head- Cathaysia/Indochina. Borneo lacks NE Australia-sourced (~1700-1400 and 400-280 Ma) zircons that prevail in Triassic-Jurassic of Timor, Babar and Tanimbar off N Australia, best explained by pre-Triassic rifting of Borneo basement from N Australia. Interesting new tectonic scenario: (1) Permian separation of Borneo (probably together with E Sumatra) from N Gondwana by opening of Meso-Tethys Ocean, (2) Triassic docking with Eurasia which closed E Paleo-Tethys (SE Paleotethys suture from Malay Peninsula to Bangka-Belitung to Kuching zone). Assembly of Sundaland completed by Late Triassic (not Late Jurassic rifting and Cretaceous docking as suggested by Hall et al.))

Zhao, Q., Y. Yan, S. Tonai, N. Tomioka, P.D. Clift, M.H.A. Hassan & J.H.B. Abdul Aziz (2022)- A new K-Ar illite dating application to constrain the timing of subduction in West Sarawak, Borneo. Geological Society of America (GSA) Bull.134, 1-2, p. 405-418. *(online at: https://www.academia.edu/96534801/A_new_K_Ar_illite_dating_application_to_constrain_the_timing_of_subduction_in_West_Sarawak_Borneo)*
(Deformation age of Lubok Antu tectonic melange matrix and overlying Lupar Fm in West Sarawak dated by K-Ar analysis of illite. Results cluster around 60 Ma and 36 Ma, indicating subduction in Sarawak could have continued until ca. 60 Ma and major uplift of Rajang Group occurred at ~36 Ma)

Zhao, Q., Y. Yan, Z.F. Zhu, A. Carter, P.D. Clift, M.H.A. Hassan, D. Yao & J.H.A. Aziz (2021)- Provenance study of the Lubok Antu melange from the Lupar valley, West Sarawak, Borneo: implications for the closure of eastern Meso-Tethys? Chemical Geology 581, 11, 120415, p. .
(manuscript online at: https://eprints.bbk.ac.uk/id/eprint/45056/3/45056.pdf)
(Bulk geochemistry reveals that Lubok Antu melange deposited in continental arc setting related to Paleo-Pacific subduction margin. Detrital zircons suggest maximum age for melange ~115-105 Ma. Strongest Jurassic peak interpreted to be from Mesozoic continental arc related to Paleo-Pacific subduction, with contributions from W Borneo, Malay Peninsula and possibly Sumatra. Change in source by latest Cretaceous to Schwaner Mts arc of SW Borneo, suggesting uplift and exhumation of Schwaner Mts could have started in latest Cretaceous, implying arrival of SW Borneo and closure of the E Meso-Tethys at that time)

Zhao, Z., W. Tang, S. Liu, H. Tang, P. Wang & Z. Tian (2024)- U-Pb zircon ages and petrogeochemistry and tectonic implications of gabbro and granite in southwest Lahad Datu area of Sabah, Malaysia. Acta Oceanologica Sinica 43, p. 94-110.
(SW Lahad Datu felsic rocks previously thought to have formed in late Triassic as part of microcontinental crystalline basement. Average U-Pb zircon ages of gabbro and granite samples ~231 Ma (Carnian) and ~207 Ma (Rhaetian), respectively. Geochemistry typical of island arc igneous rocks. Granite is volcanic arc granite; gabbro mainly from melting of newly formed crustal materials. SE Sabah granite may have formed in island arc setting, i.e., where Paleo-Tethys Ocean crust collided with Panthalassa Ocean oceanic crust)

Zheng, Q.L., S.Z. Li, Y.H. Suo, X.Y. Li, L.L. Guo, P.C. Wang, Y. Zhang, Y.B. Zang, S.H. Jiang & I.D. Somerville (2016)- Structures around the Tinjar-West Baram Line in northern Kalimantan and seafloor spreading in the Proto South China Sea. Geological Journal 51, Supplement S1, p. 513-523.
(Tinjar-West Baram Line is NW-trending trans-lithospheric fault in N Borneo; its NW extension into S China Sea is W Baram Line. Originated as NE/NNE-trending transform fault during spreading of Proto-South China Sea before 35 Ma and before NW trending strike-slip movement since Oligocene)

Zhou, Y., A. Carter, J. Wu, Y. Yao, R. Zhu, H. Liu, W. Liu, Q. Zhao, Z. Zhu, Y. Yan & Q. Liu (2023)- Nature of the Paleo-Pacific subduction along the East Asian continental margin in the Mesozoic: insights from the sedimentary record of West Sarawak, Borneo. Geophysical Research Letters 50, 8, e2022GL102370, p. 1-11.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1029/2022GL102370)
(Mesozoic subduction history of Paleo-Pacific plate below E Asian margin remains contentious, and S part poorly understood. Mesozoic sediment provenance study in W Sarawak shows Late Triassic sediments rel. mature mineral assemblages, dominantly felsic sources, abundant Precambrian-aged (1850 Ma?) zircons (likely from Indochina Block). Slab shallowing subduction between 200 -170 Ma, based on subdued magmatism and tectonic compression across W Sarawak. From M Jurassic onwards, evidence of widespread magmatism (170-70 Ma; with 102, 110-120, and 160 Ma peaks), interpreted as Paleo-Pacific slab steepening.Late Jurassic-Late Cretaceous magmatic arc across W continental margin of S China Sea, S Vietnam and W Borneo. W Sarawak likely experienced similar tectonic evolution with S China block from 430-100 Ma)

Zhu, J., S. Li, Y. Jia, S. Zhang, X. Chen, R. Chen, Y. Suo, X. Cao, Z. Jia et al. (2022)- Links of high velocity anomalies in the mantle to the Proto-South China Sea slabs: Tomography-based review and perspective. Earth-Science Reviews 231, 104074, p. 1-32.
(Tomographic models show N and S slabs of Proto-South China Sea in mantle. North slab is flat-lying slab at depths of ~400–700 km in transition zone; South slab is one detached slab at ~8001600 km (under Borneo-Kalimantan; same as Kalimantan anomaly identified by previous tomographic images). Tearing and detachment of Proto-SCS subducted oceanic lithosphere, could explain the distribution of N and S slabs in mantle by double-sided or single-sided subduction model)

Zhu, Z., Y. Yan, Q. Zhao, A. Carter & M.H.A. Hassan (2022)- Subduction history of the Proto-South China Sea: Evidence from the Cretaceous- Miocene strata records of Borneo. 32p. *(preprint submitted to Tectonics)*
(online at: https://www.essoar.org/pdfjs/10.1002/essoar.10511225.2)
(Cretaceous- Miocene sediments of N Borneo preserve subduction records of Paleo-Pacific and Proto-South China Sea, providing evidence for tectonic evolution of SE Asia since Mesozoic. New Sr and Nd isotope data from

Cretaceous- LateEocene Lubok Antu melange and Rajang Group show that >60% of sediments came from magmatic belt in Late Cretaceous-E Paleocene, and >50% from Malay Peninsula in Paleocene-Eocene. Subduction ceased in C Borneo in E Paleocene, in Late Cretaceous in W Borneo, but continued until Miocene in E Borneo. Opening of S China Sea cut off drainage from Malay Peninsula)

Zhu, Z., Y. Yan, Q. Zhao, Y. Dilek, A. Carter, M.H. A. Hassan, W.i Yan, P. Su & Y. Zhou (2025)- Provenance of Cretaceous-Miocene sediments in Borneo: Implications for paleogeographic patterns and tectonic evolution. Earth-Science Reviews 267, 105165, p.
(Provenance of Cretaceous-Miocene sediments in Borneo. Late Cretaceous- E Paleocene Lubok Antu Melange, Lupar Fm and Layar Mb of Rajang Group in Sarawak dominated by Cretaceous detrital zircon grains from upper Mesozoic magmatic belt one Sunda Shelf. In Paleocene-Eocene members of Rajang Gp, increase in Permian-Triassic and pre-Permian zircon ages, implying increased source from E Malay Peninsula after E Paleocene. Eocene in Sabah remain dominated by Cretaceous detrital zircons, mainly from Schwaner Mts. Large numbers of Permian-Triassic detrital zircon in Oligocene- M Miocene of Sarawak and Sabah, until S China Sea began to open, leaving Schwaner Mountains and uplifted C Borneo as dominant source of sediments in Sabah. Etc.)

Zhu, Z., Y. Yan, Q. Zhao, A. Carter, M.H.A. Hassan & Y. Zhou (2021)- Geochemistry and paleogeography of the Rajang Group, Northwest Borneo, Malaysia. Marine and Petroleum Geology 137, 105500, p. 1-19.
Late Cretaceous- Late Eocene Rajang Gp in Borneo one of world's largest deep-sea sedimentary fans. Volume of Rajang Gp cannot be explained by erosion of Schwaner Mts in SW Borneo and Malay Peninsula. Late Mesozoic magmatic belt of Schwaner Mts was important source before Paleocene, after which sediment supply dominated by older crustal sources, consistent with Malay Peninsula. Strong signal of sediment recycling for Tatau Fm indicates uplift and denudation of lower Rajang Gp in Late Eocene)

Zielinski, G.W., M. Bjoroy, R.L.B. Zielinski & I.L. Ferriday (2007)- Heat flow and surface hydrocarbons on the Brunei continental margin. American Assoc. Petroleum Geol. (AAPG) Bull. 91, 7, p. 1053-1080.
(Brunei margin thermogenic hydrocarbons in landward half of study area (heat flow 83.7 ± 66.5 mW/m2). Seaward, mean heat flow is 59.0 ± 22.6 mW/m2, and surface thermogenic hydrocarbons largely absent. Low-heat-flow zone coincides with Palawan Trough paleosubduction zone. High-heat-flow zone of seepage coincides with land-derived Baram delta sediments, constituting a pseudo-accretionary prism)

Zin, M., S. Amin & S. Ong (2017)- Mechanical top seal assessment: implication on gas column height in Central Luconia, Sarawak. Proc. Asia Petroleum Geoscience Conference and Exhibition (APGCE 2017), EAGE, Kuala Lumpur, 43423, p. 419-423. *(Extended Abstract)*

IV.4. Makassar Straits

Amanda, R., Y.B. Panggabean, A. Ramahwanto & A.W. Prasetya (2010)- Development of Makassar Strait and its implication for predicting hydrocarbon. Proc. 39th Annual Conv. Indonesian Association Geologists (IAGI), Lombok 2010, p. 1-6.
(online at: https://www.iagi.or.id/web/digital/12/2010_IAGI_Lombok_Development-of-Makassar-Strait.pdf)
(Brief ITB students' review))

Angkasa, S.S., H.D. Nugraha, D.Y. Fatimah & A.B.K. Pratama (2024)- Diagenetic features recorded in sedimentary rocks within a gas chimney: A case study from the Makassar Strait, offshore Indonesia. J. Natural Gas Geoscience 9, 5, p. 361-371.
(online at: https://www.sciencedirect.com/science/article/pii/S2468256X24000427)
(Study of cutting samples from interval of seismic gas chimney from XS-01 gas well (= Sultan-1?; with 102m thick methane gas column in Late Eocene- Oligocene carbonate buildup) in N part of South Makassar Basin. Presence of diagenetic 'clotted peloidal micrite' in argillaceous sediments, interpreted as methane-derived authigenic carbonate, indicating gas migration)

Argakoesoemah, R.M.I. (2017)- Middle Eocene palaeogeography of the greater Makassar Straits region, Indonesia: a review of Eocene source rock distribution. Proc. 41st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA17-247-G, p. 1-22.
(online at: https://www.pttep-indonesia.co.id/upload/files/publication/IPA17-247-G.pdf)
(Review of E-M Eocene synrift sediments of Makassar Straits wells and proto-Barito and Kutai and W Sulawesi basins (all areas with similar Eocene stratigraphies). Non-marine syn-rift deposition likely initiated in M Eocene, in peripheral foreland basin, with widespread marine shales by Late Eocene. Area of well-developed M Eocene lacustrine facies in E part of S Makassar Basin)

Argakoesoemah, R.M.I., H.B. Nainggolan, I. Wahyudi, A. Hidayat & M.F. Shahab (2016)- Fluvial-to-deepwater stratigraphy and structural development of southern part of North Makassar Basin, Indonesia. Proc. 40th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA16-728-G, p. 1-23.
(online at: https://www.pttep-indonesia.co.id/upload/files/publication/IPA16-728-G.pdf)
(Review of Eocene- Recent stratigraphy of S part of N Makassar Basin. E Eocene non-marine synrift sequences overlain by Late Eocene late rift and Oligocene-younger post rift deepwater deposits across basin, exception for Paternoster Platform area. Late Early Eocene (~47 Ma) seafloor spreading initiated in Celebes Sea and was believed to extend to SW into N Makassar Basin, but still controversial. Major inversion-uplift of Paternoster Platform in M Miocene)

Ariyono, D., J. Kupecz, I. Sayers, C. Tanos & A. Hilman (2013)- Generation and expulsion from Middle Eocene source in the South Makassar Basin, Indonesia. Proc. 37th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA13-G-160, p. 1-20.
(Hydrocarbons in wells in S Makassar Basin area (Ruby Field gas, Pangkat-1 oil, Sultan-1 gas) confirm presence of working petroleum system. Geochemical analyses from Kelara-1, Makassar Straits-1, Martaban-1 and Pangkat-1 suggest main source in M Eocene coals and lacustrine shales of rift phase. Late Eocene little or no source potential. Hydrocarbon generation started at ~20 Ma in S Makassar Basin and 12 Ma in Pangkat Graben. Timing of hydrocarbon generation relative to seal emplacement is critical risk for pinnacle reefs like Sultan-1)

Armandita, C. (2013)- Study of a Mass Transport Complex, South Makassar Strait Basin Indonesia. Bull. Earth Sciences Thailand (BEST) 6, 2, p. 29-39.
(online at: https://ph01.tci-thaijo.org/index.php/bestjournal/article/view/246623/167646)
(Shale-dominated Mass Transport Complex in S Makassar Straits; similar to Armandita (2014, below))

Armandita, C. (2014)- The geometry and origin of gravity-controlled structures: mass transport complex (giant slump) in South Makassar Strait basin. Proc. 43rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, PIT IAGI 2014-048, p. 1-6.
(online at: https://www.iagi.or.id/web/digital/6/2014_IAGI_Jakarta_The-Geometry-and-Origin.pdf)

(Large, but rel. coherent Pliocene Mass Transport Complex (deep water gravity slump) identified in S Makassar Strait Basin, with area >9000 km^2 and volume of 2438 km^3. Derived from NW)

Armandita, C., C.K. Morley & P. Rowell (2015)- Origin, structural geometry, and development of a giant coherent slide: The South Makassar Strait mass transport complex. Geosphere 11, 2, p. 376-403.
(online at: https://pubs.geoscienceworld.org/gsa/geosphere/article-pdf/11/2/376/3335682/376.pdf)
(S Makassar Strait Mass Transport Complex with extensional headwall region in upper slope of Paternoster Platform. Area of >9000 km^2, volume 2438 km^3, core region thickness ~1.7km. Composed of shale-dominated sediments. With relatively coherent internal stratigraphy. Toe region deformed into thrust-related structures. Probably caused by caused by ~2° seaward rotation of Paternoster platform in Pliocene. ~6-7 km of shortening in toe region of MTC occurred at slow strain rate)

Armandita, C., N. Pudyo, S.E. Saputra & Sumaryana (2011)- Exploration challenges and opportunities in deep water Makassar Strait Basins, Indonesia: review of carbonate play based on sequence stratigraphy and seismic characterization. Proc. SEG Annual Meeting, San Antonio 2011, p. 1-5. *(Extended Abstract)*
(Evaluation of deepwater of Makassar Strait after six recent unsuccessful exploration wells. Geological factors of failure include misinterpretation of age of carbonate reservoirs from seismic, inadequate evaluation of petroleum system, etc.)

Azidin, N.F.N., A. Balaguru & N. Ahmad (2011)- Structural styles of the North West Sabah and West Sulawesi fold thrust belt regions and its implication to the petroleum system- a comparison. In: Petroleum Geology Conference and Exhibition 2011, Kuala Lumpur, Poster 23, p. 173-176. *(Extended Abstract)*
(Brief comparison of offshore NW Sabah foldbelt (toe thrust of delta system) and W Sulawesi foldbelt in Makassar Straits)

Bacheller, J., S.P. Buck, A.B. Cahyono, S.R. Polis, C.E. Helsing, Zulfitriadi, E.M. de Man, P.M. Hillock, A.S. Ruf & J.K. Toxey (2011)- Early deepwater drilling results from a new exploration play, Offshore West Sulawesi, Indonesia. Proc. 35th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA11-G-243, p. 1-15.
(Four ExxonMobil deepwater wildcat wells in N and S Makassar Straits basins provided some hydrocarbon system elements for Eocene-Oligocene carbonate play. Makassar Straits E-M Eocene extension, followed by Late Eocene-Oligocene regional subsidence with marine transgression. 102m gas column in ~400m thick Late Eocene-Late Oligocene carbonate buildup in Sultan 1 well, S Makassar (authors do not accept alternative that part of North Makassar Basin may be underlain by same Eocene oceanic crust as adjacent Celebes Sea-type, although the Rangkong 1 well section is indistinguishable from Celebes Sea ODP wells Ocean Plate Stratigraphy, with highly condensed bathyal late M Eocene-E Miocene pelagic sedments directly on pillow basalts; JTvG))

Bachri, S. (2012)- Fase kompresi di Selat Makassar berdasarkan data geologi daratan, seismic laut dan citra satelit. Jurnal Sumber Daya Geologi (JSDG) 22, 3, p. 137-144.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/113/105)
('Compressional phase in Makassar Straits based on geological land data, marine seismic and satellite imagery'. Last deformation phase in Makassar Strait is compressional, unlike older extensional phase that formed Makassar Strait. Seismic data from E part of Makassar Strait and outcrop geology in W Sulawesi show W-verging fold-thrust system, still active today. Thrust-fold structures in onshore E Kalimantan and offshore W Makassar Straits show vergence to E)

Baillie, P. & J. Decker (2011)- The Makassar Straits new thoughts on an old area. Proc. 2011 SE Asia Petroleum Exploration Society (SEAPEX) Conference, Singapore, p. 1-35. *(Abstract + Presentation)*
(Makassar Straits formed by M Eocene extension, typical Sundaland, grabens and half-grabens. With top syn-rift unconformity of Late Eocene (38-40 Ma) age. Basement is stretched continental crust. Deepwater sediments deposited in response to tectonic events in adjacent Borneo and Sulawesi in Late Eocene- Neogene. M Miocene pulse of E-directed quartzose turbidites deposited in deepwater. All petroleum system elements present)

Baillie, P. & J. Decker (2012)- Geological development of the Straits of Makassar, Indonesia. AAPG Int. Conv. Exhib., Singapore 2012, Search and Discovery Article 30251, p. 1-4. *(Extended Abstract)*

(online at: www.searchanddiscovery.com/documents/2012/30251baillie/ndx_baillie.pdf)
(Makassar Straits resulted from M Eocene (42 Ma) extension, creating grabens and half-grabens in continental or marginal marine setting. In central part of Strait up to 4km of deep marine sediment above Late Eocene (~36 Ma) top syn-rift unconformity. Turbidite sediments both W- and E-directed (major Borneo-derived pulse in E-M Miocene; sediments from Sulawesi in latest Miocene-Pliocene. While classic turbidite sedimentation has occurred, hyperpycnal flow from tropical river floods contributed substantially to fill of Makassar Strait)

Baillie, P. & J. Decker (2022)- Aspects of the geological development of the Makassar Strait, Indonesia. J. Royal Society Western Australia 105, p. 43-55. *(online at: https://rswa.org.au/publications/journal/105/RSWA%20105%20p43-55%20Baillie%20and%20Decker.pdf)*
(Elegant recent review of rifting, folding, modern sedimentation, etc. of Makassar Straits)

Baillie, P., P. Gilleran, W. Clark, S.J. Moss, A. Stein, E. Hermantoro & S. Oemar (1999)- New insights into the geological development of the deepwater Mahakam delta and Makassar Straits. Proc. 27th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta 1999, p. 397-402.
(New non-exclusive 2D seismic survey revealed new insights into geological evolution and prospectivity of N Makassar Straits. Neogene deepwater basin floor fans and channel complexes identified in Neogene. Near present-day shelf edge of Mahakam Delta area discontinuous NNE-trending, E-verging imbricate fold-thrust system, with folding age younging to E. M Eocene-Oligocene shales acted as regional decollement. Thrusts primarily gravitational deformation of delta toe and can often be linked to extensional slope graben and regional growth faults updip)

Baillie, P., P.A. Teas, J. Decker, D. Orange & Widjanarko (2008)- Contrasting deepwater sediment feeder systems, Sulawesi, Indonesia. AAPG Hedberg Conference, Ushuaia-Patagonia, Argentina, Search and Discovery Article 90079, p. *(Extended Abstract)* *(online at: www.searchanddiscovery.com/abstracts/html/2008/hedberg_argentina/extended/baillie/baillie.htm)*
(Present-day deepwater depositional channel systems in Makassar Straits, which drain W Sulawesi, imaged on multibeam bathymetry: (1) high-sinuosity system draining NW into Makassar Strait from Palu Bay, and (2) low-sinuosity system draining S into Bone Bay and E Java Sea)

Beenfeldt, J., E. Mueller & C. Sim (2022)- New insights into the Tertiary petroleum systems of The East Java Sea and Southern Makassar Strait, Indonesia. Proc. 46th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA22-G-94, p. 1-7. *(ms online at: www.tgs.com/hubfs/Technical%20Library/Technical%20Library%20Files/ipa2022_beenfeldt_indonesia.pdf)*
(Observations on Paleogene rifts and Oligo-Miocene carbonate developments in E Java Sea and SW Makassar Straits from new 2017-2018 seismic data, by PGS personnel.East Java Sea and S Makassar share comparable Paleogene tectonic history and stratigraphic succession with Eocene onset of extension, development of syn-rift sequence that is topped by latest Eocene and Oligocene carbonate deposition representing late rift- post-rift-transition)

Berendson, E., A. Cebastiant, D. Glenn, F. Hariyannugraha, K. Kirschner, R. May, R. Schneinder et al. (2005)- Geocellular modelling and uncertainty qualification of reservoir properties: a deepwater laminated-sand reservoir, Gendalo Field, Kutei Basin, Indonesia. Proc. 30th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 499-504.
(Makassar Strait Gendalo field ~60 km SE of Mahakam Delta in 2500'-5200' of water. Miocene basin floor fan sands primary pay. Broad, anticline, formed as result of Late Pliocene compression. Reservoir thin-bedded sand (most sands <3 cm) and shale sequences. Depositional environment ranges from channelized sequences to unconfined fan lobes)

Bernando N., H., I. Wahyudi & R.M.I. Argakoesoemah (2017)- Structural style of the southern province of West Sulawesi fault thrust belt, and its implication for hydrocarbon exploration, Makassar Strait, Indonesia. Proc. 41st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA17-387-G, p. 1-14.
(online at: https://www.pttep-indonesia.co.id/upload/files/publication/IPA17-387-G.pdf)

(Neogene W-vergent thrust belt in SW Sulawesi, both offshore (Makassar Straits) and onshore. Sub-thrust oil discovery (Kaluku-1 well. Conoco, 2012))

Brackenridge, R.E., U. Nicholson, B. Sapiie, D. Stow & D.R. Tappin (2020)- Indonesian Throughflow as a preconditioning mechanism for submarine landslides in the Makassar Strait. In: A. Georgiopoulou et al. (eds.). Subaqueous mass movements and their consequences: advances in process understanding, monitoring and hazard assessments, Geological Society, London, Special Publ. 500, p. 195-217.
(online at: https://www.lyellcollection.org/doi/10.1144/SP500-2019-171)
(Several moderate (>10 km^3) to giant (up to 650 km^3) mass transport deposits formed by submarine landslides in Pleistocene-Recent section of deepwater N Makassar Basin. Majority in Mahakam prodelta. Ocean-current erosion and contourite deposition across upper slope suggests ITF acts as along-slope conveyor belt, transporting sediment to S, where slope oversteepening results in submarine landslides and potential tsunamis)

Burollet, P.F., R. Boichard, B. Lambert & J.M. Villain (1986)- Sedimentation and ecology of the Pater Noster carbonate platform. Proc. 15th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 155-169.
(Paternoster Platform broad shallow platform off SE Kalimantan. Recents sediments m-c grained carbonate sand. Reef islands and vicinity sands composed of coral fragments, red algae, molluscs and foraminifera. Some sheltered lows up to 80% Halimeda algae. Open marine area sands mainly forams, often larger ones. On E slope and medium deep terraces of Massa Lima, sediments rich in planktonic foraminifera and coccoliths; glauconite may be abundant)

Burollet, P.F. & C. Salle (1981)- Seismic reflection profiles in Makassar Strait. In: A.J. Barber & S. Wiryosujono (eds.) The geology and tectonics of Eastern Indonesia, Proc. CCOP-IOC SEATAR Working Group Meeting, Bandung 1979, Geological Research Development Centre (GRDC), Bandung, Special Publ. 2, p. 273-276.
(Brief discussion of old 1974 IFP/ Total/ Elf seismic survey across Makassar Straits)

Chudanov, D.A., A. Terry, Y. Partono & J. Inaray (2004)- Field overview of West Seno. In: Offshore Technology Conference (OTC), Houston 2004, OTC-16520-MS, p. 1-8.
(West Seno in Makassar Strait PSC in 2400- 3400' of water on slope of N Mahakam Delta discovered in 1998 and is Indonesia's first deepwater oil-gas field. First production in 2003. U Miocene reservoir sands series of deepwater amalgamated channel and channel-levee deposits (see also Redhead et al. 2000))

Cloke, I.R., J. Milsom & D.J.B. Blundell (1999)- Implications of gravity data from East Kalimantan and the Makassar Straits: a solution to the origin of the Makassar Straits? J. Asian Earth Sciences 17, 1, p. 61-78.
(Free-air gravity minimum in e Makassar Strait is only -20 mGal, indicative of an extensional basin. Ssteepness of the gradients on flanks of the basins indicates fault control of their margins. A regional 2D profile across the N Makassar Basin suggests presence of attenuated crust (<14 km) in basin axis, whereas flexural backstripping implies tpresence of oceanic crust of M Eocene age. Presence of oceanic crust in N Makassar Straits Basin has implications for regional plate tectonic models (and hydrocarbon prospectivity))

Courel, R., P. Begg, M. Kim, D. Richert, L. Kokoh & K. Nasif (2011)- Heat flow measurements and mapping from BSR to constrain the evaluation of the deepwater South Makassar Basin. Proc. Int. Petroleum Technology Conference (IPTC), Bangkok 2011, 14555, p. 1-22. *(online at: https://www.researchgate.net/publication/286341500_Heat_flow_measurements_and_mapping_from_BSR_to_constrain_the_evaluation_of_the_deepwater_South_Makassar_Basin)*
(Talisman review of geology of South Makassar Basin, formed by M-L Eocene rifting, and mapping of heat flow from depth of Bottom Similating Reflector (BSR= base of gas hydrate stability zone))

Courel, R., G. Hollomon, M. Kim, D. Richert, C. Tiranda & P. Tognini (2011)- A re-evaluation of the South Makassar Basin using an integrated multi-discipline approach. Proc. 2011 SE Asia Petroleum Exploration Society (SEAPEX) Conference, Singapore, Presentation 21, p. 1-43.
(S Makassar basin off Sulawesi in water depths averaging 2000m, located along SE margin of Sundaland province and thought to be composed of extended continental crust. Initiated during early Middle-Late Eocene back-arc rifting, creating tilted basement blocks topography, followed by Late Eocene- Oligo-Miocene carbonate

deposition. New data led to revision of age of rifting and of Neogene megasequences. Heat flow from BSR overall higher in S Makassar Basin than in N Makassar. Bouguer gravity differences between N and S Makassar basins may suggest presence of oceanic basement in N Makassar Strait)

Damayanti, S. & J.A. Paju (2012)- New findings and updating of petroleum systems in Makassar Strait area. Proc. 41st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2012-E-08, p. 1. *(Abstract only)*
(online at: https://www.iagi.or.id/web/digital/9/2012_IAGI_Yogyakarta_New-Findings-and-Updating.pdf)
(BPMigas review of hydrocarbon exploration in deepwater Makassar Straits in last 6 years. No positive results, but cannot yet be conclusively condemned)

Decker, J., P.A. Teas, J.A. Curiale, E.A.E. Johnson & D.L. Orange (2004)- Multibeam exploration in the Makassar Strait. In: R.A. Noble et al. (eds.) Proc. Deepwater and Frontier Exploration in Asia & Australia Symposium, Jakarta, Indonesian Petroleum Association (IPA), Jakarta, DFE.04-0R-043, p. 11-30.
(Unocal multibeam bathymetry surveys over 3 PSC blocks in Makassar Straits. Papalang and Popodi blocks off E Kalimantan numerous anomalous seafloor bathymetry features, many characterized by gas seeps, and few oil seeps. Sangkarang PSC off SW Sulawesi no indications of thermogenic hydrocarbons in 109 samples from 33 cores; Lombosang 1 well confirmed lack of charge in one portion of that basin)

Decker, J., P.A. Teas, R.D. Schneider, A.H. Saller & D.L. Orange (2004)- Modern deep sea sedimentation in the Makassar Strait: insights from high-resolution multibeam bathymetry and backscatter, sub-bottom profiles, and USBL-navigated cores. In: R.A. Noble et al. (eds.) Proc. Deepwater and Frontier Exploration in Asia & Australia Symposium, Jakarta, Indonesian Petroleum Association (IPA), p. 377-387.
(Makassar Strait Papalang block multibeam bathymetry shows modern large basin floor fan (65 km long, area 2500 km^2, only 2m maximum relief) in water depth >2000m. Incised feeder channel flows from S to N. Upslope migrating deep sea sediment waves, 1-3 km long and 10-30m high, composed of interbedded fine sand-mud)

Del Negro, R., P. Castellano, A. Kuhfuss, L. Mattioni, J. Moss & M. Vialla (2013)- Structural styles and petroleum system modelling of the North Makassar Straits, Indonesia. Proc. 37th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA13-G-077, p. 1-20.
(N Makassar Basin initiated with rifting in M Eocene- E Oligocene, resulting in development of NNW-SSE-oriented en-echelon basement faults. At same time, protodelta of Mahakam River developed S of present-day location. NW-SE trending compression started in M Miocene and continued until today. 2D basin modeling indicates M Miocene source rocks in dry gas zone (Ro~2.0) in W to early mature (0.6<Ro<1.2) in E)

De Man, E., F. Ashby, J. Bacheller, A. Cahyono, Suriamin, J. Corthay, P. Hillock & S. Wilmot (2011)- Deep-water site investigation- Makassar Straits (Indonesia). Proc. 35th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA11-G-198, p. 1-14.
(On pre-drill site investigation for potential geohazards at ExxonMobil exploration wells in deepwater Makassar Strait (Rangkong, Sultan, Kris))

De Vera, J. & K. McClay (2011)- Structural styles of the West Sulawesi deep-water fold and thrust belt, Makassar Straits, Indonesia. Berita Sedimentologi 22, p. 15. *(Abstract only)*
(online at: https://journal.iagi.or.id/index.php/FOSI/article/download/200/170)
(Active, Late Miocene/E Pliocene- Recent NE-SW-trending and NW-verging deepwater fold and thrust belt offshore West Sulawesi in E Makassar Straits, ~250km long and as up to 75 km wide. Five structural domains ondip sections, from NW to SE: abyssal plain, deformation front, folded domain, thrust domain and inversion domain. Styles of deformation front controlled by inversion of Pliocene-Pleistocene extensional faults (large anticlines resulting from reactivation of Paleocene rift structures))

Dinkelman, M.G., J. Granath, D. Bird, J. Helwig, N. Kumar & P. Emmet (2009)- Predicting the Brittle-Ductile (B-D) transition in continental crust through deep, long offset, prestack depth migrated (PSDM), 2D seismic data. AAPG International Conference Rio de Janeiro 2009, p. 1-6. *(Extended Abstract)*
(Online at: www.searchanddiscovery.net/documents/2010/40511dinkelman/ndx_dinkelman.pdf)

(Deep seismic imaging allows interpretation of features in crystalline basement. Example of stretched continental crust for S Makassar Basin, showing supracrustal faults sole out near top of seismic transparent zone, possibility brittle-ductile transition in lower continental crust)

Dirgantara, F., S. Susilohadi, M.A.S. Iskandar & Y A. Sintuwardhana (2025)- Methane hydrate systems off South Makassar Basin, Indonesia. Geoscience Letters (AOGS) 12, 5, p. 1-23.
(online at: https://geoscienceletters.springeropen.com/articles/10.1186/s40562-025-00374-w)
(Review of gas hydrates in deeper parts of S Makassar Straits. Hydrates imaged on seismic lines as Bottom Simulatiing Reflectors (BSR), which in area are concentrated in topographic highs, in basin depocenter and along basin margin, at depths 100-900 m below seafloor. In Sultan 1 well 198m thick methane hydrate reservoirs (2092-2290 m). Estimated gas volume ~105 TCF of methane)

Dirgantara, F., S. Susilohadi, I. Suyanto & M.A.S. Iskandar (2025)- Subsurface thermal properties in the deepwater South Makassar Basin, Indonesia. J. Asian Earth Sciences 290, 106651, p. 1-17.
(online at: https://www.sciencedirect.com/science/article/pii/S136791202500166X)
(Bottom simulating reflectors (BSRs) in deepwater S Makassar Basin indicate presence of methane hydrates and allow calculations of heat flow, geothermal gradients, etc.. Estimated mean heat flow 86 mW/m2 and mean geothermal gradient 73 ◦C/km at water depth 400-2050 m (higher than marine probe data)

Dunham, J., R. Lin, A. Saller, J. Decker & T. Nicholson (2003)- Transportation and concentration of oil- and gas-prone kerogen into deep water sediments of the Kutei Basin, East Kalimantan, Indonesia. Indonesian Petroleum Association (IPA) Newsletter, June 2003, p. 26-30.
(Kutai-Makassar Straits organic matter)

Dunham, J.B. & L.D. McKee (2001)- Hydrocarbon discoveries in Upper Miocene unconfined submarine fan facies, deep-water Kutei Basin, Indonesia. Proc. 2nd Regional Seminar Indonesian Sedimentologists Forum (FOSI), p. 50. *(Abstract only?)*
(On the emergence of Unocal deepwater gas discoveries in Late Miocene and younger submarine fan systems in deep water Kutei Basin (Makassar Straits): Ganal, Gendalo, Gandang, Gula, and Gada)

Dunham, J. & Unocal Exploration Team (2016)- Deepwater discoveries in turbidite sands of the Makassar Straits, East Kalimantan, Indonesia. Proc. IPA 2016 Technical Symposium, Indonesia exploration: where from- where to, Indonesian Petroleum Association (IPA), Jakarta, 8-TS-16, p. 1-18. *(online at: https://www.researchgate.net/publication/358728999_Deepwater_discoveries_in_turbidite_sands_of_the_Makassar_Straits_East_Kalimantan_Indonesia_in_Tjahjadi_L_Butterworth_P_and_Noble_R_eds_ Etc)*
(Unocal review of Mio-Pliocene deep-water slope channel exploration in Kutai Basin side of Makassar Straits. First oil and gas discoveries in Merah Besar (1996) and West Seno (1998) fields, followed by deeper water Gendalo (2000) and Ranggas (2002) discoveries. Deepest prospect in >6000' of water and >15,000' deep was Gehem-1 well (2003), reaching M Miocene fan-sands with significant gas column. Substantial exploration potential remains in M Miocene base-of-slope fan plays)

Effendi, L. (1993)- Selat Makasar merupakan wilayah kompleks antara perairan bagian barat dan timur. Proc. 22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 950-961.
('Makassar Straits constitutes a complex region between eastern and western areas')

Eisma, D. (1990)- Dispersal of Mahakam River suspended sediment in Makassar Strait, Indonesia. In: V. Ittekkot et al. (eds.) Facets of modern biogeochemistry, Springer, Berlin, p. 127-146.

Faugeres, J.C., J. Gayet & E. Gonthier (1989)- Microphysiographie des depots Quaternaires dans le detroit de Makassar (Ocean Indien); opposition entre une marge stable (Borneo, Kalimantan) et une marge active (Celebes, Sulawesi). Bull. Societe Geologique France, Ser. 8, 5, 4, p. 807-818.
('Micro-physiography of Makassar Straits Quaternary deposits, between stable Borneo and active Sulawesi margin'. Seabeam profiles of N Makassar Straits show passive Borneo margin with high clastic influx and active Celebes margin with narrow shelf and less terrigenous influx)

Faugeres, J.C., J. Gayet, E. Gonthier, C.Latouche & N. Maillet (1990)- Variation des sources de sediments dans le detroit de Makassar (Indonesie) au Quatemaire recent: role des facteurs morphostructuraux et eustatiques. Oceanologica Acta 1990, Special Volume 10, Actes du Colloque Tour du Monde Jean Charcot 1989, p. 295-306.
(online at: http://archimer.ifremer.fr/doc/00268/37924/36005.pdf)
('Variations in sediment sources in Makassar Straits (Indonesia) in the late Quaternary: the role of morphostructural and eustatic factors'. Mineralogy of sediments from Makassar Straits show differences between sediments supplied from Kalimantan in W and Sulawesi in E. Kalimantan source quartzitic sand, with rare feldspars. Heavy minerals mainly pyroxene (hypersthene) and amphibole, clays mainly illite-kaolinite. Sulawesi source abundant feldspars, lithoclasts and micas, with amphibole and pyroxene (augite) and illite-chlorite clay mineraIs. During Late-Pleistocene of sealevel lowstand Mahakam River discharged directly on shelf edge, dominating sediment supply. Rising sealevel in Holocene trapped river sediments in delta, so most sediment supplied to Makassar Straits from steep Sulawesi margin)

Fowler, J.N., E. Guritno, P. Sherwood & M.J. Smith (2001)- Depositional architectures of Recent deep water deposits in the Kutai Basin, East Kalimantan. Proc. 28th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 409-422.
(Seismic facies and depositional models of Recent slope channel and basin floor fan system in NW Makassar Straits)

Fowler, J.N., E. Guritno, P. Sherwood, M.J. Smith, S. Algar et al. (2004)- Depositional architectures of Recent deepwater deposits in the Kutei Basin, East Kalimantan. In: R.J. Davies et al. (eds.) 3D seismic technology: application to the exploration of sedimentary basins. Geological Society, London, Memoir 29, p. 25-33.
(Seismic examples of slope channes and basin floor fans. Large depocenters occur where gradients are low and system switches from confined to unconfined. Erosionally confined channels feed basin floor fans at toe-of-slope, while channels confined by levees feed fans on 'distal' basin floor)

Fraser, T.H. & L.O. Ichram (1999)- Significance of Celebes Sea spreading center to the Paleogene petroleum systems of the SE Sunda Margin, Central Indonesia. Proc. 27th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 431-441.
(Celebes Sea is Eocene spreading center active until ~37 Ma, same time as Sarawak Orogeny. About 300 km of Paleogene Celebes oceanic crust now partly consumed by Minahasa Trench. Makassar Straits is continuation of Celebes Sea extension. Paleogene clastics much thicker in SW Sulawesi than in Barito Basin. Source of clastics in Sangkarang Graben proposed to be craton of west C Kalimantan. Development of S Makassar Straits ruptured proto-Barito fluvial system which previously flowed from Kalimantan into Flores Sea)

Fraser, T.H., B.A. Jackson, P.M. Barber, P. Baillie & K. Myers (2003)- The West Sulawesi fold belt and other new plays within the North Makassar Straits- a prospectivity review. Proc. 29th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, G-171, p. 429-450.
(Makassar Straits started in Eocene in response to extension propagating SW from Celebes Sea spreading center. After initial opening of Straits, Eocene horst- graben terrains overlain by Oligocene-Miocene basinal sag sediments. Following Neogene uplift of Borneo and outbuilding of Mahakam Delta, considerable amounts of sediment redeposited as turbidite facies in N Makassar Basin. Plio-Pleistocene inversion of extensional areas as successive micro-continental fragments from Australian Plate collided with SE margin of Sundaland. This collision assembled Sulawesi into K-shape and formed W Sulawesi Fold Belt, which obscures E part of original Makassar Straits Eocene rift. Traps in foldbelt compressional folds over thin-skinned detachment in probably overpressured Late Eocene- E Miocene mudrocks. Neogene turbidite reservoirs postulated charged from Paleogene and Neogene source rocks)

Fraser, T.H., B.A. Jackson, P.M. Barber, P. Baillie & K. Myers (2003)- The West Sulawesi Foldbelt- a new exploration play in the Makassar Straits, Indonesia. SEAPEX Press 6, p. 27-38.
(Similar to paper above. Makassar Straits formed by Paleogene rifting- sea floor spreading. Onset of compression in Miocene, resulting in development of W Sulawesi foldbelt in Pliocene. Etc.)

Gallup, D.L., P.C. Smith, J.F. Star & S. Hamilton (2005)- West Seno deepwater development case history-production chemistry. Proc. SPE International Conference on oilfield chemistry, Galveston, 2005, Soc. Petroleum Engineers, SPE 92969, p. 1-13.

Gartrell, A., C. Hudson & B. Evans (2005)- The influence of basement faults during extension and oblique inversion of the Makassar Straits rift system; insights from analog models. American Assoc. Petroleum Geol. (AAPG) Bull. 89, 4, p. 495-506.
(Analog models used to investigate influence of cross-trending basement faults on inverted rift systems like Makassar Straits)

Gayet, J., P. Carbonel, J. Duprat, L. Labeyrie, J.C. Faugeres, E. Gonthier & J. Moyes (1990)- Impact de la transgression holocene sur la sedimentation dans le detroit de Makassar. Oceanologica Acta, Special Volume 10, p. 321-327.
(online at: https://archimer.ifremer.fr/doc/00268/37898/35979.pdf
('Impact of the Holocene transgression on sedimentation in Makassar Straits'. During glacial maximum/sea-level low sediments deposited by turbidity currents from Kalimantan. During deglaciation/ rise of sea-level, sediment from Kalimantan contributed to Mahakam delta or dispersed over shelf, circulation in straits slowed down and stratification became more marked, reflecting present day monsoon system. Sulawesi input less abundant and mineralogically different from Kalimantan material)

Gayet, J., J.C. Faugeres & E. Gonthier (1990)- La sedimentation quaternaire recente dans le detroit de Makassar. Oceanologica Acta, Special Volume 10, p. 307-320.
('Quaternary sedimentation in Makasar Straits'. Kullenberg drop cores 1.8-10m of Quaternary sediments from 50-2440m water depth in N and S Makassar Straits)

Gunawan, B.K. & S. Damayanti (2010)- New insight: basin development mechanism and tectono-stratigraphy of Makassar Basin. Proc. HAGI-SEG Int. Geosciences Conference, Bali 2010, IGCE10-OP-138, p. 1-23.
(Makassar Straits basin result of transtensional pull-apart tectonics, with WNW- ESE regional strike-slip faults: Sangkulirang-Palu Koro, Adang-Lupar and S Makassar Strait faults. New tectono-stratigraphic basin fill nomenclature proposed like 'syn-transtensional' and 'foreland'. Horsts and grabens formed in multiple periods from M Eocene- Late Miocene, not only in M Eocene- E Oligocene: Syn-transtension 1 (M Eocene- U Oligocene), Syn-transtension 2 (E Miocene- upper M Miocene), Syn-transtension 3 (U Miocene))

Guntoro, A. (1999)- The formation of the Makassar Strait and the separation between SE Kalimantan and SW Sulawesi. J. Asian Earth Sciences 17, p. 79-98. *(online at: https://www.academia.edu/56784650/The_formation_of_the_Makassar_Strait_and_the_separation_between_SE_Kalimantan_and_SW_Sulawesi)*
(SE Kalimantan and W Sulawesi separated due to Eocene opening of Makassar Strait. Seismic refraction and gravity modeling support Eocene extension and Eocene-Oligocene oceanic crust in central parts of Makassar Straits. Makassar Strait formed by backarc spreading/ trench roll-back of Cretaceous accretionary crust, related to subduction east of W Sulawesi. Subduction polarity changed after Banggai-Sula collision in Miocene caused partial subduction of oceanic crust of E part Makassar Strait beneath W Sulawesi)

Guntoro, A. (2000)- Makassar Strait. In: H. Darman & F.H.Sidi (eds.) Outline of the geology of Indonesia, Chapter 6, Indonesian Association Geologists (IAGI), Jakarta, p. 90-96.
(Makassar Straits basement characterized by strong posive isostatic gravity anomaly, suggesting oceanic marginal basin)

Guritno, E., L. Salvadori, M. Syaiful, I. Busono, A. Mortimer, S. Hakim, J. Dunham, J. Decker & S. Algar (2003)- Deep-water Kutei Basin: a new petroleum province. Proc. 29th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 519-540.
(Deep-water Kutei Basin (Makassar Straits) Merah Besar and West Seno discoveries in toe-thrust anticlines. Development of toe-thrust anticlines influenced deposition of reservoir, source, maturity, migration routes and traps. Mildly structured Upper Miocene in C Province is gas prone, N Province contains oil and gas)

Hall, R., I.R. Cloke, S. Nur'aini, S.D. Puspita, S.J. Calvert & C.F. Elders (2009)- The North Makassar Straits: what lies beneath? Petroleum Geoscience 15, 2, p. 147-158. *(online at: https://www.researchgate.net/publication/228416624_The_North_Makassar_Straits_What_lies_beneath)*
(Makassar Straits formed by rifting, starting in M Eocene. Structures beneath Late Eocene unconformity may be carbonate build-ups on tilted fault blocks or volcanic edifices. Authors of this paper can not agree among themselves on whether basement crust beneath Makassar Straits is oceanic or extended continental)

Hanafi, M. &. Arifin (2010)- Struktur geologi di perairan Pasang Kayau, Sulawesi Barat. J. Geologi Kelautan 8, 3, p. 119-125.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/download/192/182)
('Geological structure of the waters off Pasang Kayu, West Sulawesi'. Study area along W Sulawesi coasts characterized by steep sea floor morphology with the depth from 40 m in E to 2150 m in NW. Faults, folds and diapirs recognized. Faults in NE-SW general direction)

Harjono, H. (1981)- Selat Makassar: hasil awal penelitian geologi dan geofisika marin SO-16C. J. RISET Geologi dan Pertambangan (LIPI) 4, 1, p. 14-19.
(online at: http://pustaka.geotek.lipi.go.id/wp-content/uploads/2016/02/Riset-Vol.4-No.1-2-.pdf)
('Makassar Strait: preliminary results of marine geological and geophysical studies SO-16C'. Geophysical survey in S Makassar Basin suggests similarities to N Makassar Basin. Oceanic basement seems to be present in center of S Makassar Basin)

Haryanto, I., S. Alam, J. Hutabarat, A.A. Nur, N.N. Ilmi & E. Sunardi (2020)- Flexurer subsidence of Makassar Strait. Proc. 5th Int. Conf. of Geological Engineering Faculty, Padjadjaran University, 1, 2, p. 70-85.
(online at: https://tiikmpublishing.com/proceedings/index.php/icgef/article/view/918/578)
(Makassar Straits flanked by compressional structuring in E Kalimantan and W Sulawesi, suggesting MS is foreland basin (authors seem to confuse different ages of phases of extension-compression: Eocene rifting much older than Mio-Pliocene thrusting along flanks of Makassar Straits, thus not related; JTvG))

Heri, T., R. Mathers & R.A. McCarty (2009)- West Seno; the first deepwater field in Indonesia a strategy to optimize reserves. Proc. 33rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA09-E-192, p. 1-15.
(West Seno gas-oil field off E Kalimantan in 2400- 3400' of water. Reservoirs ~50 independent compartments in mainly Upper Miocene amalgamated deepwater channel-levee sands)

Hidayat, R., S. Husein & S.S. Surjono (2012)- Regional depositional model of South Makassar Basin depocenter, Makassar Strait, based on seismic facies. J. Southeast Asian Applied Geology (UGM) 4, 1, p. 42-52.
(online at: http://geologic-risk.ft.ugm.ac.id/fresh/jsaag/vol-4/no-1/jsaag04-art06-RahmadiHidayat.pdf)
(Seismic facies maps of synrift Eocene to post-rift Berai Lst to Miocene Warukin Fm in block off SW Sulawesi)

Intrieri, E., H.S. Lee, A. Sudirdja & D. Ooi (2024)- Reviving deepwater exploration and gas production in Indonesia. Proc. 48th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA24-BC-108, p. 1-8.
(New world-class gas discovery made by ENI in 2023 at Geng North 1 in deepwater Kutai Basin, outboard of Mahakam Delte in Makassar Straits. Initial in-place resource ~5 TCF gas and 400 MMbbl condensate. Probably M Miocene slope channel complex)

ISIS Petroleum Consultants/ TGS-NOPEC (2003)- CM-01 MC2D Seismic survey- Hydrocarbon potential of the deep water Makassar Straits, Indonesia. Unpublished Multi-client study, p.
(More detailed version of Fraser et al. (2003) papers. N Makassar Basin on Cretaceous accretionary crust, followed by E-M Eocene (50-42) Ma rifting, 42 Ma breakup, Late Eocene/ 42-38 Ma sea floor spreading with volcanic centers along spreading axes/ transfer faults, Oligocene (38-20.5 Ma) sag phase)

Isnawati, D. Sunarjanto, Julikah & S. Munadi (2006)- Optimistic view for hydrocarbon exploration in South Makassar Basin. Proc. Int. Geoscience Conference Exhib., Jakarta 2006, Indonesian Petroleum Association (IPA), 06-PG-06, p. 1- 4.
(Paleogene rifting between Kalimantan and Sulawesi created conditions for generation of hydrocarbons)

Jackson, B.A. (2004)- Seismic evidence for gas hydrates in the North Makassar basin, Indonesia. Petroleum Geoscience 10, p. 227-238.
(Gas hydrates suggested by bottom simulating reflectors (BSR), primarily in offshore extension of W Sulawesi Fold Belt. Turbidites in fold belt mini-basins provide reservoir and source of organic material for production of biogenic methane gas. Geothermal gradients from BSR database av 4.7°C/100m)

Jackson, B.A. (2004)- Gas hydrates in the North Makassar Basin, Indonesia. In: R.A. Noble et al. (eds.) Deepwater and Frontier Exploration in Asia Symposium, Indonesian Petroleum Association (IPA), Jakarta, p. 373-375.
(Gas hydrate in deep-water N Makassar Straits. Sediments in West Sulawesi Fold Belt sourced from Mahakam Delta until Late Pliocene, when tectonic event in Sulawesi reversed direction of sediment transport. Sulawesi fold-belt numerous thrust sheets, creating long anticlinal structures and intervening mini-basins. Most BSR anomalies concentrated on E side of study area in vicinity of WSFB ~300 ms below seafloor. No figures)

Johansen, K.B., S. Maingarm & A. Pichard (2007)- Hydrocarbon potential of the South Makassar Basin, Indonesia. Proc. SE Asia Petroleum Exploration Society (SEAPEX) Conference 2007, Singapore, p. 1-43. *(Abstract + Presentation)*
(S Makassar Basin unexplored area in 1000-2000m water. Sulawesi Fold Belt to E, Paternoster Platform to W and E Java Sea/Doang Platform to S. Separated from N Makassar Basin by Adang strike slip Fault Zone. S Makassar rift basins part of Eocene extensional phase from C Java to onshore S Sulawesi. Half graben syn-rift fill two seismic facies: lower main rift non marine clastics, upper sequence late syn-rift or early post rift marine clastics. Syn-rift fill >2 km thick and potential source rock. DHI's and gas anomalies indicate active petroleum system. Structural plays mainly defined by Eocene rift phase. Main reservoirs Oligocene carbonates and Eocene-E Oligocene clastics over basement highs. Platform carbonates and pinnacle type reefs may have better reservoirs. Oligocene-E Miocene turbidities possible secondary play. Post-rift thermal subsidence resulted in 3-4 km of mudstone- shales. Late Miocene-Pliocene compressional tectonics resulted in minor deformation of S Makassar Basin, resulting in N-S trending folds and thrusts along Sulawesi Fold Belt)

Kacewicz, M., J. Decker, R. Lin, C. Stuart, P. Taylor & E. Johnson (2002)- A new regional heat flow and hydrocarbon migration model for the Kutei Basin and Central Makassar Straits. AAPG Annual Convention, Houston, Texas *(Abstract)*.
(New heat flow model based on crustal stretching in deepwater Kutei basin and C Makassar Straits. Heat flow varies from 32-44mW/m2 in shallow water to 45- 52 mW/m2 in deepwater at present. No significant difference between deepwater heat flow N and S of Mahakam delta and no basinward cooling)

Kapid, R., K.T. Dewi & A. Muller (2004)- New biostratigraphic sub-biozonation for Indonesia, derived from calcareous nannoplankton and ostracode assemblage in Makassar Strait. Proc. 5th Int. Conference on Asian Marine Geology (ICAMG-V) Bangkok 2004, p.

Kirschner, K. & S.F. Walden (2004)- A case study: gas in place sensitivities from geocellular modeling of the Gendalo Field, Ganal PSC. In: R.A. Noble et al. (eds.) Proc. Deepwater and frontier exploration in Asia & Australia Symposium, Jakarta, Indonesian Petroleum Association (IPA), Jakarta, DFE04-PO-054, p. 1-5.
(Modeling of Gendalo Field deepwater gas field off Mahakam Delta. Water depths 3500'-5000'. Two deep water turbiditic sand intervals)

Kupecz, J., I. Sayers, P. Tognini, A. Hilman, C. Tanos & D. Ariyono (2013)- New insights into the tectono-stratigraphic evolution of the South Makassar Basin. Proc. 37th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA13-G-158, p. 1-41.
(Updated regional tectono-stratigraphic model for S Makassar Basin by Mubadala Petroleum. Four mega-sequences in M Eocene- M Miocene: (1) M Eocene (45-37 Ma) extension, creating half-grabens with NW-SE

orientation, such as Pangkat-1 area; (2) more widespread extension in Late Eocene- E Oligocene (37-28 Ma; possibly to 20 Ma), evidenced by NNE-SSW trending Taka Talu Graben, etc.; (3) drop in relative sea-level at start of E Oligocene, with erosion of carbonate platform deposits from Paternoster Platform and re-deposition in bathyal Pangkat Graben as debris flows (Ruby Field); (4) second major lowstand occurred from E-M Miocene (20-12 Ma), coinciding with demise of carbonates in area. Pro-delta sediments prograded from NW to SE, filling Pangkat Graben, backstepping onto Paternoster platform, and prograding into S Makassar Basin)

Lelono, E.B. (2007)- Palinomorf Eosen dari Selat Makasar. Lembaran Publikasi Lemigas 41, 2, p. 1-10.
(online at: https://journal.lemigas.esdm.go.id/index.php/LPMGB/article/view/191)
('Eocene palynomorphs from C Makassar Straits'. Interval 8100'-11850' of 'Well O' in Makassar Straits with Eocene age palynomorphs, incl. Proxapertites operculatus, P. cursus, Palmaepollenites kutchensis, Cicatricosisporites eocenicus, etc. Lower abundance/diversity than in Nanggulan Fm of C Java, probably due to Late Eocene age. Appearance of moderate Restioniidites punctulosus pollen indicates dry climate)

Lin, R., A. Saller, J. Dunham, P. Teas, J. Curiale, M. Kacewicz & J. Decker (2005)- Source, generation, migration and critical controls on oil vs. gas in the deepwater Kutei petroleum systems. Proc. 30th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 447-466.
(Kutei Basin deep water geochemical analyses indicate that allochthonous land-plant organic matter is source of hydrocarbons. TOC 1%- >50% with hydrogen indices between 100- 400. Overall kerogen assemblages type III and subordinate type II, consistent with gas condensate to gas volatile oil system. No marine algal remains evident. Gases mainly thermogenic; mixing of 'biogenic' methane and CO_2 in some shallow Pliocene reservoirs. Generation of oil and gas mostly at 'oil window' maturities)

Lumadyo, E. (1999)- Deep-water exploration in the Kutei Basin, East Kalimantan. In: C.A. Caughey & J.V.C. Howes (eds.) Proc. Conference Gas habitats of SE Asia and Australasia, Jakarta 1998, Indonesian Petroleum Association (IPA), p. 205-209.
(Summary of Unocal deep water evaluation of gas play in Late Neogene of East Kalimantan/Makassar Straits)

Lunt, P. & J.T. van Gorsel (2013)- Geohistory analysis of South Makassar. Berita Sedimentologi 28, p. 14-24.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/151)
(S Makassar Straits Basin after initial rifting of grabens there were four major unconformities that affected sedimentation, and all thought to be controlled by tectonism: (1) ~39 Ma (late M Eocene) with accelerated rifting on distal margins of Sundaland; (2) 36 Ma (early Late Eocene) with rapid localized subsidence in S Makassar Straits basin; (3) 34 Ma (near Eocene- Oligocene boundary), with onset of Berai Limestone in W and strongly reduced rates of deep-water sedimentation throughout Makassar- Spermonde area; and (4) ~24 Ma (near Oligocene-Miocene boundary), with start of new clastic phase with high rates of sedimentation)

Malecek, S.J. & P. Lunt (1996)- Sequence stratigraphic interpretation of Middle-Late Miocene lowstand sands in the Makassar Strait, offshore east Kalimantan, Indonesia. In: C.A. Caughey, D.C. Carter et al. (eds.) Proc. Int. Symposium on Sequence Stratigraphy in SE Asia, Jakarta 1995, Indonesian Petroleum Association (IPA), p. 369-379.
(Lowstand deepwater sands reservoirs in M-L Miocene of Makassar Straits off Kalimantan. Depositional patterns and correlations on slope and basin floor modified by compressional folding and faulting, most evident in M Miocene and older sections. Also deformed by growth faulting and shale diapirism in much of Late Miocene and younger section. With Teritis- Perintis wells correlation)

Malecek, S.J., C.M. Reaves, W.S. Atmaja & K.O.Widiantara (1993)- Seismic stratigraphy of Miocene and Pliocene age outer shelf and slope sedimentation in the Makassar PSC, Offshore Kutei Basin. Proc. 22nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 345-371.
(Sequence stratigraphic framework for Miocene-Pliocene age outer shelf, slope and basin floor sediments in Makassar PSC, offshore Kutai Basin. No detailed stratigraphy)

McKee, D. & J. Dunham (2004)- Does 2D seismic still have a role in frontier exploration? A perspective from the deepwater Kutei Basin. In: R.A. Noble et al. (eds.) Proc. Symposium Deepwater and frontier exploration in Asia and Australasia, Jakarta, Indonesian Petroleum Association (IPA), p. 59-69.
(Deepwater Makassar Straits 2D seismic identified 11 prospects, 10 drilled, 5 successful)

Morley, R.J., J. Decker, H.P. Morley & S. Smith (2006)- Development of high resolution biostratigraphic framework for Kutei Basin. Proc. Jakarta 2006 International Geoscience Conference Exhib., Indonesian Petroleum Association (IPA), PG 27, p. 1-6.
(28 depositional sequences identified in M Miocene- Pleistocene deepwater deposits of E Kalimantan- W Makassar Straits)

Morley, R.J. & H.P. Morley (2010)- Neogene climate history of the Makassar Straits, with emphasis on the Attaka region, East Kalimantan, Indonesia. Proc. 34th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA10-G-208, p. 1-17. *(online at: https://www.researchgate.net/profile/Robert-Morley/publication/280254933_Neogene_climate_history Etc.)*
(Reconstruction of M Miocene- Recent Neogene climate history of E Kalimantan, based on Quaternary Makassar Straits cores and Attaka field well samples, and compared to Natuna and Malay basins. Everwet tropical climate since Late Miocene. Some intervals with evidence for 100 ka eccentricity cycles)

Morley, R.J. & H.P. Morley (2011)- Neogene climate history of the Makassar Straits, Indonesia. In: R. Hall, M.A. Cottam & M.E.J. Wilson (eds.) The SE Asian gateway: history and tectonics of Australia-Asia collision, Geological Society, London, Special Publ. 355, p. 319-332.
(Neogene climate history of Makassar Straits from palynological studies of Late Quaternary cores from ocean floor and petroleum exploration wells penetrating E Pleistocene- M Miocene section. Distinctly seasonal climate during Late Plleistocene Last Glacial Maximum. Equatorial climate has been everwet since M Miocene, but at subequatorial latitudes seasonal climates became established from Late Pliocene onward)

Morley, R.J., H.P. Morley, A.A.H. Wonders, Sukarno & S. van der Kaars (2004)- Biostratigraphy of modern (Holocene and Late Pleistocene) sediment cores from Makassar Straits. In: R.A. Noble et al. (eds.) Proc. Deepwater and frontier exploration in Asia and Australasia, Indonesian Petroleum Assoc. (IPA), Jakarta 2004, p. 1-11.
(Palynology and foraminifera from two shallow Late Pleistocene- Holocene cores from Makassar Straits and offshore SW Sulawesi)

Moss, S.J., W. Clark, P.W. Baillie, I. Cloke, A.E. Hermantoro & S. Oemar (2000)- Tectono-stratigraphic evolution of the North Makassar Basin, Indonesia. AAPG International Conference Bali 2000, p. A-63, p. 1-3. *(Extended abstract)*
(New seismic in Makassar Straits indicates M Eocene extension and sufficient rifting to generate seafloor spreading in deeper parts of N Makassar Straits. Evidence for oceanic crust underlying parts of N Makassar Straits includes rugose nature of top basement and volcanic topography (seamounts). N Makassar Basin is M Eocene marginal oceanic basin formed with extension of W Philippines Sea- Celebes Sea spreading ridge into E Borneo/W Sulawesi margin. Interpretation in line with plate tectonic, gravity modeling and paleogeographic reconstructions. Four prominent seismic stratigraphic markers in N Makassar represent major phases of basin development from early extension to present-day contractional tectonics)

Muntashir, A.W., T.B. Nainggolan & E. Supriyana (2023)- Identification and characterization of gas hydrate using marine seismic and well data: South Makassar Strait case study. Proc. 2nd Int. Seminar on Earth Sciences and Technology (ISEST-2023), Bandung, IOP Conference Series: Earth and Environmental Science 1245, 012003, p. 1-8.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1245/1/012003/pdf)
(Shallow Bottom Simulating Reflectors, representing gas hydrates, on seismic lines over Sultan 1 well in Makassar Straits. at depth of ~2300 m in E Pliocene rocks and associated with gas chimney)

Musgrove, F.W., R. Avianto & R. Schneider (1999)- Construction and destruction at a deepwater slope seabed: implications for reservoir models in the Makassar Strait, offshore East Kalimantan. Proc. 27th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 415-429.
(High frequency data of present-day deepwater sea bed useful for models of deepwater deposition)

Nainggolan, H.B., R.M.I. Argakoesoemah, I. Wahyudi, A. Hidayat & M.F. Shahab (2015)- Structural description of Adang Fault, Makasar Strait, Indonesia. Proc. 39th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA15-G-157, p. 1-11.
(online at: https://www.pttep-indonesia.co.id/upload/files/publication/STRUCTURAL_DESCRIPTION_OF_ADANG_FAULT,_MAKASSAR_STRAIT,_INDONESIA.pdf)
(Adang Fault along N flank of Paternoster Platform, S part of N Makassar Basin, is high-angle, NW-SE trending transtensional dextral strike-slip fault. Many of fault splays reach sea floor, suggesting recent activity. After syn-rift deposition in Late Eocene inversion/uplift of Peternoster Platform starting in E Miocene, resulting in Oligocene carbonate debris partially flushed towards deepwater basin; uplift peaked in M Miocene)

Nicolini E., D. Spinelli, F. Paone, A. Marceglia, A. Mashedi A, F. Paoni, R. Canever, F. Felappi & C. Monti (2012)- A wide detailed geophysical survey of offshore Makassar Strait. Proc. 36th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA12-G-127, p. 1-14.
(Shallow seabed seismic survey and bathymetry around new Jangkrik field on upper slope in ~150-450m water depth, 605km offshore in Makassar Strait, SE of Mahakam delta, E Kalimantan)

Nugraha, H.D. (2020)- Kinematics and structure of mass-transport complexes (MTCs). Ph.D. Thesis, Imperial College, London, p. 1-260. *(online at: https://www.academia.edu/104285916/Kinematics_and_structure_of_mass_transport_complexes_MTCs_)*
(Seismic reflection, well,and bathymetry data study of Mass Transport Complexes (large slumps) from the Exmouth Plateau (offshore NW Australia) and Haya Slide in northern South Makassar Basin of Makassar Strait ~10 km off coast of W Sulawesi, which covers an area of 150 km^2)

Nugraha, H.D., C.A.L. Jackson, H.D. Johnson & D.M. Hodgson (2020)- Lateral variability in strain along the toewall of a mass transport deposit: a case study from the Makassar Strait, offshore Indonesia. J. Geological Society, London, 177, 6, p. 1261-1279.
(manuscript online at: https://eartharxiv.org/repository/object/302/download/613/)
(Haya Slide in Makassar Strait originated from anticline flank collapse. Toe domain radial fold-thrust belt that reflects SW-wards emplacement. Etc.)

Nugraha, H.D., S.N.F. Jamaludin, R. Matsumoto, S. Ohkawa, H. Tomaru, I. Juanda, I. Herawati et al. (2026)- Subsurface plumbing system architecture in the South Makassar Basin, offshore Indonesia, and its implications for methane emissions and geological storage. Nature Scientific Reports *(in press)*
(manuscript online at: https://www.nature.com/articles/s41598-026-39597-y_reference.pdf)
(Well-illustrated study of gas chimneys and methane leakage in northern part of South Makassar Straits Basin. Two fluid (gas) flow systems in the basin: (1)focused vertical pathways expressed as fluid pipes that link deep carbonate (buildup) reservoirs to shallow section and to seabed pockmarks; (2) unfocused, laterally extensive pathways expressed by polygonal and radial fault networks that coincide with widespread bottom-simulating reflections (BSRs) indicative of gas hydrate occurrence)

Nugrahanto, K., I. Syafri & B. Muljana (2021)- QFL and litho facies: predicting reservoir quality of the Middle Miocene deep-water facies at Kutei and North Makassar Basins. Bulletin of the Marine Geology, 36, 1, p. 1-13.
(online at: https://media.neliti.com/media/publications/381443-none-f1ee23b1.pdf)
(Sandstone petrography of offshore M Miocene's deep-water reservoirs. Foram zones N8-early N10 volcanogenic sandstones (volcanic-lithics increasing from <10% to >20%.). Later Middle Miocene sands (N10-N14) high-quartz sandstones (>80% of framework grains); also in early Late Miocene (M-L Miocne also highest sedimentation rates, higher than today, reflecting Sabah uplift and erosion; Hutchison, 2005))

Nur'Aini, S., R. Hall & C.F. Elders (2005)- Basement architecture and sedimentary fill of the North Makassar Straits basin. Proc. 30th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 483-497.
(2D seismic, gravity and well data over N Makassar Strait extensional basin shown-echelon faults bounding disconnected NNW-SSE trending half-graben and graben depocenters, most likely produced by oblique rifting. Principal extension direction E-W. Rifting age M- Late Eocene. N Makassar Basin probably underlain by extended continental crust rather than oceanic crust. Mainly thin, deepwater sediment fill. Three postrift megasequences: (1) Late Eocene- Oligocene, (2) E-M Miocene prograding delta after uplift of Kalimantan, (3) Late Miocene with turbidite interval in central part of basin. MB becomes foreland basin in E Pliocene with W-ward propagation of W Sulawesi fold-thrust belt, resulting in increase in sediment supply from E)

Nurusman, S. (1986)- Etude geothermique des bassins profonds du detroit de Makassar (Indonesie). Implications geodynamiques. Doct. Thesis, Universite de Bretagne Occidentale, Brest, p. 1-175. *(Unpublished)*
(Geothermal study of Makassar Straits and geodynamic implications. Yuwono et al. 1988: Makassar Straits rifting caused thinning of continental crust without significant opening)

Nurusman, S. (1990)- Heatflow measurements in the deep basins of the Makassar Strait (Indonesia). In: B. Elishewitz (ed.) Proc. CCOP Heat Flow Workshop III, Bangkok 1988, United Nations ESCAP, CCOP, Technical Publication 21, p. 27-38.
(35 surface heatflow measurements along two profiles: NW-SE across N Makassar Basin, E-W across S Makassar Basin. Heatflow values rather uniform, around 63-64 mW/m2/sec, lower than average heatflows of adjacent Barito (75.3), Kutai (66) and Tarakan-Bunyu (70.2) basins, but still classified as 'normal')

Panjaitan, S. (2003)- Kemungkinan adanya minyak dan gas alam dari data gayaberat bagian Timur cekungan Selat Makassar Utara daerah Pasangkayu, Sulawesi Selatan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 13, 137, p. 18-30.
('Oil and gas possibilities from gravity data in the eastern part of the North Makassar Straits basin, Pasangkayu area, S Sulawesi')

Pireno, G.E. (2014)- Perkembangan porositas dan permeabilitas batugamping fragmental endapan laut dalam di daerah Paparan Paternoster, Cekungan Makassar Selatan. Ph.D. Dissertation Institut Teknologi Bandung (ITB), p. 1- . *(Unpublished)*
('The development of porosity and permeability of deep marine detrital limestones marine sediment in the area of the Paternoster Platform, South Makassar Basin')

Pireno, G.E., C. Cook, D. Yuliong & S. Lestari (2009)- Berai Carbonate debris flow as reservoir in the Ruby Field, Sebuku Block, Makassar Straits: a new exploration play in Indonesia. Proc. 33rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA09-G-005, p. 1-19.
(Ruby Field, originally discovered in 1974 with Makassar Straits 1 well. Located in NW-SE trending W Makassar Graben, at S side of Paternoster Platform. Inversion structure? in NW-SE trending W Makassar Graben. Reservoir Upper Berai Fm Late Oligocene- earliest Miocene re-deposited carbonate, derived from Paternoster Platform in NE)

Pireno, G.E. & D.N. Darussalam (2010)- Petroleum system overview of the Sebuku Block and the surrounding area: potential as a new oil and gas province in South Makassar Basin, Makassar Straits. Proc. 34th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA10-G-169, p. 673-688.
(Overview of SW Makassar Straits petroleum system. Source rocks Eocene Lw Tanjung Fm lacustrine shale (Pangkat 1) and fluvio-deltaic coaly beds (Martaban 1). Potential reservoir rocks Lw Tanjung Fm sandstones, Berai Fm carbonates (reefal facies, Berlian-1; carbonate debris, Ruby Field) and U Warukin Fm carbonates)

Pireno, G.E., E. Suparka, D. Noeradi & A. Ascaria (2015)- Porosity and permeability development of the deep-water Late-Oligocene carbonate debris reservoir in the surroundings of the Paternoster Platform, South Makassar Basin, Indonesia. J. Engineering and Technological Sciences (JETS) (ITB), 47, 6, p. 640-657.
(online at: http://journals.itb.ac.id/index.php/jets/article/view/746/1096)

(Ruby Field gas discovery in Late Oligocene Berai Fm deep marine, re-deposited carbonate debris reservoir near Paternoster Platform. Limestone clasts range from pebble-size to boulders in matrix of micrite and fine bioclasts. Matrix-supported facies better porosity- permeability than clast-supported facies. Porosity generally moldic and vuggy, resulting from dissolution, and controlled by deep-burial diagenesis by dewatering of underlying Lower Berai Fm bathyal shales and overlying Lower Warukin shales during burial)

Posamentier, H.W., P.S.W. Meizarwin & T. Plawman (2000)- Deep-water depositional systems ultra-deep Makassar Strait, Indonesia. In: P. Weimer, R.M. Slatt et al. (eds.) Deep-water reservoirs of the world, Proc. 20th Annual Bob F. Perkins Research Conference, Gulf Coast Section SEPM Found. (GCSSEPM), p. 806-816.
(Deep water environments in Late Neogene of Makassar Strait characterized by abundant turbidite, debrite and sediment wave deposits. Depositional elements deposited in deep-water depositional sequences as: 1) debris flow sheets/lobes at base, 2) distributary channels or frontal splays, 3) leveed channels, capped by 4) less widespread debris flow sheets or lobes. Miocene- Pleistocene leveed channels common in >2000m water depth, and characterized by moderate-high sinuosity and range in width from <250m- 1 km, and are associated with overbank wedges with abundant sediment waves, best developed on outer bends of channel meanders. Leveed channels feed and overlie distributary channel complexes (= submarine fans; JTvG), which can be >10 km wide and >80m thick. Amalgamated debris flow sheets up to 150m thick and >20 km wide)

Prasetya, G.S, W.P. De Lange & T.R. Healy (2001)- The Makassar Strait tsunamigenic region, Indonesia. Natural Hazards 24, 3, p. 295-307.
(Makassar Strait region highest frequency of historical tsunami events for Indonesia. Seismic activity due to convergence of four tectonic plates. Main tsunamigenic features are Palu-Koro and Pasternoster transform fault zones. Earthquakes from both fault zones appear to cause subsidence of W coast of Sulawesi)

Prelat, A., J.A. Covault, D.M. Hodgson, A. Fildani & S.S. Flint (2010)- Intrinsic controls on the range of volumes, morphologies, and dimensions of submarine lobes. Sedimentary Geology 232, p. 66-76.
(Comparisons of submarine fan lobe dimensions from six different systems, including Pleistocene fan of Kutai basin/ W Makassar Straits (mainly from data in Saller et al. 2004, 2008). Pleistocene basin floor fan 22x22 km across, deposited during period of low sea level that ended at ~240 ka, fed by paleo-Santan River, N of Mahakam river. Main depocenter of fan located where seabed gradient decreases from 2.1° (slope) to 0.3° (basin floor), basinward of toe-trust belt)

Przywara, M., J. McArdle & A. Sola (2016)- New insights into the North Makassar Basin: revitalizing the data brings new prospectivity. Proc. 40th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA16-523-G, p. 1-4.
(Mainly PGS brochure for reprocessed seismic dataset in deepwater N Makassar Straits off NE Kalimantan)

Puteri, A.Y., Y. Sutadiwiria, Rendy, A.H. Yusuf, A.A. Cifa, A. Arifin, R. Ramadana & M. Gamara (2025)- Burial history modeling of the Mallawa Formation and Balangbaru Formation Makassar Basin, South Sulawesi Province. Proc. 1st Int. Conference of Petroleum Mining Geology Geoscience Energy & Environmental Technology (ICPMGET 2024), Jakarta 2024, IOP Conference Series: Earth and Environmental Science 1451, 012010, p. 1-15.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1451/1/012010/pdf)
(Geochemistry of potential source rocks in Mallawa/ Toraja Fm (M-L Eocene) and Balangbaru Fm turbidites (Maastrichtian- - earliest Paleocene) in cuttings samples in AYP-1 well (not real name?) in S Makassar Basin have potential to generate oil and gas. Balangbaru Fm low TOC, type II/IIIb kerogen and average %Ro value 0.51- 0.97% (immature to peak mature. Mallawa Fm immature)

Redhead, R.B., E. Lumadyo, A. Saller, J.T. Noah, T.J. Brown, Y. Yusri, J. Inaray et al. (2000)- West Seno field discovery, Makassar Straits, East Kalimantan, Indonesia. In: P. Weimer et al. (eds.) Deep-water reservoirs of the world, Gulf Coast Section SEPM (GCSEPM) 20th Annual Research Conference, p. 862-876.
(West Seno 1998 Unocal discovery in 730-975m water depth, NE of Mahakam Delta. W Seno 2 discovery well encountered>59m of oil-bearing sandstones, W Seno-1 well >113 m of oil and gas bearing sandstones in adjacent downthrown fault block. Reservoirs M-U Miocene turbiditic channel sandstones, associated with interbedded,

levee-overbank sand/shale sequences, deposited in mid-slope position. Fault and stratigraphically trapped in an updip position. Porosity 22-32%, permeability 150-1500 mD. Oil and gas derived from mainly terrestrial plant organic material. Oils API gravity 35-46°)

Rousseau, M., V. Guerin, F. Sapin, D. Restiadi, C. Malla-Meidianna & J.M. Gaulier (2015)- South Makassar Basin: 3D thermal modeling- implication for future exploration. Proc. 39th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA15-G-262, p. 1-15.
(S Makassar Basin is rift basin initiated in Eocene, subsequently inverted since E Miocene (incl. M Miocene uplift/ inversion in Paternoster High. Three exploration wells found mainly gas, suggesting S Makassar Basin essentially gas prone, but 3D thermal model suggest significant oil rim may exist in periphery of basin)

Ruzuar, A.P., R. Schneider, A.H. Saller & J.T. Noah (2005)- Linked lowstand delta to basin-floor fan deposition, Offshore East Kalimantan: an analogue for deepwater reservoir systems. Proc. 30th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 467-482.
(similar to Saller et al. (2004) AAPG Bulletin paper)

Saller, A. (2013)- Pleistocene shelf-to-basin depositional systems, offshore East Kalimantan, Indonesia: insights into deep-water slope channels and fans. AAPG Distinguished Lecture, 2012-2013 Lecture Series, Search and Discovery Article 50847, p. 1-52. *(Abstract + Presentation)*
(online at: www.searchanddiscovery.com/documents/2013/50847saller/ndx_saller.pdf)
(3D seismic data y of Pleistocene shelf margin, slope and basin offshore E Kalimantan/ Makassar Straits. Clastic sequences on shelf dominated by progradational packages deposited during highstands and falling eustatic sea level. During last two sealevel lowstands (~18 and ~130 ka), coarse lastics generally not deposited in deep-water because lowstand deltas did not prograde over underlying shelf margin. During lowstand of ~240 ka, deltas prograded over previous shelf edge, and sand-rich sediments spilled onto slope. Channel-levee complexes on slopes where deltaic sediment supply was large (paleo-Mahakam River); incised valleys/canyons on slopes with limited clastic input. Basin floor deposits dominated by mass-transport complexes, suggesting slope valleys and canyons formed by mass failures of slope, not erosion associated with turbidite sands)

Saller, A. (2017)- Mixed carbonates and siliciclastics North of the Mahakam Delta, Offshore East Kalimantan, Indonesia. AAPG Annual Convention Exhib., Houston 2017, Poster, Search and Discovery Article 1393, p. 1-5.
(Abstract + Poster presentation)
(online at: www.searchanddiscovery.com/documents/2017/51393saller/ndx_saller.pdf)
(For last 7 My carbonates mixed with siliciclastics N of Mahakam delta. Modern carbonates deposited locally N of delta while large amounts of clastics coming out of delta. Late Pleistocene carbonate mounds (on upthrown side of faults) and shelf margin carbonates (on underlying shelf margins) repeatedly grew during transgressions. During sea level highstands siliciclastics prograded across shelf, covering many carbonates. During last 7 My shelf margins generally backstepping landward N of Mahakam delta. Shales covering carbonates are downlapping packages, generally not effective seals)

Saller, A.H., T. Brown, R.B. Redhead, H.F. Schwing & J. Inaray (2000)- Deepwater depositional facies and their reservoir characteristics, West Seno Field, offshore East Kalimantan, Indonesia. AAPG International Conference Abstracts, American Assoc. Petroleum Geol. (AAPG) Bull. 84, 9, p. 1484-1485. *(Abstract only)*
(Upper Miocene deepwater strata between 7500-8800' in West Seno Field about 27% sand, f-vf-grained and poorly sorted, deposited in middle- upper slope channel-levee complexes. Massive sands best reservoirs (av. porosity 29.3%, perm 630 mD), deposited as channel-fills or splay deposits. 'High resistivity-terrigenous' shales with thin silt and sand laminae interpreted as lowstand overbank deposits. Massive to burrowed, 'low-resistivity-hemipelagic' shales widespread and interpreted as transgressive and highstand deposits. Very thin sheets of coaly fragments locally abundant immediately above and within sand beds)

Saller, A. & I.N.W. Dharmasamadhi (2012)- Controls on the development of valleys, canyons, and unconfined channel-levee complexes on the Pleistocene slope of East Kalimantan. Marine and Petroleum Geology 29, 1, p. 15-34. *(online at:*

https://www.researchgate.net/publication/251543521_Controls_on_the_development_of_valleys_canyons_and_unconfined_channel-levee_complexes_on_the_Pleistocene_Slope_of_East_Kalimantan_Indonesia)
(Contrasting depositional patterns on Pleistocene deepwater slopes of offshore E Kalimantan: (1) in N dominated by deep valleys and canyons (relatively 'starved' for siliciclastic sediment); (2) central slope dominated by unconfined channel-levee complexes (large amounts of sediments from Mahakam Delta during Pleistocene lowstands)

Saller, A., I.N.W. Dharmasamadhi, T. Lilburn & R. Earley (2010)- Seismic geomorphology of submarine slopes; channel-levee complexes versus slope valleys and canyons, Pleistocene, East Kalimantan, Indonesia. In: L.J. Wood, T.T. Simo & N.C. Rosen (eds.) Seismic imaging of depositional and geomorphic systems, Proc. 30th Annual Perkins Research Conference Gulf Coast Section SEPM, Houston, p. 433-471. *(online at: https://www.researchgate.net/publication/283397510_Seismic_Geomorphology_of_Submarine_Slopes_Channel-Levee_Complexes_versus_Slope_Valleys_and_Canyons_Pleistocene_East_Kalimantan_Indonesia)*
(3-D seismic images of Pleistocene deepwater slope channels E of Mahakam Delta. Channel-levee complexes developed where sediment supply was high; erosional channels where siliciclastic input rel. low. Channel-levee complexes become sinuous downslope. Levees decrease in thickness down slope from 200 ms (170 m) on the upper slope to 80 ms (70 m) on the lower slope. Etc.)

Saller, A., R. Lin & J. Dunham (2006)- Leaves in turbidite sands: the main source of oil and gas in the deep-water Kutei Basin, Indonesia. American Assoc. Petroleum Geol. (AAPG) Bull. 90, 10, p. 1585-1608.
(online at: https://www.researchgate.net/publication/249897871_Leaves_in_turbidite_sands_The_main_source_of_oil_and_gas_in_the_deep-water_Kutei_Basin_Indonesia)
(Hydrocarbons in Kutei basin derived from land-plant source material. Leaf fragments in turbidite sandstones look like main source of deep-water oil and gas)

Saller, A. & J. Noah (2005)- Sequence stratigraphy of a linked shelf to basin floor system, Pleistocene, north Kutei Basin, East Kalimantan, Indonesia. Proc. Soc. Exploration Geophysicists (SEG) 2005 Convention, Houston, p. 1-4. *(Extended Abstract)*
(Pleistocene lowstand delta-canyon- basin-floor fan system, 240 ka old. The 18 and 130 ka lowstand deltas did not reach slope)

Saller, A., J.T. Noah, A.P. Ruzuar & R. Schneider (2004)- Linked lowstand delta to basin-floor fan deposition, offshore Indonesia; an analog for deep-water reservoir systems. American Assoc. Petroleum Geol. (AAPG) Bull. 88, 1, p. 21-46.
(online at: https://www.researchgate.net/publication/249897836_Linked_lowstand_delta_to_basin-floor_fan_deposition_offshore_Indonesia_An_analog_for_deep-water_reservoir_systems)
(3D seismic study of Pleistocene lowstand delta- basin floor deposition, offshore E Kalimantan. Reflectors traced downslope from lowstand delta to basin-floor fan in last three Pleistocene cycles (each 110 k.y. in duration). During sea level lowstand at ~240 ka, delta prograded over previous shelf edge and sand-rich sediments spilled onto slope, with slope canyon connecting to coeval basin-floor fan. Canyon fill with lower amalgamated channel complex and upper channel-levee complex. Lower part of basin-floor fan broad lobes with relatively continuous reflectors. Higher part sinuous channel-levee complex that prograded over lower fan and fed sheetlike lobes on outermost fan. Lowstand strata do not onlap slope but extend from last clinoforms of lowstand deltas)

Saller, A., J.T. Noah, R. Schneider & A.P. Ruzuar (2003)- Lowstand deltas and a basin-floor fan, Pleistocene, offshore East Kalimantan, Indonesia. In: H.R. Roberts et al. (eds.) Shelf margin deltas and linked down slope petroleum systems, Proc. 33rd Annual Bob F. Perkins Research Conference, Gulf Coast Chapter SEPM (GCSSEPM), p. 421-439.
(online at: https://www.researchgate.net/publication/300836785_Lowstand_Deltas_and_a_Basin-Floor_Fan_Pleistocene_Offshore_East_Kalimantan_Indonesia)
(U Pleistocene N of Mahakam delta three cycles between ~18 and ~370 ka, defined on shelf by progradational packages, separated by parallel reflectors with carbonate buildups. During lowest of three cycles (~270-370 ka), lowstand delta prograded over underlying shelf margin, and sand-rich sediment spilled downslope, feeding slope-channel complex and basin-floor fan. Pleistocene cycles different from sequences/ systems tracts models defined

in 1980s. Lowstand systems no onlap of slope, but generally parallel reflectors. Cycles best separated at tops of prograding packages (transgressive surfaces))

Saller, A., K. Werner, F. Sugiaman, A. Cebastiant, R. May, D. Glenn & C. Barker (2008)- Characteristics of Pleistocene deep-water fan lobes and their application to an upper Miocene reservoir model, offshore East Kalimantan, Indonesia. American Assoc. Petroleum Geol. (AAPG) Bull. 92, 7, p. 919-949. *(online at: https://www.researchgate.net/publication/249897972_Characteristics_of_Pleistocene_deep-water_fan_lobes_and_their_application_to_an_upper_Miocene_reservoir_model_offshore_East_Kalimantan_Indonesia)*
(Late Pleistocene basin-floor fan seismic study to provide analog for deep-water fields off E Kalimantan. Pleistocene basin-floor fan ~170m thick, 22 km across, and with 18 lobes. Average lobe size 3.8x 7.2 km and 34m thick. Lobes contain sheetlike splays, distributary channels and younger incised channels. U Miocene Gendalo 1020 reservoir composed of turbidite sands draped over anticline. Gross reservoir interval 50-150m thick thin-bedded turbidite sands with net-to-gross ~50%)

Sardjono (1999)- Crustal structure of the Makassar Strait implication for geodynamics processes. Proc. 24th Annual Conv. Indonesian Association Geophysicists (HAGI), Surabaya, p. 3-10.

Sardjono (2000)- Gravity field and structure of the crust beneath the Makassar Strait, Central Indonesia. AAPG International Conference Exhib., Bali. *(Abstract only)*
(Basement of Makassar Strait attenuated continental crustal rocks and probably also parts of upper mantle. Basins with up to 15,000m sediment and water depth of 2000-3000m. SEASAT data show trends and structure of crust, indicating stretching of continental crust in or before Miocene but tectonic polarity changed, probably in Late Miocene. Buckling-up of lower crustal rocks, suggests regional stretching ceased and regional compression prevailing until today. No figures)

Sassen, R. & J.A. Curiale (2006)- Microbial methane and ethane from gas hydrate nodules of the Makassar Strait, Indonesia. Organic Geochemistry 37, 8, p. 977-980.
(White gas hydrate nodules in piston cores from Borneo side of deep water Makassar Strait. Hydrocarbon 99.9% methane and traces of microbial ethane, relatively depleted in 13C. Detrital higher-plant material likely source of microbial methane-ethane, formed by in-situ reduction of CO_2 by extremophile bacteria adapted to high pressure. Hydrate several 100m above base of gas hydrate stability zone. Nodular hydrate associated with seafloor authigenic carbonate and chemosynthetic clams characteristic of deep cold vent sites)

Satyana, A.H. (2015)- Rifting history of the Makassar Straits: new constraints from wells penetrating the Basement and oils discovered in Eocene section- implications for further exploration of West Sulawesi Offshore. Proc. 39th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA15-G-104, p. 1-35. *(online at: https://tektonesiana.files.wordpress.com/2021/06/satyana_rifting_history_makassar_straits_ipa_2015_r.pdf)*
(New basement penetrations in N Makassar Straits by wells: Rangkong-1 and Kaluku-1 suggest basement of Makassar Straits is Paternoster-W Sulawesi microcontinent, thinned due to rifting from E-M Eocene to E Miocene, as response to back-arc rifting related to subduction roll back in SE Sundaland. Eocene rifted grabens and horsts were sites for shallow lacustrine sources, sandstone reservoirs, and traps)

Satyana, A.H., S. Damayanti & C. Armandita (2012)- Tectonics, stratigraphy and geochemistry of the Makassar Straits: recent updates of exploring West Sulawesi offshore, opportunities and risks, Proc. 36th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA12-G-156, p. 1-21.
(online at: https://tektonesiana.files.wordpress.com/2021/06/satyana-et-al_tectonics-stratigraphy-geochemistry-of-west-sulawesi-offshore_ipa_2012_r.pdf
(W part of Makassar Straits prolific petroleum province, sourced and reservoired by Miocene-Pliocene Mahakam deltaic sediments. E part of Makassar Straits very different. Makassar Straits extension began in M Eocene and formed graben/ half-graben above which is important unconformity of probable Late Eocene age, marking top of synrift sequence. Nature of basement still debated in areas. Onshore W Sulawesi seeps and offshore microseeps suggest terrestrial M-L Eocene coals and coaly shales are main source rocks)

Schwing, H.F. (1999)- Deep-water exploration in the Kutei basin, East Kalimantan, Indonesia. Proc. Palawan 99 International Conference, p.

Sebayang, D., E. Guritno & B. September (2004)- Seismofacies comparison of deepwater sequences: Pleistocene to Recent examples from offshore North Sumatra and Kutei Basins, Indonesia. In: R.A. Noble et al. (eds.) Proc. Deepwater and frontier exploration in Asia and Australasia symposium, Jakarta 2004, Indonesian Petroleum Association (IPA), p. 349-360.
(Basic paper on deep water channel-levee complexes)

Teas, P.A., J. Decker, A. Nurhono & A. Isnain (2004)- Exploration significance of high resolution bathymetry in the Makassar Straits. In: R.A. Noble et al. (eds.) Proc. Deepwater and frontier exploration in Asia and Australasia symposium, Jakarta 2004, Indonesian Petroleum Association (IPA), p. 389-397.
(Bathymetric map of Makassar Strait illustrates compression across basin, dominant over past ~15Ma, with surface anticlines on both sides of strait. High resolution resolves slumping of over-steepened forelimb and re-direction of depositional systems. Focused views show areas of active extensional faulting and folding, and submarine mud-volcanoes defining areas of active fluid venting. Tectonic lineaments expressed by changes in slope angle and degree of canyonization. Evidence for recent rapid uplift at N margin of Makassar Strait vs. aggrading canyon systems on W margin)

Sherwood, P., S. Algar, G. Goffey, I. Busono, J.N. Fowler, J. Francois, M.J. Smith & A. Strong (2001)- Comparison of recent and Mio-Pliocene deep water deposits in the Kutei Basin, East Kalimantan. Proc. 28th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 423-438.
(Deepwater Kutei Basin (Makassar Straits) seismic examples of slope and basin floor sediments)

Siringoringo, L.P. & D. Noeradi (2016)- The Paleogene tectonostratigraphy of northern part Masalima Trench Basin. J. Geoscience Engineering Environment Technology (JGEET) 1, 1, p. 7-24.
(online at: http://journal.uir.ac.id/index.php/JGEET/article/view/2/2)
(N part of Masalima Trench Basin in S end of Makassar Straits and extends to NE part of Java Sea. N part of Masalima Trench Basin formed by NE-SW normal faults with early syn rift sediment (M Eocene), deep marine late syn rift (Late Eocene- E Oligocene) and deep marine post rift (E Oligocene- E Miocene). Basement in 'Alpha well' red radiolaria chert, presumably tectonic melange, in 'Beta well' (on high) metasediments with K-Ar age of 131 ± 7 Ma (Lower Cretaceous))

Situmorang, B. (1977)- The Makassar Trough regional geology and hydrocarbon prospects. Lemigas Scientific Contributions 1, 1, p. 3-20.
(N and S Makassar basins originated as continental rift in triple-junction rift-system. Classified as marginal sea, flanked in W by Asian continental margin and by volcanic arc of Sulawesi in E. Strongly positive gravity anomalies suggest it is underlain by oceanic crust. Melawi-Ketungau basins of Kalimantan possible third arm of triple junction rift system. Possible presence of turbiditic reservoir rocks, and favorable conditions for accumulation of organic matter during initial rifting stage of seafloor spreading suggest Makassar basins may be highly prospective)

Situmorang, B. (1982)- The formation and evolution of the Makassar Basin, Indonesia. Ph.D. Thesis, Chelsea College, University of London, p. 1-313. *(Unpublished)*

Situmorang, B. (1982)- The formation of the Makassar Basin as determined from subsidence curves. Proc. 11th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 83-107.
(Subsidence of Makassar Basin compatible with McKenzie stretching model. Basin formation started with rifting in E-M Eocene or earlier, continuing until E Miocene. Rifting ceased by end of E Miocene, and since then >6 km of sediments deposited across basin without significant deformation. Oceanic crust will occur at stretching factor of 2.9, corresponding to present water depth of >3.2 km. No such water depths, so basin underlain by thinned continental crust (but includes sediment thickness?; JTvG))

Situmorang, B. (1984)- Formation, evolution, and hydrocarbon prospects of the Makassar Basin, Indonesia. In: S.T. Watson (ed.) Transactions Third Circum-Pacific Energy and Mineral Resources Conference, Honolulu 1982, American Assoc. Petroleum Geol. (AAPG), p. 227-232.
(Makassar Straits subsidence explained by stretching of continental crust by factor of 2.0- 2.9. Initial fault-controlled subsidence started in E-M Eocene, or possibly earlier. Active crustal stretching lasted until end of Early Miocene; thermally controlled subsidence since M Miocene. Predicted crustal thickness in central part of basin 15 km. Assuming heatflow of 1.6 HFU Pre-Lower Miocene reached maturity for hydrocarbon generation. With seismic profile 605)

Situmorang, B. (1987)- Seismic stratigraphy of the Makassar Basin. Lemigas Scientific Contribution, Petroleum Science Technology 10, 1, p. 3-38.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/895)
Three main discontinuity surfaces in Cenozoic sediments of seismic lines across N and S Makassar Straits basin. Rel. poor seismic data)

Situmorang, B. (1989)- Crustal structure of the Makassar basin as interpreted from gravity anomalies: implications for basin origin and evolution. Lemigas Scientific Contributions 13, 1, p. 10-24.
(Gravity, well subsidence data and seismic data of (South) Makassar Basin interpreted to suggest it is underlain by highly attenuated continental crust with average thickness of 15km (but central zones of line A-A' in South Makassar basin E of Paternoster Platform modeled as ~8-9 km crustal thickness= oceanic crust thickness?; JTvG). Continental rifting during M Eocene- E Miocene, followed by thermal subsidence)

South, D., G. Toxopeus & B. Myhren (2013)- Karama PSC well results-a lesson learned on provenance and seismic imaging of deepwater systems. Proc. 37th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA13-G-070, p. 1-7.
(Karama block off W Sulawesi in N Makassar Strait multiple prospects (bright seismic amplitudes in Late Miocene- E Pliocene section in young foldbelt structures). Sediments sourced from Sulawesi hinterland, with deep-water fans and debris flow identified from 3D seismic data. Three wells drilled on interpreted sand fairways showed bright seismic amplitudes not sand but siltstones, greywacke sandstones with no to poor reservoir properties)

Subroto, E.A., D. Noeradi, A. Priyono, H.E. Wahono, E. Hermanto & M. Syaifuddin (2007)- Preliminary study on Paleozoic and Mesozoic source rocks in the frontier offshore South Makassar basin, Indonesia. In: Y. Wang & T.D. Bullen (eds.) Proc. 12th Int. Symposium on Water-rock interaction, Kunming 2007, Taylor and Francis, London, 2, Chapter 188, p. 905-908.
(Oil and gas known from onshore and offshore S Makassar Basin, but source rocks not established yet. Most likely source in basin Eocene- Oligocene sediments and possibly also Miocene. Samples from exploration wells suggest most samples have not reached oil window. Basin modeling suggest Eocene sediments mature from peak oil to dry gas window, Miocene sediments range from barely mature to peak of oil generation (Misleading title?; JTvG))

Sutadiwiria, Y., A.H. Hamdani, Y.A. Sendjaja, I. Haryanto, Y. Siahaan & M. Siahaan (2019)- Palaeofacies and biomarker characteristics of Paleogene to Neogene rocks in the Makassar Straits, Indonesia. Geologos 25, 1, p. 75-90.
(online at: http://www.geologos.com.pl/pdf/Geologos-25-1-06-Sutadiwiria.pdf)
(Kaluku-1 exploratory well drilled in N Makassar Basin in 2011. Gas chromatography (GC) and GC-MS analyses of extracts. Biomarkers indigenous to rocks include oleanane, bicadinanes, taraxastane and other higher-plant-derived triterpanes, showing widespread reworking (or transport?) of terrestrial plant material into aquatic settings during Paleogene and Neogene. Little 'in-situ' marine organic material)

Sutadiwiria, Y., A. H. Hamdani, Y.A. Sendjaj, I. Haryanto, Y. Siahaan & M. Siahaan (2019)- Palaeofacies and biomarker characteristics of Paleogene to Neogene rocks in the Makassar Straits, Indonesia. Geologos 25, 1, p. 75-90.
(online at: https://sciendo.com/article/10.2478/logos-2019-0006)

(Borehole K-1 (Kaluku 1?) exploratory well drilled in N Makassar Basin in 2011. Biomarkers include oleanane, bicadinanes, taraxastane and other higher-plant-derived triterpanes demonstrate extent of reworking of terrestrial plant material into marine settings during Paleogene and Neogene)

Sutadiwiria, Y., I.S. Ronoatmojo, M.T. Fathaddin, Rendy, C.P. Riyandhani, A.H. Yusuf, A A. Cifa et al. (2025)- The influence of asymmetrical formation from Makassar Basin to the geochemical characteristics of Mallawa Formation. J. Geoscience Engineering Environment Technology (JGEET) 10, 3, p. 1-10.
(online at: https://journal.uir.ac.id/index.php/JGEET/article/view/22993/8646)
(Organic geochemistry of Eocene Mallawa Fm clastic sediments in K-1 and YS-3 wells (not real names?) in SE Makassar Straits)

Tanos, C.A. (2011)- Diagenetic effects on reservoir properties in a carbonate debris deposit: case study in the Berai Limestone, "M" Field, Makassar Strait, Indonesia. Bull. Earth Sciences Thailand (BEST) 4, 2, p. 17-24.
(online at: https://ph01.tci-thaijo.org/index.php/bestjournal/article/view/246512)
(S Makassar Straits 'M' gas field (= Ruby/ Makassar Straits) in Oligocene- E Miocene Berai Fm carbonate slope debris reservoirs. With multistage diagenetic and tectonic evolution, incl. phase of late deep burial leaching)

Tanos, C.A., J. Kupecz, A.S. Hilman, D. Ariyono & I.L. Sayers (2013)- Diagenesis of carbonate debris deposits from the Sebuku Block, Makassar Strait, Indonesia. Proc. 37th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA13-G-159, p. 1-18.
(Ruby Field, SW Makassar Strait, will be developed from Late Oligocene carbonate debris flow reservoirs. Reservoir facies mainly matrix- and clast-supported breccias. Debris deposits correspond to two global sea level lowstands (Chattian-1; 28 Ma) and Burdigalian-1; 20 Ma). Adjacent feature (NW Ruby-1) unexpectedly dry, and, unlike Ruby Field, did not undergo extensive late dissolution, and may also have been isolated from lateral hydrocarbon migration)

Tanos, C.A., J. Kupecz, S. Lestari, J.K. Warren & A. Baki (2012)- Depositional and diagenetic effects on reservoir properties in carbonate debris deposits: comparison of two debris flows within the Berai Formation, Makassar Strait, Indonesia. AAPG International Conference Exhib., Singapore 2012, Search and Discovery Article 50768, p. 1-29. *(Abstract + Presentation)*
(online at: www.searchanddiscovery.com/documents/2012/50768tanos/ndx_tanos.pdf)
(After successful gas discovery and appraisal of Makassar Straits field (= Ruby) in Late Oligocene Upper Berai Fm bathyal debris flow carbonate reservoir in Pangkat Graben, S Makassar Basin, a subsequent exploration well in adjacent NW-1 feature was unexpectedly dry. Differences in post-depositional diagenesis explain better reservoir quality in Ruby field)

Tanos, C.A., A.D. Oktaviani, Tiara, Y. Kusnandar & U. de Tulio (2023)- Ruby Field cores- the only proven carbonate debris flow play in Indonesia. Proc. 47th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA23-G-01, p. 1-7.
(Ruby Field in S Makassar Basin with gas-bearing reservoir in Late Oligocene U Berai Fm carbonate, re-deposited in deep-water environment. Two dominant: matrix-dominated (most common) and clast-dominated breccias. Average porosity 15%. Discovered by Ashland in 1974, operated by Mubadala Energy since 2012))

Teague, R., J.T. Noah, R. Redhead, M. Swanson, T. Brown & N. Briedis (1999)- Merah Besar and West Seno Field discoveries, Makassar Strait, East Kalimantan, Indonesia. AAPG International Conference Exh. Abstracts, American Assoc. Petroleum Geol. (AAPG) Bull. 83, 8, p. 1343.
(First Indonesia deep water discoveries by Unocal in 1996 and 1998 in toe-thrust anticlines with stratigraphic trapping components. Merah Besar in 1700' - 2700' of water, 40 km^2, productive reservoirs between 4000-9500' TVD in Pliocene and Upper Miocene upper to mid-slope turbidite channel-levee sandstones. West Seno in 2400-3200' of water, ~70 km^2, with hydrocarbons between 7000' -9500' TVD, where Upper and M Miocene sandstones are faulted and stratigraphically trapped in updip position. Sandstones rel. continous and interpreted as amalgamated turbidite channels capped by hemipelagic shales. Porosity 24-32%, permeability 150-1500 md. Sandstones quartzose and mainly fine grained. Miocene oils and Pliocene and Miocene gases derived from similar source facies of land plant-dominated organic material. Oils API gravity 35-46 degrees)

Thompson, P., J.J. Hartman, M.A.A. Anandito, D. Kumar et al. (2009)- Distinguishing gas sand from shale/brine sand using elastic impedance data and the determination of the lateral extent of channel reservoirs using amplitude data for a channelized deepwater gas field in Indonesia. The Leading Edge 28, 3, p. 312-317.
(Chevron Sadewa Field 2002 discovery in Makassar Straits NE of Mahakam Delta, ~5 km from Kalimantan shelf edge in water depths of 1500-2500'. Reservoirs Late Miocene deep water channel sandstones. Nine wells drilled. Very expensive development. Propose using elastic impedance data for distinguishing gas sands)

Untung, M., J. Taruno, A. Maulana, P. Kridoharto & S. Sukardi (1985)- Explanatory note on preliminary aeromagnetic map of the Makassar Strait. Proc. 20th Session Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Kuala Lumpur 1983, 2, Technical Reports, p. 199-209.
(online at: https://repository.unescap.org/items/904fe6cc-d317-490d-8289-296e15f5d015)
(Airborne magnetic survey over Makassar Straits shows two areas of different character, separated by Paternoster Arch: (1) high anomalies of quiet magnetization in N Makassar Basin (interpreted to be oceanic crust) and (2) low to high anomalies of noisy character in S Makassar Basin. Possible Middle Tertiary spreading center in area of high anomalies)

Utomo, R., C.A. Tanos, Y. Kusnandar, B. Wikrama & A.S. Hilman (2021)- Unlocking the complex geology & petroleum systems; efforts to awakening the sleeping giant - A prospectivity rejuvenation case study of West Sebuku Block, South Makassar Basin, Indonesia. Proc. 45th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA21-G-25, p. 1-22.
(Review of exploration potential of lightly-explored area in South Makassar Basin around Ruby gas field. New 2018 seismic enabled imaging of well-developed Late Eocene platform carbonates and Basement. Middle and Late Eocene (48-37 Ma)Makassar Straits rifting. Episodic transpressional events at ~20-17 Ma and 12 Ma in Pangkat Graben (not in main S Makassar Basin; inversion structures reactivating existing extensional faults)

Van Gorsel, J.T. & E.C. Helsing (2014)- A Late Oligocene drowned pinnacle reef in deepwater Makassar Straits. Berita Sedimentologi 29, p. 116-122.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/147)
(Carbonate seamount with 320-350m of relief in 2050m deep water of S Makassar Straits is Late Oligocene-age pinnacle reef, which drowned in latest Oligocene time, based on presence of Miogypsinoides cf. bantamensis near crest and Spiroclypeus and Neorotalia mecatepecensis deeper in section. Carbonate buildup covered with ferro-manganese crust, representing >20 Million years of deep water seafloor exposure and non-deposition)

Visser, K., R. Thunell & M.A. Goni (2004)- Glacial- interglacial organic carbon record from the Makassar Strait, Indonesia: implications for regional changes in continental vegetation. Quaternary Science Reviews 23, 1-2, p. 17-27.
(Climate in W Pacific Warm Pool 3-4°C colder during glacial periods. Core MD9821-62 from Makassar Strait suggests vegetation on Borneo and other islands did not significantly change from tropical rainforest during last two glacial periods. This supports hypothesis that winter monsoon increased in strength during glacial periods, allowing Indonesia to maintain high rainfall despite cooler conditions. Organic matter mixed marine-terrestrial; higher TOC during glacials due to enhanced erosion of continental shelves)

Wardiany, A., A. Civa, C. Nini, D.S. Purnomo, H.I. Priyonggo & K. Nasif (2025)- Geng North discovery in deep water Kutei Basin. Proc. 49th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA25-SS-412, p. 1-8.
(Major 2023 ENI gas discovery in Geng North-1 exploration well, N Ganal Block, ~85 km offshore E Kalimantan, Estimated > 5 TCFof thermogenic gas and 400 MB condensate. Well reached total depth of 5025m in 1947m of water. With ~50 m of gross gas pay in Upper Miocene turbiditic sandstone lobe excellent reservoir)

Wijaya, P.H. & D. Kusnida (2009)- Tinjauan geotektonik Selat Makassar Utara, implikasinya terhadap potensi hidrokarbon laut dalam cekungan Kutai, Kalimantan Timur. J. Geologi Kelautan 7, 3, p. 109-121.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/176/166)

('The geotectonic views of the North Makassar Straits, its implications for the potential of marine hydrocarbons in the Kutai basin, East Kalimantan'. Literature review of geotectonic evolution of Makassar Straits and potential for hydrocarbons in deepwater Makassar Straits in toe thrusts around Mahakam Delta. Seismic character, water depths, gravity modeling, etc. suggest much of Makassar Straits, including Mahakam Delta, is underlain by oceanic crust, as continuation of Eocene oceanic spreading in Celebes Sea)

Willacy, C., S. Oemar, A.E. Hermantoro & P. Gilleran (2000)- Prestack depth imaging within Makassar Straits, Eastern Kalimantan. Proc. 27th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 457-466.
(Prestack depth migration of deepwater E Kalimantan seismic line with complex overthrusting)

Wissman, G. (1984)- Makassar Strait- Celebes Sea Survey- data compilation and interpretation of cruises VALDIVIA 16/1977 and SONNE 16/1981. In: Bundesanstalt Geowissenschaften Rohstoffe (BGR), Technical Report 97210, Hannover, p. 1-210. *(Unpublished)*
(BGR 1977 and 1981 seismic surveys in Makassar Straits and Celebes Sea, part of SEATAR campaign)

Wissmann, G. (1984)- Is Sulawesi colliding with the Paleogene rifted margin of eastern Kalimantan? A hypothesis deduced from seismic reflection profiles in the Makassar Straits- Celebes Sea. In: Bundesanstalt Geowissenschaften Rohstoffe (BGR), Technical Report 97210, Data compilation and interpretation of cruises, Valdivia, 16/1977 and Sonne 16/1981, p. . *(Unpublished)*

Yulianto, I., M.J. Perdana, L.Sativa, L. Baruffini & D. Care (2023)- Characteristics of the upper and lower slope, Pliocene turbidite reservoirs in deepwater Kutei Basin: case study of Jangkrik, Jangkrik Ne, and Merakes core samples. Proc. 47th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA23-G-04, p. 1-10.
(Gas discoveries by ENI in Pliocene Jangkrik Complex in deepwater Kutei Basin, SE of Mahakam Delta: Jangkrik in 2009, Jangkrik NE in 2011 and Merakes field in 2014. Jangkrik & Jangkrik NE reservoirs interpreted as upper slope channel complexes; Merakes reservoir is lower slope fan with channel-levee deposits. Seven facies recognized from three Pliocene core samples)

Yusuf, A.H., A.Y. Puteri, A.A. Cifa, Y. Sutadiwiria & Rendy (2024)- Geochemical characteristics of the Mallawa Formation, and its relationship with the history of source rock formation in the South Makassar Basin, South Sulawesi. Proc. 1st Int. Conference on Environment, Green Technology, and Digital Society (INTERCONNECTS 2023), E3S Web of Conferences 500, 03038, p. 1-14. *(online at: https://www.e3s-conferences.org/articles/e3sconf/pdf/2024/30/e3sconf_interconnects2024_03038.pdf)*
(Geochemistry of cuttings samples fromn unidentified offshore oil exploration well, drilled W of Tanakeke Island, S Makassar Straits: pre-rift Balangbaru Fm (latest Cretaceous- Danian? marine clastics and tuffs; very poor source rock) and synrift Mallawa/ Toraja Fm (non-marine mudstones-coals of M Eocene; very good-excellent source)

V. SULAWESI

V.1. Sulawesi

Abendanon, E.C. (1911)- De tektoniek van Midden Celebes. Handelingen XIII Nederlandsch Natuur-Geneeskundig Congres, Groningen 1911, Kleynenberg, Haarlem, p. 389-406.
(online read only at: http://babel.hathitrust.org/cgi/pt?id=uc1.b3093404;view=1up;seq=999)
('The tectonics of Central Sulawesi'. First summary of geology and tectonics of C Sulawesi after initial reconnaissance of Sarasin cousins. C Sulawesi mainly volcanics and metamorphic rocks. Presence of major faults)

Abendanon, E.C. (1912)- Zur Umrissform der insel Celebes. Zeitschrift Deutschen Geologischen Gesellschaft, Berlin, 64, Monatsberichte 5, p. 266-277.
(online at: https://www.biodiversitylibrary.org/item/150869#page/1036/mode/1up)
('On the outline of Sulawesi'. Early interpretation of tectonic zones and fault patterns of Sulawesi; partly critique of papers by Ahlburg and Von Staff)

Abendanon, E.C. (1912)- Eine Nachschrift „Zur Umrissform von Celebes". Zeitschrift Deutschen Geologischen Gesellschaft 64, Monatsberichte 11, p. 512-516.
(online at: https://www.biodiversitylibrary.org/item/150869#page/1288/mode/1up)
(Follow-up of Abendanon (1912) paper on outline of Sulawesi. No figures)

Abendanon, E.C. (1915)- Celebes uit, of in de Tethys? Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 32, p. 358-365.
(online at: https://resolver.kb.nl/resolve?urn=MMUBA13:001661001:pdf)
(Scathing critique of observations and conclusions of Waterschoot van der Gracht (1915) paper on C Sulawesi, based on his 11 days of geological fieldwork and literature study. Eocene Nummulites limestones overlie purple-red globigerinid-bearing clay-shales, not interbedded with but them. Red shales likely of Late Cretaceous age, not Eocene. Etc. etc.)

Abendanon, E.C. (1915)- Midden Celebes Expeditie- Geologische en geographische doorkruisingen van Midden-Celebes (1909-1910). E.J. Brill, Leiden, vol. I, p. 1-451.
(online at: https://resolver.kb.nl/resolve?urn=MMKB02:100003010:pdf)
('Geologic and geographic traverses of Central Sulawesi (1909-1910)'. First of 4 volumes + Atlas of classic first geological reconnaissance traverses of C Sulawesi, sponsored by Royal Dutch Geographical Society (KNAG). With 7 maps and 22 cross-sections in Atlas volume. Vol. I with reports of rock observations on 1909 traverses of Latimojong Mts, Saadang, Masupu and Mamasa Rivers, and Rante Pao- Palopo. Metamorphic rocks, M Eocene Nummulites limestones volcanics, etc.))

Abendanon, E.C. (1915)- Midden Celebes Expeditie- Geologische en geographische doorkruisingen van Midden-Celebes (1909-1910). E.J. Brill, Leiden, vol. II, p. 453-944.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMUBL07:000004749:00015)
(Continuation of 1909- 1910 fieldwork report, with traverses of Malili River, Matana Lake, Kolonodale (areas with widespread 'peridotite plate', ~1000m thick, overlying Mesozoic?, also gabbro, some radiolarite, etc.). Also Poso Depression (metamorphics, incl. glaucophane schist), Koro to Lariang (common metamorphics, volcanics), Sarasin graben, Pare Pare, Donggala, etc. Folded schist in C Sulawesi commonly steeply dipping and strike in E-W direction. Page 823: Post-Eocene folding followed by Oligocene peneplanisation, followed by Neogene folding and uplift up to 2000m. With 6 maps and 21 cross-sections in Atlas volume)

Abendanon, E.C. (1917)- Midden Celebes Expeditie- Geologische en geographische doorkruisingen van Midden-Celebes (1909-1910). E.J. Brill, Leiden, vol. III, p. 953-1381.
(online at: https://resolver.kb.nl/resolve?urn=MMKB02:200000040:pdf)
(Volume with reports on palaeontology:(1) brief note by G.J. Hinde on poorly preserved Late Mesozoic radiolaria ('reminescent of radiolarian cherts from U Kapuas region of N Kalimantan'; 'probably not older than Jurassic') and small foraminifera, (2) G.F. Dollfus on identifications of Cretaceous - Tertiary fossils (incl. M Eocene larger

foraminifera Nummulites, Alveolina, Orthophragmina (= Discocyclina), Pellatispira and molluscs). Also extensive report on petrography of igneous and metamorphic rocks by W.F. Gisolf)

Abendanon, E.C. (1917)- Midden Celebes Expeditie- Geologische en geographische doorkruisingen van Midden-Celebes (1909-1910). E.J. Brill, Leiden, vol. IV, p. 1383-1902.
(online at: https://www.delpher.nl/nl/boeken/)
('Synthesis volume' on rock types and stratigraphy (incl. gneiss, thick series of ?Precambrian schists, >1000m thick ?Triassic peridotites with 'shell' of associated basic igneous gabbro, diabase, tuffs and deep marine red radiolarite, U Cretaceous claystones, granite laccoliths, M Eocene clastics with coal and Nummulites limestone, E Tertiary tuffs, E Miocene reefal limestones, Mio-Pliocene volcanics, etc.), and tectonics of Sulawesi. Final chapters on Recent freshwater molluscs and fishes, economic geology and historic maps)

Abendanon, E.C. (1916-18)- Voyages geologiques et geographiques a travers la Celebes centrale. Brill, Leiden. 3 volumes + Atlas, p. 1-1549.
(vol. 3 online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:044099000:00001)
('Geologic and geographic travels across Central Sulawesi'. French translation of Dutch Abendanon books, above)

Abendanon, E.C. (1916)- De oude beddingen der Beneden-Saadang River. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 33, 3, p. 429-449.
(online at: https://www.delpher.nl/nl/tijdschriften/view?identifier=MMUBA13:001662001:00006)
('The old courses of the Lower Sadang River'. Sadang River in SW Sulawesi now drains W into Makassar Straits, but river shifted 25 km N from old Sadang delta at Jampua 50 years ago. Diversion appears to point to ~5m of uplift in last 50 years)

Abendanon, E.C. (1916)- Schetskaart van Midden-Celebes. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 33, 2p.
(online at: https://www.delpher.nl/nl/tijdschriften/view?identifier=MMUBA13:001662001:00006)
('Overview map of Central Sulawesi'. Also reprint of map IX in Abendanon (1915-1917))

Abendanon, E.C. (1916)- De geomorphologische beteekenis der basische stollingsgesteenten in het middendeel van den Ned.- Ind Archipel. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 33, 5, p. 742-749.
(online at: https://resolver.kb.nl/resolve?urn=MMUBA13:001662001:pdf)
('The geomorphologic meaning of the basic igneous rocks in the central part of the Netherlands Indies archipelago'. The 7000 km^2 large peridotite massif of Verbeek Mountains in C Sulawesi enveloped by gabbroid rocks, then diabase, diabase breccias and diabase tuffs (this description of peridotite-gabbro-basalt succession is an interesting early observation of the now well-known upper mantle- oceanic crust sequence; HvG). Assumes pre-Triassic age. Similar relationships described from 5 other of peridotite cores with gabbro-diabase envelopes: Halmahera-Waigeo, Obi, Ambon- East Ceram, Timor-Moa and Sumba (latter problematic?))

Abendanon, E.C. (1916)- Een palaeogeographische gevolgtrekking in verband tot de kristallijne schisten-formatie van Midden Celebes. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 3 (Molengraaff volume), p. 171-190.
(online at: https://ia601908.us.archive.org/30/items/verhandelingenva3191geol/verhandelingenva3191geol.pdf)
('A paleogeographic conclusion from the crystalline schist formation of Central Sulawesi'. C Sulawesi belt of metamorphic rocks between Bone Gulf and Tomini Bay interpreted as part of larger Precambrian Asian-Australian continent, with proposed name of 'Aequinoctia'. Started to break up in Permo-Carboniferous)

Abendanon, E.C. (1917)- Historische geologie van Midden-Celebes. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (KNAG) 34, p. 440-456 and p. 547-564.
('Historical geology of Central Sulawesi'. Write-up of presentation on geology of Central Sulawesi for KNAG)

Abendanon, E.C. (1918)- Ontdekking van belangrijke delfstoffen-afzettingen in Ned.-Indie (Midden-Celebes) op grond van een geologischen verkenningstocht. De Ingenieur, Delft, 1918, 33, 7, p. 107-121.

(reprint online at: https://resolver.kb.nl/resolve?urn=MMKB31:037072000:pdf)
('Discovery of important mineral deposits in the Netherlands Indies (Central Sulawesi) based on a geological reconnaissance trip'. First report on presence of lateritic iron, nickel and chrome deposits associated with peridotites in the 'Verbeek Mountains' near Matano and Towuti lakes)

Abendanon, E.C. (1918)- De ijzer-, nikkel- en chroomertsen op Midden-Celebes. Voordracht 'Nederlandsche Afdeeling Maatschappij van Nijverheid en Landbouw, The Hague, November 1918, Reprint from 'De Indische Mercuur' 1918, De Bussy, Amsterdam, p. 1-64.
(read online at: https://uvaerfgoed.nl/beeldbank/en/xview/?identifier=hdl:11245/3.31308)
('The iron, nickel and chromium ores in Central Sulawesi'. Extensive documentation of a presentation on the occurrences, chemistry and mining feasibility of nickel-iron-chromium ores associated with peridotites-serpentinites in Central Sulawesi, held in The Hague in November 1918)

Abendanon, E.C. (1919)- Midden-Celebes, een antikritiek. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 36, p. 49-97.
(online at: https://resolver.kb.nl/resolve?urn=MMUBA13:001665001:pdf)
('Central Sulawesi, a reply'. Reply to extensive critical discussion of Abendanon 1916-1918 Sulawesi volumes by Wing Easton (1918), 'Rustig of dansend Celebes')

Abendanon, E.C. (1920)- Een jong-palaeozoisch en een devonisch fossiel van Celebes? De Ingenieur, Jaargang 35, No. 1920-5 (31 January 1920), p. 79-80.
(online at: https://www.delpher.nl/nl/tijdschriften/ Etc.)
('A Late Paleozoic and a Devonian fossil from Sulawesi?' First letter to the journal editor, questioning two communications by Brouwer (1919) reporting occurrences of a Permian Popanoceras ammonite and a Devonian Spirifer brachiopod, from an unknown location believed to be in Kalosi region of C Sulawesi). Abendanon questions the Sulawesi origin of these fossils, partly because he visited the region and never came across Paleozoic deposits)

Abendanon, E.C. (1921)- Een jong-palaeozoisch en een devonisch fossiel van Celebes? De Ingenieur, Jaargang 36, No. 1921-5 (29 Januari 1921), p. 102-103.
(online at: https://www.delpher.nl/nl/tijdschriften/ Etc.)
('A Late Paleozoic and a Devonian fossil from Sulawesi?' Follow-up letter to Abendanon (1920) critque of Brouwer(1919) report of Paleozoic/Devonian fossils from Sulawesi)

Abendanon, E.C. & S.J. Vermaes (1915)- Nota's betreffende het voorkomen van nikkel- en ijzerertsen in het Verbeek-Gebergte tusschen Midden-Celebes en het Zuidoostelijke Schiereiland. The Hague, p. 1-45.
(read online at: https://uvaerfgoed.nl//beeldbank/xview?identifier=hdl:11245/3.34859)
('Reports on the occurrences of nickel and iron ores in the Verbeek Mountains between Central Celebes and the SE Peninsula'. Report by Abendanon on geology and by Vermaes on chemical analyses. Results suggest presence of exploitable nickel and iron ore deposits in drainage area of the Malili River. With one map)

Adam, J.W.H. (1922)- Over de resultaten eener proefontginning van nikkelertsafzetingen nabij Soroako (Celebes). Jaarboek Mijnwezen Nederlandsch Oost-Indie 49 (1920), Verhandelingen 1, p. 201-249.
(Results of test exploitation of nickel ore deposits near Soroako on S side of Matano lake, central East Sulawesi. Nickel ore on weathered surface of large peridotite body (mainly dunite). Concentrations of nickel ore typically 3-4% Ni, some over 7%, not as high as New Caledonia)

Adam, M., A. Jaya, M. Mawaleda & I. Nur (2024)- Geology and characteristics of epithermal gold mineralization at the Motongkad Prospect, North Sulawesi, Indonesia. Gospodarka Surowcami Mineralnymi (Mineral resources management; Krakow, Poland) 40, 1, p. 213-232.
(online at: https://gsm.min-pan.krakow.pl/pdf-175245-107427?filename=Geology-and-characteristi.pdf)
(Epithermal gold mineralization in Motongkad prospect, East Bolaang Mongondow Regency. Hosted in M Miocene andesitic-basaltic breccia, lava and tuff, intruded by andesite dikes. Fine quartz veins with gold, silver and pyrite. Part of Tertiary W Sulawesi and Quaternary Minahasa-Sangihe volcanic arc)

Adhitiya, R., S.S. Angkasa, V. Oryzavica, A.R. Parinduri, D. Wirasatia & R. Adiarsa (2010)- Re-appraisal, tectonic and sedimentary control of Bone Basin and implication to Cenozoic multi hydrocarbon play. Proc. 39th Annual Conv. Indonesian Association Geologists (IAGI), Lombok, PIT-IAGI-2010-088, p. 1-12. *(In Indonesian) (online at: www.iagi.or.id/web/digital/12/2010_IAGI_Lombok_Re-Apraisal,-Tectonic-and-Sedimentary.pdf) (Literature summary of S Sulawesi Bone Basin, borrowing heavily from Yulihanto 2004)*

Advokaat, E.L. (2015)- Neogene extension and exhumation in NW Sulawesi. Ph.D. Thesis Royal Holloway University of London, p. 1-347. *(Unpublished)*

Advokaat, E., R. Hall, L. White, R.A. Armstrong, B.P. Kohn & M. BouDagher-Fadel (2014)- Neogene extension and exhumation in NW Sulawesi. American Geophysical Union (AGU), Fall Meeting, San Francisco, T43A-4701, 1p. *(Poster + Abstract) (online at: www.researchgate.net/publication/269722353_Neogene_Extension_and_exhumation_in_NW_Sulawesi) (Crustal extension important in Neogene development of Sulawesi. North Arm with Eocene- Lower Miocene basalts intercalated with radiolarian chert and volcaniclastics, intruded by granitoids with zircon ages from~9.4-8.2 Ma. Beneath these rocks is Malino Metamorphic core complex quartzo-feldspathic schist-gneiss with zircon rim ages of ~15.4 Ma, surrounded by discontinuous greenschist carapace, intruded by granitoids with ages of 4.9- 3.8 Ma. Late stage exhumation by high angle oblique normal faults between ~3.3 and 1.4 Ma. E Pliocene- E Pleistocene sediments crosscut by normal faults. Two phases of extension in N Sulawesi: M Miocene and Late Pliocene-Pleistocene)*

Advokaat, E., R. Hall, L. White, I.M. Watkinson, A. Rudyawan & M.K. BouDagher-Fadel (2017)- Miocene to Recent extension in NW Sulawesi, Indonesia. J. Asian Earth Sciences 147, p. 378-401.
(online at: https://www.academia.edu/76593139/Miocene_to_recent_extension_in_NW_Sulawesi_Indonesia) (Malino Metamorphic Complex (MMC) in W part of N Arm of Sulawesi previously thought to be metamorphic complex exhumed in E-M Miocene. New data suggest MMC metamorphic core complex underwent E-M Miocene extension, but no exhumation at this time: (1) Pliocene undeformed granitoids intrude MMC indicating complex still at depth and (2) Pliocene- Pleistocene cover sequences do not contain metamorphic detritus. Second phase of extensional uplift with brittle faulting from Late Miocene-Pliocene onwards, with MMC exhumation (synchronous exhumation of adjacent Palu Metamorphic Complex in W Sulawesi, and rapid offshore subsidence in Gorontalo Bay). Linked to N-ward slab rollback of S-subducting Celebes Sea since Pliocene, and ongoing at present day)

Aernout, W.A.J. (1927)- Enkele opmerkingen over de ertsmijn "Paleleh". De Mijningenieur 8, 9, p. 135-141.
('Some remarks on the ore mine 'Paleleh', North Sulawesi)

Agard, P., P. Yamato, L. Jolivet & E. Burov (2009)- Exhumation of oceanic blueschists and eclogites in subduction zones: timing and mechanisms. Earth-Science Reviews 92, p. 53-79.
(Review of buoyancy-driven exhumation of continental rocks that converted to blueschist-eclogite in subduction zone exhumation. With brief discussion of Sulawesi Cretaceous Bantimala Complex, which represents exhumed wedge of Cretaceous subduction and is mainly made of mafic bodies and volcanoclastics, with eclogite blocks embedded in serpentinites. Ultramafic units occupy internal position)

Ahlburg, J. (1910)- Uber den geologischen Aufbau von Nordcelebes. Zeitschrift Deutschen Geologischen Gesellschaft, Berlin, 62, Monatsberichte 3, p. 191-202.
(online at: https://archive.org/details/zeitschriftderd621910deut)
('On the geological structure of North Sulawesi')

Ahlburg, J. (1910)- Der Vulkan Soputan in der Minahassa (Nordcelebes). Zeitschrift Deutschen Geologischen Gesellschaft, Berlin, 62, p. 665-668.
(online at: https://www.zobodat.at/pdf/Z-dtsch-Geol-Ges_62_0665-0668.pdf)
('The Soputan volcano in the Minahassa (North Sulawesi)'. Mainly reaction to critical comments by Wichmann. Ahlburg climbed Soputan in June 1909, observing changes in top of volcano after 1838 eruption.No figures)

Ahlburg, J. (1911)- Zur Umrissform der insel Celebes. Einige Bemerkungen zu dem gleichlautenden Aufsatze des Herrn Von Staff. Zeitschrift Deutschen Geologischen Gesellschaft, Berlin, 63, p. 399-405.
(online at: https://www.biodiversitylibrary.org/item/182872#page/1097/mode/1up)
('On the outline of Sulawesi- some remarks on the paper of Mr. Von Staff of the same title'. Commentary on by Von Staff (1911) paper on tectonic zones and fault patterns of Sulawesi. No figures (see also Abendanon 1912))

Ahlburg, J. (1911)- Nochmals der Vulkan Soputan in der Minahassa. Zeitschrift Deutschen Geologischen Gesellschaft, Berlin, 63, p. 505-507.
(online at: https://www.zobodat.at/pdf/Z-dtsch-Geol-Ges_63_0505-0507.pdf)
('Once more the Soputan volcano in the Minahassa (North Sulawesi)'. Presumably response to Wichmann (1919 critique. No figures)

Ahlburg, J. (1913)- Versuch einer geologischen Darstellung der Insel Celebes. Geologische Palaeontologische Abhandlungen, Neue Folge 12, 1, p. 3-172.
(online at: https://archive.org/details/geologischeundpa12jena/page/n9/mode/2up)
(also online at: www.zobodat.at/pdf/Geol-pal%C3%A6ontol-Abh_NF_12_0003-0172.pdf)
('Attempt of a geological description of Sulawesi island'. Early overview of Sulawesi geology, partly based on observations on North arm along Tomini Bay in 1909, partly compilation of published data. (S Sulawesi part criticized by Van Waterschoot van der Gracht 1915))

Ahmad, W. (1978)- Geology along the Matano Fault Zone, East Sulawesi. In: S. Wiryosujono & A. Sudradjat (eds.) Proc. Regional Conference Geology and Mineral Resources of SE Asia (GEOSEA), Jakarta 1975, Indonesian Association Geologists (IAGI), p. 143-150.
(170km long, WNW-ESE trending Matano Fault Zone in N part of SE Arm of Sulawesi. Lake Matano graben-like structure between overstepping fault segments. Observed left-lateral offsets of old geologic contacts ~20km; several young stream offsets of 200-600m)

Akbar, K., A.S. Subandrio & Masri (2023)- Studi mineralisasi kromit podiform pada kompleks ofiolit di daerah Tapunopaka, Konawe Utara, Sulawesi Tenggara. Ophiolite: Jurnal Geologi Terapan 5, 1, p. 15-21.
(online at: https://ophiolite.uho.ac.id/index.php/journal/article/view/7/4)
('Study of podiform chromite mineralization in the ophiolite complex of the Tapunopaka area, North Konawe, SE Sulawesi'. Chromite mineralization in dunite and harzburgite of E Sulawesi Ophilite complex)

Alya, C.B.R., Rendy, D. Syavitri, Y. Sutadiwiria, A. Livsey & S. Reno (2023)- Paleogene calcareous nannofossil chronostratigraphy at "CB" well, South Makassar Basin. Conference Paper?, p. 1-9.
(online at: https://repository.karyailmiah.trisakti.ac.id/documents/repository/artikel_yarra-sutadiwira-paleogene-calcareous-nannofossil-chronostratigraphy-at-cb-well-south-makassar-basin.pdf)
(Trisakti University paper on nannofossils in Balangbaru and Toraja Fms of 9-2286m interval in 'CB' well on Tanakeke Island, off S Sulawesi coast. Balangbaru Fm (Maastrichtian) and Toraja Fm synrift clastics, coals and limestones (M Eocene (Ypresian) to M Oligocene; NP16-NP23e; ~1400m thick) identified. Paleocene missing)

Andi Mangga, S. (2004)- Tinjauan lingkungan tektonik batupasir Formasi Kalumpang di daerah Kalumpang, Kabupaten Mamuju, Sulawesi Selatan. Jurnal Sumber Daya Geologi (JSDG) 14, 2 (146), p. 26-36.
('Observations on tectonic setting of the Kalumpang Fm sandstone in the Kalumpang area, Mamuju District, S Sulawesi'. Eocene Kalumpang Fm clastics at Karama River, W Sulawesi, quartz sandstone and claystone with minor coal and limestone, with clasts derived from metamorphic, igneous and sedimentary terranes ('quartzose recycled orogen'))

Andi Mangga, S., M. Heri H.Z. & T. Sihombing (2005)- Tinjauan geologi dan potensi batubara daerah Sulawesi Selatan. Jurnal Sumber Daya Geologi (JSDG) 15, 1 (148), p. 124-142.
('Observations on the geology and coal potential of the South Sulawesi area'. Tertiary basins of S Sulawesi Makassar Straits, Lariang, Karama Makasar and Bone Basins. Formed due to rifting between E Eocene and E

Miocene. coal deposits in M-L Eocene of Mamuju (NW) and Enrekang (NE) and E-M Miocene in Barru-Bone Block (S))

Andi Mangga, S., T. Sihombing & M.H.Z. Heri (2004)- Tinjauan lingkungan tektonik batupasir Formasi Kalumpang di daerah Kalumpang, Kabupaten Mamuju, Sulawesi Selatan. Jurnal Sumber Daya Geologi (JSDG) 14, 2, p. 26-36.
('Overview of the tectonic environment of the Kalumpang Formation sandstone in the Kalumpang area, Mamuju Regency, South Sulawesi')

Andreason, M.W., A.F. Chatfield, J.A. Curiale, M.V. Filewicz, E.D. Lumadyo et al. (2000)- Exploration in the gravity collapse rifts of the Salayar Basin, Indonesia. AAPG 2000 Annual Meeting *(Abstract only)*
(Salayar Basin offshore SW Sulawesi (S end Makassar Straits) gravity collapse rift formed in M Cretaceous along SE Sunda shield margin. Salayar and SE Sunda margin basins differ from typical Indonesian back-arc basins due to Cretaceous main rift event and crustal thickening prior to Paleocene-Eocene source deposition. Sequence of events: (1) E Cretaceous accretion, thrusting, granite intrusion, low-angle subduction; (2) Mid-Cretaceous collapse due to Australian plate roll-back, deposition of deepwater flysch; (3) Late Cretaceous isostatic adjustment of rift blocks; (4) Paleocene-M Eocene rifting, deposition in alluvial, lacustrine, and fluvio-deltaic environments; (5) Late Eocene- Late Oligocene post-rift quiescence, carbonate platform development on basin margins, deepwater marls- shales in basin center; (6) Late Oligocene- M Miocene inversion; (7) M Miocene-present relative tectonic quiescence, sediment starved conditions, infill of lows)

Andreuttiova, L., (2015)- The origin of Colo Volcano: implications for deep melting and adakite formation. M.Sc. Thesis, The University of Edingburgh, p. 1-62. *(Unpublished)*

Anggayana, K., T. Darijanto & S. Widodo (2003)- Studi mineral pirit sebagai salah satu sumber sulfur pada batubara: kasus batubara dari Kabupaten Barru Sulawesi Selatan. Jurnal Teknologi Mineral (JTM), (ITB, 10, 1, p. 3-14. *(online at: https://:www.researchgate.net/publication/370338793_Studi_pirit_sebagai_sumber_sulfur_pada_batubara)*
('Study of pyrite minerals as main source of sulfur in coal: case from the Barru Regency, South Sulawesi'. Barru region coals rel. poor quality, with high sulfur and ash. Sulfur mainly as framboidal pyrite. No location details)

Anonymous (1920)- Uitkomsten van mijnbouwkundige onderzoekingen in een gedeelte van Midden-Celebes (Sasak). Verslagen Mededeelingen Indische Delfstoffen en hare Toepassingen, Dienst Mijnwezen Nederlandsch Oost-Indie, 12, p. 1-64 + plates.
(online at: https://resolver.kb.nl/resolve?urn=MMKB24:078904000:pdf)
('Results of mining investigations in a part of Central Sulawesi (Sasak)'. Report on survey of copper and iron deposits in C Sulawesi between 1911-1917 by Bureau of Mines mining engineers Van der Kloes, Reijzer, Macke and Wolvekamp. Surveys of terrains Sasak, Masupu and Bobokan in Toraja region did not result in identification of commercial deposits. With Geological sketch map of Tae-Toradja lands + detail maps)

Anshariah, A.M. Imran, U.R. Irfan, A. Nawir & A.A. Budiman (2018)- Characterization and reconstruction of deposit facies of Mallawa Coal Formation of South Sulawesi based on proximate and petrography analysis. Int. Conf. Industrial Technology for Sustainable Development (ICon-ITSD), Makassar 2017, IOP Conference Series: Earth and Environmental Science 175, 012019, p. 1-9.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/175/1/012019/pdf)
(Coal of Eocene Mallawa Fm in S Sulawesi distributed across Maros, Pangkep, Barru, Soppeng and Bone Municipalities. Generally rel. thin seams and high sulfur content (>2%))

Anshariah, A.M. Imran, S. Widodo & U.R. Irvan (2021)- The influence of intrusion on change characteristic of coal in Mallawa Formation of South Sulawesi Province. Proc. 3rd Int. Conf. Global Issue for Infrastructure, Environment, and Socio-Economic Development (GIESED 2020, Makassar), IOP Conference Series: Earth and Environmental Science 921, 012054, p. 1-8.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/921/1/012054/pdf)

(Samples of coal from Eocene Mallawa Fm coal in Maros District of SW Sulawesi, Lanne District (Pangkep Regency) and Massenrengpulu Region (Bone Regency). Rel. high ash and moisture contents)

Apandi, T. (1977)- Geologic map of the Kotamobagu quadrangle, North Sulawesi, 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(See also 2nd edition by Apandi & Bachri (1997), below)

Apandi, T. & S. Bachri (1997)- Geologic map of the Kotamobagu quadrangle, North Sulawesi, 1:250,000. Geological Research Development Centre (GRDC), Bandung, 2n Ed.
(Geologic map in eastern half of Sulawesi North Arm. Part of volcanic arc, above double subduction zone: Celebes Sea subduction from North (active since E Tertiary) and E Sangihe subduction zone to E (active since E Quaternary). Oldest rock Eocene (and older?) Tinombo Fm deep marine clastics, chert and red limestone with pillow basalts (50 Ma radiometric age reported in Villeneuve et al. 1990). Overlain by Miocene and younger clastics and volcanics and E-M Miocene limestones. Widespread Late Miocene Bone diorite/ granite intrusions. With E-W trending normal faults and NNW-SSE (right lateral) and NNE-SSW (left-lateral) strike slip faults. More than one compressional tectonic episodes: older isoclinal folding and younger open folding)

Ardiansyah, M., M. Farida & U.R. Irvan (2015)- Sttudi provenance batupasir Formasi Walanae daerah Lalebata Kecamatan Lumary Kabupaten Bone Provinsi Sulawesi Selatan. J. Penelitian Geosains (Hasanuddin University) 11, 1, p. 13-18.
(online at: https://journal.unhas.ac.id/index.php/jpg/article/view/802/556)
(Provenance of sandstones of Walanae Fm from S Sulawesi. "Walanae sandstone derived from surrounding formations" (result perhaps not unexpected. no age of formation mentioned, no location maps; JTvG))

Ardiansyah, R., I. Kusuma, H. Kamaruddin, R.R. Wibawa & M.R. Kamil (2015)- Geological prospect, resource and ore reserve estimation in Pomalaa, Kolaka, Southeast Sulawesi, Indonesia. In: N.I. Basuki (ed.) Proc. Indonesian Soc. Economic Geologists (MGEI) 7th Annual Conv., Balikpapan, p. 67-76.
(Pomalaa nickel mine in SE Sulawesi in nickel laterite derived from ultramafic rocks (harzburgite, dunite, etc.) of E Sulawesi ophiolite. Slopes between 3°-15° produce ~2- 7 m thick nickel saprolite zone, with Ni grade of 1.8-2.2%)

Aridianto P. & N. Azman (1990)- Kajian geologi daerah Sulawesi Tenggara dalam kaitannya dengan prospek hidrokarbon. Proc. 19th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 136-148.
(online at: https://www.iagi.or.id/web/digital/47/19th-(11-13-Des-1990)-Book-I-144-156.pdf)
('Study of the geology of the Southeast Sulawesi region in relation to hydrocarbons prospectivity'. Tertiary section above metamorphics-ophiolite starts with 'Langkawala Fm' Eocene conglomeratic sandstones?. Not much detail)

Arifin, Y.I., J. Rauf, N. Akase, F.R. Djibran, Nurfaika, A. Lakilo, M. Jahja & M. Sakakibara (2025)- Integrated geological mapping and spatial distribution of heavy metal contamination with geoaccumulation index assessment in Juriya's artisanal gold mining region, Gorontalo, Indonesia. J. Hazardous Materials Advances 19, 100861, p. 1-16.
(online at: https://www.sciencedirect.com/science/article/pii/S2772416625002724)
(Juriya artisanal gold mining area in Bilato District, Gorontalo Regency, N Sulawesi. Geology aminly Andesite Unit (Eocene-Oligocene) and Diorite Unit (M-L Miocene). High risks of mercury and other metals contamination from use of mercury in widespread artisanal gold mining processes, as well as environmental degradation)

Arisona, N.K. Praja, Eldin, Masri, Muliddin, A. Okto, Hasria & Bahdad (2024)- Mikrofasies batugamping Formasi Tokala daerah Ululere dan sekitarnya, Kabupaten Morowali Sulawesi Tengah. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 25, 1, p. 19-30.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/786)
('Limestone mikrofacies of the Tokala Formation in the Ululere area and surroundings, Morowali Regency, Central Sulawesi'. Study of 'Tokala Limestone' facies (supposedly of Triassic- Jurassic age, but describe thin sections with planktonic foram Globotruncana, which would mean Upper Cretaceous, but illustrations too poor to verify anything- JTvG))

Arosi, H.A.H. (2016)- Regional versus global controls on the diagenesis and reservoir quality of Tertiary carbonate platforms. Ph.D. Thesis, Curtin University, Perth, p. 1-262.
(online at: https://espace.curtin.edu.au/handle/20.500.11937/66684)
(Influence of regional versus global controls on diagenesis and reservoir quality of Tertiary carbonate platforms, in particular Cenozoic syntectonic Tonasa Fm in SW Sulawesi. Thesis collection of 4 papers and supervised by Moyra Wilson. Equatorial Tonasa carbonate platform up to 600m thick and affected by block faulting, tilt-block rotation, differential uplift, subsidence and volcanic activity throughout M Eocene- E-M Miocene history)

Arosi, H.A. & M.E.J. Wilson (2015)- Diagenesis and fracturing of a large-scale, syntectonic carbonate platform. Sedimentary Geology 326, p. 109-134.
(online at: https://www.researchgate.net/publication/280580950_Diagenesis_and_fracturing_of_a_large-scale_syntectonic_carbonate_platform)
(Tonasa Limestone Fm of SW Sulawesi developed in extensional regime, with block faulting, tilt-block rotation, differential uplift and subsidence throughout Eocene- E Miocene history. Carbonate alteration in shallow to deeper burial depths by fluids with predominantly marine precursor origins)

Aryani, S.C. & R.Sinaga (2010)- Potential prospect of Au-base metal mineralization in Esang, Mamasa, West Sulawesi, Indonesia. Proc. 39th Annual Conv. Indonesian Association Geologists (IAGI), Lombok, p. 1-7.
(online at: https://www.iagi.or.id/web/digital/12/2010_IAGI_Lombok_Potential-Prospect-of-Au-Base.pdf)
(Esang gold and base metal mineralization in W Sulawesi hosted in Cretaceous Latimojong Fm metasediments and Miocene- Pliocene andesite lava of Talaya Fm)

Ascaria, N.A. (1997)- Carbonate facies development and sediment evolution of the Miocene Tacipi Formation, South Sulawesi, Indonesia. Ph.D. Thesis, University of London, p. 1-397. *(Unpublished)*
(Tacipi Fm 300m thick Middle-Late Miocene reefal limestones, outcrops over 1500 km^2 in eastern S Sulawesi. Tectonic activity controlled facies development in M-L Miocene)

Ascaria, N.A. (1998)- Control on carbonate sedimentation of Tacipi Formation, South Sulawesi, Indonesia. Berita Sedimentologi 10, p. 16-17.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/277)
(Brief summary of M Miocene- E Pliocene Tacipi Fm limestones of SW Sulawesi deposited in intra-arc or forearc setting. 300-700m thick, outcrops in area of 1500 km^2, also in Sengkang basin subsurface (economic gas reservoir). Outcrops in N isolated knoll reefs with deeper water M Miocene shallowing upward into Late Miocene reef complexes. In S Bone region M Miocene shallow marine carbonates. Tectonic control on facies distribution)

Ascaria, N.A. & N.A. Harbury (1997)- Tacipi Limestone facies distribution and sequence development, Mio-Pliocene, South Sulawesi, Indonesia. Berita Sedimentologi 5, p. 1-3. *(Extended Abstract)*
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/302/271)
(S Sulawesi was fore-arc region of Sundaland in Late Cretaceous with the deposition of deep marine siliciclastics. This evolved into back arc setting in Eocene, and a thick succession of acidic and basic volcanics developed from Eocene- E Miocene. Following this volcanic phase carbonate sedimentation dominated in M Miocene- E Pliocene (Tacipi and Walanae Fms).

Ascaria, N.A., N.A. Harbury & M.E.J. Wilson (1997)- Hydrocarbon potential and development of Miocene knoll-reefs, South Sulawesi. In: J.V.C. Howes & R.A. Noble (eds.) Proc. Conference Petroleum Systems of SE Asia and Australasia, Jakarta 1997, Indonesian Petroleum Association (IPA), p. 569-584.
(Tacipi Fm M Miocene (Tf2-3)- E Pliocene (Tg) intra-arc or forearc carbonates. Thickness 300-700m. Subcrops in Sengkang Basin form economic gas reservoirs. Dominant lithologies reef facies, packstones and wackestones. Northern outcrops (N Bone Region) isolated knoll-reefs, displaying N-S trend, surrounded by deeper-water facies. Buildups composed of deeper-water M Miocene facies at base and shallow upwards into Late Miocene reef complexes. Differential subsidence resulted in variations in time of drowning of reefs. Fine grained clastics and volcaniclastics cover reefs and act as seals)

Asfar, S., A. Maulana, U.R. Irfan & Sufriadin (2023)- Laterite profile study of highly weathered ultramafic rocks from the southern part of Southeast Sulawesi. Proc. 4th Int. Conference Global issues for infrastructure, environment and socio-economic development (GIESED), Makassar 2021, IOP Conference Series: Earth and Environmental Science 1134, 012043, p. 1-11.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1134/1/012043/pdf)
(7 types of laterite weathering profiles over ?Cretaceous ultramafic rocks in S Konawe Regency in southernmost SE Arm of Sulawesi)

Ashton, P.R. (1976)- Miocene algal reef mounds, Sengkang province, Sulawesi. Proc. Carbonate Seminar, Jakarta 1976, Indonesian Petroleum Association (IPA), p. 122. *(Abstract only)*
(S edge of Sengkang Basin, S Sulawesi, well exposed outcrops of algal reef limestone. Numerous discrete biocherms, rooted in U Miocene limestone platform and covered by U Miocene- Pliocene pelagic calcareous mudstones. Bioherms mainly of calcareous algae; corals significant only at base)

Asmariyadi, R. Langkoke, A. Maulana, I. Nur & W. Astaman (2012)- Ore characteristics and fluid inclusion of the base metal vein deposit in Moncong Bincanai Area, Gowa, South Sulawesi, Indonesia. Jurnal Geologi Indonesia 7, 4, p. 189-197.
(online at: http://jgi.bgl.esdm.go.id/index.php/JGI/article/view/43/32)
(Moncong Bincanai mineralization veins in basalt, consisting of galena, sphalerite, chalcopyrite, and pyrite, with Pb 47.9%, Cu 1.3%, Zn 1.0%, and Fe 9.5%. Fluid inclusion microthermometry indicate formation T of ~250°C. Categorized as low-sulfidation epithermal deposits, formed at 410-440m below paleosurface)

Asyiah, S., M.R. Suwondo & R. Waren (2010)- Eocene- Miocene plate tectonic habitats and structural style of Gorontalo Basin, Sulawesi. Proc. 39th Annual Conv. Indonesian Association Geologists (IAGI), Lombok, PIT-IAGI-2010-006, p. 1-13. *(English title but all in Indonesian)*
(online at: https://www.iagi.or.id/web/digital/12/2010_IAGI_Lombok_Eocene-Miocene-Plate.pdf)
(Tectonic reconsruction of Gorontalo Basin)

Audley-Charles, M.G. (1974)- Sulawesi. In: Mesozoic-Cainozoic orogenic belts, Geological Society, London, Special Publ. 4, p. 365-378.
(online at: http://searg.rhul.ac.uk/pubs/audley-charles_1974%20Sulawesi.pdf)
(Elegant, but now somewhat dated overview of Sulawesi geology)

Avicenna, M.F., Sufriadin, A.A. Budiman & S. Widodo (2019)- Analisis mineralogi dan kualitas batubara Desa Kadingeh, Kecamatan Baraka, Kabupaten Enrekang, Sulawesi Selatan. Jurnal Geomine 7, 2, p. 114-123.
(online at: https://jurnal.teknologiindustriumi.ac.id/index.php/JG/article/view/411/pdf)
('Mineralogy and coal quality analysis of Kadingeh Village, Baraka District, Enrekang Regency, S Sulawesi. Little or no geology)

Azarine, A., M.A. Azzaman & A. Idrus (2021)- Karakteristik alterasi dan mineralisasi endapan emas tipe Carlin pada Blok Yance dan Leon, Kecamatan Ratatotok, Kabupaten Minahasa Tenggara, Provinsi Sulawesi Utara. Jurnal Geomine 9, 3, p. 239-253.
(online at: https://jurnal.teknologiindustriumi.ac.id/index.php/JG/article/view/1001/pdf)
('Alteration and mineralization characteristics of Carlin type gold deposits in Blocks Yance and Leon, Ratatotok District, SE Minahasa Regency, North Sulawesi'. Study of Yance and Leon prospects near Mesel gold deposit, Ratatotok, indicate that limestone and collapse breccia controlled alteration and mineralization in area. Ore minerals in Yance Block pyrite, arsenopyrite, realgar, hematite, goethite;etc.; in Leon Block pyrite and hematite)

Azhim, M.F., I.M.D. Widiastrawan, N. Soraya, T.S. Dewi & T. Semedie (2022)- Geochemical and physical characteristics of nickel-cobalt laterite deposits on Maniang Island, Kolaka, Southeast Sulawesi. Proc. 51st Annual Conv. Indonesian Association Geologists (IAGI), Makassar 2022, p. 1-7.
(online at: https://www.iagi.or.id/web/digital/71/PITIAGI-22-P-Abs-045.pdf)
(Maniang Island located on edge of Ophiolite Belt of SE arm of Sulawesi. Ni-Co-Fe laterite with average thickness of top soil 3m, limonite 14 m, saprolite 15 m on top of peridotite-serpentinite bedrock)

Aziz, F. (1993)- Fosil fauna Sulawesi dan Batas Wallace. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 3, 21, p. 2-9.
('Fossil faunas of Sulawesi and the Wallace Line'. Makassar Straits believed to be major faunal boundary between Asian and Australian faunas, but presence of Asian elements like Celebochoerus, Elephas, Stegodon and Geochelone in Late Pliocene- Pleistocene Walanae Fm of SW Sulawesi shows some animals were able to cross Wallace Line)

Aziz, F. (1994)- Vertebrate faunal evolution of Sulawesi during the Late Neogene. In: R. Tsuchi (ed.) Pacific Neogene events in time and space, Contributions to the West Pacific, IGCP-246, Shizuoka University, Japan, p. 79-85.

Aziz, F., G.D. van den Bergh et al. (1995)- The geology and stratigraphy of the vertebrate-bearing deposits in the Sengkang Basin: the terrestrial faunal evolution of South Sulawesi during the Late Pliocene and Quaternary. Geological Research Development Centre (GRDC), Bandung, Special Publ. 18, p. 1-112.
(At least three immigrations of large-sized terrestrial mammals into S Sulawesi in Late Pliocene-Quaternary. Vetebrate fauna localities in Walanae Depression/rift. East Walanae fault initiated as late M-early Late Miocene normal fault, but in Late Pliocene- Early Pleistocene compressional or left lateral strike slip faulting)

Aziz, M.C.A. & K.A.M. Syihab (1993)- Arah pengendapan batuan Tersier, daerah Silea, Kecamatan Sampara, Kabupaten Kendari, Sulawesi Selatan. Proc. 22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 1141-1150.
(online at: https://www.iagi.or.id/web/digital/53/22nd-Volume-2-(6-9-Des-1993)-539-548.pdf)
('Aspects of the deposition of Tertiary rocks in the Silea area, Sampara, Kendari district, S Sulawesi')

Azzaman, M.A., A. Idrus & A.D. Titisari (2021)- Geology, hydrothermal alteration and mineralization of the Carlin-type gold deposit at South Ratatotok, Southeast Minahasa Regency, North Sulawesi Province, Indonesia. Proc. Int. Conf. Ocean and Earth Sciences, Jakarta 2020, IOP Conference Series: Earth and Environmental Science 789, 012076, p. 1-9.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/789/1/012076/pdf)
(S Ratatotok area in N Sulawesi was once gold-producing region. Includes Mesel Carlin-type gold deposit, hosted by E-M Miocene limestone. Remaining prospectivity)

Bachri, S. (2006)- Stratigrafi lajur vulkano-plutonik daerah Gorontalo, Sulawesi. Jurnal Sumber Daya Geologi (JSDG) 16, 2 (152), p. 94-106.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/356)
('Stratigraphy of the volcanic-plutonic belt of the Gorontalo area', N Sulawesi. N Sulawesi mainly Eocene-Pliocene volcanics and Neogene plutonics. Oldest unit Eocene-E Miocene Tinombo Fm, in volcanic and sedimentary facies. Overlain by M Miocene-E Pliocene marine volcanics and sediments, intruded by Bone Diorite. M Pliocene acid- intermediate volcanic rocks. Late Pliocene-E Pliocene molasse with tuffs and acidic-intermediate Pinogu Volcanics with Bumbulan Granodiorite. Plio-Pleistocene reef limestone in S coast area)

Bachri, S. (2011)- Structural pattern and stress system evolution during Neogene- Pleistocene times in the central part of the North Arm of Sulawesi. Jurnal Sumber Daya Geologi (JSDG) 21, 3, p. 127-135.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/140/137)
(Five main trends of lineaments and faults, reflecting changes in stress system evolution during Neogene-Pleistocene, related to S-ward subduction of N Sulawesi Sea (Celebes Sea), which in Pleistocene weakened as Sangihe subduction in Molucca Sea to E commenced, resulting in change of stress field orientation)

Bachri, S. & Baharuddin (2001)- Geological map of the Majene-Malunda Quadrangle, Sulawesi, scale 1: 100,000. Geological Research Development Centre (GRDC), Bandung.

Bachri, S., E. Partoyo, D. Sukarna, Surono & J.B. Supandjono (1997)- Geologi daerah Gorontalo, Sulawesi Utara. Kumpulan Makalah Hasil Penelitian dan Pemetaan Pusat Penelitian dan Pengembangan Geologi (Collection of

Research Papers and Mapping Results of the Geological Research and Development Center- GRDC) 1996/1997, p. 18-30.
('Geology of the Gorontalo area, North Sulawesi'. In GRDC annual report)

Bachri, S. & Sidarto & (2013)- Tektonik Sulawesi. In: Surono & U. Hartono (eds.) Geologi Sulawesi, LIPI Press, Jakarta, p. 303-324.
('Tectonics of Sulawesi'. Chapter 13 in Geology of Sulawesi book. Brief review of regional tectonics of Sulawesi. No plate reconstruction)

Bachri, S., Sukido & N. Ratman (1994)- Geological map of the Tilamuta Quadrangle, Sulawesi, 1: 250,000. Geological Research Development Centre (GRDC), Bandung.
(Geologic map in western half of North Arm of Sulawesi. Oldest rocks Eocene- E Oligocene Tinambo Fm and gabbro, intruded by Miocene Bone Diorite/ granites. Overlain by Miocene and younger clastics and volcanics)

Baese, R. (2013)- Fluid-rock interaction processes during subduction and exhumation of oceanic crust: constraints from jadeitites in serpentinites, eclogite veins in blueschists and tectonic breccias formed during uplift. Doctoral Thesis Christian-Albrechts University, Kiel, p. 1-129.
(online at: http://macau.uni-kiel.de/receive/dissertation_diss_00010505)
(Including chapters on eclogitisation, geochemistry and petrology of eclogite veins and blueschists and repeated brecciation during exhumation of subducted oceanic crust at Bantimala Complex, SW Sulawesi. Eclogite protoliths mainly Mid-Ocean Ridge Basalts (N-MORB, some Oceanic Island Basalts and formed at depths of >90 km. Blueschists protoliths also similar to N-MORB. Exhumation/ uplift process led to dismembering of subducted crust. High-pressure rocks from slices of dismembered slab incorporated into accretionary wedge sediments during upward motion of continental fragment, resulting in alternating sequence of metamorphic and sedimentary rocks in Bantimala Complex. Brecciation at different levels during exhumation, between 10-80km)

Baese, R. & V. Schenk (2012)- Repeated brittle deformation under blueschist- to subgreenschist-facies conditions during exhumation of subducted oceanic crust (Bantimala Complex, Sulawesi). Proc. European Mineralogical Conference 2012, Frankfurt, EMC2012-463, 1 p. *(Abstract only)*
(online at: https://meetingorganizer.copernicus.org/EMC2012/EMC2012-463.pdf)
(Discussion of exhumation of formerly deeply subducted Cretaceous oceanic crust in Bantimala Complex of SW Sulawesi. Evidence for repeated brittle deformation during uplift. Etc.)

Baese, R. & V. Schenk (2013)- Brittle deformation during exhumation of eclogites and blueschist of the Bantimala Complex, Sulawesi: evidence for intra-slab shearing. In: Symposium on tectonics, structural geology and geology of crystalline rocks, Kiel, p. 23. *(Poster Abstract only)*
(online at: http://oceanrep.geomar.de/14846/1/Baese.pdf)

Baharuddin & B.H. Harahap (2000)- Tinjauan kembali kerangka stratigrafi dan tektonik daerah Palopo, Sulawesi Selatan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 10 (110), p. 24-38.
('Review of the stratigraphic and tectonic framework of the Palopo area, S Sulawesi'. Palopo area in NE part of S arm of Sulawesi underlain by Latimojong phyllite (>4500m; originated from Cretaceous flysch, overlain by fluvio-deltaic Eocene Toraja Fm (>1500m), U Oligocene- M Miocene Makale Fm carbonates (>1500m) and U Miocene- Pliocene Sekala Fm clastics (1800m). Lamasi Volcanic Complex probably represents oceanic ophiolitic sequence of gabbro, dikes and pillow lavas and emplaced in M Miocene. Mio-Pliocene non-orogenic volcanism)

Baharuddin & B.H. Harahap (2003)- Lava Tersier dari Bonto Sarong Palopo, Sulawesi: ciri geokimia dan kaitannya dengan evolusi dan tektonika. In: Pros. Forum Penelitian dan Pengembangan Energi dan Sumberdaya Mineral, Badan Litbang Energi Sumberdaya Mineral, p. 377-388.
('Tertiary lavas from Bonto Sarong Palopo, Sulawesi; geochemical characteristics and relationships between its evolution and tectonics')

Baillie, P., H. Darman & T.H. Fraser (2004)- Deformation of Cenozoic basins of Borneo and Sulawesi. In: R.A. Noble et al. (eds.) Proc. Deepwater and Frontier Exploration in Asia and Australasia Symposium, Jakarta, Indonesian Petroleum Association (IPA), p. 443-461.

Baillie, P. & J. Decker (2022)- Enigmatic Sulawesi: the tectonic collage. Berita Sedimentologi 48, 1, p. 1-30.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/388/369)
(Review of Sulawesi's complex collage of disparate tectonic terranes, brought into juxtaposition by variety of very fast tectonic processes)

Bakri, H., A.M. Imran, U.R. Irvan & A. Maulana (2024)- Petrology and geochemistry of intrusive rocks in the Tanjung Area, South Sulawesi, Indonesia: Implications for magma origin, source materials, and geodynamic setting. Iraqi Geological J. 57, 1C, p. 165-186.
(online at: https://igj-iraq.org/igj/index.php/igj/article/view/1989/1894)
(Tanjung area in Bontocane, southern S Sulawesi is within Biru Intrusive Complex and consists of two suites: (1) M-L Eocene monzonite-tonalite (most of complex) and genetically related to Langi Volcanics (subduction magmatism?), and (2) Late Miocene above clinopyroxene-biotite and syenite-monzonite named Biru Syenite, likely associated with Sopo Volcanics (see also Elburg et al. (2002) on same magmatic rocks) (looks like Iraqi journal printed this paper without needed editing- JTvG))

Bao, H., J.P. Ampuero, L. Meng, E.J. Fielding, C. Liang, W.D. Milliner et al. (2019)- Early and persistent supershear rupture of the 2018 magnititude 7.5 Palu earthquake. Nature Geoscience 12, 3, p. 200-205.
(Evidence for early and persistent supershear rupture at sub-Eshelby speed of 2018 magnitude 7.5 Palu earthquake)

Barber, A.J. (1996)- Multiple collisions on the southeastern margin of Sundaland: the tectonic evolution of Sulawesi. Warta Geologi (Newsletter Geological Society Malaysia) 22, 4, p. 300-301. *(Abstract only)*
(online at: https://gsmpubl.files.wordpress.com/2014/09/ngsm1996004.pdf)
(Sundaland constructed since Late Paleozoic by collisions of continental fragments. In E Cretaceous SE margin of Sundaland lay in Borneo; subduction and accretion added oceanic and micro continental material to this margin. In W Sulawesi oldest basement rocks are ocean floor materials in accretionary complex, with components carried down deep in subduction zone (eclogites, gneisses and glaucophane schists with cooling ages of 132-113 Ma (E Cretaceous). After uplift and erosion, Late Cretaceous subsidence and development of forearc basin over accretionary complex, with deposition of cherts and turbidites. In Eocene area stabilised as part of Sundaland continental margin, with development of rifts. C Sulawesi composed of rocks of oceanic and continental origin now metamorphosed in amphibolite, greenschist and glaucophane schist facies, overlain by melange, then by major ophiolite complex of East Arm. Amphibolite and greenschist facies rocks formed by W-ward subduction of microcontinental fragment and metamorphosed in E Cretaceous, at same time as basement in W Sulawesi. Glaucophane schist metamorphism affects earlier metamorphic rocks and melange, which is overlain to E by high-T metamorphic sole beneath E Sulawesi Ophiolite. Melange formation and metamorphism due to mid-oceanic subduction towards E. Subduction ceased at 28 Ma (Oligocene), when Sundaland ran into subduction zone and ophiolite obducted onto continental margin. W-ward subduction then commenced beneath E margin of ophiolite, terminating in M Miocene when Banggai-Sula microcontinent ran into subduction zone. Banggai-Sula originated as fragment of Australia, separated in Jurassic, carried W along Sorong Fault Zone. Collision zone in E Arm is marked by imbrication of Banggai-Sula continental margin sediments with slices of ophiolite. Metamorphic rocks of C Sulawesi were thrust across W Sulawesi, and uplifted blocks of basement were thrust W-wards across Eocene-M Miocene carbonate platform. Downgoing continental rocks subducted beneath W Sulawesi gave rise to volcanic arc with volcanic rocks geochemical signature of Australian origin)

Bartstra, G.J. (1977)- Walanae Formation and the Walanae terraces in the stratigraphy of South Sulawesi (Celebes, Indonesia). Quartar 27, p. 21-30.
(online at: www.quartaer.eu/pdfs/1977/1977_02_bartstra.pdf)
(On Pliocene-Quaternary vertebrate-bearing clastics formation of SW Sulawesi. Paleolithic stone tools first found by Van Heekeren in fluvial terrace deposts probably younger than more cemented and more steeply dipping Pleistocene deposits of U Walanae Fm with Archidiskodon-Celebochoerus fauna)

Beaudouin, T. (1998)- Tectonique active et sismotectonique du systeme des failles decrochantes de Sulawesi central. Doct. Thesis, Universite Paris-Sud, p. 1-343. *(Unpublished)*
('Active tectonics and seismotectonics of C Sulawesi fault zones')

Beaudouin, T., O. Bellier & M. Sebrier (2003)- Champs de contrainte et de deformation deduits de l'analyse des mecanismes au foyer des seismes de la region de Sulawesi (Indonesie): implications geodynamiques. Bull. Societe Geologique France 174, 3, p. 305-317.
(online at: http://documents.irevues.inist.fr/handle/2042/263)
('Present-day stress and deformation field in the Sulawesi region; geodynamic implications'. High seismicity along N Sulawesi trench and Molucca Sea subduction zone, lower activity in C and S Sulawesi. Represents activity of NE, SW and SE arms thrusts and left-lateral C Sulawesi Fault System (Palu-Koro and Matano faults). System connects N Sulawesi subduction zone to Sorong fault through S Sula fault and Tolo thrust in N Banda Sea. Clockwise rotation of Sula block. C Sulawesi fault system fast slipping with low seismicity. Extensional stress in S part Tomini Gulf (9 mm/yr in N36°E direction), possibly back-arc spreading related to N Sulawesi subduction. Batui zone E-M Pliocene collision between NE arm and Banggai-Sula block, remains active, but mainly affected by strike-slip deformation. Tolo thrust off SE arm E coast absorbs N Banda Sea convergence to W. This allows to distinguish a N Banda block in SE Sulawesi. Tolo thrust and Hamilton fault move W at lower rate than Sula block. SW arm of Sulawesi compressional stress regime (Majene-Kalosi thrusts activity) and may represent W-most accommodation of Philippine/Sunda plates motion)

Beets, C. (1950)- On Lower Tertiary Mollusca from SW and Central Celebes. Leidsche Geologische Mededelingen 15, p. 282-290.
(online at: www.repository.naturalis.nl/document/549324)
(Sulawesi mollusc meterial collected by Sax (BPM) in 1931, comparable to material described by Dollfus (1915) from same area. Incl. Turritella krooni of probable Eocene age from SW Central Sulawesi and collection of shells from anticline W of Batoekoe-coalfield W of Ujung Lamuru, SW Sulawesi, where 250m thick marl-limestone series contains Nummulites and molluscs with similarities to Nanggulan fauna of C Java, incl. Volutilithes and Cardita)

Bellier, O., T. Beaudoin, M. Sebrier, M. Villeneuve, I. Bahar, E. Putranto, I. Pratomo & D. Seward (1998)- Active faulting in central Sulawesi (eastern Indonesia). In: P. Wilson & G.W. Michel (eds.) The geodynamics of S and SE Asia (GEODYSSEA) Project. Scientific Technical Report STR/14, Geoforschungszentrum, Potsdam, Germany, p. 276-312.
(Results of GPS, satellite image interpretation, etc. work in 1994-1997 around active faults of C Sulawesi (seimically active Palu-Koro and Matano faults, etc.))

Bellier, O., D.L. Bourles, T. Beaudouin & R. Braucher (1999)- Cosmic Ray Exposure (CDE) dating in a wet tropical domain: late Quaternary fan emplacements in central Sulawesi (Indonesia). Terra Nova 11, 4, p. 174-180. *(online at: https://www.academia.edu/17105045/Cosmic_Ray_Exposure_CRE_dating_in_a_wet_tropical_domain_late_Quaternary_fan_emplacements_in_central_Sulawesi_Indonesia_?hb-sb-sw=90139184)*
(Be-10 concentrations in quartz boulders exposed on late Quaternary alluvial fan surfaces in Sulawesi suggest two fans formed during two distinct major climatic events, with abandonment ages of 11 kyr and 120 kyr)

Bellier, O., M. Sebrier, T. Beaudouin, M. Villeneuve, R. Braucher, D. Bourles, L. Siame, E. Putranto & I. Pratomo (2001)- High slip rate for a low seismicity along the Palu-Koro active fault in Central Sulawesi (Indonesia). Terra Nova 13, 6, p. 463-470.
(C Sulawesi with complex left-lateral strike-slip fault zones in triple junction between Pacific, Indo-Australian and Eurasian plates. Low-magnitude shallow earthquakes related to NNW-trending Palu-Koro and WNW-trending Matano fault zones. N-ward increasing complexity of Palo-Kuro fault segmentation. Left-lateral displacements of streams. Slip rate 32±45 mm/yr. PKF is fast slipping fault with relatively low seismicity)

Bellier, O., M. Sebrier, D. Seward, T. Beaudouin, M. Villeneuve & E. Putranto (2006)- Fission track and fault kinematics analyses for new insight into the Late Cenozoic tectonic regime changes in West-Central Sulawesi (Indonesia). Tectonophysics 413, 3-4, p. 201-220.
(Left-lateral C Sulawesi Fault System composed of NNW Palu-Koro and ESE Matano faults in triple junction of Pacific, Indo-Australian and Eurasian plates. C Sulawesi three tectonic regimes: (1) Late Miocene- E Pliocene (5 Ma) WNW-trending transpression along PKF and compression in Poso area, resulting from collision of Banggai-Sula block with Sulawesi; (2) Pliocene collapse tectonics associated with W-trending extension, with coeval regional cooling and exhumation; (3) Quaternary transtension from C Sulawesi block N motion, and back-arc spreading behind N Sulawesi subduction (Tomini Gulf))

Bellon, H. & C. Rangin (1991)- Geochemistry and isotopic dating of Cenozoic volcanic arc sequences around the Celebes and Sulu Seas. Proc. Ocean Drilling Program (ODP), Scientific Results, 124, College Station, p. 321-338.
(online at: www-odp.tamu.edu/publications/124_SR/VOLUME/CHAPTERS/sr124_23.pdf)
(K-Ar ages for>50 igneous rocks from onshore Philippines, N Borneo (Sabah) and N Sulawesi. Ages range from 32 Ma to near 0 Ma. Generally calc-alkaline affinity with some shoshonitic high-K basalts. Two types of island arcs (1) related to progressive closing of Celebes and Sulu marginal basins and (2) arcs of Philippine Sea Plate. Includes radiometric dates of Sabah Dent- Semporna Peninsula (9-13 Ma), Sulu Sea/ Cagayan Ridge (ODP Sites 769/771: ~14-21 Ma), Kinabalu Intrusives (6.4- 6.8 Ma), N Sulawesi (Gorontalo area volcanics: 4.1-8.9 Ma and 18.2-22.3 Ma)

Bergman, S.C., D.Q. Coffield, J.P. Talbot & R.A. Garrard (1996)- Tertiary tectonic and magmatic evolution of western Sulawesi and the Makassar Strait, Indonesia: evidence for a Miocene continent-continent collision. In: R. Hall & D.J. Blundell (eds.) Tectonic evolution of Southeast Asia, Geological Society, London, Special Publ. 106, p. 391-429.
(W Sulawesi three Neogene N-S domains, from W to E: (1) active foldbelt with Pliocene- Miocene volcanogenic rocks in W-vergent thrusts, extending into Makassar Strait; (2) deformed submarine Miocene (av. age 8 Ma) arc, built on Oligocene-Eocene clastics and carbonate platform with Mesozoic basement thrust over E margin; (3) accreted pre-Eocene age ophiolite between Latimojong basement block and Bone Bay, obducted in Late Oligocene- Miocene. M Miocene- Pliocene (3-18 Ma) volcano-plutonic complex, with melts sourced from Late Proterozoic- E Paleozoic, tied to continent-continent collision of W-vergent Australian-New Guinea plate subducting under E-most Sundaland. Makassar Strait is foreland basin flanked by Neogene thrust belts, not Paleogene rift. E Sulawesi ophiolite extends into W Sulawesi, suggesting Bone Bay resulted from collapse of over-thickened Miocene orogen)

Berry, R.F. & A.E. Grady (1987)- Mesoscopic structures produced by Plio-Pleistocene wrench faulting in South Sulawesi, Indonesia. J. Structural Geology 9, p. 563-571.
(Bantimala and Barru metamorphic complexes of S Sulawesi bounded in W by E-dipping thrust faults. Composed of glaucophane schists, serpentinites, etc., overlain by >750m of Cretaceous clastics. Area dominated by Plio-Pleistocene NNW-striking sinistral wrench faults, result of N-ward movement of Banda Sea microplate with respect to W Indonesia)

Bohnke, M., M. Brocker, A. Maulana, R. Klemd, J. Berndt & H. Baier (2019)- Geochronology and Zr-in-rutile thermometry of high-pressure/low temperature metamorphic rocks from the Bantimala complex, SW Sulawesi, Indonesia. Lithos 324-325, p. 340-355.
(online at: www.sciencedirect.com/science/article/pii/S0024493718304419)
(Multipoint Rb-Sr mineral isochrons of high P/ low T eclogites and glaucophane-rich rocks from Bantimala Complex, SW Sulawesi. Narrow range of white mica ages (130-120 Ma = Hauterivian-Barremian), interpreted to postdate peak-HP conditions. Luk Ulo (C Java) ages of ~118 Ma slightly younger (Hoffmann et al. 2019), but may still be in same subduction complex. Rare zircons in glaucophane-rich rocks indicate Late Triassic- E Jurassic protolith ages (~205-185 Ma). Metamorphic zircon rims mostly 135-110 Ma ages. Older zircons (2.55-1.4 Ga, 400-260 Ma) probably from subducted sediments incorporated in mafic melts)

Bothe, A.C.D. (1927)- Voorlopige mededeeling betreffende de geologie van Zuid-Oost Celebes. De Mijningenieur 8, 6, p. 97-103.
('Preliminary note on the geology of SE Sulawesi'. Smaller islands Kabaena and Wawoni very similar to E Sulawesi. Larger islands Buton and Moena very different)

Bothe, A.C.D. & W.H. Hetzel (1932)- De geologie van Laiwoeni, Poleang, Roembia en Kolaka (Z.O. Celebes). Verslag Archief Dienst van den Mijnbouw, Bandung, p. 1-36. *(Unpublished)*
('The geology of Laiwuni, Poleang, Rumbia and Kolaka islands (SE Sulawesi)'. Geological Survey Bandung report)

Boudagher-Fadel, M.K. (2002)- The stratigraphical relationship between planktonic and larger benthic foraminifera in Middle Miocene to Lower Pliocene carbonate facies of Sulawesi, Indonesia. Micropaleontology 48, 2, p. 153-176. *(online at: www.researchgate.net/publication/232694861_The_stratigraphical_relationship_between_planktonic Etc.)*
(M Miocene- E Pliocene Tacipi Fm of Bone region of SW Sulawesi up to 300m thick, deposited in broad area of shallow marine carbonates, with deeper water sediments deposited to N. Co-occurrences of planktonic and larger foraminifera: (1) M Miocene N11-N12, and Tf2 with Katacycloclypeus, Lepidocyclina (N); (2) Late Miocene N16-N17 and Tg with Planorbulinella) (samples collected by A.N. Ascaria))

Brocker, M., V. Schenk, E.E. Scherer, J. Soesilo & J. Berndt (2023)- Refining the understanding of Cretaceous subduction zone processes in the central Indonesian region: the Bantimala Complex (SW Sulawesi) revisited. J. Asian Earth Sciences 255, 105761, p. 1-18.
(online at: https://www.sciencedirect.com/science/article/pii/S1367912023002225)
(Bantimala Complex in SW Sulawesi Cretaceous metamorphics with common HP/LT eclogite and blueschist with lawsonite in highly deformed accretionary wedge. Zircon ages suggest significant protolith age range of metamafics (~369-185 Ma). Rb-Sr ages suggest time of peak HP/LT metamorphism ~132-125 Ma (= ~Hauterivian). Radiometric ages ~137-113 Ma. Mineralogical and age diversity of blocks indicates detachment of fragments from subducting plate at different depths, followed by return flow in subduction channel along different P-T paths. Subduction-related magmatism recorded by zircon age of ~109 Ma for quartz diorite. Detrital zircon ages from melange sandstone indicate 107 Ma max. depositional age and tectonic stacking of Bantimala Complex after partial erosion of already exposed Cretaceous basement. Non-metamorphosed granitoids ~113-115 Ma old (~Aptian))

Broili, F. (1934)- Über mesozoische Lamellibranchiaten- und Brachiopodenführende Schichten von Celebes. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 10, p. 175-179.
('On Mesozoic lamelibranchiates- and brachipod- bearing beds from Sulawesi'. Appendix in Brouwer (1934). Describing (poor) material collected from several localities in 1929 from Central Sulawesi, possibly of Triassic and Jurassic ages. No figures)

Bromfield, K. & W. Renema (2011)- Comparison of 87Sr/86Sr isotope and biostratigraphic ages of uplifted fossil reefs in the Indo-Pacific: Indonesia, Papua New Guinea and Fiji. Australian J. Earth Sciences 58, p. 61-73.
(Dating of limestones from seven Neogene sites from Indo-Pacific, using foraminifera and 87Sr/86Sr isotopes: Salayar Lst on Salayar Island, S Sulawesi (Late Miocene-Pliocene/Pleistocene), Yalam Lst in E New Britain, PNG (M Miocene) and Tokelau Lst Gp on Vanua Balevu in Lau Group, Fiji (M-L Miocene). Salayar Lst 50-100m thick, contains Quasirotalia sp. and Calcarina spengleri and has Sr ages 5.8-3.4 Ma)

Brooks, R.R., E.D. Wither & L.Y.T. Westra (1978)- Biogeochemical copper anomalies on Salajar Island, Indonesia. J. Geochemical Expl. 10, 2, p. 181-188.
(20 species of plants from Salayar island, SW Sulawesi, have copper values >80 pg/g (max. 600pg/g) in their dried leaves. These values greatly exceed highest values found in other parts of SE Asia outside Salayar)

Brouwer, H.A. (1918)- Studien uber Kontaktmetamorphose in Niederland.-Ostindien. V. Der Granodioritkontakt des Bolio-Hutu-Gebirges sudlich von Sumalatta (Nord-Celebes). Centralblatt Mineralogie Geologie Palaontologie 1918, 19-20, p. 297-306.
('Studies on contact-metamorphism in the Netherlands East Indies, V. The granodiorite contact of the Bolio-Hutu Mountains South of Sumalatta (North Sulawesi)'. Study of rocks collected by G. Molengraaff in 1901)

Brouwer, H.A. (1919) - Fossielhoudende Palaeozoische afzettingen op Celebes. De Ingenieur, Jaargang 34, 1919-45 (8 Nov. 1919), p. 832.
(online at: https://www.delpher.nl/nl/tijdschriften/ Etc.)
('Fossiliferous Paleozoic beds on Sulawesi'. Brief note on Permian ammonite Popanoceras timorense in collection of Army Colonel G.J. Verstege, who was stationed in Sulawesi from 1906-1910. The fossils reportedly came from "the Sadang and Mato Allo river basins and the mountains in-between, partly found by myself, partly presented by chiefs of Enrekang, Doeri and Maiwa in 1907 and 1910" (Kalosi region). This suggests presence of Late Paleozoic marine sediments in S-C Sulawesi, but localities never verified. (Occurrences questioned by Abendanon (1920, 1921) and Von Koenigswald (1933), who believed they probably came from Timor via a Chinese pharmacy. (however, shouldnot be dismissed completely?, as Permian brachiopods were also reported from E Sulawesi by Von Loczy 1934 and Kutassy 1934; JTvG))

Brouwer, H.A. (1919)- Devonische afzettingen in den Oost-Indischen archipel. De Ingenieur, Jaargang 34, 1919-48 (29 Nov. 1919), p. 901.
((online at: https://www.delpher.nl/nl/tijdschriften/ Etc.)
('Devonian deposits in the East Indies Archipelago'. In addition to Permian ammonite in collection of Colonel G.J. Verstege from Kalosi region, C Sulawesi, also a grey limestone with Upper Devonian brachiopod Spirifer verneuili (NB: Permian ammonite and Spirifer brachiopod fossils also known from Permian of Timor; JTvG))

Brouwer, H.A. (1921)- Een jong-Paleozoisch en een Devonisch fossiel van Celebes? De Ingenieur, 1921, p. 138-
('A Late Paleozoic and a Devonian fossil from Sulawesi?'. Additional report of Upper Devonian brachiopod Spirifer verneuilli from collection of Colonel G.J. Verstege = Abendanon paper?)

Brouwer, H.A. (1924)- Geologische beschrijving der omgeving van de Tertiaire fossielrijke lagen nabij Patoenoeang Asoe E in Zuid-Celebes. Jaarboek Mijnwezen Nederlandsch Oost-Indie 52 (1923), Verhandelingen, p. 151-165.
('Geological description in the area of Tertiary fossil-rich beds near Patunuang Asu (S Sulawesi)'. Localities of thin-bedded marine fish-bearing lagoonal limestone in Miocene reefal limestone complex, SW Sulawesi, sampled by Brouwer in July 1923. Eocene- Miocene limestones intruded by basalt-diabase sills (Foraminifera from this locality described by Rutten 1924, crab fossil by Van Straelen 1924, fish fossils by De Beaufort 1926))

Brouwer, H.A. (1930)- Geologische exploratietochten op het eiland Celebes. Natuurkundige Voordrachten, Nieuwe Reeks 8, Maatschappij Diligentia, Van Stockum, The Hague, p. 90-97. *(online at: https://natuurwetenschappen-diligentia.nl//wp-content/uploads/2020/02/Diligentia_jaarboek_8.pdf)*
('Geological exploration traverses on the island of Celebes'. Lecture notes. Brief review of 1929 Sulawesi fieldwork with W.H. Hetzel and H.E.G. Straeter of the Dienst van den Mijnbouw. No figures)

Brouwer, H.A. (1930)- The major tectonic features of Celebes. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 33, 4, p. 338-343.
(online at: https://dwc.knaw.nl/DL/publications/PU00015894.pdf)
(Brief overview of Sulawesi geology, after 1929 expedition. C Sulawesi three zones: (1) eastern zone with abundant imbricated basic-ultrabasic igneous rocks, radiolarian cherts and Mesozoic limestones; (2) central zone dominated by crystalline schists, deformation strike mainly N-S; (3) western zone with abundant granitic rocks and with Mesozoic sediments of different facies from zone 1)

Brouwer, H.A. (1934)- Geologisch onderzoekingen op het eiland Celebes. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 10, p. 39-218.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB24:064908000:00001)

(Report on 1929 geological traverses in Central Sulawesi by Prof. H.A. Brouwer and Mijnbouw geologists W.H. Hetzel and H. Straeter. With appendices on Mesozoic belemnites by E. Stolley, molluscs by F. Broili and Tertiary foraminifera by Van der Vlerk & Dozy. Occurrence of E-M Cretaceous limestone with coral and Orbitolina in isoclinally folded shales-sandstone-radiolarian?chert near Latimojong Mts, SW Sulawesi. At E coast of the northern SE Arm of Sulawesi Early Miocene (Te5) conglomeratic limestone with clasts of underlying, mainly W-SW dipping imbricated series with serpentinite and Cretaceous pelagic limestone with Globotruncana, etc.))

Brouwer, H.A. (1941)- Tektonik und Magma in der Insel Celebes und der Indonesische Gebergstypus. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam 44, 3, p. 253-261.
(online at: https://dwc.knaw.nl/DL/publications/PU00017559.pdf)
('Tectonics and magma of Sulawesi island and the Indonesian mountain type'. C Sulawesi 3 N-S trending belts: (1) Eastern belt of ultrabasic rocks overlain by Mesozoic limestones and radiolarites; (2) central belt of regional metamorphic schists, age of which is debatable, and with decreasing metamorphism to East; (3) Western belt with common granodiorite, biotite-rich schist and Cretaceous-Tertiary sediments. No active volcanism in C Sulawesi today, but stopped only in Quaternary)

Brouwer, H.A. (1947)- Geological explorations in Celebes- summary of the results. In: H.A. Brouwer (ed.) Geological Explorations of the Island of Celebes, North Holland Publishing Co., p. 1-64.
(Summary of geology of C Sulawesi, mainly based on work of the 1929 Bandung Geological Survey expedition, results of which were first reported by Brouwer 1934). This summary also incorporates results of petrographic work by Willems (1937), Egeler (1947) and De Roever (1947))

Brouwer, H.A. (1949)- Sur un massif granodioritique et ses phenomenes de contact a l'ouest de Palopo (Celebes). Proc. Koninklijke Nederlandse Akademie van Wetenschappen 52, 6, p. 610-613.
(online at: https://dwc.knaw.nl/DL/publications/PU00018675.pdf)
('On a granodioritic massif and its contact phenomena W of Palopo, S part of Central Sulawesi'. Graniodiorite massif and contact aureole sampled along road Rante Pao and Palopo, 17-28 km E of Rante Pao)

Brouwer, H.A. & L.F. de Beaufort (1922)- Tertiaire afzettingen met fossiele visschen van Z-Celebes. Verslagen Koninklijke Akademie van Wetenschappen, Amsterdam, Wis- en Natuurkundige Afdeeling, 32, p. 33-40.
('Tertiary deposits with fish fossils in S Sulawesi'; same as paper below)

Brouwer, H.A. & L.F. de Beaufort (1923)- On Tertiary marine deposits with fossil fishes from South Celebes. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 26, 3-4, p. 159-166.
(online at: https://dwc.knaw.nl/DL/publications/PU00014925.pdf)
(English version of paper above. Two fish fossils of probable Miocene age in fine-grained 'lithographic' limestone block from roadcut near Patoenoeang Asoe E, Maros district. Rocks probably lagoonal deposit in Eocene-Miocene reefal limestone complex. Fish identified as Clupea (Sardinella) brouweri n.sp. and Lutjanus)

Bucking, H. (1899)- Beitrage zur Geologie von Celebes. Petermanns Geographische Mitteilungen 45, 11, p. 249-260 and 12, p. 273-280.
(online at: https://zs.thulb.uni-jena.de/receive/jportal_jparticle_00508841)
('Contributions to the geology of Celebes' (Sulawesi). An overview of Sulawesi geology from literature and personal observations during a visit in 1898 in granite areas of Gorontalo, gold mines of Sumalata and Paleleh where gold is in pyrite in quartz veins in volcanic conglomerates, etc. Climbed Soputan volcano (1827m))

Bucking, H. (1899)- Leucitbasalt aus der Gegend von Pangkadjene in Sud-Celebes. Berichte Naturforschenden Gesellschaft Freiburg I. Breisgau, 11, p. 78-84.
(online at: https://www.biodiversitylibrary.org/item/42626#page/92/mode/1up)
('Leucite basalt from the area of Pajangkene in S Sulawesi'. Biotite-leucite basalt collected from outcrop near Kantisang during travels in South Sulawesi in June and August 1898 (rock found earlier in float by Wichmann in 1888 (published 1893), also mentioned by Retgers (1895) and later also described by Iddings & Morley (1915, 1917). According to Bucking basalt is intercalated between Eocene coal-bearing clastics and overlying Late Eocene Nummulites limestones)

Bucking, H. (1900)- Cordierit von Nord-Celebes und aus den sog. verglasten Sandsteinen Mitteldeutschlands. Bericht Senckenbergischen Naturforschenden Gesellschaft, Frankfurt am Main 1900, Wissenschaftliche Abhandlungen, p. 1-20.
(online at: https://ia802705.us.archive.org/25/items/naturundmuseum1900senc/naturundmuseum1900senc.pdf)
('Cordierite from North Sulawesi and the so-called vitrified sandstones of Central Germany'. Cordierite mineral in obsidian-like rock among augite-andesites of Soputan volcano S of Menado in N Sulawesi)

Bucking, H. (1904)- Beitrage zur Geologie von Celebes. Sammlungen Geologischen Reichs-Museums Leiden, ser. 1, 7, p. 29-205.
(online at: www.repository.naturalis.nl/document/552426)
('Contributions to the geology of Sulawesi', in 6 chapters. Early descriptions of SW Sulawesi igneous, metamorphic, sedimentary rocks. First description of (Bantimala) Cretaceous metamorphic complex in Pangkajene River area: mica-schist, glaucophane schist, etc. associated with serpentinites, and overlain by radiolarian cherts, Eocene coal-bearing clastics and Nummulites limestones and Miocene limestones)

Budiman, A.A., K. Anggayana, A.H. Widayat, D. Sasonlo & R. Fakhruddin (2024)- Organic geochemical, petrographic and palynological characterization of claystones of the Palaeogene Toraja Formation, and oil seeps in the Enrekang Sub-basin, south Sulawesi, Indonesia: implications for hydrocarbon source rock potential. Energy Geoscience 5, 3, p. 1-18.
(manuscript online at: https://www.sciencedirect.com/science/article/pii/S2666759224000027)
(Organic geochemistry of 30 claystone samples of Late Eocene- Oligocene Toraja Fm outcrops in Enrekang Basin in N part of S Arm of Sulawesi. With mixed Type II- III kerogen and immature to post-mature (vitrinite reflectance 0.47-4.52 % Ro. Oil seep sample from area presumably from Paleogene source, but more marine than outcrop samples)

Budiman, B., I. Hardjana & Hermadi (2011)- The geology and Au-mineralization system in the Totopo West Prospect, Gorontalo, Indonesia. In: N.I. Basuki (ed.) Proc. Conference Sulawesi Minerals Resources 2011, Manado, MGEI/IAGI, p. 189-200.
(see also Budiman et al. (2012), below)

Budiman, B., I. Hardjana & Hermadi (2012)- The geology and Au-mineralization system in the Totopo West Prospect, Gorontalo, Indonesia. Majalah Geologi Indonesia (IAGI) 23, 3, p. 159-170.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/732)
(Same paper as Budiman et al. 2011). Totopo West gold prospect, W of Gorontalo, probable Miocene andesitic volcanics unconformably overlain by Pliocene-Pleistocene dacitic volcanics, all intruded by contemporaneous diorite and dacite porphyry dykes. Additional exploration required)

Burhanuddin, M.S. (2024)- Study on organic matter enrichment and preservation control in carbonate source rock: field analogue from the Mesozic sedimentary tock in Southeast Arm of Sulawesi. Doct. Science Thesis, Akita University, Japan, p. 1-43.
(online at: https://air.repo.nii.ac.jp/record/2001469/files/shihakukou1517.pdf)
(Study of potential hydrocarbon source rocks in Mesozoic interbedded carbonate-shale intervals of (syn-roft) Triassic-Jurassic Tokala Fm and (drift) Cretaceous Matano Fm outcrops in highly deformed sections in N Konawe and S Bungku areas in SE Arm of Sulawesi. No biostrat validation for ages or formation assignments; used correlations to previous GRDC maps. Tokali Fm samples analyzed mainly shales- calcareous shales. Locally high TOC (>4%) in Tokala Fm. Depositional facies models based on geochem (rather short for a doctoral thesis?; JTvG)

Burhanuddin, M.S., S. Chiyonobu, T. Ando, A. Yusriani, R. Husain & S. Asfar (2024)- Hydrocarbon potential of the Triassic-Jurassic sediments in Southeast Sulawesi, Indonesia, based on lithofacies and geochemical analysis. Open Journal of Geology 14, 8, p. 723-745.
(online at: https://www.scirp.org/journal/paperinformation?paperid=135171)

(Geochemistry of outcrop samples of Triassic-Jurassic Tokala Fm carbonates- shales in SE Sulawesi. Triassic-Jurassic Tokala Fm limestones overlie synrift Triassic Meluhu Fm and is carbonate platform that may be correlated with Manusela and Saman-Saman Fms in Seram basin and Winto Fm in Buton. Believed to be potential oil source rock, especially in laminated bituminous shale facies (up to 3-4% organic matter), etc. (unfortunately no biostrat support for age, formation assignments and facies interpretations;"foraminifera were diverse, with elongated, oval, and circular shapes"; JTvG)

Burhanuddin, M.S., A. Jaya & A. Maulana (2021)- Biomarker characterization of oil seepages in Tomori Basin, Central Sulawesi, Indonesia. Proc. 3rd Int. Conference Global Issue for Infrastructure, Environment, and Socio-Economic Development (GIESED 2020, Makassar), IOP Conference Series: Earth and Environmental Science 921, 012026, p. 1-5.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/921/1/012026/pdf)
(Onshore oil seepage off NW side of Tomini Bay/Basin at Wosu and Kolo. Wosu Oil analyses suggest anoxic conditions in hypersaline environment. Kolo Oil indicative of terrestrial organic input under oxic conditions)

Buskamal, M.T. Djunaedi & Nur Hasjim (1999)- Biostratigraphic study of Toraja Formation, Kalosi, South Sulawesi. Proc. 28th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 3, p. 21-34.
(online at: https://www.iagi.or.id/web/digital/57/3.pdf)
(In Indonesian. Summary of biostratigraphy of marine Eocene Toraja Fm in area S and SW of Kalosi, in NE part of S Arm of Sulawesi, unconformably over Late Cretaceous Latimojong Fm. M-L Eocene planktonic foram zones P12-P16, nannofossil zones NP14-NP20. Rantepao Limestone Member with Late Eocene (Tb) larger forams Discocyclina, Nummulites, Pellatispira. Palynomorphs Proxapertitus cursus zone)

Caesario, D., N. Nawaleda, B.B. Susetyo & M.I. Bagus (2022)- Bombana gold hunt: geomorphology, geology & land use changes. Proc. 2nd Int. Conference of Geography (ICGEO 2022), Padang, p. 1-13.
(online at: https://eudl.eu/pdf/10.4108/eai.19-11-2022.2332159)
(Recent gold rush in 2008-2022 in Mekongga and Rumbia Mountain Ranges in SE Sulawesi. Gold is hosted in Cretaceous subduction metamorphics complex, which comprises glaucophane schist (younger phase of metamorphism, caused by deep overthrusting (subduction) from igneous protolith), chlorite schist, mica schist, marble, etc., overlain by M-L Miocene conglomerates and limestones. Quartz veins with economic minerals gold, cinnabar and antimony; gold also in alluvial placers)

Cahyaningsih, C. & Y. Admojo (2021)- Tectonic geomorphic of Sulawesi Island and its implication for future large earthquake. J. Geoscience Engineering Environment Technology (JGEET) 6, 4, p. 263-290.
(online at: https://journal.uir.ac.id/index.php/JGEET/article/view/8558/3861)

Cakrabuana, W., R.C. Ciputra & H. Syaeful (2021)- Assessing the undiscovered resources of uranium and thorium in Mamuju, West Sulawesi. Proc. Int. Conference Geological Engineering and Geosciences, Yogyakarta 2021, IOP Conference Series: Earth and Environmental Science 851, 012041, p. 1-9.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/851/1/012041/pdf)
(Miocene potassic Adang Volcanic rocks in Mamuju area, SW Sulawesi, contain U and/or Th minerals)

Caldwell, G. & M. Lillie (2004)- Manuel Pinto's inland sea: using palaeoenvironmental techniques to assess historical evidence from Southwest Sulawesi. In: S.G. Keates & J. Pasveer (eds.) Quaternary Research in Indonesia, Chapter 13, Modern Quaternary Research in Southeast Asia 18, Balkema, Leiden, p. 259-272.
(Discussion of historical Bugis accounts (La Galigo) suggesting expansion of Tempe, Sidenreng and Buaya lakes in SW Sulawesi and possible seaway across SW Arm of Sulawesi)

Calvert, S.J. (2000)- The Cenozoic geology of the Lariang and Karama regions, Western Sulawesi, Indonesia. Ph.D. Thesis, Royal Holloway, University of London, p. 1-353. *(Unpublished)*

Calvert, S.J. (2000)- The Cenozoic evolution of the Lariang and Karama basins, Sulawesi. Proc. 27th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 505-511.

(W Sulawesi influenced by Paleogene development of Makassar Straits to W and Miocene? collision of continental, ophiolitic and island arc fragments to E (E Sulawesi ophiolite and Buton, Tukang-Besi and Banggai-Sula microcontinents). Ages attributed to collision events Early to Late Miocene. Collisions caused uplift, erosion and deposition of 'Celebes Molasse'. Lariang and Karama basins in central W Sulawesi ~10,000 km^2)

Calvert, S.J. & R. Hall (2003)- The Cenozoic geology of the Lariang and Karama regions, Western Sulawesi: new insight into the evolution of the Makassar Straits region. Proc. 29th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 501-517. *(online at: https://www.academia.edu/77328830/The_Cenozoic_Geology_of_the_Lariang_and_Karama_Regions_Western_Sulawesi_New_Insight_into_the_Evolution_of_the_Makassar_Straits_Region)*
(W Sulawesi Lariang and Karama regions oldest sediments ?Paleocene non-marine coals, sandstones, mudstones. Rifting M- Late Eocene. Eocene sediments in graben/half graben in marine and marginal marine environments. Eocene Makassar Straits rift asymmetrical: Kalimantan margin twice width of Sulawesi margin. Start thermal subsidence in Late Eocene. By end-Oligocene most of W Sulawesi shelf carbonate and mudstone deposition. Carbonates- mudstones deposited throughout E Miocene and in places until M or Late Miocene. Little or no evidence of Miocene collisions in W Sulawesi. First evidence of orogenic deformation is Pliocene uplift and erosion, followed by deposition of coarse clastics from orogenic belt to E of study area)

Calvert, S.J. & R. Hall (2006)- The Cenozoic evolution of the Lariang and Karama regions, North Makassar Basin, Western Sulawesi: Indonesia. Proc. Jakarta 2006 International Geoscience Conference Exhib., AAPG/ Indonesian Petroleum Association (IPA), Jakarta06-PG-31, p. 1-5.
(online at: https://earthjay.com/earthquakes/20200818_philippines/calvert_hall_2006%20Lariang-Karama%20basins%20Sulawesi.pdf)
(Brief review of geology of Cenozoic Lariang and Karama basins, W Sulawesi))

Calvert, S.J. & R. Hall (2007)- Cenozoic evolution of the Lariang and Karama regions, North Makassar Basin, western Sulawesi, Indonesia. Petroleum Geoscience 13, p. 353-358. *(online at: https://www.academia.edu/63296053/Cenozoic_evolution_of_the_Lariang_and_Karama_regions_North_Makassar_Basin_western_Sulawesi_Indonesia)*
(Similar to papers above. Main contractional deformation in W Sulawesi is mid-Pliocene, whereas in E Kalimantan it dates from E Miocene)

Camplin, D.J. & R. Hall (2013)- Insights into the structural and stratigraphic development of Bone Gulf, Sulawesi. Proc. 37th Annual Conv. Indonesian Petroleum Association, Jakarta, IPA13-G-079, p. 1-24.
(Bone Bay seismic stratigraphic study. Gulf can be divided into several transtensional sub-basins and highs, which are important strike-slip fault zones trending roughly WNW-ESE. Extension occurred since M Miocene, although may have started in E Miocene)

Camplin, D.J. & R. Hall (2014)- Neogene history of Bone Gulf, Sulawesi, Indonesia. Marine and Petroleum Geology 57, p. 88-108.
(online at: http://searg.rhul.ac.uk/pubs/camplin_hall_2014%20Bone%20Bay%20Sulawesi.pdf)
(Bone Gulf probably underlain by pre-Neogene volcanogenic, sedimentary, metamorphic and ultramafic rocks. Basin initiation probably in Miocene, by extension associated with strike-slip deformation. Main basin trend N-S, divided into several sub-basins. Carbonate deposits formed at margins while deeper marine sediments were deposited in axial parts. Early Pliocene unconformity marks major uplift of Sulawesi and subsidence of Bone Gulf, causing major influx of clastics from the north. Hydrocarbons indicated by seeps)

Cao, L., C.C. Lu, X. He, N. Rawlinson, T. Hao, S. Widiyantoro, P. Supendi, L. Zhao et al. (2024)- Mantle flow induced by the interplay of downgoing slabs revealed by seismic anisotropy beneath the Sula Block in Eastern Indonesia. J. of Geophysical Research: Solid Earth 129, 5, e2023JB028110, p. 1-16.
(online at: https://www.researchgate.net/publication/380630229_Mantle_Flow_Induced_by_the_Interplay_of_Downgoing_Slabs_Revealed_by_Seismic_Anisotropy_Beneath_the_Sula_Block_in_Eastern_Indonesia)

(Upper mantle deformation below N Sulawesi, in area of interactions between two active and one extinct subduction zones: (1) N Sulawesi subduction zone with S-ward subduction of Celebes Sea slab to depth of ~250 km, mainly overlying (2) Sangihe slab that subducts W from Molucca Sea and penetrates mantle transition zone; (3) paleo-subducted N-dipping Sula slab, partially underlies Sangihe and Celebes Sea slabs. Extensive Palu-Koro strike-slip fault marks western boundary of underlying active N Sulawesi subduction zone. Typical mantle wedge corner flow within Sangihe subduction system. Etc.)

Carlile, J.C., S. Digdowirogo & K. Darius (1990)- Geological setting, characteristics and regional exploration for gold in the volcanic arcs of North Sulawesi, Indonesia. In: J.E. Hedenquist et al. (eds), Epithermal Gold Mineralization of the Circum Pacific: Geology, Geochemistry, Origin and Exploration, J. Geochemical Exploration 35, p. 105-140.
(N Sulawesi significant gold province in series of spatially overlapping Tertiary volcanic arcs. In W rhyodacitic volcanics overlie quartzo-feldspathic metamorphic basement. Oldest rocks in W part (Marisa region, same age as Palu granodiorite, ~31 Ma). In C and E areas submarine basaltic basement overlain by andesitic volcanics, centres of which migrated progressively E from E Miocene to present day. Four categories of gold mineralization: porphyry Cu-Au, Au and base metal breccia and high- and low sulpidation epithermal)

Carlile, J.C. & A.G. Kirkegaard (1985)- Porphyry copper-gold deposits of the Tombulilato district, North Sulawesi, Indonesia: an extension of the Philippine porphyry copper-gold province. In: M.P. Jones (ed.) Proc. Asian Mining ’85 Conference, Manila 1985, Institute of Mining Metallurgy (IMM), London, p. 351-363.

Caron, M.H. (1939)- De aanrijking van nikkel in den verweeringsbodem van peridotiet gesteenten. De Ingenieur 39, M.Mijnbouw, 1, p. 1-12.
(online at: https://resolver.kb.nl/resolve?urn=dts:2973086:mpeg21:pdf)
(‘The enrichment of nickel in weathering soils of peridotite rocks’. Extensive summary of a presentation by Prof. M.H. Caron of Delft. Mentions nickel economic feasibility work on nickel deposits in E Sulawesi (Soroako) in 1917-1920s by J.W.A. Adam, Dieckmann, etc.. Later also Koolhoven work at Boeloe Balang. Etc.))

Caron, M.H. (1945)- De lateriet-ijzerertsen van Midden-Celebes. De Ingenieur 1945, 13, p.
(‘The laterite iron ores of Central Sulawesi’)

Caron, M.H. (1947)- De oplosbaarheid van nikkel na reductie van garnieriet en ijzerrijke nikkel verbindingen. De Ingenieur 59, 32, p. 31-41.
(‘The solubility of nickel after reduction of garnierite and iron-rich nickel compounds’)

Carthaus, E. (1900)- Beobachtungen auf Celebes und Sumatra, briefliche Mitteilungen Sammlungen Geologischen Reichs-Museums Leiden, ser. 1, 6, p. 246-249.
(online at: www.repository.naturalis.nl/record/509505)
('Observations on Sulawesi and Sumatra, a brief communication'. Early report with geological observations made by Dr. Emil Carthaus from Tosari during a trip to W Sulawesi in early1900, incl. leucite-bearing volcanics along coast S of Mamuju, etc. No maps, figures)

C & C Reservoirs (1997)- Kampung Baru Field, East Sengkang Basin, Indonesia. Digital Analogs, Reservoir Evaluation Report, Far East, p. 1-15.
(Late Miocene Tacipi Fm gas-bearing (350 GCF) reefal buildup on carbonate platform, encased in deep water shales in SW Sulawesi. Moldic porosity from fresh-water leaching)

Cendrajaya, R.I.M., L.I. Juarsan, Masri, A. Rubaiyn, Syahrul, Neni, S. Ramadani & Hasria (2024)- Petrochemistry of ultramafic rock in Baula-Pomalaa Ophiolite Complex, Southeast Sulawesi, Indonesia. J. Geoscience Engineering Environment Technology (JGEET) 9, 1, p. 44-51.
(online at: https://journal.uir.ac.id/index.php/JGEET/article/view/14491/6288)
(Baula and Pomalaa Ophiolitic Complexes part of Cretaceous East Sulawesi Ophiolite (ESO). Ultramafic rocks mainly peridotite, mostly serpentinized, and different paleo-temperature levels, based on pyroxene thermometer.

Different generations of exsolution lamellae indicate magma cooling was gradual. Tectonic setting was ocean floor; magmatism was Mid Oceanic Ridge Basalt))

Chaerul, M., L.O. Ngkoimani & S. Sadri (2017)- Limestone facies and diagenesis on Tondo Formation at Kaisabu Village Bau-Bau City Southeast Sulawesi Province. J. Geoscience Engineering Environment Technology (JGEET) 2, 1, p. 9-13.
(online at: https://journal.uir.ac.id/index.php/JGEET/article/view/14)
(E-M Miocene Tondo Limestone near Bau Bau composed of wackestone and packstone. Wow.)

Choi, Y. & B. Kim (2023)- Characteristics and controlling factors on nickel laterite deposits in Sulawesi, Indonesia. Economic and Environmental Geology (Korean Soc. Economic Environmental Geology) 56, 3, p. 343-363. *(in Korean, with English abstract)*
(online at: https://www.kseeg.org/journal/view.html?doi=10.9719/EEG.2023.56.3.343)
(Nickel laterite deposits in Sulawesi formed by lateritization of large East Sulawesi Ophiolite, under active tectonic setting and tropical rainforest climate. Exploration cases for nickel laterite deposits in five regions of Sulawesi reported here. In Morombo and Morowali regions, typical high-grade saprolite-type orebodies with thickness of 10-20m. High grade intervals where joints and garnierite veins are dense)

Choi, Y., I. Lee & I. Moon (2021)- Geochemical and mineralogical characteristics of garnierite from the Morowali Ni-laterite deposit in Sulawesi, Indonesia. Frontiers in Earth Science 9, 761748, p. 1-17.
(online at: https://www.frontiersin.org/articles/10.3389/feart.2021.761748/full)
(Morowali Ni-laterite deposit in E Sulawesi Ophiolite, developed in laterite profile on weathered serpentinized harzburgite. Main Ni-ore is garnierite, concentrated in saprolite horizon. Serpentine-like and talc-like phases)

Cifa, A.A., Y. Sutadiwira, Rendy, A.Y. Puteri, A. H. Yusuf, A. Arifin, R. Ramadana & M. Gamara (2025)- Analysis of depositional environment and geochemical characteristics of source rocks in Mallawa Formation, South Sulawesi Province. Proc. 1st Int. Conference of Petroleum Mining Geology Geoscience Energy & Environmental Technology (ICPMGET 2024), Jakarta 2024, IOP Conference Series: Earth and Environmental Science 1451, 012022, p. 1-13.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1451/1/012022/pdf)
(Trisakti paper on geochemistry of 8 outcrop samples of (Eocene) sandstone-coal sections of Malawa Fm in SW Sulawesi. Coals TOC ~58-60% (seems 'dirty'; JTvG). Vitrinite Reflectance Ro% 0.25-0.31%, which means thermally immature for hydrocarbon generation)

Cipta, A., R. Robiana, J.D. Griffin, N. Horspool, S. Hidayati & P. Cummins (2016)- A probabilistic seismic hazard assessment for Sulawesi, Indonesia. In: P.R. Cummins & I. Meilano (eds.) Geohazards in Indonesia; Earth science for disaster risk reduction, Geological Society, London, Special Publ. 441, p. 1-20.
(High seismic activity rates, both along fast-slipping crustal faults (Palu-Koro-Matano Fault) and in regions of distributed deformation, contribute moderate-high earthquake hazard over all but the SW part of Sulawesi)

Cipta, A., A. Rudyanto, H. Afif, R. Robiana, A. Solikhi, A. Omang, Supartoyo & S. Hidayati (2020)- Unearthing the buried Palu-Koro Fault and the pattern of damage caused by the 2018 Sulawesi earthquake using HVSR inversion. In: Y. Dilek et al. (eds.) Characterization of modern and historical seismic–tsunamic events, and their global-societal impacts, Geological Society, London, Special Publ. 501, p. 185-203.

Ciputra, R.C., F. Pratiwi, A.F. Putra, H. Syaeful, F.D. Indrastomo, T.Ba. Adimedha, Y. Rachael & I G .Sukadana (2025)- Makassar Strait thrust- Mamuju segment (MSTM) perspective on radioactive mineral exploration: A case study in Rantedoda, Mamuju. Indonesian J. on Geoscience (IJOG) 12, 3, p. 383-400.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/1152/515)
(On faulting and radioactive and REE mineralization in onshore SW Sulawesi Mamuja area of M Miocene-Pliocene volcanics)

Cita, A., H. Moechtar, U.M. Lumbanbatu, Subiyanto & S. Poedjoprajitno (eds.) (2014)- Geodinamika Kuarter daerah Sulawesi Utara. Pusat Survei Geologi (Badan Geologi), Bandung, Special Publ., p. 1-275.

('Quaternary geodynamics of the North Sulawesi region'. Collection of papers on Quaternary of Sulawesi)

Coffield, D.Q., S.C. Bergman, R.A. Garrard, N. Guritno, N.M. Robinson & J. Talbot (1993)- Tectonic and stratigraphic evolution of the Kalosi PSC area and associated development of a Tertiary petroleum system, South Sulawesi, Indonesia. Proc. 22nd. Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 679-706.
(S Sulawesi basement imbricated, metamorphic Mesozoic sediments and ophiolites (SE Sundaland Cretaceous accretionary complex). Unconformably overlain by Paleo-Eocene volcanics and Eocene fluvial- lacustrine rocks, associated with extensional faulting. U Eocene- M Miocene Tonasa Fm platform carbonates reflect quiescence. Thick M Miocene- Pliocene N-S trending bimodal volcano- plutonic belt reflects E-M Miocene subduction beneath S Sulawesi and obduction of oceanic crust onto E Sulawesi micro-continent(s), followed by M-L Miocene collision. These are unconformably overlain by latest Miocene- earliest Pliocene Tacipi reef carbonates and Pliocene and younger synorogenic clastics. Continued Pliocene convergence formed W-vergent orogen in S Sulawesi, with thin-skinned thrusting in W and basement-involved thrusting in E. Oils from seeps typed to mature Eocene source rocks)

Coffield, D.Q., N. Guritno, M.E.J. Wilson & N.A. Ascaria (1997)- Petroleum systems of South Sulawesi, Indonesia (fieldtrip summary). In: J.V.C. Howes & R.A. Noble (eds.) Proc. Int. Conference Petroleum Systems of SE Asia and Australasia, Indonesian Petroleum Association (IPA), Jakarta, p. 1001-1010.
(S Sulawesi dominated by W-verging Late Miocene- Pliocene foldbelt. Source rocks in deltaic coals of early transgressive sequences. Late Tertiary magmatism and subsequent Pliocene orogenesis resulted in formation of multiple kitchen areas. Potential reservoirs throughout Late Tertiary section, although only Late Miocene-Pliocene (post-magmatic/ pre-orogenic) carbonates proven productive to date in S Sulawesi)

Coffield, D., N. Guritno, M. Wilson & A. Ascaria (1997)- Petroleum systems of South Sulawesi, Indonesian Petroleum Association (IPA), Fieldtrip guidebook, p. 1-81.

Collins J.S.H. & A.J. Barber (1998)- A new middle Eocene crab, *Lobocarcinus pentanodosus* sp. nov. (Crustacea, Decapoda) from Doi Doi, Barru, South Sulawesi, Indonesia. Bull. Mizunami Fossil Museum, Mizunami City, Japan, 25, p. 97-101.
(New cancroid crab fossils from M Eocene of S Sulawesi. This is first record of genus from W Pacific)

Cool, H. (1910)- Een mijnbouwkundige en geologische onderzoekingsreis in Celebes. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2) 27, p. 112-127.
(online at: https://resolver.kb.nl/resolve?urn=MMUBA13:001653001:pdf)
('A mining-geological survey trip in Sulawesi'. March-August 1909 trip by Ir. Hugo Cool to N part of SW Arm and part of C Sulawesi with J. de Koning Knijff. Mainly travel report of 1909 survey to Toraja lands; little or no geology. Baroko oil seep W of Kalosi)

Cornee, J.J., R. Martini, M. Villeneuve, L. Zaninetti, E. Mattioli, R. Rettori, F. Atrops & W. Gunawan (1997)- Jurassic pelagic deposits of East Sulawesi (Kolonodale Area, Indonesia): new biostratigraphic data based on calcareous nannofossils. In: Geoitalia, 1 Forum FIST, 2, p. 97-98 *(Abstract)*
(online at: http://archive-ouverte.unige.ch/unige:4764)
(E-M Jurassic (Toarcian-Bathonian) calcareous nannoplankton above Late Triassic limestones in dismembered succession in Kolonodale-Beteleme area of W margin of E Sulawesi Zone)

Cornee, J.J., R. Martini, M. Villeneuve, L. Zaninetti, E. Mattioli, R. Rettori, F. Atrops & W. Gunawan (1999)- Mise en evidence du Jurassique inferieur et moyen dans la ceinture ophiolitique de Sulawesi (Indonesie). Consequences geodynamiques. Geobios 32, 3, p. 385-394.
(online at: www.academia.edu/9355841/volution_g%C3%A9odynamique_de_lIndon%C3%A9si Etc.)
('Evidence of Lower and Middle Jurassic in the Sulawesi ophiolite belt: geodynamic consequences'. ~350m E-M Jurassic deep marine clays and carbonates over Latest Triassic reefal carbonates in E Sulawesi Kolonodale area, indicating major subsidence after Triassic carbonate deposition. Thin E Jurassic limestones with Involutina liassica. On W bank of Lambolo Gulf in thin Toarcian shale one ammonite of Hammatoceras moluccanum group. Ophiolite overrides rel. thin Late Cretaceous- Paleogene pelagic limestones. Prior to Neogene tectonics, which

strongly dismembered E Indonesia, ophiolitic tectonic zone of E Sulawesi probably part of wide paleogeographic block that included some of Banda Sea continental fragments (Buru, Seram, Buton, Sinta Ridge))

Cornee, J.J., G. Tronchetti, M. Villeneuve, B. Lathuiliere, M.C. Janin, P. Saint-Marc, W. Gunawan & H. Samodra (1995)- Cretaceous of eastern and southeastern Sulawesi (Indonesia): new micropaleontological and biostratigraphical data. J. Southeast Asian Earth Sciences 12, 1, p. 41-52.
(online at: www.academia.edu/6862893/Cretaceous_of_eastern_and_southeastern_Sulawesi_Indonesia Etc.)
(New outcrops of pelagic carbonates of Albian and Campanian-Maastrichtian age in strongly tectonized areas in E and SE Sulawesi. Species indicate no major difference in facies of E and SE arms of Sulawesi. Similar pelagic facies also in numerous places in E Indonesia and in distal Australian shelf during Late Cretaceous)

Cornee, J.J., M. Villeneuve, R. Martini, L. Zaninetti, D. Vachard, B. Vrielynck, W. Gunawan, H. Samodra & L. Sarmili (1994)- Une plate-forme carbonatee d'age rhetien au centre-est de Sulawesi (region de Kolonodale, Celebes, Indonesie). Comptes Rendus Academie Sciences, Paris 318, Ser. II, p. 809-814.
(online at: https://archive-ouverte.unige.ch/unige:4767)
('A carbonate platform of Rhaetian age in Central-East Sulawesi (Kolonodale region'. Widespread outcrops of ~150m of white latest Triassic reefal carbonates S and SW of Kolonodale (structurally below E Sulawesi ophiolite terrane?). Limestones range from boundstone to grainstone. Non-skeletal grains mainly peloids and some ooids and intraclasts. Skeletal grains molluscs, green algae (including dasycladaceans), echinoderms and benthic foraminifera (Aulotortus spp., Auloconus, Triasina hantkeni) and locally also brachiopods, coral clusters. Limestones can be correlated with U Triassic limestones of Tokala Mts of Sulawesi East Arm)

Costa, K.M., J.M. Russell, H. Vogel & S. Bijaksana (2015)- Hydrological connectivity and mixing of Lake Towuti, Indonesia in response to paleoclimatic changes over the last 60,000 years. Palaeogeogr. Palaeoclim. Palaeoecology 417, p. 467-475.
(Sediment geochemistry of cores from Lake Towuti in C Sulawesi records paleoclimate changes over last 60 ka. During Last Glacial Maximum no changes in sediment provenance, despite drier climate, but trace elements suggest decrease in weathering intensity, likely in response to decreased precipitation and temperature)

Cottam, M.A., R. Hall, M. Forster & M. Boudagher Fadel (2011)- Basement character and basin formation in Gorontalo Bay, Sulawesi, Indonesia: new observations from the Togian Islands. In: R. Hall, M.A. Cottam & M.E.J. Wilson (eds.) The SE Asian gateway: history and tectonics of Australia-Asia collision, Geological Society, London, Special Publ. 355, p. 177-202. *(online at: https://www.researchgate.net/publication/260451427_Basement_character_and_basin_formation_in_Gorontalo_Bay_Sulawesi_Indonesia_New_observations_from_the_Togian_Islands)*
(Togian islands stratigraphy includes Walea Fm pillow basalts and volcanic breccias of unknown age, overlain by late Middle Miocene Peladan Fm limestone, overlain by Late Miocene- E Pliocene Bongka Fm/ Celebes Molasse and uplifted ?Pleistocene reef terraces. Field relationships indicate latest Miocene- Pliocene age for inception of Gorontalo Bay basin. Young medium-K to shoshonitic volcanism in Togian Islands not due to subduction but reflects crustal thinning and extension in Pliocene- Pleistocene. Extension continuing today. Extension and subsidence driven by rollback of subduction hinge at N Sulawesi Trench.)

Crotty, K.J. & D.W. Engelhardt (1993)- Larger foraminifera and palynomorphs of the upper Malawa and lower Tonasa Formations, southwestern Sulawesi Island, Indonesia. In: T. Thanasuthipitak (ed.) Int. Symposium Biostratigraphy of mainland Southeast Asia: facies and paleontology (BIOSEA), Chiang Mai 1993, p. 71-82.
(online at: https://library.dmr.go.th/elib/cgi-bin/opacexe.exe?op=mmvw&db=Main&skin=S&mmid=12845&bid=2298)
(SW Sulawesi M Eocene coal-bearing Malawa Fm clastics with pollen Retitribrevicolporites matamanadhensis and dinoflagellates Muratodinium fimbriatum and Homotryblium floripes. Overlying clastics/ limestones Late Eocene with Verrucatosporites usmensis, Nummulites javanus (Ta3?) and Pellatispira- Biplanispira (Tb), Discocyclina and Asterocyclina. Overlain by ~120' thick basal dolomitic member of E Oligocene Tonasa Lst with Coskinolina, Praerhapidionina, arenaceous foraminifera and miliolids, overlain by thin zone Tc with Nummulites fichteli and zone Td with same + Eulepidina, Austrotrillina striata. Near top of Tonasa quarry, Late Oligocene/ Te1-4 with Nephrolepidina, Spiroclypeus and Heterostegina borneensis. No miogypsinids seen)

Cucci, M.A., R.A. Garrard & M. Golborne (1994)- The Early Tertiary rift basins of offshore South Sulawesi, Indonesia. AAPG Annual Convention, Denver *(Abstract)*
(Offshore S Sulawesi Paleogene rift system activated and failed twice. Initial rifting Late Paleocene-E Eocene, with N-S oriented sags on Cretaceous platform with Langi Fm volcanics. By M Eocene rifting failed and uplift/ erosion formed major unconformity. Second rift event M Eocene, close to earlier 'sags'. N-S orientation, from off S Sulawesi to near Sabalana Island at intersection with E-W trending Kangean-Lombok rift system. M Eocene terrestrial-lacustrine Malawa/Toraja Fms overlain by fluvio-deltaic deposits. In Late Eocene rifting ceased, leaving extensive shelfal areas isolated from Sulawesi sediment supply. Transgression initiated vast Tonasa/ Makali Fm carbonate platform with localized reefal buildups. Late Miocene carbonates gave way to siliciclastics (Camba Fm), derived from establishment of major magmatic belt. Late Tertiary compressional tectonics inverted many Paleogene rifts to form classic 'Sunda- type' folds)

Cui, H., Y. Wan, X. Wang, J. Huang & Z.T. Jin (2021)- Characteristic of tectonic stress field in source region of 2018 MW7.6 Palu earthquake and Sulawesi area. J. of Earth Science 46, 7, p. 2657-2674. *(in Chinese)*

Dam, R.A.C., J. Fluin, P. Suparan & S. van der Kaars (2001)- Paleoenvironmental developments in the Lake Tondano area (N-Sulawesi, Indonesia) since 33,000 yr B.P. Palaeogeogr. Palaeoclim. Palaeoecology 171, p. 147-183.
(Lake Tondano at 680m above SL. Lake levels rose and fell. Late Pleistocene phase with lower precipitation and lower temperatures. Ongoing progressive deforestation of Tondano upland)

Damanik, A., M. Wille, Q. Ahmad, S. Chatterjee, S.A. Crowe, K.W. Bauer, M. Grosjean, S.Y. Cahyarini, S Bijaksana et al. (2024)- Low Mo mobility during the laterization of ultramafic bedrock: Evidence from the East Sulawesi Ophiolite, Indonesia. Chemical Geology 660, 122150, p. 1-11
(online at: https://www.sciencedirect.com/science/article/pii/S0009254124002304)
(Molybdenum concentrations in chemically weathered laterite from area S of Lake Matano only slightly higher than in underlying peridotite bedrock)

Darman, H. (2011)- Seismic expression of North Sulawesi subduction zone. Berita Sedimentologi 22, p. 5-8.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/download/198/168)
(Seismic lines/ cross sections of recent subduction complex of Sulawesi Sea plate under Sulawesi North Arm)

De Beaufort, L.F. (1926)- On a collection of marine fishes from the Miocene of South Celebes. Jaarboek Mijnwezen Nederlandsch-Indie 54 (1925), Verhandelingen 1, p. 115-148.
(Fish fossils collected by Brouwer in 1923 from lithographic (lagoonal?) platy limestone mear Patanuang Asi, Maros district, S Sulawesi Fifteen coastal marine fish species, including herring-like Sardinella brouweri and Lutjanus. Associated foraminifera identified by Rutten as Early Miocene age. No location or stratigraphy info)

De Beaufort, L.F. (1934)- On a fossil fish from Gimpoe (Central Celebes). Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie, 2, p. 180-181.
(Brief description of fish fossils, probably fresh-water and of Neogene age, collected at Gimpoe basin, C Sulawesi, by Brouwer 1929 expedition. Includes new species Lithopoecilu brouweri. No figures)

De Klerk, L.G. (1983)- Zeespiegels, riffen en kustvlakten in Zuidwest-Sulawesi, Indonesia: een morfogenetisch-bodemkundige studie. Ph.D. Thesis University of Utrecht, p. 1-174.
('Sea levels, reefs and coastal plains of Southwest Sulawesi, Indonesia: a morphogenetic-pedological study'. On the Holocene evolution of the Spermonde Archipelago coral reefs and adjacent SW Sulawesi coastal region)

De Koning Knijff, J. (1914)- Geologische gegevens omtrent gedeelten der afdelingen Loewoe, Pare Pare en Boni van het Gouvernement Celebes en onderhoorigheden. Jaarboek Mijnwezen Nederlandsch Oost-Indie 41 (1912), Verhandelingen 1, p. 277-312.
(Report on 1909 geological reconnaissance surveys in Luwu, Pare Pare and Bone districts (S and C Sulawesi), compiled by H.A. Brouwer. Not overly useful)

Delisle, G., H. Beiersdorf, S. Neben & D. Steinmann (1998)- The geothermal field of the North Sulawesi accretionary wedge and a model on BSR migration in unstable depositional environments. In: J.P. Henriet et al. (eds.) Gas hydrates: relevance to world margin stability and climate change, Geological Society, London, Special Publ. 137, p. 267-274.
(Distribution of heat flow in N Sulawesi accretionary wedge derived from depths of bottom simulating reflector (BSR) and nine in situ heat flow measurements. High heat flow of ~70-100mWm 2 near deformation front and systematic decrease to 30mWm-2 landwards)

De Man, J.G. (1904)- Beschreibung einiger brachyurer Krebse aus post-Tertiaren schichten der Minahassa, Celebes. Sammlungen Geologischen Reichs-Museums Leiden, E.J. Brill, ser. 1, 7, 1, p. 254-278.
(online at: www.repository.naturalis.nl/document/552414)
(Description of Quaternary brachyurid crab fossils from marls near Kajoe ragi, along road from Menado to Kema, N Sulawesi, collected by R. Fennema. Incl. new species Metopoxantho martini and Macrophthalmus granulosus. Associated molluscs described by Schepman 1907)

De Roever, W.P. (1947)- Igneous and metamorphic rocks in Eastern Central Celebes. In: H.A. Brouwer (ed.) Geological explorations of the island of Celebes, North Holland Publishing Co., Amsterdam, p. 67-173.
(Two main metamorphic facies in eastern C Sulawesi: older epidote-amphibolite facies and younger lawsonite-glaucophane blueschist facies. Many rocks polymetamorphic, affected by both facies. Epidote-amphibole facies over whole region, glaucophane facies in western half of eastern C Sulawesi only (Lake Poso, etc.) (can now be interpreted as exhumed subduction zone?; JTvG))

De Roever, W.P. (1950)- Preliminary notes on glaucophane-bearing and other crystalline schists from Southeast Celebes, and on the origin of glaucophane-bearing rocks. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 53, 9, p. 1455-1465.
(online at: https://dwc.knaw.nl/DL/publications/PU00018892.pdf)
(Petrographic study of 170 crystalline schist samples from SE Sulawesi, collected by Bothe, Hetzel and Straeter. Two metamorphics groups, similar to Kabaena island (De Roever 1953): (1) Rumbia and Mendoke Mts mainly glaucophane-lawsonite schist facies (metamorphism of 'alpine orogene'; original material of Mesozoic age) and (2) lower La Solo River mainly amphibolite and greenschist-dynamometamorphic facies (probably Paleozoic or older original rock and pre-alpine age metamorphism?). 'Paired metamorphic belt' of lawsonite-glaucophane schists-ultrabasites in East, andalusite-cordierite metamorphics- granites on W side of Sulawesi)

De Roever, W.P. (1951)- Ferrocarpholite, the hitherto unknown ferrous analogue of carpholite. Indonesia. American Mineralogist 36, p. 736-745.
(Ferrocarpholite new dark green prismatic mineral from cobble of metamorphic vein-quartz collected by Hetzel, W of Tomata, eastern Central Sulawesi (= part of high P/ low T blueschist metamorphic facies; JTvG))

De Roever, W.P. (1953)- Tectonic conclusions from the distribution of the metamorphic facies in the island of Kabaena near Celebes. Proc. 7th Pacific Science Congress, New Zealand 1949, 2, Geology, p. 71-81.
(Metamorphic facies map of Kabaena Island off SE arm of Sulawesi and W of Buton. Peridotites-serpentinites are uppermost tectonic unit. Separated by overthrust fault from underlying metamorphic schists of amphibolite and epidote-amphibolite facies. Below this another overthrust plane. Lowermost tectonic unit ?Mesozoic schists in glaucophane-lawsonite facies, thrusted 10's of km; movements directed approximately to N)

De Roever, W.P. (1955)- Genesis of jadeite by low-grade metamorphism (Celebes). American Journal of Science 253, 5, p. 283-298.
(Jadeite-rich pyroxene occurs as zoned crystals in metamorphic quartzite of Salimoeroe and Koesek River regions, Sulawesi (petrographic descriptions in De Roever 1947). Formed by conversion of albite in psammitic sediments as extreme variety of low-grade metamorphism in glaucophane schist facies)

De Roever, W.P. (1956)- Some additional data on the crystalline schists of the Rumbia and Mendoke Mountains (SE Celebes). Verhandelingen Kon. Nederlands Geologisch Mijnbouwkundig Genootschap (KNGMG), Geologische Serie 16 (Brouwer volume), p. 385-394.
(Rumbia and Mendoke Mts in SE Sulawesi up to 1000m high and composed of metamorphic rocks. Two phases of metamorphism: (1) main phase of rel. deep garnet-lawsonite glaucophane schists, (2) younger 'Alpine' lower grade metamorphism, probably accompanied by large scale overthrusting)

De Roever, W.P. & C. Kieft (1971)- Additional data on ferrocarpholite from Sulawesi (Celebes), Indonesia. American Mineralogist 56, p. 1976-1982.
(Ferrocarpholite from N part of C Sulawesi, resembling actinolite. Most likely product of metamorphism in glaucophane-schist and lawsonite-albite facies)

Dewi, V.K., W. Pusparini, F. Taufik, N.N. Ilmi & A. Gunawan (2019)- Geochemical characteristics of migrated hydrocarbon in the Bone Basin, Bone Gulf, South of Sulawesi, and its implication to the petroleum system. Proc. 43rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA19-SG-582, p. 1-13.
(Geochemical analysis of 80 seafloor piston cores in Bone Bay suggests hydrocarbons derived from lacustrine shale source rocks)

Dieckmann, W. (1919)- Nikkelhoudende lateritische ijzerertsen op Celebes. De Ingenieur 34, 43, p. 782-787.
(online at: https://resolver.kb.nl/resolve?urn=dts:2981064:mpeg21:pdf)
('Nickel-bearing lateritic iron ores on Sulawesi'. Discussion of possibility of establishing iron industry in Netherlands Indies by German iron ore specialist Walter Dieckmann (died in 1922 in Martapura))

Dieckmann, W. & M.W. Julius (1925)- Algemeene geologie en ertsafzettingen van Zuidoost Celebes. Jaarboek Mijnwezen Nederlandsch-Indie 53 (1924), Verhandelingen, p. 11-65.
('General geology and ore deposits of SE Sulawesi'. Mainly valuation of iron, nickel, chromium deposits in weathered peridotites, conducted from February 1917- October 1922 with J.W.H. Adam, W.C.B. Koolhoven, etc., Widespread peridotites, older intensely folded crystalline schists and overlying Late Mesozoic- E Tertiary limestones with radiolarites (= 'Matano Beds' of Koolhoven (1932). Tertiary overlies both old schists and peridotites and all are folded and faulted. Faults mainly NW-trending. With brief appendix on fossils by Van der Vlerk, reporting three groups of pelagic rocks: red radiolarian chert, red shales with 'Globigerina linneana' (= Late Cretaceous Globotruncana; JTvG) and grey shale with Globigerina bulloides (= basal Tertiary? JTvG). Followed by petrographic descriptions by W.F. Gisolf)

Digdowiro, S., K.Darius, G.P. Mu'min & C. Effendi (1990)- Permasalahan geokimia dalam esplorasi mineral: ihwal daerah Bunobogu- Boroko, Sulawesi Utara. Majalah Geologi Indonesia (IAGI) 13, 4, p. 1-18.
('Geochemical problems in mineral exploration: about the Bunobogu-Boroko area, North Sulawesi')

Dill, H.G., A. Fricke, K.H. Henning & H. Gebert (1995)- An APS mineralization in the kaolin deposit Desa Toraget from northern Sulawesi, Indonesia. J. Southeast Asian Earth Sciences 11, 4, p. 289-293.
(Two types of APS (Aluminium-phosphate-sulphate) minerals in Desa Toraget kaolin deposit on Pliocene Tondano Tuff at NE end of N Arm of Sulawesi. Genetic link between epithermal Au mineralization and high sulphidation kaolinitic alteration elsewhere, suggests area may be potential target for Au exploration)

Dirk, M.H.J. (2001)- Petrologi ofiolit lengan tenggara Sulawesi dan potensi sumber daya mineral yang berasosiasi. Geological Research Development Centre (GRDC), Bandung, Special Publ. 28, p. 11-26.
('Petrology of ophiolite of the SE arm of Sulawesi and potential of associated minerals')

Dirk, M.H.J. (2010)- Ofiolit di jalur Sulawesi Timur, Warta Geologi (Newsletter Geological Society Malaysia) 5, 3, p. 40-43.
(online at: http://www.bgl.esdm.go.id/images/stories/warta_geologi/pdf/warta201003.pdf)
('Ophiolite in the East Arm of Sulawesi'. Brief review, in Indonesian/ Malay)

Djajadihardja, Y.S., A. Taira, H. Tokuyama, K. Aoike, C. Reichert, M. Block, H.U. Schluter & S. Neben (2004)- Evolution of an accretionary complex along the North arm of the island of Sulawesi, Indonesia. Island Arc 13, 1, p. 1-17.
(Well-developed accretionary prism at S side N Sulawesi Trench, formed as result of clockwise rotation and N ward movement of N Sulawesi arm after M Miocene Bangai-Sula collision in E. Greatest convergence and widest accretionary wedge in W part of trench/wedge. Growth of accretionary prism started at ~5 Ma)

Djuri, M., Sudjatmiko, S. Bachri & Sukido (1998)- Geologic map of the Majene and western part of the Palopo sheets, Sulawesi, 1:250,000. Geological Research Development Centre (GRDC), Bandung, p.
(Second edition of 1974 W Sulawesi geologic map between 3-4°S (adjacent to Mandar block). Oldest rocks low-metamorphic Upper Cretaceous clastics, overlain by Eocene limestones-clastics, Oligocene and younger clastics, limestones and volcanics, Miocene- Pliocene granitic intrusives. M Miocene- Pliocene molasse unconformable over older sediments)

Dollfus, G.F. (1915)- Paleontologie du voyage a l'ile de Celebes de M.E.C. Abendanon. In: E.C Abendanon, E.C. (1917) Geologische en geographische doorkruisingen van Midden-Celebes (1909-1910), E.J. Brill, Leiden, 3, p. 959-1016.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB24:073693000:00001)
('Paleontology of the voyage to Sulawesi by Abendanon'. Fossils collected by E Abendanon in Central Sulawesi, described by French geologist/paleontologist Gustave F. Dollfus in Paris. Brief descriptions of 'Jurassic' red radiolarian cherts, Upper Cretaceous marls with molluscs (Turritella, Thracia abendanoni, Cytherea verbeeki), hard, dark Eocene Nummulites- Discocyclina- Pellatispira limestone and Oligocene- Pliocene marine sediments with molluscs)

Dollfus, G.F. (1919)- L'Oligocene de l'ile de Celebes. Compte Rendu sommaire des Seances Societe Geologique de France 1919, p. 13-15.
(online at: https://babel.hathitrust.org/cgi/pt?id=mdp. 39015035493991;view=1up;seq=23)
('The Oligocene of Sulawesi island'. Brief summary. Disagrees with Martin (1917) critique of Dollfus (1917), suggesting Dollfus' Oligocene molluscs from Sulawesi should be Neogene. Occurrence of Tympanotonus (Vicarya) verneuili)

Dong, M., C.C. Lu, J. Zhang & T. Hao (2022)- Downgoing plate-buoyancy driven retreat of North Sulawesi Trench: transition of a passive margin into a subduction zone. Geophysical Research Letters 49, e2022GL101130, p. 1-10.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/full/10.1029/2022GL101130
(Transition of N Sulawesi passive continental margin at 5–9 Myr system. Initial subduction of N Sulawesi relies on horizontal stress, while trench retreat depends on negative buoyancy of oceanic lithosphere. Sangihe slab from E reduces space available for subduction of C and E sides, slowing down trench retreat. Different trench retreat velocities along N Arm of Sulawesi resulted in clockwise rotation)

Dong, M., T. Hao, L. Xu, J. Zhang, J. Zhang, C.C. Lu & Q. He (2024)- Subduction without volcanic arc magma: insights from two young subduction zones in the western Pacific. Tectonophysics 874, 8, 230231, p. 1-12.
(online at: https://www.researchgate.net/publication/377970725_Subduction_without_volcanic_arc_magma_Insights_from_two_young_subduction_zones_in_the_western_Pacific)
(North Sulawesi subduction zone deeper than average volcanic sub-arc depth, but, no corresponding volcanoes or arc magmatism along N Sulawesi arm (instead, significant phase of acid-intermediate magmatism during Late Miocene-Pliocene, possibly arising from lithospheric extension. Subducting plate of NSS exhibit shallow below-average sub-arc depth, indicating lower water content. Absence of arc magma in NSS could be explained by the little water influx and shallow water dehydration of subducting slab. Etc.)

Draniswari, W.A., S.I.T. Kusuma, T.B. Adimedha & I Gde Sukadana (2020)- Peran kontaminasi kerak pada diferensiasi magma pembentuk batuan vulkanik Sungai Ampalas, Mamuju, Sulawesi Barat. Eksplorium 41, 2, p. 73-86.
(online at: https://jurnal.batan.go.id/index.php/eksplorium/article/download/6040/pdf)

('Crustal contamination role on magma differentiation of volcanic rocks in Ampalas River, Mamuju, West Sulawesi'. Anomalous radioactivity in volcanic rock boulder in Ampalas River Area)

Du, H., Y. Fang, X. Yin & K. Zhang (2019)- Formation and petroleum characteristics of Bone Basin in Sulawesi area, Indonesia. Marine Geology Frontiers 35, 10, p. 49-55. *(in Chinese)*
(online at: http://en.cgsjournals.com/zgdzdcqkw-data/hydzqy/2019/10/PDF/hydzqy-35-10-49.pdf)
(Bone Basin relatively unexplored Cenozoic rift basin, but high potential for oil-gas deposits)

Efendi, H.A., G.I. Marliyani & S. Pramumijoyo (2021)- Recent faulting along Gorontalo fault based on seismicity data analysis and lineament mapping. Proc. The 2nd Geoscience and Environmental Management Symposium (ICST 2021), Yogyakarta, E3S Web of Conferences 325, 010013, p. 1-5.
(online at: https://www.e3s-conferences.org/articles/e3sconf/pdf/2021/101/e3sconf_icst2021_01013.pdf)
(NW-SE trending Gorontalo Fault in onshore N Sulawesi still active)

Effendi, A.C. (1976)- Geologic map of the Manado quadrangle, North Sulawesi, scale 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(see also Effendi & Bawono, 1997; 2nd Edition)

Effendi, A.C. & S.S. Bawono (1997)- Geologic map of the Manado quadrangle, North Sulawesi, 1:250,000, 2nd Edition, Geological Research Development Centre (GRDC), Bandung.
(Geologic map of NE tip of North Arm of Sulawesi. Common E Miocene- Recent volcanics and volcanoclastics and associated limestones. Volcanic arc formed as response to subduction from N Sulawesi subduction zone and East (E Sangihe subduction zone))

Egeler, C.G. (1947)- Contribution to the petrology of the metamorphic rocks of Western Celebes. In: H.A. Brouwer (ed.) Geological Explorations of the Island of Celebes, North Holland Publishing Co., p. 177-346.
(Also as Doctoral Thesis at University of Amsterdam, 1946, p. 1-165; Promotor H.A. Brouwer)
(Descriptions of metamorphic and igneous rocks from N Part of western Central Sulawesi and S part of Sulawesi 'neck', collected by Brouwer expedition in 1929. Widespread young 'alpine' granodioritic intrusions of W Sulawesi caused intense plutonic contact metamorphism, which was superimposed over older regional metamorphism)

Egeler, C.G. (1949)- On amphibolitic and related rocks from western Celebes and the southern Sierra Nevada, California. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 51, 1, p. 100-105.
(online at: https://dwc.knaw.nl/DL/publications/PU00018468.pdf)
(In W Sulawesi widespread young granodioritic intrusions caused intensive plutono~metamorphism (= contact-metamorphism), superimposed over an older regional metamorphism schists in amphibilite-epidote facies. Similar relationships in Sierra Nevada, California))

Egeler, C.G. (1949)- On metamorphic rocks from the island of Kabaena in the East-Indian Archipelago. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 52, 5, p. 551-562.
(online at: https://dwc.knaw.nl/DL/publications/PU00018668.pdf)
(Petrographic descriptions of metamorphic rocks collected by Brouwer in 1929: hornfels, mica-schists, gneiss, amphibolite, amphibolite schist and crystalline limestones. Kabaena high-grade regional metamorphic schists considered to be older than ophiolitic rocks, similar to SE Sulawesi, but not affected by younger glaucophanitic metamorphism as seen in E Sulawesi (but De Roever (1953) did report glaucophane schist from Kabaena; JTvG). No locality maps or geologic context)

Ekram, M.E., M. Campbell, S.H. Kose, C. Plet, R. Hamilton, S. Bijaksana, K. Grice, J. Russell et al. (2024)- A 1 Ma sedimentary ancient DNA (sedaDNA) record of catchment vegetation changes and the developmental history of tropical Lake Towuti (Sulawesi, Indonesia). Geobiology 22, 3, e12599, p. 1-21.
(online at: https://onlinelibrary.wiley.com/doi/pdf/10.1111/gbi.12599)

Elburg, M. & J. Foden (1998)- Temporal changes in arc magma geochemistry, Northern Sulawesi, Indonesia. Earth Planetary Science Letters 163, p. 381-398.
(N Sulawesi Sangihe Arc Late Miocene- Recent volcanics geochemical change through time. Oldest suites mantle source with previous event of melt extraction. Modern lavas, especially volcanic centers far from trench indicate subduction zone component dominated by melt of sedimentary origin. Change from fluid-dominated to melt-dominated subduction zone component may be related to collision between Halmahera and Sangihe arcs. These changes appear superimposed on variable parent magma composition)

Elburg, M. & J. Foden (1999)- Sources for magmatism in Central Sulawesi: geochemical and Sr-Nd-Pb isotopic constraints. Chemical Geology 156, p. 67-93. *(online at: https://www.academia.edu/3247290/Sources_for_magmatism_in_Central_Sulawesi_geochemical_and_Sr_Nd_Pb_isotopic_constraints?rhid=29234969213&swp=rr-rw-wc-24640566)*
(M Miocene- Quaternary magmatism in C West Sulawesi distinct subduction signature. Isotopic signature of lamprophyres interpreted as mixed mantle source with contribution from old sub-continental lithospheric source, from sliver of Australian continent thrust under C Sulawesi. Felsic magmatism likely reflects high degrees of crustal contamination or intracrustal melting)

Elburg, M.A. & J. Foden (1999)- Geochemical response to varying tectonic settings: an example from Southern Sulawesi (Indonesia). Geochimica Cosmochimica Acta 63, p. 1155-1172. *(online at: www.academia.edu/3247280/Geochemical_response_to_varying_tectonic_settings_an_example_from Etc.)*
(S arm Sulawesi active continental margin from ~60 to 10 Ma, when it collided with Buton microcontinent. Pre-collisional geochemical signature typical of arc volcanics. Syn-collisional samples more enriched isotopic signatures and K-rich, interpreted to reflect larger contribution from subducted sediments, added to mantle wedge as silicic melt. Magmatism that postdates 10 Ma collision reflects melting of subduction-modified mantle with significant contribution from subcontinental lithospheric mantle)

Elburg, M.A., V.S. Kamenetsky, I. Nikogosian, J. Foden & A.V. Sobolev (2006)- Coexisting high- and low-calcium melts identified by mineral and melt inclusion studies of a subduction-influenced syncollisional magma from South Sulawesi, Indonesia. Journal of Petrology 47, 12, p. 2433-2462.
(online at: https://academic.oup.com/petrology/article/47/12/2433/1564500)
(Mineral and melt inclusions in olivines from Late Miocene (6-9 Ma) mafic silica-undersaturated ultra-potassic volcanic rocks with 'continental' Sr isotopic characteristics from southern W Sulawesi Volcanic Province indicate two distinct melts contributed to petrogenesis. High-CaO melt typical for subduction-related volcanic rocks, low-CaO melt does not have any obvious rock equivalent)

Elburg, M.A., T. Van Leeuwen, J. Foden & Muhardjo (2002)- Origin of geochemical variability by arc-continent collision in the Biru Area, Southern Sulawesi (Indonesia). Journal of Petrology 43, 4, p. 581-606.
(online at: https://academic.oup.com/petrology/article/43/4/581/1473969)
(Two main Tertiary volcanic episodes in SW Sulawesi: (1) M-L Eocene (~50 Ma) calc-alkaline Langi volcanics, (2) late Early Miocene calc-alkaline and M-L Miocene (15-6.3 Ma) potassic arc volcanics, both presumably related to W-dipping subduction. Also 1.8 Ma volcano farther S, not related to subduction? Miocene volcanics more heterogeneous after Buton microcontinent collision at ~15 Ma. Isotopic ratios more 'continental' 4 My after collision)

Elburg, M., T. van Leeuwen, J. Foden & Muhardjo (2003)- Spatial and temporal isotopic domains of contrasting igneous suites in western and Northern Sulawesi, Indonesia. Chemical Geology 199, p. 243-276.
(online at: www.academia.edu/20705903/Spatial_and_temporal_isotopic_domains_of_contrasting_ign Etc.)
(Paleocene- Pliocene magmatism in NW Sulawesi progression from Older Series with calc-alkaline/ tholeiitic signatures (51-17 Ma) to Younger Series of mafic-intermediate high-K magmas (~14-5 Ma) and felsic K-rich calc-alkaline magmas (9-2 Ma). Younger felsic magmatism reflects melting of Australian origin continental crust. Geochemical progression similar to C Sulawesi and explained by oceanic plate subduction followed by melting of underthrust sliver of Australian microcontinent, the size of which can be estimated from extent of low-Nd-isotope magma (~4°S to 1°N). Underthrusting must have happened prior to 14 Ma, indicating it cannot be equated

to Sulawesi- Sula platform collision at 5 Ma. While subduction beneath W Sulawesi ceased prior to onset of potassic magmatism, it continued in N Sulawesi producing calc-alkaline suites)

Eltham, J. (1997)- Development of Newmont's Minahasa Gold Mine in Indonesia. Proc. World Gold '97 Conference, Singapore 1997, Australasian Institute of Mining and Metallurgy (AusIMM), p.
(PT Newmont Minahasa Raya gold mine in Mesel/ Ratatotok area in SE Minahasa operational from 1996 until depletion in 2004. Little or no geology)

Endharto, Mac (2000)- Studi stratigrafi kaitannya dengan perkembangan struktur geologi di Kawasan Latimojong, lengan Barat Sulawesi. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 10, 107, p. 14-45.
(not online at JGSM archive)
('Study of stratigraphy and relation to development of geological structures in the Latimojong District, W arm of Sulawesi'.)

Endharto, M. & Surono (1991)- Preliminary study of Meluhu Complex related to terrane fomation in Sulawesi. Proc. 20th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 340-353.
(online at: https://www.iagi.or.id/web/digital/49/20th-(10-12-Des-1991)-23.pdf)
(Meluhu complex (microcontinent) of SE Sulawesi is NW-SE trending ~25km wide strip in SE Sulawesi, with Late Triassic-Jurassic fluvial clastics and marine limestone and black shale, separated from neighboring terranes by slivers of ophiolite melange. Review of Sulawesi tectonics and reconstructions of M-L Miocene collisions of Tukang Besi Platform and Banggai Sula with E Sulawesi (Meluhu Complex discussed in more detail in subsequent papers by Surono. Also note surprising younger age interpretation by Fahruddin et al., 2020; JTvG))

Endinanda, F. (2022)- Kinematic analysis of Balantak Fault using fault-slip data in Balantak area, Banggai Regency, Central Sulawesi. Berita Sedimentologi 48, 1, p. 45-66.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/337/368)
(Balantak Fault at E tip of East Arm of Sulawesi is young, WNW-ESE trending right-lateral transpressional strike slip fault with 12-14 km displacement. Located behind Batui thrust front, near terrane boundary between the colliding Banggai-Sula microcontinent and E Sulawesi Ophiolite)

Erlinghagen, K.P. (1991)- Petrogenese und geodynamische Entwicklung der Subduktions-Metamorphite von Zentral-Sulawesi, Indonesien. Goettinger Arbeiten zur Geologie Palaeontologie 52, p. 1-103.
('Petrogenesis and geodynamic development of subduction metamorphics of Central Sulawesi'. Originally Doctoral Dissertation at Georg-August Universitat Gottingen, Germany. Metamorphic rocks and minerals from NE of Lake Poso and W-NW of Poso town are high-P metamorphic rocks, formed as result of oblique subduction in WNW-dipping subduction zone. Metamorphic grade increasing P and T from E to W: Lawsonite-blueschist facies of Taripa belt grade W-ward into epidote-blueschist and eclogite facies of Tineba belt. Max. P-T conditions ~11 kbar/ 400-450°C (Taripa) and ~13 kbar/500-570°C (~45 km depth; Tineba). Age of peak metamorphism ~60-65 Ma (Paleocene), followed by rapid cooling in Eocene. K-Ar cooling ages of phengite in garnet-mica schist 38.8 Ma (Late Eocene), silicate marble 50.2 Ma (E Eocene). Late metamorphic overprint of lawsonite-blueschist zone suggested by K-Ar ages around 19 Ma, tied to age of intrusives in W and onset of Banggai-Sula collision)

Ernowo (2017)- Hydrothermal alteration and gold mineralization of the Awak Mas gold deposit, Sulawesi Island, Indonesia. Ph.D. Thesis, RWTH Aachen University, Aachen, Germany, p.

Ernowo, Harjanto, F.M. Meyer & A. Idrus (2015)- Geology and mineralization of Awak Mas gold deposit and challenges for new exploration targeting in the metamorphic rock terrain of eastern Indonesia. 13th Biennial SGA Meeting, Nancy, France, p. 1-4. *(online at: https://www.researchgate.net/publication/285701793_Geology_and_mineralization_of_Awak_Mas_gold_deposit_and_challenges_for_new_exploration_targeting_in_the_metamorphic_rock_terrain_of_eastern_Indonesia)*
(Recent discovery of gold deposit in Cretaceous Latimojong Fm metamorphic rocks)

Ernowo, E., A. Idrus & F.M. Meyer (2022)- Elemental gains and losses during hydrothermal alteration in Awak Mas gold deposit, Sulawesi Island, Indonesia: Constraints from balanced mineral reactions. Minerals 12, 12, 1630, p. 1-14.
(online at: https://www.mdpi.com/2075-163X/12/12/1630)
(On metasomatic alteration in epizonal orogenic Awak Mas gold deposit, Latimojong District, in E part of S Arm of W Sulawesi)

Ernowo, E., F.M. Meyer & A. Idrus (2019)- Hydrothermal alteration and gold mineralization of the Awak Mas metasedimentary rock-hosted gold deposit, Sulawesi, Indonesia. Ore Geology Reviews 113, 103083, p. 1-16.
(Awak Mas epigenetic, orogenic gold deposit in S Arm of Sulawesi, hosted by Cretaceous Latimojong metamorphic complex phyllites and schists, near contact with obducted Lamasi ophiolite. Mineralization formed during Miocene metamorphism, Two types of Au-mineralizing veins: quartz-albite-ankerite and quartz-ankerite-siderite veins. Ore fluids possibly derived from metamorphic dewatering of organic-rich marine sedimentary rocks or input of magmatic hydrothermal fluids)

Ernowo, E., F.M. Meyer & A. Idrus, H. Widyanarko & N.L. Endrasari (2016)- An update of key characteristics of Awak Mas mesothermal gold deposit, Sulawesi Island, Indonesia. Proc. 8th MGEI Annual Convention, Bandung 2016, p. 1-4. *(online at: https://www.researchgate.net/publication/310802212_An_update_of_key_characteristics_of_Awak_Mas_mesothermal_gold_deposit_Sulawesi_Island_Indonesia)*
(Awak Mas gold deposit (Salu Bulo, Tara and Awak Mas gold prospects) located within metamorphic belt of Sulawesi island (part of Cretaceous Latimojong Fm flysch sequence that is locally intruded by diorite dykes. Gold hosted by phyllite and schist))

Evans, M.J. (1991)- Geological field survey of onshore PSC and adjacent areas, Sulawesi, Indonesia, with specific reference to Eocene reservoir quality and distribution. BP Petroleum Development Indonesia Report, p.
(Unpublished, but commonly quoted BP geological field survey report of W Sulawesi basins)

Fadhlurrohman, I., A.F. Parma & C. Fitriani (2017)- Geological observation on Kabaena Island, Southeast Sulawesi: an implication of hydrocarbon occurrence in frontier area based on outcrop study. Proc. 41st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA17-190-SG, p. 1-11.
(Kabaena island off SE Sulawesi contains ultramafic rocks (peridotite), Pompangeo Complex low-medium grade metamorphics (amphibolite, schist) and metamorphosed, fractured Matano Fm pelagic limestone and some black shale. Ultramafic rocks thrusted over microcontinental rocks. Gas seepage in Matano meta-limestone unit, tied to strike slip fault (no details). Not much new)

Fadlin, S. Godang, A. Idrus, H.G. Hartono, J.A. Zaenurrohman, S. Iswahyudi, R.M. Asfaro et al. (2024)- The first occurence of mafic alkaline rock (lamproite) in Mamuju District, West Sulawesi, Indonesia: Implications to the REEs and Critical Elements Enrichment. Preprint, 30p.
(manuscript online at: https://www.researchsquare.com/article/rs-5266635/v1)
(Pliocene? mafic alkaline dykes near Mamuju District, W West Sulawesi, identified as as orendite lamproite rocks, related to orogenic lamproite formed during tectonic continental extension (post collision). It contains significant amounts of REE-Zr-Th bearing minerals)

Fahruddin, A., R. Fakhruddin, M. Firdaus & H.M. Saleh (2020)- A new age interpretation for the Meluhu Formation in Toronipa Peninsula, the southeast arm of Sulawesi, Indonesia. Bull. Geological Society Malaysia 70, p. 103-118.
(online at: https://gsm.org.my/products/702001-101860-PDF.pdf)
(Clastic sediments exposed in Toronipa Peninsula NE of Kendari, SE Sulawesi (near offshore Abuki-1 well in Manui Basin). In 1990s it was included in Toronipa Mb of Meluhu Fm, and suggested to be of Triassic age. New palynological data show M-L Miocene age, as indicated by Florschuetzia group pollen (Florschuetzia trilobata, F. levipoli, F. meridionalis). Wave-dominated estuary depositional model proposed)

Fahruddin, A., E.A. Subroto, V. Susanto, L.D. Santy & R. Adlan (2024)- Karakteristik geokimia dan biomarker rembesan minyak di daerah Torete, Morowali, Sulawesi Tengah. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 25, 4, p. 206-216.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/806/566)
('Geochemical and biomarker characteristics of oil seepages in Torete Area, Morowali, Central Sulawesi'. Two oil seeps in Torete area, Morowali, C Sulawesi (in area of folded Mesozoic sediments of Banggai Basin?). Organic geochemistry suggests carbonate source rocks with organic material from algae or plankton, in anoxic-suboxic depositional environment, and at early mature to mature level. No biomarkers indicative of higher plants (oleanane, bicadinane))

Fakhruddin, R., N.N. Ilmi, E. Sunardi, T. Ramli, A.A. Budiman, I. Nurdiana & D. Fadli Badaruddin (2023)- Sedimentary facies, palynology, and organic geochemistry of Eocene Kalumpang Formation in Lariang and Karama areas, West Sulawesi, Indonesia. J. Mathematical Fundamental Sciences (ITB) 54, 2, p. 142-164.
(online at: https://journals.itb.ac.id/index.php/jmfs/article/view/20338/6496)
(Kalumpang Fm in W Sulawesi was deposited in delta plain setting in M-L Eocene time (Proxapertites operculatus palynozone). Marginal to early mature for hydrocarbon generation and mainly terrestrial organic material. Common oleanane reflects higher plant angiosperm input. Doda oil seep with more abundant oleananes, suggesting oil originated from more marine facies than sampled deltaic rocks (?))

Fakhruddin, R. & D. Kurniadi (2019)- Age and paleobathymetry of Salodik Group in Poh-Pagimana section, East Arm of Sulawesi based on foraminiferal assemblages. J. Geoscience Engineering Environment Technology (JGEET) 4, 1, p. 30-39.
(online at: https://journal.uir.ac.id/index.php/JGEET/article/view/2751/1577)
(Planktonic foraminifera from carbonates of imbricated Salodik Group in East Arm of Sulawesi, along road between Poh and Pagimana along S side of Poh Bay. Planktonics suggest ages range from E Eocene- E Pliocene. Benthic forams indicate middle shelf- upper bathyal settings. E-M Eocene sediments overlie E Miocene, showing thrust faulting (part of Batui imbricated thrust complex). Youngest deformed sediments Pliocene age (N20-21), suggesting thrusting continuing into Late Pliocene time. Salodik section at Poh more basinal than age-equivalent carbonates in Tomori/Matindok/Minahaki area. Post-orogenic sediments derived from erosion of obducted ophiolite known as Batui Group//Celebes Molasse, dated as Late Miocene-Pliocene)

Fang, G., J. Zhang, C. Jiang, M. Dong, T. Hao, Z. Li, W.Chu & Y. He (2023)- Dynamic analysis of geophysical characteristics of Una-Una Volcanic Island, Sulawesi, Indonesia. J. Asian Earth Sciences 255, 105767, p. 1-11.
(Geophysical setting of Una Una volcano in Tomini Bay, NE Sulawesi. Around 5 Ma, Sula Islands collided with E arm of Sulawesi, causing subduction and retreat of North Sulawesi Trench. Additionally, sinistral strike-slip of ~4 cm/yr initiated at Palu-Koro fault in W Sulawesi Island, leading to formation of isolated Una-Una volcanic island in Tomini Bay. Geophysics suggest crust in N region of Sulawesi Island primarily characterized by brittle deformation, Etc.)

Fang, J., C. Xu, Y. Wen, S. Wang, G. Xu, Y. Zhao & L. Yi (2019)- The 2018 Mw 7.5 Palu Earthquake: a supershear rupture event constrained by InSAR and broadband regional seismograms. Remote Sensing (MDPI) 11, 1130, p. 1-15.
(online at: https://www.mdpi.com/2072-4292/11/11/1330)
(28 September 2018 Mw 7.5 Palu earthquake occurred near triple junction zone where Philippine Sea, Australian, and Sunda plates converge. Ruptured along steep fault plane (~85◦). Supershear event with average rupture speed of 4.1 km/s from hypocenter. Dominated by left-lateral strike slip with some significant normal faulting components (slip maxima is ~3 m))

Farida, M., I. Alimuddin, L. Fauzielly & J. Nugraha (2022)- Identifying the calcareous nannofossils from the Tonasa limestone of the Karama traverse, Jeneponto area, South Sulawesi, Indonesia. AIP Conference Proceedings 2543, 050011, p. 1-6.
(online at: https://aip.scitation.org/doi/pdf/10.1063/5.0094841)
(Tonasa Limestone at Karama section, Jeneponto area (Biru area?), S Sulawesi, with nannofossils indicative of upper part of Late Eocene)

Farida, M., I. Alimuddin, A. Maulana & J. Nugraha (2020)- Paleoclimate prediction based on *Discoaster* occurrence in Walanae Sandstone of Sout h Sulawesi. Proc. 2nd Int. Conference of Interdisciplinary Research on Green Environmental Approach for Sustainable Development (ICROEST 2020), Makassar, IOP Conference Series: Earth and Environmental Science 575, 012181, p. 1-7.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/575/1/012181)
(Late Miocene-Pliocene (NN13-NN19) Walanae Fm in Salo Mario (Mario River) section with marine nannofossils dominated by Discoaster. No strat column, minimal locality data)

Farida, M., F. Arifin, R. Husain & I. Alimuddin (2013)- Paleoseanografi Formasi Tonasa berdasarkan kandungan foraminifera daerah Barru, Sulawesi Selatan. Proc. Seminar Nasional Kebumian 6, Teknik Geologi Universitas Gadjah Mada, Yogyakarta 2013, S01, p. 455-466. *(online at: https://www.academia.edu/29182432/PALEOSEANOGRAFI_FORMASI_TONASA_BERDASARKAN_K....Etc.)*
('Paleoceanography of the Tonasa Formation based on foraminifera content in Barru area, South Sulawesi'. (Outcrop sections with M-L Eocene open marine calcareous shales and thin limestones with planktonic foraminifera (P9-P16), smaller benthics and larger forams Discocyclina and Nummulites)

Farida, M., M.F. Arifin, A. Tupenalay, H. Pachri & B. Hidayah (2025)- Biostratigraphy of planktonic foraminifera and paleoclimatic implication of Tonasa formation at Karama area, South Sulawesi. Proc. 5th Int. Conference Science and Engineering (EICSE), Gowa 2021, AIP Conference Proceedings 3032, 040006, p.
(Lower Tonasa Fm in Karama area, S Sulawesi, with planktonic foraminifera of Middle Eocene- Late Eocene age (P13 to P15), and suggesting tropical paleoclimate during that time)

Farida, M., M.J. Burhan, H. Umar, A.M. Imran, N. Ikhawana & A. Ahmad (2023)- Provenance of Walanae Formation as a parent rock in Bulukumpu area, Bulukumpu Regency, South Sulawesi. Jurnal Ecosolum (UNHAS) 12, 2. p. 178-191.
(online at: http://dx.doi.org/10.20956/ecosolum.v12i2.31432)
(Provenance of immature Pliocene Walanae Fm sandstones in S Sulawesi is 'Magmatic Arc' and 'Recycled Orogen')

Farida, M., T. Fitriana & J. Nugraha (2016)- Rekonstruksi batimetri dan iklim purba berdasarkan foraminifera daerah Ralla Barru, Sulawesi Selatan, Indonesia. J. Meteorologi dan Geofisika (JMG) 17, 2, p. 77-88.
(online at: http://puslitbang.bmkg.go.id/jmg/index.php/jmg/article/view/443/218)
('Reconstructions of bathymetry and paleoclimate based on foraminifera from Ralla area, Barru, S Sulawesi'. Attempt at paleobathymetry analysis of E-M Eocene benthic foraminifera in ~70m thick marl-limestone section (mainly Cibicides spp. near base, Uvigerina-Lenticulina near top; inner-outer neritic)). Limestones with Nummulites, Asterocyclina, etc.))

Farida, M., A. Imran & F. Arifin (2014)- Lingkungan pengendapan purba satuan napal Formasi Tonasa berdasarkan kandungan foraminifera bentonik, studi kasus: Sungai Camming dan Sungai Palakka Kabupaten Barru, Provinsi Sulawesi Selatan. J. Penelitian Geosains (Hasanuddin University) 10, 2, p. 50-57.
(online at: http://repository.unhas.ac.id/bitstream/handle/123456789/15298/)
('Depositional environment of the marl unit of the Tonasa Formation based on benthic foraminifera, case studies: Camming River and Palakka River, Barru District, S Sulawesi'. Mainly middle-outer neritic facies ('30.48-182.88m'; great precision; JTvG), concluded from nodosarids-dominated benthic foram assemblages in Early-Late Eocene of Tonasa Marls in two outcrop sections)

Farida, M., A. Jaya, A. Ahmad, N. Salsabilah & T. Sato (2023)- Biostratigraphy of calcareous nannofossils and their distribution in Tonasa Formation, Mallasoro area Jeneponto, South Sulawesi. Proc. 5th Int. Conference on Global Issues for Infrastructure, Environment etc., Makassar 2023, IOP Conference Series: Earth and Environmental Science 1272, 012016, p. 1-8.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1272/1/012016/pdf)

(Calcareous nannofossils from Tonasa Fm in southernmost S Sulawesi suggest age of sampled part of Tonasa Fm in Mallasoro area is NP21 to NN1 (E Oligocene - E Miocene/ Rupelian- Aquitanian (Actual base of Tonasa Fm is E Eocene in age, but no nannofossils found in lower part))

Farida, M., A. Jaya, A. Ahmad & J. Nugraha (2024)- The Eocene to Oligocene boundary and paleoclimatic indications based on calcareous nannofossils of Tonasa Formation, South Sulawesi, Indonesia. Fossil Record 27, 1, p. 221-231.
(online at: https://fr.pensoft.net/article/96985/)
(Tonasa Fm interbedded marl and limestone in Karama area near SW tip of S Sulawesi with three nannofossil datums: FO Sphenolithus pseudoradians (NP19/NP20), FO Sphenolithus distentus and LO Sphenolithus predistentus (defining zone CP 18), suggesting Late Eocene- M Oligocene age and warm water conditions)

Farida, M., A. Jaya & J. Nugraha (2022)- Calcareous nannofossil biostratigraphy of Tonasa Formation at Barru River Traverse, South Sulawesi, Indonesia. Indonesian J. on Geoscience (IJOG) 9, 3, p. 371-381.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/780/379)
(Calcareous nannofossils from M Eocene- E Miocene marine marls and limestones in 690m thick Barru River section (NP15- NN1 or CP13- CN1a). Highest species diversity in Eocene)

Farida, M., A. Jaya, I. Alimuddin, Syafruddim & A. Ahmad (2022)- Studi iklim Purba Pada Formasi Tonasa berdasarkan foraminifera planktonik lintasan Sungai Palakka dan Karama B, Sulawesi Selatan. Jurnal Meteorologi dan Geofisika 23, 2, p. 99-108.
(online at: https://jmg.bmkg.go.id/jmg/index.php/jmg/article/view/839/pdf_1)
('Paleoclimate study of Tonasa Formation based on planktonic foraminifera at the Palakka River and Karama B traverses, South Sulawesi'. Biostratigraphic analysis of Palakka River (P9- P16, Early- Late Eocene and Karama B (N1- N7, M Oligocene- E Miocene)

Farida, M., A. Jaya & T. Sato (2019)- Calcareous nannofossil assemblages of Tonasa Formation Palakka area, South Sulawesi: implication of paleoenvironmental application. In: 5th Int. Symposium on Material Mechatronics and Energy, Gowa, South Sulawesi, 2018, IOP Conference Series: Materials Science Engineering 619, 012016, p. 1-7.
(online at: https://iopscience.iop.org/article/10.1088/1757-899X/619/1/012016)
(Calcareous nannofossils in Tonasa Lst along Barru River, S Sulawesi, range from zones NP16-NP24 (or CP14a-CP19a), M Eocene- Oligocene in age)

Farida, M., Pratiwi & R. Husain (2014)- Paleotemperature of Middle Eocene Tonasa Limestone based on foraminifera at Palakka Area South Sulawesi. Int. J. Engineering Science Applications (UNHAS) 1, 1, p. 77-84.
(online at: http://pasca.unhas.ac.id/ojs/index.php/ijesca/article/view/137/93)
(Interbedded marl/limestone at Palakka section, Barru area (presumably basal Tonasa Lst) with lower M Eocene (P11) planktonic foraminifera and middle? neritic small benthic forams)

Faried, A.P., A Tonggiroh & U.R. Irfan (2025)- Geochemical characterization of bedrock and distribution of enrichment of Rare Earth Elements and Scandium in nickel laterite within the Wulu Area, Central Buton District, Southeast Sulawesi Province. Proc. 1st Int. Conference of Petroleum Mining Geology Geoscience Energy & Environmental Technology (ICPMGET 2024), Jakarta 2024, IOP Conference Series: Earth and Environmental Science 1451, 012022, p. 1-11.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1451/1/012020/pdf)
(On presence of REE and scandium in nickel laterites on ultramafic rocks of East Sulawesi Ophiolite in Wulu area of SE Kabaena island (not Buton))

Faturrakhman, M.L., D. Novita, A. Cita, Rohman & I. Triguri (2024)- Tectonic geomorphology of ultramafic complex in Asera, North Konawe Regency. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 25, 3, p. 161-168.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/853)
(Discussion of geomorphology of Cretaceous ophiolites in E Sulawesi)

Faturrakhman, M.L., I. Sanjaya, J. Jamal, D.H. Saputro & R. Setiawan (2025)- Tectonic geomorphology analysis in natural hydrogen exploration: a case study from Tanjung Api, Sulawesi. RISET Geologi dan Pertambangan 35, 1, p. 37-48.
(online at: https://jrisetgeotam.brin.go.id/index.php/jrisgeotam/article/view/1357/pdf_1)
(Study of tectonic complexity near Tanjung Api abiogenic H_2 and CH_4 gas seeps associated with East Sulawesi Ophiolite complex. Hydrogen-methane seeps associated with areas of high-very high tectonic activity)

Fauzia, R., R. Sari, A. Mulawardhani, M.I. Novian & T. Sihombing (2012)- Dinamika pengendapan batupasir Formasi Lamusa, Desa Salodik, Kecamatan Luwuk, Kabupaten Banggai, Propinsi Sulawesi Tengah. Proc. 41st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2012-GD-36, p. 1-4. *(no figures)*
(online at: https://www.iagi.or.id/web/digital/9/2012_IAGI_Yogyakarta_Dinamika-Pengendapan-Batupasir-Formasi-Lamusa-Desa-Salodik.pdf)
('Dynamics of Lamusa Formation sandstone deposition, Salodik Village, Banggai District, C Sulawesi'. E Arm of Sulawesi with U Cretaceous calcareous sst near Salodik village, probably middle-outer neritic facies. (A) with U Cretaceous planktonic foraminifera (Coniacian-Santonian with Marginotruncana spp., Pseudotextularia, Dicarinella concavata, D. asymetrica); (B) turbiditic Turonian-Santonian with Marginotruncana spp., Heterohelix, (C), (D) etc. Also (E) brown carbonate with Late Eocene- Oligocene P18/19 pelagic facies, (F) E-M Eocene conglomeratic limestones with P11-P14 planktonicsMorozovella spp., Acarinina, Etc.)

Ferdian, F. (2017)- Eastern Sulawesi basement: revelation from zircon data. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 28, p. 1-3. *(Extended Abstract)*
(online at: https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_Eastern-Sulawesi-Basement.pdf)
(Zircon ages from Banggai-Sula and E Sulawesi. Granites from Banggai-Sula region with mainly Permo-Triassic age zircons. One Banggai-Sula granitoid with 23-26 Ma zircons. Banggai and Taliabu metamorphics mainly Proterozoic zircon ages. Sulabesi metasediments with Permo-Triassic zircons. SE Sulawesi Mekongga Fm metamorphics with Mesozoic-Paleozoic and Meso-Paleoproterozoic zircons (Mesozoic protolith age), but youngest zircon ~170 Ma (M Jurassic) (similar distribution in Triassic-Jurassic Meluhu clastics))

Firdaus, M., D. Novitasari, A.J. Widiatama, A. Fachruddin & L.D. Santy (2023)- Provenance and paleoclimate analysis of sandstone from Meluhu Formation in Kendari, Southeast Sulawesi. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 24, 2, p. 97-106.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/776)
(Petrographic study of Meluhu Fm quartz sandstones in Kendari area of SE Sulawesi. Sandstones classified as greywacke, sublitharenite, lithic arenite, arkose, and subarkose. Origin of rock interpreted as recycled orogenic province, interior craton, and undissected arc. Paleoclimate during formation of siliciclastics was arid to humid (?) (N.B. Meluhu Fm generally considered to be of Triassic age, but Middle- Late Miocene age suggested by Fahruddin et al. (2020); JTvG))

Fitriana, T., M. Aznal, N. Supardi & N.R. Janat (2023)- Paleobatimetri satuan batupasir Formasi Pasangkayu berdasarkan kandungan foraminifera bentonik daerah Ako, Kabupaten Pasangkayu, Provinsi Sulawesi Barat. Jurnal GEOMining (Teknik Pertambangan Unkhair) 4, 2, p. 32-39.
(online at: https://ejournal.unkhair.ac.id/index.php/geomining/article/download/6874/4365)
('Paleobathymetry of the Pasangkayu Formation sandstone unit based on benthic foraminifera content in the Ako area, Pasangkayu Regency, West Sulawesi Province', Benthic foraminifera in Pasangkaya Sandstone include Lenticulina, Cibicidoides spp and Quinqueloculina, suggesting middle neritic (30-90m) water depth. Age: zone N17-N18 (Late Miocene- E Pliocene))

Frantz, L.A., F.A. Rudzinski, A.M.S. Nugraha, A. Evin, J. Burton, A. Hulme-Beaman & 27(!!) others (2018)- Synchronous diversification of Sulawesi's iconic artiodactyls driven by recent geological events. Proc. Royal Society (London) B 285, 20172566, p. 1-8.
(online at: www.ncbi.nlm.nih.gov/pmc/articles/PMC5904307/pdf/rspb20172566.pdf)
(Paleogeographical reconstructions using genetic and morphometric datasets from Sulawesi's three largest mammals (babirusa, anoa, Sulawesi warty pig) indicate these likely colonized Sulawesi at different times (14 Ma

to 2-3 Ma), and experienced near-synchronous expansion from central part of island at ~1-2 Ma. Endemic fauna of Sulawesi driven by geological events over last few million years)

Frenzel, A. (1881)- Mineralogisches aus dem Ostindischen Archipel, 8. Celebes. Tschermaks Mineralogischen Petrographischen Mitteilungen 3, 4, p. 289-300.
('Mineralogic data from the East Indies Archipelago- 8. Celebes'. Petrography of volcanic and other rocks from Sulawesi, collected by a Dr. A.B. Meyer. Incl. lavas from Sangi Islands, North Arm, Togian islands, etc. First(?) description of Eocene Nummulites limestone from mountains near Batubassi, S Sulawesi)

Fornasiero, M. (2001)- Eocene molluscs species known from Nanggulan (Java) newly found in Malawa (Sulawesi). Memorie di Scienze Geologiche, Padova, 53, p. 57-60.
(Eight mollusc species in Malawa, NE of Makassar, SW Sulawesi, also occur in M Eocene of Nanggulan, C Java, and are all Tethyan species not known from Australian Plate. Outcrops believed to be M Miocene chaotic deposits with large olistoliths of M Eocene marls, possibly part of accretionary prism)

Fu, W., M. Yang, X. Huang & Y. Zhang (2014)- Garnierite in a laterite-Ni deposit from Kolonodale area, Sulawesi, Indonesia: a preliminary study on mineralogy. Acta Geologica Sinica 88, Suppl. 2, p. 1451. *(Abstract)*

Fu, W., J. Yang, M. Yang, B. Pang, X. Liu, H. Niu & X. Huang (2014)- Mineralogical and geochemical characteristics of a serpentinite-derived laterite profile from East Sulawesi, Indonesia: implications for the lateritization process and Ni supergene enrichment in the tropical rainforest. J. Asian Earth Sciences 93, p. 74-88.
(Ni-laterite profile over weathered serpentinite in Kolonodale area of E Sulawesi three lithostratigraphic horizons, from bottom to top: saprolite horizon, limonite horizon and ferruginous cap. Highest concentration of Ni (up to 11.5% NiO) in saprolite horizon)

Fu, W., Y. Zhang, C. Pang, X. Zeng, X. Huang, M. Yang, Ya Shao & H. Lin (2018)- Garnierite mineralization from a serpentinite-derived lateritic regolith, Sulawesi Island, Indonesia: mineralogy, geochemistry and link to hydrologic flow regime. J. Geochemical Exploration 188, p. 240-256.
(online at: https://core.ac.uk/download/pdf/161348944.pdf)
(On genesis of garnierite nickel ore, mainly in veins in lower saprolite of serpentinite-derived regolith. Ni preferentially enriched in talc-like phases rather than serpentine-like phases)

Fu, W., Y. Zhou, Y. Chen, Y. Hu, N. Chen, H. Niu et al. (2010)- Geological and geochemical characteristics of laterite nickel deposit and ore genesis; a case study of Kolonodale deposit in Indonesia Sulawesi, Southeast Asia. Earth Science Frontiers (China University of Geosciences, Beijing) 17, 2, p. 127-139.
(online at: https://www.earthsciencefrontiers.net.cn/EN/abstract/abstract4053.shtml)
(Kolonodale nickel laterite E Sulawesi in weathering profile of ultramafic rocks)

Gan, C., Y. Wang, X. Qian, X. Lu, K.A. Mustapha, Y. Zhang & S. Wu (2022)- Diorite enclaves and host granite of the Early Miocene Gorontalo pluton in the North Sulawesi Arc, Indonesia: implications for recycled oceanic crust and crust-mantle interaction. J. Asian Earth Sciences 227, 105101, p. 1-13.
(Miocene North Sulawesi Arc traditionally regarded as intra-oceanic arc on Eocene oceanic crust. Diorite enclaves and host granites of Gorontalo pluton with zircon U-Pb ages of ~20- 22.4 Ma for host granites and ~19.5- 20.4 Ma for diorite enclaves (no inherited older zircons). Host granites derived from partial melting of juvenile mafic crust; diorite enclaves products of hybridisation of magmas derived from depleted mantle and juvenile crust. Provide evidence for E Miocene (or earlier) crust-mantle interaction in N Sulawesi Arc)

Gani, M.U.A. & H. Soetjito (1999)- Coal ash characteristization of Tondongkurah coal, Pangkajene, South Sulawesi. Proc. 28th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 2, p. 293-300.
(online at: https://www.iagi.or.id/web/digital/65/21.pdf)
(Eocene? coal from S Sulawesi. Sub-bituminouus (vitrinite reflectance R_o 0.34%. Coal ash dominated by SiO_2, Al_2O_3, Fe_2O_3, etc.))

Gani, M.U.A., H. Soetjijo & S. Indro (1996)- Karakterisasi dan kualitas pemanfaatan batubara Tondongkurah, Pangkajene Sulawesi Selatan. Proc. 25th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 313-324.
('Characterization and quality of Tondongkurah coal, Pangkajene, S Sulawesi')

Gani, M.U.A. & Sudarsono (1997)- Karakteristik batu marmer di daerah Bulu Panampu Kabupaten Maros, Sulawesi Selatan. Proc. 26th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 899-912.
(online at: https://www.iagi.or.id/web/digital/64/65.pdf)
('Characteristics of marble rock in the area of Bulu Panampu, Maros District, S Sulawesi'. Tertiary Tonasa Fm limestone affected by trachy-andesitic intrusion))

Garrard, R.A., D. Silalahi, D. Schiller & P. Mahodim (1989)- Sengkang Basin, South Sulawesi, Post Convention Field Trip. Indonesian Petroleum Association (IPA), Fieldtrip guidebook, Jakarta, p. 1-46.
(SW Sulawesi fieldtrip guide book)

Garrard, R.A., G. Nusatriyo & D.Q. Coffield (1992)- The prospectivity of Early Tertiary rift sequences in the Neogene foldbelts of South Sulawesi. In: Eastern Indonesian Exploration Symposium, Jakarta, April 1992, Pertamina and Simon Petroleum Technology, p. 1-12.

Garwin, S.L., D. Hendri & P.F. Lauricella (1995)- The geology of the Mesel sediment-hosted gold deposit, North Sulawesi, Indonesia. In: J.L. Mauk & J.D. St. George (eds.) Exploring the Rim, Proc. PACRIM 1995 Congress, Auckland, Australasian Institute of Mining and Metallurgy (AusIMM), Parkville, Publ. Ser. 9/95, p. 221-226.
('Carlin-type' sediment-hosted, disseminated Au-Ag deposit in extensional M Miocene basin in N Sulawesi volcanic arc (only one of this type in Indonesia?). Discovered in 1988. Gold in finely disseminated pyrite n carbonates adjacent to andesite intrusive. Early decalcification and dolomitisation enhanced porosity and permeability prior to silicification and sulphidation)

Girardeau, J., C. Monnier, R. Maury, M. Villeneuve, D. Soetisma & H. Samodra (1995)- Origin of the East Sulawesi ophiolite. In: Abstracts, Eighth Regional Conference Geology Minerals and Energy Resources of SE Asia (GEOSEA 95), Manila, 8, p. 51-52.
(online at: https://www.researchgate.net/publication/338823330_Origin_of_the_East-Sulawesi_ophiolite)
(East Sulawesi dismembered ophiolitic nappe (second largest in world!) emplaced during Eocene. Ophiolite section 10 km thick, including 6 km of mantle peridotites (lherzolites, harzburgites, dunites), overlain by 4 km-thick crustal part (gabbros, plagiogranites, sheeted dolerites, lava flows). Overthrust to W or WNW and tectonically overlie C Sulawesi metamorphics (incl. blueschists). Geochemical and geochronological data suggest ESO ophiolite formed in back-arc basin environment, 44 Ma ago (M Eocene) ((not in agreement with Cretaceous age of supposedly overlying Boba/ Matano oceanic radiolarites and pelagic limestones (Simandjuntak 1992); Late Cretaceous zircon ages (Liao, 2024), etc. JTvG))

Gisolf, W.F. (1917)- Beschrijving van een microscopisch onderzoek van gabbro's en amfibolieten, herkomstig van Midden-Celebes. Thesis Technical University of Delft, Immig, Rotterdam, p. 1-141. *(Unpublished)*
(Read online at: https://catalog.hathitrust.org/Record/100579912)
('Description of microscopic investigations of gabbros and amphibolites from C Sulawesi'. Incl. glaucophanites and eclogites from Latimojong Complex. Presumably same as Gisolf (1917) in Abendanon (1917))

Gisolf, W.F. (1917)- Petrografie van Midden-Celebes. Microscopisch onderzoek van de gesteenten der Midden-Celebes verzameling van E.C. Abendanon. In: E.C Abendanon, E.C. (1917) Geologische en geographische doorkruisingen van Midden-Celebes (1909-1910), E.J. Brill, Leiden, vol. 3, p. 1017-1381.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB21:041967000:00005)
(Petrography of rocks from C Sulawesi collected by Abendanon. Mainly igneous (granites, gabbros, peridotites, trachytes, andesites, etc.) and metamorphic (gneiss, eclogite, amphibolite, jadeite, quartzite, etc.) rocks)

Gisolf, W.F. (1920)- Lawsonite en epidoot in de schisten van het Latimojong gebergte, Celebes. Handelingen 17th Nederlandsch Natuur- Geneeskundig Congres, Leiden 1919, p. 422-424.

(Online read only at: http://babel.hathitrust.org/cgi/pt?id=uc1.b3093406;view=1up;seq=476)
('Lawsonite and epidote in the schists of the Latimojong Mountains, Sulawesi'. Lawsonite observed in epidote-chlorite schists collected by Abendanon near Bulu Palaka in Latimojong Mts, C Sulawesi)

Gisolf, W.F. (1923)- On the occurrence of diamond as an accessory mineral in olivine and anorthite bearing bombs, occurring in basaltic lava, ejected by the volcano Gunung Ruang (Sangir-Archipelago north of Celebes). Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 26, 7-8, p. 510-512.
(online at: https://dwc.knaw.nl/DL/publications/PU00014971.pdf)
(Accessory diamonds in volcanic bomb from Gunung Ruang volcano in Sangir Archipelago, N Sulawesi)

Gisolf, W.F. (1925)- Mikroskopisch onderzoek van gesteenten uit Zuidoost Selebes. Jaarboek Mijnwezen Nederlandsch-Oost Indie 53 (1924), Verhandelingen, p. 66-113.
('Microscopic investigations of rocks from SE Sulawesi'. Brief descriptions of igneous (granites peroditites, serpentinites, volcanics), metamorphic (mica-schists, phyllites, gneiss, amphibolite, glaucophane schist, eclogite, quartzite) and sedimentary (sandstone, limestone, shales, radiolarian chert) rocks collected by Julius and other geologists. Localities poorly described, no locality maps)

Godang, S., Fadlin & B. Priadi (2016)- Geochemical signatures of potassic to sodic Adang Volcanics, Western Sulawesi: implications for their tectonic setting and origin. Indonesian J. on Geoscience (IJOG) 3, 3, p. 195-214.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/344/226)
(Late Miocene Adang Volcanics represent ~400m thick series of (ultra-) potassic- sodic lavas and tuffs of mainly trachytic composition. Part of widespread Late Cenozoic (latest Miocene- E Pliocene) high-K volcanics and associated intrusive rocks, widespread in W Sulawesi. Mafic to mafitic-intermediate characteristics (SiO2: 46-56 wt%, etc.). Major rock forming minerals leucite/pseudoleucite, diopside/aegirine and high T phlogopite. Likely formed in post-subduction, intra-continental extensional tectonic setting)

Godang, S., F. Fadlin, B. Priadi, A. Idrus & I Gde Sukadana (2021)- Komatiitic lamprophyre in West Sulawesi: first evidence for >1350°C and 3.5 - 3.8 GPa mantle melts. Indonesian J. on Geoscience (IJOG) 8, 1, p. 39-58.
(online at: http://ijog.bgl.esdm.go.id/index.php/IJOG/article/view/517/325)
(Late Cenozoic Talaya Volcanic Fm in W Sulawesi with lamphrophyric lava. Geotectonic setting supra-subduction alkaline continental-arc. Protolith of magma from partial melting of depleted MORB mantle at high P (3.5-3.8 GPa); at depth of ~120 km, with melting T >1350°C)

Godang, S., A. Idrus, Fadlin, B. Priadi & N.I. Basuk (2019)- Saprolitization characteristics of Rare Earth Elements in volcanic regolith on drill core #65 in Western Sulawesi, Indonesia. Asian J. Applied Sciences 7, 4, p. 435-450.
(online at: https://www.ajouronline.com/index.php/AJAS/article/view/5873)
(Regolith weathering profile of leucite-bearing mafic trachytic rocks of Adang Volcanics in W Sulawesi. Enrichment of REEs in saprolite zones is 2.73 times compared to parent mafic trachytic rocks. Etc..)

Godang, S., S.P. Saputro, H. Li, A.H. Satyana & W. Srichan (2025)- Geochemistry of the Adang Volcanics in Western Sulawesi: Unveiling the tectonic evolution of the opening of the Makassar Strait. Solid Earth Sciences 10, 1, 100228, p. 1-13.
(online at: https://www.sciencedirect.com/science/article/pii/S2451912X25000017)
(Miocene Adang Volcanics in Mamuju area in W Sulawesi: exposures of M-L Miocene (but older K/Ar datig Pliocene) volcanics, with intercalations of crystalline limestone and carbonates, indicating marine environment of deposition. Mainly low-Si mafic rocks (leucite/pseudoleucite-bearing trachytic tuff, agglomerate, breccia, lavas, leucitic intrusions, etc.). Geochemistry suggests magmatism from continental extension rather than subduction arc or mature continental rifts, from partial melting of enriched subcontinental lithospheric mantle, not asthenospheric mantle. (Suggested link to Makassar Strait opening seems rather unlikely, as that happened . 30 Myrs earlier, in Middle-Late Eocene; JTvG))

Golightly, J.P. (1979)- Geology of Soroako nickeliferous laterite deposits. In: D.J.I. Evans et al. (eds.) International Laterite Symposium, New Orleans 1979, Soc. Mining Engineers (SME) of American Institute Mining Metallurgy Petroleum Engineering (AIMM & PE), New York, p. 38-56.

(Nickel mined by PT INCO from laterite overlying E Sulawesi Cretaceous ultramafic complexes. In situ weathering of 20-50 m thick column of ophiolite in last 10 My believed to have formed 5-30m thick laterite, with only minor lateral migration of nickel in solution)

Golightly, J.P. & O.N. Arancibia (1979)- The chemical composition and infrared spectrum of nickel- and iron-substituted serpentine from a nickeliferous laterite profile, Soroako, Indonesia. Canadian Mineralogist 17, 4, p. 719-728.

Gomez, J.M., R. Madariaga, A. Walpersdorf & E. Chalard (2000)- The 1996 earthquakes in Sulawesi, Indonesia. Bull. Seismological Society of America 90, 3, p. 739-751.
(1996 earthquakes in relay zone between N Sulawesi trench and Palu-Koro transcurrent fault. Slip vectors NNW orientation parallel to direction of convergence between N Sulawesi arm and Celebes Sea)

Goto, S. et al. (1972)- Report on the survey for nickel smelter construction in Pomalaa area, Republic of Indonesia. Open File report Overseas Technical Cooperation Agency, Japan, p. 1-158.
(online at: https://openjicareport.jica.go.jp/pdf/10553600.pdf)
(With overview of earliest nickel mining in SE Sulawesi since 1935, and recommendation for building a nickel smelter along coast at Pomalaa to process low-grade laterite nickel ores)

Graha, D.S. (1998)- Zonasi umur pada batuan granitik Polewali, Sulawesi Selatan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 8, 78, p. 9-19.
('Age zonation in granitic rocks of Polewali, S Sulawesi'. K-Ar ages of biotite in Polewali granite 3.1- 14.0 Ma suggest age zonation of ~3.1-3.5 Ma at outside, 6.1-9.8 Ma in middle and 14.0 Ma in center. Ages from hornblende and biotite from Riso syenite 4.5- 6.75 Ma)

Grainge, A.M. & K.G. Davies (1983)- Reef exploration in the East Sengkang Basin, Sulawesi. Proc. 12th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 207-227.
(East Sengkang Basin Late Miocene reefs in outcrop and as shallow gas-bearing Late Miocene reefs in N part of basin. Four accumulations with ~0.75 TCF of dry gas in place at average depth 700m. Kampung Baru is largest field and contains over half the total. Reservoir quality excellent. Gas probably generated in W Sengkang Basin and sub-sequently migrated into E Sengkang Basin)

Grainge, A.M. & K.G. Davies (1985)- Reef exploration in the East Sengkang Basin, Sulawesi, Indonesia. Marine and Petroleum Geology 2, p. 142-155.
(Shallow, gas-bearing Upper Miocene reefs in N part Sengkang basin, with Kampung Baru as largest field. Lower Miocene mudstones and limestones unconformable over Eocene volcanics acoustic basement. Two M Miocene periods of deformation and erosion. Late Miocene widespread carbonate deposition with platform limestones and pinnacle reef complexes. Reef growth ceased at end Miocene and clastic sedimentation covered irregular limestone surface. Walanae sinistral strike-slip fault zone separates E and W Sengkang Basins)

Greenfield, T., A.C. Copley, C. Caplan, P. Supendi, S. Widiyantoro & N. Rawlinson (2021)- Crustal deformation and fault strength of the Sulawesi subduction zone. Tectonics 40, 3, e2020TC006573, p. 1-18.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2020TC006573)
(Seismicity and rheology of N-Sulawesi subduction zone from wave modeling of moderate magnitude (M5–M6.5) earthquakes on N Sulawesi megathrust and surrounding region. Slip vectors of megathrust earthquakes radiate outward from Sulawesi, implying lateral spreading of high topography, controlled by gravitational potential energy contrasts. Region acts as region of weak crust spreading out over strong subducting plate. Subducting Celebes Sea oceanic plate has age of 35-45 Ma, with elastic thickness-typical of mature oceanic lithosphere (age >25 Ma))

Gunawan, W. (1999)- Structure, stratigraphie et evolution de la partie centrale de Sulawesi (Indonesie orientale). Doct. Thesis Universite de Aix-Marseille, p. 1-283. *(Unpublished)*
(Sulawesi is area of collision between Eurasian and Gondwanan blocks. Three main events: (1) collision of Asia-Banda Blocks (= E Sulawesi) in Late Oligocene, (2) collision of Banda- Lucipara blocks in M Miocene and (3)

collision of Banggai-Sula and Sulawesi in M Pliocene. C Sulawesi marks collision between Asia and Banda blocks, with obduction of ophiolite nappe of Asian origin over E Sulawesi block. E Sulawesi block sedimentary cover starts with Triassic reefal/ platform carbonates followed by Early Jurassic platform interior carbonates, Lower Cretaceous radiolarites and Upper Cretaceous-Oligocene pelagic limestones. High P- low T metamorphism during W-directed subduction in Early Oligocene. Western active margin has substrate metamorphosed in Aptian- Albian, overlain by Upper Cretaceous- Pliocene volcano-sedimentary formations, and deformed by thrusting during Oligocene collision, possibly followed by Middle Miocene event also known from Buton island)

Guntoro, A. (1996)- Seismic interpretation and gravity models of Bone Bay in relation to its evolution. Proc. 25th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 3, p. 349-369.

Guntoro, A. (1997)- Stratigrafi dan evolusi tektonik Pulau Tanahjampea dan sekitarnya, Kabupaten Selayar, Sulawesi Selatan. Berita Sedimentologi 4, p. 9-17.
('Stratigraphy and tectonic evolution of Tanahjampea Island and surroundings, Selayar District, S Sulawesi'. Oldest rocks Eocene volcanic breccia (part of Langi volcanics of S Sulawesi?), overlain by E Miocene limestone with Lepidocyclina (part of Tonasa Lst of Sulawesi?), Pleistocene volcanic breccia)

Guntoro, A. (1997)- Preliminary study of the geology and tectonics of the Flores Sea islands, South Sulawesi. Proc. 26th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 291-313.
(online at: https://www.iagi.or.id/web/digital/64/24.pdf)
(Islands S of SW Sulawesi/ Flores Sea (Selayar, Bonerate and Kalaotoa groups) poorly known. Similar stratigraphy to SW Sulawesi. Extensive volcanic and tectonic activity since Eocene (old volcanic breccias similar to Langi Volcanics in SW Sulawesi). Tanahjampea and Tanahmalala islands mainly SW Sulawesi-like granite, also Eocene and M-U Miocene calc-alkaline volcanics, possibly overlain by Batu Fm limestone with large Lepidocyclina. Suggesting W-dipping subduction zone E of W Sulawesi in E Tertiary continued to E of these islands. Kalao island 11 uplifted coral reef terraces on andesite; Tertiary rocks dip 40° to SW. Bonarate, Kalaotoa islands also with uplifted Quaternary reefal limestones (no mention of Verbeek (1908) work))

Guntoro, A. (1999)- The effect of collision of the Banggai-Sula microcontinent to the tectonic development in Central Indonesian region. In: G.H. Teh (ed.) Proc. 9th Regional Congress Geology Mineral Energy Resources of SE Asia (GEOSEA '98), Kuala Lumpur 1998, Bull. Geological Society Malaysia 43, p. 103-111.
(online at: https://gsmpubl.wordpress.com/wp-content/uploads/2014/09/bgsm1999011.pdf)
(Seismic interpretation shows presence of major faults indicating extensional, compressional and inversion tectonics in Makassar Strait, Sulawesi and Bone Bay. Gravity models indicate presence of oceanic crust in middle of Makassar Strait and Bone Bay and remnant subduction to S of Bone Bay. Origin of oceanic crust in Makassar Straits and Bone Bay due to rifting, with E-ward driving mechanism subduction roll-back of Pacific Plate eastward since E Tertiary. Bone Bay openings due to M Miocene collision of Banggai-Sula with Sulawesi, causing displacement and rotation of two Walanae and Palu-Koro faults. Banggai-Sula collision also caused inversion structures at E and W sides of N Makassar Basin by inverting Eocene extensional basin)

Guntoro, A. (2004)- The relationship between tectonic development of Central Indonesian region and collision of Banggai-Sula microcontinent to the east Sulawesi. Jurnal Teknologi Mineral (ITB) 11, 1, p.
(Central Indonesia with major faults indicating extension, compression and inversion. Gravity data indicate presence of oceanic crust in middle of Makassar Straits and Bone Bay, related to rifting. Driving mechanism of rifting in Makassar Strait is subduction roll-back of Pacific Plate E-ward since early Tertiary. Rifting in Bone Bay due to collision of Banggai-Sula Microcontinent against Sulawesi causing displacement and rotation of two major faults, Walanae and Palu-Koro)

Guritno, N., D.Q. Coffield & R.A. Cook (1996)- Structural development of central South Sulawesi, Indonesia. Proc. 25th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 253-266.
(S Sulawesi stratigraphy: pre-Tertiary basement, Eocene synrift, Oligo-Miocene post-rift, M Miocene syn-magmatic, and Late Miocene-Pliocene synorogenic sedimentary packages. E part hinterland of exposed Cretaceous basement in W-vergent thrust system. W of basement outcrops is basement-involved, W-vergent

Kalosi fold-thrust, with exposed Paleogene sediments. Further W shortening thin-skinned Majene foreland fold-thrust belt. S Sulawesi is W-vergent orogen superimposed on M Miocene magmatic arc. Bone Bay is continent-continent suture recently disrupted by transtensional wrenching and collapse of orogen's eastern extremity. SE Sulawesi E-vergent portion of orogen with allochthonous ophiolite nappes from continent-continent suture. Leading edge of orogen along Banda Sea W margin)

Hadiwijoyo, S., D. Sukarna & K. Sutisna (1993)- Geological map of the Pasangkayu Quadrangle, Sulawesi (Quad. 2014), 1: 250,000, Geological Research Development Centre (GRDC), map + 19p. text.
(W Sulawesi map between 1-2°S. Oldest rocks ?Triassic metamorphics (no data to support age), unconformably overlain by low-metamorphic Upper Cretaceous clastics. Overlain by Oligocene and E Miocene Lamasi andesitic-dacitic volcanics. Unconformably overlain by M-L Miocene Talaya andesitic-basaltic series and Late Miocene- Pliocene molasse. Oil seep at Doda. Unlike areas to S, no Eocene rocks present in outcrop)

Haile, N.S. (1974)- An unusual unconformity of radiolarian chert on schist and gneiss west of Pangkajene, SW arm, Sulawesi (Celebes). Geological Society Malaysia Newsletter 52, p. 21-22. *(Abstract only)*
(online at: https://gsmpubl.wordpress.com/wp-content/uploads/2014/09/ngsm1974007.pdf)
(Brief note on mid-Cretaceous unconformity in Sungai Dera (tributary of Sg Paring) ~22 km E of Pangkajene, SW Sulawesi. Brecciated gneiss and micaschists of Bantimala Complex overlain with horizontal unconformity, by slightly folded ~7m thick red chert sequence. Near base of chert are up to 30cm thick beds of rel. coarse quartz-mica sandstone with up to 35% lithics of micaschists and altered ultrabasic rocks. (Age of radiolaria in chert Late Albian- E Cenomanian; Wakita 2000; similar siuccession in Miomaffo complex of W Timor; JTvG))

Haile, N.S. (1978)- Reconnaissance palaeomagnetic results from Sulawesi, Indonesia, and their bearing on palaeogeographic reconstructions. Tectonophysics 46, p. 77-85.
(SW Sulawesi Jurassic radiolarian chert rotated ~35° CCW since Late Mesozoic. E Cretaceous radiolarian chert formed at ~3° and may have formed single plate with Kalimantan and Malay Peninsula, which rotated ~35-50° CCW since Cretaceous. Jurassic cherts from SE Sulawesi formed at high latitude (61°S))

Haile, N.S., A.J. Barber & D.J. Carter (1979)- Mesozoic cherts on crystalline schists in Sulawesi and Timor. J. Geological Society, London, 136, p. 65-70.
(online at: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.820.2026&rep=rep1&type=pdf)
(Non-metamorphosed Jurassic or Early Cretaceous pelagic radiolarian chert deposited unconformably on brecciated gneiss of Bantimala Complex in Pangkajene valley, SW Sulawesi. Cherts associated with turbiditic lithic sandstones, with grains of mica schist, muscovite, altered ultramafic rock, rare garnet and tourmaline. Radiolaria deemed to be of Jurassic or E Cretaceous age by Ling (no details). Very similar rock succession on Timor (Miomaffo) suggest Sulawesi and Timor probably part of continuous terrain during deposition of radiolarian cherts (see also Harahap 2000))

Hakim, A.Y.A. (2017)- Genesis of orogenic gold in the Latimojong district, South Sulawesi, Indonesia. Dissertation Montan Universitat Leoben, Germany, p. 1-355.
(online at: https://pure.unileoben.ac.at/portal/files/2214320/AC14527918n01.pdf)
(Awak Mas and Salu Bullo gold deposits in Latimojong Metamorphic Complex, S Sulawesi. Latimojong MC part of Late Cretaceous accretionary complex with high-P metamorphics, W of obducted Lamasi Complex (= E Sulawesi Ophiolite?). Gold hosted in quartz veins in pumpellyite- to greenschist-facies metasedimentary and metavolcanic rocks. Metamorphic reactions in metasedimentary rocks during retrogression stage considered main source of ascending fluids forming Au-mineralization)

Hakim, A.Y.A. & F. Melcher (2016)- The Salu Bullo mesothermal gold deposit in South Sulawesi, Indonesia. GeoTirol 2016 Conference, Innsbruck, 1p. *(Abstract only)*
(Mesothermal gold deposit hosted by greenschist facies rocks in late Cretaceous Latimojong metamorphic complex. Structural evolution includes accretion of Lamasi ophiolite onto sedimentary sequences by major NNW thrusting. At Salu Bullo, four N-S trending ore bodies dipping with high angle to E. Gold-bearing veins hosted by fine-grained meta-sedimentary and meta-volcanic rocks)

Hakim, A.Y.A., F. Melcher, W. Prochaska, R. Bakker & G. Rantitsch (2018)- Formation of epizonal gold mineralization within the Latimojong Metamorphic Complex, Sulawesi, Indonesia: evidence from mineralogy, fluid inclusions and Raman spectroscopy. Ore Geology Reviews 97, p. 88-108. *(online at: www.academia.edu/96992451/Formation_of_epizonal_gold_mineralization_within_the_Latimojong Etc.)*
(Gold deposits in Latimojong Metamorphic Complex, S Sulawesi (Awak Mas, Salu Bulo) in pumpellyite-greenschist facies metasedimentary and metavolcanic rocks. Gold in quartz veins in N-S normal faults and extensional fractures. Minerals dominated by pyrite, chalcopyrite, galena, minor tetrahedrite and sphalerite; gold is electrum with low silver content. Gold bearing fluids trapped in quartz at ~180-250 °C at depths <5 km. Isothermal decompression during retrogression stage mobilized large volumes of fluids, leading to significant gold mineralization)

Hakim, A.Y.A., F. Melcher, W. Prochaska & T.C. Meisel (2022)- Magmatic and metamorphic evolution of the Latimojong Metamorphic Complex, Indonesia. J. Asian Earth Sciences 227, 105095, p. 1-19.
(Development of accretionary complex of Latimojong Metamorphic Complex began in Cretaceous, followed by deformation, folding, and uplift above sea level before Eocene. REE patterns of metasedimentary rocks might be interpreted as slab dehydration during high-P metamorphism at mantle depths. Metamorphic conditions point to high-P (up to 12 kb) to low T (300-415 °C), as typically observed in subduction zones. Latimojong MC underwent tectonic evolution and accretion history similar to other metamorphic complexes in S Sulawesi (Barru, Bantimala), although protoliths and metamorphic P-T conditions may have varied)

Hakim, F.R. & A. Idrus (2021)- Preliminary study of geology, alteration and ore mineralisation at East Motoling Area, South Minahasa District, North Sulawesi, Indonesia Proc. 3rd Int. Conf. Global Issue for Infrastructure, Environment, and Socio-Economic Development (GIESED 2020, Makassar), IOP Conference Series: Earth and Environmental Science 921, 012034, p. 1-7.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/921/1/012034/pdf)
(E Motoling prospect in the Minahasa region of N Sulawesi with low sulfidation epithermal mineralization. Volcanic Rock Formation of Late-Middle Miocene age host rock for ore mineralization)

Handyarso, A., H. Permana, M. Hanafi, P. Sendjaja & M.M. Mukti (2023)- Extensional tectonic investigation based on gravity and magnetic data analysis in the Gulf of Tomini, Indonesia. Rudarsko-geolosko-naftni Zbornik (Mining-Geology-Petroleum Engineering Bulletin), Zagreb, 38, 4, p. 1-18.
(online at: https://hrcak.srce.hr/clanak/447262)
(Gulf of Tomini between E and N Arms of Sulawesi (also called Gorontalo Bay) not well understood. Gravity and magnetic dara suggest extensional tectonics, with multiple parallel NW-SE dextral strike-slip faults. Second-order grabens include Gorontalo, Tomini and Poso basins, separated by Lalanga and Togian ridges. Moho depth ~12- 28 km beneath surface. Also volcanic activity around Togian and Una-Una islands)

Harahap, B.H. (1995)- Petrology of the Neogene subvolcanic rocks from the western part of South Sulawesi. Bull. Geological Research Development Centre (GRDC) 18, p. 68-85.
(Neogene K-rich volcanics in SW Sulawesi)

Harahap, B.H. (1999)- Asal lava bantal Salu Latupa, Latimojong, Sulawesi Selatan. Majalah Geologi Indonesia (IAGI) 15, 1-2, p. 25-38.
('Genesis of Salu Latupa pillow lava, Latimojong, S Sulawesi')

Harahap, B.H. (2000)- Petrologi lava basaltik dari jalan raya antara Palopo dan Rantepao, Sulawesi selatan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 10, 101, p. 2-9.
('Petrology of basaltic lava from the main road between Palopo and Rantepao, S Sulawesi'. Basalts outcropping at km 376-379 intrude Eocene Toraja Fm equivalent rocks. Age unclear? Geochemistry suggest subduction-related lavas, probably from before M Miocene Banggai-Sula collision with Sulawesi)

Harahap, B.H. (2000)- Kejadian rijang di Sungai Paring Sulawesi Selatan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 10, 105, p. 2-11.

('Genesis of chert in the Paring River of South Sulawesi'. Red, thin-bedded deep marine radiolarian chert Fm in Paring River near Bantimala, 22km E of Pangkajene. Unconformably overlies Bantimala melange complex, composed of schist, ultramafic rocks, clastic sediments, etc. With slump structures; associated with sandstones and breccias with fragments of schist. Chert contains radiolaria indicative of U Albian- Lower Cenomanian age (~100 Ma; Wakita 1996; 7m of radiolarian cherts with some turbiditic sandstones on brecciated gneiss from same area also described by Haile et al. 1978))

Harahap, B.H. (2000)- Petrologi lava dan korok basalt dari Walenrang, Sulawesi. Proc. 29th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 4, p. 179-189.
('Petrology of lava and basalt of Walenrang, Sulawesi'. C Sulawesi Pliocene Lamasi volcanics chemistry comparable to Mid-Ocean Ridge Basalts)

Harahap, B.H. (2002)- Ofiolit di Pegunungan Latimojong Sulawesi bagian selatan dan implikasi geodinamika dalam tatanan tektonik dan stratigrafi regional Sulawesi. Buletin Geologi (ITB) 34, 1, p. 1-20.
('Ophiolite of the Latimojong Mts, S Sulawesi and geodynamic implications for the regional tectonic and stratigraphic history of Sulawesi')

Harahap, B.H. (2004)- Plio-Pleistocene volcanic rocks from Tanatoraja South Sulawesi. Majalah Geologi Indonesia (IAGI) 19, 2, p. 81-90.

Harahap, B.H., S. Maryanto, W. Sunata, Sudijono & T. Sihombing (1999)- Stratigrafi Sulawesi Selatan. Pusat Penelitian dan Pengembangan Geologi (Geological Survey), Bandung, Special Report, p. 1-94. *(Unpublished?)*
('Stratigraphy of South Sulawesi')

Hardjadinata, K. (1992)- Beberapa aspek lapangan batuan vulkanik daerah Gorontalo, Sulawesi Utara. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 2, 6, p. 4-8.
('Some aspects of the volcanic rocks of the Gorontalo area, northern Sulawesi')

Hardjana, I. (2011)- The discovery, geology and exploration of the high sulphidation Au-mineralization system in the Bakan District, North Sulawesi. In: N.I. Basuki (ed.) Proc. Conf. Sulawesi Minerals Resources 2011, Manado, MGEI/IAGI, p. 161-188. *(also in Majalah Geologi Indonesia 27, 3, p. 143-157)*
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/731)
(Gold mineralization in Bakan, N Sulawesi, hosted by dacitic tuffs of Plio-Pleistocene Bakan Fm, which unconformably overlie Miocene basement units of andesitic lavas, feldspathic sandstones and diorite porphyry)

Harjanto, A., Sutanto, A. Subandrio, I.M. Suasta, J. Salamat, G. Hartono, P. Saputra et al. (2016)- Alterasi hidrotermal di Dumoga Barat, Kabupaten Bolaang Mongondow, Sulawesi Utara. Eksplorium 37, 1, p. 27-40.
(online at: https://jurnal.batan.go.id/index.php/eksplorium/article/view/2666/pdf)
('Hydrothermal alteration in West Dumoga, Bolaang Mongondow Regency, North Sulawesi')

Harjanto, Ernowo (2017)- Hydrothermal alteration and gold mineralization of the Awak Mas gold deposit, Sulawesi Island, Indonesia. Ph.D. Thesis RWTH Aachen University, Germany, p. 1-177.
(Awak Mas metasedimentary-hosted gold deposit in Cretaceous metamorphic Latimojong Fm, S Sulawesi. Hosted by phyllites-schists representing metamorphosed shales derived from acidic arc volcanic rocks in continental island arc setting, and metamorphosed under low P-T conditions (greenschist-facies). Obduction and thrusting of Lamasi Ophiolite Complex onto Latimojong Metamorphic Complex in Miocene led to ductile deformation, followed by crustal thickening that caused melting at base of crust and granitic magmatism at 5-8.1 Ma. Granodiorites of calc-alkaline magmatic affinity emplaced in transition between volcanic-arc and syn-collisional granite tectonic setting. Extensional collapse caused brittle deformation (normal faulting/ fracturing) and formation of veins controlled gold mineralization. Awak Mas epigenetic, orogenic gold deposit)

Harjanto, E., F.M. Meyer & A. Idrus (2015)- Geology and mineralization of Awak Mas gold deposit and challenges for new exploration targeting in the metamorphic rock terrain of eastern Indonesia. Proc. 13th Biennial Meeting Society for Geology Applied to Mineral Deposits (SGA), Nancy, p. 103-106.

(Awak Mas metamorphic-rock hosted gold deposits in C Sulawesi Cretaceous Latimojong metamorphic belt. Dominant lithologies slate, phyllite and mica schist. Mineral assemblage reflects high P/ low T environment or greenschist facies metamorphic rocks. Extensional faults, shears and fractures control gold mineralization)

Harjanto, Ernowo, F.M. Meyer, A. Idrus, H. Widyanarko & N.L. Endrasari (2016)- An update of key characteristics of Awak Mas mesothermal gold deposit, Sulawesi Island, Indonesia. Proc. 8th Annual Conv. Indonesian Soc. Economic Geologists (MGEI), Bandung, p. 72-75.
(Awak Mas gold deposit in metamorphic belt of Sulawesi. Hosted by low-metamorphic Cretaceous Latimojong Fm flysch sequence locally intruded by diorite dykes. Believed to have formed by hydrothermal fluids sourced from metamorphic dewatering reactions of marine sediments (mesothermal orogenic gold deposit))

Harju, H.O. (1979)- Exploration of P.T. INCO's nickel laterite deposits in Sulawesi, Indonesia. In: D.J.I. Evans et al. (eds.) International Laterite symposium, American Inst. Mining Metallurgical Petroleum Engineering (AIME), New Orleans, p. 292-299.

Hasan, K. (1990)- The Upper Cretaceous flysch succession of the Balangbaru Formation, Southwest Sulawesi, Indonesia. Ph.D. Thesis, University of London, p. 1-336. *(Unpublished)*
(Upper Cretaceous (Turonian-Maastrichtian) Balangbaru Fm ~3300m of deep marine flysch, unconformably over accretionary complex. Not internally deformed, only slight E tilt. Paleocurrent of gravity flows mainly from NW to SE and W to E. Provenance in lower part mainly metamorphic lithics and chert from accretionary complex, upper part influenced by magmatic arc provenance. Tectonic setting small fore-arc basin on trench slope. Basement complex uplifted from significant depth prior to deposition of Balangbaru Fm, thus preventing transport of volcaniclastics into basin)

Hasan, K. (1991)- The Upper Cretaceous flysch succession of the Balangbaru Formation, Southwest Sulawesi. Proc. 20th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 183-208.
(Summary paper of above thesis on Upper Cretaceous (Turonian-Maastrichtian) Balangbaru Fm 'flysch' in SW Sulawesi)

Hasan, K., R. Garrard & P. Mahodim (1991)- SW Sulawesi, Post-convention field trip guidebook. Indonesian Petroleum Association (IPA), p. 1-61.
(Balangbaru area of SW Sulawesi Albian (111, 115 Ma) age metamorphics. Late Cretaceous (Turonian-Maastrichtian) Balangbaru flysch 3300m thick, unconformably over fractured ultrabasic rocks. Uplift/ erosion event followed by Eocene fluvio-deltaics and Nummulites limestones, overlain by up to 500m Late Eocene- E Miocene Tonasa Limestone)

Hasanuddin, M.S. Kaharuddin, M. Adam & M. Fathurahman (2023)- Preliminary study of accretion complexes of Mangilu area, Pangkep Regency, South Sulawesi. British J. Environmental Studies 3, 1, p. 13-22.
(online at: https://www.al-kindipublisher.com/index.php/bjes/article/download/5372/4513)
(Cretaceous rocks in Mangilu area, Pangkep Regency, SW Sulawesi, represent subduction zone accretionary complex, with melange, low-high grade metamorphism and deep-sea sediments (flysch, radiolarian cherts, olistostrome). Mangilu succession consists of melange (autoclastic with blocks of blueschist, eclogite, greenschist, granulite), Olistostrome with granite olistoliths), U Cretaceous Rijang radiolaria chert and Balangbaru Sandstone flysch with some chert, autoclastic breccia, thrusted over Paleogene Mallawa Sst and Tonasa Lst (Miocene Pangkajene thrust?)

Hasanuddin, Kaharuddin, B. Syam, B.R. Maulana & B.N. Aisyah (2022)- Petrological study of autoclastic Breccia Formation in Mangilu Region, Pangkep, South Sulawesi Province. Proc. 51st Annual Conv. Indonesian Association Geologists (PIT IAGI 51), Makassar 2022, p. 1-9.
(online at: https://www.iagi.or.id/web/digital/71/PITIAGI-22-P-Abs-118.pdf)
(Mangilu area in N part of Bantimala Complex with two types of breccia (1) broken formation along Pangkajene River in Mesozoic greenschist, radiolarian chert, Balangbaru Sst with boudinage, etc.; (2) autoclastic breccia formation (in same rocks, also schist, serpentinite, peridotite, pillow lava)? Represents deformation in subduction zone? (not sure why this is called autoclastic; mixture of large blocks is imbricated formation or olistostrome?))

Hasibuan, F. (2001)- *Ostrea (Turkostrea) doidoiensis* n.sp. from the Middle Eocene of Malawa Formation, South Sulawesi. Proc. 30th Annual Conv. Indonesian Association Geologists (IAGI) and 10th GEOSEA Regional Congress, Yogyakarta, p. 191-194.
(New oyster species from M Eocene Malawa Fm that unconformably overlie Late Cretaceous Balangbaru flysch in Doidoi village, S of Ralla, S Sulawesi. Ostrea (T.) doidoiensis) is from basal marine beds above the two coal beds of Malawa Fm and is associated with gastropods, solitary corals ond other bivalves)

Hasibuan, F. (2009)- Lingkungan pengendapan Formasi Malawa, Sulawesi Selatan berdasarkan kandungan makro fosil. Jurnal Sumber Daya Geologi (JSDG) 19, 2, p. 95-106.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/196/188)
('Environment of deposition of the Malawa Fm, S Sulawesi based on macrofossils'. Malawa Fm with E-M Eocene palynomorphs and overlain by Tonasa Lst with Eocene Nummulites javanus. Four M Eocene stratigraphic units with molluscs, incl. Ostrea doidoiensis and Septifer. Environments mangrove swamp, fluvial, lagoon- sandbars and deltaic)

Hasibuan, F. & A. Kusworo (2008)- Umur Formasi Nambo di Sulawesi Tengah dengan acuan khusus fosil Moluska. Jurnal Sumber Daya Geologi (JSDG) 18, 1, p. 43-54.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/226/216)
('Age of the Nambo Fm in C Sulawesi based on fossil molluscs'. Nambo Fm along Kali Nambo near Luwuk in E Arm of Sulawesi 50m thick calcareous shale of latest Jurassic (Tithonian) age with molluscs (Retroceramus haasti, Malayomaorica malayomaorica) and belemnites (Belemnopsis mangolensis, B. stolleyi, B. aucklandica simitis, B. moluccana, B. galoi). Similar to upper part of Buya Fm of Sula islands)

Hasibuan, F. & A. Limbong (2009)- Geologi dan paleontologi Formasi Balangbaru dan Formasi Marada berumur Kapur, Sulawesi Selatan. Jurnal Sumber Daya Geologi (JSDG) 19, 6, p. 365-376.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/220/210)
('Geology and paleontology of the Cretaceous Balangbaru and Marada formations, S Sulawesi'. Balangbaru Fm Albian- Maastrichtian turbiditic series with macrofossils including echinoids, bivalve Inoceramus sp. and ammonite Grossouvreites sp. Marada Fm partly distal equivalent of Balangbaru Fm, with Spirorhaphe trace fossil and Turonian- Late Maastrichtian nannofossil assemblages)

Hasibuan, F., Sudijono, A. Limbong, Suyoko & E.H. Nugroho (1996)- Data baru umur Formasi Nambo, Sulawesi Tengah. Proc. 25th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 52-70.
('New data on the age of the Nambo Fm, E Sulawesi'. Late Jurassic deposits)

Hasria, S. Asfar, Adriyansyah, Masri, Muliddin, Arisona, Al Firman, A. Okto & L.M. Golok Jaya (2021)- Fasies batuan metamorf daerah Wumbubangka, Kecamatan Rarowatu Utara, Kabupaten Bombana, Provinsi Sulawesi Tenggara. Jurnal Geomine 9, 1, p. 55-64.
(online at: https://jurnal.teknologiindustriumi.ac.id/index.php/JG/article/view/896/pdf)
('The metamorphic rock facies of the Wumbubangka area, North Rarowatu District, Bombana Regency, SE Sulawesi Province'. Metamorphic rocks in study area consist of muscovite schists and marble (greenschist metamorphic facies), interpreted to have formed at 300-500 °C)

Hasria, S. Asfar & E.R. Tawakkal (2021)- Profil endapan nikel laterit di Kecamatan Tinanggea, Kabupaten Konawe Selatan, Provinsi Sulawesi Tenggara. Jurnal Promine 9, 1, p. 13-22.
(online at: https://journal.ubb.ac.id/index.php/promine/article/view/2345/1775)
('Profile of laterite nickel deposits at Tinanggea District, S Konawe Regency, SE Sulawesi Province')

Hasria, E.S. Hasan, Deniyatno, L.M I. Salihin & Asdiwan (2020)- Characteristics of ultramafic igneous rock ofiolite complex in Asera District, North Konawe Regency, Southeast Sulawesi Province, Indonesia. J. Geoscience Engineering Environment Technology (JGEET) 5, 3, p. 114-118.
(online at: https://journal.uir.ac.id/index.php/JGEET/article/view/4113/2648)

(Two types of ultramafic rocks in SE Sulawesi study area: peridotite (wehrlite and lherzolite) and serpentinite. Type of magma in study area is tholeitic series and origin)

Hasria, A. Idrus & I.W. Warmada (2017)- The metamorphic rocks-hosted gold mineralization at Rumbia Mountains prospect area in the Southeastern Arm of Sulawesi Island, Indonesia. J. Geoscience Engineering Environment Technology (JGEET) 2, 3, p. 217-223.
(online at: http://journal.uir.ac.id/index.php/JGEET/article/view/434/376)
(On 'orogenic gold' in gold-bearing quartz veins in Pompangeo Metamorphic Complex of Permo-Carboniferous metasediments and mica schists at Rumbia Mountains, SE Sulawesi. Veins sheared/deformed and brecciated, 1-15.7 cm thick. Associated with pyrite, chalcopyrite, hematite, cinnabar, stibnite and goethite. Gold also in derived placer deposits)

Hasria, A. Idrus & I.W. Warmada (2019)- Alteration, mineralization and geochemistry of metamorphic rocks hosted hydrothermal gold deposit at Rumbia Mountains, Bombana Regency, Southeast Sulawesi, Indonesia. J. Geoscience Engineering Environment Technology (JGEET) 4, 2, p. 83-92.
(online at: https://journal.uir.ac.id/index.php/JGEET/article/view/2346/1834)
(Recent gold prospects discovered in association with metamorphic rocks include metamorphic rocks at Rumbia Mts, SE Sulawesi. Hydrothermal gold deposits in Mendoke and Rumbia consist of 3 alterations, sericitic, argillic and propylitic. Mineralization of hydrothermal gold deposits in greenschist metamorphics in gold-bearing quartz veins. Protoliths of metamorphic rocks in Rumbia Mountain sedimentary rocks)

Hasria, A. Idrus & I.W. Warmada (2019)- Alteration and ore mineralogy of metamorphic rocks hosted hydrothermal gold deposit at Rumbia Mountains, Bombana Regency, Southeast Sulawesi, Indonesia. Proc. ITS Int. Geoscience Convention, Surabaya 2017, IOP Conference Series: Earth and Environmental Science, 375, 012007, p. 1-8.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/375/1/012007/pdf)
(Placer gold in Rumbia mountains, SE Sulawesi, derived from gold-bearing quartz veins in Pompangeo Metamorphic Complex (continental metasediments and metamorphic rocks of Permian-Carboniferous age). Gold associated with chalcopyrite, pyrite, hematite, cinnabar, stibnite and possibly minor goethite, indicating primary gold deposits in area of orogenic type)

Hasria, A. Idrus & I.W. Warmada (2019)- Stratigrafi Pegunungan Rumbia, Kabupaten Bombana, Provinsi Sulawesi Tenggara. Ophiolite: Jurnal Geologi Terapan 1, 1, p. 10-20.
(online at: https://ojs.uho.ac.id/index.php/Ophiolite/article/view/9311/6604)
('Stratigraphy of the Rumbia Mountains, Bombana Regency, SE Sulawesi Province'. Five stratigraphic units at southern tip of SE Arm of Sulawesi, from old to young: Pompangeo Schist, Langkowala Sandstone, Eemoiko Limestone, Boepinang clayey limestone and Alluvial deposits (no strat column, no ages discussed, not clear what is new here?; JTvG))

Hasria, A. Idrus & I.W. Warmada (2020)- Perubahan komposisi batuan metamorf akibat proses alterasi hidrotermal pada endapan emas di Pegunungan Rumbia, Pada Lengan Tenggara Pulau Sulawesi. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 21, 3, p. 119-127.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/477)
('Changes in the composition of metamorphic rocks due to hydrothermal alteration processes in gold deposits in the Rumbia Mountains, on the Southeast Arm of Sulawesi Island')

Hasria, A. Idrus & I.W. Warmada (2021)- Geologi Pegunungan Mendoke, Lengan Tenggara Pulau Sulawesi, Indonesia. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 22, 3, p. 121-131.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/581/457)
('Geology of the Mendoke Mountains, SE Arm of Sulawesi Island, Indonesia'. Stratigraphy: Mengkoka Schist, Pompangeo Schist, Diorite intrusion, Ultramafic harzburgite serpentinite, Langkowala Conglomerate Sandstone and Boepinang Sandstone. Geological structure trending SE-NW and E-W)

Hasria, A. Idrus & I.W. Warmada (2022)- Protolit batuan metamorf di Pegunungan Rumbia Kabupaten Bombana, Provinsi Sulawesi Tenggara, Indonesia. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 23, 1, p. 25-33.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/638/472)
('Protoliths of the metamorphic rocks in the Rumbia Mountains, Bombana Regency, SE Sulawesi Province, Indonesia'. Protoliths of metamorphic rocks in Rumbia Mts are sedimentary rocks (pelitic and greywacke), now in greenschist facies with low-medium grade metamorphism)

Hasria, R.I. Jaya, S.M. Awadh, Riskiyanti, Deniyatno, Syahrul & S. Septiana (2024)- Mineralogy and geochemical characteristics of lateritic nickel deposit in Wiwirano District, North Konawe, SE Sulawesi, Indonesia. Iraqi Geological J. 57, 2C, p. 171-183.
(online at: https://igj-iraq.org/igj/index.php/igj/article/view/2576/2060)
(Geochemistry of nickel laterite deposit in East Sulawesi Ophiolite Belt in Wiwirano District, North Konawe, SE Sulawesi)

Hasria, Masri, S. Asfar, Arisona, A. Okto, La Ode Restele, La Ode Ngkoimani & R. Yustika (2021)- Characteristics of chromite deposits at North Kabaena District, Bombana Regency, Southeast Sulawesi Province, Indonesia. J. Geoscience Engineering Environment Technology (JGEET) 6, 2, p. 94-98.
(online at: https://journal.uir.ac.id/index.php/JGEET/article/view/6424/3295)
(Chromite deposits in peridotite rocks of N Kabaena District, in weathered surfaces and as podiform deposits with dimensions of 30-60cm)

Hasria, Masri, M.A. Azzaman & M.Jerniawan. (2023)- Petrogenetic study on ultramafic rocks from Waturapa and surrounding areas, South Konawe Regency, Southeast Sulawesi Province. J. Geoscience Engineering Environment Technology (JGEET) 8, 1, p. 10-16.
(online at: https://journal.uir.ac.id/index.php/JGEET/article/view/11035/5102)
(Ultramafic igneous rocks in Waturapa area in SE-most Sulawesi (previously unmapped?) are serpentinized olivine websterite and lherzolite, overlain by Mio-Pliocene 'Celebes Molasse'. Belong to tholeiitic magma series that formed in oceanic islands or oceanic intraplate margins)

Hasria, A.M. Ramadhan, A. Okto, Masri, Bahdad, L.O. Ngkoimani & M.A. Azzaman (2022)- Analisis petrografi dan geokimia batuan ultramafik kompleks ofiolit Kecamatan Andowia Kabupaten Konawe Utara, Provinsi Sulawesi Tenggara. Jurnal Geosapta 8, 2, p. 91-97.
(online at: https://ppjp.ulm.ac.id/journal/index.php/geosapta/article/view/14112/pdf)
('Petrographic and geochemical analysis of ultramafic rocks in ophiolite complex, Andowia District, North Konawe Regency, Southeast Sulawesi Province'. SE Sulawesi ophiolite NW of Kendari with peridotite-gabbro rock with tholeitic affinity, formed in Mid Oceanic Ridge)

Hasria, H., M. Resmin, A. Okto, M. Masri, A. Arisona, A.F. Al Firman, H. Harisma et al. (2023)- Pengaruh kemiringan lereng terhadap ketebalan endapan nikel laterit daerah Tobimeita, Kecamatan Langgikima, Kabupaten Konawe Utara, Provinsi Sulawesi Tenggara. J. Geosains dan Teknologi (UNDIP) 6, 3. p. 174-185.
(online at: https://ejournal2.undip.ac.id/index.php/jgt/article/view/20209)
('The effects of slope angle on nickel laterite deposit at Tobimeita area, Langgikima District, North Konawe Regency, SE Sulawesi Province'. Areas on gentle slopes produce relatively thick laterite deposits. (= common knowledge since 1930s?; JTvG)).

Hasria, M. Ruliansyah, S.M. Awadh, Masri, M.A. Azzaman, A. Okto & Sawaludin (2024)- Identification of lateritic nickel deposits potential in the Kokoe Area, Kabaena Island, Central Buton Regency, Southeast Sulawesi Province, Indonesia. Iraqi Geological J. 57, 1A, p. 179-193.
(online at: https://igj-iraq.org/igj/index.php/igj/article/view/1909)
(Four types of lateritic profiles, A-D, on Kabaena Island off S tip of East Sulawesi Ophiolite; Types A and C promising potential due to higher grades of Ni)

Hasria, M. Sidik, S.M. Awadh, Masri, Ali Okto, M.A. Azzaman, Muliddin et al. (2023)- Orogenic gold deposit in metamorphic rocks: minerals and structural control at Rarowatu Area, Southeastern Arm of Sulawesi, Indonesia. Iraqi Geological J. 46, 1B, p. 16-31.
(online at: https://igj-iraq.org/igj/index.php/igj/article/view/1279/1250)

Hayatuzzahra, S.& S.U. Pratomo (2023)- Petrogenesis of andesite rocks in Datae Area, Sidenreng Rappang Regency, South Sulawesi Province. J. Earth and Marine Technology (JEMT) 4, 1, p. 85-96.
(online at: https://ejurnal.itats.ac.id/jemt/article/view/4695/3449)
(Pliocene Pare-Pare andesitic breccias and ignimbrites in western S Sulawesi identified as high-K calc-alkaline and shoshonitic series, and as products of subduction (earlier interpretations shoshonitic-potassic, extensional regime? e.g. Yuwono et al 1985; JTvG)))

Helmers, H. (1991)- Sulawesi blueschists and subduction along the Sunda continent, an alternative view. In: E.P. Utomo et al. (eds.) Proc. The Silver Jubilee LIPI- Symposium on the Dynamics of subduction and its products, Yogyakarta-Karangsambung 1991, Research and Development Center for Geotechnology, Indonesian Institut of Sciences (LIPI), Bandung, p. 220-223.
(Alternative scenario for development of 600 km long belt of blueschist (= high P- low T metamorphic continental rocks) in E Sulawesi. Blueschist metamorphism age ~28 Ma, cooling ages 22.5-16 Ma, and older than Banggai-Sula and Tukang Besi collisions. Tied to obduction related to Oligocene rotation of Borneo. Early Miocene extension enabled rise of blueschist and created Gulf of Bone- Lake Poso depressions)

Helmers, H., E.H. Hebeda & W.J. Lustenhouwer (1990)- The enigmatic relationship between subduction-caused metamorphism, ophiolite emplacement and collision in eastern Sulawesi, Indonesia. In: Orogenesis in Action: Tectonics and processes at the West Equatorial Pacific margin, Geological Society, London, p. 30. *(Abstract only)*

Helmers, H., P. Maaskant & T.H.D. Hartel (1990)- Garnet peridotite and associated high-grade rocks from Sulawesi, Indonesia. Lithos 25, p. 171-188.
(Garnet peridotite and associated granulite-facies contact rocks from along Palu-Koro strike-slip fault (uplifted lower crustal rocks))

Helmers, H., J. Sopaheluwakan, E. Surya Nila & S. Tjokrosapoetro (1989)- Blueschist evolution in southeast Sulawesi, Indonesia. In: J.E. van Hinte et al. (eds.) Proc. Snellius II Symposium, Jakarta 1987, Netherlands J. of Sea Research 24, p. 373-381.
(SE Sulawesi blueschists graphite-mica schists and metabasites of MORB-affinity, latter increasing to S and part of 600 km N-S belt of blueschists. After fast burial during subduction rocks recrystallized at high P (10.5 kbar) and low T (~400°C). Exhumation started immediately; rocks moved to 400°C/ 2-3 kbar on normal thermal gradient in few million years. Lack of radiometric age determinations prevents geotectonic modeling)

Hendrawan, D. (2015)- Exploration history and mineral inventory of Tombulilato Block, Gorontalo, Indonesia. In: N.I. Basuki (ed.) Proc. Indonesian Soc. Economic Geologists (MGEI) 7th Annual Convention, Balikpapan, p. 27-33.
(*Gold-copper-silver belt of N Sulawesi Arm, an extension of Phillipine porphyry Cu-Au belt, has long exploration history since era of Dutch colonialism. Tombulilato Block I with discoveries in 3 complexes: Sungai Mak, Cabang Kiri and Pombolo. Three types of mineralization: porphyry Cu-Au, high sulphidation epithermal Cu-Au-Ag and low sulphidation epithermal Au-Ag)*

Hendrawan, D. & G.N. Putranto (2013)- The Tombulilato copper gold project in Sulawesi, Indonesia 'Facing the challenges and opportunities'. Proc. Symposium East Asia: Geology, exploration technologies and mines, Bali, Bull. Australian Institute of Geoscientists (AIG) 57, p. 32-33. *(Extended Abstract)*
(online at: https://www.aig.org.au/library/publications/aig-bulletins/)
(Tombulilato district in N Sulawesi characterized by >3400m thick Late Miocene?- Pleistocene island arc-type volcano-sedimentary pile. Main compressional deformation event in Pliocene. Uplift and erosion removed ~2 km of rock in last 3 My and progressive unroofing of hydrothermal system. Intrusive bodies postdate folding/ thrusting. Three mineralization types in district: (1) porphyry Cu-Au (Cabang Kiri, Sungai Mak, Kayubulan

Ridge, Cabang Kanan); (2) high-sulfidation epithermal Au-Cu-Ag (Motomboto, Mohutango, Ridho); (3) low-sulfidation epithermal Au-Ag (Kaidundu, Mamungaa, Pombolo, Hulapa, Ombulo, etc.))

Hendri, D. & M.C. Farmer (1997)- The discovery of the Mesel sediment hosted gold deposit, North Sulawesi, Indonesia. Proc. Conf. New Generation Gold Mines '99, case histories of discovery, Perth 1997, AMF, Adelaide, p. 5.1-5.13.
(Example of sediment-hosted, disseminated gold deposit in Mesel in Late Miocene limestone in N Sulawesi)

Hendri, D. & M.C. Farmer (1997)- The discovery of the Mesel sediment hosted gold deposit, North Sulawesi, Indonesia. Proc. 26th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 119-131.
(online at: https://www.iagi.or.id/web/digital/64/10.pdf)
(Same as Hendri & Farmer (1997) above. Mesel sediment-hosted, disseminated gold deposit discovered by Newmont in 1988 in Ratatotok District, 70km S of Manado, N Sulawesi. Close to early 1900's Dutch alluvial gold mining operation (Mt. Totok). Gold mineralization hosted in M Miocene limestone, intruded by porphyritic andesite, near-contemporaneous with sedimentation, First gold pour in March 1996)

Hennig, J. (2014)- Age, origin and exhumation history of magmatic and metamorphic rocks of NW Sulawesi, Indonesia. Ph.D. Thesis, Royal Holloway, University of London, p. 1-584. *(Unpublished)*

Hennig, J., E.L. Advokaat, A. Rudyawan & R. Hall (2014)- Large sediment accumulations and major subsidence offshore; rapid uplift on land: consequences of extension of Gorontalo Bay and northern Sulawesi. Proc. 38th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA14-G-304, p. 1-16. *(online at: https://www.researchgate.net/publication/263398549_Large_Sediment_Accumulations_and_Major_Subsidence_Offshore_Rapid_Uplift_on_Land_Consequences_of_Extension_of_Gorontalo_Bay_and_Northern_Sulawesi)*
(Pliocene rollback of N Sulawesi subduction zone caused subsidence of Gorontalo Bay to water depths of up to 2 km and uplift of Neck and parts of C Sulawesi to 3 km. Late Miocene-Pliocene granitic and volcanic rocks in N Arm and in C Sulawesi all underwent rapid Pliocene exhumation. Neogene metamorphic core complexes in N Arm (Malino) and S of Gorontalo Bay in Tokorondo and Pompangeo Mts, suggesting regional extensional setting. W part of Gorontalo Bay underlain by Australian continental crust added to Sundaland margin in Cretaceous. Metapelite schist and paragneiss from Palu Metamorphic Complex in S Neck of Sulawesi with Cretaceous and Eocene/Oligocene protolith ages and do not represent old Australian basement rocks. Age of deposition of Celebes Molasse at W side of Neck is Pleistocene)

Hennig, J., R. Hall & R.A. Armstrong (2016)- U-Pb zircon geochronology of rocks from west Central Sulawesi, Indonesia: extension-related metamorphism and magmatism during the early stages of mountain building. Gondwana Research 32, p. 41-63.
(online at: http://searg.rhul.ac.uk/pubs/hennig_etal_2016%20Sulawesi%20U-Pb%20zircons.pdf)
(Metamorphic and granitoid rocks from Palu Metamorphic Complex (PMC) of W C Sulawesi with inherited Proterozoic-Paleogene zircons. Mesoproterozoic and Triassic inherited populations similar to New Guinea Birds Head region (and different from E Java). Some metamorphic rocks with Late Eocene zircons indicating metamorphism not older than Late Eocene, and metamorphosed in Neogene after Sula Spur collision and subsequent extension. Some metapelites of PMC with Cretaceous zircons, possibly from Sundaland (Schwaner intrusions in Kalimantan). Widespread M Miocene- Pliocene magmatism in W C Sulawesi: (1) M Miocene- Late Miocene (~14-10 Ma?) K-rich shoshonitic suite; (2) Late Miocene-Pliocene shoshonitic to high-K calc-alkaline rocks with intermediate I-type granitoids mainly ~8.5- 5 Ma, felsic S-types ~5- 2.5 Ma. Many rims of metamorphic zircons ~3.8-3.0 Ma (M Pliocene). Eocene zircons in metamorphic rocks show metamorphism of PMC metapelites younger than previously inferred; not Mesozoic or older Australian basement rocks. Co-occurrence of magmatism and metamorphism in M Pliocene during extensional phase)

Hennig, J., R. Hall, M.A. Forster, B.P. Kohn & G.S. Lister (2017)- Rapid cooling and exhumation as a consequence of extension and crustal thinning: implications from the Late Miocene to Pliocene Palu Metamorphic Complex, Sulawesi, Indonesia. Tectonophysics 712-713, p. 600-622.
(online at: http://searg.rhul.ac.uk/pubs/hennig_etal_2017%20Rapid%20cooling%20Palu%20Sulawesi.pdf)

(Metamorphic complexes form 1.5- 2km high mountains in W Sulawesi, and younger than previously thought. Some have Eocene sedimentary protoliths. Palu Metamorphic Complex strongly deformed and partially melted to migmatites. 40Ar/39Ar dating shows cooling in E Pliocene (~5.3-4.8 Ma) in N, and Late Pliocene (~3.1-2.7 Ma) in S. Intruded S-type granites similar Pliocene ages. Fast cooling and rapid exhumation in very young orogenic belt. Contemporaneous magmatism and deformation interpreted as consequence of decompressional melting due to extension. I-type magmatic rocks, separated from Palu MC by Palu-Koro Fault exhumed from upper crustal levels at moderate rates)

Hennig, J., R. Hall, I. Watkinson & M. Forster (2012)- Timing and mechanisms of exhumation in West Central Sulawesi, Indonesia. AGU Fall Meeting, San Francisco, T43E-2713, 1p. *(Abstract only)*
(online at: http://fallmeeting.agu.org/2012/eposters/eposter/t43e-2713/)
(Basement and intrusive rocks from NW Sulawesi record Neogene deformation, younger than expected, with rapid exhumation. C Sulawesi granitic orthogneiss with zircons with Proterozoic inherited cores and Devonian, Permo-Triassic and Jurassic zircon populations, suggesting Australian-derived terrane. Palu Metamorphic Complex basement rocks complex history of metamorphism. Pre-kinematic cordierite, etc., indicate regional high T-low P metamorphic event. Pliocene cooling age. Granites from Sulawesi Neck and mountain range W of Palu-Koro Fault mainly Late Miocene crystallisation ages (7.2 Ma, 6.4 Ma). Late-stage exhumation started in Neck in Pliocene (2.9 Ma). Magmatism, core complex exhumation and subsidence of Gorontalo Bay all related to crustal thinning due to extension driven by subduction rollback)

Herdiansyah, F., M. Burhannudinnur, M. Ali Jambak & T. Irano (2021)- New insight of surface and subsurface sedimentology of Salodik Group, Banggai Basin. Proc: 2nd International Conference Earth science and Energy, Kuala Lumpur 2020, IOP Conference Series: Earth and Environmental Science 819, 012020, p. 1-8.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/819/1/012020/pdf)
(Outcrop and offshore (Tiaka field) stratigraphy in S part of East Arm of Sulawesi. Salodik Group limestones deposited in M Eocene- M Miocene. In subsurface Salodik Gp deposited in Early-Late Miocene, with inner shelf-outer bathyal depositional environment)

Hermiyanto, M.H., S. Andi Mangga & Koesnama (2010)- Lingkungan pengendapan batubara Formasi Kalumpang di daerah Mamuju. Jurnal Sumber Daya Geologi (JSDG) 20, 4, p. 179-187.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/171/167)
('Depositional environment of coal in the Kalumpang Formation, Mamuju area', SW Sulawesi. Kalumpang (Toraja) Fm syn-rift sediments of M-L Eocene age, with quartz sst, conglomerate, shale, claystone with alternations of coal and limestone. Coal caloric value 2480-7440 kal/gr, moisture 1.3- 6.7%, volatile matter 14.7 - 45%, sulphur 0.8-7.7%. Petrography shows vitrinite 91- 100%. Vitrinite reflectance (Rv-max) 0.32- 0.62%. High vitrinite suggests Kalumpang coal derived from plants in humic condition (wet forest swamp))

Hetzel, W.H. (1927)- The geology of Kabaena island, Indonesia. Report Dienst van het Mijnwezen (Geol. Survey), Bandung, p. 1-24. *(Unpublished)*
(Unpublished Geological Survey report on Kabaena island, south of SE Arm of Sulawesi. Translation of Dutch original?)

Hetzel, W.H. (1930)- Over de geologie der eilanden in de Flores-Zee. De Mijningenieur 11, 3, p. 53-56.
('On the geology of the islands in the Flores Sea'. On islands Jampea, Kalao, Bonerate and Kayu Adi, in Flores Sea, S of SW arm of Sulawesi, based on July 1926 survey. Jampea oldest rocks alkaline and calc-alkaline rocks, associated with (overlain by) limestone with Lepidocyclina, also granies/ (Wichmann 1925, Siboga Expedition). Etc. Kalao island mainly uplifted reef limestones, 11 terraces, overlying andesitic-basaltic rocks. Tertiry sediments dip 40° to SW. Bonerate all uplifted reef limestones. Kayu Adi andesitic-basaltic rocks. Tiger Islands large atoll-reefs complex, 1800 km^2 area, probably formed after Quaternary sea level rise)

Hetzel, W.H. (1932)- De geologie van het eiland Wowoni. Report Dienst van den Mijnbouw (Geological Survey), Bandung, p. *(Unpublished)*
('The geology of Wowoni Island'. Geological survey report on island off SE Arm of Sulawesi, N of Buton)

Hetzel, W.H. (1935)- Enkele kritische aantekeningen bij een recente publicatie over de geologie van den Oost arm van Celebes. De Ingenieur in Nederlandsch-Indie (IV) 4, p. IV.29- IV.31.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1935-04.pdf)
(Brief critique of Von Loczy (1934) paper on E Sulawesi, noticing inconsistencies and unjustified conclusions)

Hikmy, I.G., A. Rudyawan, B.S. Putri, B. Sapiie & I. Gunawan (2025)- The uplift rate of Sulawesi East Arm and the activity of Batui Fault using a tectonic geomorphology approach in the Luwuk Area, Sulawesi. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 26, 1, p. 1-15.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/663/573)
(Morphometry analysis of watersheds in Luwuk area of East Arm of Sulawesi, uplift of Neogene Salodik limestone to 1469 m asl and Celebes Molasse up to 2000 m asl, etc., suggests uplift rates at active Batui and Pasini Thrusts of ~ 0.41 and 0.21 mm/year.Uplift increasing to W (Pompangeo Schist of C Sulawesi)

Hinde, G.J. (1917)- Notes on specimens of organic rocks from Central Celebes collected by Mr. E.C. Abendanon. In: E.C. Abendanon (1917), Geologische en geographische doorkruisingen van Midden-Celebes (1909-1910), E.J. Brill, Leiden, 3, p. 953-958.
(Poorly preserved radiolaria from red cherts in C Sulawesi, collected by Abendanon in 1910, interpreted as 'not older than Late Jurassic in age'. Assemblages comparable to Molengraaff's Danau Fm in C Kalimantan)

Hirschi, H. (1911)- Lagerstatte von kristallisiertem Gold in einem Kalkmassiv zu Totok. Zeitschrift fur Praktische Geologie 19, 5/6, p. 213-214.
(online at google books, etc.)
'Deposits of crystallized gold in a limestone massif at Totok'. Brief paper, based on 1909 fieldwork in Minahassa District, of N Sulawesi, with specimens of gold-ore donated to HH by Mr. Zimmermann of Totok Mijnbouw Maatschappij. Mining by TMM started in 1897, in area with common relicts of abandoned native shallow gold diggings. Gold-silver bearing quartz veins in Oligo-Miocene limestones, overlain by younger volcanic breccias near Totok. Mineralization linked to amphibole-andesite intrusion, but not sure if tied to older Tertiary or Quaternary volcanic episodes. No sulphidic ores)

Hirschi, H. (1913)- Geologische Beobachtungen in Ost-Celebes. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2) 30, 5, p. 611-618.
(online at: https://resolver.kb.nl/resolve?urn=MMUBA13:001659001:pdf)
('Geological observations in E Sulawesi'. Summary of 1909 reconnaissance of part of Tomini Bay coastal area and traverse NW from Tomori Bay. Between Bongka Koi and Podi folded 'Celebes Molasse' with coral limestone breccias with well-preserved Lepidocyclina (suggests older parts of Celebes Molasse is Miocene in age, if not reworked?; JTvG). Molasse overlies serpentinized rocks and diabase, with clasts including gabbro, serpentinite, etc.)

Hofstra, A.H. & O.D. Christensen (2002)- Comparison of Carlin-type Au deposits in the United States, China, and Indonesia: implications for genetic models and exploration. In: S.G. Peters (ed.) Geology, geochemistry and geophysics of sedimentary rock-hosted Au deposits in P.R. China, U.S. Geological Survey (USGS) Open-File Report 02-131, Chapter 2, p. 62-94.
(online at: http://pubs.usgs.gov/of/2002/of02-131/chapters/OF02-131_chapter2.pdf)
(Includes data on Mesel Au deposit in N Sulawesi, in island arc setting, a 'Carlin-type' disseminated gold mineralization in M Miocene Ratatotok Limestone)

Hojnos, R. (1934)- Verslag over een micropalaeontologisch onderzoek van sedimentaire gesteenten uit Celebes. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 10, p. 291-294.
('Report on a micropaleontologic investigation of sedimentary rocks from Sulawesi'. Chapter in Von Loczy 1934 paper on thin sections DD21-DD33. White and reddish deep marine limestones from Tokala Mts/ N Boengkoe Mts in E arm of Sulawesi (called 'Boeroe Lst- Tokala Lst by Von Loczy; highly deformed, surrounding ophiolite massifs, with canaliculate belemnites in lower parts, and radiolaria of Late Jurassic and Early Cretaceous ages (NB: Hojnos' age interpretations were questioned by Tan Sin Hok (1935), but species identified by Hojnos are

indeed diagnostic of Late Jurassic- Early Cretaceous age; JTvG) (Sanfilippo and Riedel 1985, p. 576 suggest Cretaceous ages only (Neocomian and Senonian))

Hopper, R.H. (1941)- A geology reconnaissance in the East arm of Celebes and Island Peleng. Nederlandsche Pacific Petroleum Maatschappij (NNPM), p. *(Unpublished Report, Copy available at Library of Geological Survey, Bandung?)*.
(Unpublished report by Caltex geologist Richard H. Hopper, partly summarized by Van Bemmelen (1949) and Cornee et al. (1999): Includes intensely deformed Triassic-Jurassic-Cretaceous limestones, clastics and radiolarian cherts. With record of E Jurassic ammonite Harpoceras cf. toarcense in E Arm of Sulawesi, identified by Von Koenigswald)

Hornaday, W.T., R.A. de Boer, J.N. Grant, N. Nastiti & P. Astono (1996)- Sengkang Basin (SW Sulawesi). In: Pertamina/BPPKA (eds.) Petroleum geology of Indonesian basins, VII, Jakarta, p. 1-34.
(Overview of the mainly Neogene Sengkang Basin of SW Sulawesi. With series of Eocene- Pliocene paleogeographic maps of SW Sulawesi)

Hotz, W. (1913)- Vorlaufige Mitteilung uber geologische Beobachtungen in Ost-Celebes. Zeitschrift Deutschen Geologischen Gesellschaft, Berlin, 65, Monatsberichte 6, p. 329-334.
(online at: https://www.biodiversitylibrary.org/item/37576#page/337/mode/1up)
('Preliminary note on geological observations in E Sulawesi'. Summary of 1912 survey for 'Nederlandsche Maatschappij Mijnbouwkundige Werken' in southern coastal area of East arm of Sulawesi. First report of Mesozoic rocks in East arm of Sulawesi: probably Jurassic-age blue-grey marls with common belemnites near Lontio village, probably in core of anticline in area dominated by Tertiary beds. Upper Bongka River near drainage divide red cherty limestones and Nummulites limestones. Age of gabbro and peridotites rel.young?)

Hovig, P. (1918)- Contactmetamorfe ijzerertsen aan de Salo Talimbangan en de Salo Pebatoean (Centraal Celebes). Jaarboek Mijnwezen Nederlandsch Oost-Indie 45 (1916), Verhandelingen 2, p. 25-38.
('Contactmetamorphic iron ores along Talambingan and Pebatoean rivers (C Sulawesi)'. Granodioritic intrusive into probably Eocene age interbedded shale-limestone, with magnetite-hematite mineralization in limestones of contact zone, 12 km from Rante Pao)

Hsia, J., J. Zhang, J. Qian, J. Liu, M. Guo, C. Yu, WW. Xian, C. Yin & Y. Tian (2024)- Isothermal compression record in the high-pressure Bantimala garnet amphibolite: Implications on the Mesozoic subduction system between the Sundaland and Western Sulawesi (Indonesia), Lithos 488-489, 107813, p.
(Isothermal isothermal compression is special prograde metamorphic P-T path in high-P rocks. Bantimala Complex metamorphic basement in W Sulawesi preserves records of High-P to Ultrahigh-P metamorphism during Cretaceous subduction of Mesotethys Ocean under Sundaland. Garnet amphibolite from Bantimala underwent eclogite-facies metamorphism at ~23.5 kbar/588 °C; overall P-T trajectory counterclockwise with two loops.40Ar/39Ar dating indicates timing of HP metamorphism at 136-128 Ma (~Valanginian-Barremian) E Cretaceous). Magmatic zircons suggest protolith formation age around 212 ± 3.1 Ma (Late Norian, Late Triasic))

Hsia, J., J. Zhang, J. Qian, J. Liu, Y. Tian, W.W. Xian, C. Yin, P. Gao, M. Forster & M. Guo (2024)- Metamorphic P-T-t constraint on the Bantimala garnet-epidote-glaucophane schist and its implication on Mesozoic evolution of Western Sulawesi, Indonesia. Tectonophysics 873, 230228, p. 1-16.
(Bantimala Complex, with garnet-epidote-glaucophane blueschist and eclogite, underwent Franciscan-type metamorphism with peak conditions of 24.5- 28.5 kbar/ 580-640 °C. Peak metamorphism in E Cretaceous, before 125 Ma ($^{40}Ar/^{39}Ar$ dating), characterized by cold deep subduction of oceanic lithosphere between Sundaland landmass and East Java- West Sulawesi terrane during Early Cretaceous (and collision))

Hsia, J., J. Zhang, G. Zhao, J. Qian, J. Liu, M. Sun, C. Yin, P. Gao, W.W. Xian & M. Guo (2023)- Newly discovered youngest UHT metamorphism on Earth, Western Sulawesi, Indonesia. Geoscience Frontiers 14, 2, 101500, p. 1-13.
(online at: https://www.sciencedirect.com/science/article/pii/S1674987122001530)

(New discovery of HT-UHT metamorphic rocks (incl. amphibolite, granulite, eclogites. gneiss) in Palu region of W. Sulawesi. Granulite samples with high garnet content suggest UHT conditions of 7.2-8.5 kbar/940-1080 °C and 7.0-7.3 kbar/1000-1040 °C. Two generations of metamorphic zircons (1) age of 36-5.3 Ma is ascribed to syn- to post-M1 metamorphism; (2) 5.1- 3.8 Ma linked to syn- and post-M2 stage. UHT metamorphism probably consequence of upwelling of asthenospheric mantle, triggered by post-collisional delamination of lithosphere in Miocene-Pliocene (~5 Ma). Possibly youngest known UHT metamorphism on Earth)

Hufenbach, C. (1992)- Petrogenetische und Tektonische Entwicklung des Ophiolith-Komplexes von Ost-Sulawesi, ein Beispiel fur die Obduktion ozeanischer Kruste. Doct. Thesis Georg-August University, Gottingen, Germany, p. 1-120. *(Unpublished)*
('Petrogenetic and tectonic development of the ophiolite complex of East Sulawesi; an example of obduction of oceanic crust')

Hui, G., S. Li, P. Wang, Y. Suo, Q. Wang, I.D. Somerville (2018)- Linkage between reactivation of the sinistral strike-slip faults and 28 September 2018 Mw7.5 Palu earthquake, Indonesia. Science Bulletin (China) 63, 24, p. 1635-1640.
(online at: https://www.sciengine.com/SB/doi/10.1016/j.scib.2018.11.021)
(Reactivation of Palu-Koro fault during September 28, 2018 Mw 6.1 and Mw 7.5 (main shock). earthquakes)

Husain, R. (2023)- Characteristics of foraminifera distribution in volcanic tuff of Parepare Tanamailie Pinrang, South Sulawesi. Journal of World Science 2, 9, p. 1345-1352.
(online at: https://jws.rivierapublishing.id/index.php/jws/article/view/426/959)
(Fine-grained tuffaceous rocks exposed at Tanjung Tanamailie in western S Sulawesi (lower part of Parepare volcanic stratigraphic sequence) contain planktonic foraminifera of late M Miocene- E Pliocene age (N13-N19) (interpreted as shallow marine deposits, but clearly outer neritic or deeper marine assemblages; benthic forams identified as Textularia looks like Bolivina; JTvG))

Husain, R., Kaharuddin & F. Wahyu (2023)- Karakteristik olistolit daerah Tondong Tallasa, Sulawesi Selatan. Jurnal Geosapta 9, 2, p. 111-116.
(online at: https://ppjp.ulm.ac.id/journal/index.php/geosapta/article/view/16423/pdf)
('Olistolith characteristics of the Tondong Tallasa Area, South Sulawesi'. Olistoliths from Tondong Tallasa olistostrome in imbricated thrusts along Pangkajene River)

Husainy, S.T., N. Sulaiman, R. Ismail, N. Sulaiman, R. Langkoke & M. Farida (2020)- Paleontological assessment of Malawa Formation, Padanglampe, Barru Regency, South Sulawesi. Int. Conference on Science and Technology 2020, Malaysia, IOP conference Series: Earth and environmental Science 596, 012051, p. 1-7.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/596/1/012051/pdf)
(Five gastropods and two bivalves from Eocene Malawa Fm in S Sulawesi suggest age from early Triassic to Middle Neogene (No mention of classic references on Eocene molluscs of Java, etc.; why was this published?))

Husein, S., M.I. Novian & D.H. Barianto (2014)- Geological structures and tectonic reconstruction of Luwuk, East Sulawesi. Proc. 38th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA14-G-137, p. 1-16.
(online at: https://www.researchgate.net/publication/282604525_Geological_Structures_and_Tectonic_Reconstruction_of_Luwuk_East_Sulawesi)
(Luwuk area at E end of East Arm of Sulawesi, where E Sulawesi Ophiolite Complex thrusted S-ward over Banggai-Sula microcontinent in Neogene. C part of E Sulawesi Arm is compressional, Pliocene, thin-skinned NW-verging fold-thrust belt with common Eocene-M Miocene carbonates. In ophiolite complex at N side (facing Tomini Gulf) extensional, block-faulting tectonic regime (Plio-Pleistocene relaxation of earlier compressive phase) (NB: suggested NW vergence of thrust belt is opposite of suggested by all previous workers?; No documentation given for age control of stratigraphy and tectonic events; No mention of Kundig (1956) work in same area; JTvG))

Hutubessy, S. (2003)- Pola cekungan dan struktur bawah permukaan di Sulawesi dan sekitarnya berdasarkan analisis data gayaberat. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 13, 135, p. 24-39.
('Basin patterns and deep structure of Sulawesi and surroundings based on analysis of gravity data'. Gravity patterns interpretation of E Sulawesi.)

Iddings, J.P. & E.W. Morley (1915)- Contributions to the petrography of Java and Celebes. Journal of Geology 23, p. 231-245.
(Brief petrographic and geochemical analyses of lavas and crystalline rocks of Bulu Saraung (Maros Peak), SW Sulawesi and Pleistocene Muria volcano NE Java)

Iddings, J.P. & E.W. Morley (1917)- A contribution to the petrography of Southern Celebes. Proc. National Academy of Sciences USA 3, 10, p. 592-597.
(Additional brief descriptions and chemical analyses of igneous rocks from SW Sulawesi)

Idrus, A., Fadlin, S. Prihatmoko, I.W. Warmada, I. Nur & F.M. Meyer (2012)- The metamorphic-rock hosted gold mineralization at Bombana, Southeast Sulawesi: a new exploration target in Indonesia. Jurnal Sumber Daya Geologi (JSDG) 22, 1, p. 35-48.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/105/97)
(Placer gold discovered in Bombana, SE Sulawesi not associated with volcanic rocks, but possibly derived from quartz veins hosted by Mesozoic Pompangeo Metamorphic Complex of N Rumbia Mts mica schists, etc. Three generations of veins identified. Gold mainly as 'free gold' among silicate minerals. May be called 'orogenic gold', and may have formed at 5km depth)

Idrus, I., A. Imai, A. Makkawaru, Kamrullah, I.W. Warmada, I. Nur & R. Langkoke (2009)- Preliminary study on orogenic deposit type as a source of placer gold at Bombana, Southeast Sulawesi, Indonesia. Proc. Int. Symposium on Earth Science and Technology, Fukuoka 2009, p. 569-572.
(Gold deposits in Indonesia generally in volcanic-related hydrothermal deposits, but recent SE Sulawesi placer gold discoveries tied to gold-bearing quartz veins in metamorphic rocks. Such veins recognized in metamorphic rocks at Wumbubangka Mt (N flank Rumbia Mts) and in Mendoke Mts. (N of Langkowala). These gold deposits classified as 'orogenic gold type')

Idrus, A., S. Mansur, Ahmad, Rahmayuddin & A. Mahdi (2016)- Occurrences and characteristics of gold mineralization in Rampi Block prospect, North Luwu Regency, South Sulawesi Province, Indonesia. J. Applied Geology (UGM) 1, 2, p. 63-70.
(online at: https://journal.ugm.ac.id/jag/article/view/26962)
(Quartz ± gold veins in Rampi block prospect mainly hosted by metamorphic and metasedimentary rocks of Latimojong Fm and Pompangeo metamorphic complex. Orientation and distribution of veins controlled by NW-SE and NE-SW trending structures. Orogenic/mesothermal gold type, with similarities to Awak Mas mesothermal prospect in Luwu district)

Idrus, A., I. Nur, Sufriadin, Fadlin, Indra Sanjaya & R. Langkoke (2020)- Low-sulfidation epithermal carbonate-base metal- gold mineralisation hosted by Tertiary sedimentary rocks in Bastem Prospect, Luwu District, Sulawesi Island, Indonesia: a preliminary study. J. Applied Geology (UGM) 5,1, p. 53-63.
(online at: https://jurnal.ugm.ac.id/jag/article/view/55472/28369)
(Sediment-hosted low sulfidation epithermal gold mineralisation in Bastem prospect, Luwu district, W-C Sulawesi. Bastem prospect gold-bearing quartz veins hosted in Tertiary Toraja Fm mudstone -siltstone, adjacent to volcanic rocks of Lamasi Fm. Possibly originated in back-arc rift/basin setting)

Idrus, A., I. Nur, I.W. Warmada & Fadlin (2011)- Metamorphic rock-hosted orogenic gold deposit type as a source of Langkowala placer gold, Bombana, Southeast Sulawesi. Jurnal Geologi Indonesia 6, 1, p. 43-49.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/301)
(Same paper as Idrus, Warmada et al. 2010)

Idrus, A. & S. Prihatmoko (2011)- The metamorphic rock-hosted gold mineralization at Bombana, Southeast Sulawesi: a new exploration target in Indonesia. In: N.I. Basuki (ed.) Proc. Conference Sulawesi Mineral Resources 2011, Manado, MGEI/IAGI, p. 243-258.
(Bombana area 'orogenic' gold deposits, hosted in mica schists of Carboniferous-Permian Pompangeo Metamorphic Complex)

Idrus, A., S. Prihatmoko, E. Harjanto, F.M. Meyer, I. Nur, W. Widodo & L.N. Agung (2016)- The metamorphic rock-hosted gold mineralization at Bombana (Southeast Sulawesi) and Buru Island (Maluku): their key features and significances for gold exploration in Eastern Indonesia. Proc. 8th Annual Conv. Indonesian Soc. Economic Geologists (MGEI), Bandung 2016, p. 80-87.
(online at: www.researchgate.net/publication/309764235_The_metamorphic_rock-hosted_gold Etc.)
(Review of metamorphic rock-hosted 'orogenic' gold mineralization in Bombana (Rumbia Mts, SE Sulawesi; gold-bearing quartz veins in Pompangeo metamorphics) and NE Buru Island (quartz veins in Permo-Carboniferous Wahlua mica schists))

Idrus, A., S. Prihatmoko, E. Harjanto, F.M. Meyer, I. Nur, W. Widodo & L.N. Agung (2017)- The metamorphic rock-hosted gold deposit style at Bombana (Southeast Sulawesi) and Buru Island (Maluku): their key features and significances for gold exploration in Eastern Indonesia. J. Geoscience Engineering Environment Technology (JGEET) 2, 2, p. 124-132.
(online at: http://journal.uir.ac.id/index.php/JGEET/article/view/291/130)
(same as Idrus et al. 2016)

Idrus, A., S. Septiana, F. Zaccarini, G. Garuti & H. Hasria (2022)- Mineralogical, textural and chemical characteristics of ophiolitic chromitite and Platinum Group Minerals from Kabaena Island (Indonesia): their petrogenetic nature and geodynamic setting. Minerals (MDPI) 12, 5, p. 1-24.
(online at: https://www.mdpi.com/2075-163X/12/5/516)
(First mineralogical study of chromite composition, silicates and PGM (platinum group minerals; mainly laurite), by electron microprobes, in podiform chromitite of Kabaena Island (off SE Sulawesi). Mined by locals in the past. Chromitite within Cretaceous East Sulawesi Ophiolite, which, on Kabaena, overlies Pompangeo schist complex and is overlain by Cretaceous pelagic limestone (Matano Fm) (?). Calculated composition of parental melt varies from arc to MORB (mid-ocean ridge basalts). Composition of chromitites suggests they formed in mantle of forearc ophiolite)

Idrus, A., Sufriadin & I. Nur (2011)- Hydrothermal ore mineralization in Sulawesi: a view point of tectonic setting and metallogenesis. Proc. 36th HAGI and 40th IAGI Annual Conv., Makassar, JCM2011-298, p. 1-12.
(online at: https://www.iagi.or.id/web/digital/10/2011_IAGI_Makassar_Hydrothermal-Ore-Mineralization.pdf)
(Review of the potential and metallogenesis of hydrothermal-related ore deposits, particularly along Neogene magmatic arc of W Sulawesi and Paleozoic metamorphics-hosted arm of SE-Central Sulawesi. W Sulawesi 3 magmatic provinces, each with different magmatic and mineralization characteristics: (1) S Sulawesi with K-alkaline shoshonitic affinity and mainly Pb-Zn-Cu base metal in epithermal veins; (2) C Sulawesi with high-K calc-alkaline affinity and porphyry Mo mineralization; (3) N Sulawesi-Sangihe island arc with low-K-normal calc-alkaline affinity and porphyry Cu-Au and other Au deposits)

Idrus, A., I.W. Warmada, I. Nur, Sufriadin, A. Imai, S. Widasaputra, S.I. Marlia, Fadlin & Kamrullah (2010)- Metamorphic rock-hosted gold deposit type as a source of Langkowala placer gold, Bombana, Southeast Sulawesi, Indonesia. Proc. 39th Annual Conv. Indonesian Association Geologists (IAGI), Lombok, PIT-IAGI-2010-068, p. 1-7.
(online at: www.academia.edu/9413275/METAMORPHIC_ROCK_HOSTED_OROGENIC_GOLD_DE Etc.)
(Placer gold discovered in 2008 in Langkowala area, SE Sulawesi, interpreted derived from 'orogenic gold': sheared gold-bearing quartz veins, hosted by metamorphic rocks (mica schist, metasediment of Pompangeo Complex in Wumbubangk- Rumbia Mts to S). At least two generations of veins. Similar quartz veins probably in Mendoke Mts at N side of Langkowala area)

Ikhwan, M., M.H. Thamrin & I.B. Raharjo(2021)- A revised tectonic model of Minahasa District based on LiDAR image log and fracture stability analysis in Tompaso. Proc. 43rd New Zealand Geothermal Workshop, Wellington 2021, p, 1-17. *(online at: https://www.researchgate.net/publication/358604450_A_REVISED_TECTONIC_MODEL_OF_MINAHASA_DISTRICT_BASED_ON_LiDAR_IMAGE_LOG_AND_FRACTURE_STABILITY_ANALYSIS_IN_TOMPASO)*
(Study of structures around Tompaso geothermal field, with dominant NE-striking fractures)

Ikhwana, N., M. Farida & H. Umar (2022)- Paleoenvironment analysis of the Tonasa Formation based on Nannofossils in the Barru River, South Sulawesi Province. Proc. 51st Annual Conv. Indonesian Association Geologists (IAGI), Makassar, 93, p. 1-5.
(online at: https://www.iagi.or.id/web/digital/71/PITIAGI-22-P-Abs-050.pdf)
(Tonasa Fm widely distributed carbonate rock formation in SW Sulawesi. In Barru River 170 m thick section sampled, yielding coccoliths of zones NP16- NP25 (M Eocene- Oligocene). Oligotrophic- eutrophic-oligotrophic changes deduced from sizes of coccoliths)

Ilhami, A.S. (2012)- Provenance and sedimentology study of Mesozoic clastic sandstone of Meluhu Formation, Southeast Arm of Sulawesi, Eastern Indonesia. Proc. 41st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2012-SS-20, p. 1-5.
(online at: https://www.iagi.or.id/web/digital/9/2012_IAGI_Yogyakarta_Provenance-and-Sedimentology-Study-of-Mesozoic.pdf)
(Late Triassic fluvial-deltaic Mehulu Sst of SE Sulawesi underlain by metamorphic rocks and unconformably overlain by Paleogene(?) Tampakura Fm carbonates. Halobia and Daonella in Meluhu, Tinala and Tokala Fms indicate Late Triassic age. Petrography shows litharenite, sublitharenite and quartz arenite with average composition of 65% monocrystalline quartz (some with metamorphic undulose extinction, but also likely volcanic provenance), 12% polycrystalline quartz, 16% rock fragments, 1.5% feldspar, some muscovite and heavy minerals (tourmaline, zircon). Lithics dominated by metamorphic rock fragments, indicating source area dominated by metamorphic basement. Southern part of study area was closer to source of lithic fragments)

Ilyas, A., K. Kashiwaya & K. Koike (2016)- Ni grade distribution in laterite characterized from geostatistics, topography and the paleo-ground water system in Sorowako, Indonesia. J. Geochemical Exploration 165, p. 174-188.
(online at: https://core.ac.uk/download/pdf/77625923.pdf)
(Modeling of Ni-content suggests that highest grade Ni ores are concentrated below slopes in 5-19° range)

Ilyas, A. & K. Koike (2012)- Geostatistical modeling of ore grade distribution from geomorphic characterization in a laterite nickel deposit. Natural Resources Research 21, 2, p. 177-191.
(online at: https://core.ac.uk/download/pdf/77620831.pdf)
(Modeling of Ni grade in laterite Ni deposits in PT INCO nickel mining area at Sorowako, East C Sulawesi. Maximum Ni grade in saprolite zone in areas of slight slope. Ni accumulation probably originates from deep weathering of (Tertiary?) ultramafic rocks by groundwater infiltrating through rock fractures)

Imran, A.M. (2000)- Microfacies and diagenesis of the Tertiary Selayar Limestone (Walanae Formation), South Sulawesi, Indonesia. Doctoral Thesis, University of Erlangen-Nurnberg, p. 1-187. *(Unpublished)*
(Study of Pleistocene raised coral reef terraces at SE coast of SE Sulawesi. Overlying Walanae Volcanics)

Imran, A.M., M. Farida, M.F. Arifin & R. Husain, (2015)- Pleistocene coral reef facies in Bira, South Sulawesi. Int. Journal of Engineering and Science Applications (IJEScA) (UNHAS) 2, 2, p. 183-189.
(online at: http://pasca.unhas.ac.id/ojs/index.php/ijesca/article/view/163/118)
(Pleistocene raised reef coral terrace with reef front, reef core and back reef facies in Bira area at SE tip of S Arm Sulawesi. Part of complex of four seaward-young narrow terraces of U Miocene-Pleistocene 'Selayar Limestone', reflecting uplift of area (Bone Bay rift shoulder?; JTvG))

Imran, A.M., M. Farida, M.F. Arifin, R. Husain & A.Hafidz (2016)- Reef development as an indicator of sea level fluctuation: a preliminary study on Pleistocene reef in Bulukumba, South Sulawesi. Indonesian J. on Geoscience (IJOG) 3, 1, p. 53-66.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/231/205)
(Similar to papers above and below on Pleistocene Selayar Limestone four or more raised reef terraces on SE tip of S Arm of Sulawesi)

Imran, A.M., R. Husein & A. Prayudi1 (2017)- Pleistocene reef development in Bulukumba, South Sulawesi. Proc. Sriwijaya Int. Conference on Engineering Science Technology, Bangka (SICEST 2016), MATEC Web of Conferences 101, 04020, p. 1-4. *(online at: https://www.matec-conferences.org/articles/matecconf/pdf/2017/15/matecconf_sicest2017_04020.pdf*
(Description of uplifted Pleistocene fringe reef lower terrace in Bulukumba area at SE tip of South Arm of Sulawesi. Four reef facies)

Imran, A.M., Kaharuddin M.S., D.A. Suriamihardja & H. Sirajuddin (2013)- Geology of Spermonde Platform. Proc. 7th Int. Conference on Asian and Pacific Coasts (APAC 2013), Bali 2013, p. 1062-1067.
(online at: http://repository.unhas.ac.id/bitstream/handle/123456789/11699/171.CR%2003.pdf?sequence=1)
(Mainly review of setting for development of Quaternary reef complexes on Spermonde Platform along S Makassar Straits, off SW Sulawesi, since sea level rise of ~7000 years ago (mainly based on De Klerk 1982))

Imran, A.M. & R. Koch (2006)- Microfacies development of the Selayar Limestone, South Sulawesi. Proc. 35th Conv. Indonesian Association Geologists (IAGI), Pekanbaru 2006, PITIAGI2006-028, p. 1-8. *(online at: https://www.researchgate.net/publication/289970015_MICROFACIES_DEVELOPMENT_OF_THE_SELAYAR_LIMESTONE_SOUTH_SULAWESI)*
(Four stages of coral reef terrace development in Late Miocene- Pleistocene Selayar Limestone in SE Bulukumba area of SW Sulawesi, ~200 km SE of Makassar. Oldest unit B1 is Late Miocene Amphistegina- Cycloclypeus foram limestone that forms knoll reefs. Three younger units (Pliocene- Pleistocene) form terraces, reflecting Plio-Pleistocene uplift, composed of coral reef and Halimeda algal grainstone facies)

Imran, A.M. & R. Koch (2008)- Marine diagenetic history of the Selayar Limestone, South Sulawesi. Jurnal Informasi Teknologi (INTEK) 14, 2, p. 109-117. *(online at: https://www.researchgate.net/publication/289970053_Marine_Diagenetic_History_of_the_Selayar_Limestone_South_Sulawesi)*
(Common marine radial fibrous calcite cement in Late Miocene- Pleistocene Selayar Limestone)

International Nickel Indonesia (1972)- Laterite deposits in the south-east arm of Sulawesi. Bull. of National Institute Geology and Mining (NIGM), Bandung 4, 1, p. 37-57.
(PT INCO review of principal occurrences of nickeliferous laterite in E Sulawesi, which coincide with two NW trending belts of ultrabasic rocks and derived sediments: (1) SW belt from Sua-Sua through Pomalaa and Torobulu to Wowoni Island and (2) NE belt from Malili and Kolonodale at N end of E Arrm to Lasolo on E Coast. Nickeliferous laterite on undulating, somewhat dissected plateaus of low relief; rugged areas have little or no laterite cover)

Irfan, U.R., A.M. Imran & M.N.A. Abbas (2021)- Physical and chemically changes in limestone intruded by trachytic dyke: implications for cement raw material. Proc. 3rd Int. Conf. Global Issue for Infrastructure, Environment, and Socio-Economic Development (GIESED 2020), IOP Conference Series: Earth and Environmental Science 921, 012044, p. 1-15.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/921/1/012044/pdf)
(Alteration of M Miocene Tonasa Limestone around trachyte dike in Poloe area in Maros Regency, S Sulawesi. Secondary minerals garnet and wollastonite in limestone 0-20 m from intrusion contact. Decreasing CaO_2 and Fe_2O_3, inceasing SiO_2, Al_2O3 and MgO towards contact. Ideal composition for cement 20-70 m from contact)

Irfan, U.R., M.S. Kaharuddin, Budiman & H. Umar (2014)- Analisis litofasies batuan vulkanik Pare-Pare di daerah Lumpue Sulawesi Selatan. Proc. 43st IAGI Annual Conv. Exhib., Jakarta, PIT IAGI 2014 272, p. 1-5.

(online at: https://files01.core.ac.uk/download/pdf/25496287.pdf)
('Lithofacies analysis of Pare-Pare volcanics in the Lumpue area of South Sulawesi'. Description of Pare-Pare volcanic breccias, tuffs, etc.(radiometric ages latest Miocene- E Pliocene, ~6.6- 4.2 Ma))

Irfan, U.R., M.S. Kaharuddin, D.A. Suriamiharja & N. Irzal (2013)- Identification of lava domes in Pangkajene caldera, South Sulawesi, Indonesia. Proc. HAGI-IAGI Joint Convention, Medan 2013, p. 1-4.
(online at: https://www.iagi.or.id/web/digital/8/2013_IAGI_Medan_Identification-of-Lava-Domes.pdf)
(Mounded features on Walanae Depression plain in S Sulawesi, composed of volcanic products of Mio-Pliocene Pare-Pare Fm trachytic volcanics and interpreted as lava domes or volcanic necks (see also Yuwono et al., 1985))

Irfan, U.R., A. Maulana & F. Muhammad (2021)- Role of bedrock serpentinization on the development of nickel laterite deposit in Sorowako, Sulawesi, Indonesia. Proc. 3rd Int. Conf. Global Issue for Infrastructure, Environment, and Socio-Economic Development (GIESED 2020), IOP Conference Series: Earth and Environmental Science 921, 012028, p. 1-11.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/921/1/012028/pdf)
(Olivine-rich bedrock and low degree of serpentinization have high-Ni concentration in laterite profiles of Soroako area, E Sulawesi)

Irfan, U.R., I. Nur & M. Kasim (2017)- Hydrothermal alteration mineralogy associated with gold mineralization in Buladu area, Gorontalo, Northern Sulawesi, Indonesia. Int. J. Advanced Science Engineering Information Technology (IJASEIT) 7, 6, p. 2244-2250.
(online at: http://www.insightsociety.org/ojaseit/index.php/ijaseit/article/view/3837/pdf_606)
(Au-quartz veins in Buladu gold prospect, in Miocene Wobudu volcanic breccia in N Sulawesi magmatic arc)

Irzon, R. (2017)- Pengayaan logam berat Mn, Co, dan Cr pada laterit nikel di Kabupaten Konawe Utara, Provinsi Sulawesi Tenggara. Buletin Sumber Daya Geologi 12, 2, p. 71-86.
(online at: http://buletinsdg.geologi.esdm.go.id/index.php/bsdg/issue/archive)
('Heavy metal enrichment of Mn, Co, and Cr in nickel laterite in North Konawe Regency, SE Sulawesi'. Weathering of ultramafic rock causes Mn, Co and Cr enrichment mostly in laterite, whilst Ni concentrated in transitional bedrock. Highest REE concentrations in lateritic horizon)

Irzon, R. & Baharuddin (2016)- Geochemistry of ophiolite complex in North Konawe, Southeast Sulawesi. Eksplorium 37, 2, p. 101-114.
(online at: http://jurnal.batan.go.id/index.php/eksplorium/article/view/2868/pdf)
(Geochemistry of N Konawe ultramafic rocks suggest origin in arc tholeiitic tectonic environment setting. SiO_2 38.5- 41%, etc. Emplaced in E Cretaceous, unconformably overlain by Late Cretaceous Matano Fm)

Ito, A., T. Otake, A. Maulana, K. Sanematsu, Sufriadin & T. Sato (2021)- Geochemical constraints on the mobilization of Ni and critical metals in laterite deposits, Sulawesi, Indonesia: A mass-balance approach. Resource Geology 71, 3, p. 255-282.
(online at: https://onlinelibrary.wiley.com/doi/pdf/10.1111/rge.12266)
(Examination of Ni enrichment and potential accumulation of critical metals in four laterite profiles with varying degrees of serpentinization and weathering intensity in Soroako and Pomalaa areas of E Sulawesi, Indonesia. Nickel contents in saprolite horizon of profiles that are strongly weathered and developed over serpentinized peridotite higher than those weakly weathered and developed over unserpentinized harzburgite. Ni remobilization is main control on Ni enrichment in profiles. Enrichments in Co and rare earth elements strongly influenced by formation of Mn-oxyhydroxides in oxide zone of profiles)

Jablonski, D., P. Priyono, S. Westlake & O.A. Larsen (2007)- Geology and exploration potential of the Gorontalo Basin, Central Indonesia- Eastern extension of the North Makassar basin? Proc. 31st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, G-083, p. 197-223.
(Seismic in Gorontalo basin S of N arm of Sulawesi suggests basin underlain by Eocene rift grabens. Active petroleum system suggested by E-W depocenters, locally >10 km thick, mostly S-ward focused hydrocarbon migration, onshore oil seeps along S edge of basin and AVO anomalies. Potential plays: (1) Older blocks

associated with Australian plate rifting and Cretaceous collision with Borneo; (2) Eocene rift fault-blocks; (3) Oligocene-M Miocene platform carbonates; (4) Late Miocene-Pliocene build-ups; (5) Late Miocene- Recent lowstand deltas and turbidites; (6) Late Miocene-Recent compressional folds associated with collision of Sundaland with Australian plate)

Jambak, M.A., I. Ibrahim, B. Harnest, T. Irano, G. Prabawa, R. Luthfi & A.B. Prasetyo (2024)- Reinterpretation of Salodik Group performance based on facies and diagenesis approaches to classify reservoir quality. Indonesian J. on Geoscience (IJOG) 11, 1, p. 91-109.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/811/450)
(Study of Eocene- Miocene Salodik Gp (Tomori and Minahaki Fms) carbonate reservoirs from outcrop sections in East Arm of Sulawesi area, Banggai- Sula Basin. Focused on facies, diagenesis and reservoir quality. Lower Tomori Fm Alveolina-Nummulites limestone (Fig. 17). Primary porosity generally not well preserved (cementation); secondary porosity more important)

Jaya, Asri (2001)- Sikuen stratigrafi dan diagenesa batugamping Formasi Tonasa Lintasan Ralla Sulawesi Selatan. Masters Thesis, Institut Teknologi Bandung, p. *(Unpublished)*
('Sequence stratigraphy of the Tonasa Limestone in the Ralla Section, South Sulawesi')

Jaya, A. (2001)- Sequence stratigraphy of the Tonasa Limestone, Ralla Section, South Sulawesi. J. Penelitian Enjiniring (JPE), Hasanuddin University, 8, 1, p. 59-68.

Jaya, A. (2006)- Facies and sedimentary environment of Camba Formation, Dutungan area, South Sulawesi. J. Penelitian Geosains (Hasanuddin University, Makassar) 2, 3, p. 243-256.

Jaya, A. (2014)- Tectonic evolution of South Sulawesi, Indonesia: reconstructed by analysis of deformation structures. Doct. Engin. Thesis, Dept. Engineering and Resource Science, Akita University, Japan, p. 1-148.
(online at: air.lib.akita-u.ac.jp/dspace/bitstream/10295/2714/1/kouhakuotsu634.pdf)
(Biru Metamorphic Complex E of Makassar, S Sulawesi mainly epidote-amphibolite and amphibolite facies metamorphics from mid-oceanic ridge and calc-alkali basalts and island-arc tholeiite protoliths. E Cretaceous K-Ar age (109 ± 2.4 Ma) indicates metamorphism of Biru Complex coeval with Bantimala Complex and Barru Block. NE-SW striking/ S/SE-dipping schistosities also similar to Barru Block, despite different lithologic associations. Emplacement of Biru granodiorite in E-M Miocene. E Walanae Fault stress generated by collision of Sulawesi with Australian fragments since Late Miocene, continuing to present-day)

Jaya, A. & O. Nishikawa (2011)- Deformation microstructures of metamorphic rocks in the Biru area South Sulawesi. Proc. Joint 36th HAGI and 40th IAGI Annual Conv., Makassar, JCM2011-175, p. 1-10.
(Biru metamorphic rocks in Biru area, S Sulawesi adjacent to W Walanae Fault (WWF). Rocks mainly metabasite, adjacent to Cretaceous Marada Fm sediments. Higher greenschist-amphibolite metamorphic grade. Multiple deformation phases. Schistosity dips 15-52° to SE. Two groups of fold structures: SSW trending tight fold (F1) and ENE-WSW trending gentle-open fold (F2)).

Jaya, A. & O. Nishikawa (2011)- Microstructure deformation of metamorphic rocks in the Biru area, South Sulawesi, Indonesia. Majalah Geologi Indonesia (IAGI) 26, 1, p. 19-28.
(online at: http://repository.unhas.ac.id/handle/123456789/12490)
(Small exposure of metamorphic rocks in Biru area, S Sulawesi, adjacent to prominent topographic lineament along W Walanae Fault and Cretaceous sedimentary rocks (Marada Fm). Mainly metabasite of higher greenschist- amphibolites metamorphic facies. Deformation in metamorphic rocks may be connected to W Walanae Fault or M Miocene regional extension during uplift of western mountain range)

Jaya, A. & O. Nishikawa (2013)- Paleostress reconstruction from calcite twin and fault slip data using the multiple inverse method in the East Walanae fault zone: implications for the Neogene contraction in South Sulawesi, Indonesia. J. Structural Geology 55, p. 34-49.
(Stress states caused by collision of SE margin of Sundaland with Australian microcontinents during Pliocene detected from combination of calcite-twin data and fault-slip data. Pliocene NE-SW to-E-W directed compression

activated E Walanae fault zone in S. Sulawesi as reverse fault, with dextral component of slip with pervasive development of secondary structures in zone between Bone Mts and Walanae Depression)

Jaya, A., O. Nishikawa & Y. Hayasaka (2017)- LA-ICP-MS zircon U-Pb and muscovite K-Ar ages of basement rocks from the south arm of Sulawesi, Indonesia. Lithos 292-293, p. 96-110.
(online at: www.researchgate.net/publication/319657018_LA-ICP-MS_zircon_U-Pb_and_muscovite_K-Ar_ages_of_basement_rocks_from_the_south_arm_of_Sulawesi_Indonesia)
(Ages of detrital zircons in Bantimala Complex and muscovite K-Ar of amphibolite in Biru Complex 109-115 Ma. Youngest detrital zircon in schist from Barru Complex 243-247 Ma (M Triassic). Age data indicate protoliths of S Sulawesi basement complexes involved in (M Triassic?) subduction system and metamorphosed in late E Cretaceous. Felsic igneous intrusives of Late Cretaceous and Eocene ages, similar to Meratus Complex of S Kalimantan. Detrital zircon age distributions of basement rocks support W Sulawesi block origin from circum-Bird's Head-Australia (Inner Banda block). Absence of Jurassic zircon age populations in S Arm of Sulawesi. W Sulawesi composed of several blocks separated from Inner Banda block with different histories)

Jaya, A., O. Nishikawa & S. Jumadil (2023)- Paleoseismic analysis of the Walanae Fault Zone in South Sulawesi, Indonesia. Indonesian J. on Geoscience (IJOG) 10, 2, p. 215-227.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/825/426)
(Walanae Fault most seismogenic fault system of S Sulawesi. Two parallel faults, 150km-long, 3km-wide fault traces, separated by narrow lowland (Walanae Depression; 25 km). Sheared soils dated as 3050- 3990 yrs BP)

Jaya, A., O. Nishikawa & S. Jumadil (2019)- Distribution and morphology of the surface ruptures of the 2018 Donggala-Palu earthquake, Central Sulawesi, Indonesia. Earth Planets and Space 71, 144, p. 1-13.
(online at: https://earth-planets-space.springeropen.com/articles/10.1186/s40623-019-1126-3)
(A 160-km rupture zone was formed on surface along NS to NNW-SSE trending Palu-Koro fault during 28 september 2018 earthquake)

Jaya, A., O. Nishikawa, Sufriadin & S. Jumadil (2021)- Fluid migration along faults and gypsum vein formation during basin inversion: an example in the East Walanae fault zone of the Sengkang Basin, South Sulawesi, Indonesia. Marine and Petroleum Geology 133, 105308, p. 1-6.
(Young gypsum veins in narrow area along W limb of Sengkang anticline, where East Walanae Fault cuts Pliocene Walanae Fm. Probably formed by fluids that reacted with framboidal pyrites in sedimentary rocks)

Jaya, A. & D.R. Salamba (2014)- Studi struktur makro (mesoscale structure) batuan metamorf daerah Barru Provinsi Sulawesi Selatan. Pros. 2014 Seminar Penelitian Teknologi Terapan 2014 (8), Hasanuddin University, Makassar, p. TG3-1- TG3-8.
(online at: http://repository.unhas.ac.id/handle/123456789/16802)
(' Study of the macrostructure (mesoscale structure) of metamorphic rocks in the Barru region, S Sulawesi'. Barru metamorphic block composed of low- moderate grade metamorphic rocks, with foliation generally NE-trending and tilting to SE. Two main stretching directions i.e., SE-NW-trending and NE-SW-trending, both plunging to W. Fault low angle dip-slip or thrust and horizontal movement or strike-slip. Locally high angle dip-slip faults. Folds formed earlier than faults)

Jaya, A., A.I.S. Simalango & A. Maulana (2015)- Struktur dan deformasi batuan metamorf daerah Paboya Provinsi Sulawesi Tengah. J. Penelitian Geosains (Hasanuddin University) 11, 1, p. 35-41.
(online at: http://repository.unhas.ac.id/handle/123456789/16801)
('Structure and deformation of metamorphic rocks in the Poboya region of Central Sulawesi province'. Poboya/ E Palu District in 'neck' of Sulawesi with outcrops of molasse sediments, gneiss and biotite schist. Folding and post-Tertiary horizontal faulting. Quartz crystal orientations and porphyroblasts in amphibolite-greenschist facies indicate formation at low-medium T (300-700°C) and P <1 Gpa, during syn-tectonic sinistral shear, related to Palu-Koro regional fault)

Jaya, A., Sufriadin & I. Nur (2011)- A short note on sedimentary rocks of the Barru area, South Sulawesi. Berita Sedimentologi 22, p. 9-14.

(online at: https://journal.iagi.or.id/index.php/FOSI/article/download/199/169)
(On Late Cretaceous-Tertiary stratigraphy of Barru area, SW Sulawesi, ~120km N of Makassar. Three measured sections at SE side of Barru basement complex, with M Eocene Malawa Fm fluvio-deltaic clastics, M-Late Eocene Tonasa Fm mixed clastics and redeposited carbonates, Mio-Pliocene Camba Fm deeper marine volcanoclastics)

Jaya, A., I. Sumantri, D.I. Bachri & B.R. Maulana (2022)- Understanding and quantitative evaluation of geosites and geodiversity in Maros-Pangkep, South Sulawesi, Indonesia. Geoheritage 14, 2, 40, p.
(Maros-Pangkep area in S Sulawesi with 9 signifcant potential geosites in (Cretaceous) melange, Cenozoic limestone karst topography and caves and offshore modern reef islands of Spermonde Archipelago)

Jezek, P.A., D.J. Whitford & J.B. Gill (1981)- Geochemistry of recent lavas from the Sangihe- Sulawesi arc. In: A.J. Barber & S. Wiryosujono (eds.) The geology and tectonics of Eastern Indonesia, Proc. CCOP-IOC SEATAR Working Group Meeting, Bandung 1979, Geological Research Development Centre (GRDC), Bandung, Special Publ. 2, p. 383-389.
(Sangihe Arc stretches from NE of Sulawesi to N, at W side Molucca Sea. 130-180 km above W dipping Benioff zone that extends to 650 km depth. S sector mainly olivine basalts and pyroxene andesite, N part more hornblende andesites. No evidence of involvement of sediments in lavas)

Jugovics, L. (1940)- Der granodiorit von Gorontalo auf Nordcelebes. Foldtani Kozlony 70, 7-9, p. 163-176 and p. 222-231.
(online at: http://real-j.mtak.hu/8885/4/Foldtani_Kozlony_1940_70_7-9.pdf)
('The granodiorite of Gorontalo on North Sulawesi'. Description of granodiorite collected by L. von Loczy in 1928 at port of Gorontalo, N Sulawesi)

Jugovics, L. (1950)- Beitrage zur Kenntnis der Gesteine von Ost-Celebes. Geologica Hungarica, Series Geologica, 8, p. 1-112. *(online at: http://epa.oszk.hu/02900/02986/00010/pdf/EPA02986_geologica_hungarica_ser_geol_1950_08_015-112.pdf)*
('Contributions to the knowledge of rocks from East Sulawesi'. Descriptions of igneous rocks collected by Loczy in 1928. Mainly ophiolitic igneous rocks (gabbro, hartzburgite, serpentinite), some metamophics and volcanics)

Junursyah, G.M.L., Alviyanda & N. Novandaru (2018)- Studi mikrofacies dan diagenesis batugamping dari Formasi Tetambahu sebagai mikrokontinen Mesozoikum di daerah Teluk Tomori. J. Geologi Kelautan 16, 1, p. 1-14 *(online at: https://www.researchgate.net/publication/331873819_STUDI_MIKROFACIES_DAN_DIAGENESIS_ Etc.)*
('Microfacies and diagenesis study of limestone from Tetambahu Formation as Mesozoic microcontinent in the Tomori Bay area'. Jurassic sediments in Korolama section SE of Kolonodale: clastics dominated at base ('Nanaka Fm), limestone-dominated at top (Tetambahu Fm). (No data to support ages, no thickness info of studied section, no attempt of identifying bioclasts in limestones; JTvG))

Jurkovic, I. & I.B. Zalokar (1990)- The copper deposit of Batu Marupa in Central Sulawesi, Indonesia. Rudarsko-Geolosko-Naftni Zbornik (Mining-Geology-Petroleum Engineering Bulletin), Zagreb, 2, p. 29-33.
(online at: https://hrcak.srce.hr/en/file/38908)
(Brief description of small abandoned copper mines of Batu Marupa (Sangkaropi), N Toraja area, 35-40 km N of Makale in central West Sulawesi. Exploited by Japanese in WWII who destroyed the mine after retreat. Ore bodies lenses of chalcopyrite, pyrrhotite, sphalerite, etc., inside altered intermediary subvolcanic rocks)

Kadar, A.P. & Sudijono (1993)- Biostratigrafi fosil nanno Tersier Tengah Formasi Tonasa (Penampang Rala), Sulawesi Selatan. Proc. 22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 1100-1113.
(online at: https://www.iagi.or.id/web/digital/53/22nd-Volume-2-(6-9-Des-1993)-498-511.pdf)
('Biostratigraphy of Middle Tertiary nannofossils in the Tonasa Formation (Rala Section), South Sulawesi'. Nannofossils from lower Tonasa Fm show Late Eocene (NP18-NP20)- Early Oligocene (NP21-NP23) ages. Calciturbidites in Late Eocene (NP20) with larger foraminifera Discocyclina, Pellatispira, etc. In E Oligocene zone NP23 olistostrome bed with reworked Eocene larger forams)

Kadarusman, A. (2011)- Basement rocks of Sulawesi and their contribution to the metallogenic formation. In: N.I. Basuki (ed.) Proc. Sulawesi Minerals Resources, Manado 2011, Indonesian Soc. Economic Geologists (MGEI) - IAGI, p. 121-130.
(Sulawesi five basement types (1) accretionary-collision complex (Bantimala and Barru Complex in SW arm), (2) metamorphic rocks with continental margin parentage (metamorphic complexes in W, NW, C and SE Sulawesi), (3) ophiolitic rock and oceanic crust (E and N arm, respectively), (4) melange or broken formation (C part), (5) continental granitic basement (Banggai-Sula and Tukang Besi). All basements Mesozoic in age; some metamorphic rocks have Paleozoic protoliths)

Kadarusman, A., H.K. Brueckner, H. Yurimoto, C.D. Parkinson & S. Maruyama (2001)- Geochemistry and Sm-Nd dating of garnet peridotites from Central Sulawesi, and its implication to the Neogene collision complex in Eastern Indonesia. American Geophysical Union (AGU), Fall Meeting 2001, T52D-08, 1p. *(Abstract only)*
(Small garnet-bearing peridotites on Sulawesi in two regions in strike-slip fault zones: Palu-Koro fault zone and right-lateral Ampana fault in Bongka river valley juxtaposed against E Sulawesi ophiolite. P-T time plot suggests prograde subduction zone peridotite. Sm-Nd ages 27-20 Ma. 27 Ma probably peak metamorphism and 20 Ma cooling age. Ultramafic rocks most likely metamorphosed to garnet- assemblages during Late Oligocene- E Miocene continent-continent collision in C Sulawesi. Due to buoyancy peridotites uplifted within Neogene metamorphic complex)

Kadarusman, A., S. Miyashita, S. Maruyama & A. Ishikawa (2002)- The East Sulawesi Ophiolite: the accreted Cretaceous huge ophiolite massif formed by Southwest Pacific superplume. Abstract Superplume Workshop, Tokyo, p. 1-4.
(online at: http://192.129.24.144/licensed_materials/10069/free/conferen/superplu/..)
(Ophiolite complexes of W and C Indonesia (i.e. Java, Kalimantan) of Tethyan provenance, those in E Indonesia probably parts of Circum-Pacific ophiolite belt. E Sulawesi Ophiolite tectonically dismembered, >15 km thick ophiolite sequence from mantle peridotite to mafic cumulate, gabbro, sheeted dolerites and basaltic volcanics. Geochemistry suggests oceanic plateau origin, may have originated in SW Pacific Superplume. Ages Paleogene (60-32 Ma; termination of generation of oceanic lithosphere?) and Cretaceous (79-137 Ma; first generation of oceanic lithosphere?). Obduction onto Sundaland ~30 Ma (age of metamorphic sole))

Kadarusman, A., S. Miyashita, S. Maruyama, C.D. Parkinson & A. Ishikawa (2004)- Petrology, geochemistry and paleogeographic reconstruction of the East Sulawesi ophiolite, Indonesia. Tectonophysics 392, p. 55-83.
(online at: https://www.researchgate.net/publication/223330932_Petrology_geochemistry_and_paleogeographic_reconstruction_of_the_East_Sulawesi_Ophiolite_Indonesia)
(E Sulawesi Ophiolite (ESO) tectonically dismembered and widely distributed in C and E Sulawesi. Comprises, from base: mantle peridotite, gabbro, sheeted dolerites and basaltic volcanic rocks. Possible oceanic plateau origin (15 km thick). Possible Cretaceous origin of oceanic plateau component indicated on basis of calculated paleopositions using plate trajectory analyses together with published paleolatitude data)

Kadarusman, A. & C.D. Parkinson (2000)- Petrology and P-T evolution of garnet peridotites from Central Sulawesi, Indonesia. J. Metamorphic Geology 18, 2, p. 193-209.
(online at: www.academia.edu/6899047/Petrology_and_P_Tevolution_of_garnet_peridotites_from_cen Etc.)
(Alpine-type garnet-bearing peridotites associated with E Cretaceous (140-115 Ma) quartzo-feldspathic gneisses of in two areas of Sulawesi (Palu-Koro fault and outcrops juxtaposed against gabbros and peridotites of E Sulawesi ophiolite in right-lateral Ampana fault). Final exhumation from upper crustal levels facilitated by entrainment in Neogene granitic plutons, and/or Oligocene transtension in deep-seated strike-slip fault zones)

Kadarusman, A., T. van Leeuwen & R. Soeria-Atmadja (2005)- Discovery of eclogite in the Palu region of Central Sulawesi and its implication for the tectonic evolution of Sulawesi. Majalah Geologi Indonesia (IAGI) 20, 2, Special Edition, p. 80-89. *(online at: www.researchgate.net/publication/313429773_Discovery_of_eclogite_in_the_Palu_region_Central_S Etc.)*
(Eclogite and other high-grade metamorphic rocks in float in Palu-Koro fault valley. Proposed history: (1) Early Tertiary conversion of oceanic lithosphere into eclogite after subduction to ~60km below Sundaland; (2) Late

Oligocene- Early Miocene collision between microcontinent and Sundaland margin incorporated eclogite fragments into upper plate; (3) latest Miocene- Pliocene rapid uplift after Banggai-Sula collision)

Kadarusman, A., T. van Leeuwen & J. Sopaheluwakan (2011)- Eclogite, peridotite, granulite and associated high-grade rocks from the Palu region, Central Sulawesi, Indonesia: an example of mantle and crust interaction in a young orogenic belt. Proc. Joint 36th HAGI and 40th IAGI Annual Conv., Makassar, JCM2011-379, p. 1-10.
(online at: https://www.iagi.or.id/web/digital/10/2011_IAGI_Makassar_Eclogite,-Peridotite,-Granulite.pdf)
(Palu region of C Sulawesi part of collision zone with peridotites and high-grade metamorphic rocks (eclogite, granulite). Formed at great depth during collision event between Sundaland and underthrusted Australian continental fragment sometime in Late Eocene- E Miocene. Radiometric ages of Palu Metamorphic Complex two groups: Mesozoic (144-73 Ma) and Late Miocene-Pliocene (6-2 Ma). Younger ages probably overprint of widespread young granite magmatism)

Kaharuddin, M. (2010)- Perkembangan tektonik dan stratigrafi Kompleks Bantimala, Sulawesi Selatan. Pros. Hasil Penelitian Fakultas Teknik UNHAS 4, p. TG 5-1-TG5-9.
('Tectonic and stratigraphic development of the Bantimala Complex, South Sulawesi'. UNHAS research results)

Kaharuddin, M., A.M. Imran. C.I. Abdullah & A. Jaya (2017)- Olistostrome and the Mesozoic tectonic of the Bantimala Complex, South Sulawesi. Sriwijaya Int. Conf. Engineering Science Technology (SICEST 2016), Bangka, MATEC Web of Conferences 101, 04011, p. 1-6.
(online at: www.matec-conferences.org/articles/matecconf/pdf/2017/15/matecconf_sicest2017_04011.pdf)
(Discussion of schist breccias between Bantimala metamorphic rocks and overlying mid-Cretaceous radiolarian cherts. Poorly sorted polymict olistholiths (schist, gneiss, also serpentinite-jadeite) in sandy matrix, conformably overlain by radiolarian chert. Schist-gneiss breccia interpreted as (mid-Cretaceous) olistostrome deposited in subduction trench. Common soft-sediment folding of chert beds)

Kaharuddin, A.M. Imran, C.I. Abdullah & A. Jaya (2018)- Phenomenon of schistic breccia, autoclastic breccia and radiolarian chert, a Mesozoic tectonic trace in Bantimala tectonic complex area, Pangkep Regency South Sulawesi Province. Proc. Int. Conf. Earth Science, Mineral, and Energy, Yogyakarta 2018, IOP Conference Series: Earth and Environmental Science, 212, 012042, p. 1-11.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/212/1/012042/pd)
(At top of Bantimala metamorphic complex 'autoclastic' schist breccia with multiple types of metamorphic rocks (greenschist, blueschist, eclogite, granulite; nearby also serpentinite blocks). Conformably overlain by five thin (15-60cm) folded layers of Cretaceous radiolarian chert with 3-25cm thick interbeds of coarse 'schistic sandstone' (similar outcrops discussed by Haile et al. (1979); JTvG). Overlain by Paleocene tuff.)

Kaharuddin, A.M. Imran, C.I. Abdullah & A. Jaya (2018)- Tektonik konvergen dan implikasiya tehadap eksplorasi hidrokarbon (Studi kasus: Kompleks tektonik Bantimala Kabupaten Pangkep). Proc. 4th Seminar Ilmiah Nasional Sains dan Teknologi, 4, Hasanuddin University, Gowa 2018, p. 248-258. *(online at: https://www.academia.edu/38465625/TEKTONIK_KONVERGEN_DAN_IMPLIKASINYA_TERHADAP Etc.)*
('Convergent tectonics and its implications for hydrocarbon exploration (case study: the Bantimala Complex, Pangkep District)', S Sulawesi)

Kaharuddin, A.M. Imran, C.I. Abdullah & A. Jaya (2019)- Olistostrome and its implication to geological disaster on coastal area with special reference to the Bantimala tectonic complex, Pangkep regency, South Sulawesi Province. In: 1st Int. Conf. Global Issue for Infrastructure, Environment & Socio-Economic Development (GIESED 2018), Makassar, IOP Conference Series: Earth and Environmental Science 235 (2019), 012043, 1-8.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/235/1/012043/pdf)
(Cretaceous polymict (mainly metamorphic rocks) olistostrome in Bantimala Complex. Interpreted as submarine landslides (trench deposits). Four episodes, separated by folded radiolarian chert layers. Olistostrome formation may damage infrastructure).

Kaharuddin, A.M. Imran, C.I. Abdullah & A. Jaya (2019)- Olistostrome and its implications to geological disaster on coastal area with special reference to the Bantimala tectonic complex, Pangkep Regency South Sulawesi

Province. Proc. 1st Int. Conf. Global Issue for Infrastructure, Environment & Socio-Economic Development (GIESED 2028), Makassar 2018, IOP Conference Series: Earth and Environmental Science 235, 012043, p. 1-8.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/235/1/012043/pdf)
(Another paper on Bantimala Complex Cretaceous (subduction zone) metamorphics and schist breccia, overlain by locally folded Albian-Cenomanian radiolarian chert with sandstone interbeds, all associated with with four episodes of submarine landslide polymict 'olistostrome breccias')

Kaharuddin M.S., A. Jaya & H. Sirajuddin (2015)- Olistostrome dan batu mulia kompleks tektonik Bantimala, Kabupaten Pangkajene dan kepulauan, Provinsi Sulawesi Selatan. Proc. 24th TPT and 9th Congress Assoc. Indonesian Mining Professionals (PERHAPI), Jakarta 2015, p. 65-76.
(online at: http://repository.unhas.ac.id/bitstream/ ....)
('Olistostrome and precious stones in the Bantimala tectonic complex, Pangkajene District, S. Sulawesi'. Bantimala Complex composed of metamorphic rocks such as glaucophane schist, hornblende mica schist, eclogite, granulite, phyllite and metaquartzite of Triassic age. Olistostrome components schist, quartzite, metachert, jadeite, Jurassic-Cretaceous metaperidotite and Cretaceous sediments (flysch, shale, sandstone, mudstone and radiolarian chert). Basement contains precious stones like agate, jade, turquoise, etc.)

Kaharuddin, H. Sirajuddin, A. Jaya, S. Jumadil & M.F.W. WIra P (2022)- Tectonic deformation and its implications for geological disasters; case study of Mangilu Area, Bantimala Complex Pangkep South Sulawesi Province. Proc. 51st Annual Conv. Indonesian Association Geologists (IAGI), Makassar, p. 1-9.
(online at: https://www.iagi.or.id/web/digital/71/PITIAGI-22-P-Abs-108.pdf)
(Mangilu area in N part of Bantimala complex which is a contact zone between continental and oceanic plate.Many rock deformation features, like melange formations, olistostromes, metamorphism, mud diapirs, melange injection and geological structures)

Kaharuddin M.S., A. Tonggiroh & H. Sirajuddin (2014)- Olistostrome dan obduksi ofiolit Lasitae, Kabupaten Barru, Provinsi Sulawesi Selatan. Proc. 43rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 1-8.
(online at: https://www.iagi.or.id/web/digital/6/2014_IAGI_Jakarta_Olistostrome-dan-Obduksi.pdf)
('Olistostrome and ophiolite obduction, Lasitae, Barru, S Sulawesi Province'. Polymict and limestone breccia olistostrome sediments exposed along Barru River (± 3 km), N of (and overthrust by?) schist-ophiolite complex. Composed of blocks of dacite, peridotite, Malawa sst, coal and silicified Eo-Oligocene Tonasa Lst with Nummulites. Four members in olistostrome, with tuffaceous marls in upper part. Formation of olistostrome most likely in Late Oligocene, at edge of shallow sea basin, and tied to obduction of Lasitae ophiolite)

Kamaruddin, H., R. Ardiansyah I., M.F. Rosana, N. Sulaksana & E.T. Yuningsih (2019)- Profil endapan laterit nikel di Pomalaa, Kabupaten Kolaka, Provinsi Sulawesi Tenggara. Buletin Sumber Daya Geologi 13, 2, p. 84-105.
(online at: http://103.87.161.68/index.php/bsdg/article/view/BSDG_VOL_13_NO_2_2018_2/pdf)
('Nickel laterite profiles in Pomalaa, Kolaka Regency, SE Sulawesi Province'. Pomalaa area in ultramafic rocks of East Sulawesi Ophiolite in SE Sulawesi. Hydrous Mg silicate nickel laterite deposits developed by weathering of serpentinized harzburgite, preferentially on undulating hills with gentle slope angles of 10°- 25°)

Kartaadipoetra, L. Witoelar & T.W. Sudiro (1973)- A contribution to the geology of Southeast Sulawesi. Proc. 2nd Annual Conv. Indonesian Association Geologists (IAGI), p.

Kasim, M., A. Zainuri & Nurfaika (2014)- Petrogenesis of andesitic rock in Sumalata, North Gorontalo. Int. Journal of Engineering and Science Application (IJEScA; UNHAS) 1,1, p. 37-42.
(online at: http://pasca.unhas.ac.id/ojs/index.php/ijesca/article/view/133/89)
(Sumalata area on N coast of North Arm of Sulawesi with historic gold mines, now exploited by locals. Dominated by Miocene- Pliocene andesite and tuffs. Petrographic analyses of 20 samples indicate four types of rocks: andesite, trachyte, latite and quartz latite)

Katchan, G. (1994)- The Masmindo gold project, South Sulawesi, Indonesia. Indonesian Mining Conference, Jakarta, 1994, p. .
(Geology and gold mineralisation in the Awak Mas district, Latimojong Mts, central W Sulawesi)

Katili, J.A. (1970)- Additional evidence of transcurrent faulting in Sumatra and Sulawesi. Bull. of National Institute Geology and Mining (NIGM), Bandung, 3, 3, p. 15-28.

Katili, J.A. (1977)- Past and present geotectonic position of Sulawesi, Indonesia. Proc. 6th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 317-332.
(Early plate tectonic model for Sulawesi, proposing Sulawesi- Kalimantan collision in Early Pliocene, followed by post-Pliocene Makassar Straits extension. Timing of various events described no longer current; JTvG)

Katili, J.A. (1978)- Past and present geotectonic position of Sulawesi, Indonesia. Tectonophysics 45, p. 289-322.
(Outdated overview of events shaping Sulawesi geology: Banda Sea= trapped old Indian Ocean crust, Sulawesi Sea= old trapped Pacific crust, opening of Makassar Straits in Quaternary, etc.)

Katili, J.A., L. Kartaadiputra & Surio (1963)- Magma type and tectonic position of the Una-Una Island, Indonesia. Bulletin of Volcanology 26, 1, p. 431-454.
(Una-Una rocks differ from other volcanoes in Indonesia: K-rich, medium alkaline, transitional between trachytes and andesites. Volcano lies outside orogenic belt, probably at intersection of two basement fissures of NE-SW and SE-NW directions. Extinct volcanism in Togean ridge. Known eruption in 1898, earthquake in 1960 (and major eruption in 1983; Katili & Sudradjat 1984))

Kavalieris, I. (1984)- The geology and geochemistry of the Gunung Pani gold prospect, North Sulawesi. M.Sc. Thesis, Australian National University (ANU), Canberra, p. 1-224 + Appendices
(online at: https://openresearch-repository.anu.edu.au/handle/1885/9263)
(Study of Gunung Pani gold prospect near Marisa village, N Sulawesi, initially surveyed in 1920's. Gold mineralization low grade, large tonnage gold resource, hosted in intrusive porphyritic rhyodacites and pyroclastics of Pliocene- Pleistocene Pani Volcanic Complex. Geochemically Pani Volcanics best compared to rocks from continental margin tectonic settings)

Kavalieris, I., T.M. van Leeuwen & M. Wilson (1992)- Geological setting and styles of mineralisation, North arm of Sulawesi, Indonesia. J. Southeast Asian Earth Sciences 7, p. 113-129.
(Sulawesi N arm Neogene island arc on Paleogene volcanic-sedimentary basement, underlain by oceanic crust. Sulawesi neck metamorphic rocks and felsic granitoids belong to Sundaland continental margin. N Sulawesi Arc two stages, separated by gap 13- 9.5 Ma, reflecting collision of N arm with Sula Platform microcontinent in M Miocene. E Miocene calc-alkaline arc due to W-directed subduction. Arc-continent collision resulted in back-arc thrusting, clockwise rotation of N arm, and inception of subduction along N Sulawesi Trench. Post-collisional magmatism in N Sulawesi Arc produced felsic-mafic volcanic suites related to rifting of former arc rather than subduction. Sulawesi Neck Dondo suite potassic granites of continental affinity. N arm rel. well mineralized. Porphyry Cu-Au mineralization at ~2-4 Ma in oceanic terrane following collision-related arc reversal and Mo mineralization in continental terrane that underwent lower crustal melting during extension following same collision. Cogenetic granites exposed over 5000 km^2 and intruded in arcuate belt, more than 400 km long, parallel to Sula Platform collision zone)

Kavalieris, I., J.L. Walshe, S. Halley & B.P. Harrold (1990)- Dome-related gold mineralization in the Pani Volcanic complex, North Sulawesi, Indonesia: a study of geologic relations, fluid inclusions, and chloritic compositions. Economic Geology 85, p. 1208-1225.
(Gold mineralization at Gunung Pani prospect near Marisa, N Sulawesi. related to Miocene or younger rhyodacitic volcanic center, which overlies and partly intrudes hornblende-biotite granodiorite and Eocene(?) basaltic volcanics)

Kemmerling, G.L.L. (1926)- Het Sopoetangebergte in de Minahassa. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 43, 2, p. 220-224.

('The Soputan Mountains in the Minahasa'. Critical discussion of report by surveyor L. Horsting in the Soputan volcanic complex in N Sulawesi)

Khorniawan, W.B. (2013)- Studi mikrofasies dan diagenesis batuan karbonat Formasi Poh, Cekungan Luwuk-Banggai, Kecamatan Pagimana, Kabupaten Luwuk, Provinsi Sulawesi Tengah. Geological Engineering E-Journal (Universitas Diponegoro). 5, 1, p. 287-301.
(online at: https://ejournal3.undip.ac.id/index.php/geologi/article/download/5830/5620)
('Microfacies and diagenesis study of carbonate rocks of the Poh Formation, Luwuk-Banggai Basin, Pagimana District, Luwuk Regency, Central Sulawesi Province'. 13 carbonate facies types in Late Oligocene- M Miocene Poh Fm (folded cover of collided Bangga-Sula Block- JTvG). Poor reservoir quality. No sample location map or stratigraphic column)

King, J., A.E. Williams-Jones, V. van Hinsberg & G. Williams-Jones (2014)- High-sulfidation epithermal pyrite-hosted Au (Ag-Cu) ore formation by condensed magmatic vapors on Sangihe Island, Indonesia. Economic Geology 109, p. 1705-1733.
(online at: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.855.9057&rep=rep1&type=pdf)
(Related Bawone and Binebase high-sulfidation epithermal Au (Cu-Ag) deposits on S Sangihe Neogene volcanic island hosted by altered andesitic rocks. Mineralization multiple generations of gold-bearing pyrite)

Koesnama (2014)- Pensesaran mendatar dan zona tunjaman aktif di Sulawesi: hubungganya dengan kegempaan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 15, 2, p. 75-79.
('Strike-slip faults and active subduction in the Sulawesi area and their relationships with seismicity'. On Pulau-Koro, Walanae, Matano, Lawanopo and Gorontalo faults, mainly large strike-slip faults)

Koestono, H., E.E. Siahaan, M. Silaban & H. Franzson (2010)- Geothermal model of the Lahendong geothermal field, Indonesia. Proc. World Geothermal Congress 2010, Bali, Indonesia, 6 p.
(online at: https://www.geothermal-energy.org/pdf/IGAstandard/WGC/2010/1259.pdf)
Lahendong Geothermal Field in N Sulawesi, 30 km S of Manado, discovered in 1982. Part of depression of Pangolombian caldera. Thermal structures on surface mostly fault controlled, with NW-SE and NE-SW directions. Heat source believed to be magma cooling beneath Mt. Lengkoan and Mt. Kasuratan)

Komura, K. & J. Sugimoto (2021)- Shortcut faults and lateral spreading activated in a pullapart basin by the 2018 Palu earthquake, Central Sulawesi, Indonesia, 2021 Remote Sensing (MDPI) 13, 2939, p. 1-27.
(online at: https://www.mdpi.com/2072-4292/13/15/2939)
(Pull-apart basin along Palu-Koro fault system near the city of Palu)

Koolhoven, W.B.C. (1923)- Report on the investigation of nickel ore and chromite in the Lasolo area. (subsection: Kendari), Archives Pusat Jawatan Geologi, Bandung, No. 20/br, p.
(Unpublished report in Geological Survey archives. Probably WW-II English translation of 1923 Dutch-language Dienst van het Mijnwezen report)

Koolhoven, W.C.B. (1930)- Verslag over een verkenningstocht in de Oostarm van Celebes en den Banggai Archipel. Jaarboek Mijnwezen Nederlandsch-Indie 58 (1929), Verhandelingen, p. 187-225.
('Reconnaissance survey of Sulawesi E arm and Banggai Archipelago'. E Sulawesi isoclinally folded (N-dipping) Eocene limestones-sst and E Miocene limestones-marls (Oligocene absent), overthrusted by ophiolites, both unconformably overlain by Pliocene 'Celebes molasse'. No crystalline basement. Small outcrops of underlying Jurassic? with belemnites (Cenomanian; Silver et al. 1983). In North ophiolites overlain by ?Miocene diabase, tuff, andesite. Several oil seeps in Pliocene Celebes Molasse, some with non-flammable H2S-bearing gas, and also in gabbro in S. Babason. Eocene Nummulites limestone with Lacazina and Alveolina wichmanni (p. 202 'known only from New Guinea and E Celebes'). Quaternary limestones along S coast of E arm up to 500m uplift, little or none along N coast)

Koolhoven, W.C.B. (1932)- De geologie van het Malili terrein (Midden Celebes). Jaarboek Mijnwezen Nederlandsch-Indie 59 (1930), Verhandelingen 3, p. 127-153.

(Description of part of E Sulawesi ophiolite belt and pelagic cover in Malili area of Verbeek Mountains in C Sulawesi. Peridotites (= pre-Cretaceous oceanic crust/mantle?), with at top zone of 10's of m thick dynamometamorphic serpentinites with some metamorphic blocks (amphibolite, piemontite-quartzite, etc.). Overlain by?Late Jurassic- E Cretaceous? Matano series with lower member of red deep sea clay with radiolarian cherts and upper part of Late Cretaceous Discorbina (=Globotruncana) pelagic limestones, all interpreted to be deep sea deposits deposited directly on peridotite (Later authors suspected fault contact between peridotite and Matano Beds; (e.g. Van Bemmelen, 1949), but could be radiolarite deposition on top of older detachment surface exposed on seafloor?- JTvG). No Tertiary sediments)

Koomans, C. (1935)- Die Trachyten und Andesiten der Togianinseln und Oena-Oena (Niederlandisch Ost-Indien). Leidsche Geologische Mededelingen 6, p. 119-122.
(online at: www.repository.naturalis.nl/document/549748)
('The trachytes and andesites volcanics of the Togian Islands and Una-Una', Tomini Bay E Sulawesi'. Brief petrographic descriptions of volcanic rocks collected by Molengraaff and Umbgrove. No ages or locality maps)

Koperberg, M. (1900)- Verslag omtrent de gedurende het jaar 1899 in de Residentie Menado gedreven geologisch-mijnbouwkundige onderzoekingen en mijnontginning. Jaarboek Mijnwezen Nederlandsch-Indie 29 (1900), p. 30-50.
('Report on geological-mining investigations in the Menado Residency for the year 1899'. Investigations from December 1898 by Koperberg, continuing the survey work of the area that was started by R. Fennema. Initial work was investigation of gold deposits at Totok mine, associated with Miocene limestones. Reporting on activity of many, mostly unsuccessful, private gold prospecting companies)

Koperberg, M. (1901)- Verslag van het geologisch en mijnbouwkundig onderzoek in de Residentie Menado over het jaar 1900. Jaarboek Mijnwezen Nederlandsch-Indie 30 (1901), p. 115-121.
('Report on geological-mining investigations in the Menado Residency for the year 1900')

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('Geological-mining investigations in the Menado Residency during the year 1902'.)

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('Geological-mining investigations in the Menado Residency during the year 1903'. Investigations in the Pagoeat and Mooetong districts. Also includes reconnaissance map of Todjo area between Posso and Tanjung Api on S side of Tomini Gulf. Page 189: Burning gas seeps at Cape Tanjung Api not in serpentinites (which are present nearby, but as large blocks in conglomerate), but in area of hornblende schist)

Koperberg, M. (1925)- Opmerkingen over de geologie van de residentie Menado. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 8 (Gedenkboek Verbeek, memorial volume), p. 312-328.
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('Remarks on the geology of the Menado Residency', N Sulawesi'. Brief review, no figures)

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('Plutonic rocks and their relation to mineralized areas Tanahjampea Island, South Sulawesi'. Tanahjampea Island S of Selayar/ S Sulawesi in East Java Sea. Intrusive rocks Eocene-Oligocene granite and monzonite and M Miocene diorite, andesite, basalt, etc. of calc-alkaline affinity. Sediments Late Oligocene- E Miocene Batu Fm limestone, interfingering with Late Oligocene- E Miocene Kayuadi Fm 400m of volcanic breccias. M Miocene-Pliocene Kalao and Selayar Fms marine marls and limestones)

Koswara, A., H. Panggabean, Baharuddin & D. Sukarna (1994)- Geologic map of the Bonerate sheet, S Sulawesi. Geological Research Development Centre (GRDC), Bandung.
(Geologic map of islands off S Sulawesi (Tambolongan, Kayuadi, Kalao, Bonerate, Madu, etc. Oldest rocks Cretaceous(?) ultramafics (pyroxenite, gabbro, basalt), Eocene- Oligocene granite. Overlain by E-M Miocene Kayuadi Fm andesitic volcanics and Batu Fm limestones, M Miocene- E Pliocene Kalao / Selayar/ Walanai Fms sst, marls, lst)

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(online at: https://brill.com/view/journals/bki/53/1/article-p148_4.xml?language=en)
('Iron in Central Sulawesi', by Dutch Reformed missionary Albert C. Kruyt. Native iron industry well known from around Matano Lake, but also further North, in Poso district. Iron ore usually limonite from near-surface., and melted in wood-fired ovens)

Kundig, E. (1932)- Versuch einer petrographischen Characteristik des kristallinen Grundgebirges von Celebes. Schweizerische Mineralogische Petrographische Mitteilungen 12, 2, p. 450-507.
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('Attempt at petrographic characterization of the crystalline basement of Sulawesi'. Early paper on metamorphic rocks in various basement complexes of S, C and SE Sulawesi (gneiss, phyllite, glaucophane schist (mainly at Rumbia), etc. With map of Pajangkene Massif (= Bantimala?; metamorphics). Large parts of E and SE arm of Sulawesi viewed as alpine thrust belt. With one map)

Kundig, E. (1932)- Morphologie und Hydrographie der Toili-Ebene (Ostcelebes). Mitteilungen Geographisch-Ethnograph. Gesellschaft Zurich 32, 2, p. 105-134.
(online at: https://www.e-periodica.ch/digbib/view?pid=ghl-002:1931-1932:32#124)
('Morphology and hydrography of the Toili plain (East Sulawesi). Geographic description of East Arm of Sulawesi. With 1: 200,000 topographic map of SE coast of East Arm)

Kundig, E. (1956)- Geology and ophiolite problems of East-Celebes. Verhandelingen Kon. Geologisch Mijnbouwkundig Genootschap, Geologische Serie 16 (Memorial volume/Gedenkboek H.A. Brouwer), p. 210-235.
(Paper and map of Sulawesi E arm- Togian Islands, summarizing BPM work. Nice cross-sections of SE-directed imbricates of ophiolitic rocks and pelagic Upper Cretaceous limestones. Age of main orogenic phase is M Miocene (ophiolite debris in Upper Miocene 'Celebes Molasse'). Map shows ophiolite on Togian Islands where GRDC map shows young volcanoclastics)

Kusch, H. (1981): Spelaologische Forschungen auf der Insel Sulawesi (Celebes, Indonesien) zwischen 1857 und 1977 (Hohlengebiete Sudostasiens VIII). Die Hohle 32, p. 91-102.
(online at: www.zobodat.at/pdf/Hoehle_032_0091-0102.pdf)

('Speleological investigations on the island of Sulawesi (Celebes) between 1857 and 1977'. Review of caves and caves investigations on Sulawesi since A.R. Wallace in 1857 and Von Richthofen in 1861. Main karst regions Maros, North Bone, Tana Toraja, etc.)

Kusnama & S. Andi Mangga (2007)- Hubungan lingkunan pengendapan Formasi Malawa dan keterdapatan batubara di daerah Soppeng, Sulawesi Selatan. Jurnal Sumber Daya Geologi (JSDG) 17, 4, p. 218-232.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/291/262)
('Relationship of Malawa Fm depositional environment and coal beds in the Soppeng area, S Sulawesi' M Eocene (- Oligocene?) fluvial Malawa Fm m-c grained quartz sst, shale and claystone in lower part; mudstone and carbonaceous fine- grained sst in upper part. Thickness in Gatareng area ~100m. Detailed descriptions of several 50-120 cm thick sub-bituminous coal intercalations)

Kusnida, D., I.R. Silalahi, T. Naibaho & Subarsyah (2012)- Marine geological investigations in the Tomini Basin, Central Sulawesi. Marine Geological Institute, p. 1-35.
(online at: www.researchgate.net/publication/353862380_Marine_Geological_Investigations_in_the_T Etc.)
(Booklet describing MGI work with Geomarin III vessel in 2005, 2010. T omini Basin complex E-W-oriented back arc basin, separated from Gorontalo basin by west. Togian and Una-Una islands. Three Late Neogene tectono-stratigraphy sequences identified. Tomini Basin basement oceanic-like crust (peridotites?))

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(online at: www.bgl.esdm.go.id/dmdocuments/jurnal20080404.pdf)
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Kusnida, D., Subarsyah & B. Nirwana (2009)- Basement configuration of the Tomini Basin deduced from marine magnetic interpretation. Jurnal Geologi Indonesia (Indonesian J. on Geoscience) 4, 4, p. 269-274.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/86/86)
(Magnetic survey in Tomini Basin (= Gorontalo Basin), E Sulawesi, shows elevated magnetic susceptibility values in center of basin. Oceanic-like crust with nearly NE-SW symmetric lateral lineation of susceptibility values. At centre E-W trending basin axis, suggests rift-related graben)

Kusuma, R.A.I., H. Kamaruddin, M.F. Rosana & E.T. Yuningsih (2019)- Geokimia endapan nikel laterit di Tambang Utara, Kecamatan Pomalaa, Kabupaten Kolaka, Provinsi Sulawesi Tengara. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 20, 2, p. 85-92.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/418)
('The geochemistry of laterite nickel deposits in the North Mine, Pomalaa Sub-district, Kolaka Regency, Southeast Sulawesi Province'. Nickel laterite deposits result weathering of ultramafic rocks. Nickel laterite profile in North Mine area from top to bottom: top soil, limonite, saprolite, and bedrock zones. Thickness of laterite zone 25-30m. Highest Ni enrichment in saprolite zone, highest Fe in limonite zone)

Kusuma, R.A.I., H. Kamaruddin, R.R. Wibawa & M.R. Kamil (2015)- Geological prospect, resource and ore reserve estimation in Pomalaa Kolaka, Southeast Sulawesi, Indonesia. In: N.I. Basuki (ed.) Proc. Indonesian Soc. Economic Geologists (MGEI) 7th Annual Conv., Balikpapan, p. 67-76.
(Pomalaa nickel mine/prospect in SE Arm of Sulawesi, 30km S of Kolaka, in N-Co laterite on East Sulawesi Ophiolite. Typical laterite profile: weathered, serpentinized ultramafic bedrock overlain by 2-7m thick saprolite layer with average 1.7-2.3% nickel (mainly garnierite), overlain by 3-7m thick yellow and red limonite zone with 0.4-1.2% nickel)

Kusumanto, D. & C.R.P. Swangga (2015)- Updated mineral inventory of Poboya prospect, Palu, Central Sulawesi, Indonesia. In: N.I. Basuki (ed.) Proc. Indonesian Soc. Economic Geologists (MGEI) 7th Annual Conv., Balikpapan, p. 47-56.
(On Poboya low sulphidation epithermal gold-silver deposit in 'neck' of N Sulawesi, E of Palu-Koro fault system. Discovered by Rio Tinto in 1993. Three mineralization zones)

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('The Paleozoic and Triassic of East Sulawesi'. Chapter in Von Loczy 1934 paper. Oldest rocks known from SE Sulawesi are deformed and partly metamorphosed Triassic-Jurassic Kendari Beds and Toeli Lst with Jurassic belemnites. Material collected by Von Loczy also contains dark grey marly bituminous limestone with probable Permian bivalve Oxytoma and brachiopods Productus and Streptorhynchus. Triassic Tokala Lst and sandstones with macrofossils include locally common Misolia spp., also known from Timor, Buru, Seram and Misool)

Kutassy, A. (1934)- Jong Tertiaire koralen en mollusken uit de molasse-afzettingen in Oost-Celebes. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 10, p. 306-317.
('Young Tertiary corals and molluscs from E Sulawesi molasse deposits'. Chapter in Von Loczy 1934 paper)

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(online at: http://hub.hku.hk/handle/10722/134043)
(Paleomagnetic study of six localities of Balangbaru Fm, an Upper Cretaceous (Turonian- Maastrichtian and older?) volcanoclastic marine turbiditic series of SW Sulawesi. No rock samples carry reversed polarity. Declination values show CCW rotation of ~15-20°, reflecting tectonic motion of Sunda Block since Late Cretaceous (similar to Sasajima et al. (1980) results on Marada Fm). Calculated paleolatitude for tilt-corrected inclination is 8.3° S (present-day latitude is ~4°45' S, indicating possible 3.5- 4° N-ward shift; JTvG)

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Laurent, L. (1926)- Etude sur une plante fossile des depots du Tertiaire marin du Sud de Celebes. Jaarboek Mijnwezen Nederlandsch-Indie 54 (1925), Verhandelingen 1, p. 167-190.
('Study on a fossil plant from marine Tertiary deposits of S Sulawesi'. Plant fossils associated with fish fauna in Early Miocene lithographic limestone at Patanuang Asu, NE of Makassar, collected by Brouwer. Mainly shallow marine seaweed Cymodocea micheloti)

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('The relation between volcanism and active tectonics in the Tondano region in North Sulawesi'. Includes Tondano caldera in pull-apart basin and adjacent stratovolcanoes Lokon-Empung twin volcanoes) and Tompaluan)

Lecuyer, F., O. Bellier, A. Gourgaud & P.M. Vincent (1997)- Tectonique active du Nord-Est de Sulawesi (Indonesie) et controle structural de la caldeira de Tondano. Comptes Rendus Academie Sciences, Paris, Ser. IIA, Earth Planetary Science 325, 8, p. 607-613.
('Active tectonics of NE Sulawesi and structural control of the Tondano caldera'. NE tip Sulawesi field study and SPOT image analyses show distributed active ENE-WSW sinistral strike-slip fault zone (with Tondano caldera in pull-apart basin). Faulting accommodates N-S movement of Celebes Sea plate and represents transfer fault zone between E end of Celebes Sea subduction and Moluccas Sea subduction zone)

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(Olo-Oloho nickel laterite prospect in SE Sulawesi. Nickel ore derived from weathered, fractured ultrabasic rocks of U Mesozoic age, which overlies Carboniferous (?) schist)

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(Most tropical Eocene palynomorphs in S Sulawesi have India affinity, as in Nanggulan, S Java, but less diverse. (suggesting (Sunda-)land connection). Likely age of syn-rift Toraja Fm (latest M Eocene-) Late Eocene. Late Eocene age supported by appearance of Proxapertites operculatus with fine reticulation)

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(Three types of Neogene and Quaternary K-rich volcanic series from C Java back-arc and from S Sulawesi. Emplacement of Late Miocene? and younger ultra-potassic rocks in S Sulawesi clearly post-dates latest known subduction event)

Liao, C.P. (2024)- Origin of the East Sulawesi Ophiolite, Eastern Indonesia: implications for oceanic crust generation and tectonic reconstruction in the Western Pacific. Ph.D. Thesis, Monash University, Melbourne, p. 1-218. *(online at: https://bridges.monash.edu/articles/thesis/Origin_of_the_East_Sulawesi_Ophiolite_Eastern_Indonesia_implications_for_oceanic_crust_generation_and_tectonic_reconstruction_in_the_Western_Pacific/26868547)*
(East Sulawesi Ophiolite one of largest ophiolite suites worldwide. New zircon U-Pb ages for gabbros and plagiogranites from samples in East Arm of Sulawesi suggest main magmatic age linked to lithospheric spreading at ~75 Ma (= Campanian). East Sulawesi spreading center originated from depleted mantle source in back-arc location and was approaching Australian continental margin during late Cretaceous. Zircon U-Pb dating also reveals existence of inherited 0.5 Ga- 2.5 Ga exotic continental zircons in young oceanic rocks, likely upper mantle contamination of subducted sediments from Australian continental margin. Etc.)

Liao, J.P., O. Nebel, P. Cawood, S.L. Chung, A. Kadarusman & S. Maruyama (2023)- Geochronological and geochemical constraints on the East Sulawesi Ophiolite with implications for tectonic reconstructions in Southeast Asia. Goldschmidt Conference, Lyon 2023 Abstracts, 1p.
(online at: https://goldschmidtabstracts.info/2023/15472.pdf))
(First zircon U-Pb dating of E Sulawesi Ophiolite combined with radiogenic isotopes suggest main seafloor spreading time for generating this ophiolite at 74± 3 Ma (= ~Late Campanian), with zircon Hf isotope and apatite Nd isotope signatures consistent with depleted mantle source. Immobile trace elements of gabbros show different degrees of subduction influence and affinity of back-arc basin basalts rather than Pacific MORB. Supra-subduction zone (SSZ) plausible geodynamic setting for generation of ESO (NB: Ophiolite ages suggested here too young?; overlain by E Cretaceous (Valanginian?) pelagic radiolarian cherts and Late Cretaceous pelagic Globotruncana limestone (e.g. Simandjuntak 1988, 1994, Surono 2012) JTvG))

Liao, J.P., O. Nebel, S.L. Chung, A. Kadarusman, S. Maruyama & P. Cawood (2024)- Precambrian zircons in Cretaceous Sulawesi back-arc melts document the mantle record of a subducted sediment melange. Chemical Geology *(paper rejected or in in press?)*
(Zircons from gabbros and plagiogranites in East Sulawesi Ophiolite, which formed in Cretaceous back-arc spreading environment and was emplaced around 30 Ma. U-Pb ages for main back-arc spreading at ~77+/- 2 Ma. Some mafic samples with ancient inherited zircons with age peaks at 470 Ma, 1.1 Ga, 1.4- 1.6 Ga, 1.8 Ga and 2.5 Ga (matching detrital zircon age profiles from Australian continent), and probably derived from mantle contamination by subducted sediments)

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(online at: https://jrisetgeotam.lipi.go.id/index.php/jrisgeotam/article/view/970/pdf)
('Profile of a nickel laterite deposit in the Palanga area, SE Sulawesi Province'. Laterite profile ~15m thick: (1) limonite zone ~0-3m with Ni grade ~ 0.8-1.8%, Fe ~34-48 %., (2) saprolite zone ~3-9m with Ni ~1.8-3%, Fe ~10-35%, (3) bedrock at ~9-10 m with Ni 1.2%, Fe ~7-8%. Locally overlain by limestone)

Liu, C. & Y.L. Shi (2022)- The role of fault interaction on earthquake migration in Central Sulawesi. Indonesia. Tectonophysics 839, 229530, p.
(On catastrophic earthquakes in area of coupling of Palu-Koro strike-slip fault and Minahassa Megathrust)

Liu, J., J. Zhang, J. Hsia, W.W. Xian, C. Tin, F.X. Djoko H.N., C. Cheng, C. Zhao, X.Liu et al. (2020)- Late Miocene to Pliocene crustal extension and lithospheric delamination revealed from the ~5 Ma Palopo granodioritic intrusion in Western Sulawesi, Indonesia. J. Asian Earth Sciences 201, 104506, p. 1-16.
(After collision between W Sulawesi- Sula Spur microcontinents in E-M Miocene, W Sulawesi microcontinent underwent extension. Granodiorite intrusion W of Palopo (at NW end of Bone Bay) with zircon crystallization age of of 4.8 Ma. High Sr and low Y and Yb geochemical signature of adakites. Most plausible mechanism for generation of Late Miocene- Pliocene adakitic granodiorites in W Sulawesi partial melting of delaminated lower crust that interacted with mantle. Late Miocene- Pliocene crustal extension in W Sulawesi microcontinent triggered by delamination of thickened lithosphere (same time as S Banda Sea hyperextension?; JTvG))

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(online at: https://api.research-repository.uwa.edu.au/ws/portalfiles/portal/101382927/THESIS_DOCTOR_OF_PHILOSOPHY_LOCHE_Marco_2020_Part_1.pdf)
(Geochemical analyses of Oligo-Miocene Tonasa carbonates from Sulawesi (samples collected by M. Wilson))

Lowder, G.G. & J.A.S. Dow (1977)- Porphyry copper mineralization at the Tapadaa Prospect, northern Sulawesi, Indonesia. Transactions American Inst. Mining Metallurgical and Petroleum Engineers (AIME) 262, p. 191-198.

Lowder, G.G. & J.A.S. Dow (1978)- Geology and exploration of porphyry copper deposits in North Sulawesi, Indonesia. Economic Geology 37, p. 628-644.
(N Sulawesi porphyry copper discoveries in two districts, with several centers of mineralization. Tombuililato district high-level quartz diorite porphyry stocks intrude Eocene- E Miocene island-arc sequence (Tinombo-Bilungala Fms), consisting mainly of andesite and rhyolite. Mineralization and alteration may have occurred at relatively low temperatures (350-400°C). Tapada district mineralization in M-U Miocene dioritic plutons, root zones of high-level stocks whose eroded parts were like deposits exposed at Tombuililato)

Lu, X., C. Gan, P.A. Cawood, X. Qian & Y. Wang (2025)- Oligocene high-silica felsic magmatism in juvenile intra-oceanic arc crust, North Sulawesi Arc, Indonesia. J. of Earth Science (China) 36, p. 880–893,
(North Sulawesi arc complex Cenozoic records of magmatism and tectonics. Zircon U-Pb and other data of high-silica granites shows juvenile oceanic crust origin and ~mid-Oligocene ages (30.4- 27.3 Ma). High-silica granites interpreted as derived from juvenile arc crust in intra-oceanic setting, likely driven by mantle upwelling in response to slab roll-back linked to convergence of East Sulawesi ophiolitic crust or microcontinental fragments (see also Gan et al. 2022)).

Lubis, H., S. Prihatmoko & L.P. James (1994)- Bulagidun prospect: a copper, gold and tourmaline bearing porphyry and breccia system in northern Sulawesi, Indonesia. J. Geochemical Exploration 50, p. 257-278.
(Bulagidun prospect in N Sulawesi characteristic of island-arc porphyry Cu-Au mineralization, although abundant tourmaline is unusual in SW Pacific. Mineralization tied to intrusions into widespread andesitic volcanic rocks (~9.4 Ma))

Lubis, H., S. Prihatmoko & F.E. Nugroho (2011)- Cu-Au porphyry mineralization at Bahumbung, North Sulawesi, Indonesia. Jurnal Sumber Daya Geologi (JSDG) 21, 6, p. 307-320.
(Bahumbung is porphyry Cu-Au prospect in N Arm of Sulawesi. Miocene andesitic volcanics intruded by multiple diorites and post mineral dykes of aplite. Bahumbung system experienced deep level of erosion. Currently considered sub-economic)

Lubis, H., S. Prihatmoko & F.E. Nugroho (2011)- Cu-Au porphyry mineralization at Bahumbung, North Sulawesi, Indonesia. In: N.I. Basuki (ed.) Proc. Sulawesi Minerals Resources 2011, Manado, MGEI/IAGI, p. 145-160.
(Same paper as above)

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(online at: https://www.researchgate.net/publication/314256232_Understanding_Matano_Fault_Southeast_Arm_of_Sulawesi_Indonesia)
(Matano Fault ESE-WNW- left-lateral strike-slip fault in N part of Sulawesi SE Arm. >60 km displacement, formed Lake Matano pull-apart basin. Connected to Palu-Koro Fault to W and Sorong Fault to E)

Magetsari, N.A. (1984)- L'ile de Celebes, Indonesie orientale: analyse structurale par teledetection des grands lineaments, un exemple de collision. Thesis 3me Cycle, Universite de Chambery, p. 1-134. *(Unpublished)*
('Sulawesi island: structural analysis by remote sensing of large lineaments, an example of collision'. Several major lineaments from W to E: (1) Palu-Koro, 300 km, sinistral strike slip zone; (2) Matano and Malili-Kendari, also sinistral; (3) Batui in NE, corresponding partly with ophiolite obduction over Sula islands, continuing offshore as 'Batui Thrust'. Small Plio-Pleistocene pull-apart basins over large fault zones. Tectonics linked to NW-SE compression due to convergence of Australian plate and its split-off Sula fragment. Main collision in M Miocene, with obduction of peridotites and continental underthrusting of W side of Sula microcontinent. After that, convergence accommodated along major fault zones and absorbed by accretionary prism of N Celebes Trough and Tolo zone at Banda Sea margin. At same time N arm of Sulawesi underwent 90° CW rotation)

Magetsari, N.A., P. Chotin & J.P. Rampnoux (1987)- Structural analysis by remote sensing of Sulawesi. The role of great lineament an example of Recent collision. Proc. 16th Annual Conv. Indonesian Association Geologists (IAGI), p.

Mardain, T., Y I. Arifin, M. Kasim & D.R. Rosadi (2022)- Geology and alteration of East Pinolosian area, Bolaang Mongondow, North Sulawesi Province. Eksplorium 43, 2, p. 71-77.
(online at: https://jurnal.batan.go.id/index.php/eksplorium/article/view/5835/pdf)
(Bolaang Mongondow in eastern part of North Arm of Sulawesi, in Neogene magmatic arc (andesite, diorite intrusions, pyroclastic breccias). NW-SE and NE-SW faults with Au-Ag hydrothermal mineralization (high sulfide epithermal deposits)

Marhum, F.A. & R.H.L. Djamaluddin (2012)- Rekonstruksi fasies dan lingkungan pengendapan berdasarkan analisis maseral pada batubara daerah Pasenrengpulu, Kecamatan Lamuru, Kabupaten Bone, Provinsi Sulawesi Selatan. Proc. 41st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2012-E-28, p. 1-7.
('Reconstruction of facies and depositional environment based on analysis of coal macerals in the Pasenrengpulu area, Bone District, S Sulawesi'. Petrographic analysis of Eocene Malawa Fm coals. Coal composition: vitrinite (48.6% -83.8%), inertinite (2.4-16.2%) and liptinite (0-9%), clay minerals (2.0-38.4%) and pyrite (1.4-11.8%))

Marrama, G., S. Klug, J. De Vos & J. Kriwet (2018)- Anatomy, relationships and palaeobiogeographic implications of the first Neogene holomorphic stingray (Myliobatiformes: Dasyatidae) from the Early Miocene of Sulawesi, Indonesia, SE Asia. Zoological J. Linnean Society, London, 184, p. 1142-1168.
(online at: https://academic.oup.com/zoolinnean/article/184/4/1142/4995574)
(Redescription of Trygon vorstmani De Beaufort 1926, a stingray fossil from latest E Miocene fish-bearing laminated limestones of Tonasa Fm near Patoenoeang Asoe, E of Maros, SW Sulawesi. Assigned to new genus Protohimantura. First known holomorphic stingray specimen from Neogene)

Martin, K. (1890)- Notiz uber das Pliozan von Gorontalo. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2), 7, p. 275-277.
('Note on the Pliocene of Gorontalo', N Sulawesi. Brief note on some presumedly Pliocene gastropods from sandstones exposed between Gorontalo and Limbotto, collected by C. van Schelle. No maps, no figures)

Martin, K. (1891)- Zur Geologie von Celebes, nach Anlass des Wichmann'schen Reiseberichtes. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2), 8, p.
('On the geology of Sulawesi, referring to Wichmann's travel reports')

Martin, K. (1917)- Bemerkungen uber sogenannt Oligocane und andere Versteinerungen von Celebes. Sammlungen Geologischen Reichs-Museums Leiden, N.F., II, 7, p. 299-308.
(online at: https://repository.naturalis.nl/pub/509591/SGRMNF1895002001007.pdf)
('Remarks on so-called Oligocene and other fossils from Sulawesi'. Critical review of Tertiary molluscs from Sulawesi identified by Dollfus (in Abendanon 1915).No plates)

Martin, K. (1918)- On some fossils from Celebes believed to belong to the Oligocene. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 20, p. 793-799.
(online at: https://dwc.knaw.nl/DL/publications/PU00012269.pdf)
(Fish fossils found by Abendanon near Enrekang along lower Saadang River, believed to be of Oligocene age by Dollfus, based on presence of Vicarya. However, this is misidentified and mollusc fauna more likely of Miocene? age)

Martini, R., D. Vachard & L. Zaninetti (1995)- *Pilammina sulawesiana* n.sp. (Ammodiscidae, Pilammininae, n. subfam.), a new foraminifer from Upper Triassic reefal facies in E. Sulawesi (Kolonodale area, Indonesia). Revue de Paleobiologie, Geneve, 14, 2, p. 455-460.
(online at: http://archive-ouverte.unige.ch/unige:35376)
(New small, complex agglutinated ammodiscid foraminifera species Pilammina sulawesiana from Norian-Rhaetian limestones of Kolonodale area, E Sulawesi, typical of Late Triassic reefal carbonates. Association with Triasina hantkeni and conodont Miskella posthernsteini suggests U Rhaetian age (species subsequently also found in Asinepe Lst of Seram, Sambosan accretionary complex in Japan, N Italy, Karakorum, Turkey, Cyprus, etc.))

Martini, R., D. Vachard, L. Zaninetti, S. Cirilli, J.J. Cornee, B. Lathuiliere & M.Villeneuve (1996)- Upper Triassic reefal facies in E Sulawesi, Indonesia. In: Sediment '96, 11th Meeting of Sedimentologists, Universitat Wien, Vienna 1996, p. 109. *(Abstract only)*
(online at: https://archive-ouverte.unige.ch/unige:4766)
(Widely outcropping Late Triassic reefal carbonate platform between Kolonodale and Tomata on W margin of Ophiolitic Zone of E and SE arms of Sulawesi. Late Norian-Rhaetian age based on rich benthic foraminifera, and also on youngest Mesozoic conodont Misikella posthemsteini. Two foraminiferal associations, lagoonal (Triasina hantkeni and other Aulotortidae) and reefal (porcelaneous foraminifers incl. Galeanella). Main framebuilders: branching coral Retiophyllia seranica, chaetetid sponge Blastochaetetes intabulata and solenoporacean algae (see also Cornee et al. 1994, Martini et al. 1997))

Martini, R., D. Vachard, L. Zaninetti, S. Cirilli, J.J. Cornee, B. Lathuiliere & M. Villeneuve (1997)- Sedimentology, stratigraphy, and micropaleontology of the Upper Triassic reefal series in Eastern Sulawesi (Indonesia). Palaeogeogr. Palaeoclim. Palaeoecology 128, p. 157-174.
(E Sulawesi Late Norian- Rhaetian 150m thick reefal carbonates are part of larger, dismembered carbonate platform. Shallowing-upward series: lower 100m micritic limestone, upper 150m massive 'reefal' limestones, dominated by foram packstones-grainstones, but also sponge-algal-coral boundstones and oolitic wackestones/ grainstones. Foram assemblages closest affinity to S Tethyan Seram and Wombat Plateau carbonates)

Martono, U.M. (1999)- Structural diversity of the layered rocks in the metamorphic complex of the western arc of Central Sulawesi. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 9, 92, p. 2-12.
(On layering in metamorphic rocks. Little regional geology info)

Maryanto, S. (1999)- Proses diagenesis batugamping Eosen di lintasan S. Nanggala, Tana Toraja, Sulawesi Selatan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 9, 94, p. 2-16.
('Diagenetic process in the Eocene limestone of the Nanggala River section, Tana Toraja, S Sulawesi'. Eocene-E Miocene Toraja Fm limestone of S Sulawesi 1000m thick or more. At Nanggala River section NE of Rantepao M-U Eocene bioclastic limestone ~80m thick, with larger foraminifera Nummulites javanus, Pellatispira, Discocyclina, Asterocyclina, Fasciolites and Heterostegina saipanensis. Descriptions of diagenetic features. Eocene limestone not feasible as hydrocarbon reservoir)

Maryanto, S. (2002)- Stratigrafi Tersier daerah Torajah, Sulawesi Selatan. Proc. 31st Annual Conv. Indonesian Association Geologists (IAGI), Surabaya, 2, p. 734-768. *(online at: www.iagi.or.id/web/digital/18/STRATIGRAFI-TERSIER-DAERAH-TORAJA,-SULAWESI-SELATAN.pdf)*
('Tertiary stratigraphy of the Toraja area, S Sulawesi'. General review of M Eocene- Pliocene stratigraphy. M-L Eocene Toraja Fm mixed clastics- carbonate facies with Nummulites, Pellatispira, Asterocyclina, etc.. Conformably overlain by latest Eocene- M Miocene Makale Fm platform carbonates, in basal part also with Nummulites and Pellatispira, higher up with Lepidocyclian and Miogypsina, etc.. Overlain by M Miocene- E Pliocene Sekata Fm volcanoclastic turbidites with planktonic foraminifera)

Maryanto, S. (2002)- Lingkungan pengendapan Formasi Toraja di daerah Sekitat Rantepao, Sulawesi Selatan. Bull. Geological Research Development Centre (GRDC) 22, p. 63-84.
(Sedimentology of Eocene Toraja Fm in the Rantepao area, NE part of Sulawesi SW arm. Mixture of fluvial, lacustrine, intertidal and shallow marine facies)

Maryanto, S. & T. Sihombing (2004)- Stratigrafi dan sedimentologi batuan Paleogen di lintasan Sungai Ana, Kalumpang, Sulawesi Selatan. Geological Research Development Centre (GRDC), Bandung, Special Publ. 31, p. 269-282.
('Stratigraphy and sedimentology of Paleogene rocks in the Ana River section, Kalumpang, South Sulawesi')

Maryanto, S., E.E. Susanto & Sudijono (2004)- Sedimentologi Formasi Salokalupang di daerah Bone, Sulawesi Selatan. Jurnal Sumber Daya Geologi (JSDG) 14, 1 (145), p. 69-83.
('Sedimentology of the Salokupang Fm in the Bone area, S Sulawesi'. Salokalupang Fm deposited in Late Eocene-M Miocene SW-NE trending deepwater basin, deepening to NE. To W is Tonasa Fm carbonate platform, to S Eocene volcanics. No marked boundary to E, probably connected with open sea. Paleogeography of basin in Salokalupang Fm time shows alluvial plain in SW, whereas turbidity and deepwater depositional systems developed in NE)

Massinai, M.F.I. O.S. Bamba, A. Ical, S. Aswad, M.A. Massinai & Sulastri (2024)- Interpreting fault dynamics in terms of hypocenter relocation and fault characterization. Geodynamics & Tectonophysics (Russia) 15, 6, 0799, p. 1-12.
(online at: https://www.gt-crust.ru/jour/article/view/1947/861)
(SE and C Sulawesi characterized by high tectonic activity due to active Matano fault. Seismicity along this fault is high, but initial hypocenter relocation often deviates from fault's trend line. Focal mechanism solutions of 16 events of final relocation dominated by sinistral strike-slip faulting)

Matasak, T. (2011)- Coal deposits in Sulawesi. In: N.I. Basuki (ed.) Proc. Conference Sulawesi Minerals Resources, Manado 2011, MGEI/IAGI, p. 319- .

Maulana, A. (2009)- Petrology, geochemistry and metamorphic evolution of the South Sulawesi basement rock complexes, Indonesia. M. Phil. Thesis, Australian National University, Canberra, p. 1-188. *(Unpublished)*
(Two pre-Upper Cretaceous basement complexes in SW Sulawesi: (1) Bantimala block: ENE-dipping tectonic slices of metamorphic rocks (eclogites, blueschists, greenschist, some seafloor sediments and volcanics), overlain by ultramafic unit, emplaced from E (records subduction of cold ocean floor and exhumation of deeply subducted material, prior to collision with microcontinents to E and obduction of ultramafics); (2) Barru Block: smaller, 30 km to N, weakly metamorphosed sediments and volcanics, without high-P blueschist and eclogite. Metamorphism at higher geothermal gradients (quartzo-feldspathic gneisses, metabasic amphibolite) at sole of obducted ultramafics. Barru tectonic slices dip to NNW. Barru interpreted as roots of old island arc, subduction of some ocean floor with seamounts, and obduction of different ocean floor material from N. Barru intrusives indicate second arc formed on top of ultramafics as result of renewed subduction)

Maulana, A. (2013)- A petrochemical study on the Late Cenozoic granitic rocks in Sulawesi, Indonesia. Doct. Engineering Thesis, Kyushu University, Fukuoka, p. 1-167.
(online at: http://repository.unhas.ac.id/handle/123456789/7116)

(Study of granitic rocks from 11 areas in W and N Sulawesi. Plutons classified as (1) high-K /shoshonitic (HK), mainly in S and CW part of W Sulawesi; (2) high-K calc-alkaline (CAK) in C and NW part of province; (3) low K- tholeiitic, dominant in N Sulawesi. Most granitoids metaluminous I-type granitic rocks. HK and CAK granitic rocks derived from partial melting of lower crustal sources with arc signature; low-K /tholeiitic granites from oceanic crust. Crystallization depths ~4-12 km. Rapid exhumations of granites in W Sulawesi triggered by Late Miocene- Pliocene collision of Banggai- Sula microcontinent with E Sulawesi (Ar-Ar cooling ages 9.5.1 Ma. Exhumation of granites in N Sulawesi attributed to Celebes Sea subduction)

Maulana, A. (2013)- Mineral chemistry of chromite from ultramafic rock in South Sulawesi, Indonesia. J. Penelitian Geosains (Hasanuddin University, Makassar) 9, 2, p. 83-87.
(online at: http://repository.unhas.ac.id/handle/123456789/15016)
(Chromite occurs in chromitite as podiform lenses or layers 10-40 cm thick in depleted lherzolite and dunite from Bantimala and Barru blocks, S Sulawesi. Also other differences in mineral chemistry, suggesting chromitites originated in different settings, Bantimala from parental melt in island arc environment, Barru from boninitic lava)

Maulana, A. (2014)- Iron ore occurrence in Balanalu area Limbong District North Luwu South Sulawesi. J. Penelitian Geosains (Hasanuddin University) 10, 1, p. 38-49.
(online at: at: https://geologiunhas.files.wordpress.com/2017/08/vol-10-no-1.pdf)
(C Sulawesi magnetite and hematite mineralization in weathered and brecciated andesitic-dacitic tuff)

Maulana, A. (2019)- Geological constraints for disaster mitigation model in South Sulawesi. Journal of Physics: Conference Series 1341, 052004, p. 1-10.
(online at: https://iopscience.iop.org/article/10.1088/1742-6596/1341/5/052004/pdf)
(Natural hazards in S Sulawesi include earthquakes (along major Walanae, Palu-Koro and Matano Faults), landslides (especially in high topography areas with weathered volcanics), tsunami (especially S tip of peninsula where tsunami is generated by Flores back-arc thrust fault) and floods (in topographic low areas))

Maulana, A., M. Brocker & Wei Dan (2020)- Petrogenesis and geochronology of Cenozoic intrusions in the Poboya and Sassak gold and copper districts in Western Sulawesi, Indonesia: implications for the mineralization processes and magma sources. J. Asian Earth Sciences 193, 104303, p. 1-16.
(Gold- copper mineralization in Poboya and Sassak areas in W Sulawesi, intruded gneisses-schists of Late Miocene–Pliocene Palu Metamorphic Complex. In Poboya area, gold-bearing quartz veins are related to high-K calc-alkaline granitoids; in Sassak area porphyry Cu-Au mineralization associated with monzonitic intrusions intruded by gabbroic and syeno-diorities. Rb-Sr isotopic ages of Poboya 3.94 Ma, 2.97 Ma and Sassak 10.7 Ma. Zircon U-Pb dating of gabbro and diorite from Sassak 10.8-10.6 Ma. Poboya deposit near Palu distal part of reduced intrusion-related gold system)

Maulana, A., A.G. Christy & D.J. Ellis (2008)- The petrology of eclogites from Bantimala Complex, South Sulawesi, Indonesia. Proc. 37th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 367-398.
(online at: https://www.iagi.or.id/web/digital/14/2008_IAGI_Bandung_The-Petrology-of-Eclogites.pdf)
(Eclogites as tectonic blocks in E Cretaceous high-P- low T blueschist facies rock of Bantimala basement complex, which consists mainly of high-P Triassic-Jurassic metamorphic rocks and late Albian- Cenomanian and younger sediments and ultramafics. Eclogites range of origins and formed at ~540-615 °C and 18-24 kbar)

Maulana, A., A.G. Christy & D.J. Ellis (2015)- Petrology, geochemistry and tectonic significance of serpentinized ultramafic rocks from the South Arm of Sulawesi, Indonesia. Chemie der Erde 75, 1, p. 73-87.
(online at: /www.researchgate.net/publication/379450500_Petrochemistry_of_Ultramafic_Rock_in_Baula_-_Pomalaa_Ophiolite_Complex_Southeast_Sulawesi_Indonesia Etc.)
(Serpentinized ultramafic rocks of S Sulawesi in (1) Bantimala (harzburgite, dunite and clinopyroxenite, with lenses of podiform chromitite) and (2) Barru Block (harzburgite and podiform chromitite). Both derived from supra-subduction zone environment and obducted during closure of small back-arc basins. If no rotation of blocks, Bantimala ultramafics emplaced from ENE, Barru ultramafics from WNW. Ultramafic suites juxtaposed

with metamorphic assemblages and later intruded by younger volcanics. Different metamorphic histories and different directions of obduction, suggest ultramafics of two blocks emplaced in separate events)

Maulana, A., A.G. Christy, D.J. Ellis & M. Brocker (2019)- The distinctive tectonic and metamorphic history of the Barru Block, South Sulawesi, Indonesia: petrological, geochemical and geochronological evidence. J. Asian Earth Sciences 172, p. 170-189.
(online at: https://www.sciencedirect.com/science/article/pii/S1367912018303912?dgcid=author)
(Barru Block in SW Sulawesi composed of tectonic stack of cherts, radiolarian mudstone, breccias, shales, phyllites, mica schist, gneisses, amphibolite and ultramafic rocks. Greenschist- to amphibolite-facies metasedimentary rocks represent detritus from nearby continental blocks redistributed by turbidity currents. Rb-Sr isochrons for mica schists indicate metamorphic ages of ~71Ma, 107 Ma and 110 Ma, confirming E Cretaceous (Albian) metamorphism, but also Late Cretaceous (Maastrichtian) metamorphic or deformational event at ~70 Ma. Overall, Barru rocks more felsic than Bantimala. Two blocks accreted at same time (E Cretaceous), but differences in protoliths and metamorphic P-T conditions)

Maulana, A., A.G. Christy, D.J. Ellis, A. Imai & K. Watanabe (2011)- The characteristic of serpentinised ultramafic rocks from South Sulawesi Indonesia: constraint from petrology and geochemistry data. Proc. Int. Symposium on Earth Science and Technology, Fukuoka 2010, p. 301-306.
(online at: http://repository.unhas.ac.id/.)
(Serpentinised ultramafic rocks with different characteristics in two basement complexes in S Sulawesi, Bantimala and Barru blocks)

Maulana, A., A.G. Christy, D.J. Ellis, A. Imai & K. Watanabe (2013)- Geochemistry of eclogite- and blueschist-facies rocks from the Bantimala Complex, South Sulawesi, Indonesia: protolith origin and tectonic setting. Island Arc 22, 4, p. 427-452. *(online at: https://www.researchgate.net/publication/259550114_Geochemistry_of_eclogite-_and_blueschist-facies_rocks_from_the_Bantimala_Complex_South_Sulawesi_Indonesia_Protolith_origin_and_tectonic_setting)*
(Bantimala Complex, SW Sulawesi., eclogites both glaucophane-rich and glaucophane-free; blueschists are albite-epidote glaucophanite and quartz-glaucophane schists. Eclogite protoliths include enriched and normal mid-oceanic ridge basalt (E-MORB and N-MORB) and gabbroic cumulates. Blueschists protoliths include N-MORB, Oceanic Island Basalt (OIB) and Island Arc Basalt (IAB). All protoliths subducted, metamorphosed to blueschist/eclogite-facies and subsequently exhumed. Samples deduced to have come from thicker-crust environments (OIB, IAB) were subducted to shallower depths (blueschist facies) than MORB-derived samples, which reached eclogite-facies conditions.Geochemical data demonstrate variety of ocean floor types subducted under SE margin of Sundaland in Late Jurassic)

Maulana, A., A.G. Christy, D.J. Ellis, Kaharuddin M. & A. Tonggiroh (2009)- Petrology, geochemistry and tectonic significance of the South Sulawesi ultramafic, Indonesia. Proc. 38th Annual Conv. Indonesian Association Geologists (IAGI), Semarang, PITIAGI2009-205, p. 1-40. *(online at: https://www.iagi.or.id/web/digital/26/2009_IAGI_Semarang_Petrology,-Geochemistry-and-Tectonic.pdf)*
(Ultramafic rocks in S Sulawesi Bantimala and Barru basement complexes of different origins: (1) Barru lherzolite derived from supra-subduction zone environment, with no High-P metamorphics; (2) Bantimala ultramafics are cumulates associated with High-P metamorphics (eclogite and blueschist). Stratigraphic position suggests Bantimala ultramafic emplaced onto Bantimala block from spreading of oceanic crust at E-NE part of block. At same time, those from Barru block obducted from back arc basin setting at W-NW part of blocks). Serpentinised ultramafic rocks suggest different origins of two basement complexes in SW Sulawesi (Bantimala, Barru). Absence of gabbro, pillow basalt, sheeted dykes, etc., suggest incomplete ultramafic suites (dismembered ophiolite sequences). Barru ultramafics emplaced from N, Bantimala from E, suggesting obduction events not caused by W-ward thrust of Australian microcontinent or Pacific oceanic plate on Eurasian margin. Both complexes geochemical differences from ultramafic rocks of East Sulawesi Ophiolite)

Maulana, A., D.J. Ellis & A.G. Christy (2010)- Petrology, geochemistry and tectonic evolution of the South Sulawesi basement rocks, Indonesia. Proc. 34th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA1-G-192, p. 1-26.

(SW Sulawesi two Cretaceous basement outcrop complexes, with different ultramafic rocks and metamorphic histories. Bantimala block (in S) protoliths mainly oceanic basalts. Barru block (in N) quartzo-feldspathic gneisses more felsic and of arc affinity. Bantimala block records subduction of cold ocean floor and exhumation of deeply subducted material. Barru preserve roots of old island arc, subduction of some ocean floor, obduction of different ocean floor material from N, and too warm to preserve blueschist or eclogites. Two blocks derived from different sources and tectonic setting)

Maulana, A., D.J. Ellis & A.G. Christy (2013)- Geodynamic significance of the South Sulawesi basement rocks, Indonesia: a petrochemical constraint. Proc. Seminar Nasional Kebumian 6, Universitas Gajah Mada, Teknik Geologi, Yogyakarta 2013, M-01, p. 178-187.
(online at: https://www.academia.edu/40355862/Prosiding_Seminar_Nasional_Kebumian_ke_6)
(Pre-Tertiary basement outcrops in S Sulawesi in two separate blocks, Bantimala and Barru. Both Cretaceous age and parts of SE Sundaland margin, but different metamorphic rocks assemblages: (1) Bantimala records deep subduction of cold ocean floor including MORB, arc-related lavas and seamounts, and exhumation of deeply subducted material, prior to collision with microcontinents to E and obduction of ultramafics; (2) Barru block preserves roots of old island arc, subduction of some ocean floor with seamounts, and obduction of quite different ocean floor material from N, and too warm to preserve blueschist or eclogites)

Maulana, A., D.J. Ellis, A.G. Christy, K. Watanabe, A. Imai & Purwanto (2011)- Rare Earth element in greenschist facies rock from Bantimala Complex, South Sulawesi, Indonesia. Proc. 36th HAGI and 40th IAGI Annual Conv., Makassar, p. 1-7. *(also in Majalah Geologi Indonesia 26, 2, p. 73-82) (online at: https://www.researchgate.net/publication/265894273_RARE_EARTH_ELEMENT_IN_GREENSCHIST_FACIES_ROCK_FROM_BANTIMALA_COMPLEX_SOUTH_SULAWESI_INDONESIA)*
(Moderate irregular Rare Earth Element pattern in E Cretaceous greenschist facies 'Triassic-Jurassic basement' rock of Bantimala Complex,40 km NE of Makassar, S Sulawesi. Greenschist facies rock (with epidote, albite, chlorite) derived from mid oceanic ridge basalt to upper continental crust rocks)

Maulana, A., A. Imai, T. Van Leeuwen, K. Watanabe, K. Yonezu, T. Nakano, A. Boyce, L. Page & A. Schersten (2016)- Origin and geodynamic setting of Late Cenozoic granitoids in Sulawesi, Indonesia. J. Asian Earth Sciences 124, p. 102-125.
(Late Cenozoic granitoids in 1600 km long belt in W and N Sulawesi. Three series: (1) shoshonitic (HK; ~14- 4 Ma), (2) high-K felsic calc-alkaline (CAK (~5-2 Ma), and (3) normal calc-alkaline to tholeiitic (CA-TH; Miocene?, N Sulawesi; subduction-related)). All granitoids I-type and metaluminous- peraluminous. Two K-rich series restricted to W Sulawesi, and formed in extensional, post-subduction setting. Two parental magma sources (1) enriched mantle or lower crustal equivalent for HK magmas, and (2) Triassic igneous rocks in Gondwana-derived fragment thrust beneath C and N parts of W Sulawesi for CAK magmas. CA-TH granitoids mostly in N Sulawesi, formed in active subduction environment)

Maulana, A., A. Imai, K. Watanabe, T. Van Leeuwen, S. Widodo & Musri (2019)- Exhumation and tectonomagmatic processes of the granitoid rocks from Sulawesi, Indonesia: constrain from petrochemistry and geothermobarometry study. Indonesian J. on Geoscience (IJOG) 6, 3, p. 153-174.
(online at: http://ijog.bgl.esdm.go.id/index.php/IJOG/article/view/536/284)
(Sulawesi granitoids classified as calc-alkaline, metaluminous I-type. Emplacement depths of Mamasa Pluton 3.2-4.3 km; Masamba Pluton 8.2-10 km, Lalos-Toli and Sony Plutons 11.3 and 11.6 km, Gorontalo Pluton at 9.3 km deep. Mamasa and Masamba Plutons exhumed at 0.37 and 1.6 mm/year, Lalos-Toli and Sony Plutons at 1.4 and 2.7 mm/year. Gorontalo Pluton in N Sulawesi Province exhumed at 0.42 mm/year. Rapid exhumation of Sony Pluton attributed to active vertical movement of Palu-Koro Fault Zone since Pliocene)

Maulana, A., A. Jaya, U.R. Irfan & M. Farida (2019)- Field geological characteristic of Mesozoic Paremba Sandstone, Bantimala Complex, South Sulawesi. Int. Conference on Geoscience, Makassar 2018, IOP Conference Series: Earth and Environmental Science 279, 012029, p. 1-5.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/279/1/012029/pdf)

(Jurassic? Paremba Sst in Bantimala Complex, S Sulawesi, occurs as tectonic slice within melange complex, sandwiched by schist and melanges. Strongly tectonized arkosic sandstone, siltstone and calcareous sandstone. Sandstone unit shows coarsening- and thickening upward trend with flaser, lenticular and parallel lamination)

Maulana, A., A. Jaya & A. Imai (2018)- Study on gold and base metal occurrence in Uluwai prospect, Western Latimojong Mountain, South Sulawesi. Int. Conference Nuclear Technologies and Sciences (ICoNETS 2017), Makassar, IOP Conference Series: Journal of Physics: Conference Series 962, p. 1-9.
(online at: http://iopscience.iop.org/article/10.1088/1742-6596/962/1/012011/pdf)
(Uluwai Cu-Au prospect in N part of South Arm of Sulawesi, along E part of Kalosi Fold Belt and Latimojong Mountain. Mineralization rel. simple sulphide ore mineral assemblage (pyrite, sphalerite, chalcopyrite) in metasediments and greenschist)

Maulana, A., A. Jaya & K. Sitha (2017)- Field characteristic of metamorphic-hosted gold deposit in Sulawesi, Indonesia: An insight into Awak Mas prospect, South Sulawesi. Int. Journal of Engineering and Science Applications (UNHAS) 4, 2, p. 105-111.
(online at: http://pasca.unhas.ac.id/ojs/index.php/ijesca/article/view/1385/351)
(Metamorphic-hosted gold deposit in Awak Mas, S Sulawesi with two main styles of quartz vein mineralization. Gold mineralization considered as mesothermal deposit. Gold mainly hosted within Latimojong flysch sequence, also in basement schist associated with shear zones in Lamas ophiolitic sequences)

Maulana, A. & K. Sanematsu (2015)- Study on the critical metal and Rare Earth Element occurrences in Sulawesi. Int. Journal of Engineering and Science Applications (UNHAS) 2, 1, p. 41-46.
(online at: http://pasca.unhas.ac.id/ojs/index.php/ijesca/article/view/145/101)
(Scandium-bearing laterite Ni deposits in Sulawesi could be dominant source of Sc resources in future)

Maulana, A. & K. Sanematsu (2015)- An overview on the possibility of scandium and REE occurrence in Sulawesi, Indonesia. In: ICG 2015, 2nd Int. Conf. and 1st Joint Conference Faculty of Geology Universitas Padjaran and University of Malaysia Sabah, p. 151-156.
(online at: http://seminar.ftgeologi.unpad.ac.id/wp-content/uploads/2016/02/An-overview-on-the-possibility-of-scandium-and-REE-occurrence-in.pdf)
(Lateritic soil of ultramafic rocks of Sulawesi may be potential source of scandium, while weathered I-type granitic rocks could be potential source of rare earth elements (but no actual data to support this?))

Maulana, A., K. Sanematsu & M. Sakakibara (2016)- An overview on the possibility of Scandium and REE occurrence in Sulawesi, Indonesia. Indonesian J. on Geoscience (IJOG) 3, 2, p. 139-147.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/283/211)
(Similar to Maulana & Sanematsu 2015. Sc concentrated in lateritic limonite layers in Soroaka ultramafic complex)

Maulana, A., Sufriadin, K. Sanematsu & M. Sakakibara (2019)- Study on Sc-bearing lateritic Ni deposits in ultramafic rocks from Sulawesi: a new paradigm in Indonesia metal mining industry. Proc. 2nd EPI Int. Conference Science and Engineering, Gowa 2018, IOP Conference Series: Materials Science Engineering 676, 012032, p. 1-7.
(online at: https://iopscience.iop.org/article/10.1088/1757-899X/676/1/012032/pdf)
(Scandium enriched in limonite layer in weathering profile from ultramafic rocks in Soroako, especially in pyroxene- rich bedrock (harzburgite)

Maulana, A., T. van Leeuwen, R. Takahashi, S.L. Chung, K. Sanematsu, Huan Li & U.R. Irfana (2019)- Geochemistry and geochronology of VHMS mineralization in the Sangkaropi district, central-West Sulawesi, Indonesia: Constraints on its tectono-magmatic setting. Ore Geology Reviews 114, 103134, p. 1-17.
(Sangkaropi district at NE end of S Arm of Sulawesi one of few Volcanic hosted massive sulfide (VHMS) districts in Indonesia. Several small mineral occurrences (Sangkaropi, Billolo, Rumanga), some mined during Japanese occupation in 1942-1945. Mineralization hosted by felsic volcanics in bimodal association with basalt. Syngenetic banded massive and fragmented sulfides and epigenetic veins, stockwork and disseminations classified as

'Kuroko-type. Age of mineralization ~34 Ma (Eocene-Oligocene boundary), in continental margin arc setting, when stress regime changed from near-neutral to extensional and volcanism changed from being andesite dominated to bi-modal)

Maulana, A., K. Watanabe, A. Imai & K. Yonezu (2011)- Enrichment Rare Earth Elements (REE) contents in granitic rock from South Sulawesi, Indonesia. Proc. Int. Workshop and Conference on Earth Resources Technology 2011, p. 33-39.

Maulana, A., K. Watanabe, A. Imai & K. Yonezu (2011)- Geochemical composition variety of granitoid rocks from Sulawesi Island, Indonesia. Proc. Int. Symposium on Earth Science and Technology, Fukuoka 2011, p. 379-388.
(Geochemistry of 55 Tertiary granitoids from 9 areas in Sulawesi)

Maulana, A., K. Watanabe, A. Imai & K. Yonezu (2011)- Magnetic susceptibility of Sulawesi granitic rocks, Indonesia: implication for regional metallogenic genesis. Proc. 1st Asia Africa Mineral Resources Conference, Fukuoka 2011, P-06, p.

Maulana, A., K. Watanabe, A. Imai & K. Yonezu (2012)- Petrology and geochemistry of granitic rocks in South Sulawesi, Indonesia: implication for origin of magma and geodynamic setting. Int. J. Environmental Earth Sciences Engineering 6, 1, p. 1-6.
(online at: www.waset.org/journals/ijcee/v6/v6-1.pdf)
(Mio-Pliocene granitic rocks from Polewali, Masamba areas, SW Sulawesi dominated by granodiorite and granite. Calc-alkaline field with metaluminous affinity and typical of I-type granitic rock, produced from melting of upper continental crust in arc-related subduction environment, with later evidence of continent- continent between Australia-derived microcontinent and Sundaland to form continental arc)

Maulana, A., K. Watanabe, A. Imai & K. Yonezu (2013)- Origin of magnetite- and ilmenite-series granitic rocks in Sulawesi, Indonesia: magma genesis and regional metallogenic constraint. Procedia Earth Planetary Science 6, p. 50-57. *(online at: https://www.sciencedirect.com/science/article/pii/S1878522013000088/pdf?md5=ea598413fc2b34e28401fe38cd0d938e&pid=1-s2.0-S1878522013000088-main.pdf)*
(Sulawesi granitic rocks dominated by ilmenite series granites, but ratio of ilmenite/ magnetite series granites decreases from S to N. Occurrence of ilmenite-series with I-type characteristic granitic rocks on Sulawesi may be explained by assimilation between magma and crustal material with reduced C- and S-bearing sediments)

Maulana, A., K. Watanabe, A. Imai & K. Yonezu (2013)- Petrochemical characteristic and geothermobarometry study of the granitic rocks from Sulawesi, Indonesia: Implication on exhumation and tectonomagmatic process. J. Earth System Science, p. *(in press?)*
(online at: www.ias.ac.in/jess/forthcoming/JESS-D-12-00334.pdf)
(Analyses from five granite complexes in S and N Sulawesi suggests granitic rocks calc-alkaline character and I-type granite characteristics. Exhumation of granitic rocks in W Sulawesi Province commonly attributed to collision of Banggai-Sula microcontinent with E Sulawesi in Late Miocene- Pliocene)

Maulana, A., K. Watanabe and K. Yonezu (2016)- Petrology and geochemistry of granitoid from South Sulawesi, Indonesia: implication for Rare Earth Element (REE) occurrences. Int. Journal of Engineering and Science Applications (UNHAS) 3, 1, p. 79-86.
(online at: http://pasca.unhas.ac.id/ojs/index.php/ijesca/article/view/280/164)
(Late Miocene- Pliocene calk-alkaline I-type granitoids at Polewali and Masamba, 300-400 km N of Makassar, W Sulawesi, with average REE content 249 and 194 ppm. REE-bearing minerals zircon, monazite and apatite)

Maulana, A., K. Watanabe, K. Yonezu, G. Zhang & T. van Leeuwen (2016)- Exhumation and tectono-magmatic process of granitic rock from Sulawesi. Proc. 14th Regional Conference Geology and Mineral Resources of SE Asia (GEOSEA XIV) and 45th Annual Conv. Indonesian Association Geologists (IAGI) (GIC 2016), Bandung, p. 362-364.

(In C and N parts of W Sulawesi Late Miocene- Pliocene granite plutons rise to 3000m altitude. P-T data suggest increasing depth of emplacement of plutons from CW to NW Sulawesi (~2.1 to ~11km) and more rapid exhumation (0.37- 2.7 mm/year. Most rapid uplift tied to Palu-Koro fault activity (see also Maulana, Imai et al. 2019))

Maulana, A., S. Widodo & Musri (2020)- Base metal occurrence in intrusives rocks from Sassak region, Toraja Province, South Sulawesi. Int. Journal of Engineering and Science Applications (IJEScA; UNHAS) 7, 1, p. 74-83.
(online at: http://pasca.unhas.ac.id/ojs/index.php/ijesca/article/view/2467/660)
(Study on base metals (Pb, Zn, Cu, Fe, Mn, Sc) in Doi River diorite intrusive rocks in Sasak area of Toraja Regency, S Sulawesi. Rel. high concentrations of manganese)

Maulana, A., K. Yonezu & K. Watanabe (2014)- Geochemistry of rare earth elements (REE) in the weathered crusts from the granitic rocks in Sulawesi Island, Indonesia. J. of Earth Science (China) 25, 3, p. 460-472.
(online at: http://en.earth-science.net/PDF/20140603042501.pdf)
(First study of geochemistry of rare earth elements in weathered crusts of I-type and calc-alkaline to high-K (shoshonitic) granites at Mamasa and Palu region, NW Sulawesi)

Maulana, J.P. (2011)- Source indication of oil seep from Paniki River, Kalukku, Mamuju, West Sulawesi based on geochemical characterization. Proc. Joint. 36th HAGI and 40th IAGI Annual Conv., Makassar, JCM2011-030, p. 1-10.
(Paniki River oil seep near Amberaro Village, 40km NE of Mamuju, SW Sulawesi, with oil that underwent heavy biodegradation. Common presence of bicadinane, oleanoids, oleanane, and taraxastane show oil probably derived from terrestrial higher plant source, probably from Eocene coals or carbonaceous clays)

Mawaleda, M., J.R. Husain, M. Forster, E. Suparka, C.I. Abdullah, N.I. Basuki & J. Hutabarat (2018)- Miocene tectonic of the Southeast Arm of Sulawesi, Indonesia: based on petrology data, geochemistry, and 40Ar/39Ar geochronology of metamorphic rocks from Rumbia Complex. Proc. Int. Conf. Earth Science, Mineral, and Energy, Yogyakarta 2018, IOP Conference Series: Earth and Environmental Science, 212, 012043, p. 1-7.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/212/1/012043/pdf)
(Rumbia Schist Complex in S part of SE Sulawesi dominated by metamorphics (mica schist, chlorite schist, glaucophane schist). Some glaucophane schist undergone retrogradation into chlorite schist. Protolith of glaucophane and chlorite schists is Oceanic Island Basalt (OIB). Ar/Ar dating suggests three major geological events in Miocene (23, 20 and 17 Ma), probably related to amalgamation of three microcontinents (Rumbia, Mekongga and Meluhu), to form SE Arm of Sulawesi (N.B.: First author is same as M. Musri ?))

Mawaleda, M., E. Suparka, C.I. Abdullah, N.I. Basuki, M. Forster, Jamal & Kaharuddin (2017)- Hydrothermal alteration and timing of gold mineralisation in the Rumbia Complex, Southeast Arm of Sulawesi, Indonesia. In: 2nd Int. Conferene Transdisciplinary Research on Environmental problems in Southeast Asia (TREPSEA), Bandung 2016, IOP Conference Series: Earth and Environmental Science, 71, 012030, p. 1-15.
(online at: http://iopscience.iop.org/article/10.1088/1755-1315/71/1/012030/pdf)
(Rumbia WNW-ESE trending high P-low T metamorphic schist complex of SE Sulawesi (mainly mica schist, some blueschist) with gold mineralization in two phases: (1) initial phase related to deformation and exhumation of HP metamorphic rocks (gold, silver, stibnite, chalcopyrite, galena, etc.; syn-tectonic, ~23 Ma; mainly in N and NW parts of Rumbia Complex); (2) hydrothermal mineralization associated with extensional phase at between ~15-7 Ma. Two possible tectonic scenarios (see also Musri et al. 2016)

Mawaleda, M., H. Umar, J.R. Husain, A. Maulana, A. Jaya, U.R. Irvan & D.D. Permana (2020)- Ultrahigh-pressure metamorphic rocks in the Bantimala Melange Complex and its implication to Cretaceous tectonics in the South Arm of Sulawesi. Proc. 3rd EPI Int. Conference Science and Engineering (EICSE), Makassar 2019, IOP Conference Series: Materials Science Engineering 875, 012055, p. 1-13.
(online at: https://iopscience.iop.org/article/10.1088/1757-899X/875/1/012055/pdf)
(Bantimala Melange Complex ~75 km N of Makassar, with High-and Ultrahigh-P metamorphics blueschist and eclogite. Bantimala eclogite is only known UHP metamorphic exposed in Sulawesi. Blueschist with glaucophane partially replaced by chlorite, indicating polymetamorphism as result of retrogradation. Ar40/Ar39 dating shows

age spectrum of 100 -114 Ma (~Albian). 114 Ma, age interpreted as age of eclogite metamorphism, at peak of subduction, 100 Ma age interpreted as age of exhumation or collision at end of Cretaceous subduction in South Arm of Sulawesi or in E/SE Sundaland)

Mayall, M.J. & M. Cox (1988)- Deposition and diagenesis of Miocene limestones, Sengkang Basin, Sulawesi, Indonesia. Sedimentary Geology 59, p. 77-92.
(Porosity evolution of Late Miocene knoll-reef carbonate buildups of Kampung Baru gas field, SW Sulawesi)

McCaffrey, R., E.A. Silver & R.W. Raitt (1981)- Seismic refraction studies in the East Arm, Sulawesi- Banggai Islands region of Eastern Indonesia. In: A.J. Barber & S. Wiryosujono (eds.) The geology and tectonics of Eastern Indonesia, Proc. CCOP-IOC SEATAR Working Group Meeting, Bandung 1979, Geological Research Development Centre (GRDC), Bandung, Special Publ. 2, p. 321-325.
(online at: http://web.pdx.edu/~mccaf/pubs/mccaffrey_sulawesi_grdc_1981.pdf)
(Two seismic refraction lines in E Gorontalo basin and E of E arm of Sulawesi (lines not shown). Show block faulted basement stepping down in Gorontalo Basin oceanic lithosphere)

McCaffrey, R. & R. Sutardjo (1982)- Reconnaissance microearthquake survey of Sulawesi, Indonesia. Geophysical Research Letters 9, 8, p. 793-796.
(online at: www.researchgate.net/publication/248810245_Reconnaissance_microearthquake_survey_ Etc.)
(Zone of microearthquakes dipping to N from Batui Thrust zone suggests leading edge of Banggai Island block was subducted to at least 100 km depth. E Gorontalo Basin earthquake zone may connect with deep seismic zone under Celebes Sea Basin. Beneath W Gorontalo Basin narrow zone of earthquakes dips S, probably within lithosphere of Celebes Sea Basin subducted at N Sulawesi Trench. Shallow earthquakes near Lake Matano in C Sulawesi, possibly on Matano Fault, suggest E-W extension)

McCaffrey, R., R. Sutardjo, R. Susanto, R. Buyung, B. Sukarman et al. (1983)- Micro-earthquake survey of the Molucca Sea and Sulawesi, Indonesia. Bull. Geological Research Development Centre (GRDC) 7, p. 13-23.
(Several hundred, mostly shallow, microearthquakes recorded below Molucca Sea and Tomini Gulf/Gorontalo)

McDonald, R.C. (1976)- Limestone morphology in South Sulawesi, Indonesia. Zeitschrift fur Geomorphologie, N.F., Supplement Band 26, Karst processes, p. 79-91. *(online at: https://www.researchgate.net/publication/291275054_Limestone_morphology_in_South_Sulawesi_Indonesia)*
(Discussion of karst genesis of isolated limestone hills of area E of Maros, S Sulawesi, based on 1975 fieldwork)

Meeren, J. (2009)- A geothermobarometric study on garnet peridotite and granulite from the Palu region, Central Sulawesi, Indonesia. M.Sc. Thesis, University of Utrecht, p. 1-101. *(Unpublished; see also below)*

Meeren, J. & H.L.M. van Roermund (2009)- A two stage exhumation model for HP rocks from the Palu Region, Central Sulawesi, Indonesia- a geothermobarometric study. Proc. 8th Int. Eclogite Conference (IEC), Xining, China 2008, 2p. *(Abstract only)* *(online at: https://www.researchgate.net/profile/Herman-Roermund-Van/publication/236862503_A_three_stage Etc.))*
(Garnet peridotite and granulite as thin tectonic slices (<10m) in Palu-Koro Fault zone, crosscutting Cretaceous Palu Metamorphic Complex. Palu garnet peridotite peak metamorphic conditions of ~1030°C/18 kbar and ~855 °C/ 10 2 kbar for retrograde assemblage. Palu granulite peak metamorphic conditions of ~655 °C/ 19 kbar. Palu granulite (microcontinental fragment) subducted in Cretaceous subduction system at Sundaland margin. After exhumation from 65 km to lower crustal levels, granulite stored in lower crust until Miocene upwelling asthenosphere invaded subcontinental lithosphere and caused heating in lower crust under C Sulawesi. Palu garnet peridotite started ascent to lower crustal levels from ~65 km in E Miocene. Final exhumation of Palu HP rock facilitated by transpression along Palu-Koro fault. Occurrence of HP rock in C Indonesia cannot be explained by simple collision event in subduction system of Cretaceous age)

Meidji, I.A.. J. Jatnika, L. Samatowa, A.I.W.S. Ramadani, M. Ramdhan, H.A. Efendi & H. Jayadi (2023)- Analyzing seismicity pattern of the Gorontalo region and its surroundings in the form of hypocenter relocation using Double Difference Method. Jurnal Penelitian Pendidikan IPA (JPPIPA) 9, 10, p. 8581-8587.

(online at: https://jppipa.unram.ac.id/index.php/jppipa/article/view/5400/3732)
(Relocation of hypocenters for 7 years of earthquake events show S-dipping slab of Sulawesi Sea subduction zone at depths from 50 to 200 km)

Meilano, I., R. Salman, Susilo, H.A. Shiddiqi, P. Supendi, K. Lythgoe, C. Tay, K. Bradley et al. (2023)- The 2021 MW 6.2 Mamuju, West Sulawesi, Indonesia earthquake: partial rupture of the Makassar Strait thrust. Geophysical J. International 233, 3, p. 1694-1707.
(online at: https://academic.oup.com/gji/article/233/3/1694/6961046)
(January 2021 MW 6.2 earthquake in Mamuju and Majene regions of W Sulawesi killed >100 people and damaged 8000 buildings Event generated by fault that may continue to offshore E Makassar Strait Thrust belt)

Melkybudiantoro, D., G.S. Hadi & S. Purnomo (2010)- Geochemistry characteristics of nickel laterite deposit of Bahodopi area, Central Sulawesi, Indonesia. Proc. 39th Annual Conv. Indonesian Association Geologists (IAGI), Lombok, PIT-IAGI-2010-205, p. 1-12. *(online at: https://www.iagi.or.id/web/digital/12/2010_IAGI_Lombok_Geochemistry-Characteristics-of-Nickel.pdf)*
(Review of Fe-Ni laterite deposits overlying mafic/ultramafic rocks in Badohopi area of SE Arm by PT INCO)

Mesdag, F.T. (1914)- De goudmijn "Totok" te Totok, Noord-Celebes. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Mijnbouwkundige Serie 1, 3, p. 191-203.
('The gold-mine 'Totok' at Totok, North Sulawesi'. Review of operations by 'Mijnbouw Maatschappij Totok' created 1897) of Totok gold mine, active since 1900 (closed 1921), after long history of small-scale local diggings. Also known as Ratatotok. Gold-bearing quartz veins hosted in Neogene foram-coral limestone, in area dominated by andesitic volcanics. Five separate gold ore bodies, linked to processing plants by narrow gauge rail system. Four open quarries, named Haies and Labongan Zuid, Noord and West (Labongan S, N and W). About 1000 laborers: 400 from Minahasa, 450 from Gorontalo, 70 from Sagi, 70 from Bolang Mongondu)

Michaux, B. (1996)- The origin of Southwest Sulawesi and other Indonesian terranes: a biological view. Palaeogeogr. Palaeoclim. Palaeoecology 122, p. 167-183. *(online at: www.academia.edu/26500010/The_origin_of_southwest_Sulawesi_and_other_Indonesian_terranes_a_biological_view)*
(Present-day distribution of birds and moths used for reconstruction of tectonic histories of Indonesian islands. Sulawesi shows highest degree of endemism and appears to have been isolated from all other areas)

Milsom, J., Sardjono & A. Susilo (2001)- Short-wavelength, high-amplitude gravity anomalies around the Banda Sea, and the collapse of the Sulawesi Orogen. Tectonophysics 333, 1, p. 61-74.
(Ophiolitic rocks around Banda Sea commonly associated with strong gravity anomalies and steep gradients, but relationships not always straightforward. Bouguer gravity values and gradients over extensive E Sulawesi ophiolite generally low. Gravity variations and ophiolite distribution around Banda Sea compatible with extension in Sulawesi region following Oligo-Miocene collision with Australian-derived microcontinent)

Milsom, J., J. Thurow & D. Roques (2000)- Sulawesi dispersal and the evolution of the northern Banda Arc. Proc. 27th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta 1999, IPA99-G-023, p. 495-504.
(Bituminous U Triassic and Lw Jurassic in Buton, Buru, Seram and E Sulawesi suggest these were parts of single microcontinent that separated from Australia in Jurassic and collided with Eurasian margin to form Sulawesi orogen in Oligocene or E Miocene. Collision was followed by extension and dispersion, creating Banda Sea. Parts of former microcontinent became involved in new collision zones of Outer Banda arc)

Miyazaki, K., I. Zulkarnain, J. Sopaheluwakan & K. Wakita (1996)- Pressure-temperature conditions and retrograde paths of eclogites, garnet-glaucophane rocks and schists from South Sulawesi, Indonesia. J. Metamorphic Geology 14, p. 549-563.
(online at: www.academia.edu/5965180/Pressure_temperature_conditions_and_retrograde_paths_of_e Etc.)
(High-P metamorphic rocks in Bantimala area 40 km NE of Makassar formed as Cretaceous subduction complex with fault-bounded slices of melange, chert, basalt, turbidite, shallow marine sedimentary rocks and ultrabasic

rocks. Eclogites, garnet-glaucophane rocks and schists of Bantimala complex have estimated peak T of 580-630 °C and P=18-24 kbar, suggesting subduction to ~65-85 km and T gradient ~8°C/km)

Molengraaff, G.A.F (1902)- Rapport omtrent de concessie-terreinen der Exploratie- en Mijnbouw Maatschappij Kwandang Soemalata. p. *(Unpublished consultant report)*
('Report on the concession areas of the Kwandang Soemalata gold exploration-mining company' Survey of gold-silver deposits in Sumalatta area, N Sulawesi)

Molengraaff, G.A.F (1902)- Uber die Geologie der Umgegend von Sumalatta auf Nord-Celebes und uber die dort vorkommenden goldfuhrenden Erzgange. Zeitschrift fur Praktische Geologie 10, p. 249-257.
(online at: https://babel.hathitrust.org/cgi/pt?id=uc1.31822032651069;view=1up;seq=265)
('On the geology of the Sumalatta area on North Sulawesi and on the gold-bearing ore veins there'. On gold-bearing in Sumalatta coastal mountains of N Sulawesi. Highest parts of area mainly granites, intruded into steeply dipping, bedded metamorphosed greywacke-like rocks (Dolokapa series crystalline schists). Metalliferous veins associated with rel. young andesitic magmas (Wubudu volcanic breccia, etc.))

Molengraaff, G.A.F & J.G. Bousquet (1902)- Opmerkingen omtrent de Donoeki-gang, gelegen in het concessie-terrein Monano. Private company, restricted circulation print?
(Remarks about the Donoeki vein in the Monano concession'. Evaluation of gold deposit in N Sulawesi, presumably as consultant for the Kwandang Soemalata mining company. Printed with 'Algemeene opmerkingen omtrent de landstreek, waarin de terreinen der Kwandang Soemalata Maatschappij (...) gelegen')

Monnier, C. (1996)- Mecanisme d'accretion des domaines oceaniques arriere-arc et geodynamique de l'Asie du sud-est. Petrologie et geochimie des ophiolites d'Indonesie (Sulawesi, Haute-Chaine Centrale, Cyclops, Seram et Meratus). Ph.D. Thesis, Universite de Bretagne Occidentale, Brest, p. 1-605. *(Unpublished)*
('Mechanism of accretion of oceanic forearc domains and geodynamics of SE Asia', Petrology and geochemistry of Indonesian ophiolites (Sulawesi, Central Range, Cyclops, Seram and Meratus)'. Indonesian ophiolites formed in back-arc setting, based on petrology and geochemistry. Most are dismembered but show normal succession from peridotites and gabbros to pillow basalts)

Monnier, C., H. Bellon & J. Girardeau (1994)- Datation K40-Ar40 de l'ophiolite de l'ile de Sulawesi, Indonesie. Comptes Rendus Academie Sciences, Paris 319, Ser. II, p. 349-356. *(online at: https://www.researchgate.net/ publication/235954222_Datation_40K-40Ar_de_l'ophiolite_de_l'ile_de_Sulawesi_Indonesie)*
('K-Ar dating of the Sulawesi ophiolite'. Remnants of giant ophiolite nappe in Central E Sulawesi formed in M Eocene (44 ± 4 Ma). K/Ar ages for amphiboles in gabbro samples from SE Arm 47.4 and 41.2 Ma. Ages roughly correspond to age of opening of Celebes Sea and pre-Miocene marginal basin formation (not in agreement with Cretaceous age of supposedly overlying Boba/ Matano oceanic radiolarites and pelagic limestones? (Simandjuntak 1992); JTvG))

Monnier, C., J. Girardeau, R.C. Maury & J. Cotten (1995)- Back-arc origin for the East Sulawesi ophiolite (Indonesia). Geology (GSA) 23, 9, p. 851-854.
(online at: https://www.researchgate.net/publication/235764171_Back-arc_basin_origin_for_the_East_Sulawesi_ophiolite_eastern_Indonesia)
(E Sulawesi ophiolites probably formed in Eocene Paleo-Celebes Sea backarc basin and emplaced by N to S obduction of Eurasia/ Celebes Sea over 'Australian' E Sulawesi basement (age not in agreement with Cretaceous age of overlying Boba / Matano oceanic radiolarites/ pelagic limestones? (e.g. Simandjuntak 1992; JTvG)

Moss, S.J. & M.E.J. Wilson (1998)- Biogeographic implications of the Tertiary palaeogeographic evolution of Sulawesi and Borneo. In: R. Hall & J.D. Holloway (eds.) Biogeography and geological evolution of SE Asia, Backhuys, Leiden, p. 133-163.
(online at: http://searg.rhul.ac.uk/pubs/moss_wilson_1998%20Sulawesi-Borneo%20paleogeography.pdf)
(Series of paleogeographic maps of Borneo- Sulawesi region, from 50- 4 Ma. W Sulawesi accreted onto Borneo by Late Cretaceous, then separated in M-Late Eocene. E Sulawesi collided with W Sulawesi in M-L Oligocene. Late Miocene accretion of Australia-derived microcontinents onto E Sulawesi (Buton, also Sula Spur ?))

Moyle, A.J., B.A. Wake, S.H. Tuckey & J. Ariti (1997)- The Toka Tindung Gold Project, northern Sulawesi, Indonesia. Proc. World Gold '97 Conference, Singapore 1997, 2, p. 27-34.
(On discovery of Toka Tindung, Pajajaran, Blambagan and Araren low-sulphidation quartz-adularia vein and stockwork gold-silver deposits on N Minahasa Peninsula, N Sulawesi. Mineralized veins in Late Pliocene basaltic andesite volcaniclastics and flows. Part of E Miocene- Pleistocene Sulawesi-East Mindanao Arc. (First gold poured in 2011))

Mubroto, B. (1988)- A palaeomagnetic study of the East and Southwest arms of Sulawesi, Indonesia. Ph.D. Thesis, University of Oxford, p. 1-253. *(Unpublished)*
(Including paleomagnetic work on E Sulawesi Ophiolite, suggesting formation in Late Cretaceous at 17-24°S and since rotated CW about 60°)

Mubroto, B. (1994)- Palaeomagnetism of ophiolites of eastern Sulawesi; evidence for northward translation. In: J.L. Rau (ed.) Proc. 30th Session Committee Co-ord Joint Prospecting Mineral Res Asian Offshore Areas (CCOP), Bali 1993, 2, p. 179-189.
(online at: https://repository.unescap.org/items/177e9366-1a15-4fc9-986f-15520603d2c3)
(Indo-Australian, Eurasian and Pacific plates all interact in Sulawesi region. Paleomagnetic analysis of Cretaceous basalts from E Sulawesi Ophiolite Complex at Batusamping and Binsil (= Luwuk fold-thrust belt) of East Arm, suggests ophiolite was derived from N part of Indo-Australian oceanic plate, formed at spreading ridge at 17° ±4°S paleolatitude)

Mubroto, B., J.C. Briden, E. McClelland & R. Hall (1994)- Palaeomagnetism of the Balantak ophiolite, Sulawesi. Earth Planetary Science Letters 125, p. 193-209.
(Paleomag from Cretaceous-Paleogene lavas in Balantak Ophiolite on E tip of E Sulawesi indicates formation at 17±4° S and ~60° of CW rotation (~2000km S of present position)(= Indian Ocean lithosphere?). Supporting evidence for paleolatitude and N-ward movement of E arm from other lavas and Cretaceous Boba Cherts. Contrast between these results and subequatorial origin of contemporary rocks on Halmahera consistent with subduction of Indian Ocean lithosphere beneath Sunda margin in Late Mesozoic- Early Tertiary. Large differences in declination in E Sulawesi rocks indicate large clockwise and anticlockwise rotations of tectonic blocks only tens of km across)

Mudiana (1984)- Hydrogeological map of Indonesia, 1:250,000, Sheet 2010 Ujung Pandang (Makassar), 2109 Benteng and 2110 Sinjai, Sulawesi. Directorate of Environmental Geology, 1 map sheet.
(Hydrogeology of southern part of SW Arm of Sulawesi and Salayar Island. Four groundwater zones: (1) coastal plains, (2) stratovolcano areas, (3) karst areas (highest groundwater potential), (4) mountain range areas (rel. minor aquifers potential))

Muin, M.R., S. Pramumijoyo, I.W. Warmada & W. Suryanto (2016)- Neogene tectonics and paleomagnetism of the western and eastern of Palu Bay, Central Sulawesi, Indonesia. In: Southeast Asian Conference on Geophysics, Bali 2016, IOP Conference Series: Earth and Environmental Science 62, 012003, p. 1-6.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/62/1/012003)
(Paleomagnetic work on 8 Neogene granites suggests similar rotation of both sides of Palu Bay during Neogene)

Muller, H.W., G. Riedmuller & B. Schwaighofer (1984)- Weathering products of andesitic rocks from Sulawesi, Indonesia. Clay Minerals 19, 1, p. 21-28.
(online at: http://www.minersoc.org/pages/Archive-CM/Volume_19/19-1-21.pdf)
(Weathered andesitic and overburden along Tondano river, N Sulawesi, indicate different weathering conditions. Andesite altered to 7A halloysite and allophane with some hematite, reflecting paleoclimate with more pronounced dry season and lower annual rainfall than today. Transported latosols of overburden with 10A- and 7A-halloysites, weathered under recent tropical climate)

Multan, R.A., B. Rochmanto & R. Langkoke (1999)- Analysis of sedimentary environment of chromite ore in Sawugi, Bungku Barat, Poso, Central Sulawesi. Proc. 28th Annual Convention Indonesian Association Geologists (IAGI), Jakarta, 2, p. 313-320.
(online at: https://www.iagi.or.id/web/digital/65/23.pdf)
(Distribution of chromite placer ores in Sawugi area, E coast of C Sulawesi, along beach in SE-NW direction)

Munasri (1995)- Cretaceous radiolarian biostratigraphy in the Bantimala and Barru areas, South Sulawesi, Indonesia. M.Sc. Thesis, University of Tsukuba, Japan, p. *(Unpublished)*

Munasri (2013)- Early Cretaceous radiolarians in manganese carbonate nodule from the Barru area, South Sulawesi, Indonesia. J. RISET Geologi dan Pertambangan (LIPI) 23, 2, p. 79-88.
(online at: www.geotek.lipi.go.id/riset/index.php/jurnal/article/view/92/52)
(E Cretaceous (Valanginian-Barremian) radiolaria from manganese carbonate nodule in dark reddish shale of Barru melange, 15 km SE of Barru. Assemblage with Pantanellium squinaboli, Cecrops septemporatus, Eucyrtidium parviporum, E. brouweri, Theocapsa laevis, Stichocapsa pseudodecora, Pseudodictyomitra lilyae, P. carpatica, Gongylothorax verbeeki, etc. Rocks accreted at subduction trench in M Cretaceous (Aptian). (Younger, Albian- E Cenomanian assemblages in chert-siliceous shale of Bantimala Complex (Wakita et al. (1994))

Musnajam, M., A.T.A. Karim, N. Nurfadillah, F.A. Ikhsan & A.E. Sejati (2020)- The facies and metamorphism types determination of metamorphic rock in the part of Mekongga Complex. Geosfera Indonesia 5, 2, p. 250-267.
(online at: https://jurnal.unej.ac.id/index.php/GEOSI/article/view/17340/8453)
(Description of mica schist in greenschist metamorphic facies from Mekongga Complex at Lambolemo village (no map; presumably in SE Sulawesi))

Musri, M., E. Suparka, C.I. Abdullah, N.I. Basuki & M.A. Forster (2016)- 40Ar/39Ar geochronology of Rumbia schist complex: new implications for timing and hydrothermal activity in the Southeast Sulawesi gold prospect, Indonesia. Int. Journal of Engineering and Science Applications (UNHAS) 3, 2, p. 145-152.
(online at: http://pasca.unhas.ac.id/ojs/index.php/ijesca/article/viewFile/1086/234)
(Rumbia Mountains with E-W oriented high-P/low-T, and medium-P/low-T metamorphic rocks (mica schist, glaucophane schist, greenschist). Host of gold deposits. Two periods of gold mineralization: (1) associated with tectonic deformation and metamorphic rocks exhumation (Ar/Ar age ~23 Ma); (2) related to post-tectonic hydrothermal activity (overprinting at ~6.8 Ma))

Musri, E. Suparka & B. Tambun (2011)- Model geologi alterasi dan mineralisasi hidrotermal daerah Latuppa, Palopo, Sulawesi Selatan. Proc. 36th HAGI and 40th IAGI Annual Conv., Makassar, p. 1-18.
(online at: https://www.iagi.or.id/web/digital/10/2011_IAGI_Makassar_Model-Geologi-Alterasi.pdf)
('Geological model of alteration and hydrothermal mineralization in Latuppa area, Palopo, South Sulawesi')

Muzani, M., L. Nabilla, R.V.E. Pratiwi & F. Tan (2025)- South Sulawesi Arm's evolution in the past 50 million years and its impacts on the geology and geomorphology. Geology Ecology and Landscapes 9, 1, p. 67-79.
(online at: https://www.tandfonline.com/doi/pdf/10.1080/24749508.2023.2165627)
(Review of geological evolution of Sulawesi in simple sketches since 50 Ma, in five intervals, 50-40 Ma, 40-35 Ma, 30-25 Ma, 20-15 Ma and 10-5 Ma (mainly based on Hall (1997) reconstruction). SW Sulawesi shown as part of Sundaland margin all this time)

Nainggolan, D.A. (2006)- Perkembangan struktur geologi bawah permukaan berdasarkan hasil analisis data gaya berat di utara Kendari, Sulawesi Tenggara; implikasinya terhadap kemungkinan terdapatnya sumber daya geologi. Jurnal Sumber Daya Geologi (JSDG) 16, 5 (155), p. 270-284.
('The development of subsurface geological structure based on gravity data analysis in the north of Kendari, Southeast Sulawesi; implications for the possibility of the presence of geological resources'. Study area in SE Sulawesi mainly covered by ophiolite. Structure mainly NW-SE (also SW-NE?))

Nainggolan, D.A. & B.S. Widijono (2003)- Struktur kerak dan geodinamika daerah Luwuk dan sekitarnya Sulawesi Tengah berdasarkan analisis data gaya berat. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 13, 140, p. 18-29.
('Crustal structure and geodynamics of the Luwuk area, C Sulawesi, based on analysis of gravity data'. Gravity analysis of N part of E Arm of Sulawesi and S Tomini Bay. Gravity high over Togian Islands. Gravity low over Luwuk and adjacent areas, interpreted as Mesozoic sediments overlain by ophiolite sheets)

Natawidjaja, D.H. & M.R. Daryono (2015)- The Lawanopo Fault, central Sulawesi, East Indonesia. Proc.4th Int. Symposium on earthquake and disaster mitigation, Bandung 2014, AIP Conference Proceedings 1658, 030001, p. 1-23.
(online at: https://www.researchgate.net/publication/301365357_The_Lawanopo_Fault_central_Sulawesi_East_Indonesia)
(NW-SE trending Lawanopo fault of SE Sulawesi considered as active left-lateral strike-slip fault. Exposures of fault are clear, and it serves as tectonic boundary between different rock assemblages. Young fault, but no evidence of recent activity, consistent with lack of seismicity on fault)

Natawidjaja, D.H., M.R. Daryono, G. Prasetya, Udrekh, P. L.F Liu, N.D. Hananto, W. Kongko, W. Triyoso et al. (2021)- The 2018 Mw7.5 Palu 'supershear' earthquake ruptures geological fault's multisegment separated by large bends: results from integrating field measurements, LiDAR, swath bathymetry and seismic-reflection data. Geophysical J. International 224, 2, p. 985-1002.
(online at: https://academic.oup.com/gji/article/224/2/985/5932272)
(September 2018 quake ruptured 177-km long multifault segments, bypassing two large releasing bends (offshore and inland). ~110-km submarine ruptures contributed to tsunami generation in Palu Bay. Rupture continued inland for another 67 km, mainly left-lateral strike-slip up to 6m, with 5-10% dip-slip. The 7 km sizeable releasing bend results in Palu pull-apart basin)

Ndoasa, R.P., M.A. Amir, H.D. Asmuruf & Rudianto (1994)- Penempatan ofiolit Barru dan pembentukan Selat Makasar. Proc. 23rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 1, p. 291-299.
(online at: https://www.iagi.or.id/web/digital/62/26.pdf)
('Emplacement of the Barru ophiolite and the formation of Makassar Straits'. UNHAS literature review)

Neben, S., K. Hinz & H. Beiersdorf (1998)- Reflection characteristics, depth and geographic distribution of bottom simulating reflectors within the accretionary wedge of Sulawesi. In: J.P. Henriet & J. Meinert (eds.) Gas hydrate: relevance to world margin stability and climate change, Geological Society, London, Special Publ. 137, p. 225-265.
(Seismic profiles across subduction zone N of Sulawesi bottom simulating reflectors (BSRs) across accretionary wedge. BSR correlated with heat flow data and indicate that where heat flow is high and BSR interrupted, active venting of methane may occur at sea floor. BSRs limited to central part of N Sulawesi subduction zone (between 121°30'E and 123°30'E In W part of area only short BSR segments found, which may be result of slope instability and slumping of sediments. On E-most profile, no bottom simulating reflectors found at all)

Ngakan, A.A., B. Priadi, K. Hasan, Surono & T.O. Simanjuntak (2000)- Sulawesi. In: H. Darman & F.H. Sidi (eds.) An outline of the geology of Indonesia, Chapter 8, Indonesian Association Geologists (IAGI), Special Publ., p. 101-120.

Niermeyer, J.F. (1909)- De onderzeese vorm van Celebes. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2) 26, p. 612-621.
(online at: https://resolver.kb.nl/resolve?urn=MMUBA13:001651001:pdf)
('The undersea shape of Sulawesi'. Early bathymetric map around Sulawesi. No landmass on earth is surrounded by seas and cut by and embayments that are this deep and steep, except perhaps Halmahera. With 1:2.5m scale color bathymetry map)

Nishimura, S., T. Yokohama & Herry (1980)- Gravity measurements at South Sulawesi. In: Physical geology of Indonesian island arcs, Kyoto University, p. 35-41.

Nijholt, N., W.J.F. Simons, J. Efendi, D.A. Sarsito & R.E.M. Riva, (2021)- A transient in surface motions dominated by deep afterslip subsequent to a shallow supershear earthquake: The 2018 Mw7.5 Palu case. Geochem. Geophysics Geosystems 22, e2020GC009491, p. 1-16.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/pdfdirect/10.1029/2020GC009491)

Nijholt, N., W. Simons, R. Riva, J. Efendi, D. Sarsito & T. Broerse (2024)- Triggered and recurrent slow slip in North Sulawesi, Indonesia. Tectonophysics 885, 230416, p. 1-12
(online at: https://www.sciencedirect.com/science/article/pii/S004019512400218X)
(20 years of GNSS measurements in NW Sulawesi reveal multiple periods of transient surface motion. Two fault zones with potential for major earthquakes and tsunamis: (1) Palu-Koro strike slip fault and (2) Minahassa (Celebes Sea, North Sulawesi) subduction zone. Slow slip on Minahassa subduction interface in combination with deep afterslip on Palu-Koro fault most likely explanation for observed surface motions)

Noack, O. (1926)- Vergleichende petrographische Studien an Gesteinen der Minahassa in Nord-Celebes. Thesis Hohen Naturwissenschaftlichen Fakultat Vereinigten Friedrichs Universitat, Halle, p. 1-41. *(Unpublished)*
('Comparative petrographic studies of rocks of the Minahasa in N Sulawesi'. Petrographic descriptions and chemical analyses of young volcanic rocks collected by Prof. F. Rinne in 1900. No illustrations)

Noble, R.A., D.M. Jessup, D. Burt & Djumlati (2000)- Petroleum system of the Senoro-1 discovery, East Sulawesi, Indonesia. AAPG Int Conference Exhibition, Bali 2000, American Assoc. Petroleum Geol. (AAPG) Bull. 84; 9, p. 1470. (*Abstract only)*
Senoro-1 1999 gas oil discovery in N Tomori petroleum system: U Miocene reefs, charged by E-M Miocene calcareous marine source rocks after burial by Pliocene synorogenic deposits of Tomori collision zone. Porous reefal facies of Mantawa Fm with gross gas-oil columns of 656' and 33'. Gas mixed thermogenic and biogenic; 89% methane, 2% CO_2, ~1% H2S and wet hydrocarbon gases C2+)

Norvick, M.S. & R.L. Pile (1976)- Field report on the Lariang and Karama geological survey West Sulawesi. BP Petroleum Indonesia, Report JKT/EXP/0071, p. 1-72.
(Unpublished, but commonly used comprehensive field survey report of W Sulawesi basins for Gulf/ BP)

Novian, M.I., B.S. Astuti & D.H. Barianto (2012)- Stratigrafi formasi Poh pada jalur Sungai Bun, Desa Bondat, Pagiman, Sulawesi Tengah. Proc. 41st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2012-SS-35, 1p. *(Abstract only)*
('Stratigraphy of the Poh Formation in Bun River section, Bondat Village, Central Sulawesi'. ~140m thick setion of coarsening upward calcareous claystone-sandstone section of 'Poh Formation'. Sedimentary structures parallel lamination, some flute casts and ripples, trough cross bedding and hummocky cross stratification. Lithics consists of fragments of ultramafic rocks, limestone and mollusc shells. Foraminifera suggest M Oligocene-Pliocene age)

Novian, M.I., D.H. Barianto, S. Husein & S.S. Surjono (2024)- Planktonic foraminifera biostratigraphy of the Pliocene Kintom and Bongka Formation, Central Sulawesi, Indonesia. J. Tropical Biodiversity and Biotechnology (JTBB) (UGM) 9, 4, jtbb94685, p. 1-20.
(online at: https://journal.ugm.ac.id/jtbb/article/view/94685/40272)
(Plio-Pleistocene planktonic foraminifera biostratigraphy.in ~500m of Matindok- Ondoondolu outcrop section in 'post-orogenic' sediments in East Arm of Sulawesi. Lower fine-grained 'flysch-type' part called Kintom Fm, containing latest Miocene and Pliocene planktonics. (Unconformably?) overlain by conglomerate-rich Bongka Fm 'molasse'of Late Pliocene age with serpentinite clasts, reworked Miocene microfauna, etc., . Clastics overlain by Luwuk Fm limestones (raised reef terraces) with Pleistocene planktonics)

Novian, M.I., D.H. Barianto, V.D. Mardiana N. & T. Sihombing (2012)- Paleogeografi Miosen daerah Luwuk, Sulawesi Tengah berdasarkan keberadaan konglomerat batu gamping dari Formasi Kintom dan Formasi Bongka. Proc. 41st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2012-GD-29, p. 12. *(Abstract only)*

('Miocene paleogeography of the Luwuk area, C Sulawesi, based on the presence of limestone conglomerates from the Kintom and Bongka Formations'. 'East Sulawesi Molasse' in N arm of Sulawesi with 65m thick conglomerate with mainly limestone clasts (sourced from Salodik Fm) and 5% ultramafic rocks. Age of limestone-rich conglomerate M-Late Miocene (= presumably early unroofing deposits in basal part of "Celebes Molasse'?)

Novian, M.I., D.H. Barianto & S.S. Surjono (2024)- Facies analysis and sequence stratigraphy of Plio-Pleistocene fan delta deposits in the East Arm Sulawesi, a case study of Biak Formation, Luwuk, Banggai. Proc. Int. Conference Geological Engineering and Geosciences, Yogyakarta 2023, IOP Conference Series: Earth and Environmental Science 1373, p. 012058, p. 1-11.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1373/1/012058/pdf)
(Lithofacies of Plio-Pleistocene fan delta deposits, widespread in E Arm of Sulawesi, and reflecting tectonic uplift during Banggai-Sula continental collision. Formerly known as (middle part of?)'Celebes Molasse', now as Bongka Fm in W and Biak Fm in E part of East Arm of Sulawesi)

Nugraha, A.M.S. (2016)- Late Cenozoic history of Sulawesi, Indonesia: the Celebes Molasse. Ph.D. Thesis Royal Holloway London University, p. 1-424.
(Celebes Molasse in SE Sulawesi unconformable over pre-Miocene rocks, post dating E Miocene Sula Spur collision. Three units: (1) serpentine-rich clastic unit (pre-Latest Miocene), (2) limestone unit (Latest Miocene-Holocene) and (3) quartz-rich clastic unit (Late Miocene-Pliocene))

Nugraha, A.M.S., R. Adhitama, A.D. Switzer & R. Hall (2023)- Plio-Pleistocene sedimentation and palaeogeographic reconstruction in the Poso Depression, Central Sulawesi, Indonesia: from a sea channel to a land bridge. J. of Palaeogeography 12, 3, p. 331-357.
(online at: https://www.sciencedirect.com/science/article/pii/S209538362300055X))
(Poso Depression was half-graben/ sea channel, connecting Gorontalo and Bone bays during Pliocene. Pliocene Puna Fm fan deltas (formerly called post-orogenic 'Celebes Molasse') sourced mainly from E Sulawesi ultrabasic rocks, with minor magmatic and metamorphic input from W Sulawesi. M-L Pliocene Poso Fm coral limestones 250m thick and accumulated on E basin margin. Unconformably overlain by Pleistocene Lage Fm shallow marine glaucophane-rich siliciclastics, associated with rapid exhumation/uplift of Pompangeo metamorphic complex, which led to land bridge connecting W and E Sulawesi at ~3 Ma. Most of present relief of Sulawesi created since 5-2 Ma)

Nugraha, A.M.S. & R. Hall (2017)- Light and heavy mineral constraints on the provenance of unconformity-bounded formations: an example from SE Sulawesi, Indonesia. American Geophysical Union (AGU) Fall Meeting, New Orleans, EP24B-06, 1p. *(Abstract only)*
(online at: https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/219367)
(Neogene sediments of Celebes Molasse in SE Arm of Sulawesi show unroofing series: (1) U Miocene Pandua Fm dominated by serpentinite and chrome spinel, less polycrystalline quartz and metamorphic, etc. lithics (mainly sourced from ultramafic rocks) and (2) latest Miocene-earliest Pleistocene Langkowala Fms poor in serpentinite and increasing metamorphic detritus including glaucophane/lawsonite (from exhumation of HP-LT metamorphic complexes). Two formations separated by angular unconformity)

Nugraha, A.M.S. & R. Hall (2018)- Late Cenozoic palaeogeography of Sulawesi, Indonesia. Palaeogeogr. Palaeoclim. Palaeoecology 490, p. 191-209.
(online at: http://searg.rhul.ac.uk/pubs/nugraha_hall_2018%20Sulawesi%20palaeogeography.pdf)
(New paleogeographic maps from E Miocene-Pleistocene (20-1 Ma), after Sula Spur- N Sulawesi volcanic arc collision. For most of Neogene, Sulawesi was shallow marine area with small islands surrounded by deeper marine areas. Onset of extension at ~15 Ma. Deep inter-arm bays began to form in Late Miocene and islands became larger. Pliocene increase in land area and elevation accompanied by major subsidence of inter-arm bays. Separate islands coalesced in Pleistocene to form distinctive K-shaped island known today)

Nugraha, A.M.S. & R. Hall (2018)- Late Cenozoic history of Sulawesi. Proc. 42nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA18-27-G, p. 1-22.

(Neogene stratigraphy of Sulawesi with five regional unconformities: (1) E Miocene (~23 Ma), (2) M Miocene (~15 Ma), (3) latest Miocene- earliest Pliocene (~6-5.3 Ma), (4) E Pleistocene (~1.8 Ma), and (5) M Pleistocene (~1 Ma). E Miocene collision between promontory of Sula Spur and N Sulawesi volcanic arc, causing ophiolite emplacement in E Sulawesi. M Pliocene unconformity in some areas of N Sulawesi. With 10 paleogeographic maps)

Nugraha, A.M.S. & R. Hall (2022)- Neogene sediment provenance and paleogeography of SE Sulawesi, Indonesia. Basin Research, 28, 5, p. 1714-1730.
(online at: https://onlinelibrary.wiley.com/doi/epdf/10.1111/bre.12682)
(Neogene of SE Sulawesi (formerly called 'Celebes Molasse') three provenance shifts: (1) due to E Miocene collision of Australian crust and North Sulawesi volcanic arc, accompanied by ophiolite emplacement in E Sulawesi, change from pre- collision carbonates to ultramafic- rich immature sandstones of late E Miocene(?) Bungku Fm; (2) Late Miocene input of abundant metamorphic detritus (incl. blueschists) into Pandua Fm, indicating exhumation of Oligo-Miocene subduction zone material; (3) change from ophiolite/ blueschist- rich debris to quartz-rich Plio-Pleistocene Langkowala Fm, recording rise and progressive unroofing of quartzose metamorphic rocks of Mekongga-Rumbia complexes (= extension driven by Banda subduction rollback?))

Nugraha, A.M.S., R. Hall & M. Boudagher-Fadel (2022)- The Celebes Molasse: a revised Neogene stratigraphy for Sulawesi, Indonesia. J. Asian Earth Sciences 228, 105140, p. 1-28.
(online at: www.sciencedirect.com/science/article/pii/S1367912022000633)
(New stratigraphy of Late Neogene 'Celebes Molasse'. Different units of different ages, environment of deposition and composition. Unconformities in (1) E Miocene (c. 23 Ma), (2) M Miocene (c. 15 Ma), (3) Mio-Pliocene (c. 6-5.3 Ma), and (4 and 5) Pleistocene (c. 1.8 and 0.1 Ma). Resulting megasequences from E Miocene collision of Sula Spur microcontinent followed by extension, driven by subduction rollback, causing both uplift and subsidence (in contrast to previous interpretations of multiple collisions))

Nugraha, A.M.S., R. Hall & M. Boudagher-Fadel, J.A. Todd & A.D. Switzer (2023)- Neogene history of fluvial to shallow marine successions in the Kendari Basin, SE Sulawesi, Indonesia. The Depositional Record (IAS) 9,2, p. 300-334.
(online at: https://onlinelibrary.wiley.com/doi/pdf/10.1002/dep2.196)
(Kendari Basin at S end of SE Arm of Sulawesi most complete Neogene sequence in Sulawesi (youngest clastic parts formerly known as 'Celebes Molasse'). Oldest sediments Burdigalian-Langhian Bungku Fm shallow marine carbonates and deltaic siliciclastics. Unconformably overlain by U Miocene fluvial, tidal and shallow marine Pandua Fm, rich in serpentinite debris. Overlain by ~6- 5.3 Ma subaerial unconformity (uplift event) and fluviatile quartz-rich Langkowala Fm and age-equivalent transgressive Pliocene Eemoiko Fm landwards-backstepping carbonate platform)

Nugraha, A.M.S., J. Hennig-Breitfeld, R. Puspita, A.D. Switzer & R. Hall (2024)- Detrital zircons and heavy minerals from the Palu Formation, Sulawesi, Indonesia: constraints on exhumation of the Palu Metamorphic Complex and drainage evolution. J. Geological Society, London 181, 3, jgs2023-118, p. 1-10.
(online at: https://www.lyellcollection.org/doi/full/10.1144/jgs2023-118)
(Pleistocene Palu Fm coarse clastics around Palu City (previously assigned to 'Celebes Molasse' are alluvial-fluvial deposits that record rapid uplift in Neck and west Central Sulawesi. Clasts mainly igneous and metamorphic rocks, likely mainly from exposed Palu Metamorphic Complex. Youngest zircons Pliocene in age (~2.5- 3.0 Ma). Most zircons Neogene in age (peaks at 3.9 and 6.9 Ma). Lesser peaks at ~42 Ma, ~92 Ma (Late Cretaceous), 120 Ma (E Cretaceous), ~181 Ma (E Jurassic) and ~210-220 Ma (Late Triassic). (Palu Fm apparently unrelated to 'Celebes Molasse' as originally defined in East Arm of Sulawesi by Sarasin cousins in 1901: younger, different provenance, different tectonostratigraphic significance; JTvG))

Nugroho, S., I. Hardjana, A.D. Susanto & C.C. Bautista (2005)- Notes on the discovery of the Riska deposit, North Sulawesi- Indonesia. In: S. Prihatmoko et al. (eds.) Indonesian mineral and coal discoveries, IAGI Special Issue 2005, p. 31-44.
(On Riska high-sulphidation epithermal gold deposit 20 km SE of Kotamobagu, discovered by Newmont in 1998. Hosted by Plio-Pleistocene andesitic pyroclastics)

Nur, I., A. Idrus, S. Pramumijoyo, A. Harijoko & A. Imai (2011)- Mineral paragenesis and fluid inclusions of the Bincanai epithermal silver- base metal vein at Baturappe area, South Sulawesi, Indonesia. J. Southeast Asian Applied Geology (UGM) 3, 1, p. 34-44.
(online at: http://geologic-risk.ft.ugm.ac.id/fresh/jsaag/vol-3/no-1/jsaag-v3n1p034.pdf)
(Baturappe prospect in S part of Sulawesi island, is hydrothermal mineralization district of >20 epithermal silver-base metal deposits, hosted in late M Miocene Baturappe Fm basaltic-andesitic volcanic rocks)

Nur, I., A. Idrus, S. Pramumijoyo, A. Harijoko, Y. Juyanagi & A. Imai (2009)- Characteristics of epithermal quartz veins at Baturappe area, Gowa, South Sulawesi: implication to base metal exploration. Proc. International Seminar on Geology of the Southern Mountains of Java, Yogyakarta 2009, 1, p. 179-186.

Nur, I., A. Idrus, S. Pramumijoyo, A. Harijoko, Sufriadin, A.H.S. Jaya & U.R. Irfan (2009)- Geologi endapan urat logam dasar Pb daerah Baturappe Kabupaten Gowa, Sulawesi Selatan. Proc. 38th Annual Conv. Indonesian Association Geologists (IAGI), Semarang, p. 629-637.
(online at: https://www.iagi.or.id/web/digital/26/2009_IAGI_Semarang_Geologi-Endapan-Urat.pdf)
('Geology of the Baturappe area Pb deposits, Gowa Regency, S Sulawesi'. Quartz-Pb veins in M Miocene basaltic-andesitic volcanic- intrusion complex. Oldest rock unit in outcrop late Middle-Miocene basalt lava (K-Ar ages ~12.4-12.8 Ma))

Nur, I., A. Idrus, S. Pramumijoyo, A. Harijoko, K. Watanabe & A. Imai (2011)- Hydrothermal alteration zoning around the Baturappe epithermal silver-base metal deposit, South Sulawesi, Indonesia. Proc. Int. Symposium on Earth Science and Technology, Fukuoka 2011, p. 305-312.

Nur, I., A. Idrus, S. Pramumijoyo, A. Harijoko, K. Watanabe, A. Imai, Sufriadin, A. Jaya & U.R. Irfan (2013)- Elemental mass balance of the hydrothermal alteration associated with the Baturappe epithermal silver-base metal prospect, South Sulawesi, Indonesia. Jurnal Penelitian Enjiniring (JPE), p. 31-43.
(online at: http://repository.unhas.ac.id/handle/123456789/6138)

Nur, I., R.I. Irfan, Sufriadin & A. Ilyas (2016)- Mineralogical and geochemical characteristics of the Volcanogenic Massive Sulfide deposits in Sangkaropi District, North Toraja, Indonesia. Int. J. Smart Material and Mechatronics 3, 2, p. 236-241. *(online at: https://www.researchgate.net/profile/Ulva-Irfan/publication/314979673_Mineralogical_and_Geochemical_Characteristicsof_the_Volcanogenic_ Etc.)*
(Kuroko-type volcanogenic massive sulphide (VMS) deposits in Sangkaropi mineral district, N Toraja, S Sulawesi. Formed in Oligocene (~35-22.5) Ma. Host rocks mainly altered tuff and dacitic volcanic breccia. Mineralizations mainly massive disseminated sulphides, with veins and sulphide stringers. Quartz and barite main gangue minerals. Ore minerals chalcopyrite, galena, sphalerite, etc., with azurite and malachite as supergene minerals. Hydrothermal alteration consistent with inner zones of Kuroko-type alteration zones)

Nur, I., Y. Jayanagi, A. Idrus, S. Pramumijoyo, A. Harijoko & A. Imai (2010)- Mineralogy and microthermometry of the epithermal base metal veins at Baturappe area, South Sulawesi, Indonesia. Proc. 39th Annual Conv. Indonesian Association Geologists (IAGI), Lombok, p. 1-7.
(online at: https://www.iagi.or.id/web/digital/12/2010_IAGI_Lombok_Mineralogy-and-Microthermometry.pdf)
(Baturappe area, S Sulawesi, hydrothermal quartz-Pb veins in basalt and porphyritic basalt host rocks. Microthermometric study of fluid inclusions in quartz indicates temperature formation of veins betweeen ~230°-280°C. Minimum formation depth about 300- 550m)

Nur, I., Sufriadin & A. Ilyas & U.R. Irfan (2019)- Hydrothermal alteration associated with vein-type sulphide mineralization at Lappadata Prospect, South Sulawesi, Indonesia: a preliminary study. Proc. 2nd EPI Int. Conference on Science and Engineering, Gowa 2018, IOP Conference Series: Materials Science and Engineering 676, 012033, p. 1-9.
(online at: https://iopscience.iop.org/article/10.1088/1757-899X/676/1/012033/pdf)
(Epithermal vein-type sulphide mineralization hosted by porphyritic basalt and limestone members of Eocene - Oligocene Salo Kalupang Fm in.Lappadata area, Bone Regency, S Sulawesi)

Nur, I., P. Taba, A. Idrus, U.R. Irfan, Sufriadin, S. Widodo, A.V. Anas, M.R. Ardian & A.D. Anjelina (2024)- The genesis and potential utilization of zeolite in the Moncongloe Area, Maros, South Sulawesi, Indonesia. Gospodarka Surowcami Mineralnymi (Mineral Resources Management; Krakow, Poland) 40, 3, p. 5-22.
(online at: https://gsm.min-pan.krakow.pl/pdf-190532-122616?filename=The-genesis-and-potential.pdf)
(Zeolite mineralization in porphyritic rhyolite and green tuff in marine volcano-sedimentary sequence of Miocene Camba Fm in SW Sulawesi. Thickness of zeolite-bearing layers 6.8 m. Zeolite is of phillipsite type, which formed as alteration product of K-feldspar phenocrysts as well as fine crystalline ground mass and volcanic glass)

Oostingh, C.H. (1935)- Enige opmerkingen over A. von Kutassy's beschrijving van jong-Tertiaire mollusken uit Oost-Celebes. De Ingenieur in Nederlandsch-Indie (IV) 2, 4, p. IV.30- IV.31.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1935-04.pdf)
(Questions validity and argues there are inconsistencies of Mio-Pliocene age determinations based on molluscs from E Sulawesi sediments by Kutassy in Von Loczy (1934)

Osimo, G. (1908)- Di alcuni foraminiferai dell' Eocene superiore di Celebes. Rivista Italiana Paleontologia 14, 1-2, p. 28-54.
(online at: www.biodiversitylibrary.org/item/51504#page/44/mode/1up)
('On some foraminifera from the Upper Eocene of Celebes'. Larger forams from marl near Dongala, N Sulawesi, collected by Italian BPM geologist Dr. Guido Bonarelli, and sent to the Geological Museum in Turin. With Lepidocyclina tournouieri, L. provalei, Linderina, Sphaerogypsina, Baculogypsina bonarellei, Miogypsinoides complanata, and Heterostegina glabra (= Spiroclypeus?) (N.B.: this assemblage does not look like Eocene age; more likely latest Oligocene; JTvG))

Otofuji, Y., F. Hehuwat, S. Sasajima, S. Nishimura & A. Dharma (1981)- Paleomagnetic evidence for clockwise rotation of the Northern arm of Sulawesi, Indonesia. Earth Planetary Science Letters 54, p. 272-280.
(North arm of Sulawesi clockwise rotation of >90°. Rotational motion began no later than M Miocene and probably terminated before initiation of Plio-Pleistocene volcanic activity)

Paalvast, L. (2007)- UHP Metamorphism in Central Indonesia- A geothermobarometric and geochronological study on the (U)HP rocks of the Bantimala and the Luk-Ulo complex, Indonesia. M.Sc. Thesis University of Utrecht, p. 1-108.
(P-T estimates of Early Cretaceous HP and UHP metamorphic rocks in Bantimala, SW Sulawesi (eclogites) and Luk-Ulo, Central Java (glaucophane eclogites), largely confirm earlier work of Miyazaki (1996). Rocks of Bantimala complex subducted to at least 100 km depth; rocks of Luk-Ulo complex subducted to at least 85 km. P-T paths suggest ocean-continent collisional setting, i.e. in fossil subduction zone, possibly parts of samel subduction zone. Granulites of Bantimala and Luk-Ulo resemble P-T conditions normally found at base of crust and are interpreted as originating from base of crust of overriding plate)

Pachri, H., A.M. Imran & M. Al Izza Hizbullah (2024)- The contribution of morphology to the quantitative potential of nickel laterite deposits highly weathered ultramafic rocks in the Southeast Arm Region of Sulawesi Island, Indonesia. J. Lingkungan dan Bencana Geologi (JLBG) 15, 3, p. 158-171.
(online at: https://jlbg.geologi.esdm.go.id/index.php/jlbg/article/view/523/258)
(Nickel laterite profiles and morphology in Pomala and Sorowako in SE Sulawesi correlated to steepness of slopes, with maximum thickness and Ni content on gentle slopes (7-15% grade). (conclusion not wrong, but this has been noted by multiple authors before since 1950s? or before, but no references to these papers; JTvG))

Paju, J.A., Y.S. Purnama, B. Nugroho, A. Bachtiar & F. Peera (2006)- Sedimentology of Mallawa clastics and its implication to hydrocarbon occurrences in western part of West arm Sulawesi. Proc. 35th Annual Conv. Indonesian Association Geologists (IAGI), Pekanbaru 2006, PITIAGI2006-012, p. 1-18.
(online at: https://www.iagi.or.id/web/digital/15/2006_IAGI_Pekan-Baru_Sedimentology-Of-Mallawa.pdf)
((Eo-Oligocene Mallawa Fm (should be spelled Malawa Fm? (Sukamto, 1982); JTvG) clastics with coal in S part of West Arm of Sulawesi up to 400m thick. Unconformably overlies flysch deposits of Balangbaru and Marada Fm and unconformably overlain by Tonasa Limestone and thick Camba Fm volcanics. Malawa Fm

interfingers with volcanic sequence of Langi Fm to E. Mainly fluvial- tidal deposits. Probably equivalent of fluvio-deltaic Lower Toraja Fm in N of Sulawesi West Arm)

Panggabean, H. & Surono (2011)- Tektono-stratigrafi bagian Timur Sulawesi. Jurnal Sumber Daya Geologi (JSDG) 21, 5, p. 239-248.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/150)
('Tectonostratigraphy of East Sulawesi'. Sulawesi four geological provinces: (1) W Sulawesi volcanic, (2) C Sulawesi metamorphic, formed since Cretaceous subduction; (3) E Sulawesi ophiolite, result of extension in Pacific Ocean in Cretaceous- Eocene and (4) fragments of microcontinents in E Sulawesi, which separated from N Australia margin. E and SE Sulawesi areas of latest Oligocene- M Miocene collision between continental and ophiolitic basement blocks)

Panjaitan, S. (2009)- Penelitian paleomagnetik dan gaya berat kaitannya dengan pembentukan formasi batuan di Sulawesi Selatan serta hubungannya dengan selat Makasar dan Kalimantan. Jurnal Sumber Daya Geologi (JSDG) 19, 5, p. 297-212.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/214/204)
('Paleomagnetic and gravity investigations tied to rock formations in S Sulawesi and its relations to Makassar Straits and Kalimantan'. Paleomagnetism and GPS analysis indicate CCW rotation and N-ward drift of S Sulawesi since Triassic: (1) Triassic Ultramafics (92° CCW rotation, paleolatitude -26.5°S); (2) Cretaceous melange complexes (30° CCW rotation, paleolatitude -16.1°S); (3) Eocene- M Miocene- Tonasa Limestone Fm (CCW rotation 80°, paleo latitude -14.8°S); (4) M-L Miocene Camba Fm (81° CCW rotation, paleolatitude -12.5°S; (5) M Miocene Tacipi Limestone (80° CCW rotation, paleo latitude 4.5°S); (6) Pleistocene Walanae Fm sandstone (0°- 2° CCW rotation, paleo latitude -3.5°S). Kalimantan derived from Asia in Triassic)

Panjaitan, S. & S. Hutubessy (2002)- Sifat fisik batuan di daerah Palopo dan Makale, Sulawesi Selatan. Jurnal Sumber Daya Geologi (JSDG) 7, 124, p. 2-10.
(Physical properties of Pretertiary rocks in area of Palopo and Makale, NE part of SW Arm of Sulawesi)

Panjaitan S. & B. Mubroto (1993)- Indikasi tektonik berdasarkan data paleomagnetik di daerah Soppeng, Sulawesi selatan. Proc. 22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 83-91.
(online at: https://www.iagi.or.id/web/digital/61/12.pdf)
('Tectonic indications from paleomagnetic data in the Soppeng area, S Sulawesi'. Paleomagnetic data from M Miocene- Pliocnee Camba and Walanae Fms in SW Sulawesi suggest N-ward movement of SW Sulawesi from 12.5° S to 3.3° S and ~60° CW (CCW?) rotation between M Miocene- Pleistocene)

Panjaitan, S. & J. Nasution (2004)- Potensi minyak bumi dan gas alam lepas pantai cekungan Sengkang, Sulawesi Selatan, tinjauan analisis gayaberat. Jurnal Sumber Daya Geologi (JSDG) 14, 1 (145), p. 3-12.
('Oil and gas potential of the Sengkang basin S Sulawesi, from gravity analysis'. Gravity anomalies interpreted as anticlines and Tacipi limestone buildups)

Pardiana, D., M. Harayanto, D. Ramdani, F. Ginting, D. Setyandhaka et al. (2015)- Bakan gold mine and 2014 exploration results update. In: N.I. Basuki (ed.) Proc. Indonesian Soc. Economic Geologists (MGEI) 7th Annual Convention, Balikpapan 2015, p. 101-119.
(Bakan gold mine 200km SW of Manado in N Arm of Sulawesi operational since 2013. Cluster of epithermal high-sulphidation gold occurrences hosted by Plio-Pleistocene dacitic tuffs that are unconformable over Miocene andesitic lavas and sandstones. Mineralization similar to North Lanut mine)

Parkinson, C.D. (1991)- The petrology, structure and geologic history of the metamorphic rocks of Central Sulawesi, Indonesia. Ph.D. Thesis, University of London, p. 1-337. *(Unpublished)*
(Includes description of metamorphic sole below obducted E Sulawesi ophiolite in C Sulawesi)

Parkinson, C.D. (1991)- Counterclockwise P-T-t paths from Sulawesi meta-basites: implications for subduction zone metamorphism. Proc. Symposium on the dynamics of subduction and its products, Yogyakarta-

Karangsambung 1991, Research Development Centre Geotechnology, Indonesian Institut of Sciences (LIPI), Bandung, p. 225-226. *(Abstract)*

Parkinson, C.D. (1996)- The origin and significance of metamorphosed tectonic blocks in melanges: evidence from Sulawesi, Indonesia. Terra Nova 8, 4, p. 312-323.
(Block-bearing melange ('knockers' in sheared mudstone) of C Sulawesi Peleru Melange Complex overlain by E Sulawesi ophiolite nappe, with Mowomba metamorphic sole sequence at base (formed at E-dipping subduction zone). Most blocks are ophiolite, also blueschist, etc. Matrix serpentinite and red phyllite. Direct genetic relationship between high-grade tectonic blocks in melange and amphibolites in metamorphic sole. High-grade tectonic blocks originated in thin, thermally zoned metamorphic sheet welded to oceanic hanging wall plate at inception of subduction. Break-up at depth by tectonic erosion led to dispersal of fragments into newly developed serpentinite melange wedge)

Parkinson C. (1998)- An outline of the petrology, structure and age of the Pompangeo Schist Complex of Central Sulawesi, Indonesia. The Island Arc 7, 1-2, p. 231-245.
(online at: www.academia.edu/30194293/An_outline_of_the_petrology_structure_and_age_of_the_P Etc.)
(C Sulawesi Pompangeo Schist is metamorphosed accretionary complex, with phyllitic marble, phyllite, schist and quartzite, all of terrigenous- marine origin. Along E margin schists interthrust with unmetamorphosed Early Jurassic sandstone (may be Cretaceous?; JTvG), which may be parent material. Schists unconformably overlain by Albian-Cenomanian pelagic sediment. Synmetamorphic NNW-SSE striking and W dipping isoclinal folding. E-W metamorphic gradient, representing rel. low T gradient of 15°C/ km. K-Ar ages ~108-114 Ma. Correlative metamorphic rocks may underlie W Sulawesi Neogene magmatic province. Pompangeo and Bantimala schists probably generated in same subduction system responsible for C Kalimantan Mesozoic arc)

Parkinson, C.D. (1998)- Emplacement of the East Sulawesi ophiolite: evidence from sub-ophiolite metamorphic rocks. J. Southeast Asian Earth Sciences 16, 1, p. 13-28.
(online at: https://www.academia.edu/30194294/Emplacement_of_the_East_Sulawesi_Ophiolite_evidence_from_subophiolite_metamorphic_rocks)
(E Sulawesi Ophiolite age still debated (E Cretaceous??), ~15 km thick, lava geochemistry suggesting back-arc or supra-subduction origin. Metamorphic sole at base ESE composed of isoclinally folded, thin garnet and epidote amphibolite and basal greenschist metaclastics, with Oligocene K/Ar ages (33-28 Ma; = cooling/ overthrust ages). Metamorphic sole sequence can be traced laterally for ~500 km across SE Sulawesi. Between basal metamorphic sole and underlying Pompangeo schist (~110 Ma metamorphism;= Sundaland basement?; similar to Latimodjong and Bantimala Complexes in C Sulawesi) are Peleru melange and imbricated continental margin sediments (which include 'Matano Fm' Cretaceous pelagic limestones. E-dipping tectonite fabrics in amphibolite and underlying basement mica schist and overlying peridotite indicate orthogonal E to W emplacement of ophiolite in C Sulawesi. Followed by W Sulawesi arc volcanism in E Miocene and collision of Banggai-Sula Platform in Late Miocene)

Parkinson, C.D. & T. Dooley (1996)- Basin formation and strain partitioning along strike-slip fault zones. Bull. Geological Survey of Japan 47, 8, p. 427-436.
(online at: https://www.gsj.jp/data/bull-gsj/47-08_02.pdf)
(On strike-slip fault zones, with examples from Sulawesi: series of curvilinear sinistral strike-slip fault zones (Palo-Kuro, Poso, Matano and Lawanopo), formed after Late Miocene collision of Sula Platform and E Sulawesi Ophiolite)

Parkinson, C.D. & I. Katayama (1999)- Present-day ultrahigh-pressure conditions of coesite inclusions in zircon and garnet: evidence from laser Raman microspectroscopy. Geology (GSA) 27, p. 979-982.
(Coesite is high-pressure polymorph of quartz and occurs as inclusions in deeply subducted, metamorphosed crustal rocks in several Eurasian collisional orogens, including in zircons in eclogites from Bantimala Complex, S Sulawesi. It is primary indicator mineral of ultrahigh-pressure metamorphism)

Parkinson, C.D. & I. Katayama (1999)- Metamorphic microdiamond and coesite from Sulawesi, Indonesia; evidence of deep subduction at the SE Sundaland margin. American Geophysical Union (AGU), 1999 Fall Meeting, EOS Transactions 80, 46, Supplement, p. 1181. *(Abstract only)*
(In situ diamond grains identified by laser Raman spectroscopy within quartz pseudomorphs after coesite in E Cretaceous (130-120 Ma) garnet in jadeite quartzite of Bantimala complex, C Sulawesi. Indicate ultrahigh-pressure conditions (>4 GPa) and subduction of continental crust to depths within diamond stability field, followed by rapid exhumation)

Parkinson, C.D., K. Miyazaki, K. Wakita, A.J. Barber & D.A. Carswell (1998)- An overview and tectonic synthesis of the Pre-Tertiary very-high pressure metamorphic and associated rocks of Java, Sulawesi and Kalimantan, Indonesia. Island Arc 7, p. 184-200.
(online at: www.academia.edu/26104720/An_overview_and_tectonic_synthesis_of_the_pre_Tertiary_ Etc.)
(High-P metamorphics common in Cretaceous accretionary complexes of Java, Sulawesi, SE Kalimantan. Many occur as imbricate slices of carbonate, quartzose and pelitic schists, interthrust with subordinate basic schists and serpentinite. They are mainly low-intermediate metamorphic grade, with K-Ar ages of 110-120 Ma. Metamorphic rocks from depths >60 km sporadically exposed, usually as tectonic blocks. Many metamorphics probably recrystallized in N-dipping subduction zone at Sundaland craton margin in E Cretaceous. Exhumation possibly facilitated by collision of Gondwanan continental fragment with Sundaland margin at ~120-115 Ma)

Pasari, S., A.V H. Simanjuntak, Neha & Y. Sharma (2021)- Nowcasting earthquakes in Sulawesi Island, Indonesia. Geoscience Letters 8, 27, p. 1-13.
(online at: https://geoscienceletters.springeropen.com/articles/10.1186/s40562-021-00197-5)
(Review of Sulawesi earthquakes (25 major earthquakes (Mw ≥ 7.0) during last 50 years (1969-2020)) and technique of determining how many small earthquakes typically occur between successive large earthquakes)

Patria, A., A.H. Dewangga, R.S. Putranto & B. Priadi (2012)- Geochemistry of igneous rocks from Bintauna area, North Sulawesi: tectonic implication. Proc. 41st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2012-GD-11, p. 1-4. *(online at: https://www.researchgate.net/profile/Adi-Patria/publication/321213372_Geochemistry_of_Igneous_Rocks_from_Bintauna_Area_North_Sulawesi Etc.)*
(Tinombo Fm, Wobudu Breccias and Dolokapa Fm outcrop in Bintauna-Labuanaki areas, N coast of Sulawesi N Arm. Samples ages ranging of 41.8- 13.9 Ma. Geochemistry indicates volcanics are Low-K volcanic arc basalts, related to Late Eocene- M Miocene subduction. No maps)

Patria, A., M. Hanif & A.R. Puji (2026)- Holocene surface-rupturing earthquakes on the Matano fault in the Mahalona basin, Sulawesi, Indonesia. Tectonophysics 231084, p. *(in press)*

Patria, A., D.H. Natawidjaja, M. R. Daryono, M. Hanif, A.R. Puji & H. Tsutsumi (2023)- Tectonic landform and paleoseismic events of the easternmost Matano fault in Sulawesi, Indonesia. Tectonophysics 852, 229762, p. 1-16.
(The 190-km-long Matano fault is major left-lateral strike-slip fault in Sulawesi, accommodating rapid W-ward motion of Pacific plate relative to Australian plate. No movement in >200 years. Geomorphic and paleoseismic investigations on E-most part of Matano fault suggest surface-rupturing earthquake recurrence interval of 200-470 years and slip rate of 21 ± 9 mm/yr. Matano fault slips slower than Palu-Koro fault and connects to S Sula (= Sula-Soring) fault, in addition to Tolo thrust)

Patria, A., A.R. Puji & H. Tsutsumi (2023)- Neotectonics of the eastern Matano fault, Sulawesi, Indonesia: Preliminary results. Proc. 4th SE Asian Conference on Geophysics (SEACG 2022), Bandung, 2022, IOP Conference Series: Earth and Environmental Science 1227, 012001, p. 1-4.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1227/1/012001/pdf)
(Matano fault in C Sulawesi major left-lateral strike-slip fault. Late Quaternary deformation of eastern Matano fault evidenced by deformed young geomorphic surfaces)

Patria, A. & P.S. Putra (2020)- Development of the Palu-Koro Fault in NW Palu Valley, Indonesia. Geoscience Letters (AOGS) 7, 1, p. 1-11.

(online at: https://geoscienceletters.springeropen.com/track/pdf/10.1186/s40562-020-0150-2.pdf))
(220-km-long Palu–Koro Fault in C Sulawesi, is major fault with prominent expression in E Indonesia, with capability of generating large earthquakes)

Patria, A., A. Titu-Eki & M.R. Daryono (2025)- New insights into active faulting in Sulawesi, Indonesia. J. Engineering and Technological Sciences (JETS) (ITB) 58, 1 Paper 862, p. 121-138.
(online at: https://jets.itb.ac.id/jets/article/view/862/257)
(Well-illustrated study of active tectonics of Sulawesi, a seismically active region at convergence of Pacific, Australian and Eurasian plates. North Arm exhibits thrust faulting associated with Celebes Sea subduction zone with extensional deformation on overriding plate (subduction rollback). East Arm dominated by strike-slip faulting along Balantak fault. C Sulawesi seismic activity along Palu-Koro and Matano faults. West Sulawesi combination of thrust and strike-slip faulting. Etc.)

Pearson, D.F. & N.M. Caira (1999)- The geology and metallogeny of central North Sulawesi. In: G. Weber (ed.) Proc. PACRIM '99 Congress, Bali 1999, Australasian Institute of Mining and Metallurgy (AusIMM), Parkville, 4, 99, p. 311-326.
(N Arm Sulawesi gold and base metal mineralisation styles: porphyry Cu-Au; porphyry-related gold and base metal veins; high-sulphidation Cu-Au-As; low-sulphidation epithermal Au; hydrothermal breccias; and sediment-hosted Au mineralisation. Different Miocene and Pliocene porphyry systems recognised whilst most remaining epithermal mineralisation Pliocene or later. Central N Arm of Sulawesi Miocene magmatic island arc on E Tertiary oceanic basaltic basement, overprinted by Pliocene arc. Structural fabric dominated by SSE arc-normal and ESE arc-parallel faults, established during Miocene under dextral wrench regime. Intersections of major fault sets favoured sites for Miocene porphyry Cu-Au)

Perdana, M.J. & H. Amijaya (2010)- Identification of geochemical degradation of oil seep from Paniki River, Kalukku, Mamuju, West Sulawesi. Proc. 34th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA10-SG-036, p. 1-10.
(Oil seeps in Paniki River, Kalukku, 40 km NE of Mamuju, W. Sulawesi, considered to have originated from Eocene coals or carbonaceous clays of Toraja Fm. GCMS work suggests severe biodegradation)

Perdana, M.J. & H. Amijaya (2011)- Source indication of oil seep from Paniki River, Kalukku, Mamuju, West Sulawesi, based on geochemical characterization. Proc. 36th HAGI and 40th IAGI Annual Conv., Makassar, JCM2011-030, p. 1-10.
(online at: https://www.iagi.or.id/web/digital/10/2011_IAGI_Makassar_Source-Indication-of-Oil.pdf)
(Many oil and gas seeps in W Sulawesi area. Paniki River seep oil biodegraded. Common bicadinane, oleanoids, oleanane, and taraxastane show oil probably derived from higher land plants. No gammaceranes)

Perello, J.A. (1994)- Geology, porphyry Cu-Au, and epithermal Cu-Au-Ag mineralization of the Tombulilato district, North Sulawesi, Indonesia. J. Geochemical Exploration 50, p. 221-256.
(N Sulawesi Tombulilato district island arc-type volcano-sedimentary pile with >3400m of Late Miocene(?) - Pleistocene volcanics, interbedded with marine and continental sediments. Sequence intruded by high-level stocks and dikes, cut by Late Pliocene- Pleistocene diatreme breccias, some associated with Cu mineralization. Main compressive deformation event in Pliocene. Mineralization between 2.9 - 0.9 Ma as part of district-scale hydrothermal system. Uplift and erosion removed ~2 km of rock in last 3 Myr)

Permana, A.P. & S.S. Eraku (2020)- Analisis kedalaman laut purba batu gamping Gorontalo berdasarkan Kandungan fosil foraminifera bentonik. Bioeksperimen, Jurnal Penelitian Biologi 6, 1, p. 17-23.
(online at: https://journals.ums.ac.id/index.php/bioeksperimen/article/view/10428/5388)
('Analysis of the depth of the ancient sea of Gorontalo limestone based on the content of benthonic foraminifera fossils' Four benthic foraminifera species identified in limestone of unspecified age in highlands of Gorntalo, N Sulawesi. (50% misidentified;waste of time; JTvG)

Permana, A.P., M. Kasim & F.K. Mamonto (2021)- Analisis lingkungan purba batugamping daerah Limboto Barat Kabupaten Gorontalo. Jurnal Geosapta 7, 2, p. 97-102.

(https://ppjp.ulm.ac.id/journal/index.php/geosapta/article/view/10681/pdf#)
('Analysis of limestone depositional environment inf the West Limboto area, Gorontalo Regency'. Foraminifera from 7m thick coralline limestone section in W Limboto area, Gorontalo, N Sulawesi, presumably of E Pliocene age. (Most benthic foram identifications are wrong and so is brackish lagoon- estuary paleoenvironmental interpretation; not good; JTvG))

Permana, A.P., S. Pramumijoyo & Akmaluddin (2019)- Uplift rate of Gorontalo Limestone (Indonesia) based on biostratigraphy analysis. News of the National Academy of Sciences of the Republic of Kazakhstan, Geology and Technical Sciences 6 (438), p. 6-11.
(online at: http://www.geolog-technical.kz/images/pdf/g20196/6-11.pdf)
(Measured limestone section of 24m near Limboto Lake. Age around Miocene-Pliocene boundary (5.8 Ma), elevation 70m, paleobathymetry 338.661m or 324.825m (???; bizarre precision!), giving uplift rate of ~70m/Million years)

Permana, A.P., S. Pramumijoyo & Akmaluddin (2019)- Analysis of microfacies and depositional of limestone in Yosonegoro area, Gorontalo Province, Indonesia. Bull. Iraq Natural History Museum 15, 4, p. 443-454.
(online at: https://jnhm.uobaghdad.edu.iq/index.php/BINHM/article/view/367)
((Measured limestone section of 24m near Limboto Lake given new name, Limboto Limestone Formation. Outer shelf- upper slope paleoenvironments. Age??)

Permana, A.P., S. Pramumijoyo & Akmaluddin. (2020)- Paleobathymetry analysis of limestone in Bongomeme region based on content of benthic foraminifera fossil, Gorontalo District, Indonesia. Bull. Iraq Natural History Museum 16, 1, p. 1-14.
(online at: https://jnhm.uobaghdad.edu.iq/index.php/BINHM/article/view/417/300)
(Benthic foraminifera in reefal coral rudstones suggest paleobathymetry middle-outer shelf (27.45- 91.5m (!!)) in Bongomeme 1, while in Bongomeme 2 and 3 is middle shelf (29.28-45.75m). Age unknown? (N.B.: foram identifications and conclusions debatable; JTvG))

Permana, A.P., S. Pramumijoyo, Akmaluddin & D.H. Barianto (2021)- Planktonic foraminiferal biostratigraphy of the Limboto Limestone, Gorontalo Province, Indonesia. Kuwait J. Science 48, 1, p. 116-126.
(online at: https://journalskuwait.org/kjs/index.php/KJS/article/view/6916/427)
(64m thick section of Limboto Limestone NW of Limboto Lake in N Sulawesi with latest Miocene (N17 or M13b-M14)- earliest Pliocene (PL1) planktonic foraminifera. Previously mapped as Late Pliocene- Pleistocene Clastic Limestone Formation?)

Permana, H. (2013)- Kompleks batuan malihan. In: Surono & U. Hartono (eds.) Geologi Sulawesi, LIPI Press, Jakarta, p. 127-152.
('Metamorphic rock complexes'. Chapter 7 in 'Geology of Sulawesi' book. Brief review of metamorphic rocks of Sulawesi. Nine main metamorphic complexes (Malino, Pompangeo, Mengkoka, Mendoke-Rumbia-Kabaena, Palu-Koro, Latimojong-Karossa, Matano, Bantimala-Barru and Buton), mainly of Cretaceous age, and associated with Triassic-age ultramafic rocks)

Permana, H., S.A. Awdia, A. Patonah & S. Solihin (2023)- Dynamic recrystallization study of the ultramafic rock of the Malili-Wasupondo melange complex (South Sulawesi) and Wolo Cape (Southeast Sulawesi), Indonesia. Proc. 4th Int. Conference Geoscience and Earth Resources Engineering, Bandung, 2022, IOP Conference Series: Earth and Environmental Science 1288, 012003, p. 1-10.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1288/1/012003/pdf)
(Ultramafic rocks of Wasuponda melange complex and Wolo Cape areas, SE Sulawesi, undergone dynamic recrystallization under P from ~13 MPa to 52 MPa. Main recrystallization of Malili-Wasuponda peridotite at 52 MPa, while peridotite of Wolo Cape formed at stress of 30-32 MPa)

Permana, H. & Surono (2013)- Kompleks ofiolit. In: Surono & U. Hartono (eds.) Geologi Sulawesi, LIPI Press, Jakarta, p. 213-224.

('Ophiolite complexes'. Chapter 9 in Geology of Sulawesi book. Brief review of major ophiolite complexes of East and SE Arms of Sulawesi and peridotites in Palu-Koro zone and Bantimalu- Barru melanges. E Sulawesi ophiolite overlain by E Cretaceous radiolarian cherts (Valanginian- Cenomanian)

Permanadewi, S. & Baharuddin (2012)- Cooling of granitic rocks in the Palu region, Middle Sulawesi: zircon and apatite fission track constraints. Jurnal Sumber Daya Geologi (JSDG) 22, 3, p. 131-136.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/112/104)
(Zircon and apatite FT data suggest two cooling episodes of Oligocene granitic rocks in Palu region, C Sulawesi: (1) in south cooling around 30 Ma, (2) in north ('neck' area) rapid cooling due to local uplift, possibly in response to overthrust at ~6 Ma (Late Miocene))

Permanadewi, S. & H. Samodra (2022)- Analisis petrografi dan geokimia batuan diorit-granodiorit-granit di Daerah Gorontalo, Sulawesi. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 23. p. 235-246.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/718/492)
('Petrographic and geochemical analysis of the diorite-granodiorite-granite rocks in the Gorontalo area, Sulawesi'. Gorontalo diorite-granodiorite-granite group intermediate-acid plutonic igneous rocks calc-alkaline magma series in subduction tectonic setting with estimated partial melting depth at depths of 114-160 km)

Permanadewi, S. & H. Utoyo (1994)- Perbandingan umur hasil pentarikhan Kalium-Argon batuan granitik, daerah Bora, Sulawesi Tengah dengan hornblenda dan biotit sebagai mineral penentu. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 4, 36, p. 16-20.
('Results of K- Ar dating of granitic rocks in Bora area, C Sulawesi, comparing hornblende and biotite data'. K-Ar dates of granitic rocks from Bora area, S of Palu, using biotite ~16.2-16.4 Ma, hornblende ~16.5-16.9 Ma (near E-M Miocene boundary))

Pezzati, G. (2016)- Basin development in Gorontalo Bay, Sulawesi. Ph.D. Thesis, Royal Holloway London University, p. 1-257. *(Unpublished)*

Pezzati, G., R. Hall, P. Burgess & M. Perez-Gussinye (2014)- The Poso Basin in Gorontalo Bay, Sulawesi: extension related to core complex formation on land. Proc. 38th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA14-G-297, p. 1-12.
(Seismic analysis and literature research suggest possible E Miocene origin for Gorontalo Bay, following Sula Spur collision. In W part of Gorontalo Bay two subbasins, northern Tomini Basin and southern Poso Basin. Poso Basin much younger than Tomini Basin; its development may be related to extension associated with development of metamorphic core complexes onshore)

Pholbud, P., R. Hall, E. Advokaat, P. Burgess & A. Rudyawan (2012)- A new interpretation of Gorontalo Bay, Sulawesi. Proc. 36th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA12-G-029, p. 1-23.
(online at: www.researchgate.net/publication/259672211_A_new_interpretation_of_Gorontalo_Bay_Indonesia)
(Interpretation of ages of seismic horizons of Gorontalo Bay difficult due to absence of wells. Two age scenarios for rifting-subsidence timing: Eocene- Recent or Miocene-Recent. Most of subsidence young and tied to slab rollback of N Sulawesi subduction zone)

Piccoli, G., E. Robba & S. Sartono (1994)- Mixed fossil molluscs from Tana Toraja (South Sulawesi, Indonesia). In: Studies on ecology and palaeoecology of benthic communities, Proc. 5th Paleobenthos Symposium, Rome 1992, Boll. Societa Paleontologica Italiana, Modena, Special Volume 2, p. 221-226.

Pieters, P.E. (2010)- Geological study of Lariang and Karama Basins, Tately Budong-Budong N.V. PSC, West Sulawesi. Report Tately Budong-Budong N.V., p. 1-52. *(Unpublished)*

PND- Patra Nusa Data (2009)- Opportunities (I), Bone Basin. Inameta J. 8, Sept. 2009, p. 23-27.
(online at: www.patranusa.com)
(Overview of Bone Basin, S Sulawesi, in conjunction with tender round)

Poedjoprajitno S. (2012)- Morphostructure control towards the development of Mahawu Volcanic Complex, North Sulawesi. Jurnal Geologi Indonesia 7, 1, p. 39-54.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/365)
(Development pattern of N Sulawesi Mahawu, Linau, Tompusu and Kasurutan volcanic cones irregular, except Mahawu Volcano Complex showing linear pattern interpreted as NW-SE fault controlling rise of magma)

Polve, M., R.C. Maury, H. Bellon, C. Rangin, B. Priadi, S. Yuwono, J.L. Joron & R. Soeria-Atmadja (1997)- Magmatic evolution of Sulawesi (Indonesia): constraints on the Cenozoic geodynamic history of the Sundaland active margin. Tectonophysics 272, p. 69-92. *(online at: https://www.academia.edu/64006209/Magmatic_evolution_of_Sulawesi_Indonesia_constraints_on_the_Cenozoic_geodynamic_history_of_the_Sundaland_active_margin)*
(Paleocene magmatic activity limited to Makassar area (61-59 Ma). Major Eocene (50-40 Ma) event with tholeitic pillow lavas and basaltic dikes of back-arc basin affinity in all areas, possibly equivalent to Celebes Sea basaltic basement. Oligocene- Miocene island-arc tholeiites and calc-alkaline series (mainly 30-15 Ma) Widespread K-rich magmatic event between 13-10 Ma. Calc-alkaline activity resumed only in N Arm in Late Miocene (9 Ma) and still active in Manado region. K-rich activity continued in S until Pleistocene (0.77 Ma). Most recent event in C Sulawesi 6.5- 0.6 Ma granites and acid tuffs, probably strong continental imprint)

Polve, M., R.C. Maury, P. Vidal, B. Priadi, H. Bellon, R. Soeria-Atmadja, J.L. Joron & J. Cotten (2001)- Melting of lower continental crust in a young post-collision setting: a geochemical study of Plio-Quaternary acidic magmatism from Central Sulawesi (Indonesia). Bull. Societe Geologique France 174, p. 305-317.
(online at: www.researchgate.net/publication/286188049_Melting_of_lower_continental_crust_in_a_ Etc.)
(Acid, potassic, calc-alkaline magmas in C part of Sulawesi West arm from 6.5-0.6 Ma (dacites, rhyolites, granites. Chemical signatures consistent with Australian granulites and Indian Ocean sediments suggest magmas derived from anatexis of lower crust of Australian origin (Banggai-Sula?) after M Miocene collision with W Sulawesi Sundaland margin and possibly breakoff of subducted Molucca Sea slab)

Pouyet, S. & G. Braga (1993)- *Thalamoporella sulawesiensis* n. sp. (Bryozoa, Cheilostomata) from the Eocene of Sulawesi. Neues Jahrbuch Mineralogie Geologie Palaontologie, Monatshefte 1993, 2, p. 88-96.
(Bryozoa from limestone at Salubarani, Tanah Toraja region. Age presumably Eocene, but age doubtful?)

Prahastomi, M., A. Fahruddin, L.D. Santy & R. Adlan (2022)- Depositional facies model and reservoir quality of Paleogene Limestone in Labengki Island, Southeast Sulawesi. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 23, 3, p. 189-196.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/507/487)
(Eocene- E Oligocene Tampakura Fm limestones in Labengki Island, Kendari Basin, off SE Sulawesi, deposited in rimmed carbonate shelf setting with extensive development of high energy facies. Composed of (oolitic) grainstone, boundstone and floatstone. Locally dolomitized (N.B. No fossil evidence ever presented to justify Paleogene age of Tampakura ooidal and dolomitized limestones in SE Sulawesi area?. Oolitic Eocene carbonates virtually or entirely absent in the Tertiary of SE Asia; possibly Late Triassic age?; JTvG)

Pratama, A., A. Idrus, I.W. Warmada & Saifullah (2024)- Lithological control to the gold mineralization in the Main Ridge Complex of the Bakan Gold District, Northern Sulawesi, Indonesia. Proc. 2nd Int. Conference Geological Engineering and Geosciences (ICGOES), Yogyakarta 2022, IOP Conference Series: Earth and Environmental Science 1378, 012030, p. 1-11.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1378/1/012030/pdf)
(N Sulawesi Main Ridge volcanics complex in Sulawesi North Arm with Late Neogene tuff units. Highest gold mineralization in dacite tuffs and diatreme breccia)

Priadi, B. (1993)- Geochimie du magmatisme de l'Ouest et du Nord de Sulawesi: tracages des sources et implications geodynamiques. Doct. Thesis, Universite Paul Sabatier, Toulouse III, p. 1-293. *(Unpublished)*
('Geochemistry and magmatism of W and N Sulawesi'. Study of petrology and geochemistry of magmatic rocks of SW, C and N Sulawesi. S Sulawesi different history from rest of island, with Jurassic tholeitic magmatism. Calc-alkaline magmatism rel. rare, tholeitic and potassic magmatism more common. Old cycle in S only (55-60

Ma), calc-alkaline magmatism in S and C at 30 -17 Ma. In S-most sector highly potassic magmatism between 11-3 Ma and in C part acid calc-alkaline magmatism at 6-0.5 Ma. In N Sulawesi calc-alkaline magmatism continuation of Philippine Arc (incl. 22 Ma date) with ~15 Ma change from subduction to collision regime)

Priadi, B. (1996)- Kompleks granitoid Neogen di Sulawesi Tengah: tinjauan geokimia. Buletin Geologi (ITB) 26, 2-3, p.
('Neogene granitoid complex in C Sulawesi'. Neogene granitoid (5.5-3.2 Ma) along C Sulawesi Palu-Koro Fault associated with Late Miocene-Recent potassic calc alkaline (KCA) magmatism. Correlated with collision of Banggai-Sula micro-continent with Sulawesi in M Miocene, but details about genesis still limited)

Priadi, B. (2011)- Sulawesi magmatic arcs. In: N.I. Basuki (ed.) Proc. Seminar Sulawesi Mineral Resources 2011, Manado, MGEI/IAGI, p. 111-120.
(Magmatic arc products in Sulawesi mostly in W and N Arms. Oldest magmatism exposed in S part indicates Late Jurassic age (Lamasi Volcanics at E side of S arm; 159-137 Ma), with characteristics of back arc or marginal-basin magmatism (possibly part of dismembered E Sulawesi ophiolite). Paleogene- M Miocene mostly subduction-related magmatism, but W and N arms not connected until Eocene. Local Paleocene non subduction-related magmatism in N Arm may represent S-ward obducted parts of Sulawesi Sea. M Miocene- Recent magmatism different magmatic affinities, correlated with E-M Miocene collision of Banggai-Sula microcontinent, affecting melting of lower continental crust, producing magma with potassic calc-alkaline affinity in Palu-Tolitoli areas. Collision also halted subduction in S, with M Miocene- Recent alkaline/ shoshonitic post-subduction magmatism in Makassar-Toraja area)

Priadi, B (2013)- Magmatisme Sulawesi. In: Surono & U. Hartono (eds.) Geologi Sulawesi, LIPI Press, Jakarta, p. 113-126.
('Magmatism of Sulawesi'. Chapter 6 in Geology of Sulawesi book. Review of Sulawesi magmatism in Pre-Tertiary, Paleogene, Neogene and Quaternary)

Priadi, B., H. Bellon, R.C. Maury, M. Polve, R. Soeria-Atmadja & J.C. Philippet (1994)- Magmatic evolution in Sulawesi in the light of new 40K-40Ar age data. Proc. 23rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 1, p. 355-369.
(online at: https://www.iagi.or.id/web/digital/62/30.pdf)
(W Sulawesi volcanic episodes: Jurassic (~150 Ma) back arc basin magmatism, Paleocene subduction-related magmatism (~60 Ma), Oligocene- M Miocene (40-~15 Ma; well-developed in N Sulawesi; also in W and C Sulawesi) subduction-related magmatism and Miocene-Recent (~13-0 Ma) collision-related magmatism)

Priadi, B., R.C. Maury, R. Soeria-Atmadja, M. Polve & H. Bellon (1991)- Tertiary and Quaternary magmatism in Central Sulawesi: chronological and petrological constraints. In: E.P. Utomo et al. (eds.) Proc. The Silver Jubilee LIPI- Symposium on the Dynamics of subduction and its products, Yogyakarta-Karangsambung 1991, Research and Development Center for Geotechnology, Indonesian Institut of Sciences (LIPI), Bandung, p. 165-187.
(same title as Priadi et al. (1994), below)

Priadi, B., M. Polve, R.C. Maury, R. Soeria-Atmadja & H. Bellon (1993)- Geodynamic implications of Neogene potassic calc-alkaline magmatism in Central of Sulawesi: geochemical and isotopic constraints. Proc. 22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 59-81.
(Potassic calc-alkaline magmatism of C Sulawesi mostly acidic, ranging in age fom 6.5 Ma- Recent. Isotopic character similar to Australian blocks, suggesting result of collision between two 'Australian' blocks, Banggai Sula in E and western block that is either microcontinent of Australian origin or ancient volcanic arc that incorporated large volume of sediment)f

Priadi, B., M. Polve, R.C. Maury, H. Bellon, R. Soeria-Atmadja, J.L. Joron & J. Cotten (1994)- Tertiary and Quaternary magmatism in Central Sulawesi: chronological and petrological constraints. J. Southeast Asian Earth Sciences 9, 1-2, p. 81-93.
(online at: www.academia.edu/24640566/Tertiary_and_quaternary_magmatism_in_Central_Sulawesi Etc.)

(Four main magmatic events in C Sulawesi: (1) Late Eocene and Oligocene island arc tholeiites and calc-alkaline intrusions. (2) Lamasi Volcanics: 33-15 My K-Ar ages, but may not be magmatic ages. MORB-type affinity and anomalies indicative of BABB affinity. Origin still enigmatic. (3) Important shoshonitic affinity event at 10.1-11.9 Ma, probably post-subduction associations emplaced in S Sulawesi in Late Miocene and might derive from melting of mantle material after mantle metasomatised during former episode of subduction. (4) Last event 6.5-0.6 Ma granitic rocks, rhyolites and widely distributed rhyolitic Barupu tuff pyroclastics (0.6 Ma). All magmatic rocks K-rich calc-alkaline composition, lacking basaltic and intermediate magmas (SiO_2 >60%) and high enrichments in incompatible elements and radiogenic Sr isotopic signature. This is consistent with strong crustal imprint by melting of underthrusted continental crust in collisional context)

Priadi, B., R. Soeria-Atmadja, R. Maury, H. Bellon & M. Polve (1997)- The occurrence of back-arc magmatism in Sulawesi: geochemical constraints on geodynamic reconstruction. Proc. 26th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 390-403.
(online at: https://www.iagi.or.id/web/digital/64/30.pdf)
(Two volcanic units along E edge of S arm of Sulawesi: (1) Kalamiseng Fm pillow lava-breccia, with Miocene (~17-22 Ma K-Ar ages), but may be older; (2) Lamasi Volcanics in NE part of S Sulawesi K-Ar ages suggest 3 episodes of activity, including oldest ages of Sulawesi volcanics: (1) 'Palopo ophiolite' 'back-arc' micro-gabbro cut by dikes; Late Jurassic-earliest Cretaceous (~159-137 Ma) and subduction-related (2) Oligocene Lamasi-Songka volcanics (~33-28 Ma) and (3) M Miocene Lamasi- Pohi Volcanics (~15.4 Ma) volcanics. In N part of W Sulawesi and N Sulawesi mainly Eocene (~34-50 Ma) Tinombo Fm mostly back arc basin chemistry and Paleogene K-Ar ages. Younger volcanics less common and subduction related)

Priadi, B., I.G.B.E. Sucipta & J. Sopaheluwakan (2009)- Post-collisional granitoids in Central Sulawesi, Indonesia. In: 11th Regional Congress Geology Mineral Energy Resources of SE Asia (GEOSEA 2009), Kuala Lumpur, p. 45. *(Abstract only)*
(online at: https://gsm.org.my/articles/702001-101669/)
(Neogene potassic calc-alkaline granitoids and dacitic-rhyolitic volcanics along Palu-Koro FZ of C Sulawesi)

Priadi, B., I.G.B.E. Sucipta, H. Utoyo, J. Sopaheluwakan, W. Sudarsono & Widiasmoro (1996)- Kompleks granitoid Neogen di Sulawesi Tengah, tinjauan geokimia. Buletin Geologi (ITB) 26, 2/3, p. 129-141.
(online at: https://www.researchgate.net/publication/288030831_Kompleks_Granitoid_Neogen_Di_Sulawesi_Tengah_Tinjauan_Geokimia)
('Geochemistry of Neogene granitoid complexes in Central Sulawesi'. At least three groups of Late Miocene-Recent granitoids along Palo-Kuro Fault Zone, of potassic calc-alkaline magmatic affinity: (1) Coarse-grained granitoids with K-feldspar megacrysts (Granitoid-C, 8.4- 3.7 Ma), (2) Medium-grained, gneissic and mylonitized granitoids (Granitoid-B, 5.5-3.2 Ma), and (3) Fine-grained, biotite-poor granitoids (Granitoid-A, 3.1-1.8 Ma). Also older group of gneissic granitoids (Granitoid-D, 96.4 Ma))

Priadi, B., I.G.B.E. Sucipta, H. Utoyo, J. Sopaheluwakan & Sudarsono (1999)- Distribution of Neogene granitoid along the Palu-Koro fault zone, Central Sulawesi. In: H. Darman & F.H. Sidi (eds.) Tectonics and sedimentation of Indonesia, FOSI-IAGI-ITB Regional Seminar to commemorate 50th anniversary of Van Bemmelen's Geology of Indonesia, Bandung 1999, p. 72-74.
(Late Miocene- Recent potassic calk-alkaline magmatism along left-lateral Palu-Koro fault zone, possibly tied to collision of Banggai-Sula collision. Three groups of granitoids aged between ~8.4- 1.7 Ma, with possible contributions of continental material (SiO_2 >60%). Also gneissic granitoid of Cretaceous (96.4 Ma age))

Priadi, B., H. Utoyo, Sudarsono, Widiasmoro, J. Sopaheluwakan, A. Kadarusman & D. Sukarna (1995)- Petro-geochemical variations of granitoids along Palu-Koro Fault Zone, Central Sulawesi. Proc. 6th Int. Congress Pacific Neogene Stratigraphy and IGCP-355, PUSPITEK-Serpong, p. 34-36.

Prihatmoko, S. & H. Lubis (1992)- Porfiri Au-Cu pada tubuh breksi di prospek Bulagidun, Lengan Utara, Sulawesi. Proc. 21st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 1, p. 233-240.
(online at: https://www.iagi.or.id/web/digital/51/14.pdf)

('Au-Cu porphyry at breccia bodies in the Bulagidun prospect, North Arm Sulawesi'. Three Au-Cu-bearing breccia bodies discovered by BHP in 1987 in remote N Sulawesi, SW of Manado. Diorite-tonalite intrusives invaded andesitic lava (9.4 Ma). Latest alteration 8.75 Ma. Possibly high Au porphyry Cu system, but presence of tourmaline unusual))

Priyanto, B. & M.R. Fitriannur (2008)- Neogene tectonic and sedimentary control to hydrocarbon generation in Banggai Basin, Eastern Sulawesi. Proc. 37th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 54-65.
(online at: https://www.iagi.or.id/web/digital/14/2008_IAGI_Bandung_Neogene-Tectonic-and-Sedimentary.pdf)
(Literature review of Banggai Basin, formed as result of Miocene collision of Banggai-Sula microplate and E Sulawesi. Basin stratigraphy two distinct periods: (1) continental margin rift to collision, and (2) latest Miocene-Pliocene foreland basin molasse sequence. Numerous oil and gas seeps in NW Taliabu, wet gas seeps near Falabisahaya in Mangole, oil and gas from Dongkala-1, gas from Minahaki-1 and Matindok-1. Source, reservoir and seal rocks all within Miocene sequence. No new data)

Purawiardi, R. (2008)- Karakteristik bijih kromit Barru, Sulawesi Selatan. J. RISET Geologi dan Pertambangan (LIPI) 18, 1, p. 1-13.
(online at: https://jrisetgeotam.brin.go.id/index.php/jrisgeotam/article/view/3/13)
('Characteristics of Barru chromite ore, S Sulawesi'. Barru District asymmetric structural axes N-S and NW-SE trending. Chromite as podiform deposits in Triassic(?) serpentinitized ultrabasic rocks, mostly at fault zones and around contact zone with dacitic rock)

Purnamaningsih, D. Sukarna & H. Panggabean (1995)- The geology, mineral and energy resources of northern West Sulawesi. In: J. Ringis (ed.) Proc. 31st Session Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Kuala Lumpur 1994, 2, p. 20-35. *(online at: https://repository.unescap.org/server/api/core/bitstreams/4198bc42-86c9-49fe-843e-60aebea03e54/content)*
(N part of W Sulawesi recently re-mapped. Covers Lariang and Karama sub-basins. Basement of unnamed M Cretaceous or older high-grade metamorphics, possibly part of accretionary complex along Eurasian continent, overlain by thick flysch-type, low-metamorphic, Upper Cretaceous Latimojong Fm. Unconformably overlain by Middle to-Late Eocene clastics and Nummulites limestones and Oligocene- M Miocene Tonasa Lst carbonate platform, up to 2500m thick, in S of area. Late Oligocene- E Miocene (29-22 Ma) Lamasi island arc volcanics, etc. Plio-Pleistocene thin-skinned W-directed thrusting= Majene foldbelt. With three simple, hard-to-understand paleogeographic maps)

Purnomo, E., S.P. Tony & A. Luthfi (1999)- Relative age indicator of Sulawesi collision zone, eastern arm of Sulawesi. In: H. Darman & F.H. Sidi (eds.) Tectonics and sedimentation of Indonesia, FOSI-IAGI-ITB Regional Seminar to commemorate 50th anniversary of Van Bemmelen's Geology of Indonesia, Bandung 1999, p. 76-78. *(Extended Abstract)*
(Batui collision zone between S part of East Arm of Sulawesi and Banggai Sula microcontinent. Syn-collisional bathyal Poh Fm marls (between pre-collision Salodik Fm carbonates-clastics and post-rift Celebes molasse) with planktonic foraminifera of E Pliocene age)

Puspita, S.D., R. Hall & C.F. Elders (2005)- Structural styles of the offshore West Sulawesi fold belt, North Makassar Straits, Indonesia. Proc. 30th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 519-542.
(Offshore W Sulawesi Fold Belt (WSFB) three structural provinces, S, C and N, controlled by basement structures and differing in amount and character of Cenozoic sediment. Central High (with onlap of sediments from Kalimantan, little sediment from W Sulawesi, and fold-thrust belt extending short distance offshore) separates S and N provinces, which extend W into deep water and display different deformation styles, sediment thickness and sediment types. Palu-Lariang region likely source of sediments in N; Karama-Kalosi region probable source for S. Deformation propagating W from onshore Sulawesi and began in Pliocene. N Makassar Straits underlain by thinned continental crust)

Putra, P.S., Aswan, K.A. Maryunani, E. Yulianto & W. Kongko (2019)- Field survey of the 2018 Sulawesi tsunami deposits. Pure and Applied Geophysics 176, p. 2203-2213.
(online at: https://www.academia.edu/download/101901132/s00024-019-02181-920230506-1-zdvito.pdf)
(Deposits of destructive tsunami after Mw 7.5 Palu earthquake on 28 September 2018, in Palu Bay, NW Sulawesi. Tsunami height was ~5-8 m with maximum inundation distance of 310m. Tsunami deposits generally 1-6 cm thick, max. 26 cm, with fining upward sequences)

Putra, P.S., Aswan, K.A. Maryunani, E. Yulianto, S.H. Nugroho, R.N.F. An Nahar, I. Amanda et al. (2022)- Characterization of sedimentary features of the 2018 Palu tsunami event, Sulawesi, Indonesia. Pure and Applied Geophysics 179, 5, p. 1561-1582.
(Tsunami deposits of 2018 Palu earthquake sampled along two transects on E coast of Palu Bay. Deposits generally fining upward, except for seaward sites at Kayumalue. Foraminifera dominated by benthic species. Dominant sources of tsunami deposits transitional to inner neritic zones, with minor contribution from pre-tsunami sediments)

Putri, N.S., M. Mawaleda, A. Jaya & I. Setiawan (2021)- Hydrothermal alteration, ore mineralization, and fluid inclusion characteristics of Tarra Prospect, Awak Mas deposit, Luwu Area, South Sulawesi, Indonesia. Int. Journal of Engineering and Science Applications (IJEScA; UNHAS) 8, 2, p. 67-73.
(online at: http://pasca.unhas.ac.id/ojs/index.php/ijesca/article/view/3274/790)
(Tarra part of Awak Mas gold prospect in S part of Latimojong Complex, W Sulawesi. Host rock of gold mineralization meta-sedimentary rocks of Latimodjong Fm. Two types of alteration)

Qi, D.R., T.G. Lan, Q. Shu, Y. Feng & S.H. Zhou (2024)- Nickel enrichment during lateritization of ophiolitic ultramafic rocks: A case study from the Kelurahan Pondidrha laterite profile in Sulawesi, Indonesia. Ore Geology Reviews 170, 106140, p. 1-13.
(online at: https://www.sciencedirect.com/science/article/pii/S0169136824002737)
(Nickel in newly discovered Ni-bearing laterite profile in Kelurahan Pondidrha area in SE Sulawesi highest contents in saprolitic layer rather than more weathered lateritic layer)

Querubin, C.D. & S. Walters (2011)- Geology and mineralization of Awak Mas: a sedimentary hosted gold deposit, South Sulawesi, Indonesia. In: N.I. Basuki (ed.) Proc. Sulawesi Minerals Resources Seminar 2011, Manado 2011, MGEI/IAGI, p. 211-229.
(See also updated version Querubin & Walters 2012)

Querubin, C.D. & S. Walters (2012)- Geology and mineralization of Awak Mas: a sedimentary hosted gold deposit, South Sulawesi, Indonesia. Majalah Geologi Indonesia (IAGI) 27, 2, p. 69-85.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/736)
(Awak Mas gold project in S part of C Sulawesi Metamorphic Belt, SSW of Palopo, explored since 1987. Hosted in intensely folded (WSW to SW-directed thrusting?, generally 15-50°N-dipping) Late Cretaceous Latimojong Fm flysch-type phyllites, slates, volcanics, limestones and schists, overlying basement metamorphic rocks and intruded by late diorite-monzonite plugs and stocks. T-P regime suggests either subduction or massive thrusting environment. ~N-S trending oblique normal faults and extensional fractures local controls to mineralization)

Rachman, R.S., S.A. Wibisono & R. Hidayat (2023)- Identifikasi lingkungan pengendapan batubara berdasarkan analisis petrografi organik pada Formasi Toraja, Sulawesi Barat. Jurnal Geosapta 9, 2, p. 87-93.
(online at: https://ppjp.ulm.ac.id/journal/index.php/geosapta/article/view/15577/pdf)
('Identification of coal depositional environment based on organic petrographic analysis of the Toraja Formation, West Sulawesi'. Coal in (Eocene) Toraja Fm has lignite-bituminous rank. Depositional environment fluvial with mire conditions that are ever wet)

Radja, V.T. (1970)- Geothermal energy prospects in South Sulawesi, Indonesia. Geothermics 2, 1, p. 136-149.
(Indonesia geothermal potential large and genetically linked to volcanism. Preliminary appraisal of S Sulawesi suggests potential for 9 geothermal fields)

Rafianto, R.I. (2011)- Developing Indonesian nickel deposits: challenges and opportunities. Proc. 36th HAGI and 40th Annual Conv. Indonesian Association Geologists (IAGI), Makassar 2011, p. 1-7.
(online at: https://www.iagi.or.id/web/digital/10/2011_IAGI_Makassar_Developing-Indonesian-Nickel.pdf)
(General review. Netherlands Indies Geological Survey nickel surveys in SE Sulawesi in early 1900s. First small scale mining by Bonitra MC (a joint venture between Dutch Oost Borneo Maatschappij and German Krupp Industries) at Pomala in 1935-1941, and in 1942-1945 by Japanese Sumitomo Mining. Mining by foreign companies INCO, etc.and Indonesia state company ANTAM since early 1970s. Etc.)

Rafianto, R., F. Attong, A. Matano & M.E. Syam Noor (2011)- The serpentine-related nickel sulfide occurrences from Latao, SE Sulawesi: a new frontier of nickel exploration in Indonesia. In: N.I. Basuki (ed.) Proc. MGEI/IAGI Seminar Sulawesi Mineral Resources 2011, Manado, p. 267-288.
(online at: https://www.academia.edu/9614095/TheSerpentine_RelatedNickelSulfideOccurrencesfromLatao_SESulawesi_aNewFrontierofNickelExplorationinIndonesia)
(Latao area nickel evaluation project since 1970 at W coast of SE Arm of Sulawesi. Rel. unimportant podiform chromite, but Ni Co sulphides mineralizations in serpentinized ultramafic rocks. (Cretaceous) ultramafics obducted over Triassic metasediments and metamorphic rocks)

Rafianto, R., F. Attong, A. Matano & M.E. Syam Noor (2012)- Kehadiran sulfida nikel yang berkaitan dengan serpentin di Latao, Sulawesi Tenggara: suatu frontier baru eksplorasi nikel di Indonesia. Majalah Geologi Indonesia (IAGI) 27, 2, p. 87-107.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/768)
(The presence of nickel sulfide related to serpentine in Latao, SW Sulawesi: a new frontier of nickel exploration in Indonesia'. Same as Rafianto et al. 2011)

Rafianto, R. & G.H. Tutuko (2010)- 40 years PT INCO exploration: evolution in method and understanding nickel mineralization in Sulawesi. Proc. 39th Annual Conv. Indonesian Association Geologists (IAGI), Lombok, PIT-IAGI-2010-095, p. 1-15.
(online at: https://www.iagi.or.id/web/digital/12/2010_IAGI_Lombok_40-Years-P.T.-Inco-Exploration.pdf)
(History of INCO exploration and mining of nickel laterites since 1969 in E Sulawesi ultramafic ophiolite complex, focused on Sorowako area. Largest deposits highest nickel grades in Sorowako area in central part of E Sulawesi. Best nickel laterite deposits on crests and flanks of hills over ultramafic bedrocks (N.B.: little or nothing on geologic setting, and no mention of Ni evaluations in same area in 1920s-1950s; JTvG))

Rahardiawan, R. & L. Arifin (2013)- Struktur geologi Teluk Bone- Sulawesi Selatan. J. Geologi Kelautan 11, 3, p. 141-147.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/238/228)
('Geologic structure of Bone Bay, South Sulawesi'. Bone Bay water depth 50-2000m. Seafloor morphology strongly influenced by active faults, incl. flower structures)

Rahardiawan, R., T. Naibaho & L. Arifin (2011)- Struktur dan stratigrafi Cekungan Spermonde, Sulawesi Selatan: studi pendahuluan seismik 2D. Majalah Geologi Indonesia (IAGI) 26, 2, p. 83-91.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/765))
('Structure and stratigraphy of the Spermonde Basin, offshore SW Sulawesi: preliminary study of 2D seismic'. Five seismic stratigraphic sequences assumed to be of Eocene- Pliocene age)

Raharjanti, N.A., I.W. Warmada & H.T.B.M. Petrus (2021)- Ore characterization of LSE gold deposit in "X" Pit, Toka Tindung Project, North Sulawesi. Proc. Int. Conference Geological Engineering and Geosciences, Yogyakarta 2021, IOP Conference Series: Earth and Environmental Science 851, 012043, p. 1-10.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/851/1/012043)
(Toka Tindung is low sulphidation epithermal Au-Ag deposit in N Sulawesi associated with Pliocene-Pleistocene volcanics and controlled dominantly by NNW trending faults. Mineralization as sheeted vein type quartz with colloform texture. Ore minerals sulfides (pyrite, sphalerite). Three alteration zones)

Raharjo, S., R. Seago, E.W. Jatmiko, F.B. Hakim & L.D. Meckel (2012)- Basin evolution and hydrocarbon geochemistry of the Lariang-Karama basin: implications for petroleum system in onshore West Sulawesi. Proc. 36th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA12-G-135, p. 1-22.
(Lariang-Karama basins onshore W Sulawesi M Eocene extensional half-grabens. Mild basin inversion in M Miocene at ~12 Ma, but extension continuing until Plio-Pleistocene inversion/ uplift at ~2 Ma. Fine siliciclastic turbidites in M Miocene in Tike-1 well thought to be distal equivalents to sediments of Kutei in Kalimantan. Most shortening taken up by NW-SE oriented strike-slip faults, compartmentalizing series of folds and thrusts. Oil-gas seeps over major fold structures and along faulted, E margin of coastal Karama basin, generated from M-L Eocene fluvio-deltaic coals and carbonaceous shale. Oils paraffinic, low sulfur, moderately low wax to waxy. Source of two oil seeps from Lariang Basin dominated by terrestrial higher plant material with minor algal input; seeps from Karama Basin mixed algal-terrestrial, probably open marine/deep lacustrine source)

Rahman, M.R., A. Zainuri & I.N. Manyoe (2019)- Analisis stratigrafi dan rumusan sejarah geologi daerah Limbato dan sekitarnya, Kapubaten Gorontalo Utara, Provinsi Gorontalo. Jurnal Azimut 2, 1, p. 65-71.
(online at: https://ojs.unitas-pdg.ac.id/index.php/azimut/article/view/435/286)
('Stratigraphic analysis and account of the geological history of the Limbato area and its surroundings, North Gorontalo District, Gorontalo Province'. Stratigraphy of Limbato area 4 unofficial units:M Miocene granodiorite (subduction), Late Miocene- E Pliocene volcanic breccias, M. Pliocene andesite units and alluvial deposits. Volcanism stopped in E Pliocene, followed by renewed M Pliocene andesite magmatism)

Raivel, R. & F. Firman (2020)- Karakteristik endapan nikel laterit di bawah Molasa Sulawesi daerah Tinanggea, Sulawesi Tenggara. Jurnal GEOMining (Teknik Pertambangan Unkhair) 1, 1, p. 25-37.
(online at: https://ejournal.unkhair.ac.id/index.php/geomining/article/view/2156/1537)
('Characteristics of laterite nickel deposits under Sulawesi Molasse, Tinanggea area, SE Sulawesi'. Nickel laterite formed by weathering of lherzolite ultramafic rocks. Ni elements only in saprolite zone, with highest Ni grade at top of saprolite (2.0-2.9%), with average thickness of 3 m)

Raivel, R., M. Mawaleda & A. Jaya (2020)- Petrografi batuan sekis Kompleks Rumbia, Lengan Tenggara Sulawesi. Jurnal GEOMining (Teknik Pertambangan Unkhair) 1, 2, p. 63-71.
(online at: https://ejournal.unkhair.ac.id/index.php/geomining/article/view/2404/1614
('Petrography of schist rocks of the Rumbia Complex, SE Arm of Sulawesi' Rumbia Schist Complex with mica schists mostly in N, chlorite schist in E, W and S. Chlorite-muscovite schist, chlorite-epidote schist and tremolite-actinolite schist in E part of Rumbia Schist Complex, with different foliation orientations)

Ramadhan, A. (2024)- Geologi dan diagenesis batugamping Formasi Tokala daerah Tudua, Kecamatan Bungku Tengah, Kabupaten Morowali, Provinsi Sulawesi Tengah. Skripsi/ thesis, Universitas Hasannuddin, Gowa, Makassar, p. 1-120..
(parts online at: https://repository.unhas.ac.id/id/eprint/43889/)
('Geology and diagenesis of Tokala Formation, Tudua Area, Bungku Tengah District, Morowali Regency, Central Sulawesi Province'. (this is supposedly a study of Triassic-Jurassic 'Tokala Limestone' in E Sulawesi, but some thin section images clearly show some pelagic limestone with Late Cretaceous planktonics JTvG))

Rangin, C., R.C. Maury, M. Polve, H. Bellon, B. Priadi, R. Soeria-Atmadja, J. Cotten & J.L. Joron (1997)- Eocene to Miocene back arc basin basalts and associated island arc tholeiites from Northern Sulawesi (Indonesia): implications for the geodynamic evolution of the Celebes basin. Bull. Societe Geologique France 168, 5, p. 627-635. *(online at: www.researchgate.net/publication/279767395_Eocene_to_Miocene_back-arc_basin_basalts_and_asso Etc.)*
(Most of N arm of Sulawesi is on Eocene oceanic crust (back arc basin basalts), intruded by younger arc volcanics. Similar geochemistries with Celebes Sea suggest N Sulawesi volcanic arc was built on same oceanic crust. N arm rotated clockwise 25°)

Ratman, N. (1976)- Geologic map of Tolitoli Quadrangle, North Sulawesi 2016-2116-2117, scale 1: 250, 000. Geological Research Development Centre (GRDC), Bandung.

(Geologic map of westernmost part of North Arm of Sulawesi. Oldest rocks ?Mesozoic Malino Metamorphic Complex, overlain by ?Eocene- E Oligocene Tinambo Fm clastics and volcanics, overlain by Miocene and younger clastics and volcanics. Several undated granitoid complexes)

Ratman, N. & S. Atmawinata (1993)- Geology of the Mamuju Quadrangle, Sulawesi. Scale 1: 250, 000. Geological Research Development Centre (GRDC), 2nd Edition, p. 1-25.
(SW Sulawesi map between 2-3° S. Metamorphic basement overlain by low-metamorphic Upper Cretaceous clastics. Eocene clastics and limestone, Late Oligocene- Early Miocene andesitic volcanics, Mio-Pliocene volcanoclastics. Large Late Miocene- E Pliocene granitic intrusive)

Reminton, C.H. (1995)- The challenge of petroleum exploration in the Gorontalo frontier basin, North Sulawesi-Indonesia. American Assoc. Petroleum Geol. (AAPG) Bull. 79, p. 81 *(Abstract only)*
(Gorontalo Basin untested frontier basin. Airborne Laser Fluorescence survey showed fluors on water surface in Tomini Bay. Oil and gas seeps onshore and offshore of Tomini Bay suggest mature Paleogene source rocks)

Reijzer, J. (1920)- Geologische aanteekeningen betreffende de Zuidelijke Toraja-landen, verzameld uit de verslagen der mijnbouwkundige onderzoekingen in Midden-Celebes. Jaarboek Mijnwezen Nederlandsch Oost-Indie 47 (1918), Verhandelingen 1, p. 154-209.
(online at: https://resolver.kb.nl/resolve?urn=MMKB31:037114000:pdf)
'Geologic notes on the southern Toraja lands, compiled from reports of mining investigations in Central Sulawesi'. With two maps. Three areas with oil indications, presence of red and black Cretaceous shales (.koperlei formatie'), small Eocene coal-bearing basins, Eocene- E Miocene reefal limestones, Neogene 'Celebes Molasse', etc.)

Retgers, J.W. (1895)- Mikroskopisch onderzoek van gesteenten uit Nederlandsch Oost-Indie, F. Gesteeenten van Celebes en Onderhoorigheden (ingezonden door den controleur A.E.A.F. Eerdmans). Jaarboek Mijnwezen Nederlandsch Oost-Indie 24 (1895), Wetenschappelijk Gedeelte, p. 124-139.
(Brief petrographic descriptions of rocks collected government official Eerdmans, mainly in S Sulawesi, incl. leucitites near Malawa and common limestones and augite-andesites. No figures or locality details)

Rianto, A., J. Soesilo, E. Hartono & A.W. Nugroho (2018)- Geological study of graphite petrogenesys in Southeast Sulawesi. Proc. 47th Annual Conv. Indonesian Association Geologists (IAGI), Pekanbaru 2018, p. 1-8. *(online at: https://eprints.upnyk.ac.id/17532/1/Full%20Paper-Professional-Graphite_Anton%20Riyanto%20dkk.pdf)*
(Kolaka area with graphite minerals in metamorphic rocks of (1) Mekongga Complex (Carboniferous) and (2) Pompangeo Complex (Cretaceous-Paleogene))

Rinne, F. (1900)- Skizzen zur Geologie der Minahassa in Nord-Celebes. Zeitschrift Deutschen Geologischen Gesellschaft, Berlin 52, 2, p. 327-347.
(online at: https://www.biodiversitylibrary.org/item/148377#page/371/mode/1up)
('Notes on the geology of the Minahasa, North Sulawesi'. Early description of volcanics-dominated NE tip of Sulawesi (work done in 1898 on behalf of 'Mijnbouw Maatschappij Oost Totok', while Rinne was Professor at the Technischen Hochschule Hannover, Germany)

Rinne, F. (1900)- Beitrag zur Petrographie der Minahassa, Nord-Celebes. Sitzungsberichte Preussischen Akademie Wissenschaften, Berlin, 1900, 1, p. 474-503.
('Contribution to the petrography of the Minahassa, North Sulawesi'. Petrographic description of volcanics and plutonic rocks of NE Sulawesi: diorite, diabase, dacites, andesites, basalt. Also granite near Gorontalo)

Rivai, T.A., K. Yonezu, Syafrizal, K. Sanematsu, D. Kusumanto, A. Imai & K. Watanabe (2019)- A low-sulfidation epithermal mineralization in the River Reef Zone, the Poboya Prospect, Central Sulawesi, Indonesia: vein textures, ore mineralogy, and fluid inclusions. Resource Geology 69, 4, p. 385-401.
(online at: https://onlinelibrary.wiley.com/doi/pdf/10.1111/rge.12206)

(Poboya gold prospect along NNW-SSE Palu-Koro Fault Zone in central part of W Sulawesi Arc. Geology of area Palu Metamorphic Complex overlain by Paleogene-Neogene Tinombo Fm volcanosedimentary rocks, Celebes Molasse and Late Cenozoic granites. Low-sulfidation epithermal deposit in River Reef Zone, Poboya Prospect, illustrates gold potential of W Sulawesi Arc, particularly along Palu-Koro Fault Zone)

Rivai, T.A., K. Yonezu, Syafrizal & K. Watanabe (2015)- Preliminary investigation on the quartz veins and host rocks at the River Reef Zone, the Poboya gold deposit, Central Sulawesi, Indonesia. Proc. Int. Symposium on Earth Science and Technology, Fukuoka 2015, p. 258-263.
(online at: www.researchgate.net/publication/363171779_Preliminary_investigation_on_the_Quartz Etc.)
(River Reef zone gold-bearing quartz veins of Poboya gold deposit, ~12 km NE of Palu, hosted in gramite, biotite-chlorite schist and amphibolite schist)

Rivai, T.A., K. Yonezu, K. Watanabe, Syafrizal, K. Sanematsu & D. Kusumanto (2017)- Characteristics of a Se-rich low-intermediate sulphidation epithermal deposit in the River Reef, the Poboya prospect, Central Sulawesi, Indonesia. 14th Biennial Meeting Society for Geology Applied to Mineral Deposits (SGA), Quebec, p. 1-5.
(online at: www.researchgate.net/publication/325467011_Characteristics_of_a_Se-rich_Low_Sulphid Etc.)
(Se-bearing Au-Ag low-intermediate sulphidation epithermal mineralisation in River Reef Zone of Poboya prospect, 12 km NE of Palu, C Sulawesi. Hosted in metamorphic and igneous rocks)

Robinson, G.P., B.T. Setiabudi, D.N. Sunuhadi, J.M. Hammarstrom, S. Ludington, A.A. Bookstrom, S.A. Yenie & M.L. Zientek (2013)- Porphyry copper assessment for Tract 142pCu7026, West Sulawesi, Indonesia. In: J.M. Hammarstrom et al., Porphyry copper assessment of Southeast Asia and Melanesia, U.S. Geological Survey, Scientific Investigations Report 2010-5090-D, Appendix G, p. 126-136.
(online at: http://pubs.usgs.gov/sir/2010/5090/d/sir2010-5090d_text.pdf)
(W Sulawesi magmatic arc part of 1200-km-long Sulawesi- Sangihe magmatic arc, active since M Miocene-Pliocene. W-dipping subduction zone. Displacement of W Sulawesi arc system over Makassar Straits/ Celebes Sea in response to Banggai-Sula microcontinent collision, resulting in Pliocene-Pleistocene uplift of composite arc system. No known porphyry copper deposits, but Malala porphyry molybdenum (4.14 Ma) in N)

Robinson, G.P., B.T. Setiabudi, D.N. Sunuhadi, J.M. Hammarstrom, S. Ludington, A.A. Bookstrom, S.A. Yenie & M.L. Zientek (2013)- Porphyry copper assessment for Tract 142pCu7027, North Sulawesi-Sangihe-Indonesia. In: J.M. Hammarstrom et al., Porphyry copper assessment of Southeast Asia and Melanesia, U.S. Geological Survey, Scientific Investigations Report 2010-5090-D, Appendix H, p. 137-148.
(online at: http://pubs.usgs.gov/sir/2010/5090/d/sir2010-5090d_text.pdf)
(Two known porphyry copper-gold deposits in S-C part of N Sulawesi tract: Tapadaa (3.75 Ma) and Tombulilato (3.0 Ma))

Rompo, I., F. Ismail, S.T.J.B. Santoso, M.F. Rosana, E.T. Yuningsih (2023)- Petrogenetic of igneous complex of Ilota Nanasi gold deposit, Gunung Pani, Gorontalo, Indonesia. J. Geoscience Engineering Environment Technology (JGEET) 8, 4, p. 312-323.
(online at: https://journal.uir.ac.id/index.php/JGEET/article/view/14250/5942)
(Ilota Nanasi Au-Ag deposit at W flank of Gunung Baganite, a part rhyodacite dome in Gn.Pani district, Gorontalo Province (exploited since 1890s by Dutch; Van Schelle 1889, etc.). Late Miocene granodiorite, etc., basement. Pliocene Pani volcanic complex mainly dacite-rhyodacite, tuff, breccia. Hydrothermal alteration and mineralization centered in porphyritic rhyodacite host rocks. Low sulfidation epithermal system, dominated by hydrothermal crackle breccia, intense quartz veining and high-density fracturing. Etc.)

Rosianna, I., E.D. Nugraha, H. Syaeful, S. Putra, M. Hosoda, N. Akata & S. Tokonami (2020)- Natural radioactivity of laterite and volcanic rock sample for radioactive mineral exploration in Mamuju, Indonesia. Geosciences (MDPI) 10, 9, 376, p. 1-13.
(online at: https://www.mdpi.com/2076-3263/10/9/376)
(Mamuju area in W Sulawesi with anomalously high U and Th concentrations and has been target of uranium and thorium exploration sunce 2012 (with Japanese co-operation))

Rosianna, I., E.D. Nugraha, H. Tazoe, H. Syaeful, A.G. Muhammad, I.G. Sukadana, F.D. Indrastomo et al. (2023)- Uranium isotope characterization in volcanic deposits in a high natural background radiation area, Mamuju, Indonesia. Geosciences (MDPI) 13, 12, 388, p. 1-13.
(online at: https://www.mdpi.com/2076-3263/13/12/388)
(Mamuju area in W Sulawesi with anomalously high natural radiactive levels, in laterite and in volcanic rocks of E Pliocene Adang Volcanic Complex. 234U/238U mineralization ages 0.91–1.1 Ma and classified as recent mineralization. Adang volcanic complex divided into several small volcanoes (Ampalas, Mamuju, Takandeang, Sumare, Tapalang), with lava domes, lavas, volcanic breccias, etc. Rocks silica undersaturated with common leucite. K-Ar ages of volcanics ~ 4.1–2.8 Ma. Stratabound and structure bound uranium mineralization)

Rudyawan, A. (2015)- Neogene stratigraphy, structure and magmatism of the Central North Arm of Sulawesi, Indonesia. Ph.D. Thesis. Royal Holloway University of London, p. 1-484. *(Unpublished)*

Rudyawan, A., R. Hall & L. White (2014)- Neogene extension of the Central North Arm of Sulawesi, Indonesia. American Geophysical Union (AGU), Fall Meeting 2014, San Francisco, Abstract T43A-4681, 1p. *(Abstract + Poster)*
(poster online at: www.researchgate.net/publication/279763598_Neogene_Extension_of_the_Central Etc.))
(Sulawesi North Arm more than simple oceanic arc. Paleogene granites suggest basement of evolved arc crust or continental crust, but few inherited zircon ages. Neogene granites with Paleozoic and Proterozoic inherited zircon cores, suggesting melting of Australian continental crust. Two periods of sedimentation: M Miocene and Late Miocene-Pliocene. Two major fault trends: E–W Neogene basin-bounding faults and young NW-SE strike-slip faults. Record indicates arc-continent collision and underthrusting of Australian crust in E Miocene (~22 Ma), with later extensional episodes. Metamorphic core complex formed on land in M Miocene (~15 Ma), and later extension linked to initiation of S-ward subduction of Celebes Sea in latest Miocene- E Pliocene (~5 Ma))

Rusmana, E., A. Koswara & T.O. Simandjuntak (1993)- Geology of the Luwuk Quadrangle, Sulawesi. Map 1:250,000 scale, Geological Research Development Centre (GRDC), Bandung, p. 1-17. (2nd Ed. of 1984 map)
(NE part E arm of Sulawesi and Togian islands. Prior to Late Miocene- Pliocene overlap assemblage two distinct terranes (1) Banggai-Sula (Triassic-Jurassic clastics overlain by Eocene-M Miocene carbonates and clastics (reportedly with Nummulites, Lacazinella, Fasciolites; Stratigraphic Lexicon Indonesia) and (2) E Sulawesi (along N coast of E arm: S-directed thust imbricates of metamorphics, ultramafic rocks (supposedly Cretaceous oceanic crust), Late Cretaceous Matano Fm pelagic sediments). Oldest rocks on Togian Islands are supposedly Cretaceous-Paleocene Lamusa Fm brownish-red limestones)

Rusmana, E. & D. Sukarna (1985)- Tinjauan stratigrafi lengan tenggara Sulawesi dibandingkan dengan daerah sekitarnya. Proc. 14th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta 1985, p. 61-70.
('Review of stratigraphy of SE arm of Sulawesi and comparison with surrounding areas'. SE Arm with rocks of Late Paleozoic- Holocene age. Two basement terranes: (1) Tinondo block continental terrane: ?Permian or Triassic Mekonga Metamorphics overlain by Late Triassic Meluhu Fm clastics with Halobia- Daonella (?) and Tamborasi (?) Lst member; (2) Hialu block oceanic terrane, with?Triassic ophiolites overlain by Late Triassic (Tinala Fm w. Halobia, ammonites?) to Cretaceous (Masiku-Matano Fms with Globotruncana, radiolaria) Fm deep-sea sediments; separated by NW-SE Lasalo Fault. First paper to propose SE arm of Sulawesi is continental block of 'Australian' origin? (Surono 1998))

Rusmana, E., Sukido, D. Sukarna, E. Haryanto & T.O. Simandjuntak (1993)- Geology of the Lasusua-Kendari Quadrangle, Sulawesi (2112-2212), 1:250 000, Geological Research Development Centre (GRDC), Bandung, p. 1-16.
(E Sulawesi map between 3-4° S, E side Bone Bay. Two geologic provinces, separated by Lasalo fault. Tinondo Province in SW has ?Carboniferous metamorphics and intrusives, overlain by Triassic- Jurassic Meluhu/ Tokala Fms sediments, unconformably overlain by Eocene- M Miocene calcilutes? Remnants of ophiolites along Bone Bay shoreline. Hialu oceanic province in NE is widespread ?Cretaceous ophiolite, overlain by Late Cretaceous Matano Fm pelagic deposits, unconformably overlain by Late Miocene- Pliocene Celebes Molasse)

Rustiadi (1985)- Unsur perak (Ag) di dalam beberapa mineral sulfida dai endapan jenis Kuroko di daerah Sangkaropi, Sulawesi. J. RISET Geologi dan Pertambangan (LIPI) 6, 1, p. 32-41.
(Sangkaropi sulphide ores in SW Sulawesi NE of Rantepao resemble Kuroko ore deposits of Japan (submarine volcanogenic massive sulphides). Sphalerite, galena, pyrite and chalcopyrite most common)

Rutten, L. (1914)- Studien uber Foraminiferen aus Ost-Asien, 5. Einige Foraminiferen aus dem Ostarm von Celebes. Sammlungen Geologischen Reichs-Museums Leiden (1), 9, p. 307-320.
(online at: www.repository.naturalis.nl/document/552393)
('Studies on foraminifera from East Asia, 5. Some foraminifera from the East Arm of Sulawesi'. Samples collected by W. Hotz and J. Wanner include Eocene Alveolina wichmanni limestones at Biak Poh and Toeny. At Lengketeng also with numerous Alveolina wichmanni and Nummulites bagelensis. Footnote, p. 318-319: 'it is remarkable that the Eocene fauna of Celebes is more similar to samples from New Guinea than Java and Borneo'. Lower part of Celebes Molasse includes marls with poor Globigerina and limestones without Lepidocyclina, Miogypsina, etc., suggesting Late Miocene or younger age)

Rutten, L. (1924)- Over de foraminiferenfauna en den ouderdom van kalksteenen uit Zuid-Celebes afkomstig uit de groep der vischresten-bevattende gesteenten. Jaarboek Mijnwezen Nederlandsch-Indie 52 (1923), Verhandelingen, p. 173-183.
('On the foraminifera fauna and the age of limestones from South Sulawesi from the group of fish-bearing rocks'. Larger forams from limestones associated with fish fossils in S Sulawesi (described by Brouwer 1924) with non-diagnostic Heterostegina only. Spiroclypeus and Lepidocyclina (N.) brouweri n.sp. in nearby samples suggest E Miocene age)

Rutten, L.M.R. (1927)- Chapters 33-39 on the geology of Celebes (Sulawesi). In: L.M.R. Rutten (1927) Voordrachten over de geologie van Nederlandsch Indie, Wolters, Groningen, p. 520-635.
(online at: https://resolver.kb.nl/resolve?urn=MMKB02:000119126:pdf)
(Historic early review of geology of Sulawesi in Rutten's classic 'Lectures' book)

Rutten, L. (1934)- Tertiaire foraminiferen van Oost Celebes. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 10, p. 286-289.
('Tertiary foraminifera from E Sulawesi'. Part of Von Loczy (1934) E Sulawesi mapping report (well west of Rutten (1914) localities). Four localities with older Paleogene, but none with Alveolina, like in East Arm. North Boengkoe valley locations with mainly small but also some large Nummulites, incl. N. bagelensis, small Discocyclina dispansa and possible Pellatispira fragment))

Ryacudu, R., S. Tossin & E. Purnomo (1998)- Ampana strike-slip fault and its significance for hydrocarbon entrapment in the eastern arm of Sulawesi, Indonesia. In: J.L. Rau (ed.) Proc. 34th Session Coord. Comm. Coastal Offshore Geoscience Programmes E and SE Asia (CCOP), Taejon, Korea 1997, 2, Technical Reports, p. 1-21.
(Ampana strike-slip fault is NW-SE trending fault, cutting across E arm of Sulawesi, probably linked to S Sorong fault)

Saefudin, I. (1994)- Umur apatit dan zirkon batuan granitik daerah Palu dan sekitarnya, Sulawesi Tengah. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 4, 36, p. 9-15.
('Ages of apatite and zircon in granitic rocks of the Palu area and surroundings, C Sulawesi'. Apatite and zircon age analyses from 5 granitic rocks in neck of Sulawesi area. Granodiorite near Palu town E Oligocene age from both zircon and apatite methods (~29.5 Ma). Granites in 'neck' further N gave different results for apatite and zircon methods: apatite ages ~6.2- 8.3 Ma (Late Miocene) zircon ages from same rock ~9.5- 11.8 Ma (late M Miocene). Differences in ages caused by annealing process of apatite)

Safani, J., K. Ibrahim, W. Deni, A. Rubaiyin, F. Firdaus & H, Harisma (2023)- Interpreting structural configuration of the Sengkang Basin of Indonesia using edge detection and 3-D Euler deconvolution to satellite gravity data. Turkish J. Earth Sciences 32, 7, 5, 894-914.
(online at: https://journals.tubitak.gov.tr/earth/vol32/iss7/5/)

(East Walanae and West Walanae Fault Zones two active fault segments in S arm of Sulawesi, and responsible for formation of Sengkang Basin. Sengkang Basin two main blocks, E and W. Three subbasins in East Sengkang Basin identified from gravity data)

Safruddim, A.M. Imran, U.R. Irfan, R. Amelia & A.L. Adlyansyah (2018)- Characteristics of Paremba Sandstones in Bantimala Complex: the implication of oil exploration in Eastern Indonesia. Int. Journal of Engineering and Science Applications (UNHAS), 5, 2, p. 117-126.
(online at: http://pasca.unhas.ac.id/ojs/index.php/ijesca/article/view/1754/464)
(Jurassic? Paremba shallow marine sandstone in Bantimala tectonic complex, 60km NE of Makassar. In Bontorio River steeply dipping conglomerates, sandstones, siltstone, claystone and fosilliferous limestone. Conglomerates with clasts of schist and quartzite. Sandstones arkose and litharenite with load casts, sole marks, slump structure, parallel lamination and ripple lamination. Paremba sandstones low-grade metamorphic. Provenance recycled orogenic tectonic environment. Porosity <1%, indicating not suitable as oil and gas reservoirs)

Safruddim, A.M. Imran, U.R. Irfan & M. Farida (2025)- Geochemistry of the sandstone of Mallawa Formation in the Southern arm of Sulawesi, Indonesia: Implications for provenance and tectonic setting. Ore and Energy Resource Geology 18, 100096, p. 1-15.
("Comprehensive and unprecedented research results on the Mallawa Formation sandstones through geochemical analysis, which has not been conducted previously"."Eocene Mallawa sst with SiO_2 as most abundant component, reflecting the presence of detrital quartz, chert, feldspar fragments, and other mineral contents". Result: provenance of Mallawa Sst from siliceous-clastics and intermediate to felsic igneous rocks. (unfortunately, none of this seems unprecedented; JTvG))

Safruddim, A.M. Imran, U.R. Irfan & M. Farida (2025)- The depositional environment of the Mallawa Formation in the Southern Arm of Sulawesi, Indonesia, utilizing palynomorphs. Proc. 4th Int. Conference Geological Engineering and Geosciences (ICGOES 2024), Yogyakarta, IOP Conference Series: Earth and Environmental Science 1517, 012003, p. 1-9.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1517/1/012003/pdf)
(Eocene Mallawa Fm quartz-rich sanstones, shales and coal at Tellumpanuae in Mallawa District, Maros, western S Sulawesi. Palynomorph analysis suggest delta plain setting influenced by marine incursions. Presence of Proxapertites operculatus, Palmaepollenites kutchensis, Florschuetzia trilobata, Cicatricosisporites eocenicus, Meyerispollenites naharkotensis, etc. suggest M-L Eocene age)

Safruddim, A.M. Imran, U.R. Irfan & M. Farida (2025)- The provenance of quartz-rich sandstone in Paleogen clastic rock of Mallawa Formation from the southern arm of Sulawesi. Proc. Int. Conference on Geosciences and Geotechnology (ICOGEST 2024), Makassar, IOP Conference Series: Earth and Environmental Science 1525, 012010, p. 1-9.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1525/1/012010/pdf)
(Eocene Mallawa Fm clastics in S Sulawesi include mudstone, feldspathic wacke, lithic arenite and subarkose arenite. Provenance of rel quartz-rich, immature sandstones from volcanic and metamorphic rocks (Bantimala and Barru basement complexes? (field photos look remarkably like Tanjung Fm in Barito Basin?; JTvG))

Sahabuddin, A.M. Imran, F. Arifin & A. Jaya (2013)- Biostratigrafi foraminifera planktonik satuan batupasir Formasi Pasangkayu Cekungan Lariang, Sulawesi Barat. J. Penelitian Geosains (Hasanuddin University) 9, 2, p. 111-120.
(online at: http://repository.unhas.ac.id/handle/123456789/16805)
('Planktonic foraminifera biostratigraphy of the sandstone unit of the Pasangkayu Formation, Lariang Basin, West Sulawesi'. Pasangkayu Fm in W Sulawesi Pasangkayu area with upper M Miocene- E Pliocene planktonic foraminifera (N14-N19; G. nepenthes-Gr siakensis to Gr tumida- Sphaeroidinellopsis subdehiscens zones))

Salama, T.H., S. Maryati & I.N. Manyoe (2021)- Studi mekanisme sedimentasi Formasi Dolokapa. Gorontalo. Jambura Geoscience Review 3, 2, 97-111.
(online at: https://ejurnal.ung.ac.id/index.php/jgeosrev/article/view/8475/3139)

('Study of the sedimentation mechanism of the Dolokapa Formation, Gorontalo' (N Sulawesi). Miocene Dolokapa Fm in E Sumalata District interbedded sands-shales formed as turbidity currents in deep-sea depositional environment. Overall upward thickeing. Sedimentaru structures include rip up-clasts, parallel lamination, graded bedding, convolute bedding, slumps and Nereites trace fossils)

Samodra, S., S.S. Surjono, D.H. Amijaya & W. Suryanto (2018)- Petroleum system of Matarombeo Basin, South-East Arm Sulawesi, Indonesia. The 12th South East Asian Technical University Consortium (SEATUC) Symposium, Yogyakarta2018, OS05-17, p. 1-6.
(online at: https://www.researchgate.net/publication/370496681_Petroleum_System_of_Matarombeo_Basin_South-East_Arm_Sulawesi_Indonesia)
(Matarombeo Basin in SE arm of Sulawesi, between Matano Fault, Lawanopo Fault and Tolo Trust (onshore + offshore?). Cretaceous-Oligocene ophiolite series thrusted over Mesozoic continental margin sediments. Source rocks are organic rich claystone and marl from Meluhu and Tokala Formations (no information on sample locations, no details on stratigraphy, etc. - JTvG))

Samodra, S.B., S.S. Surjono, D.H. Amijaya & W. Suryanto (2024)- Sebaran batuan karbonat di Cekungan Matarombeo, Lengan Tenggara Sulawesi. Geosfera: Jurnal Penelitian Geografi 3, 2, p. 130-142.
(online at: https://ejurnal.ung.ac.id/index.php/geojpg/article/view/29077/9904)
('Distribution of carbonate rocks in the Matarombeo Basin, Southeast Arm of Sulawesi'. Five carbonate formations in . In Matarombeo Basin: Tokala (Triassic-Jurassic), Matano (Cretaceous), Tampakura (Eocene), Eomoiko (Oligo-Miocene) and Buara Formations. Tampakura and Eomoiko Formation are main potential hydrocarbon reservoirs and can be recognized in seismic sections as reef buildups)

Sandi, I.N., A.P. Permana & M. Kasim (2024)- Analisis provenance batupasir Formasi Dolokapa, Kabupaten Gorontalo Utara berdasarkan data geokimia XRF. EnviroScienteae 20, 1, p. 27-32.
(online at: https://ppjp.ulm.ac.id/journal/index.php/es/article/view/18843/9859)
('Provenance analysis of the Dolokapa Formation Sandstone, North Gorontalo Regency, based on XRF geochemical data'. Miocene Dolokapo Fm sandstones in E Sumalata District are Fe-shale and Fe-sand chemistry, and originated from oceanic island arc tectonic setting)

Sanjaya, I., Jamal, M.L. Fatturahkman, Hermansyah, A.S. Arifin, S. Maryanto & Hyeong Soo Kim (2024)- Evaluating the natural hydrogen system in Ampana Basin, Central Sulawesi; an implication for natural hydrogen exploration in Indonesia. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 25, 3, p. 135-149.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/896/560)
(Study of natural hydrogen gas generation from serpentinization of ultramafic rocks in Ampana Basin, E Sulawesi. Include geochemical analysis of abiogenic hydrogen-methane gas seepages at Tanjung Api outcrop of serpentinized hartzburgite and at Pulodalagan hot spring. Suspected relationship of seeps with active faults)

Santos, F.R., P. Sulistiono & N.E.W. Litaay (1999)- Totopo West, a low sulphidation epithermal system in North Sulawesi. Proc. 28th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 2, p. 203-215.
(online at: https://www.iagi.or.id/web/digital/65/14.pdf)
(Totopo West 55km W of Gorontalo, with gold in epithermal vein system at NW margin of Pliocene rhyodacitic caldera, along regional NE-trending faults. Associated dacite porphyry K/Ar ages (2.1-2.4 Ma and 2.8-3.3 Ma))

Santoso, B. & Subagio (2016)- Pendugaan mineral kromit menggunakan metode Induced Polarization (Ip) di daerah Kabaena Utara, Bombana Sulawesi Tenggara. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 17, 3, p. 179-192.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/17/11)
('Prediction of chromite minerals using Induced Polarization (Ip) method in the area of North Kabaena, Bombana, SE Sulawesi'. In N Kabaena island chromite present in Cretaceous ultramafic peridotites and as alluvial deposits. Electric methods used to predict distribution)

Santy, L.D. (2016)- The Mesozoic source rock identification in Tomori Basin, East Arm of Sulawesi and its implication for petroleum play. Proc. IPA 2016 Technical Symposium, Indonesia exploration: where from- where to, Indonesian Petroleum Association (IPA), Jakarta, 28-TS-16, p. 1-19.
(Tomori Basin at S side of East arm of Sulawesi is Miocene foreland basin in collision zone between Sundaland/ E Sulawesi Ophiolite and Banggai-Sula microcontinent. Source rock analysis of onshore E Sulawesi Mesozoic Tokala, Nanaka and Tetambahu shales show hydrocarbon source potential: TOC 0.32- 3.46% and mainly type III kerogen. Rock-eval Tmax measurements suggests immature to marginally mature (428- 432°C), but vitrinite reflectance Ro 0.56- 0.76%) and TAI data (2-2.5) suggest sediments early mature to peak mature)

Sapiie, B., M.A. Nugraha, R.K. Wardana & A. Rifiyanto (2017)- Fracture characteristics of melange complex basement in Bantimala Area, South Sulawesi, Indonesia. Indonesian J. on Geoscience (IJOG) 4, 3, p. 121-141.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/405/242)
(Analysis of fractures in Pre-Tertiary melange complex of Bantimala area South Sulawesi, Indonesia. Common fracture orientations NW-SE, W-E, NNE-SSW and ENE-WSW, different in each lithology. Fracture intensity in schists higher than in other lithologies)

Saputro, S.P., S. Godang, B. Priadi, N.I. Basuki & B. Himawan (2022)- Geochemical study of Al-Fe-Ti enrichment in rock weathering: implications for the recognizing of igneous protolith and the enrichment of REE in soil profile. Applied Geochemistry 140, 105259, p. 1-19.
(Study of lateritic weathering profile of M-L Miocene Adang Volcanic Complex basaltic rocks in drill core from Mamuju district, W Sulawesi)

Saputro, S.P. & B. Priadi (2016)- Penyebab serta sumber high-K pada batuan volkanik dan plutonik di Tanah Toraja, Sulawesi Selatan bagian utara: terkait kerak, evolusi magma, dan rezim tektonik. In: R. Hidayat et al. (eds.) Proc. Seminar Nasional Kebumian 9, Dept. Teknik Geologi, Gadjah Mada University, Yogyakarta, p. 412-420.
(online at: https://repository.ugm.ac.id/273523/)
('Causes and sources of high-K in volcanic and plutonic rocks in Tana Toraja, N part of South Sulawesi: associated crust, magma evolution and tectonic regime'. Mio-Pliocene high-K volcanics and plutonics in Tana Toraja area, S Sulawesi, formed in post-subduction tectonic regime, with magma interacting with crust, creating 'continental affinity')

Saragih, R.Y., I. Haryanto, E. Sukiyah, N.N. Ilmi & E. Sunardi (2018)- The sinistral strike-slip fault as Ampana Basin controller in Central Sulawesi. J. Geological Sciences Applied Geology (UNPAD) 2, 4, p. 1-11.
(online at: http://jurnal.unpad.ac.id/gsag/article/view/18289/8590)

Sarasin, F. (1901)- Uber die geologische Geschichte des Malayischen Archipels auf Grund der Thierverbreitung. Verhandlungen Schweizerischen Naturforschenden Gesellschaft 83, p. 69-85.
(online at: https://www.e-periodica.ch/digbib/view?pid=sng-005:1900:83#80)
('On the geological history of the Malay Archipelago based on the animal distribution'. No figures)

Sarasin, F. (1905)- Tiergeographisches, biologisches un anthropologisches aus Celebes. Proc. 6th International Congress of Zoology, Bern 1904, p. 147-159.
('Animal geographic, biological and anthropological considerations from Celebes/ Sulawesi')

Sarasin, P. & F. Sarasin (1895)- Reiseberichte aus Celebes 3. Reise durch Zentral-Celebes vom Golf von Boni nach dem Golf von Tomini. Zeitschrift Gesellschaft Erdkunde Berlin, 30, p. 311-352.
('Journey across Central Celebes from the Gulf of Bone to the Gulf of Tomini'. Travel description in January-February 1895, including first visit by geologists/naturalists to Lake Poso)

Sarasin, P. & F. Sarasin (1898)- Materialien zur Naturgeschichte der Insel Celebes. C.W. Kreidel's Verlag, Wiesbaden, vol. 1. Die Susswasser-Mollusken von Celebes, p. 1-102.
(online at: www.archive.org/details/materialienzurna01sara)

('Materials for the natural history of the island of Sulawesi, 1. The fresh-water molluscs of Celebes island'. Volume 1 of 5 of classic work on late 1800's geographic- geological travels in Sulawesi by Swiss cousins Paul and Fritz Sarasin)

Sarasin, P. & F. Sarasin (1899)- Materialien zur Naturgeschichte der Insel Celebes. C.W. Kreidel's Verlag, Wiesbaden, 2. Die Land-Mollusken von Celebes, p. 1-244.
(online at: www.archive.org/details/materialienzurna02sara)
(Volume 2 of Sarasin work: 'The land molluscs of Celebes island')

Sarasin, P. & F. Sarasin (1901)- Materialien zur Naturgeschichte der Insel Celebes. C.W. Kreidel's Verlag, Wiesbaden, 3. Ueber die geologische Geschichte der Insel Celebes auf Grund der Thierverbreitung, p. 1-169.
(online at: www.archive.org/details/materialienzurna03sara)
(Volume 3 of Sarasin work: 'On the geological history of Celebes island based on the animal distribution')

Sarasin, P. & F. Sarasin (1901)- Materialien zur Naturgeschichte der Insel Celebes. C.W. Kreidel's Verlag, Wiesbaden, 4. Entwurf einer geographisch-geologischen Beschreibung der Insel Celebes, p. 1-344.
(online at: www.archive.org/details/materialienzurna04sara)
(Volume 4 of Sarasin work: 'Geographic- geologic description of Celebes island'. With appendix of rock descriptions by C. Schmidt)

Sarasin, P. & F. Sarasin (1905)- Reisen in Celebes ausgefuhrt in den Jahren 1893-1896 und 1902-1903. C.W. Kreidel Verlag, Wiesbaden, vol. 1, p. 1-381 and vol. 2, p. 1-390. *(online at: http://resolver.staatsbibliothek-berlin.de/SBB00007B3500010000 and http://resolver.staatsbibliothek-berlin.de/SBB00007B3500020000)*
('Travels in Sulawesi in the years 1893-1896 and 1902-1903'. Mainly geographic travel accounts across S Sulawesi by Sarasin cousins, with some geological observations)

Sarasin, P. (1912)- Zur Tektonik von Celebes. Zeitschrift Deutschen Geologischen Gesellschaft, Berlin, 64, Monatsberichte, p. 226-245.
(online at: https://www.zobodat.at/pdf/Z-dtsch-Geol-Ges_64_0226-0245.pdf)
('On the tectonics of Sulawesi', by Swiss naturalist Paul Sarasin. No figures. See also critical discussion in Abendanon (1915))

Sardjono (2013)- Gayaberat. In: Surono & U. Hartono (eds.) Geologi Sulawesi, LIPI Press, Jakarta, p. 259-276.
('Gravity'. Chapter 11 in Geology of Sulawesi book)

Sarmili, L. (1998)- Formation of the Tolo accretionary prism in relation to reactivation of the Palukoro Fault, Sulawesi. In: J.L. Rau (ed.) Proc. 33rd Annual Session Coord. Comm. Coastal and Offshore Geoscience Progr. East and Southeast Asia (CCOP), Shanghai 1996, 2, p. 104-113.
(New bathymetric map of N Banda Sea between Buru and SE Sulawesi. General NW-SE directions, e.g. Tampomas Ridge and Hamilton slope. To W of N Banda Sea, N-S trending, 150 km long Tolo prism, well developed in N and centre, possibly due to large amount of sediment from Sulawesi island (i.e. Celebes molasse). To S, width of prism decreases and disappears in Buton Trough. Recent sediments deformed, and upper and lower thrust units appear faulted. As consequence of convergence, prism seems oriented NW-SE parallel to Hamilton fracture zone which continues to join Lawanopo and Palu-Koro strike-slip faults on-land)

Sarmili, L. (2015)- Opening structure of the Bone Basin on South Sulawesi in relation to process of sedimentation. Bulletin of the Marine Geology 30, 2, p. 97-107.
(online at: http://ejournal.mgi.esdm.go.id/index.php/bomg/article/view/79/80)
(Seismic profiles of Bone basin between SW and SE Arms of Sulawesi show by uplifted basement highs on both sides and flat-lying young sediments in middle, indicating opening of basin)

Sarmili, L., D. Indriati & T. Setiawan (2016)- Proses sedimentasi Cekungan Bone berdasarkan penafsiran seismik refleksi di perairan Teluk Bone, Sulawesi Selatan. J. Geologi Kelautan 14, 1, p. 37-52.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/338/267)

('Sedimentation processes in Bone Basin, based on interpretation of seismic reflection in waters of Bone Bay, South Sulawesi'. Deep marine Bone Basin between S and SE arms of Sulawesi formed in Paleogene-Neogene. Initial Bone Basin formed by Cretaceous subduction, then developed as intra-montane basin. May be underlain by oceanic crust in Paleogene. Quaternary deposits influenced by reactivation of Walanae Fault. Six main seismic sequences A-F. Unit B Oligocene limestone, Unit C Late Oligocene- E Miocene volcanics, etc.)

Sarsito, D.A., S. Susilo, A. Rudyawan, N.A. Muhammad, H. Andreas & D. Pradipta (2019)- Walanae fault kinematic deduced from geometric geodetic GNSS GPS monitoring. Proc. International Symposium on Global Navigation Satellite System, Bali 2018, E3S Web of Conferences 94, 04008, p. 1-7.
(online at: https://www.e3s-conferences.org/articles/e3sconf/pdf/2019/20/e3sconf_isgnss2018_04008.pdf)
(On GPS velocities measured along Walanae Fault sinistral strike slip system in S Sulawesi, which consists of four strands, with different slip rates)

Sarsito, D.A., Susilo, W.J.F. Simons, H.Z. Abidin, B.Sapiie, W. Triyoso & H. Andreas (2017)- Newly velocity field of Sulawesi island from GPS observation. Proc. Int. 6th Symposium on Earth hazard and disaster mitigation (ISEDM) 2016, AIP Conference Proceedings 1857, 1, 040005, p. 1-6.
(New GPS velocity observations in agreement with previous results: CW rotation of North Arm, Tomini Gulf opening and left-lateral strike slip of Palu-Koro fault. SW Sulawesi moves as part of Eurasian-Sunda Block with some compression at Makassar Straits (6.25mm/yr to W). Palu-Koro Fault rapid strike slip faulting)

Sarsito, D.A., Susilo & W.J.F. Simons (2018)- Simple deformation modelling using GNSS GPS data at Minahasa subduction. In I. Meilano et al. (eds.) Int. Symposium Earth Hazard and Disaster Mitigation (ISEDM 2017), AIP Conference Proceedings 1987, 020094, p. 1-7.
(online at: https://repository.tudelft.nl/islandora/object/uuid%3Af5c57782-068a-4e1f-9aa8-0fde97910adf/datastream/OBJ/download)
(N Sulawesi Trench or Minahasa subduction zone between oceanic crust of Sulawesi Sea and North Sulawesi Arm. Yearly GNSS GPS campaigns from 1997-2008 shows subduction movement of 4-5 cm/yr with locking depth of ~50 km and dip angle of 30°)

Sarsito, D.A., Susilo, W.J.F. Simons, H.Z. Abidin, B.Sapiie, W. Triyoso & H. Andreas (2017)- Rotation and strain rate of Sulawesi from geometrical velocity field. Proc. Int. 6th Symposium on Earth hazard and disaster mitigation (ISEDM) 2016, AIP Conference Proceedings 1857, 1, 040006, p. 1-6.
(Sulawesi characterized by rapid rotation in several different domains and compression-strain pattern varies depending on type and boundary conditions of microplate)

Sartono, S., K.A.S. Astadiredja & H. Murwanto (1991)- East Arm Sulawesi: Banggai microplate- Sunda subduction zone collision. Proc. 20th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 376-395.
(online at: https://www.iagi.or.id/web/digital/49/20th-(10-12-Des-1991)-25.pdf)
(Review of E Sulawesi Triassic and younger stratigraphy and tectonic history scenario for Sulawesi. Accepts presence of Permo-Carboniferous rocks in E Sulawesi. Pretertiary rocks in E Sulawesi (with ophiolite) and Banggai Sula (with pink granites) similar age range, but of different origin. Several tectonic melange complexes (incl. Cretaceous-age) and olistostromes)

Sartono, S., I. Hendrobusono, B. Suprapto & H. Murwanto (1989)- Sedimen lengseran gravitasi Eosen-Miosen bawah di Tana Toraja, Sulawesi Selatan (Indonesia). Proc. 18th Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, p.
('Eocene- Lower Miocene gravity sedimentation in Tana Toraja, South Sulawesi (Indonesia)')

Sasajima, S., S. Nishimura, K. Hirooka, Y. Otofuji, T. Van Leeuwen & F. Hehuwat (1978)- Paleomagnetic results and fission track ages obtained from the Western and Northern Sulawesi, East Indonesia. In: M. Kono (ed.) Rock magnetism and paleogeophysics, Tokyo, 5, p. 73-80. *(online at: https://peach.ifst.ous.ac.jp/rprep/Rock%20Magnetism%20and%20Paleogeophysics%20vol5%201978.pdf)*

(Reconnaissance paleomagnetic work combined with fission track age dating of U Cretaceous- Pliocene rocks mainly from Biru area, E of Makassar, SW Sulawesi. M Miocene and younger rocks similar position as present-day. Probable 45° CCW rotation beween 63-13 Ma (authors suggest probably between 19-13 Ma, but no explanation why; JTvG), possibly in tandem with Malay Peninsula and W Borneo from which Haile (1978) reported similar 35-50° CCW rotations)

Sasajima, S., S. Nishimura, K. Hirooka, Y. Otofuji, T. Van Leeuwen & F. Hehuwat (1980)- Paleomagnetic reconnaissance from Northern arm of Sulawesi, Indonesia. In: S. Nishimura (ed.) Physical geology of Indonesian Island arcs, Kyoto University, p. 23-34.

Sasajima, S., S. Nishimura, K. Hirooka & Y Otofuji (1981)- Paleomagnetic studies combined with fission-track datings on the western arc of Sulawesi, east Indonesia. In: A.J. Barber & S. Wiryosujono (eds.)The geology and tectonics of Eastern Indonesia, Proc. CCOP-IOC SEATAR Working Group Meeting, Bandung 1979, Geological Research Development Centre (GRDC), Bandung, Special Publ. 2, p. 305-311.
(Same as Sasajima et al. (1980). SW arm of Sulawesi 40° CCW rotation since Paleocene- E Miocene)

Sasajima, S., S. Nishimura, K. Hirooka, Y. Otofuji, T. Van Leeuwen &, F. Hehuwat (1980)- Paleomagnetic studies combined with fission-track datings on the Western Arm of Sulawesi, East Indonesia. Tectonophysics 64, p. 163-172.
(Paleogene- E Miocene paleomagnetic pole for SW Sulawesi very different from that in M Miocene- Recent. This suggests possibly 19-13 Ma major tectonic event caused ~40-45° of CCW rotation. Postulated collision followed by welding of E and W Sulawesi in Pliocene (Katili, 1978) may be cause. Our data does not support hypothesis that W Sulawesi derived from dispersal of Gondwanaland)

Satyana, A.H. (2006)- Docking and post-docking tectonic escapes of Eastern Sulawesi: collisional convergence and their implications to petroleum habitat. Proc. Jakarta 2006 International Geoscience Conference Exhib., Indonesian Petroleum Association (IPA), PG-16, p. 1-4. *(Extended Abstract only)*
(Summary of Sulawesi tectonic history of docking of microcontinents (Buton at 11 Ma, Sula at 5 Ma), followed by escape towards free edges, creating arc-polarity reversal, large strike slip faults, local extension, etc.)

Satyana, A.H. (2011)- Sulawesi: where two worlds collided- geologic controls on biogeographic Wallace's Line. Proc. Joint 36th HAGI and 40th IAGI Annual Conv., Makassar, JCM2011-065, p. 1-16.
(*online at: www.academia.edu/16757400/SULAWESI_WHERE_TWO_WORLDS_COLLIDED_GEOLOGIC_CONTROLS_ON_BIOGEOGRAPHIC_WALLACES_LINE)*
(On Cenozoic geological history controlling present-day Wallace's Line, which separates Asian and Australian fauna and flora. Sulawesi island shows mixture of Oriental and Australasian faunas)

Satyana, A.H. (2024)- Exploring natural hydrogen and abiotic methane in Indonesia: Case and idea from Tanjung Api gas seeps, East Arm of Sulawesi – Building a geologic hydrogen system in a collision zone. Proc. 48th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA24-G-328, p. 1378-1396. *(manuscript online at: https://tektonesiana.org/wp-content/uploads/2024/07/satyana-2024-ipa_hydrogen-east-sulawesi.pdf)*
(Tanjung Api ("Cape of Fire') is natural gas seep near Ampana in E Arm of Sulawesi, emiting significant volumes of H_2 and methane. H_2 generated from serpentinization of peridotite at base of East Sulawesi Ophiolite and migrated to surface along faults. Methane is thermogenic gas, but altered by biodegradation, oxidation or thermochemical sulfate reduction (see also Van Gorsel & Subroto 2022))

Satyana, A.H. (2025)- Paleogene to Neogene volcanisms of eastern margin of Sundaland. Petrotectonic evolution and its implications to petroleum exploration in the Makassar Straits, South Arm of Sulawesi. Proc. 49th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA25-G-388, p. 1-30.
(Different tectonic settings created different types of volcanic deposits and magmatic intrusions in Makassar Straits and S Sulawesi. (1) M Paleocene-E Eocene Langi and Bua arc volcanics (incl. Rangkong-1 well; (2) Eocene Salokalupang Fm, (3) E Miocene Kalamiseng volcanics, (4) E Miocene Camba I arc volcanics; (5) most extensive volcanics are M-L Miocene- Pliocene Camba II (= Enrekang) non-arc volcanics ('syn-collisional'). Post-M Miocene volcanics marked by high potassium (K) contents (high-K alkaline and shoshonitic rocks;(6)

Late Miocene Walanae volcanics; (7) E-M Pleistocene post-collisional Lompobatang and Barupu acidic volcanism. Paleocene- E Miocene volcanism subduction-related, M Miocene- Pleistocene syn-post-collisional)

Satyana, A.H., T. Faulin & S.N. Mulyati (2011)- Tectonic evolution of Sulawesi area: implications for proven and prospective petroleum plays. Proc. Joint 36th HAGI and 40th IAGI Annual Conv., Makassar, JCM2011-064, p. 1-30.
(online at: https://www.iagi.or.id/web/digital/10/2011_IAGI_Makassar_Tectonic-Evolution-of-Sulawesi.pdf)
(Substantial review of Cenozoic tectonic evolution, basins and hydrocarbons of Sulawesi. Sulawesi formed by collision between drifted part of SE Sundaland and drifted microcontinents of Indian-Australian Plate. Collision took place during Oligocene-early Pliocene. Etc.)

Satyana, A.H. & M.E.M. Purwaningsih (2011)- Collision of microcontinents with Eastern Sulawesi: records from uplifted reef terraces and proven-potential petroleum plays. Proc. 35th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA11-G-219, p. 1-25. *(online at: https://www.academia.edu/108221125/Collision_of_micro_continents_with_eastern_Sulawesi_records_from_uplifted_reef_terraces_and_proven_potential_petroleum_plays)*
(Sulawesi is assemblage of collided terranes. Buton-Tukang Besi micro-continent collided with SE Sulawesi/ Muna Block from E Miocene- Late Miocene. Collision overthrusted Kapantoreh ophiolitic suture (here interpreted as oceanic crust originally located between Muna and Buton), shortened and uplifted Buton. Tukang Besi single microcontinent with Buton, and separated from Buton as response to post-collisional tectonics. Banggai-Sula microcontinent collided with Sulawesi E Arm in M Miocene- E Pliocene. Post-collisional uplifts exhumed micro-continents in Buton, Wakatobi (Tukang Besi), and Luwuk (Banggai) areas and uplift of Quaternary reef terraces)

Savitri, K.P. (2016)- Geology and geothermal setting of Tompaso geothermal system, Indonesia, with comparisons of andesite alteration patterns with Wairakei, New Zealand. M. Sc. Thesis, Victoria University of Wellington, N.Z., p. 1-120.
(online at: https://core.ac.uk/download/pdf/45830521.pdf)
(On Tompaso geothermal system near Tondano caldera in N Sulawesi. Typical volcanic arc geothermal system)

Schepmann, M.M. (1907)- Mollusken aus posttertiaren Schichten von Celebes. Sammlungen Geologischen Reichs-Museums Leiden, Ser. 1, 8, E.J. Brill, p. 153-203.
(online at: http://repository.naturalis.nl/document/552420)
('Molluscs from the post-Tertiary beds of Sulawesi'. Descriptions of molluscs from Kajoe ragi, Manado area, N Sulawesi, collected by Fennema. Mainly gastropods (15 species of Conus, 7 species of Pleurotoma, 10 species of Drillia, 6 species of Mitra, 19 species of Turricula, 11 species of Nassa, 13 speies of Cypraea, etc. spp.) and some pelecypods (Venus, Spondylus, Chlamys, etc.))

Schlaich, E.P. & J.R.J. Ten Berge (1941)- Rapport over het geologisch onderzoek van het Jong Tertiare Pompanoea bekken (ZW Celebes). BPM- Balikpapan Geological Report *(unpublished)*
(Report on geological survey and shallow core hole drilling in Young Tertiary of Pompanoea (= Sengkang) Basin, SW Sulawesi)

Schmidt, C. (1901)- Untersuchung einiger Gesteinssuiten, gesammelt in Celebes von P. und F. Sarasin. In: P.& F. Sarasin, Materialien zur Naturgeschichte der Insel Celebes, 4, Kreidel, Wiesbaden, Appendix, p. 1-28.
'Investigations of some rock suites, collected in Sulawesi by P. & F. Sarasin'. Brief rock descriptions. No figures)

Schreuder, S. (1854)- Bijdragen tot de geologische en mineralogische kennis van Nederlandsch Indie door de Ingenieurs van het Mijnwezen in Nederlandsch Indie, VIII. Onderzoekingen naar steenkool in de afdeeling Maros of Noorderdistrikten van het gouvernement Celebes en onderhoorigheden. Natuurkundig Tijdschrift voor Nederlandsch-Indie 7, p. 388-395.
('Investigations of coal in the Maros or Northern Districts districts, (SW) Sulawesi'. Brief report of 1850 investigation of (Eocene-age) coal in the Maros area, North of Makassar. Generally poor quality coal seams,

associated with common (Nummulites-)limestone and volcanic rocks. Tests of coal from test pit at Kantissan in steamship Vesuvius in 1852 showed poor results. Not much locality or geological detail; no figures)

Schubert, R.J. (1913)- Beitrag zur fossilen Foraminiferenfauna von Celebes. Jahrbuch Koningliche Kaiserliche Geologische Reichanstalt, Vienna, 62 (1912), 4, p. 127-150.
(online at: www.landesmuseum.at/pdf_frei_remote/JbGeolReichsanst_063_0127-0150.pdf)
('Contribution to the fossil foraminiferal fauna of Sulawesi'. Foraminifera from North Arm and N part of East arm of Sulawesi, collected by Koperberg. Mainly young Miocene- Pliocene. Some E-M Miocene carbonates with Miogypsina spp., Lepidocyclina)

Sendjaja, P. (2013)- Petrologi dan geokimia batuan volkanik di Kepulauan Togean, Teluk Tomini, Propinsi Sulawesi Tengah: implikasinya terhadap tatanan tektonik Pulau Sulawesi. Ph.D. Thesis, Institut Teknologi Bandung (ITB), p. 1- . *(Unpublished)*
('Petrology and geochemistry of volcanic rocks in Togean Islands, Tomini Bay, Central Sulawesi: implications for the tectonic structure of Sulawesi'. Volcanic rocks from Togean Islands 3 types:(1) Una-Una (adakitic subduction volcanics from partial melting of Celebes Sea slab at 70-85 km depth), (2) Togean (both adakites, basaltic-trachyandesite and result of partial melting of Sulawesi Sea slab in amphibole-eclogite zone) and (3) Walea (tholeitic basaltic-andesite and tholeite basalt, interpreted as upper part of ophiolite, formed around 6 Ma from seafloor spreading due to rollback of oceanic crust of Banggai-Sula microcontinent)

Sendjaja, P. & I.G.B.E. Sucipta (2008)- Adakite rock From Una-Una island, Central Sulawesi. Proc. 37th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 212-228.
(online at: https://www.iagi.or.id/web/digital/14/2008_IAGI_Bandung_Adakite-Rock-From.pdf)
(Pyroclastics and lavas from Una-Una Island in Tomini Gulf adakitic geochemical signature: SiO_2 >60%, MgO <3%, low Y and HREE relative to normal island arc volcanics, high Sr and Nb enrichment. Tectonically, adakites formed by partial melting of young oceanic crust. Crust presently being subducted at nearby trench may be <25 Ma old)

Sendjaja, P., E. Suparka, C.I. Abdullah & E. Sucipta (2020)- Characteristic of the Mount Colo Volcano, Una-Una Island, Central Sulawesi Province: tectonic evolution and disaster mitigation. Proc. 3rd Int. Conf. TREPSEA, Gorontalo 2018, IOP Conference Series: Earth and Environmental Science 589, 012005, p. 1-7.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/589/1/012005/pdf)
(Colo volcano on Una-Una island, Gulf of Tomini, C Sulawesi, with magma of basaltic-trachyandesite to trachydacite composition of calc-alkaline, high-K calc-alkaline and shoshonite affinities. Since M Miocene (15 Ma) Celebes Sea Plate subducted under North Arm of Sulawesi, producing adakite-type volcanics. During Banggai-Sula microcontinent collision, volcanic activity in Una-Una Island and surrounding islands continued. 1983 eruption of Mt Colo produced abundant pyroclastic material with acid silica and still adakitic composition)

Sendjaja, P., E. Suparka, C.I. Abdullah, E. Sucipta & T. Hasenaka (2011)- A petrology and geochemistry of the volcanic rocks from the Togean Islands, Central Sulawesi, Indonesia: estimation of subduction component at a complex tectonic regime. Proc. Joint. 36th HAGI and 40th Annual Conv. Indonesian Association Geologists (IAGI), Makassar, JCM2011-166, p. 1-13.
(online at: https://www.iagi.or.id/web/digital/10/2011_IAGI_Makassar_Apetrology-and-Geochemistry.pdf)
(Una-Una volcano typical adakitic rocks. Mio-Pliocene volcanics of Togean islands further to E in Tomini Gulf.quite different. Volcanic rocks from Walea Kodi and Walea Bahi Islands lower SiO_2 and low Sr content than Una-Una. Compositions seem similar to volcanic rocks from Sangihe region)

Senduk, K. G. & M. Abdurrachman (2023)- Volcanostratigraphy in the Lokon Volcano area and its surroundings, North Sulawesi. Bulletin of Geology (ITB) 7, 2, p. 1144-1154.
(online at: https://buletingeologi.com/index.php/buletin-geologi/article/view/279/88)
(Lokon Volcano active Quaternary volcano in Celebes- Sangihe volcanic arc. Area with nine geomorphological domains, six volcano systems. 18 rock units, including lava flows, pyroclastic flows, pyroclastic falls and mudflows. No age dating or discussion of historic events)

Septiana, S., A. Idrus, F. Zaccarini, G. Garuti & L.D. Setijadji (2021)- Ore mineralogy of podiform-type chromite deposit in Tedubara area and its vicinity, Kabaena Island, Indonesia. Proc. International Conference Geological Engineering and Geosciences, Yogyakarta 2021, IOP Conference Series: Earth and Environmental Science 851, 012044, p. 1-8.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/851/1/012044/pdf)
(Chromite deposits of podiform type on Kabaena Island, SE Sulawesi. Platinum Group Minerals (laurite; RuS2) occur enclosed in chromite crystals. Fractured and brecciated)

Serhalawan, Y. & P.F. Chen (2024)- Seismotectonics of Sulawesi, Indonesia. Tectonophysics 883, 230366, p.
(preprint online at: https://essopenarchive.org/users/578676/articles/620477-seismotectonics-of-sulawesi-indonesia)

Setiawan, I., S. Indarto, A.F. Ismayanto & Sudarsono (2012)- Karakter dan tipe mineralisasi hidrotermal di wilayah Bombana berdasarkan studi mineralogi dan geokimia. Jurnal Sumber Daya Geologi (JSDG) 22, 3, p. 155-168.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/115/107)
('Character and the type of hydrothermal mineralization in the Bombana area based on a study of mineralogy and geochemistry'. Bombana gold mineralization in metamorphic rocks of Rumbia Mts, with no obvious connection with magmatism. Area with metamorphic and ultramafic rocks (garnet- glaukophane- amphibole schist, peridotite, serpentinite, metasediments, etc.). Gold mineralization of epithermal-mesothermal type, resulting from hydrothermal processes, formed after metamorphism. Ore minerals gold, pyrite, chalcopyrite, goethite, lepidocrocite and cinnabar, commonly associated with quartz veins/ K-Ar age of plagioclase of meta-andesite 85± 2 Ma)

Setiawan, N.I., Y. Osanai, N. Nakano & T. Adachi (2014)- Metamorphic evolution of garnet-biotite-muscovite schist from Barru Complex in South Sulawesi, Indonesia. J. Southeast Asian Applied Geology (UGM) 6, 2, p. 68-78.
(online at: http://jurnal.ugm.ac.id/jag/article/download/7219/5658)
(Mid-Cretaceous garnet-biotite-muscovite schist from Dengedenge River in Barru Complex, 30 km N of Bantimala, SW Sulawesi. Bordered in N by ultramafic rocks and in S by Late Cretaceous turbidites. Foliation of schist varies from N80°E to N30°E, dipping 30-60° to E (SE). Garnet, biotite, muscovite, quartz, rutile and plagioclase represent peak P-T condition of this rock, estimated at T= 501-562ºC and P= 0.89-0.97 GPa. Within geothermal gradient P-T path of eclogite from Bantimala Complex. Wakita 1994 K-Ar age ~106 Ma)

Setiawan, N.I., Y. Osanai, N. Nakano & T. Adachi (2013)- Jadeite jade from South Sulawesi in Indonesia and its geological significance. In: N.I. Setiawan et al. (eds.) Proc. International Conference Geological Engineering, Gadjah Mada University, Yogyakarta 2013, ER05, p. 40-56.
(online at: http://lib.ugm.ac.id/digitasi/upload/4244_jhon-mu.140108-nugroho.pdf)
(Jadeite abundant in high-P garnet-jadeite-quartz metamorphic rock in E Cretaceous Bantimala subduction compex of S Sulawesi. Rock mainly jadeite, garnet, quartz, phengite, epidote, with minor glaucophane and rutile. Rock experienced peak P-T condition at 2.2-2.5 GPa and 500-540 ºC and subsequently retrogressed)

Setiawan, N.I., Y. Osanai, N. Nakano, T. Adachi, K. Yonemura, A. Yoshimoto (2016)- Prograde and retrograde evolution of eclogites from the Bantimala Complex in South Sulawesi, Indonesia. J. Mineralogical and Petrological Sciences 111, 3, p. 211-225.
(online at: https://www.jstage.jst.go.jp/article/jmps/111/3/111_150907/_pdf)
(Evolution of high-P metamorphic rocks from Bantimala Complex, S Sulawesi. Early Cretaceous K-Ar ages of 113-136 Ma probably reflect time of exhumation cooling. Eclogites and glaucophane occur as tectonic blocks in sheared serpentinites. Garnet rims in eclogite formed at peak P-T conditions of 2.3-2.7 GPa and 615-680 °C. Very low geothermal gradient during prograde path suggests subduction of old and cold oceanic crust)

Setiawan, N.I., Y. Osanai, N. Nakano, T. Adachi, K. Yonemura, A. Yoshimoto, L.D. Setiadji, K. Mamma & J. Wahyudiono (2013)- Geochemical characteristics of metamorphic rocks from South Sulawesi, Central Java, and

South and West Kalimantan in Indonesia. Proc. 5th AUNS/SEED-Net Regional Conference Geological Engineering, p. 263-280.
(online at: www.seed-net.org/download/GeoE013_revised_060513.pdf)
(Metamorphic rocks in Cretaceous metamorphic complexes of C Java, S Kalimantan and S Sulawesi are mainly HP metamorphics. Protoliths are metabasics (basalts, andesite) and meta-sediments. Eclogites and blueschists from S Sulawesi with MORB and within-plate basalt signatures. Eclogites and blueschists from C Java mostly within-plate basalt signatures, amphibolites and garnet amphibolites are MORB. Metatonalites from Nangapinoh, Schwaner Mts of W Kalimantan are calc-alkaline rocks from volcanic-arc environment, some adakitic in nature, one sample of 233± 3Ma age (Late Triassic) (non-metamorphosed granites Cretaceous, 77-157 Ma))

Setiawan, N.I., Y. Osanai, N. Nakano, T. Adachi, K. Yonemura, A. Yoshimoto, L.D. Setiadji, K. Mamma & J. Wahyudiono (2013)- Geochemical characteristics of metamorphic rocks from South Sulawesi, Central Java, and South and West Kalimantan in Indonesia. Asean Engineering J. (UTM), C, 3, 1, p. 107-127.
(online at: www.seed-net.org/wp-content/uploads/2015/12/GEOCHEMICAL-CHARACTERISTIC...)
(same paper as Setiawan et al. 2013)

Setiawan, I., I. Zulkarnain, S. Indarto, Sudarsono & A.F. Ismayanto (2010)- Genesa endapan emas di daerah Bombana: sebuah analisis awal berdasarkan pengamatan lapangan dan analisis petrografi. Prosiding Pemaparan Hasil Penelitian Puslit Geoteknologi LIPI 2010, p. 1-10.
(online at: https://jrisetgeotam.lipi.go.id/index.php/proceedings/article/view/722/pdf)
('Genesis of gold deposits in the Bombana area: a preliminary analysis based on field observations and petrographic analysis'. Gold mineralization in metamorphic rocks)

Setyanta, B. & Subagio (2013)- Sinyal geomagnetik di Cekungan Sengkang implikasi terhadap pola struktur dan konfigurasi batuan alas cekungan. Jurnal Sumber Daya Geologi (JSDG) 23, 2, p. 69-79.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/91/85)
'Geomagnetic signals in the Sengkang Basin and its implications for structural and basement configuration'. Intensity of magnetic anomalies at Sengkang Basin from -750- 400 nT. Sengkang Basin underlain by high magnetic ultrabasic rocks (especially E flank?). Geologic structures NE-SW fold, cut by NW-SE fault)

Setyoko, J., S. Hadipandoyo & S. Oemar (2000)- Hydrocarbon resources assessment of the Late Miocene Tacipi Formation in the Bone Basin, South Sulawesi, Indonesia. Proc. 36th Session Coord. Comm. Coastal and Offshore Programmes E and SE Asia (CCOP), Hanoi 1999, p. 35-49.
(Late Miocene Tacipi Fm reefal limestone gas producing in Kampung Baru Field, E Sengkang sub-basin of Bone Basin. Porosity generally 20-30% (moldic, vugular and fracture). Source rocks Eocene and Oligocene carbonaceous sediments. Unproven potential plays in Eocene Toraja Fm sst, Oligocene Toraja Fm carbonate and Pliocene Walanae Fm sst. Undiscovered resources in Tacipi play in Bone basin assessed as maximum 22.5 Gm3 and 5.3 million Tons of oil)

Siagian, H.P. & Widijono (2009)- The possibility of hydrocarbon trap and its potential in the North Bone Basin, based on geological and geophysical data. Jurnal Sumber Daya Geologi (JSDG) 19, 1, p. 63-76.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/194/186)
(Bone basin believed to have formed since Early Tertiary, as fore-arc basin, underlain by pre-Tertiary metamorphics, volcanics and metasediments (Latimojong and Pompangeo Complexes). Hydrocarbon presence demonstrated by gas seeps in Pongko and Malangke villages. Coarse clastic and limestone deposits such as fluvio-deltaic Toraja and Lamasi Fms may be potential reservoirs; shales in Lamasi and Toraja Fms potential petroleum source rocks. Gulf Oil 1972 BBA 1X well in N part of Bone Bay TD at 10,521' in M Miocene)

Siahaan, E.E., S. Ciptadi, D. Budihartanto & C.A.E. Pelmelay (1994)- Sistem panasbumi pada tektonik sesar Palu, di daerah Bora, Sulawesi Tengah. Proc. 23rd Annual Conv. Indonesian Association Geologists (IAGI), p. 1001-1009.
(online at: https://www.iagi.or.id/web/digital/54/36.pdf)
('The geothermal system at the Palu fault, Bora area, C Sulawesi'. Granite in Palu area 15-16 Ma K/Ar ages)

Siahaan, E.E., S. Soemarinda, A. Fauzi, T. Silitonga, T. Azimudin & I.B. Raharjo (2005)- Tectonism and volcanism study in the Minahasa compartment of the North Arm of Sulawesi related to Lahendong geothermal field, Indonesia. Proc. World Geothermal Congress 2005, Antalya, Turkey, p. 1-5.
(online at: https://www.geothermal-energy.org/pdf/IGAstandard/WGC/2005/0654.pdf)
(Minhasa segment of North Arm of Sulawesi is part of Sangihe active volcanic arc. Oldest rocks ('Pre Tondano volcanic series') composed of thick hyaloclastic rocks, basaltic andesite and pyroclastics with interbedded calcareous sediments with M Miocene- Pliocene planktonic foraminifera, suggesting volcanics deposited in open marine environment and became more terrestrial with time. Tondano Volcanics Plio-Pleistocene age)

Sidarto (2008)- Sesar barat laut- tenggara di daerah Mamuju dan sekitarnya dan hubungannya dengan pembentukan Cekungan Karama. Jurnal Sumber Daya Geologi (JSDG) 18, 2, p. 89-105.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/241/220)
('NW-SE in the Mamuju area and surroundings and its relationship to the formation of the Karama Basin'. In SW Sulawesi four parallel NW-SE trending faults: Budong-budong, Talondo, Keang and Adang. Dextral faults in E Tertiary, but sinistral in Miocene-Pliocene. Karama Basin between Budong-budong and Talondo faults contains Eocene trangressive sedimentary rocks and probably step over basin of in E Tertiary)

Sidarto & S. Bachri (2013)- Struktur Geologi. In: Surono & U. Hartono (eds.) Geologi Sulawesi, LIPI Press, Jakarta, p. 277-302.
('Structural geology'. Chapter 12 in Geology of Sulawesi book. Brief reviews of major faults (Palu-Koro, Walanae, Matano, Balantak, etc.), Tertiary rifts (Makassar, Bone) and subduction zones)

Sidarto & U. Hartono (2009)- Identifikasi gunung api purba di daerah Sapaya, Sulawesi Selatan pada data inderaan jauh. Jurnal Sumber Daya Geologi (JSDG) 19, 6, p. 351-363.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/219/209)
('Identification of ancient volcanoes in Sapaya, South Sulawesi, from remote sensing data '. S Arm of Sulawesi Island is Tertiary volcanic arc, represented by Camba Fm. Satellite imagery interpretation reveals two ancient volcanoes in Sapaya area and surroundings: (1) M Miocene- Pliocene Sapaya volcano eroded cone and (2) Pliocene Bantoloe volcano eroded cone. Sapaya Volcano may be controlled by Tethyan type subduction/ collision between Australian micro continental and Eurasian continent plates)

Sidarto & Wahyono (2001)- Kaitan antara struktur geologi dan endapan batubara di cekungan Karama, Sulawesi. Geological Research Development Centre (GRDC), Bandung, Special Publ. 26, p. 15-28.
('Link between structural geology and coal deposits in Karama basin, W Sulawesi'. Toraja Fm Late Eocene coal seams folded and thrusted in Late Miocene- Early Pliocene. Coal rank locally increases along fault zones. Above coal Late Eocene limestone with Discocyclina and Pellatispira)

Sidarto & Wahyono (2002)- Pemodelan geologi cekungan batubara di daerah Baraka, Enrekang, Sulawesi Selatan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 12, 130, p. 2-18.
('Geologic model of the coal basin in the Baraka area, Enrekang, S Sulawesi'. Eocene coals of Toraja Fm rift section in Toraja Basin, N part of S Sulawesi. Overlie U Cretaceous Latimojong Fm and overlain by Late Eocene limestone. Three seams, Titok, Sangbuah and Batunoni-Lapin. Exposure of coal after Late Miocene- Pliocene folding event (see also Wahyono and Sidarto 2002))

Sidqi, M. & P. Utami (2018)- The geology and geothermal systems of the Minahasa District, North Sulawesi. Proc. 6th Indonesia Int. Geothermal Convention & Exhibition (IIGCE), Jakarta 2018, p. 1-7. *(online at: https://www.researchgate.net/publication/329362178_The_Geology_and_Geothermal_Systems_of_the_Minahasa_District_North_Sulawesi)*
(Minahasa district in N Arm of Sulawesi is parts of the Sangihe volcanic arc. Successive Pleistocene- Recent volcanic eruptions of Mts. Ambang, Soputan, Lokon, Mahawu, Tangkoko, Ruang, Karangetang and Mt. Awu led to multiple geothermal systems with different degrees of "maturity". Oldest volcanic activity in Lembeyan volcanic complex, E of Lake Tondano (Late Miocene?))

Silver, E.A. (1981)- A new tectonic map of the Molucca Sea and East Sulawesi, Indonesia, with implications for hydrocarbon potential and metallogenesis. In: A.J. Barber & S. Wiryosujono (eds.) The geology and tectonics of Eastern Indonesia, Proc. CCOP-IOC SEATAR Working Group Meeting, Bandung 1979, Geological Research Development Centre (GRDC), Bandung, Special Publ. 2, p. 343-347.
(New fault zones discovered during Scripps 1976-1979 cruises and land expeditions: (1) Sula Thrust at N side Banggai- Sula Platform, (2) W continuation of Sorong FZ and (3) E extension of Batui Thrust which bounds upthrusted E Sulawesi ophiolite (which also forms Gorontalo basin basement, and emplacement was complete in Pliocene or earlier). Also mapped recently active Tolo Thrust E of Sulawesi and Buton)

Silver, E.A., Y. Joyodiwiryo & R. McCaffrey (1978)- Gravity results and emplacement geometry of the Sulawesi ultramafic belt, Indonesia. Geology (GSA) 6, p. 527-531. *(also in Geological Research Development Centre (GRDC), Bandung, Special Publ. 2, p. 313-319)*
(SE arm Sulawesi gravity highs at schist ultramafic contacts indicate thick ultramafic rocks there, possibly dipping under schist. Gravity effect of ultramafics decreases E away from schist)

Silver, E.A., R. McCaffrey, Y. Joyodiwiryo & S. Stevens (1983)- Ophiolite emplacement by collision between the Sula Platform and the Sulawesi arc, Indonesia. J. of Geophysical Research: Solid Earth 88, B11, p. 9419-9435.
(online at: https://robmccaffrey.github.io/pubs/silver_ophiolite_jgr_1983.pdf)
(Large ophiolite belt from Miocene collision of Sulawesi island arc and continental Sula Platform. Batui thrust separates ophiolite from deformed sedimentary rocks along edge of Sula Platform and continues E from Sulawesi along S margin of Gorontalo basin. Sulawesi ophiolite traced offshore to oceanic crust basement of Gorontalo basin. Ophiolite melange underlies harzburgites on SE Arm beneath low-angle thrusts. Melange several 100m thick thrust packets of serpentine and red shale matrix and N to NE dipping foliation, consistent with significant N-ward component of lower plate movement, probably Sula platform margin. Ophiolite emplaced by oblique convergence of Sula platform along S edge of Gorontalo basin. Gorontalo basin probably forearc basin with ophiolite basement. Presence of dunite in Colo volcanic products in Tomini Bay indicate magma went through through oceanic material, possibly part of E Sulawesi Ophiolite)

Silver, E.A., R. McCaffrey & R.B. Smith (1983)- Collision, rotation, and the initiation of subduction in the evolution of Sulawesi, Indonesia. J. of Geophysical Research: Solid Earth 88, B11, p. 9407-9418.
(online at: https://robmccaffrey.github.io/pubs/silver_sulawesi_jgr_1983.pdf)
(Sulawesi shaped as result of collision with Sula platform, resulting in rotation of N volcanic arm and accretionary wedge of N Sulawesi trench. N Sulawesi trench changes laterally from no active deformation in E to a wide accretionary wedge in W. Early thrusting produced steep frontal slope (8°-16°), indicative of high basal shear stress, more advanced (W) zone of thrusting produces gentle slope (2°). Paleomagnetic data suggest post-Late Eocene counter-clockwise rotation of N Arm. Convergence between N Banda Basin and SW Sulawesi documented by Tolo thrust. S end of thrust projects toward Buton, but structural relations not clear)

Simandjuntak, T.O. (1980)- Wasuponda melange. Proc. 8th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, p.
(First description of C Sulawesi Wasuponda melange. Contains eclogite)

Simandjuntak, T.O. (1981)- Some sedimentological aspects of Mesozoic rocks in eastern Sulawesi, Indonesia. Proc. 9th Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, p.

Simandjuntak, T.O. (1986)- Sedimentology and tectonics of the collision complex of the East arm of Sulawesi, Indonesia. Ph.D. Thesis, Royal Holloway and Bedford New College, University of London, p. 1-374.
(online at: https://repository.royalholloway.ac.uk/file/bf7a78df-c538-4bff-a28d-983a91cf0634/1/10090181.pdf)
(Stratigraphic-tectonic study of Sulawesi East Arm. Late M Miocene and younger Kolokolo melange of main thrust zone separates tectonized, obducted E Sulawesi Ophiolite belt from underlying imbricated Late Triassic-E Miocene sediment cover of Banggai-Sula continental block. Oil seeps generally associated with melange outcrops. Classic ophiolite stratigraphy in Early Cretaceous(?)East Sulawesi (Balantak) ophiolite: ultramafic rocks- gabbro- sheeted dikes- pillow basalts. ('Boba Fm' cherty ocean floor pelagic deposits above ophiolite: E

Cretaceous (Valanginian- E Cenomanian) Boba beds radiolarian chert (with Thanarla conica (= T. brouweri Tan), Zipondium, Archaeodictyomitra apiaria, Pseudodictyomitra cosmoconica, Acanthoricus, Cryptocephalic, etc., p. 171; B. Murchey, USGS identifications), U Cretaceous pelagic calcilutite (with Globotruncana, Rotalipora) and Eocene- E Oligocene pelagics. Some pillow basalts may be E Tertiary seamounts. Post-orogenic 'molasse' Late Miocene- Pliocene in age and derived from N/NW)

Simandjuntak, T.O. (1986)- Struktur duplek (dwiunsur), sesar sungkup dan sesar jurus mendatar di lengan timur Sulawesi. Proc. 15th Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, p.
('Duplex structures, thrust faults and wrench faults in the East arm of Sulawesi')

Simandjuntak, T.O. (1986)- New data on the age of ophiolitic rocks in Eastern Sulawesi. Proc. 15th Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, p. 649-657. *(see also Simandjuntak (1992)*
(online at: https://www.iagi.or.id/web/digital/44/PIT-IAGI-1986-Vol-2-Paper-26.pdf)
(Radiometric analysies of gabbro, dolerite and pillow basalt from East Arm of Sulawesi suggest ophiolite and its seamount basalts are, respectively Cretaceous and Eocene in age (peridotites could not be dated due to low potassium content). Associated E Cretaceous (Valanginian- E Cenomanian range) radiolarian chert (deposited below CCD depth) and calcilutites with Late Cretaceous Globotruncana from upper ophiolite sequence)

Simandjuntak, T.O. (1990)- Sedimentology and tectonics of the collision complex in the East Arm of Sulawesi, Indonesia. Geologi Indonesia 13, 1, p. 1-35.
(Summary of the Simandjuntak 1986 thesis. In E Arm of Sulawesi imbricated Mesozoic-Paleogene continental margin sediments of Banggai-Sula Platform juxtaposed with E Sulawesi Ophiolite Belt along Batui- Balantak Fault system. Three distinct sequences in E Arm: (1) Triassic- Paleogene continental margin; (2) Cretaceous pelagic chert and radiolaria-rich calcilutite (= sediment cover of ophiolite suite?) and (3) overlap assemblage of Neogene post- orogenic clastics ('Sulawesi Molasse'), with clasts of (1) and (2). Collision zone marked by Kolokolo Melange with M Miocene calcareous mudstone matrix, locally with oil seeps. At least 3 raised coral reef terraces on S coast of East Arm show ongoing uplift)

Simandjuntak, T.O. (1992)- New data on the age of the ophiolite in Eastern Sulawesi. Bull. Geological Research Development Centre (GRDC) 15, p. 38-44.
(K/Ar dating of gabbro from E Sulawesi ophiolite gave ages of 93-48 Ma (Late Cretaceous- E Eocene); pillow basalts ~53-38 Ma (Eocene). Peridotites could not be dated due to very low K content. Oldest cherts with manganese nodules above pillow basalts of ophiolite complex in Boba beds from E Arm of Sulawesi contain E Cretaceous (Valanginian- E Cenomanian= > 95 Ma) radiolaria, overlain by U Cretaceous calcilutites with Globotruncana (K/Ar ages of E Sulawesi (Ophiolite radiometric ages therefore apparently almost all much too young?; JTvG)

Simandjuntak, T.O. (1992)- Sedimen Mesozoikum dan prospek hidrokarbon di Indonesia Timur (studi kasus penelitian geologi di lengan Timur Sulawesi). Jurnal Geologi dan Sumberdaya Mineral (JGSM) 2, 7, p. 10-20.
('Mesozoic sediments and hydrocarbon prospects in E Indonesia, special study of E arm of Sulawesi'. Oil and gas seeps, probably sourced from Jurassic marls, in many places between Banggai-Sula microcontinent and E Sulawesi ophiolite belt. Tectonism before, during and after continent collision may stimulate oil migration)

Simandjuntak, T.O. (1993)- Neogene plate tectonic convergence in eastern Sulawesi. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 3, 25, p. 2-10.
(In M Miocene NW-ward moving microcontinental blocks incl. Banggai-Sula Platform, Tukang Besi- Buton Platform and Mekongga Platform, collided ('underplated') with E Sulawesi Ophiolite Belt, in 'Tethyan-type' convergence. Followed by deposition of Late Miocene- Pliocene post-orogenic 'molasse' of non-marine and shallow marine sediments. E Sulawesi Ophiolite overlain by U Cretaceous pelagic calcilutite with radiolaria (Matano= Boba Fm). C Sulawesi Metamorphic Belt formed in W-dipping Benioff zone in Cretaceous-Paleogene. Imbricated sedimentary cover of Banggai-Sula Plate with U Triassic (Tokala Lst Fm) - Jurassic (Nanaka quartz sst, Sinsidik Lst with belemnites) and U Cretaceous- Paleogene sediments)

Simandjuntak, T.O. (1993)- Struktur rangkap (duplex), sesar sungkup dan sesar jurus mendatar di Lengan Timur Sulawesi. Bull. Geological Research Development Centre (GRDC) 16, p. 27-44.
('Duplex structure overthrusting and displacement in the eastern arm of Sulawesi'. Batui Thrust is M Miocene suture between Banggai-Sula Platform and E Sulawesi Ophiolite Belt. Consists of several thrusts, all dipping NW. NE portion subjected to dextral strike-slip with 150 km of displacement in Plio-Pleistocene (Balantak fault). Melanges related to tectonic diapyrism developed along Batui Thrust zone. Several duplex structures developed in sediments of Banggai-Sula Plate)

Simandjuntak, T.O. & M. Mubroto (1991)- Neogene Tethyan type convergence in eastern Sulawesi. In: E.P. Utomo, H. Santoso & J. Sopaheluwakan (eds.) Proc. Silver Jubilee Symposium on the dynamics of subduction and its products, Yogyakarta-Karangsambung 1991, Research Development Centre Geotechnology, Indonesian Institut of Sciences (LIPI), Bandung, p. 274-277.

Simandjuntak, T.O., E. Rusmana, J.B. Supandjono & A. Koswara (1993)- Geology of the Bungku Quadrangle, Sulawesi. Quad. 2213, Map 1:250,000, Geological Research Development Centre (GRDC), Bandung, p. 1-13.
(E Central Sulawesi map sheet, mapped in 1980. Two terranes: (1) E Sulawesi ophiolite of Cretaceous ultramafics, overlain by Upper Cretaceous pelagic sediments (Matano Fm) and Late Miocene-Pliocene tuffaceous clastics and (2) 'Banggai-Sula terrane' of Triassic (-E Jurassic?) Tokala Fm limestones and clastics, Jurassic Nanaka Fm clastics with conglomerates with volcanics, red granite and metamorphic clasts, J-K pelagic limestones and U Eocene- Lower Miocene Salodik Fm limestones. Various episodes of folding; last tectonic event in Pleistocene)

Simandjuntak, T.O., E. Rusmana, Surono & J.B. Supandjono (1991)- Geology of the Malili Quadrangle, Sulawesi. Quad 2113, 1:250,000. Geological Research Development Centre (GRDC), Bandung, p. 1-35.
(C Sulawesi map between 2-3°S, N end Bone Bay. Comprises W and E Sulawesi provinces, separated by Palu-Koro fault. W Sulawesi with Late Cretaceous flysch, Eocene- Miocene clastics, Oligocene- M Miocene volcanic arcs and Neogene granitic rocks, unconformably overlain by Late Miocene- Pliocene turbidites, followed by Plio-Pleistocene- Recent andesitic volcanics. C Sulawesi Pompangeo metamorphic belt, E Sulawesi ophiolite overlain by Cretaceous pelagic Matano Fm with common Cretaceous radiolarian cherts near base. Late Miocene-Pliocene post-orogenic molasse)

Simandjuntak, T.O., Surono & Sukido (1994)- Geology of the Kolaka Sheet, Sulawesi (Quadrangles 2111, 2210, 2211), 1:250,000. Geological Research Development Centre (GRDC), Bandung, p. 1-18.
(SE Sulawesi map sheet between 4-5°S, mapped in 1983. Two juxtaposed terrains: (1) E Sulawesi ophiolite (E Cretaceous ultramafics overlain by Late Cretaceous pelagic limestone) and 'Pompangeo metamorphic complex' (incl. eclogites and glaucophane-bearing rocks) and (2) Buton- Tukang Besi continental terrane with ?Permo-Carboniferous? metamorphics and low-metamorphic Triassic Meluhu Fm clastics and Tokala Fm carbonates. Both overlain by M Miocene- Pliocene 'Sulawesi molasse'. Strong Paleogene deformation, M Miocene upthrust of E Sulawesi terrane onto Tukang Besi- Buton block and Plio-Pleistocene block faulting. (Panggabean & Surono 2011: Matano Fm (pelagic rock overlying E Sulawesi ophiolite?) contains E Cretaceous radiolaria Thanaria conica, Archaeodictyomitra apiaria, Pseudodictyomitra cosmoconica), etc.)

Simanjuntak, A.V.H., K.H. Palgunadi, P. Supendi, U. Muksin, E. Gunawan, S. Widiyantoro, N.Rawlinson et al. (2024)- The western extension of the Balantak Fault revealed by the 2021 earthquake cascade in the central arm of Sulawesi, Indonesia. Geoscience Letters 11, 35, p. 1-10.
(online at: https://geoscienceletters.springeropen.com/articles/10.1186/s40562-024-00353-7)
(Two shallow earthquakes of magnitude 6.2 and 5.8 in central (=East) arm of Sulawesi in 2021 reveal previously unmapped faults, called C. Balantak and W Balantak)

Simandjuntak, T.O., Surono & J.B. Supandjono (1991)- Geologic map of the Poso Quadrangle, Sulawesi. Map 1:250,000. Geological Research Development Centre (GRDC), Bandung, p.
(C Sulawesi map between 1-2°S, S end Tomini Bay. Two terrains: W Sulawesi, E Sulawesi)

Simons, W.J. F., D. van Loon, A. Walpersdorf, B.A.C. Ambrosius, J. Kahar, H.Z. Abidin, D.A. Sarsito, C. Vigny, S. Haji Abu & P. Morgan (2000)- Geodynamics of S.E. Asia: First results of the Sulawesi 1998 GPS campaign. In: K.P. Schwartz (ed.) Proc. Geodesy beyond 2000 Conference, Birmingham 1999, Springer, p. 271-277.
(Results of third GPS campaign of international GEODY5SEA (GEODYnamics of South and South East Asia) project, with a dense geodetic network in Sulawesi)

Socquet, A., J. Hollingsworth, E. Pathier & M. Bouchon (2019)- Evidence of supershear during the 2018 magnitude 7.5 Palu earthquake from space geodesy. Nature Geoscience 12, p. 192-199.
(Palu-Koro fault rapidly moving left-lateral strike-slip fault. Palu earthquake of September 2018 probably ruptured 30 km linear section of the rupture S of Palu city at supershear velocities)

Socquet, A., W. Simons, C. Vigny, R. McCaffrey, C. Subarya, D. Sarsito, B. Ambrosius & W. Spakman (2006)- Microblock rotations and fault coupling in SE Asia triple junction (Sulawesi, Indonesia) from GPS and earthquake slip vector data. J. of Geophysical Research 111, B08409, 3, p. 1-15.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/2005JB003963/epdf)
(Current Sulawesi deformation described by small number of rapidly rotating blocks. SW Sulawesi (Makassar Block) rotates CCW at ~1.4°/Myr. NE Sulawesi (Bangai-Sula) 3 blocks: central N Sula Block moves NNW and rotates CW at ~2.5°/Myr, NE Manado Block rotates CW at ~3°/My; E Sulawesi pinched between N Sula and Makassar blocks. Along Makassar Block- Sunda Plate boundary, trench accommodates ~15 mm/yr of slip in Makassar Strait. N Sula-Manado blocks boundary is Gorontalo Fault, moving right laterally at ~11 mm/yr. 42 mm/yr relative motion between N Sula and Makassar blocks accommodated on Palu-Koro left-lateral fault zone. Data also indicate pull-apart structure in Palu area. Sulawesi example of collision accommodated by block rotation instead of mountain building)

Soehaimi, A & D. Muslim (2013)- Seismotectonics of the Palu-Kuro active fault and analysis of the disappearance of megalith cultures from central Sulawesi island. Proc. 49th Annual Session Coord. Comm. Geoscience Programmes E and SE Asia (CCOP), Sendai, p. 75-81.
(online at: www.ccop.or.th/download/as/52as2.pdf)

Soemarno, S. (1979)- Beberapa hasil penerapan cara terpadu pada batuan yang mengandung bijih khromit di daerah Lasitae (Barru), Sulawesi Selatan. J. RISET Geologi dan Pertambangan (LIPI) 2, 1, p. 32-44.
(online at: http://pustaka.geotek.lipi.go.id/wp-content/uploads/2016/02/Riset-Vol.2-No.1-2-2-.pdf)
('Some of the results of integrated study of rocks with chromite ore in the Lasitae (Barru) area, South Sulawesi'. Lasitae area mountains SE of Barru with ultramafic zones with two WSW-ENE belts of chromite ore deposits)

Soeria-Atmadja, R., J.P. Golightly & B.N. Wahju (1974)- Mafic and ultramafic rock associations in the East Arc of Sulawesi. Proceedings Institut Teknologi Bandung (ITB) 8, 2, p. 67-85. *(also in Proc. Regional Conference. Geology of SE Asia, Kuala Lumpur 1972)*
(online at: https://journals.itb.ac.id/index.php/jmfs/article/view/9683/3670
(E and SE arms of Sulawesi (incl. Wawoni island in S and W Buton) largely occupied by discontinous belts of large ultramafic complexes, composed mainly of hartzburgite, lherzolite with some dunite and pyroxenite. Presumably of Late Mesozoic- Early Tertiary age. Associated with small masses of gabbroic rocks. Borders of ultramafic intrusions commonly serpentlnized. Contacts with surrounding rocks generally faults/ thrusts)

Soeria-Atmadja, R., B. Priadi, T.M. van Leeuwen & I. Kavalieris (1999)- Tectonic setting of porphyry Cu-Au, Mo and related mineralization associated with contrasted Neogene magmatism in the Western Sulawesi arc. Island Arc 8, 1, p. 47-55.
(Neogene W Sulawesi Arc three magmatic provinces: (1) South: K alkaline-shoshonitic, with leucite-bearing rocks, 13-2 Ma (2) Central: high-K calc-alkaline and (3) North low-K, normal calc-alkaline arc volcanics, mainly 22-13 Ma, also 9.5 Ma-present. Origin of magmatism in terms of subduction and collision processes contentious. Four widely spaced Cu-Au porphyry and one Mo porphyry district(s) along W Sulawesi Arc, with N Sulawesi province most mineralized. Porphyry Mo systems require involvement of continental crust in magma source, while Au-rich porphyry systems are derived from mantle source)

Soesilo, J. (1998)- Metamorfosa pada komplek Latimojong, Sulawesi Selatan dan makna tektonikya. Masters Thesis, Institut Teknologi Bandung (ITB), p. 1-85. *(Unpublished)*
('Metamorphism in the Latimojong Complex, S Sulawesi and tectonic significance'. Metamorphic rocks of Latimojong Mts low- medium grade rocks derived from alternating siliciclastic, calcareous and volcanic rocks, intruded by basaltic-acidic, high K, calc alkaline and tholeiite rocks. W-dipping imbrication dominant structure and involves metamorphic rocks, serpentinites, chert and island arc metabasites of accretionary complex. At least three deformational phases, including metamorphism at glaucophane greenschist facies. Supports formation of primitive island arc prior to its collision with Sundaland margin)

Soesilo, J. & J. Sopaheluwakan (1998)- Petrologi dan geokimia meta-batuan beku Pegunungan Latimojong, Sulawesi Selatan. Proc. 27th Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 3 (Geodinamika, Magmat. Volkanologi), p. 94-107.
(online at: https://www.iagi.or.id/web/digital/56/62.pdf)
('Petrology and geochemistry of metamorphics of Latimojong Mts, S Sulawesi'. Geochemistry of 10 metamorphosed igneous rock samples in Latimojong metamorphic complex: metabasites (former island arc basalt), meta-gabbros, dolerites, andesites and granite, presumably formed in active subduction environment)

Soesilo, J., E. Suparka, C.I. Abdullah & V. Schenk (2010)- Pemetaan inklusi di dalam garnet tekanan tinggi pada kompleks melange Bantimala, Sulawesi Selatan. Majalah Geologi Indonesia (IAGI) 25, 3, p. 143-159.
(online at: https://eprints.upnyk.ac.id/12891/)
('Inclusion mapping in high pressure garnet in the Bantimala melange complex, South Sulawesi'. High pressure metamorphics of Bantimala Complex, S Sulawesi, consist of eclogite, eclogite-epidote and blueschist. Rocks rich in garnet with various inclusions of previously formed mineral groups. Two types of garnet: (1) massive brown-red almandine with inclusions of epidote, rutile, quartz, phenjite, glaucophane, etc., found in eclogite; (2) "ox-eye" rimmed garnet with inclusions of chlorite, epidote, rutile, calcite, actinolite, glaucophane, quartz, etc. Garnet formed during progradational metamorphism to eclogite facies, under P of 27-31 kb and T of up to 680° C. Assuming geothermal gradient of 6.5° C/km, eclogite was subducted to depth of 110 km)

Sohma, K. (1973)- *Florschuetzia*, a fossil sonneratioid pollen genus, from Sulawesi, Indonesia. Science Reports Tohoku University, Series 4 (Biology), 36, 4, p. 261-266.

Sompotan, A.F. (2012)- Struktur geologi Sulawesi. Perpustakaan Sains Kebumian, Institut Teknologi Bandung (ITB). p. 1-54.
(online at: https://www.academia.edu/29803956/Buku_Geologi_Sulawesi_Armstrong_Sompotan)
('Geological structure of Sulawesi'. Mainly review of published data on Sulawesi geology)

Song, T., T. Hao, J. Zhang, L. Cao & M. Dong (2022)- Numerical modeling of North Sulawesi subduction zone: Implications for the east–west differential evolution. Tectonophysics 822, 229172, p. 1-11.
(Modeling of rapid evolution and obvious E-W differential evolution in N Sulawesi subduction zone, where Celebes Sea plate inserted itself under N arm of Sulawesi, which simultaneously rotated clockwise)

Sopaheluwakan, J. (1979)- The evolution of Franciscan type melange in South Sulawesi, with special reference to the Barru area. J. RISET Geologi dan Pertambangan (LIPI) 2, 1, p. 45-55.
(online at: http://pustaka.geotek.lipi.go.id/wp-content/uploads/2016/02/Riset-Vol.2-No.1-2-2-.pdf)
(Early study of Barru- Bantimala melange/ metamorphic complexes of SW Sulawesi, and similarities with SE Kalimantan and C Java. Metamorphics include glaucophane schists, eclogites, amphibilite, marble, etc., unconformably overlain by E Cretaceous? deep-sea sediments, followed by U Cretaceous flysch. Associated with fault-bounded, chromite-bearing ultramafics with shear zones (but no pillow lavas))

Sopaheluwakan, J. (1994)- Do Karangsambung (Central Java) and Bantimala (SW Sulawesi) form a single subduction process? a provocative view. Proc. 30th Anniversary Symposium, Research and Development Centre for Geotechnology (LIPI), Bandung, 2, p. 7-8.
(Cretaceous subduction complexes of Ciletuh (W Java), Karangsambung and Bayat (C Java), Meratus (S Kalimantan), and Bantimala and Barru (S Sulawesi) may belong to same orogenic belt. Bantimala and Barru

complexes may form single and intact Mesozoic basement, linked to Meratus Range prior to Makassar Strait opening)

Sopaheluwakan, J. (1995)- The deep crustal processes of West Arm of Sulawesi and the evolution of Makassar Strait: evidences from Bantimala, Meratus Mountain and Palu Koro Fault Zone. In: Y. Kumoro et al. (eds.) Proc. Seminar Sehari Geoteknologi dalam indistrialisasi, Hasil-hasil Penelitian Puslitbang Geoteknologi LIPI, p. 216-217. *(Abstract)*.
(West Arm of Sulawesi was eastern margin of Sunda craton, now separated from mainland of Kailmantan by thinned continental crust of Makassar Straits. East Sunda crust exposed near Palu (Toboli complex schists and slates). Sunda continent rimmed by Late Mesozoic subduction/accretionary complex, exposed as tectonic windows in Bantimala and Barru areas, extending N to Palu and to SW in Karangsambung. Late Cretaceous accretion ended subduction. Long-standing subduction had enriched mantle wedge under continental margin; its buoyancy led to continental crustal stretching and opening of Makassar Straits in E Tertiary)

Sopaheluwakan, J., A. Kadarusman, B. Priyadi & H. Utoyo (1995)- The nature of basement rocks in the Palu Region, Central Sulawesi. The newly found ecoglite and its regional implications. Proc. 6th Int. Congress Pacific Neogene Stratigraphy and IGCP-335, Neogene evolution of Pacific: biotic, climatic, oceanographic and tectonic development, Puspitek Serpong 1995, Bandung/Kyoto, p. 77-83.

Sopaheluwakan, J., K. Miyazaki, I. Zulkarnain & K. Wakita (1993)- Early Cretaceous Eastern Sunda subduction metamorphism and its tectonic implication: record of Karangsambung and Bantimala eclogites. Proc. 22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, p.

Spencer, J.E. (2010)- Structural analysis of three extensional detachment faults with data from the 2000 Space-Shuttle Radar Topography Mission. GSA Today 20, 8, p. 4-10.
(Large grooved surfaces on Space Shuttle Radar Topography images interpreted as exhumed footwalls of recently active extensional detachment faults. Examples include N Tokorondo Mts NW of Lake Poso and Pompangeo Mts E of Lake Poso in C Sulawesi. Linear landforms interpreted by Hamilton, etc., as thrust imbrication with thrusts striking parallel to ridges here interpreted as stretching lineations of exhumed footwall of detachment fault. Length of lineaments suggests 60-70 km of extension above Pompangeo complex)

Spencer, J.E. (2011)- Gently dipping normal faults identified with Space Shuttle radar topography data in Central Sulawesi, Indonesia, and some implications for fault mechanics. Earth Planetary Science Letters 308, p. 267-276.
(Topography data from C Sulawesi show two corrugated, domal landforms, covering 100s to 1000s of km^2, bounded to N by abrupt transition to hilly to mountainous topography. Interpreted as metamorphic core complexes. N-ward transition interpreted as traces of extensional detachment faults, dipping 4°- 18°)

SRK Consulting (Australasia) Pty Ltd. (2021)- Independent Technical Assessment Report Toka Tindung Gold Mine, North Sulawesi, Indonesia. Project EDM004, p. 1-224.
(online at: https://minedocs.com/22/Toka_Tindung-TachnicalAssessmentReport-032021.pdf)
(Extensive review of geology and mineralisation contained in area of Toka Tindung Gold Mine, 35 km NE of Manado, N Sulawesi. Gold production since 2011. Gold hosted in Plio-Pleistocene andesitic and basaltic subaerial volcanic and volcaniclastic rocks, informally known as Maen volcanics. Economic gold-silver mineralisation discovered to date low-sulphidation epithermal style deposits, typically within small shoots that form at dilational sites along the host quartz vein structures)

Stelbrink, B., C. Albrecht, R. Hall & T. von Rintelen (2012)- The biogeography of Sulawesi revisited: is there evidence for a vicariant origin of taxa on Wallace's 'anomalous island'? Evolution 66, p. 2252-2271.
(online at: http://download.naturkundemuseum-berlin.de/bjoern.stelbrink/stelbrink_etal_2012.pdf)
(Divergence time estimates for split of Sulawesi lineages from sister groups postdate relevant tectonic vicariant events, suggesting island predominantly colonized by dispersal. Speciation on Sulawesi not before Miocene, consistent with geological evidence for more land on island from that time)

Stevens, C., R. McCaffrey, Y. Bock, J. Genrich, Endang, C. Subarya, S.S.O. Puntodewo, Fauzi & C. Vigny (1999)- Rapid rotations about a vertical axis in a collisional setting revealed by the Palu fault, Sulawesi, Indonesia. Geophysical Research Letters 26, 17, p. 2677-2680.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/1999GL008344/epdf)
(GPS measurements indicate left-lateral Palu fault in C Sulawesi slips at ~38 mm/yr. Palu and nearby faults accomodate rapid CW rotation of nearly 4°/Ma of E Sulawesi relative to E Sunda. Rotation of E Sulawesi transfers E-W shortening between Pacific- Eurasian plates to N-S subduction of Celebes basin under Sulawesi)

Stolley, E. (1934)- Uber Mesozoische Belemniten-fuhrenden Schichten von Celebes. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 10, p. 172-175.
('On Mesozoic belemnite-bearing beds from Sulawesi'. Appendix in Brouwer (1934), describing material collected in 1929 from Central Sulawesi. Upper Jurassic (probably lower Oxfordian) belemnites, mainly Belemnopsis gerardi group (= Tithonian B. galoi- B. stolleyi of Challinor, 1990), from limestone with chert at Bahoempombini on Gulf of Tolo). No figures)

Subagio & B.S. Widijono (2012)- Interpretasi pola anomali gaya berat regional kaitannya terhadap potensi sumber daya geologi di lengan selatan Sulawesi. Jurnal Sumber Daya Geologi (JSDG) 22, 1, p. 49-64.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/106/98)
('Interpretation of the regional gravity anomaly patterns in relation to potential geological resources in the South arm of Sulawesi'. Geologic cross sections interpretation W-directed fold-thrusting)

Subandrio, A.S. (2006)- Diagenetic alteration in Late Miocene carbonate of Tacipi area, South Celebes. Proc. 35th Annual Conv. Indonesian Association Geologists (IAGI), Pekanbaru 2006, p. 1-10.
(Tacipi reefal carbonate platform in Sengkang Basin, S Sulawesi mainy homogenous boundstones at top and packstones with local grainstones, and wackestones at bottom. Four reef facies identified: patch reef, barrier reef, fore reef and lagoon. Extensive freshwater leaching created biomoldic and vug pores)

Subandrio, A.S. & E. Usman (2011)- Diagenetic features of paleo lagoonal reef of Tacipi Area, South Celebes. Bulletin of the Marine Geology 26, 2, p. 95-104.
(online at: http://ejournal.mgi.esdm.go.id/index.php/bomg/article/view/37/38)
Late M Miocene- E Pliocene Tacipi Lst exposed in Tacipi area, Sengkang Basin, in lagoonal facies. Limestones mainly homogenous boundstones on top and packstones with local grainstones, and wackestones at base. Extensive freshwater leaching of fossil fragments and calcareous cement created moldic and vug porosity)

Subroto, E.A., B. Priadi & B. Yulian (2004)- Study on gas samples collected from Tanjung Api and Tomori area, Sulawesi: abiogenic, biogenic, or thermogenic? Buletin Geologi (ITB) 36, 3, p. 117-124.
(Analysis of 3 gas samples from E Sulawesi. Two are from Donggi 1 well and are biogenic. Tanjung Api surface seep sample 53% hydrocarbon gas (98.2% methane/ CH4, 1.5% ethane) and 16% hydrogen/H2. Carbon isotopes d13C are unusually heavs, Origin is dubious: possibly abiogenic or post-mature or biodegraded (NB: more recent studies from ophiolites around the world show very similar serpentinization-derived gas seepage; see also Van Gorsel & Subroto, 2022)

Subandrio, J. (1997)- Petrologi dan geokimia batuan beku Formasi Kalamiseng, daerah Bone, Sulawesi Selatan. Kumpulan Makalah Hasil Penelitian dan Pemetaan 1996/1997, Pusat Penelitian dan Pengembangann Geologi (GRDC), Bandung, p. 364-374.
('Petrology and geochemistry of igneous rocks of the Kalamiseng Formation, Bone area, South Sulawesi'. Late Oligocene- E Miocene volcanics. In 'Collection of Research Papers and Mapping Results of the Geological Research and Development Center, 1996/1997)

Sudarmono (1999)- Tectonic and stratigraphic evolution of the Bone Basin, Indonesia: insights to the Sulawesi collision complex. Proc. 27th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 531-534.
(Bone Basin is subduction complex/ suture between Sundaland and Gondwana-derived micro-continent that evolved into submerged intra-montane basin. Paleogene- E Miocene forearc stage with W-dipping subduction complex. M-L Miocene W-ward convergence of microcontinents toward subduction complex changed deposition

and basin configuration. M Miocene collision with accretionary complex, followed by collision with W Sulawesi. Collision led to E-ward rotation of SE Sulawesi, with rifting and submergence of S part of basin. Compression from collision caused major back-thrust systems of W-verging Kalosi and Majene fold belts in W Sulawesi. Colliding plates began to lock in Pliocene, and continued plate convergence was accommodated by strike-slip along Walanae, Palu Koro and other faults. Bone Basin submerged into intra-montane basin setting. Clastic sediments from surrounding mountains to E, N and W prograded S to depocenter. Strike-slip still active)

Sudijono (2005)- Biostratigraphy and the depositional environment of the Toraja Limestone at the Nanggala river section, Toraja, South Sulawesi. Jurnal Sumber Daya Geologi (JSDG) 15, 1 (148), p. 57-74.
(80m thick Toraja Fm limestone member at Nanggala River, 10km NE of Rantepao. Lower part Middle Eocene (Ta3) age, with Alveolina and Nummulites javanus. Upper ~10m Late Eocene (Tb) with Pellatispira madaraszi and abundant Discocyclina/ Asterocyclina. Overlying volcanic sst-claystone facies (Lamasi Volcanics?) with abundant Late Eocene (P15) planktonic foraminifera (Hantkenina, Gr. cerroazulensis, Pseudohastigerina micra). Toraja Fm underlain unconformably by Cretaceous Latimojong Fm metasediments)

Sudijono (2005)- On the age of the Makale Formation of the Makale-Totumbang Road section, Tana Toraja, South Sulawesi. Jurnal Sumber Daya Geologi (JSDG) 15, 2 (149), p. 3-23.
(Makale Fm ~500-1000m thick marl-limestone formation, well exposed between Makale and Totumbang, in NE part of South Arm. Affected by N-S trending, west-directed thrusting. Sampled part mainly zone Tf1, possibly also Te5 near base and Tf2 at top. Presence of Austrotrillina howchini, Cycloclypeus (Katacycloclypeus) annulatus, Flosculinella bontangensis, Miogypsina antillea, etc. Age late E Miocene- early M Miocene)

Sudradjat, A. (1982)- Geologi Lembah Palu Sulawesi Tengah dengan menggunakan teknik penginderaan jauh. Masters Thesis Institut Teknologi Bandung (ITB), p. *(Unpublished)*
('Geology of the Palu valley, Central Sulawesi, using remote sensing techniques'. Palu-Koro Valley 250 km long, is reflection of sinistral Palu-Koro strike slip fault, with active movement estimated at 2-3.5mm to 14-17 mm/ year, totaling 3.25 km. Palu-Koro fault separates two different terranes)

Sufriadin (2008)- Comparative petrography of Paleogene and Neogene coal deposits from Southern Arm Sulawesi. Proc. 37th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 672-681.
(Petrography of 18 coal samples from SW Sulawesi. Toraja Fm Paleogene coals higher vitrinite and liptinite than Neogene Fm coal, which have more inertinite and higher mineral matter (clay, iron sulfides, minor carbonate). Vitrinite reflectance wide range in Paleogene (0.35- 0.86%). Neogene coals narrower range (0.44-0.60%; lignite to HV Bituminous A coal). Maturity of some coals affected by igneous intrusions)

Sufriadin, K. Angayana & A. Sudarsono (2002)- Karakteristik mineralogi batubara daerah Tondongkurah, Kabupaten Pangkep, Sulawesi Selatan. Proc. 31st Annual Conv. Indonesian Association Geologists (IAGI), Surabaya, p. 185-192.
(online at: https://www.iagi.or.id/web/digital/17/KARAKTERISTIK-MINERALOGI-BATUBARA-DAERAH-TONDONGKURAH,-KABUPATEN-PANGKET,-SULAWESI-SELATAN.pdf)
('Characteristics of coal mineralogy in the Tondongkurah area, Pangkep District, S Sulawesi'. Presumably Eocene coal; JTvG?) (see also Gani & Soetjito, 1999))

Sufriadin, A. Idrus, S. Pramuwijoyo, I.W. Warmada & A. Imai (2011)- Study on mineralogy and chemistry of the saprolitic nickel ores from Soroaka, Sulawesi, Indonesia: implication for the lateritic ore processing. J. Southeast Asian Applied Geology (UGM) 3, 1, p. 23-33.
(online at: https://journal.ugm.ac.id/jag/article/viewFile/7178/5618)
(Iinvestigation of mineralogy and chemistry of saprolitic nickel ores developed on ultramafic rock with different degrees of serpentinization in Soroako)

Sufriadin, A. Idrus, S. Pramuwijoyo, I.W. Warmada, A. Imai & Y. Yamauchi (2012)- Chromian spinel in peridotite of the Soroako ultramafic complex, Sulawesi, and its petrogenetic significance. Proc. 41st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2012-M-03, p. 1-8. *(online at: www.iagi.or.id/web/digital/9/2012_IAGI_Yogyakarta_Chromian-Spinel-in-Peridotite-of-the-Soroako.pdf)*

(Cr-spinels in Soroako peridotites of E Sulawesi (ultramafic complex with affinity to alpine-type peridotite, bounded in W by W-dipping thrust fault that separates it from Mesozoic limestone and red shales) occur as inclusions in olivine and orthopyroxene. Likely derived from upper mantle of suprasubduction zone or fore-arc setting and formed by high partial melting with low oxygen fugacity)

Sufriadin, A. Idrus, S. Pramuwijoyo, I.W. Warmada, I. Nur, A. Imai, A.M. Imran & Kaharuddin (2012)- Thermal and infrared studies of garnierite from the Soroako nickeliferous laterite deposit, Sulawesi, Indonesia. Jurnal Geologi Indonesia 7, 2, p. 77-85.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/401)
(Mineralogical study of garnierite, a green material with high nickel content, from Soroako nickel laterite deposit of C Sulawesi)

Sufriadin, A. Idrus, I.W. Warmada, I. Nur, S. Ueno & A. Imai (2012)- Characteristics and the occurrence of "garnierite" from the Soroako nickeliferous laterite deposits, Sulawesi, Indonesia. Majalah Geologi Indonesia, 27, 1, p. 1-11.
(Green Ni-Mg hydrous silicate ores called 'garnierites from Soroako nickeliferous laterite deposits in three modes of occurence: slickenside fault coatings, fracture fill veins and matrix in conglomeratic peridotite)

Sufriadin, A. Jaya H.S. & A.M. Imran (2007)- Characteristic and the occurrence of coal deposits in Neogene Mandar Formation of West Sulawesi Province. Proc. Joint Convention 32nd HAGI, 36th IAGI and 29th IATMI, Bali 2007, p. 387-394.
(Very thin layers (up to 15cm thick) and lenses of Late Miocene coals in Mandar Fm in Polaman Regency, westernmost Sulawesi. Mainly vitrinite (93.4-98.6 %), followed by inertinite (1.2- 3.0 %). Vitrinite reflectance Rmax 0.56-0.60%, indicating high volatile bituminous coal rank)

Sufriadin, S. S. Widodo & Y. Mendaun (2018)- Analisis petrografi dan kualitas batubara Sinjai, Sulawesi. J. Penelitian Enjiniring (JPE) 20, 2, p. 21-25.
(online at: http://cot.unhas.ac.id/journals/index.php/jpe/article/download/16/39)
(Coal deposits in Sinjai Regency in SE part of S Sulawesi with thin seams (<2m). Aassociated with well-bedded tuffs. Vitrinite dominant, followed by inertinite. Mineral matter dominated by clay and minor pyrite. Ash content 8.8 to 40%, low sulfur. Rv-max 0.40% indicating sub-bituminous coal rank)

Sufriadin, S. Ueno, A. Imai, A. Idrus, S. Pramumijoyo & I.W. Warmada (2010)- Characteristics and the occurrence of garnierite from the Soroako nickeliferous laterite deposits, Sulawesi. Proc. 39th Annual Conv. Indonesian Association Geologists (IAGI), Lombok, p.
(See also Sufriadin et al. 2012)

Sufriadin, S. Widodo, M. Thamrin, A. Maulana, A. Ito & T. Otake (2020)- The nature of ultramafic rocks from Sulawesi, Indonesia and their suitability for CO_2 sequestration, Proc. 3rd Int. Conf. Transdisciplinary Research on Environmental Problems in SE Asia, Gorontalo 2018, IOP Conference Series: Earth and Environmental Science 589, 012024, p. 1-8.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/589/1/012024/pdf)
(Serpentinization of Sulawesi ultramafic rocks led to transformation of olivine and lesser pyroxene into lizardite and chrysotile. This reduced grain size and decreased density. Some Sulawesi ultramafic rocks e good candidate as the host for mineral carbonation)

Sufriadin, S. Widodo, M. Thamrin, A. Ito & T. Otake (2021)- The Latowu ultramafic rock-hosted iron mineralization in the Southeastern Arm Sulawesi, Indonesia: characteristics, origin, and implication for beneficiation. Int. J. Advanced Science Engineering Information Technology (IJASEIT) 11, 3, p. 987-993.
(online at: https://ijaseit.insightsociety.org/index.php/ijaseit/article/view/10273/pdf_1784)
(Iron mineralization in serpentinized ultramafic rocks of Latowu block in NW part of SE Sulawesi. Magnetite formed from alteration of Cr-spinel during serpentinization of ultramafic rocks)

Sugiarno, U., F. Ardian P., Marsaban, R. Eksa J. & B. Milian M. (2022)- Geochemical and tectonic settings in South Kabaena Island, Central Buton Regency, Southeast Sulawesi Province. Proc. 51st Annual Conv. Indonesian Association Geologists (IAGI), Makassar, 104, p. 1-6.
(online at: https://www.iagi.or.id/web/digital/71/PITIAGI-22-S-Abs-084.pdf)
(Study of ultramafic rocks in S Kabaena island, part of East Sulawesi Ophiolite)

Suhendra, R., A. Agangi, R. Takahashi, M.A. Elburg, M.Z. Tuakia, H. Wicaksono, H. Sato & I. Setiawan (2025)- Late Eocene to Pliocene magmatic evolution and its association with gold mineralization in central western Sulawesi, Indonesia. J. Asian Earth Sciences 281, 106506, p.
(Comprehensive review of Late Eocene subduction-related magmatism and Late Miocene–Pliocene K-rich extension-related magmatism in central western Sulawesi, forming gabbro and biotite-rich granitoids)

Suherlina, L., J. Newson, Y. Kamah & M. Brehme (2022)- The dynamic evolution of the Lahendong geothermal system in North-Sulawesi, Indonesia. Geothermics 105, 102510, p. 1-19.
(online at: https://www.sciencedirect.com/science/article/pii/S0375650522001572)
(Geothermal system of Pertamina Lahendong project, Tomohon, N Sulawesi. Produced electricity for >20 years. Two primary reservoirs. Several fault trends in area, mainly NE-SW striking strike-slip faults and NW-SE trending thrust faults, also E-W striking normal faults and N-S trends. Long-term changes in reservoir. Etc.)

Sukadana, I.G., A. Harijoko & L.D. Setijadji (2015)- Tataan tektonika batuan gunung api di Komplek Adang, Kabupaten Mamuju, Provinsi Sulawesi Barat. Eksplorium 36, 1, p. 31-44.
(online at: http://jurnal.batan.go.id/index.php/eksplorium/article/view/2769/pdf)
('Tectonic setting of the Adang Volcanic Complex in Mamuju Region, West Sulawesi Province'. Adang volcanic complex in W Sulawesi subdivided into seven complexes. K-Ar ages ~5.4 (sanidine) to 2.4 Ma (biotite). Basic-intermediate alkaline volcanics with high radioactivity. Volcanic center and several lava domes, composed of phonolite to dacite rock, with ultrapotassic affinity, formed in active continental margin and influenced by SW Sulawesi micro-continental crust (see also Shaban et al. 2016, suggesting rift volcanism))

Sukadana, I.G. & F.D. Indrastomo (2016)- Radioactive mineral occurrences on submarine alkaline volcanic rocks in West Tapalang, Mamuju, West Sulawesi, Indonesia. Proc. 14th Regional Conference Geology and Mineral Resources of SE Asia (GEOSEA XIV) and 45th Annual Conv. Indonesian Association Geologists (IAGI) (GIC 2016), Bandung, p. 260-262.
(online at: https://www.researchgate.net/publication/322675940_Radioactive_Mineral_Occurences_on_Submarine_Alkaline_Volcanic_Rocks_in_West_Tapalang_Mamuju_West_Sulawesi_Indonesia)
(High concentrations of radiometric U and Th in Mamuju area, W Sulawesi, in ultrapotassic, leucite-bearing (Pliocene?) basaltic- intermediate Adang Volcanics. Three volcanic domes, probably submarine volcanism; submarine flanks of volcano dominated by erosive-depositional and mass-wasting features)

Sukadana, I.G., Sulaeman, H. Syaeful, F.D. Indrastomo, T.B. Adimedha, R.C. Ciputra, F. Pratiwi et al. (2025)- High Field Strength Element (HFSE) and Rare Earth Element (REE) enrichment in laterite deposit of High Background Natural Radiation Area (HBNRA) of Mamuju, West Sulawesi, Indonesia. Resources (MDPI) 14, 5, 84, p. 1-23.
(online at: https://www.mdpi.com/2079-9276/14/5/84)
(Significant enrichment of high field strength elements (HFSEs) and Rare Earth elements (REEs) in lateritic deposits near Mamuju, W Sulawesi, derived from Late Miocene Adang Fm ultrapotassic volcanic rocks)

Sukadana, I.G., H. Syaeful, F.D. Indrastomo, K.S. Widana & E. Rakhma (2016)- Identification of mineralization type and specific radioactive minerals in Mamuju, West Sulawesi. J. East China University of Technology 39, Supplement (Proc. Workshop Socio-economic outlook of radioactive and associated minerals production in Asia and the Pacific, Yogyakarta 2016), p. 36-45.
(online at: https://www.researchgate.net/publication/322675607_Identification_of_Mineralization_Type_and_Specific_Radioactive_Minerals_in_Mamuju_West_Sulawesi)
(Radioactive minerals in Tapalang, Ampalas, Adang and Malunda alkaline volcanic rocks complex in W Sulawesi, mainly primary favidite and thorianite, and secondary gummite, autonite, etc.))

Sukadana, I.G., W. Warmada, A. Harijoko, F.D. Indrastomo & H. Syaeful (2021)- The application of geostatistical analysis on radiometric mapping data to recognized the Uranium and Thorium anomaly in West Sulawesi, Indonesia. Proc. 2nd Int. Conference Earth Science and Energy, Kuala Lumpur 2020, IOP Conference Series: Earth and Environmental Science 819, 012030, p. 1-12.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/819/1/012030/pdf)
(High radioactive anomalies in Mamuju area, W Sulawesi, associated with (E Pliocene) leucite-bearing high-K Adang Volcanics)

Sukamto, R. (1975)- Geological map of Indonesia, VIII, Ujung Pandang (Makassar) sheet, 1:1, 000, 000. Geological Research Development Centre (GRDC), Bandung.
(Reprinted in 1989/1990. 1:1 million map covering most of Sulawesi and Banggai-Sula (not incl. North Arm))

Sukamto, R. (1975)- Perkembangan tektonik di Sulawesi dan daerah sekitarnya; suatu sintesis perkembangan berdasarkan tektonik lempeng. Geologi Indonesia (IAGI) 2, 1, p. 1-13.
('Tectonic development of Sulawesi and surrounding regions; a synthesis of the evolution of plate tectonics')

Sukamto, R. (1978)- The structure of Sulawesi in the light of plate tectonics. In: S. Wiryosujono & A. Sudradjat (eds.) Proc. Regional Conference Geology and Mineral Resources of SE Asia (GEOSEA), Jakarta 1975, 2, Indonesian Association Geologists (IAGI), p. 121-142.
(online at: https://www.iagi.or.id/web/digital/32/PIT-IAGI-1975-Paper-13.pdf)
(One of first reviews of Sulawesi geology in terms of plate tectonics. Glaucophane schists associated with ultrabasic rocks found along W part of E Sulawesi province post-Cretaceous in age, but before intra-Miocene orogenetic phase. Glaucophane schist in SW Sulawesi older than mid-Cretaceous. M Miocene intense folding, followed by overthrusting in E Arm and C part of W Sulawesi. E Sulawesi ophiolite emplacement pre-Triassic (?). In S Sulawesi E Tertiary W-dipping subduction zone which became inactive in M Miocene, then flipped to W side of Sulawesi, in Makassar Straits)

Sukamto, R. (1981)- Geological map of the Danau Tempe Sheet South Sulawesi,1:250,000. Geological Research Development Centre (GRDC), Bandung.
(Probably same as Pangkajene- Watampone Quad map (Danau Tempe in N of this map sheet))

Sukamto, R. (1982)- The geology of the Pangkajene and western part of Watampone Quadrangles, South Sulawesi, scale 1:250,000. Geological Research Development Centre (GRDC), Bandung, p. 1-27.
(SW Sulawesi map between 4-5°S. With Bantimala basement complex of ultrabasics, metamorphics with NE-dipping foliation and 111 Ma K/Ar age and melange. Overlain by >2000m of Late Cretaceous Balangbaru Fm flysch. Paleocene volcanics, 3000m of Eocene- M Miocene Tonasa carbonates, E-M Miocene and Late Miocene-E Pliocene volcanoclastics. No sedimentation or volcanic activity after Late Pliocene)

Sukamto, R. (1986)- Tektonik Sulawesi Selatan dengan acuan khusus ciri-ciri himpunan batuan daerah Bantimala. Ph.D. Thesis, Institut Teknologi Bandung (ITB), p. 1-364. *(Unpublished)*
('Tectonics of S Sulawesi, with special emphasis on rock associations in the Bantimala area'. Bantimala Melange includes tectonically mixed and imbricated Triassic- E Cretaceous rocks, including Kayubiti ultramafics, Bontorio metamorphics, Paremba sandstone (thought to have E Jurassic ammonites, but may be Cretaceous?; Grant-Mackie in Sukamto & Westermann 1992), Dengengdengeng basalt, schist breccia and Paring chert (Late Jurassic-E Cretaceous). Unconformably overlain by Late Cretaceous Balangbaru Fm forearc flysch, Alla Fm Paleocene arc volcanics, Eocene Malawa Fm terrestrial clastics, Late Eocene-E Miocene Tonasa Fm carbonates and M-Late Miocene arc volcanics)

Sukamto, R. (1991)- Geological mapping of melange complex in Bantimala area, South Sulawesi. In: E.P. Utomo et al. (eds.) Proc. The Silver Jubilee LIPI- Symposium on the Dynamics of subduction and its products, Yogyakarta-Karangsambung 1991, Research and Development Center for Geotechnology, Indonesian Institut of Sciences (LIPI), Bandung, p. 61-62.

Sukamto, R. & N. Ratman (2013)- Batuan Pratersier. In: Surono & U. Hartono (eds.) Geologi Sulawesi, LIPI Press, Jakarta, p. 13-36.
('Pretertiary rocks'. Chapter 2 in Geology of Sulawesi book. Triassic or older rocks in Sulawesi mainly metamorphics. In S Sulawesi E-M Jurassic Paremba Sst, and Late Jurassic- E Cretaceous 'Paring Chert'. Mid-Cretaceous Bantimala melange overlain by Upper Cretaceous volcanics and Balangbaru Fm flysch, etc.)

Sukamto, R. & N. Ratman (2013)- Batuan Paleogen. In: Surono & U. Hartono (eds.) Geologi Sulawesi, LIPI Press, Jakarta, p. 37-63.
('Paleogene rocks'. Chapter 3 in Geology of Sulawesi book. M-L Eocene-Oligocene volcanics and clastics and Late Eocene- Oligocene limestones, widespread in W and N Sulawesi)

Sukamto, R. & N. Ratman (2013)- Batuan Neogen. In: Surono & U. Hartono (eds.) Geologi Sulawesi, LIPI Press, Jakarta, p. 65-92.
('Neogene rocks'. Chapter 4 in Geology of Sulawesi book. Miocene- Pliocene volcanics, clastics and limestones, widespread in W and N Sulawesi)

Sukamto, R. & N. Ratman (2013)- Batuan Kuarter. In: Surono & U. Hartono (eds.) Geologi Sulawesi, LIPI Press, Jakarta, p. 93-112.
(' Quaternary rocks'. Chapter 5 in Geology of Sulawesi book)

Sukamto, R. & T.O. Simandjuntak (1983)- Tectonic relationship between the geologic provinces of Western Sulawesi, Eastern Sulawesi, and Banggai-Sula in the light of sedimentological aspects. Bull. Geological Research Development Centre (GRDC) 7, p. 1-12. *(also in Proc. 4th Regional Conference Geology and Mineral Resources of SE Asia, GEOSEA IV, Manila 1981)*
(Three tectonic domains in Sulawesi: (1) W Sulawesi Late Cretaceous- Eocene flysch-type forearc sediments derived from volcanic arcs; (2) E Sulawesi oceanic environment of ophiolites overlain by Jurassic and Cretaceous pelagic sediments; (3) Banggai-Sula microcontinent with basement of Carboniferous metamorphics and Permo-Triassic plutonic rocks, overlain by Triassic-Cretaceous continent-derived shelfal sediments)

Sukamto, R. & S. Supriatna (1982)- The geology of the Ujung Pandang, Benteng and Sinjai Quadrangles, Sulawesi, scale 1:250,000. Geological Research Development Centre (GRDC), Bandung, p. 1-20.
(SW Sulawesi map. Oldest rocks U Cretaceous flysch over older metamorphics. Thick, folded Eocene marine clastics with Pellatispira and Nummulites in NE corner of map (Salokalupang Fm). Eocene- M Miocene Tonasa Fm carbonate platform 1750m thick or more. Early Miocene and Plio-Pleistocene volcanic activity)

Sukapti, W.S. (2001)- Palynological study of the Burecing member, Walanae formation, South Sulawesi. Jurnal Teknologi Mineral (ITB) 8, 1, p. 29-36.

Sukapti, W.S. & R. Saragih (2018)- Analisis dan identifikasi polen Formasi Tinombo- Ampana- Sulawesi Tengah. Pros. Seminar Nasional ke 60, Kimia dalam industri dan lingkungan, Yogyakarta 2018, p.
('Analysis and identification of pollen in the Tinombo formation, Ampana, Central Sulawesi')

Sukido, D. Satria & S, Koesoemadinata (1997)- Geological map of the Enrekang Sheet. Scale 1: 100.000. Geological Research and Development Centre, Bandung.

Sukarna, D. (1998)- Tertiary geology of the West Arm Sulawesi and Southeastern Kalimantan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 8, 78, p. 2-8.
(Stratigraphic successions in SE Kalimantan and SW Sulawesi suggest these were united in Late Cretaceous- E Tertiary, located in fore-arc/ accretionary complex of W-dipping Cretaceous subduction system. M Eocene- early M Miocene extension led to separation of W arm of Sulawesi. In W arm Sulawesi M Eocene clastics deposition changed to carbonate platform in Late Eocene- M Miocene, followed by inversion movements in late M Miocene due to collision of Banggai-Sula microcontinent)

Sukarna, D., Sudarsono, S. Indarto, H. Utoyo, J. Sopaheluwakan, B. Priadi & S. Pramumijoyo (2000)- Peridotit bergarnet dan batuan malihan berderajat menengah daerah Winatu-Wana, Kulawi, Sulawesi Tengah. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 10, 111, p. 2-16.
('Garnet peridotites and intermediate metamorphic rocks in the Winatu-Wana area, Kulawi, C Sulawesi'. Palu area of NW Sulawesi with garnet-bearing peridotite (xenoliths in Palu granite), Toboli Complex epidote-amphibolite greenschist metamorphics (118.4 Ma) and U Cretaceous Latimojong Fm metasediments (parts of Sundaland margin basement) and acid-intermediate Plio-Pleistocene Palu granitoid. Palu Valley part of paleo-subduction complex from C Java to Bantimala-Barru))

Suliantara & T. Susantoro (2015)- Hydrocarbon potential of Tolo Bay Morowali Regency: qualitative analysis. Scientific Contributions Oil and Gas (SCOG), Lemigas, Jakarta, 38, 1, p. 13-24.
(online at: http://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/536)
(Tolo Bay E of East Sulawesi, with water depth of up to 3500m. Part of Banggai Basin and within Late Cretaceous- M Miocene collision zone between Banggai-Sula Microcontinent and E Sulawesi. Drift phase sediment at front of Banggai-Sula Microcontinent is potential source and reservoir rock. Hydrocarbon exploration very risky)

Sumadirdja, H., T. Suptandar, S. Harjoprawiro & D. Sudana (1973)- Reconnaissance geological map of the Palu Quadrangle, Sulawesi, 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(NW Sulawesi map between 0-1°S, 'neck' between Makassar Straits and Tomini Bay, incl. onshore adjacent to Suramana Block. Oldest rocks are metamorphics, overlain by Eocene Tinombo Fm and Celebes Molasse. Probably different ages granitic intrusions)

Sumartono, Sabtanto J.S. & Y.R. Ramli (2001)- Review on systematic geochemical mapping in Sulawesi-Indonesia. Proc. CCOP 37th Annual Session Bangkok 2000, 2, Technical Reports, p. 43-59.
(Results of systematic geochemical mapping of SW and SE arms of Sulawesi. Three provinces distinguished: (1) West: magmatic arc granitoid intrusives associated with epithermal gold, porphyry copper-gold, volcanogenic massive sulphide, manganese and iron mineralisations (2) Central: metamorphic rocks and melange with rare metallic mineral occurrences and (3) East: ophiolite nappe with nickel, chrome and iron mineralisations)

Suminto (1987)- Sedimentologi endapan molasa di daerah Taweli, Kabupaten Donggala. In: Kolokium hasil pemetaan dan penelitian Puslitbang Geologi 1992/1993, Geological Research Development Centre (GRDC), Bandung, Special Publ. 15, p. 1-16.
('Sedimentology of molasse deposits in the area of Tawaeli, Donggala District'. In: Colloquium results of mapping and research GRDC 1992/1993)

Suminto (1994)- Sedimentologi Formasi Tinombo di daerah Kecamatan Tinombo, Kabupaten Donggala, Sulawesi Tengah. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 4, 38, p. 2-8.
('Sedimentology of the Tinombo Formation in the Kecamatan Tinombo, Donggala area, C Sulawesi'. On Tinombo Fm Late Eocene- E Oligocene marine clastics and limestones (with Nummulites), incl. 'flysch-facies', in Tomini Bay side of NW 'neck' of Sulawesi. ~3900m thick measured section NW of Tinombo, in steeply NW dipping sediments, with two diorite intrusion ~30 and 100m thick. Deepening-upward succession (formation also contains Pellatispira according to Harahap et al. 2003; JTvG))

Suminto (1995)- Lingkungan pengendapan fasies sedimen klastika Formasi Walanae di daerah Lappariaja, Bone, Sulawesi Selatan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 5, 10, 44, p. 10-19.
('Outline of clastic sediment facies of the Walanae Formation in the Lappariaja area, Bone, S Sulawesi'. Late Miocene- Pliocene Walanae Fm in E side of SW arm of Sulawesi. In Sungei Bengo section ~600m thick shallow marine clastics above limestone deposits and with terrestrial facies at top)

Sumosusastro, P.A., H.D. Tjia, A.R. Fortuin & J. Van der Plicht (1989)- Quaternary reef record of differential uplift at Luwuk, Sulawesi east arm, Indonesia. In: J.E. van Hinte et al. (eds.) Proc. Snellius II Symposium, Jakarta 1987, Netherlands J. of Sea Research 24, 2-3, p. 277-285.

(Luwuk area near E tip of Sulawesi E arm dominated by raised coral reef terraces, elevations of >400m. Lower group of 6- 10 terraces up to 30-100m. Middle group up to 250m, 18°- 22° seaward sloping surface bordered by coast-parallel faults. Upper group of terraces >400m above sea level. U/Th ages of four reef terraces at 410m, 62m, 19m and 6.6m range from 350 ka- 67 ka. Uplift rate of highest terrace 184 cm/ka)

Sunartadirdja, M.A. (1959)- Beitrage zur Geomorphologie von Sudwest Sulawesi. Doct. Thesis Johann Wolfgang Goethe Universitat, Frankfurt, p. 1-98. *(Unpublished)*
('Contributions to the geomorphology of SW Sulawesi')

Sunartadirdja, M.A. & H. Lehmann (1960)- Der tropische Karst von Maros und Nord-Bone in SW-Celebes (Sulawesi). Zeitschrift fur Geomorphologie, Supplement 2, p. 49-65.
('The tropical karst of Maros and North Bone in SW Sulawesi'. Two types of karst on SW Sulawesi: steep-walled and rounded. Suggested explanations include differences in limestone type (Nummulites limestone versus coral limestone), age, and tectonic history, but thickness of limestone above valley floor is controlling factor)

Sunarya, Y., K. Judawinata & D.Z. Herman (1980)- Penelitian stratigrafi dan geokimia bijih tipe Kuruoka di daerah Sangkaropi, Kecamatan Sescan, Tana Toraja, Sulawesi. Proc. 15th Annual Meeting Indonesian Association Geologists (IAGI), Yogyakarta, p.
('Study of the stratigraphy and geochemistry of ore of Kuruoka type in the area of Sangkaropi, District Sescan, Tana Toraja, Sulawesi')

Sunarya, Y., T. Yoshida, K. Yudawinata, R. Rinawan, Hartono & B. Sutopo (2011)- The Sangkaropi massive sulphide deposit district, South Sulawesi: its implications for genesis and exploration for Kuroko-type deposits. In: N.I. Basuki (ed.) Proc. Conf. Sulawesi Minerals Resources 2011, Manado, MGEI/IAGI, p. 230-242.

Sunarya, Y., T. Yoshida, K. Yudawinata, R. Rinawan, Hartono & B. Sutopo (2012)- The Sangkaropi massive sulphide deposit district, South Sulawesi: its implications for genesis and exploration for Kuroko-type deposits. Majalah Geologi Indonesia (IAGI) 27, 2, p. 109-119.
(online at: bgl.esdm.go.id/publication/index.php/dir/article_download/769)
(Same paper as Sunarya et al. 2011. Sangkaropi massive sulphide deposits in near Rantepao in C part of SW Sulawesi. Deposits closely associated with Miocene submarine volcanism of W Sulawesi arc ('Green Tuff Fm/ Old Andesite Fm, and composed of 'Kuroko-type' stratiform and stockwork ore bodies, mostly covered with thin layer of barite. Sulfide minerals include sphalerite, galena, chalcopyrite, pyrite, tetrahedrite, bornite, etc. Temperatures of fluid inclusions in sphalerite and quartz 160- 346°C)

Supardi, N. & D.H. Barianto (2017)- Fasies dan porositas batuan karbonat Formasi Tonasa pada daerah Barru dan Jeponto, Sulawesi Selatan. Proceedings Seminar Nasional Kebumian ke-10, Yogyakarta, p. 468-476.
('Facies and porosity of carbonate rocks of the Tonasa Formation in the Barru and Jeponto areas, South Sulawesi')

Supardi, N., A.M. Imran & M. Farida (2014)- Lingkungan pengendapan batuan karbonat Formasi Tonasa pada daerah Karama Kecamatan Bangkala Kabupaten Jeneponto, Provinsi Sulawesi Selatan. J. Penelitian Geosains (Hasanuddin University) 10, 2, p. 58-67.
(online at: http://repository.unhas.ac.id/bitstream/handle/123456789/15298/)
('Depositional environment of Tonasa carbonate rock formations in the Karama area, District of Bangkala, Jeneponto, South Sulawesi Province'. Outcrop of M Eocene Tonasa Fm marl dominated section with limestone interbeds at S-most tip of S Sulawesi deemed to be deposited in middle shelf environment)

Supardi, N. & S.A. Rahmawati (2022)- Biostratigrafi batugamping berdasarkan kandungan foraminifera besar di daerah Donggala, Sulawesi Tengah. Jurnal Geocelebes 6, 1, p. 47-55.
(online at: https://journal.unhas.ac.id/index.php/geocelebes/article/view/19949/8109)
('Biostratigraphy of limestone based on large foraminifera content in the Donggala region, Central Sulawesi'. Donggala Formation limestone in 'neck' of Sulawesi, supposedly part of Sulawesi molasse (?) and supposedly

contain E-M Miocene Miogypsina group forams (N.B. photos of supposed Miogypsina group forams in thin section all seem to be misidentified, and look more like non-age-diagnostic Amphistegina; JTvG))

Suparka (1977)- Hubungan antara khromit dan bantuan ultramafik: dengan daerah Balambano-Karebe, Sulawesi Selatan; sebagai suatu tinjauan. J. RISET Geologi dan Pertambangan (LIPI) 1, 1, p. 17-33.
(online at: http://pustaka.geotek.lipi.go.id/wp-content/uploads/2016/02/Riset-Vol.1-No.1-22-.pdf)
('The relationship between chromite and ultramafic rocks: with Balambano-Karebbe area, S Sulawesi; a review')

Supendi, P., M. Ramdhan, Priyobudi, D. Sianipar, A. Wibowo, M.T. Gunawan et al. (2021)- Foreshock–mainshock–aftershock sequence analysis of the 14 January 2021 (Mw 6.2) Mamuju-Majene (West Sulawesi, Indonesia) earthquake. Earth Planets and Space 73, 106, p. 1-10.
(online at: https://earth-planets-space.springeropen.com/articles/10.1186/s40623-021-01436-x)
2021 earthquake in W Sulawesi, likely caused by movement on faults within Majene fold-thrust belt)

Supendi, P., N. Rawlinson, J. Han, S. Widiyantoro, S. Pilia, A.D. Nugraha & D. Karnawati (2025)- Evidence of magma reservoirs neneath volcanoes in Northern Sulawesi and the Molucca Sea from regional earthquake tomography. Geophysical Research Letters 52, 3, e2024GL110794, p. 1-9.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1029/2024GL110794)
(New earthquake tomography model reveals clear evidence of high velocity subducting slabs beneath Molucca Sea Collision Zone and N Sulawesi, along with low velocity zones above Sangihe and Halmahera slabs, that likely represent magma reservoirs. Diffuse low-velocity anomaly in mantle beneath Colo volcano consistent with decompression melting induced by extension)

Suratman (2000)- Geologi dan endapan Ni-laterit Soroako Sulawesi Selatan. Proc. 29th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 37-44.
('Geology and Ni-laterite deposits at Saroako, S Sulawesi'. Review of nickel laterites with saprolite ore in weathering zone of East Sulawesi ophiolite, in E and W Soroakao blocks)

Suratman (2000)- Geology and nickel-laterite weathering deposit in the southeast arm of Sulawesi. Berita Sedimentologi 14, p. 12-15.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/256/226)
(Nickel laterite in SE Sulawesi derived from chemical weathering of ultrabasic rocks. Main occurrences in SE Sulawesi in two ~NW-trending belts of ultrabasic rocks: (1) southern belt from Sua-sua through Pomalaa and Torobulu to Wawoni island; (2) northern belt from Malili and Kolonodale to Lasolo on E coast)

Surjono, S.S. & P.N. Pamurty (2011)- Dynamic sedimentation of Mapi Formation in Majene area, West Sulawesi. Proc. Joint. 36th HAGI and 40th IAGI Annual Conv., Makassar, JCM2011-169, p. 1-10.
(Description of depositional environments in 3 traverses of M Miocene- Pliocene Mapi Fm (N16-N20) in SW Sulawesi controlled by tectonics of Sulawesi and volcanism. Overall shallowing-upward succession. Volcanism generated by subduction in both S and N arms of Sulawesi)

Surjono, S.S., A.A. Santika & M.R. Asy'ari (2018)- Provenance of Mesozoic Meluhu sandstone and its implication to petroleum system in Meluhu area, southeast arm of Sulawesi. Proc. 2nd ISPG Research Forum, Indonesian Society of Petroleum Geologists (ISPG), RF18ISPG-076-GL, p. 1-20. *(online at: https://www.researchgate.net/publication/370496620_Provenance_of_Mesozoic_Meluhu_sandstone_and_its_implication_to_petroleum_system_in_meluhu_Area_Southeast_arm_of_Sulawesi)*
(Petrographic analysis of M Triassic- E Jurassic Meluhu Fm, 80 km NW of Kendari, in E part of SE arm of Sulawesi, shows 49% monocrystalline quartz, 9% polycrystalline quartz, 10% feldspars, 16% sedimentary lithics and 4% metamorphic rock fragments. Derived mainly from metamorphic rocks ('collision orogen'))

Surmont, J., C. Laj, C. Kissel, C. Rangin, H. Bellon & B. Priadi (1994)- New paleomagnetic constraints on the Cenozoic tectonic evolution of the North Arm of Sulawesi, Indonesia. Earth Planetary Science Letters 121, p. 629-638.

(Paleomagnetism of Sulawesi N arm between 120- 122°E suggests post-Miocene CW rotation of ~20-25° of W part, probably during N-ward drift of N Arm along Palu-Matano sinistral transcurrent fault. Oligocene- E Miocene CW rotation of same amplitude documented by Sasajima et al. (1979). Between 122.5- 124°E CW and CCW rotations from ±6° to 85°, likely corresponding to microblock rotation and consistent with complex fault system of Gorontalo/ Kotamobagu shear zones)

Surono (1989)- Molasa di lengan Timur Sulawesi. Bull. Geological Research Development Centre (GRDC), Bandung 13, p. 39-45.
('The molasse in the East Arm of Sulawesi'. Widespread molasse deposits in E Sulawesi of M Miocene- Pliocene age, rich in ophiolite fragments. Also as 1981 IAGI Conference paper)

Surono (1989)- Hubungan stratigrafi antara Kepulauan Banggai-Sula dan lengan Timur Sulawesi. Bull. Geological Research Development Centre (GRDC) 13, p. 46-60.
('Stratigraphic relationship between the Banggai-Sula Islands and the East Arm of Sulawesi'. Differerent types of basement and overlying rocks, but both overlapped by similar Late Miocene-Pliocene Celebes Molasse)

Surono (1994)- A sedimentologic investigation of the Southeast Arm of Sulawesi, with special reference to the Kendari area. Ph.D. Thesis, University of Wollongong, Australia, p. 1-211 + Appendices, figures, tables.
(online at: https://ro.uow.edu.au/theses/1393/)
(Collision complex in SE Arm of Sulawesi consists of SE Sulawesi continental terrane, overthrust by ophiolite E Sulawesi Ophiolite Belt in Oligocene- M Miocene and overlain by synorogenic E Miocene Sulawesi Molasse. SE Sulawesi continental terrane consists of metamorphic basement unconformably overlain by clastics-dominated Late Triassic Meluhu Fm (basal part fluvial, grading upward into deltaic and marine facies) and carbonate-dominated Eocene- E Oligocene Tampakura Fm (incl. oolites). Paleolatitude of basin at time of Triassic Meluhu Fm deposition ~20°S. Basal Sulawesi Molasse unconformably over Paleogene, with Matarape conglomerate with ophiolite clasts, overlain by E Miocene limestone with Te5 larger forams (Miogypsinoides, Spiroclypeus, Lepidocyclina) (Sample 6A; identified by Chaproniere 1993) and NN3 nannofossils)

Surono (1994)- Stratigraphy of the Southeast Sulawesi continental terrane, eastern Indonesia. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 31, 4, p. 4-11. *(also reprinted in Surono 2008)*
(SE Arm of Sulawesi continental terrane composed of Mesozoic metamorphic rocks, intruded by granites. Unconformably overlain by Late Triassic Meluhu Fm fluvial clastics (Carnian- Norian?; with Falcisporites), and U Jurassic- Lw Cretaceous marine deposits of Tetambahu Fm (with Tithonian- Hauterivian radiolaria incl. Archaeodictyomitra and Thanarla). Unconformably overlain by Paleogene Tampakura Fm oolitic- dolomitic carbonates with Nummulites (?). SE Sulawesi and Bangai-Sula block stratigraphy similar to central PNG. Paleomagnetic analysis suggest SE Arm part of continental terrane, deposited 20°S of present location in Late Triassic, at N Australian (PNG) continental margin. Emplacement of poorly-dated E Sulawesi Ophiolite complex over SE Sulawesi continental block margin in latest Oligocene (= collision of SE Sulawesi- Buton?). Post-collisional Sulawesi Molasse unconformable over molasse and older formations, with Pandua Lst interbeds with E Miocene larger foraminifera)

Surono (1994)- A petrographic study on an oolitic limestone succession of the Eocene-Oligocene Tampakura Formation, South-East Sulawesi, Indonesia. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 5, 50, p. 2-11. *(also reprinted in Surono 2008, p. 103-118)*
(?Eocene Tampakura Fm limestone unconformable between underlying Late Triassic Meluhu Fm and overlying Miocene-Pliocene Sulawesi Molasse. Oolites dominant, minor lime mudstone locally rich in globigerinid planktonic foraminifera, some dolomite)

Surono (1995)- Sedimentology of the Tolitoli Conglomerate Member of the Langkowala Formation, Southeast Sulawesi, Indonesia. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 5, 46, p. 1-7.
(also reprinted in Surono 2008, p. 161-173. E-M Miocene Tolitoli conglomerates of SE Sulawesi unconformable on Triassic clastics and Paleogene limestone. Deposited in braided river/ alluvial fan environment, with general paleocurrent direction to West. Conglomerate clasts mainly derived from Late Triassic Meluhu Fm sandstones,

with minor contribution from Tampakura Fm. No fossils, but age derived from position unconformably over Oligocene and under Late Miocene-Pliocene Boepinang Fm)

Surono (1996)- A regional stratigraphic review of the South East Arm of Sulawesi, Indonesia. Proc. 25th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 169-189.

Surono (1997)- A preliminary study on the origin of dolomite in the Tampakura Formation, Southeast Sulawesi, Eastern Indonesia. Bull. Geological Research Development Centre (GRDC) 21, p. 151-161.
(Dolomite in Eocene- E Oligocene(?) oolitic Tampakura Fm in SE Sulawesi formed in intertidal- supratidal zones)

Surono (1997)- A petrographic study on sandstones from the Meluhu Formation, Southeast Sulawesi, Eastern Indonesia. Bull. Geological Society Malaysia 40, p. 215-231.
(online at: www.gsm.org.my/products/702001-100878-PDF.pdf)
(Late Triassic Meluhu Fm sandstone 39-95% quartz (av. 68%). Polycrystalline quartz av. 12.7%. Undulose extinction common in monocrystalline quartz. Source area mainly metamorphic rocks, probably with thin cover of sedimentary and volcanic rocks. Thick cyclic channel deposits S of Tinobu with coarse clasts, probably deposited close to source area of high relief, forming alluvial fans along basin margin)

Surono (1997)- A provenance study of sandstones from the Meluhu Formation, Southeast Sulawesi, Eastern Indonesia. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 7, 73, p. 2-16.
(Same as Surono (1997) above. Also reprinted in Surono (2008). Late Triassic Meluhu Fm sandstones dominated by quartz (mainly monocrystalline, also common polycrystalline) and lithics (sedimentary and metamorphic; very minor volcanics). Most likely source low-grade metasediments at SW margin of block)

Surono (1997)- Geology and origin of the Southeast Sulawesi continental terrane, Indonesia. Proc. 26th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta 1977, p. 961-974.
(online at: https://www.iagi.or.id/web/digital/64/71.pdf)
(On SE Sulawesi Continental Terrane(s) in SE Arm of Sulawesi, overridden by E Sulawesi Ophiolite. Oldest unit pre-Carboniferous low-grade metamorphics, intruded by Permo-Triassic aplite and associated volcanics. Unconformably overlain by Late Triassic Meluhu Fm Triassic clastics (with Halobia, Daonella, Falcisporites), unconformably overlain by Eocene Tamborasi and 400m of Tampakura Fm Eocene-Early Oligocene carbonates. Similarities in stratigraphy suggest same origin as Banggai-Sula terrane; also similar to Kubor Anticline, PNG. Before collision with E Sulawesi Ophiolite Belt in latest Oligocene (E Miocene age of basal Sulawesi molasse in SE Sulawesi), joined with Banggai-Sula Terrane. Three pre-collision tectonic events: Permian-Late Triassic pre-rift (pre-breakup), Jurassic breakup and Late Jurassic-Oligocene rift-drift)

Surono (1998)- A sedimentological study of the oolitic limestone succession of the Paleogene Tampakura Formation in Southeastern Sulawesi, Indonesia. In: J.L. Rau (ed.) Proc. 33rd Session Co-ord. Comm. Coastal Offshore Geoscience Programmes E and SE Asia (CCOP), Shanghai 1996, 2, p. 10-41. *(reprinted in Surono 2008, p. 133-160)*
(Late Eocene- E Oligocene Tampakura Fm consists of oolite, lime mudstone, wackestone, packstone and framestone, and dolomite. Widely distributed in N part of SE Sulawesi. Underlain by U Triassic Meluhu Fm clastics and unconformably overlain by E Miocene Sulawesi Molasse. Tampakura Fm deposited in tidal environment. Basin configuration was rimmed shelf)

Surono (1998)- Geology and origin of the Southeast Sulawesi continental terrane, Indonesia. Media Teknik (UGM) 20, 3, p. 33-42.
(Same paper as Surono 1997, above)

Surono (1999)- An organic petrology study on coal and carbonaceous rocks from the Triassic Meluhu Formation, Southeast arm of Sulawesi, Eastern Indonesia. Majalah Geologi Indonesia (IAGI) 15, 1-2, p. *(also reprinted in Surono 2008)*

(Two coal seams, 0.7 and 0.9m thick, in basal part of Triassic Meluhu Fm of SE Sulawesi. Vitrinite is dominant maceral. Average vitrinite reflectance Rv 0.69%)

Surono (2008)- Geology of the Southeast arm of Sulawesi. Geological Survey, Bandung, Special Publ. 35, p. 1-213.
(Reprint collection of 12 previously published papers on SE Sulawesi)

Surono (2011)- Tektono-stratigrafi bagian Timur Sulawesi. Proc. Joint. 36th HAGI and 40th IAGI Annual Conv., Makassar, JCM2011-054, p. 1-5.
('Tectonostratigraphy of East Sulawesi'. Brief review; no figures)

Surono Martosuwito (2012)- Tectonostratigraphy of the eastern part of Sulawesi, Indonesia, in relation to the terrane origins. Jurnal Sumber Daya Geologi (JSDG) 22, 4, p. 199-207.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/119/113)
(E Sulawesi mainly formed by two terranes, both unconformably covered by post-collisional Sulawesi molasse: (1) ophiolite complex and E Cretaceous Matano Fm pelagic sediment cover (with Valanginian radiolaria) and (2) Banggai Sula and SE Sulawesi continental terranes (metamorphic basement, Late Triassic- Paleogene sediment cover), both overlain by E Miocene- Pliocene Sulawesi Molasse. Ophiolite and pelagic cover thrusted over continental terranes in Oligocene (~33-26 Ma). Ophiolite K-Ar ages 93.4- 26 Ma (too young?; JTvG), formed in mid-ocean ridge within Pacific Plate. Continental terranes originated from N margin of Australian Continent)

Surono (2013)- Geologi lengan Tenggara Sulawesi. Geological Survey (Badan Geologi), Bandung, Special Publ., p. 1-169. *(online at: https://geologi.esdm.go.id/storage/publikasi/JE7ZurXikq6pjMxA4fsi0BDAnQiSqZLNPqUIW4HK.pdf)*
('Geology of the SE Arm of Sulawesi'. Extensive review of tectonics, stratigraphy, etc., of SE Sulawesi)

Surono (2013)- Kepingan Benua. In: Surono & U. Hartono (eds.) Geologi Sulawesi, LIPI Press, Jakarta, p. 153-211.
('Continental fragments'. Chapter 8 in Geology of Sulawesi book. Brief review of continental blocks of Sulawesi: Banggai-Sula, Siombok, Tambayoli, Bungku, Mattarombeo, SE Sulawesi, Buton and Tukangbesi)

Surono (2013)- Batuan sedimen Neogen dan Kuarter. In: Surono & U. Hartono (eds.) Geologi Sulawesi, LIPI Press, Jakarta, p. 225-257.
('Neogene and Quaternary sedimentary rocks'. Chapter 10 in Geologi Sulawesi book. E Sulawesi Molasse members suggest E Miocene- Pliocene age range)

Surono & S. Bachri (2002)- Stratigraphy, sedimentation and palaeogeographic significance of the Triassic Meluhu Formation, Southeast arm of Sulawesi, Eastern Indonesia. J. Asian Earth Sciences 20, p. 177-192.
(SE Sulawesi M-L Triassic Meluhu Fm fluvio-deltaic clastics unconformable on metamorphic basement and unconformably overlain by Paleogene carbonates. Source area rugged and composed of metamorphic rocks, overlain by sandstone and volcanic rocks. Meluhu Fm deposited in humid tropical region. Paleomagnetic study shows~25° clockwise rotation and paleolatitude of 20° S. Meluhu Fm early rift stage sediment on NW Australian continent. Continental fragment, including Meluhu Graben, separated from Australia to become allochthonous terrane before colliding with Sulawesi)

Surono, Mac Endharto, A. Azis & D.M. Ali (1992)- Sedimentology of the Meluhu Formation, Southeast Arm of Sulawesi, Indonesia. Proc. 21st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2, p. 833-852.
(online at: https://www.iagi.or.id/web/digital/50/21th-Vol-II-(7-10-Des-1992)-463-482.pdf)
(Late Triassic- Jurassic Meluhu Fm widespread in SE Sulawesi. Fluvial sandstones underlain by metamorphic basement, overlain by marine Jurassic Tuetue Mb and Laonti Fm limestone with ammonites and belemnites. Three members: (1) Lower part Toronipa Mb sand-rich fluvial deposits (max. 800m thick); (2) middle part Watuteluboto Mb tide-influenced deltaic deposits (max. thickness 200m); (3) upper part Tuetue Mb estuarine-

shallow marine clastics with thin (Jurassic?) limestone beds near top (110m, thickening to NW).. Paleocurrents generally to ESE. Provenance from volcanic, metamorphic and sedimentary rocks. Lithics mainly sedimentary and metamorphic rocks, also minor volcanics)

Surono & U. Hartono (eds.) (2013)- Geologi Sulawesi. LIPI Press, Jakarta, p. 1-348.
('The geology of Sulawesi'. Comprehensive overview of Indonesian of geology and stratigraphy of Sulawesi by Geological Survey and ITB personnel. 13 chapters)

Surono, T.O. Simandjuntak & E. Rusmana (1997)- Collision mechanism between the oceanic and continental terranes in the Southeast private arm of Sulawesi, Eastern Indonesia. Bull. Geological Research Development Centre (GRDC) 21, p. 109-125. *(also in reprint in Surono 2008, p. 193-213)*
(Banggai-Sula terrane originated from PNG and collided with W Sulawesi volcanic arc in Oligocene. Collision caused anticlockwise rotation of S arm and clockwise rotation of N arm. SE Sulawesi-Buton also allochthonous continental terrane now juxtaposed with E Sulawesi Ophiolite Belt. In SE Sulawesi highly deformed Eocene- E Oligocene carbonates unconformably overlain by gently deformed E Miocene Celebes molasse, suggesting major deformation near Late Oligocene)

Surono, T.O. Simandjuntak, R.L. Situmorang & Sukido (1994)- Geology of the Batui Quadrangle, Sulawesi. Quad 2114, 1:250,000. Geological Research Development Centre (GRDC), Bandung, p. 1-38.
(E Sulawesi geological map between 1 and 2°S, NW side of Tolo Bay, mapped in 1981. Two terranes: (1 Banggai-Sula Platform with Carboniferous metamorphics and Permo-Triassic granites and (2) E Sulawesi ophiolite belt, composed of E Cretaceous ultrabasics overlain by U Cretaceous Matano Fm deep marine pelagic cherts and calcilutites. Terranes collided in M Miocene, creating Late Miocene- Pliocene molasse. Quaternary uplift. Oil seeps in several places along Batui thrust, the collision zone between ES ophiolite and BS Platform. Miocene Kolokolo melange near Batui Thrust))

Surono & D. Sukarna (1995)- The Eastern Sulawesi Ophiolite Belt, Eastern Indonesia. A review of its origin with special reference to the Kendari area. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 5, 46, p. 8-16.
(Also in Ofiolit di Sulawesi, Halmahera, dan Kalimantan, Geological Research Development Centre (GRDC), Bandung, Special Publ. 28 (2001), p. 1-10 and reprinted in Surono 2008). Mafic-ultramafic rocks widespread in SE arm of Sulawesi. Peridotite dunite, etc. with gabbro and basalt characterize mid-oceanic ridge type ophiolite complex. Ophiolite probably was thin widespread layer covering continental terrane. Late Cretaceous- Late Oligocene age (does not fit with reported E Cretaceous radiolaria in overlying sediments?; JTvG). Paleomagnetic results suggest formation at 17-24°S in Late Cretaceous and rotated CW about 60° (Mubroto). Ophiolite debris abundant in M Miocene and younger Sulawesi Molasse. SE arm ophiolite probably thrust over SE Sulawesi continental terrane in M-Late Oligocene, while in E arm it occurred in E Miocene)

Surono & D. Sukarna (1996)- Sedimentology of the Sulawesi molasse in relation to Neogene tectonics, Kendari area, Eastern Indonesia. Proc. 6th Int. Congress Pacific Neogene Stratigraphy, IGCP355, Serpong 1995, p. 57-72.
(Reprinted in Surono 2008, p. 175-192)
(Miocene- Pliocene Sulawesi Molasse post-collisional deposits near Matarape village in SE Arm of Sulawesi. Basal Matarape Fm conglomerates unconformably over Paleogene Tampakura Fm limestone and ophiolites, dominated by peridotite and pyroxenite clasts. Conglomerates conformably overlain by E Miocene limestone, with E Miocene forams (Spiroclypeus) and nannofossils (NN3). Ophiolite-derived fragments dominant in lower molasse, decreasing in size upsection, and more detritus from SE Sulawesi continental terrane, suggesting ophiolite formed thin cover over SE Sulawesi terrane)

Surono & H.A. Tang (2009)- Batuan pembawa emas primer dari endapan emas sekunder di Kabupaten Bombana, Sulawesi Tenggara berdasarkan interpretasi inderaan jauh. Proc. 38th Annual Conv. Indonesian Association Geologists (IAGI), Semarang 2009, p. 1-11.
(online at: https://www.iagi.or.id/web/digital/26/2009_IAGI_Semarang_Batuan-Pembawa-Emas.pdf)
('Primary gold source rock from secondary gold deposits in Bombana Regency, SE Sulawesi based on remote sensing interpretation' SE Sulawesi secondary gold deposits in streams and in Miocene Langkowala Fm

sandstones (="Celebes Molasse"?; JTvG). Rivers draining from Mendoke and Rumbia Mts, formed by metamorphic and meta sediments, but possible igneous intrusion identified with remote sensing in W end of Mendoke Mountains. Similar to Surono & Tang (2009), below)

Surono & H.A. Tang (2009)- Kemungkinan keterdapatan endapan emas primer di Kabupaten Bombana, Sulawesi Tenggara. J. Teknologi Mineral dan Batubara 5, 4, p. 163-170.
(online at: https://jurnal.tekmira.esdm.go.id/index.php/minerba/article/view/885/726)
('Possible occurrences of primary gold deposits in Bombana District, SE Sulawesi'. In 2009 63,000 traditional gold miners were worked in Bombana, SE Sulawesi area, exploiting modern stream deposits. Secondary gold also found within Miocene clastics of the Langkowala Fm. Primary gold source not clear (see also Idrus et al. 2011: interpreted as 'orogenic gold')

Sutadiwiria, Y. (2019)- Peranan biomarker dan paleofasies pada rekonstruksi tektonik batuan Paleogen- Neogen di Selat Makassar bagian Timur dan Sulawesi Barat. Ph.D. Thesis, Universitas Padjadjaran, p. 1-310.
(online at: https://repository.karyailmiah.trisakti.ac.id/documents/repository/disertasi_yarra-sutadiwira-peranan-biomarker-dan-paleofasies-pada-rekonstruksi-tektonik-batuan-paleogen-neogen-di-selat-makassar-bagian-timur-dan-sulawesi-barat.pdf)
('The role of biomarkers and paleofacies in the tectonic reconstruction of Paleogene-Neogene rocks in the Eastern Makassar Strait and West Sulawesi')

Sutadiwiria, Y., M. Burhannudinnur, M.A. Jambak, C.P. Riyandhani & Yeftamikha (2022)- Geochemical characterization of coal, carbonaceous shale, and marine shale as source rock in West Sulawesi, Indonesia. Indonesian J. on Geoscience (IJOG) 9, 3, p. 303-314.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/774/374)
(Geochemical analyses of Eocene potential source rock from outcrops in Mamuju area, Kaluku 1 well in E Makassar Straits and KYS well in W Sulawesi. Two source facies, fluvio-deltaic and marine)

Sutadiwiria, Y., M.T. Fathaddin, I.S. Ronoatmojo, D. Syavitri, Cahyaningratri P R, B. Belladesta, Yeftamikha & A. Livsey (2024)- Updated geochemical characterization of hydrocarbon potential of surface sample in Lariang-Karama Sub-Basin, West Sulawesi, Indonesia. Scientific Contributions Oil and Gas (SCOG, Lemigas) 47, 2, p. 101-115.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/1624/pdf)
(Review of Lariang-Karama Sub-Basin, W Sulawesi, organic geochemistry of Paleogene-Neogene source rocks. Marine shale source rocks in W Sulawesi and lacustrine shale source in E Makassar Strait)

Sutadiwiria, Y., A.H. Hamdani, Y.A. Sendjaja, I. Haryanto & Yeftamikha (2018)- Biomarker composition of some oil seeps from West Sulawesi, Indonesia. Indonesian J. on Geoscience (IJOG) 5, 3, p. 211-220.
(online at: http://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/397/268)
(Nine oil seep samples from Lariang and Karama Basins, SW Sulawesi. Some biodegradation. Biomarkers suggest mixed terrestrial plant and marine origin. High oleanane content interpreted as evidence for transport of angiosperm plant material into marine environment. Organic matter facies mixed allochthonous macerals from terrestrial higher plants, transported into basin from distal swamps and soils)

Sutadiwiria, Y., M.A. Jambak & Yeftamikha (2020)- Perbandingan kematangan antara sumur LYS dan KYS di daratan Sulawesi Barat berdasarkan analisis geokimia. J. Geoscience Engineering Energy (JOGEE) 1, 2, p. 47-55.
(online at: https://www.e-journal.trisakti.ac.id/index.php/jogee/article/download/7684/5585)
('Maturity comparison between wells LYS and KYS in W Sulawesi based on geochemical analysis'. Two wells drilled in 2011 in Budong Block, onshore West Sulawesi are LYS (Lariang 1) and KYS (Karama KD-1). LYS-1 well is shallow well that only penetrates to E Miocene, while KYS well TD in Eocene. Eocene sediments matured at ~10Ma, Miocene sediments hermally immature)

Sutadiwiria, Y., D. Syavitri & Y. Yeftamikha (2021)- Contribution of terrestrial material in West Sulawesi based on geochemical and biostratigraphy analysis. Proc. 5th Annual Applied Science and Engineering Conference (AASEC), Bandung 2020, IOP Conference Series: Materials Science Engineering 1098, 062014, p. 1-7.
(online at: https://iopscience.iop.org/article/10.1088/1757-899X/1098/6/062014/pdf)
(Geochemical analysis of cutting samples of LYS and KYS exploration wells were drilled in N and S of Budong Block, W Sulawesi. LYS (= Lariang 1) Late Miocene-Pleistocene section in deeper marine environment, while KYS (= Karama 1)with M Eocene- E Pliocene section, also in marine environment (inner neritic-bathyal). Relatively low amount of terrestrial organic material, but higher in Neogene than in Paleogene)

Sutadiwiria, Y., Yeftamikha, A.H. Hamdani, Y. Andriana, I. Haryanto & E. Sunardi (2017)- Origin of oil seeps in West Sulawesi onshore, Indonesia: geochemical constraints and paleogeographic reconstruction of the source facies. J. Geological Sciences Applied Geology (UNPAD) 2, 1, p. 10-15.
(online at: http://jurnal.unpad.ac.id/gsag/article/view/13420/7373)
(Numerous oil- gas seeps onshore W and S Sulawesi, but no commercial discoveries so far in area. Biomarkers indicate coals and/or coaly shales as source, with some marine input in Karama region to S. Best candidate for source of oil seeps is Eocene coals or coaly shales of Toraja or Kalumpang Fm. Maturities at generation equivalent with Ro 0.8-1.0 %)

Sutjipto, M. (1999)- The geology and development of the Limpoga epithermal sediment-hosted deposit, Ratatotok District, North Sulawesi. Proc. 28th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 2, p. 235-252.
(online at: https://www.iagi.or.id/web/digital/65/17.pdf)
(Newmont paper in Limpoga sediment-hosted epithermal gold deposit, 70km S of Manado, N Sulawesi, 3km E of Mesel Mine. Hosted by clean Miocene? lagoonal limestone, overlain by volcanogenic sediments and intruded by andesite. (see also Turner et al. (1994) and Azzaman et al. (2021): Carlin-type gold deposit))

Suyono & Kusnama (2010)- Stratigraphy and tectonics of the Sengkang Basin, South Sulawesi. Jurnal Geologi Indonesia 5, 1, p. 1-11.
(online at: www.bgl.esdm.go.id/dmdocuments/jgi20100101.pdf)
(Neogene stratigraphy and tectonic evolution of Sengkang Basin, onshore SW Sulawesi. Formed by NNW-SSE trending Walanae Fault system, followed by formation of Pliocene-Pleistocene foreland basin with W-prograding syn-orogenic Walanae Fm deposits. Fault system separated E and W parts of S Sulawesi and influenced Late Miocene- Quaternary deposition. Lower part of unit with small Late Miocene Tacipi Mb carbonate reefs in E Sengkang Basin. Lamasi Ophiolite in W Sulawesi and analogous E Sulawesi ophiolite separated by deep Bone Bay, suggesting orogenic collapse may have occurred here)

Swamidharma, Y.C.A. (2011)- Nickel laterite contents and grades in Sulawesi. In: N.I. Basuki (ed.) Proc. Conference Sulawesi Minerals Resources 2011, Manado, Indonesian Soc. Economic Geologists (MGEI)/IAGI, p. 289-298.

Swift, L.R. & M. Alwan (1990)- The discovery of gold-silver mineralization at Binebase, Sangihe Island, Indonesia. Proc. Pacific Rim Congress (PACRIM 90), 2, Gold Coast, Australia, 1990, Australasian Institute of Mining and Metallurgy (AusIMM), Parkville, p. 533-539.
(Binebase Au-Ag mineralisation on SE Sangihe Island hosted in Neogene andesitic volcanics)

Syafri, I. (2000)- Etude petrologique et geochimique des peridotites a grenat, eclogites et roches associees des parties Ouest et Centrale de l'ile de Sulawesi, Indonesie. Ph.D. Thesis Universite de Paris 6, p. 1-455.
(Unpublished) ('Petrological and geochemical study of the garnet peridotites, eclogites and associated rocks in west and central parts of Sulawesi island'. Study of high-grade metamorphic rocks in Bantimala tectonic complex (E Cretaceous eclogites derived from Tethys ocean crust basalts in W-dipping subduction zone), Palu fault zone (granulites derived from arc volcanics; garnet peridotites exhumed from ~70km depth) and Wassupang melange (eclogites from oceanic gabbro subducted under W Sulawesi in Late Eocene- Early Oligocene)

Syafri, I. (2002)- The eclogites and associated rocks from Wassupang melange in the eastern part of the Central Sulawesi metamorphic belt, Indonesia: P-T history and geodynamic implications. Proc. 31st Annual Conv. Indonesian Association Geologists (IAGI), Surabaya, p. 1-19.
(Wassupang melange in East Arm of Sulawesi is tectonic melange with exotic blocks of eclogites and high-pressure (HP) metamorphic rocks in sheared matrix)

Syafri, I. (2004)- Komposisi kimia eklogit dan batuan bergarnet- berglaukofan dari kompleks Bantimala Sulawesi Selatan, Indonesia serta kemungkinan jenis- jenis batuan asalnya. Bull. Scientific Contribution (UNPAD) 2, 2, p. 50-60.
('The chemical composition of eclogite and garnet-glaucophane rocks of the Bantimala complex, S Sulawesi, Indonesia and their possible origin')

Syafri, I. (2014)- Ekoglit terubah dan batuan asosiasinya sebagai indikator subduksi purba selama Eosen Atas hingga Oligosen Bawah di sabuk metamorfik Sulawesi Tengah Bagian Timur- Indonesia. Bull. Scientific Contribution (UNPAD) 12, 3, p. 131-146.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8374/3890)
('Eclogite and associated rocks as an indicator of Late Eocene- E Oligocene subduction in E part of C Sulawesi metamorphic belt, East Indonesia'. Eclogites in several areas in Sulawesi: Bantimala, Palu valley, Bongka River and in Wasuponda melange complex. Wasuponda eclogites different from Bantimala or Palu and formed at different times. P-T conditions of ~21 kbar and 500°C of both Wasuponda and Bantimala eclogites indicate formation at 61-80 km depth. Eclogite from Wasuponda Melange underwent retrograde metamorphism to amphibolite/greenschist and originated from gabbroic oceanic crust. Bantimala eclogite formed during Cretaceous subduction, collision and microcontinent accretion; Wasuponda eclogite in NE dipping melange, formed during Eocene-Oligocene (intra-oceanic?) subduction and obduction)

Syafri, I., J.R. Kienast & J. Girardeau (1995)- New data on high-pressure rocks from Barru Complex, South-West Sulawesi, Indonesia: P-T history and geodynamic implications. Proc. 8th Regional Conference Geology Mineral Energy resources of SE Asia (GEOSEA), Manila 1995, p.

Syafri, I., J.R. Kienast & R. Soeria-Atmadja (2005)- High-pressure granulite from Palu Valley, Central Sulawesi, Indonesia; P-T history and geodynamic implications. Majalah Geologi Indonesia (IAGI) 20, 2, Special Edition, p. 68-79.
(P-T conditions calculated from HP granulite at Palu suggest formed at ~65 km in upper mantle, while normally these form at 35-40 km depth. It may be derived from foreign (Australian?) material carried into subduction zone mantle wedge below continental crust of Sulawesi)

Syafrizal, K. Anggayana & D. Guntoro (2011)- Karakterisasi mineralogi endapan nikel laterit di daerah Tinanggea, Kabupaten Konawe Selatan, Sulawesi Tenggara. J. Teknologi Mineral (JTM) 18, 4, p. 211-220.
(online at: https://digilib.itb.ac.id/assets/files/2022/MjAxMSBTWUFGUklaQUwgMS1QQVBFUi5wZGY.pdf)
('Characterization of mineralogy of a lateritic nickel deposit in the Tinanggea area, South Konawe Regency, SE Sulawesi'. Lateritic nickel from advanced weathering of Ni-silicate bearing ultramafic rock)

Syafrizal, T.A. Rivai, K. Yonezu, D. Kusumanto, K. Watanabe & A.N.H. Hede (2017)- Characteristics of a low-sulfidation epithermal deposit in the River Reef Zone and the Watuputih Hill, the Poboya gold prospect, Central Sulawesi, Indonesia: host rocks and hydrothermal alteration. Minerals (MDPI) 7, 124, p. 1-16.
(online at: www.mdpi.com/2075-163X/7/7/124/pdf-vor)
(Poboya gold mineralization hosted in granite, biotite gneiss and biotite schist of Palu Metamorphic Complex)

Syafrizal, Bhima & T.A. Rivai (2020)- Vein textures at the Hill Reef Zone, the Poboya prospect, Central Sulawesi, Indonesia. Proc. 2nd Int. Conference Earth Science Mineral and Energy, Yogyakarta 2019, AIP Conference Proceedings 2245, 070029, p. 1-9.
(online at: https://www.researchgate.net/publication/342791756_Vein_textures_at_the_Hill_Reef_Zone_the_Poboya_prospect_Central_Sulawesi_Indonesia)

(Three gold-bearing vein zones within metamorphic rocks at Poboya prospect, Palu area, C Sulawesi. Gold mineralization at Hill Reef 1 and 2 Zones classified as low-sulfidation epithermal deposit (see also Wadji et al. 2012 and Rivai et al. 2015, 2017, 2019))

Szentpeteri, K., G. Albert & Z. Ungvari (2015)- Plate tectonic and stress-field modelling of the North Arm of Sulawesi (NAoS), Indonesia, to better understand the distribution of mineral deposit styles. Proc. SEG 2015 Conference World class ore deposits: discovery to recovery, Hobart, Australia. *(Abstract + Poster) (online at: www.researchgate.net/publication/282566392_Plate_tectonic_and_stress-field_modelling_of_the_Nor Etc.)*
(N Arm of Sulawesi with 4 active gold mines. Three oceanic plates subducting under N Arm. Molluca and Celebes plates dip opposite to each other, Sangihe plate at right angles to other two. Variations in subducting plates marked by breaks in morphology and earthquake intensity, corresponding to arc-transform structures in upper plate. N Arm and Tomini and Gorontalo Bays in extensional regime (incl. uplifts of metamorphic core complexes), possibly tied to slab detachment and/or rollback of Sulawesi Trench. Young (5-1 Ma) Au-Cu mineralized districts in N Arm related to extensional features and intersections with transtensional arc normal faults (which may extend as tear faults on lower, opening window to mantle))

Taliding, T.U., S Widodo & A Ilyas (2023)- Proximate and microscopy analysis of coal in Tamalea Village, Bonehau District, Mamuju Regency, West Sulawesi Province, Indonesia. Proc. 4th Int. Conf. Global Issues for Infrastructure, Environment and Socio-Economic Development (GIESED), Makassar 2021, IOP Conference Series: Earth and Environmental Science 1134, 012028, p. 1-8.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1134/1/012028)
(Coal deposits in (Eocene?) Toraja Fm in Tamalea Village, Bonehau District, W Sulawesi, rel. high in ash (5.6% to 65%, incl. common pyrite). Moisture content (3.6- 8.4%))

Tan Sin Hok (1935)- Over ouderdomsbepalingen op grond van radiolarien van Oost-Celebes. De Ingenieur in Nederlandsch-Indie (IV) 2, 4, p. IV.31- IV.33.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1935-04.pdf)
('On age determinations based on radiolarians of E Sulawesi'. The validity of Late Jurassic- Early Cretaceous age determinations of 12 E Sulawesi radiolarian-bearing samples by Hojnos in Von Loczy (1934) questioned here by Tan SH (who proposed no alternative ages, who was probably wrong here and Hojnos' conclusions were directionally correct; all species recorded range within Late Jurassic- E Cretaceous (e.g. O'Dogherty 2009). Tan's criticism perpetuated his own erroneous assumption of Neogene age of E Cretaceous radiolarian-rich marls from Roti in his 1927 thesis, which led him to the wrong conclusion that radiolaria are long-ranging and not useful for biostratigraphic zonations; JTvG))

Thamsi, A.B., M.H. Wakila, L. Ahmad & M. Aswadi (2025)- Geochemistry of iron ore in Kadong-Kadong, South Sulawesi, Indonesia. Iraqi Geological J. 58, 1D, p. 1-17.
(online at: https://igj-iraq.org/igj/index.php/igj/article/view/2705/2199)
(Chemistry of iron ore deposits in Kadong-Kadong Area, Luwu Regency, S Sulawesi. Conclusion: "chemicalcomposition of the research areas hows that rock types are andesite and basaltic andesite" (little detail on sample locality and age/formation, and results hardly surprising?; JTvG)

'T Hoen, C.W.A.P. & K.G.J. Ziegler (1917)- Verslag over de resultaten van geologisch-mijnbouwkundige verkenningen en opsporingen in Zuidwest Celebes. Jaarboek Mijnwezen Nederlandsch-Indie 44 (1915), Verhandelingen 2, p. 235-363.
('Results of geological-mining reconnaissance and investigations in SW Celebes'. First extensive SW Sulawesi survey, from 12-1912 until 3-1915, with focus on Eocene coal occurrences below Late Eocene Nummulites limestone. Brief discussion of gas seeps; no oil seeps encountered. Pretertiary composed of steeply dipping schists, overlain by less steep (10-40°) (Cretaceous) graywackes. With 1:200,000 scale geologic map and 1:20,000 maps of coal fields Tondong Koerah, Podo, Batoekoe and Malawa)

Tien, C.Y, (2018)- Age and geochemical constraints on Cenozoic magmatic evolution in Southern Sulawesi. M.Sc. Thesis, National Taiwan University, p. 1-155. *(Unpublished) (in Chinese).*

Tien, C.Y., M.F. Chu, S.L. Chung, A. Maulana, M. Mawaleda, H.Y. Lee & X. Zhang (2018)- Age and geochemical constraints on Cenozoic magmatic evolution in Southern Sulawesi. American Geophysical Union, Fall Meeting 2018, Abstract T31D-0344.
(Zircon U-Pb age and geochemical data of Cenozoic igneous rocks from S Sulawesi indicate 3 episodes of magmatism: (1) Eocene (53-36 Ma) calc-alkaline, (2) Late Miocene (11-5 Ma) ultrapotassic-potassic, and (3) Pleistocene (3-1 Ma) sodic alkaline. Magma sources of Eocene rocks from mantle wedge, Late Miocene rocks from heterogeneous lithospheric mantle, and Pleistocene rocks from both lithospheric and asthenospheric mantle. Eocene magmatism might occur in subduction-zone setting, late Miocene and Pleistocene magmatism probably produced by Neogene rollback of Banda slab in collision-zone setting)

Tiranda, H. (2022)- Morpho-bathymetric features of the Southwest Celebes Sea. Berita Sedimentologi 48, 1, p. 31-44.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/389/372)
(SW Celebes Sea controlled by active tectonics of North Sulawesi Trench and Palu-Koro Fault zone. Also major route of Indonesian Throughflow. Four types of morpho-bathymetric features: structural, erosional, gravitational and depositional. N Sulawesi fold-thrust belt associated with formation of N Sulawesi Trench and Palu-Koro Fault zone. In northern, deeper area of Celebes Sea mainly erosional and depositional features)

Tiranda, H. & R. Hall (2021)- Structural and stratigraphic development of offshore NW Sulawesi, Indonesia. 58p.
(Preprint)
(online at: https://eartharxiv.org/repository/view/2074/)
(Study of offshore NW Sulawesi based on interpretation of offshore seismic and multibeam bathymetry: Deepwater Tarakan Basin in NW, Muara Sub-basin in W and N Sulawesi Fold-Thrust Belt in E. No continuation of left-lateral strike-slip Palu-Koro Fault to Borneo. Basins developed after extension in M Eocene associated with oceanic spreading in Celebes Sea. Several episodes of subsidence, particularly in E Miocene in Muara Sub-basin. Rapid prograding shelves from E Borneo linked to regional uplift on land since M Miocene)

Titu-Eki, A. & R. Hall (2020)- The significance of the Banda Sea: tectonic deformation review in Eastern Sulawesi. Indonesian J. on Geoscience (IJOG) 7, 3, p. 291-303.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/619/320)
(Study of structural features from topography of East Sulawesi and bathymetry data of Banda Sea: "area was majorly deformed during Neogene, specifically relating to the opening of the Banda Sea due to the subduction rollback of Banda")

Tjakradinata, S. & A. Sumanegara (1981)- Bijih sulfida dalam batuan gunungapi daerah Bilolo-Sangkaropi, Sulawesi Selatan. Proc. 10th Annual Conv. Indonesian Association Geologists (IAGI), p. 289-308.
(online at: https://www.iagi.or.id/web/digital/34/PIT-IAGI-1981-Vol-1-Paper-26.pdf)
('Sulfide ores in volcanic rocks of the Bilolo-Sangkaropi area, South Sulawesi')

Tjia, H.D. (1973)- Palu-Koro fault zone, Sulawesi. Berita Direktorat Geologi, Bandung, Geosurvey Newsletter 5, p. 1-3.
(Suggests 750km of sinistral displacement along NNW trending Palu-Koro fault zone of C Sulawesi (subsequent authors' estimates closer to 200-250km; JTvG))

Tjia, H.D. & P. Sumosusastro (1986)- Radiocarbon age of a 410-metre reef flat at Luwuk, Sulawesi. Warta Geologi (Newsletter Geological Society Malaysia) 12, 3, p. 127-129.
(online at: https://gsmpubl.files.wordpress.com/2014/09/ngsm1986003.pdf)
(Quaternary raised reef terraces at Luwuk Peninsula, E Sulawesi. Highest terrace at 410m asl, with radiocarbon age of Luwuk-6 sample of 35,000 ± 400 yr B.P. (at which time sea level was ~50m below present-day). More detail see Sumosusastro et al. 1989)

Tjia, H.D. & T.H. Zakaria (1974)- Palu-Koro strike slip fault zone, Central Sulawesi. Sains Malaysiana (University Kebangsaan Malaysia), 3, p. 67-88.

Tonggiroh, A. & I. Nur (2019)- Geochemical correlation of gold placer and indication of Au-Cu-Pb-Zn-Ag mineralization at Parigi Moutong, Central Sulawesi, Indonesia. Journal of Physics: Conference Series 1341, 052003, p. 1-15.
(online at: https://iopscience.iop.org/article/10.1088/1742-6596/1341/5/052003)
(Parigi Moutong area in SW part of North Arm of Sulawesi area of small-scale gold mining. Sources of placer deposits from 4 types of hydrothermal deposits: Au-Cu, Au-Zn, Cu-PB and epithermal Au-Ag)

Tournier, N., S. Fabbri, A. Damanik, F. Anselmetti, T. Wiguna, S.Y. Cahyarini & H. Vogel (2025)- The large-magnitude earthquake potential of an active strike-slip fault system in Lake Poso, Central Sulawesi, Indonesia. Sedimentologika (Geneva University) 3, 1, p. 1-16.
(online at: .https://oap.unige.ch/journals/sdk/article/view/1604/2249)
(High-resolution geophysical and bathymetric surveys at Lake Poso in C Sulawesi in 2022 show large subaquatic slides and lake-bottom offsets, indicating high-intensity earthquakes, tied to active local fault system. Data suggest recurrence of large-magnitude earthquakes every 1600 ± 1450 years over last 11,000 years)

Trail, D.S., T.U. John, M.C. Bird, R.C. Obial, B.A. Pertzel, D.B. Abiog & S. Parwoto (1974)- The general geological survey of Block 2, Sulawesi Utara, Indonesia. PT Tropic Endeavour Indonesia, Report, p. 1-68.
(Unpublished, but apparently widely circulated report on a September 1971-August 1973 minerals survey, which forms basis of much of knowledge of N Sulawesi Cenozoic arc-volcanic dominated geology)

Triani, R. Umam & Sismanto (2021)- 3D Modeling of subsurface Lawanopo Fault in Southeast Sulawesi, Indonesia using Grablox and its consequence to geohazard. Indonesian J. Geography 53, 1, p. 67-77.
(online at: https://jurnal.ugm.ac.id/ijg/article/download/50878/pdf)
(Lawanop Fault in SE Sulawesi is sinistral strike-slip fault, thought to be active since Plio-Pleistocene, or M Miocene. 3D model of subsurface fault using gravity data, allowing separation of high density Cretaceous ultramafics (13km thick) and moderate gravity metasediments (25km thick) and low gravity Triassic sediments)

Tsujimori, T., V.B. Sisson, J.G. Liou, G.E. Harlow & S.S. Sorensen (2006)- Very-low-temperature record of the subduction process: a review of worldwide lawsonite eclogites. Lithos 92, p. 609-624.
(Formation and preservation of lawsonite eclogites requires cold subduction to mantle depths and rapid exhumation. Glaucophane-bearing lawsonite eclogites together with serpentinite and garnet-quartz micaschists in accretionary complex of Albian-age (106 Ma) in Barru complex, W Sulawesi. Mineralogy suggests peak conditions of P=~2.1 GPa and T=520°C)

Tuakia, M.Z., R. Takahashi & A. Imai (2018)- Geological and geochemical characteristics of gold mineralization in the Salu Bulo Prospect, Sulawesi, Indonesia. Resource Geology 69, 2, p. 176-192.
(online at: https://onlinelibrary.wiley.com/doi/pdf/10.1111/rge.12193)
(Salu Bulo gold prospect in Awak Mas project in Latimojong Mts, central W Sulawesi. Gold mineralization hosted by the meta-sediments intercalated with meta-volcanics of Cretaceous Latimojong Metamorphic Complex. Ores ~3m thick. Gold mineralization in epithermal condition, after metamorphism of host rocks. T and P of ore formation from 190-210°C and 1.2-1.9 MPa)

Tuckey, S.H., N.M. Silvio & S.D. Potter (1998)- Geological modeling and resource estimation of the Toka Tindung epithermal gold deposit, North Sulawesi, Indonesia. In: S. Shedden (ed.) Seminar papers Gold & nickel ore reserve estimation practice seminar, Australasian Institute of Mining and Metallurgy (AusIMM), Carlton, 10, p. 76-92.

Turner, S.J., P.A. Flindell, D. Hendri, I. Hardjana, P.F. Lauricella et al. (1994)- Sediment-hosted gold mineralisation in the Ratatotok District, North Sulawesi, Indonesia. J. Geochemical Exploration 50, p. 317-336.
(Gold mined in Ratatotok district in Minahasa Regency since at least 1850s. Newmont exploration delineated sediment-hosted replacement-style deposit at Mesel, in Late Miocene limestone in island arc environment. Later uplift resulted in karst development in limestone and erosion of adjacent volcanic arc with deposition of thick epiclastic unit, followed by shallow level andesite intrusion into sequence. Mineralisation synchronous with late-

stage reactivation of strike-slip faults. Elsewhere in district mineralisation in permeable zones along limestone-andesite contacts, quartz-calcite veins and stockworks)

Turner, S.J., S.A. Garwin & A.H. Hofstra (2002)- Mesel SRHDG deposit and low-sulfidation gold veins in the Ratatotok District, North Sulawesi, Indonesia. Geological Society of America, 2002 Annual Meeting, 1p. *(Abstract only)*
(N Arm of Sulawesi classic oceanic island arc with porphyry Cu and volcanic-hosted epithermal Au-Ag deposits. Ratatotok/ Mesel deposits hosted in Miocene carbonates deposited in NE-trending graben. Carbonate sequence deposited on and later covered by andesitic volcanics and volcaniclastics. Carbonates gently folded along E-W axes. Porphyritic andesite intrusions dated at 4.3 to 3.4 Ma)

Ulfers, A., K. Hesse, C. Zeeden, J.M. Russell, H. Vogel, S. Bijaksana & T. Wonik (2021)- Cyclostratigraphy and paleoenvironmental inference from downhole logging of sediments in tropical Lake Towuti, Indonesia. J. Paleolimnology 65, p. 377-392.
(online at: https://link.springer.com/article/10.1007/s10933-020-00171-9)
(Lake Towuti Drilling Project in C Sulawesi by Leibniz Institute in 2015, recovered >1000m of core, the longest continuous lacustrine sediment succession from Indo Pacific Warm Pool. Age model spans from late MIS 23 to late MIS 6 (~900- 130 ka).Eccentricity cycles main drivers of variations in hydroclimate in area)

Umar, E.P., A. Harijoko, A. Setianto & W.Suryanto (2023)- Structural map of Sulawesi derives from gravity data and its implications for geothermal systems. Proc. The 4th Geoscience and Environmental Management Symposium, ICST UGM 2023, E3S Web of Conferences 468, 04004, p. 1-8.
(online at: https://www.e3s-conferences.org/articles/e3sconf/pdf/2023/105/e3sconf_icstugm2023_04004.pdf)
(Satellite gravity used for fault etc. identification in Sulawesi)

Umbgrove, J.H.F. (1930)- Een tocht naar Tandjong Api, Oost Celebes. Onze Aarde 3, 7, p. 282-286.
('A trip to Tanjung Api, East Sulawesi'. At N coast of E arm of Sulawesi serpentinitic rocks (lherzolite) from which self-igniting gases flow. In short-lived popular science monthly magazine)

Umbgrove, J.H.F. (1939)- De atollen en barriere-riffen der Togian eilanden. Leidsche Geologische Mededelingen 11, 1, p. 139-187.
(online at: www.repository.naturalis.nl/document/549574)
('The atolls and barrier reefs of the Togian Islands'. Study of modern atolls and reefs in Tomini Gulf, N Sulawesi, with reconnaissance geology observations on Togian Islands. Oldest rocks are sediments, intruded by young volcanics (but no recent activity). Togian peak and nearby areas composed of andesite/ trachyte volcanic rocks. Raised reef terraces younger than Tf/ Miocene)

Umbgrove, J.H.F. (1942)- A revision of fossil corals from Celebes described by Dollfus. Geologie en Mijnbouw (N.S.) 5, p. 14-16.
(online at: https://drive.google.com/file/d/1gjHuDZR314U_cYFZxqglAkhjY4LtefVP/view)
(Brief note on identifications by Dollfus (1915) of fossil corals from Sulawesi, collected by Abendanon. Disagrees with most identifications of samples from Saadang and Donggala. No figures)

Usman, E. & Panuju (2013)- Study of gas potency based on gravity anomaly modeling and seismic profile analysis at Banggai-Sula Basin. Bulletin of the Marine Geology 28, 2, p. 51-60.
(online at: http://ejournal.mgi.esdm.go.id/index.php/bomg/article/download/55/56)

Utama, H.W., W. Gheovani, N. Supardi & W. Mukhtar (2016)- Determination of facies depositional environment based on outcrop of carbonate rock and micro-forams of Tonasa Formation at Karama, South Sulawesi. Proc. 40th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA16-285-SG, p. 1-6.
(18m section in calcareous claystone in Tonasa Lst at Karama with M Eocene planktonic foraminifera (Globigerina senni, Globigerapsis kugleri, etc.), and open marine small benthics)

Utoyo, H., B. Priadi, A. Kadarusman & Sudarsono (1997)- K-Ar age of granitoids from Palu-Koro fault zone, Central Sulawesi. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 7, 71, p. 17-20.
(Granitic rocks in Palu-Koro fault zone with K/Ar ages between 8.4- 1.0 Ma. Categories: biotite-poor granite (2-5 Ma), mylonitized granite (5-7 Ma), biotite granite (6-8 Ma). Toboli gneissic granite 96 Ma (M Cretaceous))

Utoyo, H. (1998)- K/Ar dan Ar/Ar batuan granitik daerah Kulawi, Sulawesi Tengah. Proc. 27th Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 1, p. 72- 76.
(online at: https://www.iagi.or.id/web/digital/56/8.pdf)
('Radiometric ages of granitic rocks in the Kulawi area, C Sulawesi'. Kulawi area in Palu-Koro fault zone area. Ar/Ar dates of biotite from granitic rocks dated between 3.1- 3.5 Ma, hornblende 6.4 Ma. K/Ar ages from biotite generally higher: 3.8- 10.1 Ma, hornblende 5.5 Ma)

Utoyo, H. (2008)- Bijih besi di daerah Bonocani Kabupaten Bone, Sulawesi Selatan. Jurnal Sumber Daya Geologi (JSDG) 18, 5, p. 309-317.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/251/231)
('Iron ore in Bontocani area, Bone district, South Sulawesi'. Iron ore in boulders; magnetite and hematite mineralization associated with granitoid intrusions)

Utoyo, H. & Subiyanto (2001)- Ofiolit Pegunungan Batui, Luwuk, Sulawesi Tengah. Geological Research Development Centre (GRDC), Bandung (GRDC), Special Publ. 28, p. 27-46.
('Ophiolite of the Batui Mountains, Luwuk, Central Sulawesi'. Batui Mts ophiolite incomplete upper part of ophiolite sequence, with gabbro-basalt in N, dominantly serpentinite in S. Eocene and Miocene K/Ar ages (too young?-JTvG). No evidence of mineralization)

Van Bemmelen, R.W. (1949)- Celebes. In: The geology of Indonesia, Government Printing Office, Nijhoff, The Hague, 1, p. 389-441.

Van den Bergh, G.D., U.M. Lumban Batu, P.L. de Boer & F. Aziz (1995)- Lithostratigraphy of the West Sengkang Basin. In: The geology and stratigraphy of the vertebrate-bearing deposits in the Sengkang Basin: the terrestrial faunal evolution of South Sulawesi during the Late Pliocene and Quaternary. Geological Research Development Centre (GRDC), Bandung, Special Publ. 18, p. 14-27.

Van den Bergh, G.D., U.M. Lumban Batu, P.L. de Boer & F. Aziz (1995)- Lithostratigraphy of the East Sengkang Basin. In: The geology and stratigraphy of the vertebrate-bearing deposits in the Sengkang Basin: the terrestrial faunal evolution of South Sulawesi during the Late Pliocene and Quaternary. Geological Research Development Centre (GRDC), Bandung, Special Publ. 18, p. 28-31.

Van der Vlerk, I.M. & J.J. Dozy (1934)- The Tertiary rocks of the Celebes-expedition- 1929. In: H.A. Brouwer, Geologisch onderzoekingen op het eiland Celebes, Verhandelingen Kon. Nederlands Geologisch Mijnbouwkundig Genootschap (KNGMG), Geologische Serie 10, p. 183-218.
(online at: (online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB24:064908000:00001)
(Appendix in Brouwer, 1934. Documentation of Eocene limestones with Pellatispira and Miocene limestones in different parts of Sulawesi. Several conglomeratic limestones from NE part of SE arm (Bahumpombini/ Bungku area) contain E Miocene larger foraminifera (Te5; Miogypsina, Spiroclypeus and Lepidocyclina (Eulepidina)), but also reworked clasts of U Cretaceous pelagic limestone with Globobotruncana (here called Discorbina; JTvG), radiolarian chert and serpentine (suggesting E Miocene or older uplift/exhumation of E Sulawesi ophiolite terrane?; JTvG))

Van Gorsel, J.T. (2022)- Geological investigations of Sulawesi (Celebes) before 1930. Berita Sedimentologi 48, 1, p. 79-114
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/391/373)
(Review of the early discoveries of the geology of Sulawesi, from the first naturalist expeditions in the 1820s until 1930, after which geological and mining investigations of Sulawesi essentially stopped for four-decades)

Van Gorsel, J.T. & E.A. Subroto (2022)- Abiogenic gas seepage from serpentinite at Tanjung Api, Tomini Bay, East Sulawesi. Berita Sedimentologi 48, 1, p. 67-78.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/390/374)
(Burning gas seeps at Tanjung Api at S coast of Tomini Bay is abiogenic (abiotic) gas, composed of isotopically anomalous methane and hydrogen, which formed from serpentinization of ultramafic rocks of the East Sulawesi Ophiolite Complex)

Van Leeuwen, T. (1981)- The geology of southwest Sulawesi with special reference to the Biru area. In: A.J. Barber & S. Wiryosayono (eds.) The geology and tectonics of Eastern Indonesia. Geological Research Development Centre (GRDC), Bandung, Special Publ. 2, p. 277-304.
(online at: https://www.researchgate.net/publication/270645816_The_geology_of_Southwest_Sulawesi_with_special_reference_to_the_Biru_area)
(SW Sulawesi Biru area E of Makassar almost complete U Cretaceous- U Miocene record. Basement is Bantimala Complex metamorphics (K/Ar age 111 Ma), ultrabasic rocks and tectonic melange with NE-dipping radiolarian cherts, clastics and igneous rocks. Metamorphics unconformably overlain by latest Jurassic-E Cretaceous sands, shale and radiolarian cherts. Sands near base with metamorphic and ultramafic clasts. Flysch-type U Cretaceous folded and uplifted before deposition of thick Langi Fm andesitic volcanics (Paleocene K/Ar age near base; upper part with Late Eocene coals and limestones with Pellatispira). Conformably overlain by ~400m U Eocene- M Miocene Tonasa Limestone (Tb- Lower Tf, but mid-Oligocene unconformity). Unconformably overlain by >1000m thick M and U Miocene Sopo-Walanae-Lemo Fm volcanics (~17- ~5 Ma?). Mid-M Miocene folding and uplift event, associated with 40° CCW rotation of area. Also unconformity at base of U Miocene Lemo andesitic volcanics and Plio-Pleistocene folding-uplift event)

Van Leeuwen, T., C.M. Allen, M. Elburg, H.J. Massonne, J.M. Palin & J. Hennig (2016)- The Palu Metamorphic Complex, NW Sulawesi, Indonesia: origin and evolution of a young metamorphic terrane with links to Gondwana and Sundaland. J. Asian Earth Sciences 115, p. 133-152.
(manuscript online at: https://eprints.qut.edu.au/221189/1/95551.pdf)
(Young metamorphic core complexes of Palu (PMC) and Karossa, mainly in 'neck' of NW Sulawesi. N part mainly amphibolite (oceanic parentage?), S part mainly biotite schists (meta-sediments) with some gneiss (meta-granite). Local peridotite. Rocks resided at depths of 60-120 km during part of their histories. S part overlain by U Cretaceous Latimojong Fm clastics and volcanics (but parts of PMC also metamorphosed Latimojong Fm). Zircon ages of metamorphics suggest metamorphism event at 3-4 Ma of older protoliths (210-230 Ma/ Late Triassic and ~80-120 Ma/M Cretaceous). Rapid cooling exhumation in latest Miocene- M Pliocene (Ar/Ar cooling ages 6.0- 3.6 Ma). Composite terrane with (1) gneiss unit of Gondwana origin (but presence of Late Triassic meta-granitoids and recycled Proterozoic zircons suggest W Sulawesi Block origin in New Guinea region, not NW Australian margin, as suggested in recent reconstructions?), (2) schist unit composed of low-metamorphic turbidites deposited in Late Cretaceous- E Tertiary along SE Sundaland margin, and (3) slivers of amphibolite with oceanic crust characteristics)

Van Leeuwen, T., C.M. Allen, A. Kadarusman, M. Elburg, J.M. Palin, Muhardjo & Suwijanto (2007)- Petrologic, isotopic, and radiometric age constraints on the origin and tectonic history of the Malino metamorphic complex, NW Sulawesi, Indonesia. J. Asian Earth Sciences 29, p. 751-777. *(online at: https://www.academia.edu/3247304/Petrologic_isotopic_and_radiometric_age_constraints_on_the_origin_and_tectonic_history_of_the_Malino_Metamorphic_Complex_NW_Sulawesi_Indonesia)*
(Malino Metamorphic Complex (MMC) at W end of Sulawesi N arm mica schists and gneisses from proximal turbidite and granitoid protoliths, with intercalations of greenschist, amphibolite, marble and quartzite. Devonian- Early Carboniferous age, Archean-Proterozoic inherited zircons, and isotopic signatures indicate terrane derived from New Guinea-Australian margin. Similarities with Birds Head basement suggests common origin. Greenschists around MMC from adjacent autochthonous Paleogene. Barrovian progression from greenschist through epidote-amphibolite to amphibolite. P-T estimations suggest 27-30 km burial. Cooling ages 23-11 Ma, and 7 Ma age for unconformably overlying volcanic rocks, indicate Miocene exhumation. Two tectonic scenarios: (1) continental fragment docked with Sulawesi in Mesozoic and exhumed as metamorphic core complex in Miocene; (2) subducted beneath N arm in Late Oligocene, then rapidly returned to surface)

Van Leeuwen, T.M. & Muhardjo (2005)- Stratigraphy and tectonic setting of the Cretaceous and Paleogene volcanic-sedimentary successions in Northwest Sulawesi, Indonesia: implications for the Cenozoic evolution of Western and Northern Sulawesi. J. Asian Earth Sciences 25, p. 481-511.
(online at: www.academia.edu/37367798/tratigraphy_and_tectonic_setting_of_the_Cretaceous_and_P Etc.)
(W Sulawesi is rifted continental margin of E Sundaland. Metamorphic basement, partly of Australian origin, overlain by Late Cretaceous Latimojong Fm fore-arc turbidites. M Eocene- earliest Miocene transgressive cycle: syn-rift siliciclastics, nummulitic limestone and associated shelf sediments to deeper marine mudstones and turbidites (Budungbudung and Tinombo Fms). At same time N Sulawesi oceanic island arc, with bimodal Papayato volcanism on oceanic crust. Cretaceous- Paleogene volcanic and sedimentary suites contrasting tectonic setting of two provinces. Relationship between two domains not clear: probably formed continuous belt through Cenozoic, definitely connected by E Miocene. Paleogene deformation in N part of NW Sulawesi and unconformable relationship with overlying formations may be result of collision of N arm with Australian-derived continental fragment in E Miocene, or M Miocene formation of extensional metamorphic core complex. Second major tectonic event Pliocene-ongoing, affects entire region)

Van Leeuwen, T.M. & P.E. Pieters (2011)- Mineral deposits of Sulawesi. In: N.I. Basuki (ed.) Proc. Conf. Sulawesi Minerals Resources 2011, Manado, MGEI/IAGI, p. 1-109.
(online at: https://www.researchgate.net/publication/269113891_Mineral_deposits_of_Sulawesi)
(Major review of Sulawesi mineral deposits. Same as Van Leeuwen & Pieters (2013))

Van Leeuwen, T.M. & A. Maulana (2025)- Geology of the Sulawesi region. Hasanudin University, UNHAS Press, Makassar, p. 1-1284. *(online at: https://www.researchgate.net/publication/394979763_GEOLOGY_OF_THE_SULAWESI_REGION_book_pdf)*
(Recent, extensive review of the geology of all parts of Sulawesi, documenting virtually all works ever published since the early colonial era)

Van Leeuwen, T.M. & P.E. Pieters (2012)- Mineral deposits of Sulawesi. Geological Agency, Ministry of Energy and Mineral Resources, Bandung, p. 1-127.
(Extensive overview of mineral deposits of N, W and E Sulawesi Provinces, set in historic and geologic contexts. Sulawesi has complex geology with wide variety of mineralization styles, including porphyry Cu-Au, porphyry Mo, epithermal, metamorphic and sedimentary Au, lateritic nickel and Fe, etc. Gold mining started in 1896, nickel in 1938. By world standards Sulawesi is underexplored)

Van Leeuwen, T.M., E.S. Susanto, S. Maryanto, S. Hadiwisastra, Sudijono, Muhardjo & Prihardjo (2010)- Tectonostratigraphic evolution of Cenozoic marginal basin and continental margin successions in the Bone Mountains, Southwest Sulawesi, Indonesia. J. Asian Earth Sciences 38, 6, p. 233-254.
(Bone Mts in SW Sulawesi composed of Oligocene- Lower Miocene transtensional marginal basin Bone Gp (MORB-like volcanics and interbedded hemipelagic mudstones), juxtaposed against Eocene- Miocene continental margin Salokalupang Gp. Latter: (1) M- U Eocene volcaniclastics with limestone intercalations in upper part, reflecting arc volcanism and carbonate development along Sundaland margin; (2) Oligocene calc-arenites, deposited on passive margin, and (3) Lower- M Miocene clastics- volcanics, formed in extensional regime without subduction. At ~14-13 Ma start of widespread extension in SW Sulawesi, with potassic volcanism (Camba Fm), reaching peak 1 Ma year later with juxtaposition of Bone Gp against Salokalupang Gp along Walanae strike-slip fault. Potassic volcanism continued to end Pliocene, locally to Quaternary)

Van Leeuwen, T.M., R. Taylor, A. Coote & F.J. Longstaffe (1994)- Porphyry molybdenum mineralization in a continental collision setting at Malala, Northwest Sulawesi, Indonesia. J. Geochemical Exploration 50, p. 279-315.
(online at: www.researchgate.net/publication/229413281_Porphyry_molybdenum_mineralization_in_a Etc)
(Malala deposit in NW Sulawesi only known porphyry Molybdenum in Indonesia, associated with mainly granitic intrusives (Malala porphyries) as late differentiates in roof zone of Dondo batholith. Intrusives part of 600 km belt of granites and granodiorites, emplaced in continental margin ('W Sulawesi') in Late Miocene-Pliocene, during and following collisions between several microcontinents and Sulawesi western magmatic arc/eastern

subduction complex. Granitoids from partial melting of lower crust (possibly underthrusted Precambrian-Paleozoic continental crust) due to lithospheric thickening in continental collision regime)

Van Schelle, C.J. (1889)- Verslag over het voorkomen van goudvoerende aderen bij Sumelatta (Residentie Menado). Jaarboek Mijnwezen Nederlandsch Oost-Indie 18 (1889), Technisch Administratief Gedeelte, Verhandelingen, p. 5-38.
('Report on the occurrence of gold-bearing veins near Sumelatta (Residency Menado)'. Early investigation of gold near Sumalata along the N coast of N Sulawesi in 1886, at the request of potential mining concessionaire Parmentier. Gold mined by natives since 1813, directed by Rajah of Limbotto, who claimed 20% of all gold mined. Many small shafts down to 14m depth. At that time, native shallow gold mine workings were already mostly abandoned (in 1896 entrepreneurs Bauermann and Parmentier applied for a gold mining concesssion, and appointed now-retired Ir. Van Schelle as board member of his Mijnbouw Maatschappij Soemalatta; JTvG))

Van Schelle, C.J. (1889)- Verslag van een onderzoek naar de waarde van bekende goudvindplaatsen in de afdeeling Gorontalo (Res. Menado). Jaarboek Mijnwezen Nederlandsch Oost-Indie 18 (1889), Technisch Administratief Gedeelte, Verhandelingen, p. 39-55.
('Report of investigation of the value of known gold occurrences in the district Gorontalo, Residency Manado'. Brief review of native mining sites at Patente, Banganite, Lantia, Popaja, Lanoeo, etc.)

Van Schelle, C.J. (1889)- Opmerkingen over de geologie van een gedeelte der afdeeling Gorontalo, Res. Menado. Jaarboek Mijnwezen Nederlandsch Oost-Indie 18 (1889), Wetenschappelijk Gedeelte 2, p. 115-158.
('Remarks on the geology of a part of the district Gorontalo, Residency Manado'. Results of 1886 survey in N Sulawesi. Knowledge of N Sulawesi at this time still very rudimentary. Presence of granite, diorite, andesite and Late Tertiary clastic sediments and limestones)

Van Straelen, V. (1924)- *Portunus brouweri*. Portunien nouveau du Tertiaire de l'Ile Celebes. Jaarboek Mijnwezen Nederlandsch Oost-Indie (1923), Verhandelingen p. 169-170.
('Portunus brouweri, a new portunid from the Tertiary of Sulawesi'. New species of crab fossil from probably Miocene-age lithographic limestones with fish fossils at Patunuang Asu, S Sulawesi (see also Brouwer 1924))

Van Vuuren, L. (1920)- Het gouvernement Celebes: proeve eener monographie. Encyclopedisch-Bureau, Weltevreden, 535p. + Atlas with 25 maps.
(Early geographic description of Sulawesi. Includes geology chapter, influenced by Wegener's continental drift theory)

Van Waterschoot van der Gracht, W.A.J.M. van (1915)- Voorloopige mededeeling in zake de geologie van Centraal-Celebes. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 32, p. 188-204.
(online at: https://resolver.kb.nl/resolve?urn=MMUBA13:001661001:pdf)
('Preliminary communication on the geology of Central Sulawesi'. Summary of 1913 fieldwork in Toraja lands, mainly to investigate stratigraphy. Widespread, thick, folded red Globigerina marls with thin limestone intercalations of E-M Eocene age, not Cretaceous as previously suggested. Overlain by several km thick volcanic series, probably Late Eocene- Miocene age. Mid-Tertiary granite intrusions. "Sulawesi more likely part of Tethys geosyncline than of Asian mainland'. (Heavily criticized by Abendanon 1915 for proposing sweeping regional conclusions based on only 11 days of fieldwork in small part of C Sulawesi))

Van Waterschoot van der Gracht, W.A.J.M. (1915)- Bijdrage tot de geologie van Centraal-Celebes. Jaarboek Mijnwezen Nederlandsch Oost-Indie 43 (1914), Verhandelingen 2, p. 16-73.
('Contribution to the geology of Central Sulawesi'. Report on 2-week journey into C Sulawesi Toraja lands from Palopo at N end of Bone Bay. One of first to demonstrate that widespread red claystones are of E-M Eocene age (with interbeds of limestone with Nummulites, Assilina; identified by L. Rutten). Different from earlier interpretations of De Sarasin (1912) and J. Ahlburg (1910, 1911 (but interpretations disputed by E. Abendanon, whose Celebes books had not been published yet))

Vigny, C., H. Perfettini, A. Walpersdorf, A. Lemoine, W. Simons, D. van Loon, B. Ambrosius, C. Stevens, R. McCaffrey et al. (2002)- Migration of seismicity and earthquake interactions monitored by GPS in SE Asia triple junction: Sulawesi, Indonesia. J. of Geophysical Research 107, B10, 2231, p. 7/1-7/11.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2001JB000377)
(GPS- detected coseismic and transient post-seismic deformation related to January 1996 earthquake on N Sulawesi (Minahassa) trench)

Villeneuve, M., J.J. Cornee, W. Gunawan, J. Girardeau, C. Monnier, J.P. Rehault, J. Malod, S. Burhanuddin et al. (1995)- Role of the Miocene extensional tectonic event in the blueschist exhumation and the molassic basin origin in the Sulawesi island (Indonesia). EUG 8, Terra Nova, Supplement, p. 119. *(Abstract only)*

Villeneuve, M., J.J. Cornee, W. Gunawan, M.C. Janin, J. Butterlin, P. Saint-Marc & H. Samodra (2000)- Continental block collision in the eastern arm of Sulawesi (Indonesia); structure and geodynamic interpretation. Comptes Rendus Academie Sciences, Paris, IIA, Earth Planetary Science 330, 5, p. 371-378.
(online at: https://www.academia.edu/26730800/Continental_block_collision_in_the_eastern_arm_of_Sulawesi_Indonesia_Structure_and_geodynamic_interpretation)
(E arm of Sulawesi result of collision between two continental blocks: Tokala in W and Banggai-Sula in E. Tokala block results from Oligocene obduction of ophiolitic Asiatic basin (W Sulawesi) onto passive margin of Gondwanan-origin Banda block (later called Kolonodale Block) near end-Oligocene or beginning of Miocene. Tokala Block then collided by Banggai-Sula block in E-M Pliocene or later)

Villeneuve, M., J.J. Cornee, W. Gunawan, R. Martini, G. Tronchetti, M.C. Janin, P. Saint-Marc & L. Zaninetti (2001)- La succession lithostratigraphique du bloc de Banda dans la region de Kolonodale (Sulawesi central, Indonesie). Bull. Societe Geologique France 172, 1, p. 59-68.
(online at: https://archive-ouverte.unige.ch/unige:9820)
('Lithostratigraphy of the Banda Block in the Kolonodale area, C Sulawesi'. E and SE Sulawesi composed of two major continental blocks: (1) 'Banda block' (in later papers called Kolonodale Block; JTvG) including also Buru, Seram and Sinta Ridge, collided with Asian volcanic arc of W Sulawesi in Oligocene, then was dismembered during Late Neogene Banda Sea opening, and (2) Banggai-Sula block which drifted from Irian Jaya and collided with Banda block in Mid-Late Pliocene. Fragment of Banda block is in E Sulawesi, corresponding to the ophiolitic zone, where, in Kolonodale area, it is possible to reconstruct sedimentary succession under ophiolite, despite intensive deformations. Good overview of Late Triassic carbonates)

Villeneuve, M., W. Gunawan, O. Bellier, H. Bellon, J.J. Cornee, R. Martini & J.P. Rehault (2013)- Multiple collisions in Sulawesi Island and relationships with the geodynamical evolution of eastern Indonesia. In: 2nd Southeast Asian Gateway evolution Meeting (SAGE 2013), Berlin, p. 177. *(Abstract only)*
(Three small NE Gondwanan blocks from E or SE collided with W and N Arms of Sulawesi, at W-dipping subduction zone(s): (1) Late Oligocene- E Miocene 'Kolonodale Block', tectonically capped by large ophiolite; (2) M Miocene 'Lucipara Block' collision with Kolonodale Block; (3) M Pliocene 'Banggai-Sula Block'. Kolonodale Block strikingly similar to Timor and Lucipara, while Banggai-Sula blocks similar to Birds Head)

Villeneuve, M., W. Gunawan, J.J. Cornee & O. Vidal (2002)- Geology of the Central Sulawesi belt (eastern Indonesia): constraints for geodynamic models. Int. J. Earth Sciences (Geologische Rundschau) 91, 3, p. 524-537.
(online at: www.researchgate.net/publication/225636349_Geology_of_the_central_Sulawesi_belt_eastern_Indonesia_Constraints_for_geodynamic_models etc.)
(Sulawesi four major tectonic events: (1) Mid-Cretaceous in W arm; (2) Oligocene Eastward ophiolite obduction and collision of 'Kolonodale Block' of Gondwana origin, producing metamorphic belt in C Sulawesi; (3) Middle Miocene collision of Banda Block and Tukang-Besi Platform and (4) Middle Pliocene collision between Kolonodale and Banggai-Sula blocks)

Von Koenigswald, R. (1933)- Over het zogenaamde voorkomen van *Spirifer verneuili* Murch. op Celebes. De Mijningenieur 1933, 1, p. 14-16.

('On the alleged occurrence of Spirifer verneuili Murchison on Sulawesi'. Paleozoic brachiopod first reported from Sulawesi by Brouwer is almost certainly from Chinese pharmacy, not from Sulawesi. Brachiopods like Spirifer Cyrthua and Orthis are rel. common in Chinese pharmacies across Java and outer areas and were presumably all imported from China for Chinese medicinal purposes)

Von Loczy, L. (1933)-: A keletcelebeszi Eszakboengkoe es Bongkavidek foldrajzi es foldtani viszonyai. Foldtani Kozlony (Bull. Hungarian Geological Society) 62, p. 130-164. *(In Hungarian, with German summary)*
(online at: https://epa.oszk.hu/01600/01635/00385/pdf/EPA01635_foldtani_kozlony_1932_62_01-12_130-164.pdf)
('Geology of the North Boengkoe and the Bongka areas of East Sulawesi'. Short version of Von Loczy (1934; below, about results of 1928 BPM expedition)

Von Loczy, L. (1934)- Geologie van Noord Boengkoe en het Bongka-gebied tusschen de Golf van Tomini en de Golf van Tolo in Oost-Celebes. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 10, p. 219-322.
('Geology of the North Boengkoe and the Bongka areas between the Gulf of Tomini and the Gulf of Tolo in East Sulawesi'. Report on BPM fieldwork in 1928 in Bongka River region, Sulawesi E arm. 70% of area covered by ophiolites (peridotite, serpentinite gabbro), thrust over Triassic- U Cretaceous sediments (local contact-metamorphism), incl. 300-500m dense yellow U Triassic (Norian) limestone rich in Misolia. Deep marine Late Jurassic belemnite limestone and white and red radiolarian-bearing Jurassic- Cretaceous limestones. Highly folded Late Eocene limestones with Discocyclina- Pellatispira. Celebes molasse 1200m thick, with Miocene Lepidocyclina limestone near base. Separate chapters on radiolaria (Hojnos; U Jurassic- Lw Cretaceous) and foraminifera (Van der Vlerk), Mesozoic macrofossils (Kutassy). Some of Von Loczy's conclusions debated by Hetzel (1935), Oostingh (1935), Tan Sin Hok (1935))

Von Staff, H. (1911)- Zum Problem der Entstehung der Umrissform von Celebes. Zeitschrift Deutschen Geologischen Gesellschaft, Berlin, Monatsberichte 63, 13, p. 180-186.
(online at: https://www.zobodat.at/pdf/Z-dtsch-Geol-Ges_63_0180-0186.pdf)
('On the problem of the origin of the outline shape of Sulawesi'. Followed by Reply by Ahlburg, 1911, p. 399-405. (The unusual K shape of Sulawesi was also discussed by Abendanon 1912 and Sarasin 1912))

Von Steiger, H. (1915)- Petrografische beschrijving van eenige gesteenten uit de onderafdeeling Pangkadjene en het landschap Tanette van het gouvernement Celebes en onderhoorigheden. Jaarboek Mijnwezen Nederlandsch Oost-Indie 42 (1913), Verhandelingen, p. 171-227.
('Petrographic description of rocks from sub-district Pajangkane and Tanette region, SW Sulawesi'. Mainly igneous rocks, also glaucophane schist. With 1:150,000 scale geological map of departments Makassar and Bone by 'T Hoen)

Voosen, P. (2019)- Indonesian earthquake broke a geologic speed limit. Science Magazine 363, 6427, p. 570.
(online at: https://www.science.org/doi/pdf/10.1126/science.363.6427.570)
(Devastating magnitude-7.5 earthquake that struck Palu, Sulawesi, in September 2018 triggered tsunami and killed more than 2000 people. The 'supershear event' ripped through Earth's crust at very high speed along strike-slip fault, traveling ~150 km in only 35 seconds)

Vuillemin, A., A. Friese, R. Wirth, J.A. Schuessler, A.M. Schleicher, H. Kemnitz, A. Lucke et al. (2020)- Vivianite formation in ferruginous sediments from Lake Towuti, Indonesia. Biogeosciences 17, p. 1955-1973.
(https://bg.copernicus.org/articles/17/1955/2020/bg-17-1955-2020.pd)
(Presence of large crystals (> 5 mm) and nodules (> 5 cm) of vivianite (ferrous iron phosphate) in otherwise sideriterich sediments sediment cores from Lake Towuti, E Sulawesi)

Wahyono & Sidarto (2002)- Karakteristik kimia dan fisika serta pematangan batubari di daerah Baraka, Enrekang, Sulawesi Selatan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 12, 132, p. 20-37.

('Chemical and physical characteristics and maturation of coal in the Baraka area, Enrekang, S Sulawesi'. Eocene Baraka coals NE of Enrekang high sulfur and ash, brown coal to medium volatile bituminous. Two groups: (1) Titok crushed and sheared with Rvmax 0.19-1.48% and Batunoni-Lapin with Rvmax 0.32-0.64%)

Wahyudiono, J., A.K. Gibran, B. Salimuddin & Baharuddin (2019)- Distribution of the Cretaceous rocks in Balantak, Salodik and Pagimana areas and their implication to tectonic evolution of the East Sulawesi. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCY 2019), Yogyakarta 2019, ID-479-JCY2019, p. 1-7.
(online at: www.researchgate.net/publication/342657094_Distribution_of_the_Cretaceous_Rocks_in_Balantak_Salodik_and_Pagimana_Areas_and_Their_Implication_to_Tectonic_Evolution_of_the_East_Sulawesi)
(Highly deformed Upper Cretaceous Luok/ Matano Fm in Luwuk-Banggai basin in East Arm of Sulawesi 100-600m thick, with Belemnopsis fossils. (ost of paper is literature review, limited new data (figures too much reduced to be legible; JTvG)

Wahyudiono, J., Triwurjani, D. Yurnaldi, S. Adhitama, Suryatman, Abdullah, M.D.K. Dhony & S. Mawardi (2024)- Matano Fault and major damage during ancient iron industry era along the Matano Lake, Sulawesi. Proc. 53rd Annual Conv. Indonesian Association Geologists (IAGI), Balikpapan 2024, p. 1-9.
(online at: https://www.iagi.or.id/web/digital/79/180---Matano-Fault-and-major-damage-during-ancient-iron-industry-era-along-the-Matano-Lake,-Sulawesi---Joko-Wahyudiono.pdf)
(On historical relationship between seismic activity along Matano Fault and ancient iron industry around Lake Matano in S Sulawesi during Luwu Kingdom, a prominent iron producer from 8th early 20th century)

Wajdi, M.F., B. Santoso, D. Kusumanto & S. Digdowirogo (2011)- Metamorphic hosted low sulphidation epithermal gold system at Poboya, Central Sulawesi: a general descriptive review. In: N.I. Basuki (ed.) Proc. Conference Sulawesi Minerals Resources, Manado 2011, MGEI/IAGI, p. 201-210.
(See also Wajdi et al. 2012)

Wajdi, M.F., B. Santoso, D. Kusumanto & S. Digdowirogo (2012)- Metamorphic hosted low sulphidation epithermal gold system at Poboya, Central Sulawesi: a general descriptive review. Majalah Geologi Indonesia (IAGI) 27, 2, p. 131-141.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/771)
('Low sulfidation epithermal gold systems in metamorphic rocks in Poboya, C Sulawesi: general descriptive review'. Same as Wajdi et al. 2011. On Poboya epithermal gold prospect 12 km NE of Palu, C Sulawesi, on E margin of pull-apart basin related to Palu Koro sinistral strike slip fault system)

Wake, B.A., A.S. Iswahyudi & M. Dadi Kuswandi (1997)- Epithermal gold-silver mineralization in a fossil hot spring system, Toka Tindung, North Sulawesi. Seminar Nasional Sumber Daya Geologi, Fakultas Teknologi Mineral, UPN 'Veteran' Yogyakarta, p.

Wake, B., N. Silvio, A. Lattore, A.S. Iswahyudi & A. Purwanto (1996)- Geology of the Toka Tindung epithermal gold deposit, North Sulawesi, Indonesia. Proc. Conf. Porphyry related copper and gold deposits of the Asia Pacific Region, Cairns 1996, Australian Mineral Foundation, Adelaide, p. 9.1-9.8.
(On Toka Tindung low sulphidation epithermal gold deposit on N tip of Sulawesi, 35km NE of Manado. Two vein systems in Pliocene andesitic volcaniclastics)

Wakita, K. (2002)- Mystery man and mysterious unconformity in South Sulawesi, Indonesia. Chishitsu News 573, p. 48-68. *(in Japanese)*
(online at: www.gsj.jp/Pub/News/pdf/2002/05/02_05_05.pdf)

Wakita, K., Munasri, J. Sopaheluwakan, I. Zulkarnain & K. Miyazaki (1994)- Early Cretaceous tectonic events implied in the time-lag between the age of radiolarian chert and its metamorphic basement in Bantimala area, South Sulawesi, Indonesia. The Island Arc 3, 2, p. 90-102. *(online at: www.academia.edu/8323112/Early_Cretaceous_tectonic_events_implied_in_the_time_lag_between_the_age_of_radiolarian_chert_and_its_metamorphic_basement_in_the_Bantimala_area_South_Sulawesi_Indonesia)*

(Bantimala Complex of S Sulawesi mainly melange, chert, basalt, ultramafic rocks and high-P metamorphics. Radiolarian assemblage from unconformably overlying chert Mid-Cretaceous (late Albian-early Cenomanian= around 100 Ma), while K-Ar ages from schist range from 132-114 Ma. This suggests brief tectonic event followed by quick waning tectonism during Albian-Cenomanian transgression)

Wakita, K., J. Sopaheluwakan, K. Miyazaki, I. Zulkarnain & Munasri (1996)- Tectonic evolution of the Bantimala Complex, South Sulawesi, Indonesia. In: R. Hall & D. Blundell (eds.) Tectonic evolution of Southeast Asia, Geological Society, London, Special Publ. 106, p. 353-364.
(Bantimala Complex NE-dipping tectonically stacked slices, composed mainly of high-P metamorphics and radiolarian chert, but also E-M Jurassic sandstones and overlain by mid-Cretaceous radiolarites and Late Cretaceous turbiditic series. Ages of metamorphics suggest oceanic plate subduction in Late Jurassic- earliest Cretaceous. Subduction ceased in Albian. High-P schists exhumed due to collision of Gondwana-derived microcontinents)

Walpersdorf, A., C. Rangin & C. Vigny (1998)- GPS compared to long-term geologic motion of the North arm of Sulawesi. Earth Planetary Science Letters 159, p. 47-55. *(also in GEODYSSEA 1998 report, p. 239-250)*
(online at: http://www.geologie.ens.fr/~vigny/articles/Walpersdorf_etal_EPSL_1998.pdf)
(Paleomagnetic data from N arm of Sulawesi indicate ~20-25° rotation since 5 Ma, suggesting 200-250 km of left-lateral displacement along Palu-Koro fault. Similar Palu fault displacement derived from magnetic anomalies of Celebes seafloor, which implies 200- 250 km of oceanic crust subducted at N Sulawesi trench. Another marker for rotation derived from opening of Gulf of Tomini and NW migration of calc-alkaline subduction-related volcanism. GPS observation of 4 cm/year of left-lateral strike-slip across Palu fault fit well with N arm motion of 4-5 cm/year. Current motion rates from GPS similar to long-term rates)

Walpersdorf, A., C. Vigny, P. Manurun, C. Subarya & S. Sutisna (1998)- Determining the Sula block kinematics in the triple junction area in Indonesia by GPS. Geophysical J. International 135, 2, p. 351-361
(online at: https://academic.oup.com/gji/article/135/2/351/776566)
(GEODYSSEA SE Asian GPS investigations concentrate on Sulawesi. Current deformation high, with distinct deformation domains in study. Triple junction area best viewed as headland of Australian Plate deflected by collision with Philippine Plate. N part dominated by Sula domain, which shows CW rotation. To S connected to Australian Plate by ensemble of microblocks undergoing CCW rotation)

Walpersdorf, A., C. Vigny, P. Manurun, C. Subarya & S. Sutisna (1998)- GPS observation of the Triple Junction, Indonesia. In: P. Wilson & G.W. Michel (eds.) The geodynamics of S and SE Asia (GEODYSSEA) Project, GeoForschungsZentrum, Potsdam, Scientific Technical Report STR 98/14, p. 226-238.
(Point of convergence of Eurasian, Philippine and Australian plates situated near E Sulawesi (Sula Domain). Velocities relative to Eurasia of Australian Plate 7.5 cm/year to ENE, and Philippine Plate at 9.0 cm/yr to WNW. Rigid CW rotation of N Sulawes micro-block, around rotation pole near Manado, with most of Sula-Sunda movement accommodated along Palu-Koro andMatano faults (adjacent Sula Block on NE side ~5 cm/yr displacement to NW). Etc.)

Walpersdorf, A., C. Vigny, C. Subarya & P. Manurung (1998)- Monitoring of the Palu-Koro Fault (Sulawesi) by GPS. Geophysical Research Letters 25, 13, p. 2313-2316.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/98GL01799/epdf)
(5 years of GPS monitoring by GEODYSSEA project shows ~3.4 cm/yr ongoing left-lateral strike slip on Palu-Koro Fault)

Wang, S., C. Xu, W. Xu, Z. Yin, Y. Wen & G. Jiang (2018)- The 2017 Mw 6.6 Poso earthquake: implications for extrusion tectonics in Central Sulawesi. Seismological Research Letters 90, 2A, p. 649-658.
(Proposed kinematic model attributes extension in C Sulawesi to gravitational collapse, in which mass lateral extrusion along large-scale Palu-Koro strike-slip fault played important role)

Wanner, J. (1910)- Beitrage zur Geologie des Ostarms der Insel Celebes. Neues Jahrbuch Mineralogie Geologie Palaontologie, Beilage Band 29, p. 739-778.

('Contributions to the geology of the East Arm of Sulawesi Island'. Results of 2-month geological reconnaissance in 1905, mainly in SE side of E Arm, along Peleng Straits, near Toeli, Nambo, etc. In around Central Mountains describes (1) ultrabasic rocks, (2) rel. widespread Eocene limestones with Alveolina, Discocyclina and Nummulites, reminescent of Alveolina Limestone of Misool; (3) E Miocene shallow water carbonates with Lepidocyclina and Miogypsina; (4) Celebes molasse conglomerates 1200m thick or more (sandy marls and limestone near base with Pliocene planktonic and larger foraminifera, incl. Globorotalia tumida, no lepidocyclinids; JTvG), (5) Quaternary raised coral reef terraces up to 400m above s.l. Near Toeli also probably Jurassic-age 'Toeli Limestone', reminescent of Buru Limestone. Along N coast (Tomini Bay) common gabbro and peridotite, with oil seep in Babason creek, a tributary of Lobu River. Gabbro appear to be intrusives in U Oligocene- E Miocene limestone with Spiroclypeus, Lepidocyclina)

Wanner, J. (1914)- Eine Reise durch Ost-Celebes. Petermanns Geographische Mitteilungen 60, 1, p. 78-81 and p. 133-136.
(online at: https://zs.thulb.uni-jena.de/receive/jportal_jpvolume_00166384)
('A voyage through East Sulawesi'. Summary of Wanner's 1905 traverse of East Sulawesi for Koninklijke/ Royal Dutch Petroleum Co. from Kintom. Mainly travel report with little geology (more information in Wanner, 1910). In Babason creek near Dolong oil seep from fractures in gabbro, suggesting these overlie Tertiary (and/or Mesozoic?) sediments. With 1 map)

Wanner, J. (1919)- Die Geologie von Mittel-Celebes nach den neueren Forschungen E.C. Abendanons und anderer. Geologische Rundschau 10, 1, p. 45-62.
(online at: https://www.zobodat.at/pdf/Geologische-Rundschau_10_0045-0062.pdf)
('The geology of Central Sulawesi after new investigations of E.C. Abendanon and others'. Review of Central Sulawesi investigations. No figures)

Wanner, J. (1923)- Die Geologie von Celebes, speciell vom okonomischen Gesichtspunkte. Vierde Koloniale Vacantiecursus voor Geografen, Comite voor Indische Lezingen en Leergangen, Amsterdam, p. 3-10.
('The geology of Sulawesi, especially from an economic point of view'. Brief summary of lecture on Sulawesi geology and indications of oil, coal and metals. No figures)

Wanner, J. & E. Jaworski (1931)- Liasammoniten von Jamdena und Celebes. Neues Jahrbuch Mineralogie Geologie Palaontologie, Beilage Band 66, B, p. 199-210.
('Liassic ammonites from Yamdena and Sulawesi'. Sulawesi ammonites from poorly known central part of East arm, collected by BPM geologist Weber. First records of E Jurassic ammonites from E Sulawesi (Arnioceras cf. seilaeve from dark grey sandy limestone as float in upper Balingara River, 20km SE of river mouth). Yamdena (Tanimbar Islands) ammonites from Tasik Selwasa and Botenjahu mud volcano deposits include Echioceras wichmanni, Asteroceras sparsicostatum n.sp. and Arnioceras cf. arnouldi. Fauna and lithology very similar to 'grey cephalopod nodule marl' of Roti and Timor, described by Krumbeck (1922))

Watkinson, I.M. (2011)- Ductile flow in the metamorphic rocks of Central Sulawesi. In: R. Hall, M.A. Cottam & M.E.J. Wilson (eds.) The SE Asian gateway: history and tectonics of Australia-Asia collision, Geological Society, London, Special Publ. 355, p. 157-176.
(online at: http://searg.rhul.ac.uk/pubs/watkinson_2011%20Sulawesi%20ductile%20flow.pdf)
(Gneisses, amphibolites and schists exposed along Palu-Koro Fault of W-C Sulawesi are part of regionally metamorphosed Mesozoic-Precambrian basement. In Palu and Neck regions of Sulawesi, ductile shear fabrics record low-angle W-ward extension. Further south in Palu valley, extension directed towards SW. Cross-cutting granitic dykes show foliation in neck region of Sulawesi occurred before ~44-33.7 Ma. In Palu valley it occurred before 5-3.5 Ma, precluding origin as result of Palu-Koro Fault activity. Ductile flow during either Eocene-Miocene mid-crustal extension above metamorphic core complex, Cretaceous subduction-related deformation in overriding plate, or intracontinental deformation within Gondwana)

Watkinson, I.M. & R. Hall (2011)- The Palu-Koro and Matano faults, Sulawesi, Indonesia: evolution of an active strike-slip fault system. Geophysical Research Abstracts 13, EGU2011-8270, EGU General Assembly 2011.
(Abstract only. Palu-Koro and Matano faults of Sulawesi important active strike-slip faults. Palu-Koro fault slip

rate 32-45 mm/yr and left-lateral displacement about 200 km. Shorter Matano fault SE continuation and now in process of coalescing with Palu-Koro fault. Faults probably did not initiate before ~5 Ma)

Werdmuller, J.O. (1926)- Petrographische Untersuchung von Eruptivgesteinen des Pik von Maros in Sud-West-Celebes. Schweizerische Mineralogische Petrographische Mitteilungen. 6, 2, p. 205-254.
(online at: https://www.e-periodica.ch/digbib/view?pid=smp-001:1926:6#232)
('Petrographic investigation of volcanic rocks of the peak of Maros in SW Sulawesi'. Descriptions of rocks from volcanic Maros Peak (phonolite; 1375m high) and associated igneous rocks (incl. marosite, named after Maros Peak; also shonkinite, trachyte, etc.). Rocks collected between 1895-1902 by P. and F. Sarasin cousins and in 1904 by Basel Prof. C. Schmidt. With photomicrographs of thin sections)

White, L.T., R. Hall & R.A. Armstrong (2014)- The age of undeformed dacite intrusions within the Kolaka Fault zone, SE Sulawesi, Indonesia. J. Asian Earth Sciences 94, p. 105-112.
(manuscript online at: https://ro.uow.edu.au/ndownloader/files/50503518)
(Dacite intrusions in strand of Kolaka Fault that crosses SE Arm of Sulawesi and N Bone Bay. Kolaka Dacite undeformed, with zircon ages between ~4.4 and 7 Ma. Rare inherited zircons, with ages between 8- 1854 Ma, show SE arm of Sulawesi is underlain by Proterozoic or younger material)

White, L.T., R. Hall & R.A. Armstrong, A.J. Barber, M.K. BouDagher-Fadel, A. Baxter, K. Wakita, C. Manning & J. Soesilo (2017)- The geological history of the Latimojong region of western Sulawesi. J. Asian Earth Sciences 138, p. 72-91.
(manuscript online at: https://core.ac.uk/download/pdf/84839832.pdf)
(Latimojong Metamorphic Complex in C-W Sulawesi is accretionary complex of metamorphic rocks tectonically mixed with cherts and ophiolitic rocks, overlain(?) by unmetamorphosed U Cretaceous Latimojong Fm distal turbidites (not observed in this study). Aptian-Albian radiolaria in chert float sample, presumably from Latimojong Metamorphic Complex. Foraminifera ages from Toraja Group (56-23 Ma), Makale Fm (20.5-11.5 Ma) and Enrekang Volcanic Series (8.0-3.6 Ma). Magmatic zircons record ~38, ~25 and 8.0-3.6 Ma phases of volcanism. Late Miocene- E Pliocene high-K Enrekang Volcanics (~3.9-7.5 Ma) and Palopo Granite (6.6-4.9 Ma) may be tied to crustal extension/ slab rollback. Miocene-Proterozoic inherited zircons in Pliocene igneous rocks support Proterozoic-Phanerozoic (193, 38-34 Ma) basement or sediments derived from these. Little evidence for Oligocene-Pliocene thrusting in Latimojong region)

Whitten, A.J., M. Mustafa & G.S. Henderson (1988)- The ecology of Sulawesi. Gadjah Mada University Press, Yogyakarta, p. 1-777. *(Reprinted 2002, Periplus Edition, 727p.)*

Wibowo, B.A., L. Bai, S. Rohadi, D.P. Sahara, Z. Chen, K. Karyono, Y. Setiawan, P.H. Widyadharma et al. (2025)- Slab morphology and associated seismic and volcanic activities beneath Sulawesi Island, Indonesia. J. Volcanology Geothermal Research 465, 108352, p.
(Seismic tomography under Sulawesi shows high velocity anomalies for subducting slabs and low velocity anomalies beneath active volcanoes. Revealing: S-ward subduction of Celebes slab, N-ward subduction of Banggai-Sula slab, SW subduction of Sangihe slab, and double subduction of Sangihe and Halmahera arcs)

Wibowo, S., M.F. Rosana & A.D. Haryanto (2017)- Implication of fracture density on unserpentinized ultramafic rocks toward characteristics of saprolite zone in Sorowako, South Sulawesi. Bull. Scientific Contribution (UNPAD) 15, 2, p. 101-110.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/13375/pdf)
(Nickel grades reach maximum in saprolite zones. Fracture density in ultramafic bedrocks played important roles during laterisation. In Sorowako ultramafic complex of East Sulawesi Ophiolite Complex high-medium fractured types of bedrock tied to thick saprolite zone)

Wichmann, A. (1893)- Uber Glaukophan-Epidot-Glimmerschiefer von Celebes. Neues Jahrbuch Mineralogie Geologie Palaontologie 1893, 2, p. 176-178.
(online at: https://www.zobodat.at/pdf/Neues-Jb-Min-Geol-Palae_1893_2_0169-0178.pdf)

('On glaucophane-epidote-mica schists from Sulawesi'. Brief paper, first description of common glaucophane schist from SW Sulawesi, in float of Pajangkene River)

Wichmann, A. (1893)- Petrographische Studien uber den Indischen Archipel. I. Leucitgesteine von der Insel Celebes. Natuurkundig Tijdschrift voor Nederlandsch-Indie 53, 2, p. 315-331.
(online at: http://62.41.28.253/cgi-bin/...)
('Leucite-bearing rocks from Sulawesi island'. First description of Neogene leucite-bearing volcanic rocks, which are widespread across SW Sulawesi (Parang-Lowe near Makassar, Pajangkene, Tempe, Walanae, etc.). Previously known only from N Java and Bawean island)

Wichmann, A. (1895)- Petrographische Studien uber den Indischen Archipel. II. Zur Geologie der Insel Saleijer. Natuurkundig Tijdschrift voor Nederlandsch-Indie 54, p. 236-268.
(online at: www21.us.archive.org/details/mobot31753002489778)
('Petrographic studies on the Indies Archipelago, II. On the geology of Salayar Island', Mainly petrographic descriptions of rocks from Salayer, S of SW arm of Sulawesi, collected by M. Weber in 1889. In East mainly young volcanic rocks (mica trachyte, andesites and tuffs, basalt). In West quartz sandstone without andesitic detritus, white marl (with Late Miocene-Pliocene planktonic forams; reminiscent of E Java Kendeng zone and Timor) and Neogene coral limestone)

Wichmann, A. (1896)- Bemerkungen zur Geologie des Posso-Gebietes. Petermanns Geographische Mitteilungen 42, p. 160-165.
(online at: https://zs.thulb.uni-jena.de/receive/jportal_jpvolume_00196527)
('Remarks on the geology of the Poso area'. Report on the journey of Dutch missionary A.C. Kruijt in 1893 and 1895, one of the first Europeans to reach Lake Poso (P and F. Sarasin also traveled past Lake Poso, in 1894?). Rel. common serpentinized peridotitic rocks. In NE of Poso area, at Tanjung Api along Tomini Bay, serpentinized ultramafic rocks (with burning gas seep))

Wichmann, A. (1900)- Zur Geologie der Minahassa. Dr. A. Petermanns Geographische Mitteilungen 1900, 1, 2p.
(online at: https://era-prod11.ethz.ch/zut/content/zoom/29147152)
('On the geology of the Minahasa', North Sulawesi. Brief 2-page critical review of work by Bucking (1899))

Wichmann, A. & H. Wichmann (1896)- Der Posso-See in Celebes. Dr. A. Petermanns Geographische Mitteilungen, Gotha, 42, 160-165.
(online at: https://gotha.digital/item/jportal_jparticle_00507401)
(Brief, early description of geography and geology of Poso Lake area in C Sulawesi, by University of Utrecht Professor A. Wichmann, surveyed with missionary A.C. Kruyt)

Widiasmoro, B. Priadi & R. Soeria-Atmadja (1997)- Granitoid Neogene tipe tumbukan di zona sesar Palu-Koro, Sulawesi Tengah. Proc. 26th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 371-389.
(online at: https://www.iagi.or.id/web/digital/64/29.pdf)
('Neogene collision-type granitoids in the Palu-Koro fault zone, Central Sulawesi'. Late Miocene potassic calk-alkaline granitoids, syn-collisional, tied to M Miocene Banggai-Sula block collision)

Widiatama, A.J., A. Fahruddin & L.D. Santy (2021)- Characteristics of polymetallic enrichment on oceanic red bed in Matano Formation, Baturubei, Central Sulawesi, Indonesia. Int. Seminar on Mineral and Coal Technology, Bandung 2021, IOP Conference Series: Earth and Environmental Science 882, 012045, p. 1-8.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/882/1/012045/pdf)
(Matano Fm on East Arm of Sulawesi (here not overlying E Sulawesi ophiolite as in 'Type Matano' Fm, but part of Banggai-Sula block cover?; JTvG) has little-studied Late Early- Late Cretaceous oceanic red beds (CORB) in two facies: radiolarites and red clay facies. Radiolarites dominated by siliceous pelagic bioclastics and deposited under oxic environment. Red clays dominated by hemipelagic material with small amount of pelagic silica shells, deposited under reducing environment in basin plain environment in passive margin tectonic setting below carbonate compensation depth, and enriched in Mn, V, Ni, Zn and La)

Widijono, B.S. & B. Setyanta (2000)- Model kerak dan implikasi geodinamika lajur sesar Palu-Koro sajian analisis data gayaberat, kegempaan dan kinematika. Geological Research Development Centre (GRDC), Geophysical Series 1, p. 21-34.
(Crustal model of area of Palu-Kuro fault zone from gravity-magnetic data)

Widodo, S., Sufriadin, A. Imai & K. Anggayana (2016)- Characterization of some coal deposits quality by use of proximate and sulfur analysis in the Southern Arm Sulawesi, Indonesia. Int. Journal of Engineering and Science Applications (UNHAS) 3, 2, p. 137-143.
(online at: http://pasca.unhas.ac.id/ojs/index.php/ijesca/article/view/1085/233)
(SW Sulawesi coal deposits at Paluda, Padanglampe, Lamuru and Tondongkura. Lower moisture of Paluda coal might be affected by igneous intrusion. Coal samples generally high ash (29%) and sulfur (3.74.%). No vertical distribution trend for ash and sulfur)

Widodo, S., Sufriadin, A. Saputno, A. Imai & K. Anggayana (2017)- Geochemical characterization and its implication for beneficiation of coal from Tondongkura Village, Pangkep Regency, South Sulawesi Province. Int. Journal of Engineering and Science Applications (UNHAS) 4, 1, p. 83-95.
(online at: http://pasca.unhas.ac.id/ojs/index.php/ijesca/article/view/1286/290)
(Coal from Tondongkura, Pangkep Regency, recently used as fuel, but has high ash and sulfur content. Seam 1 medium ash- middle sulfur coal. Seam 2 high ash - high sulfur coal. Etc.)

Widodo, S., Sufriadin, M. Thamrin, Wahyufirmansyah & N. Jafar (2020)- Mineralogy and quality of Banti Coal, Baraka District, Enrekang Regency, South Sulawesi Province, Indonesia. IOP Conference Series: Earth and Environmental Science 473, 012112, p. 1-9.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/473/1/012112/pdf)
(Analysis of coal (no data on locality, age, thickness, etc.))

Wijaya, P.H., Subarsyah, J. Widodo, N.A. Kristanto, Susilohadi & L.Arifin (2007)- Seismic stratigraphy and tectonic of Gorontalo Basin and its implication for hydrocarbon trap potential. Proc. Joint Convention 32nd HAGI, 36th IAGI and 29th IATMI, Bali 2007, p. 963-969.
(online at: https://www.iagi.or.id/web/digital/28/2007_IAGI-Bali_Seismic-Stratigraphy-and-Tectonic-of-Gorontalo.pdf)
(Same as Wijaya et al. 2007 paper, below)

Wijaya, P.H., J. Widodo, N.A. Kristanto, Subarsyah, Susilohadi & L. Arifin (2007)- Data baru Cekungan Gorontalo perairan Teluk Tomini, Sulawesi: integrasi data seismik dan magnetik untuk mengidentifikasi potensi hidrokarbon. Mineral dan Energi 5, 1, p. 42-49.
('New data from the Gorontalo Basin, Tomini Bay, Sulawesi: integration of seismic and magnetics for identification of hydrocarbon potential')

Wijayanti, H.D.K. & S. Husein (2024)- Stratigraphy of Salodik Formation in Batutambung section, Toili, Luwuk, Central Sulawesi. Proc. Int. Conference Geological Engineering and Geosciences, Yogyakarta 2023, IOP Conference Series: Earth and Environmental Science 1373, p. 012065, p. 1-13.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1373/1/012065)
(Salodik Fm widespread, highly deformed Eocene- M Miocene limestone in E Arm of Sulawesi, representing marine drift sequence of Banggai-Sula microcontinental margin prior to collision with E Sulawesi Ophiolite. With sandstones in lower part. In Batutambung (Toili), Salodik Fm in NW-SE outcrop between two ophiolitic masses. Stratigraphic section of 70m thick along Toili-Ampanan Tete road. Nine lithofacies reflect shallowing upward or prograding pattern with open marine, tidal channel, shoal, and restricted marine/ lagoon facies. Foraminifera and nannofossils suggest E Miocene age (N6 or NN4-NN6) and middle-outer neritic paleobathymetry. Salodik Fm in Batutambung equivalent with Matindok Fm in Tomori PSC. (N.B.: Two thin sections of Fig. 5d- 5f look like Late Cretaceous pelagic limestones with Globotruncana; not Miocene?; JTvG))

Wijayanti, H.D.K. & S. Husein (2025)- Mixed siliciclastic-carbonate marine system in Banggai Sula micro-continental margin; a case study from Poh Formation in Pagimana Area, Banggai, Central Sulawesi. Proc. 4th

Int. Conf. Geological Engineering and Geosciences (ICGOES 2024), Yogyakarta, IOP Conference Series: Earth and Environmental Science 1517, 012005, p. 1-12.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1517/1/012004/pdf)
(Poh Fm at N coast of East Arm of Sulawesi is distal facies Salodik Limestone, in East Sulawesi fold-thrust belt, representing imbricated cover of Banggai-Sula microcontinent. Poh Fm in study area Early to-Late Micocene in age. Increasing clastic detrituus going upsection)

Wijbrans, J.R., H. Helmers & J. Sopaheluwakan (1994)- The age and thermal evolution of blueschists from South-East Sulawesi, Indonesia: the case of slowly cooled phengites. Mineralogical Magazine 58A (Goldschmidt Conference 1994), p. 975-976. *(Abstract only)*
(SE Sulawesi blueschist belt graphite-mica schists and metabasites of MORB affinity. Ar/Ar dates 20.8- 27.5 Ma)

Willems, H.W.V. (1937)- Contribution to the petrology of the crystalline schists of western Central Celebes (Netherlands East Indies). Doctoral Thesis University of Amsterdam, p. 1-147. *(Unpublished)*
(online at: https://resolver.kb.nl/resolve?urn=MMKB21:040175000:pdf)
(Descriptions of metamorphic rocks along two Sulawesi traverses collected by 1929 Celebes expedition (Brouwer, 1934). All are epi- to meso-metamorphic grade, with general increase in metamorphism from E to W. Calcareous rocks more numerous in southern traverse)

Williamson, A. (2011)- Discovery and development of Toka Tindung low sulphidation epithermal gold project. In: N.I. Basuki (ed.) Proc. Conference Sulawesi Minerals Resources Seminar, Manado 2011. Masyarakat Geologi Ekonomi Indonesia (MGEI), p. 259-266.

Wilson, M.E.J. (1995)- The Tonasa Limestone Formation, Sulawesi, Indonesia: development of a Tertiary carbonate platform. Ph.D. Thesis University of London, p. 1-520. *(Unpublished)*

Wilson, M.E.J. (1996)- Evolution and hydrocarbon potential of the Tertiary Tonasa Limestone Formation, Sulawesi, Indonesia. Proc. 25th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 227-240.
(Eocene- M Miocene Tonasa Lst of S Sulawesi started as transgressive sequence. By Late Eocene 100 km long Tonasa carbonate platform. Shallow-water sedimentation continuous until M Miocene on parts of platform, but active normal faulting caused basinal graben formation and subaerial exposure in other areas. Platform top mainly large benthic foraminifera facies. Facies belts trend E-W and relatively static through time. Tertiary exposure of shallow-water facies affected by block faulting. In grabens basinal marls interbedded with coarse redeposited carbonates. Lack of abundant aragonitic bioclasts and localized subaerial exposure result in little porosity development in platform top. Redeposited facies porous and permeable, and most likely to form hydrocarbon reservoirs)

Wilson, M.E.J. (1999)- Prerift and synrift sedimentation during early fault segmentation of a Tertiary carbonate platform, Indonesia. Marine and Petroleum Geology 16, 8, p. 825-848.
(online at: http://searg.rhul.ac.uk/pubs/wilson_1999%20Tonasa%20fault%20segmentation.pdf)
(Eocene- M Miocene Tonasa Fm carbonate platform in SW Sulawesi reflects Late Eocene- E Miocene rifting)

Wilson, M.E.J. (2000)- Tectonic and volcanic influences on the development and diachronous termination of a Tertiary tropical carbonate platform. Journal of Sedimentary Research 70, p. 310-324.
(online at: http://searg.rhul.ac.uk/pubs/wilson_2000%20Tonasa%20volcanic%20strat.pdf)
(Sulawesi Eocene- M Miocene syntectonic Tonasa carbonate platform developed W of volcanic arc and overlain by M-U Miocene volcanics. Greatest extent Late Eocene. Tectonics and volcanism influenced evolution and diachronous termination in 4 ways: (1) Paleogene volcanic activity limited E-ward extent of platform but had little effect in W S Sulawesi. (2) Late Eocene faulting resulted in platform segmentation, localized drowning in hanging wall areas and subaerial exposure on footwall highs. (3) E-M Miocene faulting around early stages of volcanism in W S Sulawesi resulted in localized tilting of fault blocks, formation of new graben, and exposure of footwall highs. (4) M Miocene volcaniclastics influx buried remaining areas of shallow-water carbonates. Carbonate production contemporaneous with volcanism in areas shielded from volcaniclastic input)

Wilson, M.E.J. & A. Ascaria (2000)- The Cenozoic carbonates and petroleum systems of South Sulawesi. IPA Field Excursion, October 2003, p. 1-55.
(online at: http://searg.rhul.ac.uk/pubs/wilson_ascaria_2003%20South%20Sulawesi.pdf)

Wilson, M.E.J., N.A. Ascaria, D.Q. Coffield & N. Guritno (1997)- The petroleum systems of South Sulawesi, Indonesia. In: J.V.C. Howes & R.A. Noble (eds.) Proc. Int. Conference Petroleum Systems of SE Asia and Australasia, Indonesian Petroleum Association (IPA), Jakarta, IPA97-PO-17, p. 561-567.
(S Sulawesi early Tertiary transgressive sequences marginal marine clastics passing upwards into carbonates overlain by deeper marine sediments. In S Sulawesi, late Tertiary magmatism and subsequent Pliocene orogenesis resulted in the formation of multiple kitchen areas)

Wilson, M.E.J. & D.W.J. Bosence (1996)- The Tertiary evolution of South Sulawesi: a record in redeposited carbonates of the Tonasa Limestone Formation. In: R. Hall & D.J. Blundell (eds.) Tectonic evolution of Southeast Asia, Geological Society, London, Special Publ. 106, p. 365-389. *(online at: http://searg.rhul.ac.uk/pubs/wilson_bosence_1996%20Tertiary%20evolution%20of%20South%20Sulawesi.pdf)*
(Redeposited carbonate facies of Eocene- M Miocene Tonasa Limestone Fm reliable indicators of tectonic activity. Immaturity and provenance of clasts indicate redeposited facies derived from faulted N margin of Tonasa Carbonate platform. Three main faulting phases indicated by redeposited facies: Late Eocene- E Oligocene, M Oligocene and E-M Miocene)

Wilson, M.E.J. & D.W.J. Bosence (1997)- Platform-top and ramp deposits of the Tonasa carbonate platform, Sulawesi, Indonesia. In: A.J. Fraser, S.J. Matthews & R.W. Murphy (eds.) Petroleum geology of Southeast Asia. Geological Society, London, Special Publ. 126, p. 247-279.
(online at: www.academia.edu/17164217/Platform_top_and_ramp_deposits_of_the_Tonasa_Carbonate_ Etc.)
(Facies analysis of shallow-water platform and ramp deposits of SW Sulawesi Late Eocene- M Miocene Tonasa carbonate platform. Platform dominated by foraminifera and had ramp-type S margin. Facies belts on platform trend E-W, remaining remarkably stable through time indicating aggradation of platform-top. Outer ramp deposits prograded S at intervals into basinal marls. Moderate- to high-energy platform top or redeposited carbonate facies may form hydrocarbon reservoirs)

Wilson, M.E.J., D.W.J. Bosence & A. Limbong (2000)- Tertiary syntectonic carbonate platform development in Indonesia. Sedimentology 47, p. 395-419. *(online at: https://www.academia.edu/17164229/Tertiary_syntectonic_carbonate_platform_development_in_Indonesia)*
(Evolution of syntectonic Eocene- M Miocene Tonasa Fm, SW Sulawesi. Deposited initially as part of transgressive sequence in backarc setting. By late Eocene shallow-water carbonates deposited over much of S Sulawesi forming 100-km long platform. Shallow-water sedimentation continued in parts of platform until M Miocene. Elsewhere, normal faulting created fault-block platforms, with local subaerial exposure of footwalls and formation of graben. Platform-top facies aggradational and dominated by larger foraminifera. Faults periodically active and formed steep escarpment margins. Regional subsidence and extension low on margins of backarc basin. Shallow-water accumulation rates for this foraminifera-dominated carbonate platform order of magnitude lower than those for modern warm-water platforms dominated by corals or ooids)

Wilson, M.E.J. & S.J. Moss (1999)- Cenozoic palaeogeographic evolution of Sulawesi and Borneo. Palaeogeogr. Palaeoclim. Palaeoecology 145, p. 303-337. *(online at: https://www.academia.edu/87229030/Cenozoic_palaeogeographic_evolution_of_Sulawesi_and_Borneo*
(Early Eocene- Pliocene paleogeographic maps on plate tectonic reconstructions illustrate evolution of Borneo and Sulawesi in Tertiary. Progressive accretion of continental and oceanic material from E onto E margin of Sundaland, with resultant development of volcanic arcs. Large tracts of W Sulawesi, E Borneo, E Java Sea and Makassar Straits formed extensive basinal area through much of Tertiary)

Wing Easton, N. (1918)- Rustig of dansend Celebes? Beschouwingen, studien en kritieken naar aanleiding van E.C. Abendanon's "Geologische en geografische doorkruisingen van Midden-Celebes". Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 35, p. 606-677.
(online at: https://www.delpher.nl/nl/tijdschriften/view?identifier=MMUBA13:001664001:00687)

('Quiet or dancing Sulawesi?' Lengthy, often critical review of Abendanon 1915 classic books on Sulawesi fieldwork. With one map)

Witkamp, H. (1940)- Langs de Lariang rivier (West Celebes). Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 47, p. 581-600.
('Along the Lariang River, W Sulawesi'. Report of travel up Lariang River, with some geological observations)

Wu, S., G. Rosenbaum, X. Chen, X. Qian, J.B. Asis, X. Lu, Y. Wang (2025)- Closure of the easternmost Neo-Tethys Ocean in SW Sulawesi, Indonesia: Evidence from Late Cretaceous volcanic rocks in the Bantimala Complex. J. Asian Earth Sciences 279, 10644, p. 1-15.
(SW Sulawesi located at intersection between Neo-Tethys and Paleo-Pacific tectonic domains. Assemblage of 'Barru Fm' diabase (~94 Ma), basalt (~91 Ma) and adakitic-type dacite (~90 Ma) from Bantimala Complex of SW Sulawesi. Magmatism marked closure of Mesozoic oceanic basin in C Indonesia at ~90 Ma. Arc-related rocks show Tethyan isotopic affinity, suggesting E-most Neo-Tethys subduction in this part of SE Asia)

Wu, S., G. Rosenbaum, X. Qian, J. Asis, X. Lu, & Y. Wang (2023)- Timing of collision in the easternmost Neo-Tethys Ocean: Evidence from magmatism in South Sulawesi. *("manuscript submitted to Lithos", p. 1-32.; never published?; manuscript online at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4661913)*
(Sulawesi in area where Neo-Tethys and Paleo-Pacific oceanic domains intersect. Three types of volcanic rocks (OIB-type basalt, adakitic dacite, arc-type diabase) emplaced at ~90 Ma in Barru Fm/ Bantimala Complex of S Sulawesi, likely associated with slab breakoff after collision. Pb isotopes in dacites compatible with Neotethys arc, not Pacific domain. S Sulawesi occupied E-most segment of Neo-Tethys Ocean, which closed at ~90 Ma (~Turonian), with slab break-off generating basaltic magmatism by decompression melting of deep asthenosphere, and adakitic magmatism by partial melting of subducted slab)

Wu, S., Y. Wang, X. Qian, J. Asis, X. Lu, Y. Zhang & C.S. Gan (2022)- Discovery of the Late Cretaceous Barru adakite in SW Sulawesi and slab break-off beneath the Central Indonesian accretionary complex. J. Asian Earth Sciences 232, 105214, p. 1-14.
(Newly discovered Late Cretaceous adakites in Bantimala Complex at Barru formed at ~ 87 Ma. Slab-derived high-Si melt with arc-like elemental pattern. Data argue for Tethyan affinity of C Indonesian Accretionary Complex. Barru adakite generated in response to Neotethyan slab break-off beneath C Indonesian Accretionary Complex and termination of Neotethyan subduction beneath Argoland at ~ 87 Ma)

Wunderlin, W. (1913)- Beitrage zur Kenntnis der Gesteine von Sudost-Celebes. Sammlungen Geologischen Reichs-Museums Leiden, Ser. 1, 9, p. 244-280.
(online at: www.repository.naturalis.nl/document/552396)
('Contributions to the knowledge of rocks from SE Sulawesi'. Descriptions of rocks from SE Sulawesi and nearby islands Buton, Kabaena and Rumbia, collected by Elbert expedition in 1909. Includes ultramafic rocks (hartzburgite, serpentinite, gabbro) from Buton, Rumbia and Kabaena, metamorphics (amphibolite, glaucophane schist) from Rumbia island and Mendoke Mts on SE Sulawesi. Six types of glaucophane-bearing rocks)

Xi, Z. & Y. Fang (2021)- Sedimentary evolution of rift basins in Sulawesi region, Indonesia, and its controls on hydrocarbon geological conditions. Marine Geology Frontiers 37, 5, p. 22-30. *(in Chinese)*
(online at: http://en.cgsjournals.com/hydzqy/article/2021/5)
(S Makassar Straits and Bone basin review, with M Eocene- Pliocene paleogeographic maps)

Yadi, V. (2011)- Successful geostatistical approach for a nickel ore deposit; a case study for nickel laterite deposit in central I pit, Kabaena nickel mine, Kabaena Island, southeast Sulawesi, Indonesia. Proc. 8th International Mining Geology Conference, Australasian Institute of Mining and Metallurgy (AusIMM), Melbourne, 8, p. 463-468.

Yamamoto, M., A. Maulana, K. Yonezu, K. Watanabe & A. Subehan (2015)- Geochemistry and mineralization characteristic of Sungai Mak deposit in Gorontalo, Northern Sulawesi, Indonesia. Int. Journal of Engineering and Science Applications (UNHAS) 2, 2, p. 99-105.

(online at: http://pasca.unhas.ac.id/ojs/index.php/ijesca/article/view/154/109)
(Gold-copper mineralization associated with granodiorite of Sungei Mak in Gorontalo similar to other porphyry copper deposits in Tombolilato District (>3400m thick Late Miocene- Pleistocene island arc-type volcano-sedimentary pile)

Yang, T., C.C. Lu, T. Hao, N. Rawlinson, T. Xu, S. Widiyantoro, Alfian, M.T. Rafie & D.P. Sahara (2025)- Offshore crustal thickness variation along the Palu–Koro strike–slip fault in the Sulawesi region from OBS Receiver Function analysis. EGUsphere, Preprint, p. 1-17.
(online at: https://egusphere.copernicus.org/preprints/2025/egusphere-2025-3105/egusphere-2025-3105.pdf)
(In NW Sulawesi, Palu-Koro left-lateral strike-slip fault connects with W-ward-extending North Sulawesi Trench, forming distinctive subduction-transform fault system. Ocean bottom seismometers data reveal shallow Moho (~8 km depth) beneath Celebes Sea, and significantly greater depths (~25 km) beneath E Kalimantan and N Sulawesi. Sharp variations in Moho depth near Palu-Koro fault suggest juxtaposition of two distinct crustal blocks)

Yao, J., J. Xu, C. Wu, Z. Zhang, M.F. Rosana, X. Li & Z. Jin (2023)- Origin of high-Cr podiform chromitites from Kabaena Island, Southeast Sulawesi, Indonesia: constraints from mineralogy and geochemistry. International Geology Review 65, 19, p. 2943-2960.
(East Sulawesi Ophiolite one of three largest ophiolites in world. Contains important podiform chromitites. Detailed mineralogy of chromites from Kabaena Island, SE Sulawesi. Estimated T-P conditions of parental magma of Kabaena chromitites are 950-1010°C and 7.0–8.4 Kbar. Formed by reaction of depleted mantle and boninitic magma beneath juvenile island arc, implying initiation of new subduction in Miocene)

Yoshida, T., C. Hasbullah & T. Ohtagaki (1982)- Kuroko-type deposits in Sangkaropi area, Sulawesi, Indonesia. Mining Geology 32, 175, p. 369-377.
(online at: https://www.jstage.jst.go.jp/article/shigenchishitsu1951/32/175/32_175_369/_pdf/-char/en)
('Kuroko-type' deposits in Miocene (more likely Late Eocene- E Oligocene?; JTvG) rhyolitic pyroclastic arc volcanics in central part of W Sulawesi. Ore deposits in Sangkaropi area associated with submarine volcanism. Some deposits stratiform, covered with thin barite layer. Ore minerals include sphalerite, galena, chalcopyrite, pyrite, tetrahedrite, bornite, etc.)

Yulianto, I. (2003)- Neogene magmatic arc in the Minahasa Region, North Sulawesi, Indonesia. In: B. Ratanasthien et al. (eds.) Pacific Neogene paleoenvironments and their evolution, Proc. 8th International Congress on Pacific Neogene Stratigraphy: Pacific paleoenvironments and their evolution, Chiang Mai, 2003, p.

Yulihanto, B. (2004)- Hydrocarbon play analysis of the Bone Basin, South Sulawesi. In: R.A. Noble et al. (eds.) Proc. Deepwater and frontier exploration in Asia & Australasia Symposium, Jakarta, Indonesian Petroleum Association (IPA), DFE04-OR-003, p. 333-348.
(Bone Basin of S Sulawesi between SW volcanic arc and SE collision complex. Rimmed by N-S faults. Tertiary sedimentation M-Late Eocene or older syn-rift deltaic-shallow marine sediments (Toraja/ Malawa Fm), followed by Oligo-Miocene marine carbonates and clastics (Tonasa/ Makale Fm). M Miocene- Pliocene clastic/volcanoclastic deposits with carbonates in parts of basin. Late Miocene shallow marine carbonates (Camba Fm, Tacipi Fm), laterally changing to deep marine sediments, followed by Late Miocene-Pliocene progradational sediments (Walanae Fm). M-Late Eocene deltaic-shallow marine syn-rift sediment potential source rock that reached maturity in M-Late Miocene. With facies maps for 5 time slices)

Yusuf, N.J., Y.I. Arifin, R. Hutagalung & I.N. Manyoe (2023)- Study of Boalemo red limestone for geotourism development based on lithological, geochemical analysis and geological heritage assessment. J. Geoscience Engineering Environment Technology (JGEET) 8, 3, p. 212-220.
(online at: https://journal.uir.ac.id/index.php/JGEET/article/view/12075/5603)
(Mainly discussion of geotourism potential (but no map included) of outcrop of rare red limestones in Eocene-Oligocene Tinombo Fm in Dimito and Lahumbo villages in Boalemo Regency, Gorontalo Province, N Sulawesi. Red pelagic limestone steeply dipping with manganese, hematite and M- Late Eocene planktonic foraminifera. Wonosari red limestone zone P15, Tilamuta Red Limestone with zone P12 planktonics (part of ocean floor deposits on which N Sulawesi magmatic arc was built?; JTvG))

Yuwono, Y.S. (1987)- Contribution a l'etude du volcanisme potassique de l'Indonesie. Exemples du Sud-Ouest de Sulawesi et du volcan Muria (Java). Doct. Sciences Thesis, Universite de Bretagne Occidentale, Brest, vol. 1, p. 1-285, vol. 2, p. 1-166. *(Unpublished)*
('Contribution to the study of potassic volcanism of Indonesia; examples from SW Sulawesi and the Muria volcano (Java)')

Yuwono, Y.S. (1988)- G. Lompobotang, Sulawesi Selatan, petrologi dan mineralogi. Proc. 17th Annual Conv. Indonesian Association Geologists (IAGI), p.
('Lompobotang Mountain, S Sulawesi, petrology and mineralogy'. See also paper below)

Yuwono, Y.S. (1989)- Petrologi dan mineralogi Gunung Lompobattang, Sulawesi Selatan. Geologi Indonesia (IAGI) 12, 1 (Prof. Dr. J.A. Katili 60 years Special Volume), p. 483-509.
('Petrology and mineralogy of Lompobattang Mountain, S Sulawesi'. Lompobottang is youngest volcano in SE part of SW Arm of Sulawesi, with K-Ar ages of K-rich, Plio-Pleistocene volcanics 0.77- 2.3 Ma. Volcanism not likely related to subduction)

Yuwono, Y.S. (1990)- Produk volkanik Pare-Pare (Sulawesi Selatan): contoh deret shoshonitik di Indonesia. Proc. 19th Annual Conv. Indonesian Association Geologists (IAGI), 2, p. 68-90.
('Volcanic products of Pare-Pare (S. Sulawesi): an example of a shoshonitic sequence in Indonesia'. Late Miocene - Pliocene potassic volcanism in S Sulawesi))

Yuwono, Y.S., H. Bellon, R. Soeria-Atmadja & R.C. Maury (1985)- Neogene and Pleistocene volcanism in South Sulawesi. Proc. 14th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta 1985, p. 169-179.
(online at: https://www.iagi.or.id/web/digital/40/PIT_IAGI_1985_paper16.pdf)
(S-most Sulawesi volcanics late M Miocene (12 Ma) - Pleistocene (1.2 Ma), not typical calc-alkaline subduction volcanics. Most rocks silica-undersaturated. Paleocene subduction responsible for arc volcanics. Second W-dipping subduction phase in E Miocene, terminating with collision of W and E arms and obduction of oceanic fragments. From end M Miocene- Pleistocene high K volcanism not linked to subduction, but developed in extensional intraplate context (Late Miocene Cindako, Sopeng, Camba Fms) and Pliocene (Parepare Fm) to Pleistocene (Lompobatang Formation: 1.2 m.y))

Yuwono, Y.S., S. Digdowirogo, J. Cotton, H. Bellon & B. Priadi (1995)- Petrology of some magmatic rocks from North Sulawesi, Indonesia. Jurnal Teknologi Mineral (ITB) 2, 3, p. 21-32.
(Fourteen magmatic rock samples from N Sulawesi, collected in 1989-1990. Four samples selected for K/Ar dating. Subduction-type magmatism with orogenic tholeiitic and calc alkaline affinities from Oligocene? to M Miocene. Post-M Miocene magmatic activity of shoshonitic affinity believed to be post subduction. Evolution of N Sulawesi similar to C portions of magmatic arc of W Sulawesi, with subduction ending in M Miocene, coinciding with start of collision between E and W Arms of Sulawesi)

Yuwono, Y.S., R.C. Maury, R. Soeria-Atmadja & H. Bellon (1988)- Tertiary and Quaternary geodynamic evolution of South Sulawesi: constraints from the study of volcanic units. Geologi Indonesia 13, 1, p. 32-48.
(S Sulawesi M Miocene and older volcanic rocks are of 'orogenic origin'. Volcanics younger than M Miocene, not related to subduction)

Zaccarini, F., A. Idrus & G. Garuti (2016)- Chromite composition and accessory minerals in chromitites from Sulawesi, Indonesia: their genetic significance. Minerals (MDPI) 6, 46, p. 1-23.
(online at: https://www.mdpi.com/2075-163X/6/2/46/pdf)
(Chromite from S and SE Arms of Sulawesi varies from Cr-rich to Al-rich. Small platinum-group minerals (PGM) in chromitites mainly laurite. Accumulation of Cr-rich chromitites probably at deep mantle level, Al-rich chromitites close or above Moho-transition zone. All laurites considered to be magmatic in origin)

Zaidani, M.A., B. Priadi, I.G.B.E Sucipta, V. Susanto & A. Saepuloh (2023)- Petrogenesis of Adang and Talaya volcanic rocks, in the Mamuju area and its surrounding, West Sulawesi. Proc. 2nd Int. Seminar on Earth Sciences

and Technology (ISEST-2023), Bandung, IOP Conference Series: Earth and Environmental Science 1245, 012029, p. 1-12.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1245/1/012029)
(M Miocene Adang and Talaya Volcanic complexes in Mamuju area, W Sulawesi, consist of pyroclastic, volcaniclastic and basic-intermediate lavas with main minerals leucite and clinopyroxene. Three groups: sodic, potassic and ultrapotassic. Tectonic setting:alkaline arc magmatism or continental extension after collision of Banggai-Sula microcontinent with W Sulawesi, influenced by pre-collision subduction of oceanic lithosphere)

Zakaria, Z. & Sidarto (2015)- Aktifitas tektonik di Sulawesi dan sekitarnya sejak Mesozoikum hingga kini sebagai akibat interaksi aktifitas tektonik lempeng tektonik utama di sekitarnya. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 16, 3, p. 115-127.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/36/37)
('Tectonic activity in Sulawesi and surrounding areas since the Mesozoic to Recent as a result of the interaction of tectonic activity of the surrounding main tectonic plates'. Review of tectonic development of Sulawesi region'. Nickel laterite in SE Sulawesi is of high-nickel/ low-iron garnierite-type, with average nickel 2.0% and iron 17.6%. Serpentine and olivine main nickel minerals with nickel concentrations of av. 3.65% and 1.73%)

Zen, M.T. & M. Alzwar (1974)- Tondano pyroclastics. Proceedings Institut Teknologi Bandung (ITB) 8, 1, p. 7-19.
(online at: https://journals.itb.ac.id/index.php/jmfs/article/view/9690/3674)
(Almost all of Minahasa (N Sulawesi) covered by widespread pyroclastic flows sheets. Along Tondano Lake 15-20m thick. Probably originated from fissure-like eruptions in longitudinal rift valley on crest of 'Minahasa geanticline'. In C and E Minahasa covered by younger andesitic volcanics)

Zhang, J., T. Hao, D. Miao, Ya Xu, B. Wang, Y. Ai & G. Fang (2021)- Investigation of geothermal structure of the Sulawesi, using gravity and magnetic method. Science China Earth Sciences 64, 2, p. 278-293. *(online at: https://dds.sciengine.com/cfs/files/pdfs/view/1674-7313/8518E68298364B508AB8E8CA0E87130B-mark.pdf)*
(Heat flow study of Sulawesi. Celebes Sea basin formed during M-L Eocene-and nearly half of Eocene oceanic crust has subducted below N Sulawesi Trench. Oceanic area shows high geothermal gradient and low thermal conductivity; land area shows low geothermal gradient and high thermal conductivity. Highest geothermal gradient in transition zone from Celebes Sea to N Sulawesi Island, corresponding to subducting spreading ridge of SW-moving Celebes Sea Basin. Average geothermal gradient 4.96°C/ 100m.)

Zhang, X., S.L. Chung, C.Y. Tien, A. Maulana, M. Mawaleda, H.Y. Lee, P.P. Liu & J. Xi (2023)- Mid-Cretaceous to early Eocene Neo-Tethyan subduction records in West Sulawesi, Indonesia. Geological Society of America (GSA) Bull. 136, 5-6, p. 2558-2567.
(online at: https://www.researchgate.net/publication/374702035_Mid-Cretaceous_to_early_Eocene_Neo-Tethyan_subduction_records_in_West_Sulawesi_Indonesia)
(New U-Pb-Hf isotopic data of detrital zircons from SW and NW Sulawesi constrain M Cretaceous-Eocene magmatic tempo. Zircon age peaks ~105-80 Ma (peak at ~90 Ma-Turonian; same as SE Borneo and Myanmar Wuntho-Popo arc peaks; JTvG) and ~70-45 Ma (also 6-7 Ma in Miocene conglomerate). High positive εHf(t) indicate derivation from juvenile sources with limited continental crustal contamination, suggesting M Cretaceous- E Eocene Andean-type continental margin in W Sulawesi. Magmatic ages similar to Neotethys subduction from S Lhasa (Tibet) to Sumatra (but not with Paleo-Pacific subduction-related arcs in SE China, SE Vietnam, E Malaysia and NW Borneo). W Sulawesi volcanic arc may be SE-most extent of Neo-Tethys arc (7500 km, from S Tibet (Gangdese) through Wuntho-Popo Arc (W Burma) to SE margin of Sundaland))

Zhang, X., T.N. Huang, S.L. Chung, A. Maulana, M. Mawaleda, C.Y. Tien, H.Y. Lee & P.P. Liu (2022)- Late Eocene subduction initiation of the Indian Ocean in the North Sulawesi Arc, Indonesia, induced by abrupt Australian plate acceleration. Lithos 422-423, 106742, p. 1-14.
(online at: www.researchgate.net/publication/360707708_Late_Eocene_subduction_initiation_of_the_In Etc.)
(Calc-alkaline I-type felsic rocks in N Sulawesi Arc developed at ~29.7-16.7 Ma. Subduction initiation evidenced by last vanishing of BAB-type mafic basement rocks at ~37 Ma and first appearance of calc-alkaline felsic arc magmatism at ~30 Ma in N Sulawesi Arc, as well as ~36-32 Ma ophiolite and ~34-29 Ma metamorphic sole in

nearby East Sulawesi Ophiolite. Late Eocene Indian Ocean subduction initiation probably linked to sharp Australian plate acceleration)

Zhang, X., C.Y. Tien, S.L. Chung, A. Maulana, M. Mawaleda, M.F. Chu & H.Y. Lee (2020)- A Late Miocene magmatic flare-up in West Sulawesi triggered by Banda slab rollback. Geological Society of America (GSA) Bull. 132, 11-12, p. 2517-2528.
(online at: www.researchgate.net/publication/340522943_A_Late_Miocene_magmatic_flare-up Etc)
(New geochemical and zircon U-Pb-Hf isotope data of Late Miocene (~7-6 Ma) plutonic/volcanic rocks from W Sulawesi indicate dominant magma source from underlying continental crystalline basement. U-Pb zircons ages of 7.2-6.1 Ma represent crystallization ages of host magmas, consistent with age peaks (7.3-6.3 Ma) in detrital zircons from sediments. Magma flare up across W Sulawesi attributed to resumed Banda slab rollback)

Zhang, Y., J. Qie, X.F. Wang, K. Cui & T. Fu & J. Wang & Y. Qi (2020)- Mineralogical characteristics of the nickel laterite, Southeast Ophiolite Belt, Sulawesi island, Indonesia. Mining Metallurgy Exploration 37, 1, p. 79-91. *(online at: https://www.researchgate.net/publication/337133708_Mineralogical_Characteristics_of_the_Nickel_Laterite_Southeast_Ophiolite_Belt_Sulawesi_Island_Indonesia)*
(Review of the characteristics of 'rotten rock layer' deposited in SE Sulawesi Ophiolite Belt. Ni-laterite typical high-nickel and low-iron garnierite-type laterite, with nickel 1.99 wt% and iron 17.55 wt%. Serpentine and olivine main nickel minerals (Ni 3.65 wt% and 1.73 wt%))

Zheng, T., Q. Qiu, J. Lin & X. Yang (2023)- Raised potential earthquake and tsunami hazards at the North Sulawesi subduction zone after a flurry of major seismicity. Marine and Petroleum Geology 148, 106024, p. 1-11.
(online at: https://www.sciencedirect.com/science/article/pii/S0264817222005025)
(N Sulawesi subduction zone ruptured by series of large earthquakes (Mw >7) since 1990s, triggering small to moderate tsunamis. 2018 Sulawesi Mw 7.5 earthquake ruptured west subduction zone and induced large tsunami. These earthquakes, especially the deeper thrust events, generated stress loading to shallow megathrust that could rupture to trigger exceptional tsunami hazard. Etc.)

Zhu, Z., C. Zhao & Z. Yang (2008)- Distribution and geochemical characteristics of adakites and adakite-like rocks in Sulawesi, Indonesia. J. Jilin University (Earth Science Ed.), 39, p. 80-88.
(In Chinese with English summary. Published information suggests 25 medium-acidic rock samples that may be considered as normal or adakite-like rocks in S, C, NW and N Sulawesi, forming Cenozoic adakite belt at Sundaland margin. Sulawesi adakites belong to tholeiitic, calc-alkaline and high K calc-alkaline series, characterized by low Y and Yb of heavy REE elements and high Sr. Two types: (1) oceanic island arc and/or continental margin arc and high K calc-alkaline series related to continental adakites)

Zulfiah & N. Supardi (2023)- Palynomorph biozonation of the Malawa Formation, Barru Region, South Sulawesi. Jambura Geoscience Review 5, 2, p. 71-85.
(online at: https://ejurnal.ung.ac.id/index.php/jgeosrev/article/view/18792/7044)
(Padanglampe section in Tanete Riaja, Barru Regency. Exposed Malawa Fm 10.5 m thick with sandstones at base overlain by shales with 1.5m thick coal bed, capped by sandstones and thin limestone. Palynomorphs in 36 samples grouped in 6 biozones, containing 64 pollen and 17 spore taxa, most common Moraceae, Palmaepollenites, Spinizonocolpites echinatus, Pandanidites, Proxapertites operculatus, Laevigatosporites, Acrostichum, and Anthocerisporites, suggesting M-U Eocene age. Also Verrucatosporites usmensis)

Zulkarnain, I. (1994)- Lingkungan tektonik komplek Bantimala: implikasinya terhadap kualitas mineral garnet sebagai batu mulia. Proc. 30th Anniversary Symposium, Research Development. Centre for Geotechnology (LIPI), p.
('Tectonic environment of the Bantimala complex: implications for quality of garnet minerals as gemstones')

Zulkarnain, I. (1999)- Cretaceous tectonic events of the Bantimala area, South Sulawesi, Indonesia; evidence from rock chemistry. Jurnal Teknologi Mineral (ITB) 6, 2, p. 65-77.

(Bantimala Complex melange, Albian-Cenomanian chert, basalt, ultramafics and various grade metamorphic rocks, dated as 132-114 Ma. Wide SiO_2 range (44-86%) in 36 metamorphic rocks precursor rocks vary from basaltic to granitic to sedimentary rock. Glaucophane indicates origin in subduction system, exhumed from different levels of Benioff zone. High-P metamorphic rocks granitic and sedimentary character indicating derivation from micro continent. Subduction system ceased when micro continent subducted in Mid-Cretaceous. Exhumation of metamorphic rocks just after metamorphism and before deposition of chert)

Zulkarnain, I. (2001)- Rock chemistry of Quarternary volcanics around Manado and Siau Island, North Sulawesi. Jurnal Teknologi Mineral (ITB) 8, 1, p. 37-52. *(online at: https://www.academia.edu/21588273/Rock_chemistry_of_quaternary_volcanics_around_Manado_and_Siau_island_North_Sulawesi?email_work_card=view-paper)*
(Volcanic rocks around Manado two suites based on position in subduction zone: (1) trench-side (E of Manado; lower trace element content (Ba, Nb, Rb, Sr), and longer crystallization history, producing wide range in composition from basaltic to dacitic) and (2) backarc (N and W of Manado; more primitive with narrow range in composition (basaltic to andesitic) and higher content of trace elements). Volcanics from Siau Island classified as trench-side type)

Zulkarnain, I., J. Sopaheluwakan, K. Miyazaki & K. Wakita (1995)- Elements transfer during basalt metamorphism: the case of Bantimala eclogite. J. RISET Geologi dan Pertambangan (LIPI) 1, 1, p. 42-55.
(online at: http://pustaka.geotek.lipi.go.id/wp-content/uploads/2016/02/Riset-Vol.1-No.1-1995-.pdf)
(On transfer of elements during basalt metamorphism to greenschist, blueschist and eclogite in Triassic- Jurassic-age Bantimala Complex of SW Sulawesi (mainly introducing water, removing calcite))

Zulkarnain, I., J. Sopaheluwakan & E.T. Sumarnadi (1993)- Komplek malihan Bontoria, daerah Mangilu, Kabupaten Pangkejene Kepulauan, Sulawesi Selatan. Seminar of Research results of R&D Centre for Geotechnology LIPI, p.
('Bontoria metamorphic complex, Mangilu area, Pangkajene Kepulauan District, S Sulawesi')

Zulkarnain, I., J. Sopaheluwakan, K. Wakita & K. Miyazaki (1993)- The origin of the Bantimala eclogite: a preliminary view. Proc. 22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 147-158.
(Bantimala complex 50km N of Makassar, SW Sulawesi, with Bontoria Fm high-pressure metamorphics (glaucophane schist, eclogite) underlying Late Cretaceous Balangbaru Fm flysch. K/Ar date of muscovite in schist 132 Ma; exhumation probably several 10's of Myrs later. Precursor rock is trench greywacke sandstone (most other blueschists from basalt or oceanic crust), probably subducted to 10's of km to 350-520°C, 8-18 kb)

Zulkarnain Bakkar, U., M. Kasim, N. Akase & A.I. Rompo (2020)- Karakteristik alterasi dan mineralisasi hidrotermal daerah Hulawa, Gorontalo, Indonesia. Jambura Geoscience Review 2, 1, p. 1-15
(online at: https://ejurnal.ung.ac.id/index.php/jgeosrev/article/view/2472/1699)
("Alteration characteristics and hydrothermal mineralization in the Hulawa area, Gorontalo, Indonesia'. Research in CoW of PT Gorontalo Sejahtera Mining shows Oligocene granodiorite and Pliocene rhyodacite and diatreme breccia that acted as host rock for mineralization. Right lateral-E-W faulting pre-mineralization, while NNE-SSW left-lateral faulting nterpreted as syn-mineralization. Hydrothermal deposits controlled by geological structure and volcanism. Mineralization in stockwork quartz veins and hydrothermal breccia, epithermal deposits of low sulphidation deposit)

V.2. Banggai Archipelago, Tomori Basin

Abimanyu, R. (1990)- The stratigraphy of the Sulawesi Group in the Tomori PSC, East Arm of Sulawesi. Proc. 19th Annual Conv. Indonesian Association Geologists (IAGI), Bandung 1990, 1, p. 99-118.
(online at: https://www.iagi.or.id/web/digital/47/19th-(11-13-Des-1990)-Book-I-107-126.pdf)
(Union Texas overview of stratigraphy of post-orogenic 'Sulawesi Molasse in east part of Tomori Basin, East Sulawesi. ((Latest Miocene?-) Pliocene -Pleistocene clastics-dominated Kintam Fm). Paper documents latest Miocene or basal Pliocene (zone N17 or N18- N19/20) bathyal flysch-type fine clastics sedimentation recording the foreland deepening/flexural loading of Banggai Sula block during collision with E Sulawesi ophiolite. Followed by Biak Fm coarse clastics in latest E Pliocene (N20-?N21), reflecting post-orogenic uplift/ erosion in E Pliocene ('Sulawesi Molasse'))

Ahmad, M., D. Ramdan, Y. Herdiana, A. Nurhasan & A.B. Mulyawan (2021)- Confirming reservoir geometry and exploration opportunity through 5D interpolation PSDM in the sub-ophiolite zone, Banggai-Sula Basin, Central Sulawesi. Proc. 45th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA21-G-147, p. 1-20.
Miocene Mentawa reefal limestone in Banggai-Sula basin of E Sulawesi (NW extension of Donggi gas field))

Armanda, R., S. Hartanto, E. Kusumawijaya, Jaenudin, B. Harnest, T. Irano, I Wayan Yuda et al. (2017)- Integrated Study of carbonates fracture reservoir distribution and its use to optimize field development program. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 2017, p. 1-6.
(online at: https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_Integrated-Study-of-Carbonates-Fracture-Reservoir-Distribution_compressed.pdf)
(Study of Miocene carbonate reservoir in Pertamina-Medco Tiaka field, offshore Toili Block, Tomori Basin, E Sulawesi, indicates presence of fractures with average porosity 12%.)

Baasir, A., S. Sukmono, R. Abimanyu & N. Pudyo (2004)- Tiaka Field, Sulawesi- the only one known example of thrusted anticline play type in Indonesia. European Association of Geoscientists & Engineers (EAGE) 66th Conference & Exhibition, Paris, 2004, p.
(Tiaka Field in E Sulawesi is thrusted anticline. Hydrocarbon reservoir mainly Miocene carbonate of Tomori Fm, overlain by Matindok and Minahaki Fms)

Badaruddin, D.F. & A. Fahruddin (2021)- Evaluasi batuan induk pada Sumur Loku-1 dan Alpha-1A, dan penentuan rekomendasi area untuk eksplorasi rinci pada cekungan Taliabu. Lembaran Publikasi Minyak dan Gas Bumi (Lemigas) 55, 2, p. 59-73.
(online at: https://journal.lemigas.esdm.go.id/index.php/LPMGB/article/view/605)
('Evaluation of source rocks in Loku-1 and Alpha-1A wells, and determination of recommended areas for detailed exploration in the Taliabu basin'.Taliabu Basin in Sula islands with gas seepage in N part of Mangole Island and gas from Loku-1 well. Geochemical study of samples from Loku-1 and Alpha 1A wells (BP-1990; TD in Triassic-earliest Jurassic Banggai Granite). Loku 1 with effective (gas) source rock in M Jurassic Buya Fm, 131m thick, at depth of 2727 - 2858 m, with Ro maturrity of 0.58%. Kerogen types II and III. No source rock potential found in Alpha-1A. Likely hydrocarbon migration from N part of Taliabu Basin towards S)

Bahesti, F., G. Purnomo Adi, I. Amrullah & B. Guspudin (2021)- Deep dive into the Mesozoic play potential beneath the Batui thrust: a case study in the offshore Matindok, the Eastern Arm of Sulawesi. Proc. 45th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA21-G-118, p. 1-21.
(Review of Mesozoic hydrocarbon potential in Banggai Basin, offshore Matindok, Eastern Arm of Sulawesi, in Late Triassic-Paleogene passive margin sequence of underthrust Banggai-Sula block, etc. (not much new?))

Barmi, O., F. Urip & E. Purnomo (2003)- The Donggi gas field discovery- a challenge for Pertamina for finding and developing new hydrocarbon reserves in the future. Proc. 29th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA03-B-074, p. 1-16.
(2001 Donggi discovery on Tomori/ Matindok Block, East arm of Sulawesi, may exceed 2.7 TCF gas. Reservoir Late Miocene carbonates of Mentawa Mb of Minahaki Fm, with 13-34% porosity. Oligo-Miocene Tomori Fm carbonates directly on 'Australian' granitic basement)

Charlton, T.R. (1996)- Correlation of the Salawati and Tomori basins, eastern Indonesia: a constraint on left-lateral displacements of the Sorong fault zone. In: R. Hall & D. Blundell (eds.) Tectonic evolution of Southeast Asia, Geological Society, London, Special Publ. 106, p. 465-481.
(online at: https://www.researchgate.net/publication/240675098_Correlation_of_the_Salawati_and_Tomori_Basins_eastern_Indonesia_A_constraint_on_left-lateral_displacements_of_the_Sorong_fault_zone)
(Salawati Basin of W New Guinea and Tomori Basin of E Sulawesi may have formed single sedimentary basin before displacement on Sorong Fault system, implying left-lateral displacement of ~900 km, probably largely in latest Miocene-Quaternary, contemporaneous with deposition of clastic sediments)

Damayanti, C., S. Sismanto, L.Handayani & A. Setiawan (2025)- Identifying the basement structure of the Sula fault zone in the Banggai-Sula microcontinent region, Molucca Sea, based on 2D Gravity Inversion Modelling using Particle Swarm Optimisation and 3D Modelling using Grablox. Rudarsko-Geolosko-Naftni Zbornik (Mining-Geology-Petroleum Engineering Bulletin), Zagreb, 40, 2, 73, p. 137-152.
(online at: https://hrcak.srce.hr/ojs/index.php/rgn/article/view/34001/17659)
(Gravity study to delineate N boundary of Banggai-Sula microcontinent basement. Derivative analysis indicates E-W trending faults in FZ 1 and FZ 2, which align with tectonic characteristics of Banggai-Sula microcontinent. South Sula fault is a horizontal fault (?) extending E to Irian Jaya, believed to have facilitated left-lateral translation of Banggai Sula Microcontinent (supporting maps not that obvious?; JTvG).)

Davies, I.C. (1990)- Geological and exploration review of Tomori PSC, eastern Indonesia. Proc. 19th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 41-67.
(Tomori PSC, E Sulawesi, two tectonostratigraphic units: (1) Banggai-Sula microcontinent and (2) 'trapped' E Sulawesi Ophiolite Belt, thrust over Banggai-Sula microcontinental block in E Pliocene. Structural styles developed, firstly as Banggai- Sula moved W to present position, and secondly as it entered collision zone with E Sulawesi Ophiolite Belt. N area characterized by normal and wrench faults, S area by imbricate thrusts. Pre-collision Miocene sequence two carbonate reservoir units: (1) E Miocene platform limestones, with Tiaka oil field in complex thrust zone in S part of PSC; (2) Late Miocene mixed platform- reefal carbonate with Minahaki and Matindok gas fields. Source rocks for hydrocarbons in Miocene. Generation and migration in Pliocene/ Pleistocene, as prior to this, insufficient overburden to create mature source)

Dzakirin, D.F., P.Y. Pratama, W.B. Raharjo, S. Hartanto, R. Armanda, Jaenudin et al. (2017)- Development and controlling factors of Miocene carbonate buildups: an example from the Senoro gas field, Central Sulawesi. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, p. 1-3.
(online at: https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_Development-and-controlling-factors-of-miocene-carbonate-buildups.pdf)
(Senoro gas field in E Sulawesi divided into two carbonate reservoir areas: (1) North Senoro with Late Miocene Mentawa Reef Mb carbonate buildup facies, and (2) South Senoro with M-L Miocene Minahaki Fm platform carbonate facies)

Dzakirin, D.F., P.Y. Pratama, W.B. Raharjo & R. Wijaya (2017)- Facies characterization and depositional environment relationship of Miocene carbonates reservoir in Senoro Block, Central Sulawesi. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, p. 1-3. *(online at: https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_Facies-Characterization-and-Depositional.pdf*
(Related to paper above. Senoro gas field in East Arm of C Sulawesi, with Minahaki Fm platform facies of mainly muddy wackestone/packstone facies (poor porosity) and overlying Mentawa Fm coral reefal carbonates with grainstone/floatstone facies with more reefal organism such as corals. Most of porosity in buildup facies secondary (vuggy and mouldic porosity from leached coral-algal framework). In platform facies fracture and vuggy porosities. Increasing thickness of Mentawa reef carbonate from NE to SW)

Fahrudin, R.S. Wicaksono, J. Wahyudiono & W. Gunawan (2012)- Deformasi cekungan Banggai pada zaman Tersier di Kabupaten Banggai, Sulawesi Tengah. Proc. 41st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2012-GD-26, 1 p. *(Abstract only)*

(online at: https://www.iagi.or.id/web/digital/9/2012_IAGI_Yogyakarta_Deformasi-Cekungan-Banggai-pada-Zaman-Tersier.pdf)
('Deformation of the Banggai Basin in Tertiary time, in Banggai Regency, C Sulawesi'. M Miocene collision between Banggai-Sula and E Sulawesi ophiolite blocks, followed by first Sulawesi Molasse (Kintom, Bongka Fm) in Late Miocene. Etc..)

Ghozali, N.Q., D.A. Pradipto & A.K.H. Panguriseng (2021)- Biogenic gas identification of Donggi-Matindok area in Banggai Basin Indonesia. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI, Bandung (JCB), p. 1-12.
(online at: https://www.researchgate.net/publication/395773328_Biogenic_Gas_Identification_of_Donggi-Matindok_Area_in_Banggai_Basin_Indonesia)
(Indications of biogenic gas in Banggai basin, like generated by E Pliocene Kintom Fm)

Halim, A. & D. Heru (2003)- Successful extreme underbalance perforation in exploration well Donggi gas field, Sulawesi. Proc. SPE Asia Pacific Oil and Gas Conference (APOGCE). Jakarta 2003, p. 1-5.

Handiwiria, Y.E. (1990)- The stratigraphy and hydrocarbon occurrences of the Salodik Group, Tomori PSC area, East Arm of Sulawesi. Proc. 19th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 69-98.
(Rel. comprehensive overview by Union Texas geologist of Late Eocene- Miocene carbonate-rich Salodik Group on Banggai-Sula Plate (Late Eocene- E Miocene Tomori Fm, M Miocene clastic Matindok Fm, M-L Miocene Minahaki Fm carbonates, still with Lepidocyclina). Eocene Tomori Fm in Tiaka wells with Lacazinella. Late Eocene- E Oligocene missing in northern area (Mantawa-Minahaki-Matindok). Latest Miocene- E Pliocene basin deepening and Kintom Fm flysch deposition. Basement penetrations metamorphic rocks. Tiaka 2 well TD in granite and schist, with K-Ar date of 224 ± 9 Ma = ~E Norian)

Haryono, A. Susilo, E. Purnomo & Tasiat (2002)- Donggi gas discovery of Matindok in Banggai Basin Sulawesi: a success story by using a new G & G approach. In: F.H. Sidi & A. Setiawan (eds.) Proc. Giant field and new exploration concepts seminar, Indonesian Association Geologists (IAGI), Jakarta 2002, p. 6-18.
(On 2001 Donggi-1 gas discovery in Miocene carbonate buildup in Matindok Block, Banggai Basin, E Sulawesi. Net gas column 134m)

Hasanusi, D., R. Abimanyu, E. Artono & A. Baasir (2004)- Prominent Senoro gas field discovery in Central Sulawesi. In: R.A. Noble et al. (eds.) Proc. Deepwater and Frontier Exploration in Asia & Australia Symposium, Jakarta, Indonesian Petroleum Association (IPA), Jakarta, p. 177-197.
(Senoro gas field 1999 discovery in S part of E arm of Sulawesi. Reserves of 3.7 TCF gas and 65 MB condensate. Three play types in Tomori area: Miocene carbonate buildups, wrench-fault anticlines and thrust-sheet anticlinal structures. Two potential hydrocarbon sources: Jurassic and Miocene marine shales and coals. Geochemical analyses indicate seeps and oils and gas from wells relate to E-M Miocene rocks. Hydrocarbon generation commenced in E-M Pliocene due to Pliocene sedimentation and loading by thrust sheets. Some remigration of hydrocarbons due to regional basin tilting caused by uplifting of fold belt in Pleistocene)

Hasanusi, D., E. Adhitiawan, A. Baasir, L. Lisapaly & R. van Eykenhof (2007)- Seismic inversion as an exciting tool to delineate facies distribution in Tiaka carbonate reservoirs, Sulawesi- Indonesia. Proc. 31st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA07-G-008, p. 1-13.
(Tiaka field produces oil from E Miocene Tomori limestone, while limited gas bearing zones can be found in M-L Miocene Minahaki limestone. Six oil wells and one dry well drilled. Seismic inversion confirmed dry well was drilled in tight limestone area, while oil wells were drilled in porous limestone area)

Hasanusi, D., D. Kurniawan, R.M. Iman Argakoesoemah & W. Darmawan (2012)- Fractured carbonate reservoir of Tiaka Field, Eastern Sulawesi, Indonesia (T-3 Carbonate Cores). In: AAPG Geoscience Technology Workshop (GTW) on reservoir quality of a fractured limestone reservoirs, Bali 2012, Search and Discovery Article 20145, p. 1-23. *(Brief Abstract + Presentation)*
(online at: www.searchanddiscovery.com/documents/2012/20145hasanusi/ndx_hasanusi.pdf)

(Tiaka oil filed 1885 discovery in NE-SW low angle thrust anticline. Reservoir rel. tight, fractured Miocene Tomori Fm carbonate))

Hasanusi, D., Kwartono & R. Wijaya (2012)- Carbonate reservoir characterization and its use on reservoir modeling: A case study of Senoro Field. In: SPWA 18th Formation Evaluation Symposium of Japan JOGMEC-TRC, Japan Formation Evaluation Society (JFES), Chiba, SPWLA-JFES-2012-I, p. 1-5.
(online at: http://firagiel.com/download.php?arg1=paper-carbonate.pdf)

Hasanusi, D. & M. Petricola (2006)- A surprise discovery using cased hole logs in the Tiaka Field. Proc. Jakarta 2006 International Geoscience Conference Exhib., Indonesian Petroleum Association (IPA), Jakarta, 06-VSL-05, p. 1-8.
(Discovery of new gas sand behind casing in M-L Miocene Minahaki Fm ?Limestone in Tiaka Field)

Hasanusi, D. & A. Priyantoro (2011)- Diagenetic events as the controlling improvement reservoir quality of the carbonate reservoirs in the Senoro field and surrounding areas, Banggai-Sula basin, Central Sulawesi. Proc. 36th HAGI and 40th IAGI Annual Conv., Makassar, JCM2011-028, p. 1-20. *(online at: https://www.iagi.or.id/web/digital/10/2011_IAGI_Makassar_Diagenetic-Event-as-the-Controlling.pdf)*
(On reservoir quality and diagenesis of M-U Miocene Mentawa Mb reefal build-ups (common recrystallization and dissolution, creating good porosity- permeability) and Minahaki Fm 'platform carbonate' (composed of deeper water globigerinid limestones; good porosity but low permeability))

Hasanusi, D., J. Sumarianto, R. Wijaya & D. Hendrian (2015)- The Tiaka-Tiara fault bend fold structures and its implication to control hydrocarbon entrapment within fracture carbonate reservoir in the Eastern Arm of Sulawesi, Indonesia. AAPG/SEG Int. Conference Exhibition, Melbourne, p. 1-11. *(Extended Abstract)*
(online at: https://www.searchanddiscovery.com/documents/2015/51213hasanusi/ndx_hasanusi.pdf)
(Tiaka-Tiara fault bend fold structures in tectonically complex area of Banggai Basin, offshore E arm of Sulawesi, formed by Late Miocene- Pliocene collision between Banggai Sula microcontinent and E Sulawesi ophiolite belt. SW-NE oriented major fault and series of SSE-NNW oblique minor fault bend folds, affectingMiocene Minahaki and Tomori fractured carbonate reservoirs)

Hermanto, B. (2014)- Perkembangan kerangka tektonik Laut Maluku, Kepulauan Banggai-Sula dan lajur ofiolit Sulawesi Timur. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 15, 2, p. 69-74.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/62)
('Tectonic framework development of the Molucca Sea, Banggai-Sula islands and ophiolite belt in Eastern Sulawesi'. Brief review; not much new?)

Hermanto, B. (2015)- Usulan baru titik bor eksplorasi minyak dan gas bumi di lapangan Tiaka dan Senoro, cekungan Luwuk- Banggai. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 16, 1, p. 45-53.
('Proposed new oil and gas exploration drillings in Tiaka and Senoro fields, Luwuk-Banggai Basin'.)

Koolhoven, W.C.B. (1930)- Verslag over een verkenningstocht in den Oostarm van Celebes en de Banggai Archipel. Jaarboek Mijnwezen Nederlandsch-Indie 1929, Verhandelingen, p. 187-228.
('Report of a reconnaissance survey in the East arm of Sulawesi and the Banggai Archipelago'. Banggai islands basement crystalline schists intruded by granodiorites, unconformably overlain by E Miocene micaceous sandstones and limestones with Spiroclypeus and Miogypsina, unconformably overlain by ?Plio-Pleistocene Peling Limestone. M or Late Miocene folding event and up to 1000m Quaternary uplift)

Kurniasih, A., E. Kusumawijaya, Ferdy, Fahrudin & R. Setyawan (2021)- Biostratigraphy analysis of Barbatos-1 exploration well in Tomori Block, Banggai Basin, East Arm of Sulawesi. RISET Geologi dan Pertambangan (LIPI) 31, 1, p. 51-62.
(online at: http://jrisetgeotam.lipi.go.id/index.php/jrisgeotam/article/view/1150/pdf)
(Sediments in interval 4030-9800' in offshore Barbatos-1 well in Tiaka oil field, Tomori block, deposited in M Miocene-Holocene time. Lowest layer is planktonic foram zone N10-N12 (lower M Miocene), in bathyal environment. Overlain by N12-N14 (upper M Miocene) in neritic environment and N14-N17 (M-L Miocene) in

bathyal environment. Topmost interval N17-N23 (Pliocene- Holocene) in bathyal environment. Top two layers with reworked fossil fragments from Early Tertiary)

Kurniawan, A.P., G.P. Adi, M. Arifin, A.S. Arifin, K. Sani, S. Pamungkas, A.D. Guntara & T. Suroso (2017)- Imaging Miocene duplex carbonate play beneath ophiolite belt zone using seismic synthetic modeling approach. Proc. 41st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA17-60-G, p. 1-8.
(Seismic suggestive of carbonate duplex structure under ophiolite in Banggai-Sula foreland basin imbricate thrust zone (= Batui Thrust belt), East Arm of Sulawesi)

Kurniawan, A.P., G.P. Adi, M. Arifin, A.S. Ningrum & A.S. Arifin (2017)- Pliocene deep water carbonate turbidites play evaluation in the Banggai-Sula foreland basin. Proc. 41st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA17-59-G, p. 1-14.
(Banggai-Sula Foreland Basin in Matindok Block, E Sulawesi, is product of Late Miocene- E Pliocene collision between Banggai Sula microcontinent and E Sulawesi Ophiolite-magmatic arc of Sundaland. Onshore wells Matindok-7 and Penyu-1, and discovered gas-condensate in M-52 carbonate layer of Plio-Pleistocene Celebes Molasse. M-52 turbiditic carbonate 3 layers, with (reworked?) Miocene Lepidocyclina, porosity 10-20%)

Kurniawan, A.P., G.P. Adi, W.T. Sundari, M. Arifin, M.J. Panguriseng, S. Hartanto & N. Herawati (2018)- Pliocene deep water channel system of Celebes Molasse as new exploration play in Banggai Sula foreland basin, Eastern Sulawesi-Indonesia. Proc. 41st HAGI Annual Conv. Exhib. 2016, IOP Conference Series: Earth and Environmental Science 132, 012005, p. 1-7.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/132/1/012005/pdf)
(Banggai-Sula foreland basin product of Late Miocene- E Pliocene collision of Banggai-Sula microcontinent and E Sulawesi Ophiolite/magmatic arc of Sundaland. Proven petroleum plays Miocene carbonates, sealed by post collision Plio-Pleistocene Celebes Molasse.Seismic data from onshore Matindok block show possible NE-SW channels in deeper marine Celebes Molasse. Fining upward sequences observed in several wells. Thicknesses of channel bodies 50-150 m, sand-shale ratio up to 40 %. Potential new gas exploration play)

Kurniawan, A.P., C.D. Ardianto, M.J. Panguriseng, M. Arifin, I. Firman & G.P. Adi (2016)- Possible Mesozoic graben system in the offshore Matindok Block: a new evaluation of prospective kitchen using 2D PSDM dataset. Proc. 40th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA16-41-G, p. 1-7.
(2D seismic dataset in Matindok Block, E Sulawesi, suggests possibility of NNE-SSW trending Mesozoic graben system in Tolo foredeep of Banggai-Sula foreland beneath Miocene platform carbonate. Several Mesozoic half-graben inversions. This may have consequences for distribution of Jurassic mature source rock (but crude oils tested so far with Tertiary biomarkers, probably tied to E-M Miocene Tomori Fm))

Kurniawan, A.P., M. Arifin, I. Firman & H. Budiarso (2015)- Regional vitrinite reflectance (Ro) trend for predicting kitchen area beneath Batui Thrust in the onshore area of Matindok Block, Eastern Sulawesi-Indonesia. Proc. 39th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA15-G-140, p. 1-4.
(Vitrinite Reflectance modelling used to predict kitchen area beneath Batui Thrust, onshore E Sulawesi)

Kurniawan, A.P., M. Arifin, W.T. Sundari, Sardjito, N. Budi & H. Nurudin (2016)- Interval velocity modeling of Celebes Molasse as post collision in Banggai-Sula foreland basin, Eastern Sulawesi, Indonesia. Proc. 40th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA16-44-G, p. 1-7.
(Banggai-Sula Foreland Basin product of Late Miocene- E Pliocene collision between Banggai-Sula microcontinent and E Sulawesi ophiolite-magmatic arc of Sundaland. Post-collisional Celebes Molasse deposited E-ward into basin in Plio-Pleistocene, with thickness 1500-2700m. Interval velocity modeling of molasse to improve interpretation of underlying Top Miocene carbonate surface)

Kurniawan, A.P., M. Arifin, R.A. Wibawa, H. Budiarso, N. Budi & H. Nurudin (2015)- Understanding imbricate thrust sequences of Miocene carbonate platform in the southwest offshore area of Matindok Block, Eastern Sulawesi- Indonesia. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI, Balikpapan, JCB2015-346, p. 1-4.
(Imbricate thrust zone in SW offshore area of Matindok Block area, Tolo Bay, E Sulawesi, product of Late Miocene- E Pliocene collision between Banggai-Sula microcontinent and E Sulawesi Ophiolite/magmatic arc.

Unconformably overlain by Pliocene Celebes Molasse. Oilfield in Tiaka thrust, but dry holes in Kalomba-1 and Tolo-1 thrust prospects. NW-SE regional seismic line shows 6 thrust slices (38% shortening), in front of upthrust ophiolite (penetrated by Dengkala 1 well). Older imbricate thrust sequences lower porosity)

Kurniawan, A.P., I. Firman, E. Nurjadi, A. Prasetyo & I.G. Widyoseno (2018)- Unlocking potential plays of unexplored back-bulge in the Banggai-Sula foreland basin. Proc. 42nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA41G, p. 1-17.

Kurniawan, A.P., A. Mardianza, I. Firman, M. Fajar & Fatahillah (2019)- New biomarker evidences of Mesozoic petroleum systems in the unexplored Tokala area, Eastern Sulawesi. Proc. 43rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA19-G-350, p. 1-14.
(New biomarker data from oil seep in Menyoe area on flank of Tokala Mountain, W part of Tomori basin, show low oleanane values, suggesting Mesozoic origin. Other oil seeps in E Sulawesi high oleanane index, suggesting Cenozoic origin. Menyoe seep oil likely correlates with organic matter of shale facies of Triassic Tokala Fm)

Kurniawan, A.P., A.S. Ningrum, C.D. Ardianto, I. Firman, E. Nurjadi, A. Prasetyo & I.G.Widyoseno (2018)- Hydrocarbon potential of unexplored Tokala area in the Eastern Arm Sulawesi as part of Australian fragment: a preliminary result. Proc. 42nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA18-29-G, p. 1-18.

Kurniawan, D., F.F. Baskaraputra, Sugiyanto, A. Baasir & D.H. Febrianto (2011)- Integrated reservoir modeling and characterization of 'SNR' Field. Proc. Joint 36th HAGI and 40th IAGI Annual Conv., Makassar, JCM2011-346, p. 1-15.
(Reservoir model of SNR (= Senoro) gas field, discovered in 1999 in Late Miocene Mantawa Mb carbonate buildup, Senoro-Toili Block, E Sulawesi)

Kwartono, K.W.A., D. Hasanusi & R. Wijaya (2013)- Integrated reservoir characterization and static geomodeling of Senoro Field, Senoro-Toili Block, Sulawesi, Indonesia. In: Petroleum Geoscience Conf. Exhib. (PGCE 2013), Kuala Lumpur 2013, p. 1-7. *(Extended Abstract)*
(Miocene Minahaka Fm carbonate platform reservoir characterization study at Senoro gas field, C Sulawesi)

Kwartono, N. Herawati, Sugiyanto & A. Baasir (2013)- Understanding the uncertainties in geomodeling process, an awareness for risks mitigation case study of Senoro Field, Senoro-Toili Block, East Sulawesi. Proc. Joint Convention 38th Indonesian Association Geophysicists (HAGI) - 42nd Indonesian Association Geologists (IAGI), Medan 2013, p. 1-8.
(online at: https://www.iagi.or.id/web/digital/8/2013_IAGI_Medan_Understanding-The-Uncertainties.pdf))
(On uncertainties in geomodeling of M-L Miocene Minahaki Fm limestone reservoir in Senoro gas field, E Sulawesi)

Laya, K.P., B.G. Adhiperdana, P.Y. Pratama, R. Helbet, A. Yumansa, A. Khawarizmy et al. (2002)- Integrated microfacies and sedimentology analysis of Minahaki Fm: analogue for carbonate ramp depositional model and microporosity-dominated reservoir performance. Proc. 51st Annual Conv. Indonesian Association Geologists (PIT IAGI 51), Makassar 2022, p. 1-7.
(online at: https://www.iagi.or.id/web/digital/71/PITIAGI-22-P-Abs-166.pdf)
(M Miocene Minahaki Fm. carbonates in onshore Banggai Basin, E Sulawesi, massive, 750' thick platform carbonates with 13-28% porosity but low permeability. Five types of microfacies)
.
Luthfi, A., E. Purnomo & S. Riadhy (2002)- Big fish discovery in Banggai Basin, Sulawesi, Indonesia- a success story using PSDM Technique. In: 64th EAGE Conference & Exhibition, Florence, G-07, p. 1-4. *(Extended Abstract)*
(In 1998-2001 Pertamina drilled three wildcat wells in Banggai Basin, onshore E Arm of Sulawesi. Two wells hit gas-bearing zones in Miocene carbonates, with net pay of reservoir 140-207m)

Mirnanda, E., D. Kusnida, T.B. Nainggolan, B. Setyanta & Subagio (2024)- Gravity field and crustal structure of the Eastern Arm of Sulawesi and the Banggai Archipelago, Eastern Indonesia. Interpretation (SEG-AAPG), 12, 3, p. T331-T339.
(Investigation of crustal structures of E Arm of Sulawesi and Banggai Archipelago by means of gravity. Occurrence of ophiolite masses and development of Batui-Balantak foreland thrust-fold belt on East Arm of Sulawesi result of Neogene collision of Sulawesi Island Arc and Banggai-Sula microcontinent. Rel. low levels of gravity anomalies in most areas of outcropping E Sulawesi Ophiolite in East Arm suggest lack of high density root (thin thrust sheet), except in Poh Head area, where high density root of ~2500m deep is suggested. Slight thickening in crustal block beneath central part of East Arm region. Area exhibits significant fracturing and attenuation. Crustal block dipped NE-ward in response to ascent of Molucca Sea oceanic crust) (Same paper as Sardjono & Mirnanda, 2007?)

Muhartanto, A. & T. Purwanto (2011)- Potensi batuan induk di Cekungan Banggai, Sulawesi Tengah. MINDAGI 2, 1, p. 29-40.
(online at: https://www.academia.edu/11327966/Potensi_Batuan_Induk_Cek_Banggai)
('Source rock potential in the Banggai Basin, Central Sulawesi'. Banggai/Tomori Sub-Basin oil and gas source rocks are Tomori and Matindok Fms, but only E-M Miocene Tomori Fm contains moderately rich organic material and in wells tends to be immature)

Nainggolan, T.B. & N.I.T.P S Halawa (2023)- Evaluation of carbonate reservoir with integration of petrophysical analysis and seismic impedance inversion in Banggai Basin, Sulawesi. Proc. Int. Conference on Geoscience and Earth Resources Engineering, IOP Conference Series: Earth and Environmental Science 1288, 012005, p. 1-8.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1288/1/012005/pdf)
(Petrophysical and seismic impedance evaluation of hydrocarbons in Miocene carbonate reservoir in offshore Siotu-1 well, Banggai Basin, near Tiaka oil field. Well drilled into thrust anticlinal structure. Five reservoir zones with porosity of 10-> 25% . Net pay in reservoir zone 4 only 4.5 feet thick. Siotu-1 well penetrated good Miocene carbonate reservoir rock, but insignificant hydrocarbons)

Natawidjaja, D.H. & A. Kadarusman (1994)- The structural natures of the Pre-Tertiary rock complexes of the Sula Islands and their tectonic significances: a preliminary view. Proc. 23rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta 1994, p. 433-446.
(online at: https://www.iagi.or.id/web/digital/62/34.pdf)
(Structural analysis of Pre-Tertiary rocks of Banggai-Sula suggests two or more deformation phases. Significant differences between Taliabu/Mangole and Sulabesi islands, suggesting tectonic block rotation. Most granitoids highly fractured. Mesozoic sediments only slightly deformed and gently dipping)

Nurhidayah, E.M., Akmaluddin, D.H. Barianto, S. Husein & A. Saripudin (2024)- Nannoplankton biostratigraphy from Banggai-Sula Basin, Central Sulawesi. J. Tropical Biodiversity and Biotechnology (JTBB) (UGM), 9, 1, p. 1-20.
(online at: https://journal.ugm.ac.id/jtbb/article/view/85308/38409)
(Nannoplankton from ditch cuttings from MH-2 well (probably Minahaka 2 well; W of Senoro gas field), Banggai-Sula Basin, coastal southern East Arm of Sulawesi, suggest age range of M Miocene- M Pliocene (13.7- 3.7 Ma). Age of pre-collisional Minahaki Fm carbonates is Middle - Late Miocene (NN5- NN7 zone). Post-collisional Kintom Fm flysch is Late Miocene -Early Pliocene (Zone NN11- NN15), and post-collisional Biak Fm molasse) is E-M Pliocene (Zone NN16). Apparent hiatus in Late Miocene at 8150', at top Minahaka carbonate, spanning zones NN8-NN10 (10.6-8.2 Ma). All samples also have reworked Jurassic-Cretaceous nannofossils (but in case of Minahaka carbonates possibly also cavings?; JTvG))

Padmawidjaja, T. (2019)- Konfigurasi Cekungan Tomori berdasarkan data gayaberat. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 20, 1, p. 27-36.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/402/387)
('Tomori Basin configuration based on gravity data')

Pertamina/BPPKA (eds.) (1996)- Banggai Basin (E Sulawesi). In: Petroleum Geology of Indonesian basins, VI, Jakarta, p. 1-24.

Prabawa, G., A. Jambak, B. Harnest, T. Irano & I. Ibrahim (2020)- Rejuvenating the concept of the Salodik Group reservoir of the Banggai basin through surface geological mapping and multi-method analyses. Proc. Digital Technical Conference 2020, Indonesian Petroleum Association (IPA), IPA20-G-209, p. 1-15.
(Depositional environments and tectonic events of M Eocene- E Pliocene Salodik Group limestones in E Sulawesi (equivalent of Tomori-Minahaki-Mentawa Fms). Alveolina-dominated limestone in Eocene)

Pratama, P.Y., D.F. Dzakirin, R. Luqman, R. Rahadian, R. Helbet et al. (2019)- Facies analysis using biostratigraphy data and also development and controlling factors of Miocene carbonate buildups, Central Sulawesi. Proc. SPE/IATMI Asia Pacific Oil & Gas Conf.erence Exhib., Bali 2019, SPE-196348-MS, p.
(Analysis of Late Miocene-Pliocene carbonates in Banggai Basin)

Ramli, T., I.S. Gumilar, A. Yogi, R.A. Fadhillah, R. Fakhruddin & Praptisih (2023)- Geochemistry of potential source rock and natural gas seepages in the Mangole-Taliabu Archipelago, North Maluku, Indonesia. Rudarsko-Geolosko-Naftni Zbornik (Mining-Geology-Petroleum Engineering Bulletin), Zagreb, 38, 4, p. 1-17.
(online at: https://hrcak.srce.hr/file/447301)
(Potential source rock for 6 natural gas seeps on N Mangole island:(1) E-M Jurassic non-marine Bobong Fm; (2) previously confirmed M Jurassic- E Cretaceous marine Buya Fm. Oligo-Miocene Salodik Fm not potential source rock, as suggested before. Natural gas seeps not only coal-derived gas but also oil-type gas. Ro of coal-derived gas source rock 0.8% - 1.0%; gas source rock from 0.5%-1.3%. Gas-source correlations: Bobong Fm t likely for RAG/88/012 and RAG/88/014 gas samples, Buya Fm is source for Binono Seep, RA/21/33, RA/21/34, and RA/21/35 gas samples In N part of Taliabu-Manggole maturity of potential source rock immature- mature; same sediments in S Mangole post-mature for oil generation (in Alpha 1 well to N offshore Bobong Fm still immature)

Ryacudu, R., T. Wibodo & Y.E. Handiwiria (1993)- Exploration for carbonate reservoirs in the Banggai Sula microcontinent, eastern Indonesia. Proc. 22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 679-692.
(online at: https://www.iagi.or.id/web/digital/53/22nd-Volume-2-(6-9-Des-1993)-73-86.pdf)
(Widespread Miocene pre-collisional Salodik carbonate platform on Banggai-Sula Block. End-Miocene collision between Banggai-Sula block and E Sulawesi terminated carbonate deposition, changing depositional regime to foreland basin with Plio-Pleistocene Celebes Molasse (area with Tiaka oilfield))

Sardjono & E. Mirnanda (2007)- Gravity field and structure of the crust beneath the East Arm of Sulawesi and the Banggai Archipelago. Proc. 31st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA07-G-024, p. 1-11.
(Gravity modeling suggests Banggai- Sula Archipelago composed of blocks of severely attenuated continental crust. East arm of Sulawesi is predominantly continental, with thick Neogene sediment cover and thickened continental crustal block in middle part. Only E tip (Poh Head) may have deep-rooted ultramafic rocks)

Sari, R., E.P. Hernanto, A.M. Adiwiarta, I.H.B. Kartoadmodjo & S. Husein (2024)- Sedimentation dynamic of pre-collision to post-collision sediment as a new perspective for exploration play in Banggai-Sula foreland basin, Eastern Sulawesi Indonesia. Proc. 48th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA24-G-335, p. 1397-1407.
(Banggai-Sula foreland basin formed by collision between Banggai-Sula Microcontinent and East Sulawesi Ophiolite, which started in Late Miocene. Tomori -Matindok Fms not deposited at same time in onshore: N Senoro area larger unconformity (N8-N16) than S Senoro area (N12- N14-N17), caused by uplift prior to collision event along Batui Thrust. Following collision, molasse clastics (Kintom Fm) deposited from multiple provenances (all with mafic detritus))

Sartono, S., K.A.S. Astadiredja & H. Murwanto (1991)- East Arm Sulawesi: Banggai microplate- Sunda subduction zone collision. Proc. 20th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 376-395.
(online at: https://www.iagi.or.id/web/digital/49/20th-(10-12-Des-1991)-25.pdf)
'At the end of the Cretaceous W and E parts of Sulawesi were Laramic tectonic wedges situated in the Tertiary Banda subduction zone'. 'The most westerly New Guinea-derived terrane, Banggai-Sula, collided with the non-volcanic arc of Sulawesi, giving rise to obduction of ultramafic-mafic rock and mixing these with tectonic melanges'. Oldest formation in East Arm is Triassic Toala Fm, with Misolia; also Permo-Carboniferous? Etc.)

Satyana, A.H. & S. Zaitun (2016)- Origin of oils and gases at Banggai-Sula microcontinent, Eastern Sulawesi-North Moluccas: constraints from biomarkers and isotope geochemistry- implications for further exploration of Cenozoic and Pre-Cenozoic objectives. Proc. 40th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA16-575-G, p. 1-27.
(Oils in Banggai foreland basin oil-gas fields (Tiaka, Senoro, Minahaki, etc.) and onshore seeps (Kolo, Dayuk, Toikli, etc.) with common oleanane and relatively high sulfur sourced from marine E Miocene Tomori Fm carbonates- shaly carbonates (type A oils) and M Miocene Matindok shales- calcareous shales (type B oils). No evidence of petroleum contribution from Jurassic- Cretaceous rocks in Banggai Basin, although gas seeps on Sula islands tied to Pre-Cenozoic source rocks in graben areas of offshore Taliabu-Mangole Shelf)

Sayaf, I.U., V. Isnaniawardhani, B. Muljana & W. Suganda (2025)- Facies characteristics and depositional environment reconstruction of the Minahaki Formation, "DM" Field, Banggai Basin. Jurnal Geocelebes 9, 2, p. 237-252.
(online at: https://journal.unhas.ac.id/index.php/geocelebes/article/view/45784/13673)
(Four main carbonate lithofacies in M-L Miocene Minahaki Fm in ?? field, onshore East Arm of Sulawesi (part of Banggai-Sula Basin). Interpreted as rimmed carbonate platform)

Setyawan, R., Y. Aribowo, A. Kurniasih, Fahrudin, R.K. Ali, Najib, Ferdy, E.K. Wijaya, N. Qadaryati et al. (2024)- Provenance analysis based on petrographic samples on EXIA-1 Well, Banggai Basin, East Sulawesi, Indonesia. J. Geoscience Engineering Environment Technology (JGEET) 9, 2, p. 109-115.
(online at: https://journal.uir.ac.id/index.php/JGEET/article/view/13367/6601)
(Study of Miocene limestone cuttings in Tomori Basin well (EXIA fictitious well name, but near Tiaka/ Senoro fields) (not much new?))

Subarsyah & Sahudin (2010)- Identifikasi sub-cekungan di cekungan Tomini bagian Selatan, berdasarkan penampang seismik 2D dan anomali gaya berat. J. Geologi Kelautan 8, 2, p. 95-104.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/190/180)
('Identification of sub-basins in the southern part of the Tomini basin, based on 2D seismic lines and gravity anomalies')

Subroto, E.A., B.Y. Afriatno & P. Sumintadireja (2007)- Prediction of the biogenic gas occurrences in Indonesia based on studies in East Java and Tomori (Central Sulawesi). Jurnal Teknologi Mineral (ITB), 14, 3, p. 115-124.
(online at: www.fttm.itb.ac.id/galeri/prediction.pdf)
(Biogenic gas dry (>99% methane and, light carbon-isotopes:-61 to -67‰) is bacterial in origin. One of fields producing biogenic gas in E Java Basin. Sediments most likely producing biogenic gas from Plio-Pleistocene, characterized by high sedimentation rates, low geothermal gradients and high organic matter content)

Suherman, D., M.A. Isnandar, S. Damuar, A. Sukutjo & S. Soemardan (2008)- Reservoir characteristics of Donggi Field, Central Sulawesi, using inversion and AVO analysis methods. Proc. 32nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA08-G-077, p. 1-12.
(Donggi gas field in Matindok Block, C Sulawesi, reservoired in Miocene carbonate build-up, with satisfactory porosity at almost all intervals)

Sukamto, R. (1975)- Geologi daerah Kepulauan Banggai dan Sula. Geologi Indonesia 2, 3, p. 23-28.

('Geology of the Banggai and Sula islands region'. Includes two broad K-Ar ages for Mangole Volcanics on Mangole Island: radiometric ages of 330± 90 Ma (Carboniferous?) and 210± 25 Ma (Late Triassic?). Basal metamorphic complex radiometric age 305 ± 6 Ma (Late Carboniferous), Banggai granite radiometric ages 235 ± 10 Ma to 245 ± 25 Ma (M Triassic))

Sukmono, S., A. Baasir, R. Abimanyu & N. Pudyo (2005)- Tiaka Field, Sulawesi: a recognized potential thrusted anticline play type in Sulawesi- Indonesia. Proc. 66th EAGE Conference & Exhibition, Paris, B043, p. 1-4.
(Extended Abstract. Tiaka Field in Miocene carbonate in thrust anticline in E Sulawesi. NE-SW structure with Tiaka primary thrust faults at E side and Kalomba thrust faults in W. Porosity of Tomori carbonate 5-23%, Minahaki carbonate 10-29% and Matindok clastics 18-39%)

Supandjono, J.B. & E. Haryono (1993)- Geology of the Banggai Sheet, Sulawesi-Maluku. Map at scale 1:250,000, with brochure, Geological Research Development Centre (GRDC), Bandung.
(Geology of Banggai Islands, SE of East Arm of Sulawesi. Oldest rock Carboniferous? metamorphics (schist, gneiss, amphibolite, quartzite). (Permian-?) Triassic Banggai Granite and co-magmatic Mangole Fm volcanics (rhyolite, ignimbrite, etc.) (K-Ar ages of Banggai Granite ~224-240 Ma; Harahap et al. 2003). Unconformably overlain by Late Jurassic Bobong Fm conglomerate, sandstones with coal and Buya Fms shales and quartz sandstones, Cretaceous Tanamu Fm marls, Eocene- Miocene Salodik Fm limestones-marls)

Surjono, S.S., M.R. Asy'ari & A. Gunawan (2019)- Application of seabed core geochemistry for further exploration in Banggai-Sula area. In: F. Rossetti et al. (eds.) The structural geology contribution to the Africa-Eurasia geology, etc., First Conference Arabian Journal of Geosciences (CAJG-1), Tunisia 2018, Springer Advances in Science, Technology & Innovation, p. 171-173. *(Extended Abstract)*
(online at: https://www.researchgate.net/publication/330003896_Application_of_Seabed_Core_Geochemistry_for_ Etc.)
(Brief report on hydrocarbon seepages in seabed cores from deep water north of Banggai-Sula Platform (TGS-NOPEC work))

Surono (1989)- Hubungan stratigrafi antara Kepulauan Banggai-Sula dan lengan Timur Sulawesi. Bull. Geological Research Development Centre (GRDC) 13, p. 46-60.
('Stratigraphic relationship between the Banggai-Sula Islands and the East Arm of Sulawesi'. Differerent types of basement and overlying rocks, but both overlapped by similar Late Miocene-Pliocene Celebes Molasse)

Syahputra, G.A., W. Utomo & A. Rahman (2020)- Potensi batuan induk Formasi Salodik Pulau Peleng Bagian Barat, Cekungan Banggai. Lembaran Publikasi Minyak dan Gas Bumi (Lemigas) 53, 2, p. 97-109.
(online at: https://journal.lemigas.esdm.go.id/index.php/LPMGB/article/view/358)
('Source rock potential of the Salodik Formation of West Peleng Island, Banggai Basin'. Eocene-Miocene source rock of the Salodik Fm at W side of Peleng Island. Carbonaceous shale interbedded with reefal limestones organic-rich, kerogen types II/III, but immature. If buried at optimum maturity, could generate oil and gas)

Yumansa, A., K.P. Laya, P.Y. Pratama, A. Prasetya & I.H.B. Kartoatmodjo (2023)- Integrated core analysis of Salodik Group: the pioneering success for future potential of collision margin carbonate mega-sequence in Eastern Indonesia Region. Proc. 47th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA23-G-07, p. 1-15.
(Compilation of core-based information of Miocene Salodik Gp carbonate units (Mantawa (youngest; Late Miocene), Minahaki (M-L Miocene) and Upper Tomori Fm (basal Salodik; Late Oligocene- E Miocene), the main hydrocarbon reservoirs in Banggai Basin. With paleomagnetic reconstruction of Banggai Block, drifting N from Gondwanaland near South Pole region in mid-Cretaceous towards Sundaland in Equatorial region today. It also experienced ~150° CCW rotation along way)

Zaitun, S., D.H. Amijaya, J. Setyowiyoto & A.H. Satyana (2016)- Oil classification and genetic type of gas in Tiaka, Matindok, Donggi, Senoro fields and surrounding area in Banggai Basin, Central Sulawesi. Proc. 14th Regional Conference Geology and Mineral Resources of SE Asia (GEOSEA XIV) and 45th Annual Conv. Indonesian Association Geologists (IAGI) (GIC 2016), Bandung, p. 509-523.

(Tiaka offshore oil field and Matindok, Minahaki, Donggi and Senoro onshore gas fields Banggai Basin, E Sulawesi, sourced from Tertiary (high oleanane). Two oil types, A and B, generated from marine carbonate and shale source rocks. Senoro gas thermogenic, formed from secondary cracking. Matindok gas thermogenic, generated from mixed gas source and most mature gas)

V.3. Buton, Tukang Besi

Ali, J.R., J. Milsom, E.M. Finch & B. Mubroto (1996)- SE Sundaland accretion: palaeomagnetic evidence of large Plio-Pleistocene thin skin rotations in Buton. In: R. Hall & D. Blundell (eds.) Tectonic evolution of Southeast Asia, Geological Society, London, Special Publ. 106, p. 431-444.
(Tukang Besi Platform docked with Sundaland/East Buton in Pliocene. Wide array of paleomagnetic results of surface sediments suggest thin-skinned block rotations)

Alviyanda, G.M.L. Junursyah, I.S. Gumilar & U. Mardiana (2014)- Interpretation of subsurface structure in Tersier sediment based on magnetotelluric data, South Buton Area. Proc. 38th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA14-SG-0545, p. 1-13.

Arifin, L. & T. Naibaho (2015)- Struktur geologi Pulau Buton Selatan. J. Geologi Kelautan 13, 3, p. 143-151.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/269/259)
('Geological structure south of Buton island'. Shallow reflection seismic lines in waters S of Buton and Muna)

Arisona, A., M. Nawawi, U.K. Nuraddeen & M. Hamzah (2016)- A preliminary mineralogical evaluation study of natural asphalt rock characterization, southeast Sulawesi, Indonesia. Arabian J. Geosciences 9, 272, p. 1-9.
(Bitumen content of 'Asbuton' (Buton Asphalt) 10-40%. Geoelectrical resistivity survey and x-ray fluorescence show Ca is dominant element in asphalt rock (40-90%), indicating limestone (surprise!?))

Arisona, S. Alfian, N.K. Praja & A. Okto (2022)- Studi diagenesis Batugamping di Desa Wakorumba, Kecamatan Wakorumba Selatan, Kabupaten Muna, Provinsi Sulawesi Tenggara. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 23, 3, p. 155-162.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/710)
('Diagenesis study of limestones in Wakorumba Village, South Wakorumba District, Muna Regency, Southeast Sulawesi Province' W Buton Island. Study of diagensis of Miocene Wapulaka, Sampolakosa, and Limestone Members of the Tondo Formations. (with poor thin section photos; impossible to verify- JTvG)

Asharun, N., Harisma, E.S.Hasan, Hasria, E. Anshari & R.I.M. Cendrajaya (2021)- Studi fasies dan diagenesis batuan karbonat Formasi Rumu daerah Kumbewaha dan sekitarnya, Kabupaten Buton, Provinsi Sulawesi Tenggara. Ophiolite: Jurnal Geologi Terapan 2, 1, p. 22-32.
(online at: https://ojs.uho.ac.id/index.php/Ophiolite/article/view/19584/13407)
('Study of facies and diagenesis of Rumu Fm carbonate rocks in Kumbewaha area, Buton..'. Remarkably uninformative discussion of limestone on Buton, of Jurassic age(?), with unidentified fossils- JTvG)

Asrim & L.M.Y. Amsah (2021)- Tektonik Pulau Buton dan implikasinya terhadap endapan bahan galian. Akademika Jurnal 18, 2, p. 36-40.
(online at: https://ejournal.lppmunidayan.ac.id/index.php/akd/article/view/334/294)
('Tectonics of Buton Island and its implications for mineral deposits'. Brief literature review)

Astjario, P. & D.A. Siregar (2003)- Kecepatan pengangkatan Pulau Buton dan jejak perubahan muka air laut di Zaman Kuarter. J. Geologi Kelautan 1, 2, p. 19-28.
(online at: https://ejournal.mgi.esdm.go.id/index.php/jgk/article/viewFile/96/86)
('Uplift rate of Buton Island and indications of sea level changes in the Quaternary Period'. Uplifted Late Quaternary coral reef terraces along South Buton coast up to 250 m above present sea level, dating back to >44 ky B.P. Average tectonic uplift rate at Tira and Cape Labokeh about 0.7- 0.8 mm/ year. Buton uplift faster than nearby Muna).

Beets, C. (1943)- Beitrage zur Kenntnis der angeblich oberoligocanen Mollusken-Fauna der Insel Buton, Niederlandsch-Ostindien. Leidsche Geologische Mededelingen 13, p. 256-328.
('Contributions to the knowledge of the supposedly Oligocene-age mollusc fauna of Buton Island, Netherlands East Indies'. Description of molluscs from asphalt beds on Buton in collections in The Netherlands. Looks like diverse, but endemic faunas (51 new species and 11 species described by Martin 1933- 1935, 1937). Age of fauna uncertain, but possibly Late Oligocene as suggested by Martin (in Beets 1952 believed to be younger))

Beets, C. (1943)- On *Waisiuthyrina*, a new articulate brachiopod genus from the Upper Oligocene of Buton (S.E. Celebes), Dutch East Indies. Leidsche Geologische Mededelingen 13, p. 341-347.
(online at: www.repository.naturalis.nl/document/549268)
(Description of new species of terebratulid brachiopod Waisiuthyrina margineplicata from ?Miocene asphalt rocks of Buton. Brachiopods are generally very rare in Tertiary of Indonesia)

Beets, C. (1943)- Weitere Verwandtschaftsbeziehungen zwischen den Oberoligocaenen Mollusken von Buton (S.E. Celebes) und den Neogenfaunen des Ostindischen Archipels. Leidsche Geologische Mededelingen 13, p. 349-355.
(online at: www.repository.naturalis.nl/document/549308)
('Additional relationships between the Upper Oligocene molluscs from Buton (SE Sulawesi) and the Neogene faunas of the East Indies archipelago'. So-called 'Oligocene' Buton mollusc faunas mostly endemic in character, but most similarities with Late Neogene of Ceram and Nias)

Beets, C. (1952)- Reconsideration of the so-called Oligocene fauna in the asphaltic deposits of Buton (Malay Archipelago). 1. Mio-Pliocene mollusca. Leidsche Geologische Mededelingen 17, 1, p. 237-258.
(online at: www.repository.naturalis.nl/document/549592)
(Molluscs from asphaltic marls of Buton previously considered Oligocene- lowermost Miocene in age, but here re-interpreted as Mio-Pliocene, partly based on associated diatoms (Reinhold) and foraminifera (Keijzer). The low % of Recent species because this is deep water fauna, of which Recent representatives were poorly known)

Bothe, A.C.D. (1928)- De asfaltgesteenten van het eiland Boeton, hun voorkomen en economische betekenis. De Ingenieur 1928, 19, Mijnbouw 4, p. M27-M45.
(online at: https://www.delpher.nl/nl/tijdschriften/view?identifier=dts:2945099:mpeg21:0001)
('The asphalt rocks of Buton Island, distribution and economic significance'. Oldest rocks on Buton Triassic dark grey bituminous limestones and marls with plant debris, occurring in both N and S Buton. Contain Monotis salinaria, Halobia, etc. Older rocks unconformably overlain by 10 or more coral reef terraces, up to 400-500 above sea level. Intensely folded Cretaceous Rosalina (= Globotruncana) limestones. Oil and asphalt seeps partly in Triassic, partly in Tertiary sediments. Etc. Calls Buton sediments part of Tethys)

Bothe, A.C.D. (1928)- Voorkomen en winning der asfaltgesteenten van Boeton. De Mijningenieur, 1928, p. 88.
('Occurrence and exploitation of asphalt rocks of Buton')

Chamberlain, M.I., R.D. Seago, Soebardi & Sumitra (1990)- Hydrocarbon prospectivity of Buton Island, SE Sulawesi, Indonesia. Earth Resources Inst. (ESRI) Report EIB90-1, p. 1-232. *(Unpublished Report)*

Corne, C.P. & Soehartono (1989)- Utilization of Buton Island rock asphalt in road pavements. In: R.F. Meyer & E.J. Wiggins (eds.) Proc. 4th UNITAR/UNDP Int. Conference on Heavy crude and tar sands, Edmonton 1988, 2, Alberta Oil Sands Technology and Research Authority, p. 397-412.

Davidson, J.W. (1991)- The geology and prospectivity of Buton island, southeast Sulawesi, Indonesia. Proc. 20th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 209-234.
(Stratigraphy-structure Buton different from SE Sulawesi-Muna; more similar to Timor, Seram, Buru. Sedimentation controlled by four tectonic events: (1) 'Pre-Rift'- Permian(?) metasediments, unconformably overlain by E Triassic turbidites derived from Australia- New Guinea continent; (2) 'Rift-Drift'- Late Triassic rifting (turbidites), M Jurassic breakup, and Late Jurassic- Oligocene NW drift (deep marine calcilutites) from Australia- New Guinea; (3-4) 'Syn and Post-Orogenic'- E-M Miocene coarse clastics, Late Miocene fine clastics, and Pliocene marls-claystones. Coarse clastics deposited in intra-thrust basins, generated by E-M Miocene collision of Buton microcontinent with Muna/ SE Sulawesi. Pliocene sedimentation coincided with regional subsidence of Buton following accretion of island to Sulawesi, and E shift of subduction zone)

Emmerton, S., A.R. Muxworthy, M.Sephto, M. Aldana, V. Costanzo-Alvarez, G. Bayona & W. Williams (2013)- Correlating biodegradation to magnetization in oil bearing sedimentary rocks. Geochimica Cosmochimica Acta 112, p. 146-165.
(Study on relationship between biodegraded tar sands and magnetization. Includes analyses on tar sands of Tondo Fm at Kabungka and Lawele on Buton island)

Escher, B.G. (1920)- Atollen in den Nederlandsch-Oost-Indischen Archipel. De riffen in de groep der Toekang Besi-eilanden. Mededeelingen Encyclopedisch Bureau, Batavia, 22, p. 1-18.
('Atolls in the Netherlands East Indies Archipelago: the reefs in the Tukang Besi Group'. Some of modern Tukang Besi reefs off SE Sulawesi true atolls up to 48km long, some small barrier reefs around islands up to 274m in height. Reefs arranged in four NW-SE trending rows, possibly controlled by two anticlinal axes (with barrier reefs) and two synclinal axes (with atolls))

Fortuin, A.R., M.E.M. De Smet, S. Hadiwasastra, L.J. van Marle, S.R. Troelstra & S. Tjokrosapoetro (1990)- Late Cenozoic sedimentary and tectonic history of south Buton, Indonesia. J. Southeast Asian Earth Sciences 4, 2, p. 107-124.
(Late Cenozoic deposition started at 11 Ma after main pre-Neogene deformation, presumably related to collision of Buton microplate with SE Sulawesi. Rapid Late Miocene- E Pliocene subsidence, initially with coarse clastic Tondo Fm gravity flows, followed by later Late Miocene Sampolakosa Fm pelagic deposition. Late Pliocene (3.5 Ma) start of uplift, probably caused by collision between Buton and Tukang Besi Platform submerged microcontinent, and causing 60° clockwise rotation of S Buton)

Hadiwisastra, S. (2009)- Kondisi aspal dalam Cekungan Buton. J. RISET Geologi dan Pertambangan (LIPI) 19, 1, p. 49-57.
(online at: https://jrisetgeotam.lipi.go.id/index.php/jrisgeotam/article/view/22/38)
('Condition of asphalt in the Buton Basin'. Buton heavy asphalt in outcrop in S Buton. Reservoired in Neogene marine Sampolakosa and Tondo units in SW-NE trending Lawele Graben)

Hadiyanto, S.M. Tobing & H. Fujiono (2009)- Oil shale prospect in the Buton Island, Southeast Sulawesi, Indonesia. In: 29th Oil Shale symposium, Colorado School of Mines, Golden CO 2009, p. 1-47.
(Abstract+ presentation online at: www.costar-mines.org/oss/29/presentations/PRES_12-3_Hadiyanto_Fujiono_-_Hendro.pdf)
(Two types of oil shale on Buton: primary oil shale in Late Triassic Winto Fm and secondary asphalt rock/ tar sand in Mio-Pliocene Sampolakosa and Tondo Fms. Hypothetical resource of primary shale is 158 mT oil, secondary 3.6 billion tons asphalt (=226 MB Oil))

Harisma, M.Z. Firihu, V.I. Variani, Muliddin & E.S. Hasan (2025)- Distribution of Tondo clastics in the Wakoko and Wambona Rivers, Buton Island, Southeast Sulawesi. Proc. Int. Conference on Geosciences and Geotechnology (ICOGEST 2024), Makassar, IOP Conference Series: Earth and Environmental Science 1525, 012011, p. 1-7.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1525/1/012011/pdf)
(Study of Miocene clastics of Tondo Fm in SE Buton (Wakoko River coarse conglomerates) and NW Buton (Wambona River conglomerates and sandstones. All clasts are sedimentary rocks (apparently nothing more to report; JTvG))

Hasria, La Hamimu, A.B. Prawira, Arisona, L.I. Juarzan & S. Septiana (2024)- Petrogenesis of metamorphic rock in the Mukito Formation at Sorawolio region, Bau-Bau City, Buton Island, Southeast Sulawesi Province, Indonesia. J. Geoscience Engineering Environment Technology (JGEET) 9, 3, p. 1-8.
(online at: https://journal.uir.ac.id/index.php/JGEET/article/view/14949/6818)
(Pre-Triassic metamorphic rocks of Mukito Fm on Buton Island, in (fault?) contact with Triassic Winto Fm and Kanpatoreh Ultrabasic Complex (in W). Several types of metamorphic rocks: serpentinite, phyllite, hornblende schist, chlorite schist and amphibolite. Two types of metamorphic facies: greenschist and amphibolite. Protoliths from tholeiitic oceanic-island arc basalt)

Hasria, A. Okto, M.A. Samsuriq, Muliddin, Masri, Bahdad E.S. Hasan, La Hamimu, S.R. Haraty et al. (2023)- Petrogenesis of metamorphic rocks at Baubau city, Buton Island, Southeast Sulawesi Province, Indonesia. Proc. 4th Int. Conference on Earth, Science, Mineral and Energy (ICEMINE 2021), Sleman, AIP Conference Proceedings 2598, 020006, p. 1-13.
(online at: https://www.researchgate.net/publication/371511946_Petrogenesis_of_metamorphic_rocks_at_Baubau_city_Buton_Island_Southeast_Sulawesi_Province_Indonesia)
(Study of pre-Triassic Mukito Fm metamorphic phyllites and schists in basement of Kaisabu area, Sorawolio District, Baubau City, SW Buton. Common mafic minerals suggest gabbro and basalt protoliths. Regional metamorphic facies greenschist to amphibolite facies, formed at depths of 8-20 km)

Hetzel, W.H. (1930)- Over de geologie der Toekang Besi eilanden. De Mijningenieur 11, 3, p. 51-53.
('On the geology of the Tukang Besi islands'. Uplifted islands of Tomea, Wangiwangi and Kaledupa mainly composed of Late Neogene marly Globigerina limestones (similar to equivalent rocks on S Buton), covered by 3 or more terraces of uplifted reefal limestones. On Kaledoepa breccious limestone with Lepidocyclina. Strike of folded Late Tertiary beds at right angles to the very young NW-SE trend of rows of raised islands and atolls, suggesting earlier phase of folding, followed by later block-faulting)

Hetzel, W.H. (1936)- Verslag van het onderzoek naar het voorkomen van asfaltgesteenten op het eiland Boeton. Verslagen en Mededeelingen betreffende Indies delfstofkunde en hare toepassingen, Dienst Mijnbouw Nederlandsch-Indie, Landsdrukkerij, Batavia, 21, p. 1-56.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB24:078914000:00011)
('Report of an investigation of the occurrence of asphalt-bearing rocks on Buton Island'. Detailed descriptions of surface asphalt deposits, probably originated from Triassic oil. Bitumen impregnations in Miocene sandstones and Pliocene Globigerina marls, unconformably over highly folded, deep marine Triassic- Cretaceous (-Eocene?) sediments. Late Eocene Wani Beds in N Buton are a thin interval within pelagic carbonates-marl section, and is composed of sandstone and polymict conglomerate with Late Eocene larger forams (Pellatispira, Spiroclypeus vermicularis, Lepidocyclina boetonensis, Discocyclina, Asterocyclina and small Nummulites), and fragments of reworked Upper Cretaceous Globotruncana limestone and serpentinite. With 1:200,000 scale geologic map of Buton and detail maps of asphalt terrains)

Hetzel, W.H. (1936)- Boetoniet, een bijzonder gesteente van het eiland Boeton (ZO Celebes). De Ingenieur in Nederlandsch-Indie (IV) 5, 10, p. IV.151- IV.155.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1938-10.pdf)
('Boetoniet, a peculiar rock type from Buton island'. Dark, glassy rock named 'boetonite' found along margins of peridotite outcrops. Mainly in S Buton, at W side of Kapantoreh Mountains. Commonly as veins in Triassic and Neogene. Contain chromite and marcasite. Possibly hydrothermal weathering product near ultrabasic rocks (also in Handelingen 8e Ned.-Indisch Natuurwetenschappelijk Congres, Surabaya 1938, p. 481-485)

Horizon/ Robertson (2004)- Buton prospectivity screening study. Multi-client study, PT Horizon, Jakarta, 118p.
(Unpublished report by Jan Bon, Andy Livsey et al.)

Janssen, A.W. (1999)- Euthecosomatous gastropods (Mollusca: Heterobranchia) from Buton (SE Sulawesi, Indonesia), with notes on species from Viti Levu, Fiji; systematics, biostratigraphy. Geologie en Mijnbouw 78, 2, p. 179-189.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0U0hWNzdiWjlUWnM/view)
(Revision of Neogene pteropoda from asphaltic deposits of Buton (Sampolakosa Beds?). Faunas first described by Martin (1935) and Beets (1943, 1950, 1953). Beets recognized this as deep marine fauna, of probable Mio-Pliocene age. With planktonic gastropods (pteropods), incl. Styliola subula, Cavolinia bituminata, C. mexicana. and Diacria mbaensis. Comparison with Fiji associations suggests Late Miocene age for Buton faunas (Tortonian-Messinian; fits with ages concluded from microfaunas by Fortuin et al. 1990; JTvG))

Kanehara, K. (1943)- Boeton Island (Dutch East Indies), its geology, asphalt and manganese ore. J. of Geography (Chigaku Zasshi), Tokyo, 55, 653, p. 237-264.
(Review of Hetzel (1936) original report on geology of Buton island)

Keijzer, F.G. (1945)- Upper Cretaceous smaller foraminifera from Buton (D.E.I.). Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 48, p. 338-339.
(online at: https://dwc.knaw.nl/DL/publications/PU00017937.pdf)
(Tertiary asphalt-bearing marls of Buton generally pure Globigerina-Globorotalia-marls, probably Neogene. One sample with angular white and grey pieces of limestone (resembling Cretaceous Globotruncana-limestones), grey and black pieces of chert, and common reworked Upper Cretaceous planktonic foraminifera, incl. Globotruncana arca, Gt. calcarata, Pseudotextularia varians, Planoglobulina acervulinoides, Bolivinoides seranensis, Globorotalia velascoensis (= Paleocene?; JTvG), etc.). Fauna very similar to U Cretaceous fauna from Seram, described by Van der Sluis (1949))

Keijzer, F.G. (1953)- Reconsideration of the so-called Oligocene fauna in the asphaltic deposits of Buton (Malay Archipelago). 2. Young-Neogene foraminifera and calcareous algae. Leidsche Geologische Mededelingen 17, p. 259-293.
(online at: www.repository.naturalis.nl/document/549557)
(Buton asphalt-bearing marls deep marine facies and Pliocene in age, not Oligocene as previously postulated. With 333 species of deep marine benthic foraminifera, incl. many species of Bolivina, Cassidulina, Cristellaria, Dentalina, Lagena, Nodosaria, Planulina, Siphogenerina, Sphaeroidina, etc. Also planktonics, incl. Globorotalia tumida flexuosa and Gq. altispira. Also: (1) breccia with reworked U Cretaceous clasts and Globotruncana planktonic forams (indicative of mud volcanism?); (2) sample W-10 from Wariti asphalt field with M Miocene larger forams Katacycloclypeus, Miogypsina, Lepidocyclina (T.) rutteni; (3) Halimeda. With appendix on sample from Bawean with E-M Miocene larger forams Lepidocyclina (N) and Miogypsina primitiva. (Amphimorphinella butonensis Keijzer indicator of hydrocarbon seepage?; Hayward et al. 2011))

Koswara, A. & D. Sukarna (1994)- Geological map of the Tukang Besi sheet, Southeast Sulawesi. Geological Research Development Centre (GRDC), Bandung. 14p.
(Tukang Besi islands mainly Quaternary coral reef limestone, unconformably over core of latest Miocene-Pliocene Ambeuwa Fm Globigerina marls, dipping 15-30°?. Wowoni Island N of Buton has juxtaposed ?Triassic metamorphics, Cretaceous? ultramafics overlain by M-L Miocene Lampeapi Fm conglomerate, sandstones with coals, overlain by Late Miocene- Pliocene Lansilowo Fms marls, limestone and sandstones)

Kuenen, P.H. (1928)- Geologische problemen in verband met de Toekang-Besi eilanden. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap, ser. 2, 45, 2, p. 236-247.
('Geological problems associated with the Tukang Besi islands'. Tukang Besi islands SE of Sulawesi four rows of atolls, possibly all associated with young NW-SE trending anticlinal structures)

Kuenen, P.H. (1933)- The formation of the atolls in the Toekang-Besi-group by subsidence. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam 36, 3, p. 331-336.
(online at: https://dwc.knaw.nl/DL/publications/PU00016412.pdf)
(As described by Escher (1920), Tukang Besi islands are atolls and raised islands arranged along NW-SE fault trends. Post-Pleistocene subsidence produced atolls where reef growth kept up with subsidence)

Ling, H.Y. & R.B. Smith (1995)- Role of Eocene and Cretaceous radiolarians from Buton Island in the Eastern Indonesian collision tectonics. Proc. Int. Symposium Geology of SE Asia and adjacent areas, Journal of Geology, Hanoi, Geological Survey Vietnam, 5-6, p. 160-161. *(Abstract only)*
(Pre-Neogene Wolio collision complex of N Buton includes samples with early M Eocene radiolaria (U Tobelo Fm of Turumbia Bay) and well-preserved Cretaceous Aptian- Albian radiolaria (Tobelo Fm at Rumu River section of SE Buton))

Ma, G., J. Wang, L. He, X. Li & H. Sui (2020)- The nature of the Indonesian carbonate asphalt rocks and its insights into the separation processes. J. Petroleum Science and Engineering 195, 107752, p. 1-8.
(Buton asphalt rocks composed of (Miocene-Pliocene) porous foraminifera fossils, with asphalt covering porous particles and also penetrated into chambers through pores. Microstructure main reason hindering separation of

asphalt from carbonate mineral surface using hot water extraction method. Etc. With interesting images of foram grains from Lawele and Kabungka mines)

Martin, K. (1933)- Eine neue Tertiare Molluskenfauna aus dem Indischen Archipel. Leidsche Geologische Mededelingen 6, 1, p. 7-32.
(online at: www.repository.naturalis.nl/document/549740)
('A new Tertiary mollusc fauna from the Indies Archipelago'. Mollusc assemblage of 26 new species from Buton asphalt-bearing marls/ limestones, which are unconformable over folded Mesozoic sediments. Assigned Late Oligocene or E Miocene age (Later interpretations favor Late Miocene-Pliocene ages (e.g. Beets 1952, Keyzer 1953, Fortuin et al. 1990, Janssen 1999))

Martin, K. (1935)- Oligocaene Gastropoden von Buton. Leidsche Geologische Mededelingen 7, 2, p. 111-118.
(online at: www.repository.naturalis.nl/document/549589)
('Oligocene gastropods from Buton'. Molluscs from asphalt-bearing limestones of Buton 35 species, all extinct, suggesting pre-Neogene (Oligocene) age. Nine new gastropod species described here (since then age corrected as Mio-Pliocene; JTvG))

Martin, K. (1937)- Die oligocaenen Mollusken von Buton als Auswurflinge eines Schlammsprudels betrachtet. Leidsche Geologische Mededelingen 8, p. 311-314.
(online at: www.repository.naturalis.nl/document/549248)
('The Oligocene molluscs from Buton, interpreted as clasts of a mud volcano'. Molluscs from Buton originally dated as Oligocene, but Sampolakosa Fm now regarded as Late Neogene age by Hetzel (1936). Older material may be explained as mud volcano ejecta (see also Beets 1952, who argues for Miocene-Pliocene age of Buton molluscs)

Milsom, J. (1992)- Structure and collision history of the Buton continental fragment, Eastern Indonesia. AAPG International Conference, Sydney 1992, Search and Discovery Article 91015, 1p. *(Abstract; full paper below)*
(online at: https://www.searchanddiscovery.com/abstracts/html/1992/international/abstracts/1117b.htm)
(Fragment of Australian continental margin now exposed on Buton, SE of Sulawesi. Asphalt reserves support significant local industry. Buton Terrane underwent significant relative rotations and extends beneath adjacent island of Muna. Tukang Besi platform E of Buton may be distinct, unrelated, unit. Ophiolitic rocks exposed on Buton not attached to deep roots and are thin overthrust sheets not marking terrane boundary)

Milsom, J., J. Ali & Sudarwono (1999)- Structure and collision history of the Buton continental fragment, Eastern Indonesia. American Assoc. Petroleum Geol. (AAPG) Bull. 83, p. 1666-1689.
(Buton is Australian-derived continental terrane. Gravity defines present-day W limits of Buton terrane and suggests terrane includes Tukang Besi platform in E. Ophiolitic rocks on Buton no deep roots, but thin and isolated overthrust sheets, and do not mark terrane boundary. Buton separated from Australia in Jurassic or Late Triassic, and collided with Eurasian margin in SE Sulawesi in Oligocene or E Miocene. Extension dominated recent history of area, producing minor separation of Tukang Besi from Buton and dispersion of other fragments, some of which have been incorporated in collision zone in Outer Banda arc. Oil seeps and asphalt deposits of Buton show hydrocarbons can be sourced from these fragments)

Mubroto, B. & J. Ali (1998)- Tectonic rotations indicated by the late Cenozoic paleomagnetic rocks in Buton Island, Southeast Sulawesi, Indonesia. In: J.L. Rau (ed.) Proc. 33rd Session Coord. Comm. Coastal and Offshore Programmes E and SE Asia (CCOP), Shanghai 1996, 2, p. 246-258.
(Buton island continental fragment impacted, accreted and uplifted when Tukang-Besi platform began docking with SE Sulawesi in Pliocene (2-3 Ma). Two major structural orientations; N-S in N part, NE-SW in S part, suggesting 60° clockwise rotation of S Buton with respect to N Buton (Fortuin et al. 1989). Data from 41 paleomagnetic sites from Miocene-Pliocene Tondo and Sampolakosa Fms suggest N Buton rotations of ~30° CW and CCW, probably local, C Buton small rotations, and S Buton 30-60° CW rotation. Data imply thin-skinned sheets associated with collision)

Mujito, S. Hadipandoyo & T.H. Sunarsono (1998)- Hydrocarbon resource assessment of the micro continent Buton Basin, southeast Sulawesi, Indonesia. In: J.L. Rau (ed.) Proc. 33rd Session Coord. Comm. Coastal and Offshore Programmes E and SE Asia (CCOP), Shanghai 1996, 2, p. 1-9.
(Buton basin assessment of hydrocarbon potential. Primary source rock Late Triassic Winto Fm with up to 16% TOC. Main reservoir Miocene Tondo Fm sandstones. Oil potential max. 1.373 million tons, expected value 0.205 million tons. Gas potential max. 0.412 milliards m3, expected value 0.061 milliards of m3)

Nolan, S.C., M.E.M. de Smet, M. Chamberlain, S. Gafoer, S. Santosa & Soebardi (1989)- Hydrocarbon prospectivity of Buton Island, S.E. Sulawesi, Indonesia. Earth Resources Institute (ESRI) Report, p. 1-99.
(Unpublished)

Okhotnikova, E.S., Y.M. Ganeeva, E.E. Barskaya, G.V. Romanov, T.N. Yusupova et al. (2016)- Composition and physicochemical properties of natural bitumen from the Pasar Wajo deposit (Indonesia). Petroleum Chemistry 56, 8, p. 677-682.
(Bitumen from Pasar Wajo, Buton island, classified as asphalt. Low concentrations of sulfur and trace elements and lack of normal-chain hydrocarbons)

Pedoja, K., L. Husson, A. Bezos, A.M. Pastier, A.M. Imran, C. Arias-Ruiz, A.C. Sarr, M. Elliot, E. Pons-Branchu, M. Nexer & V. Regard (2018)- On the long-lasting sequences of coral reef terraces from SE Sulawesi (Indonesia): distribution, formation, and global significance. Quaternary Science Reviews 188, p. 37-57.
(online at: https://hal-normandie-univ.archives-ouvertes.fr/hal-01983439/document)
(Late Cenozoic coral reef terraces identified on 23 islands of Tukang Besi and Buton archipelagos. Reef terrace sequences from Wangi-Wangi (Buton) and islands of Ular, Siumpu and Kadatua with terraces from last interglacial maximum (MIS 5e; ~122 ka) at elevations <20m, at 34m on W Kadatua. On SE Buton reef terraces up to 650m, with >40 undated strandlines. On Sampolawa Peninsula 18 strandlines up to 430m, possibly as old as 3.8 ± 0.6 Ma)

PT Elnusa Geosains (2005)- Hydrocarbon potential of Buton Basin. Petromin 31, 6, p. 14-20.

PT Robertson Research Utama Indonesia (1989)- A geochemical evalution of field samples (of rock, asphalt, water and gas) from Buton Island, S.E. Sulawesi. Report 139, p. *(Unpublished)*
(Triassic Winto Shale good oil source rock, but presence of gammacerane in widespread asphalts appears to preclude Winto Shale as source)

PT Robertson Research Utama Indonesia (1989)- Results of petrographic analyses Buton Island outcrop samples. Report 140, p. *(Unpublished)*
(Triassic Winto sandstones almost entirely lithic, derived from sediments and metamorphic rocks, and locally common igneous material)

PT Robertson Research Utama Indonesia (1989)- A petroleum geochemical evaluation of four asphaltic stained shallow cores from Lawele Pit, Buton Island. Report 197, p. *(Unpublished)*
(Asphalt analyses suggest degraded oil isotopically light and derived from terrestrial organic matter. Presence of gammacerane may indicate a hypersaline, marine carbonate or restricted lacustrine source)

Reinhold, T. (1952)- Reconsideration of the so-called Oligocene fauna in the asphaltic deposits of Buton (Malay Archipelago). 3. Report on diatoms. Leidsche Geologische Mededelingen 17, p. 294-297.
(online at: www.repository.naturalis.nl/document/549751)
(Diatoms from (Mio-Pliocene) asphaltic marls of Buton with species related to Upper Miocene Globigerina marls of Java: Actinodiscus, Coscinodiscus, Hemidiscus, etc.)

Rochmanto, B. & L.M. Adam (2007)- Sedimentary environment of Sampolakosa Formation at Gonda Baru, subdistrict Sorawolio, Bau-Bau, Southeast Sulawesi. Proc. Joint Convention 32nd HAGI, 36th IAGI and 29th IATMI, Bali, JCB2007-251, p. 1-3. *(online at: www.iagi.or.id/web/digital/28/2007_IAGI-Bali_Sedimentary-Environment-of-Sampolakosa-Formation.pdf)*

(Studied 61m of outcrop of middle part of Sampolakosa Fm at Gonda Baru, Buton. Lithology marine marl with thin limestones and diatomites in middle and lower part. Age Early Pliocene (N18), environment middle shelf-lower slope. Not much detail, no figures)

Rochmanto, B. & Darwin (2007)- Depositional environment of the Tondo Formation at Wakoko River Pasar Wajo Area, District of Buton, Southeast Sulawesi. Proc. 31st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA07-G-101, p. 1-6.
(Student paper about 15m of late M Miocene (zone N14) Tondo Fm section at Wakoko River, S Buton. Coarsening-upward shale-sand packages, interpreted as deltaic depositional environment with tidal and fluvial dominance)

Saleh, I., R. Husain & R. Langkoke (2022)- Sulphide minerals in limestone: Trap rock of Buton asphalt on block Kabungka mine C Pt Wijaya Karya Bitumen, Buton regency, South East Sulawesi. Proc. 4th EPI Int. Conf. Science and Engineering (EICSE) 2020, AIP Conference Proceedings 2543, 050012, p. 1-6.
(online at: https://aip.scitation.org/doi/abs/10.1063/5.0095489)
(Sulphide minerals in asphalt-bearing Late Miocene- E Pliocene bathyal Sampolakosa marly limestone (called 'asbuton'): pyrite, chalcopyrite, bornite, covellite)

Sartono, S., I. Hendrobusono, H. Murwanto & B. Suprapto (1990)- Tektonik akresi di Buton: olistostrom dan melange diapir. Proc. 19th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 1-26.
('Accretion tectonics of Buton: olistostrome and melange diapyr'. Late Miocene- Pliocene collision complex on Buton with Sampolakosa sedimentary olistostrome with olistoliths including ophiolitic and igneous rocks (with zone N18-N19 planktonic foraminifera))

Satyana, A.H. (2011)- World-class asphalt deposits of Buton Island, SE Sulawesi, Indonesia: geology, geochemistry, mining status and problems. Proc. Sulawesi Mineral Resources Seminar, Manado 2011, Indonesian Soc. Economic Geology (MGEI), p. 1-15.
(Review of asphalt deposits of Buton Island, known since 1920s and intermittently exploited since 1925. Reserves 100-132 MTonnes of asphalt. Asphalt sourced by Triassic Winto Fm marine shales. Originally medium gravity oils migrated into uplifted and thrusted carbonates of Pliocene Sampolakosa or sandstones of Miocene Tondo Fm, now biodegraded)

Satyana, A.H., N.A. Ascaria, A. Krisnabudhi & R.D. Prasetyo (2023)- Prospectivities of Buton area, Southeast Sulawesi: new insights from revisiting integrated geological-geophysical-geochemical data. Proc. 47th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA23-G-68, p. 1-20. *(online at: https://tektonesiana.org/wp-content/uploads/2024/07/satyana-et-al-2023-ipa_revisit-petrol-buton.pdf)*
(Comprehensive review of complex geology with asphalt deposits and remaining hydrocarbon prospectivity of Buton area. Buton-Tukang Besi, SE Sulawesi and Banggai-Sula microcontinents collided with Sulawesi sequentially during M Miocene. Sediments younger than M Miocene (Tondo Fm) are post-collisional. Mid-Miocene collision obducted Pretertiary Kapantoreh ophiolite, exposed in S Buton. Etc.)

Satyana, A.H., C. Irawan & W. Kurniawan (2013)- Revisit geology and geochemistry of Buton asphalt deposits, SE Sulawesi: implications for petroleum exploration of Buton area. Proc. 37th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA13-G-170, p. 1-18.
(Asphalt deposits of Buton Island, known since 1920's, contain 15-35% asphalt/ bitumen, mainly impregnations in Pliocene Sampolakosa Fm carbonates and Miocene Tondo Fm sandstones, in uplifted and intensively thrusted anticlines. Asphalt deposits biodegraded crude oils derived from marine Type II kerogen, tied to Triassic calcareous shales and bituminous limestones of Winto Fm. Sulfur content generally high (2.5- 9.3%.). Five exploration wells on Buton between 1976-2012, all dry, some with oil shows in Miocene. Nunu oil seep on W Buton contains oleanane, indicating Tertiary source)

Schreiter, R. (1932)- Der Boetonasphalt mit seinen Foraminiferen. Asphalt und Teer, Strassenbautechnik, Berlin, 32, p. 659-661.

('The Buton asphalt with its foraminifera'. Obscure reference characterizing Buton asphalt-bearing rocks as bituminous Globigerina marls, with planktonic foraminifera Pulvinulina (=Globorotalia) menardii and Orbulina universa. This suggests M Miocene or younger age, not Oligocene as originally suggested by Martin (1934), etc.). (from summary by F. Musper in Neues Jahrbuch Mineralogie Geologie Palaeontologie 1937, p. 316)

Sikumbang, N., P. Sanyoto, R.J.B. Supandjono & S. Gafoer (1995)- Geologic map of the Buton Quadrangle, Southeast Sulawesi, 1:250, 000. Geological Research Development Centre (GRDC), Bandung.
(Geologic map SE Sulawesi Buton/ Muna islands between 4.15 and 5.45° S. Oldest rocks pre-Triassic Mukito Fm metamorphics. Jurassic-Triassic low-metamorphic Doole Fm (?). Oldest sediments Triassic Winto Fm shale, ~750m thick sandstone and limestone, with bivalves Halobia, Daonella and Monotis salinaria, ammonite Juvavites ceramensis and radiolaria. Early Jurassic Ogena Limestone, pelagic, with ammonites Phylloceras, Psiloceras and Arietites and foraminifera Involutina liassica, Epistomina. Late Jurassic Rumu Fm ~150m red pelagic limestone-marl with manganese deposits and Belemnopsis gerardi, Malayomaorica, Stomiosphaera moluccana and Cadosina fusca. Cretaceous Tobelo Fm deep marine calcilutite with radiolaria, Globotruncana, Heterohelix, etc. Unconformably overlain by 1300m Miocene Tondo Fm limestone and clastics with oil seeps-asphalt in S Buton (basal limestone latest Oligocene?; JTvG), Pliocene Sampolakosa Fm marls. Late Oligocene collision between Buton Block and SE Sulawesi caused folding-thrusting of Pre-Miocene rocks)

Smith, R.B. (1983)- Sedimentology and tectonics of a Miocene collision complex and overlying late orogenic clastic strata, Buton Island, Eastern Indonesia. Ph.D. Thesis University of California, Santa Cruz, p. 1-254. *(Unpublished) (Buton exposes M Miocene collision complex, overlain by clastics derived from erosion of uplifted complex. In Wolio Complex, lower part of ophiolite sequence juxtaposed with Triassic- Upper Eocene or Oligocene sediments in imbricate series of W-dipping thrust sheets with deep water limestones. Age of collision later in Sulawesi East Arm (Late Miocene) than in Buton (M Miocene). Buton- E Sulawesi collision zone evolved from W-dipping subduction zone. M- Late Miocene clastic strata (Tondo Fm) mostly bathyal marine sediments which accumulated in two separate basins. Lasalimu basin formed just E of uplifted ophiolite thrust front, which provided most of detritus to basin, forming coastal fan-deltas, slope and base-of-slope deposits. Langkalome basin turbidites accumulated W of uplifted ophiolite belt. (N.B.: 'post-orogenic' Tondo Fm limestone member contains Spiroclypeus, signifying Early Miocene age?; suggesting collision older than E Miocene?; JTvG))*

Smith, R.B. (1987)- Diachronous Neogene microcontinent collision in Buton and Eastern Sulawesi, Indonesia. Geological Society of America (GSA) Annual Meeting 1987 and Exposition, Abstracts with Programs 19, 7, p. 850. *(Abstract only)*

Smith, R.B. & E.A. Silver (1991)- Geology of a Miocene collision complex Buton, Eastern Indonesia. Geological Society of America (GSA) Bull. 103, p. 660-678.
(Buton part of Neogene collision zone along E margin of Sulawesi. Miocene collision of microcontinents with W-dipping subduction zone emplaced Tukang Besi Platform (TBP) against Buton. Buton Wolio collision complex imbricated W-dipping thrust sheets and overturned folds with later steep faults offsetting imbricate stack and controlling present map patterns. Consists of (1) Turumbia Fm mainly Late Triassic- Late Eocene or Oligocene deep-water limestone in E, interpreted as deep-water facies of W TBP margin; (2) Massive peridotite in W, with full ophiolite succession suggested by clasts in overlying conglomerates; (3) Mukito Fm metabasite and metachert remnants of metamorphic sole at base of ophiolite. Pelitic phyllite and quartzite in NE Buton probably slice of TBP continental basement: similar rocks dredged from NE margin of TBP and also form pre-Mesozoic basement of SP. M-U Miocene Tondo Fm clastics derived from uplift and erosion of Wolio Complex, placing M Miocene upper limit on age of TBP collision. Oblique convergence continued into Late Miocene)

Smit Sibinga, G.L. (1928)- De geologische ligging der Boven-Triadische olie- en asfaltafzettingen in de Molukken. Natuurkundig Tijdschrift voor Nederlandsch-Indie 58, p. 111-121.
('The geological setting of the Upper Triassic oil and asphalt deposits in the Moluccas'. Triassic oil and asphalt deposits in Moluccas (in similar facies on Timor, Ceram, Buru, Buton, SE Sulawesi) formed at edge of Mesozoic Sundaland craton. No figures/ maps)

Soeka, S. (1988)- Late Jurassic (Upper Tithonian) radiolaria from Buton Island, Indonesia. In: New Zealand Radiolarian Workshop 1988, University of Auckland, New Zealand, p. 1-25.

Soeka, S. (1991)- Radiolarian faunas from the Tobelo Formation of the Island of Buton, Eastern Indonesia, Ph.D. Thesis, University of Wollongong, Australia, p. 1-399.
(online at: https://ro.uow.edu.au/theses/1401/)
(Tobelo Fm of Buton with low-latitude Tethyan radiolarian faunas, ranging from E Cretaceous- Oligocene. 128 species described, incl 3 new genera (Butonastrum, Discoconocaryomma, Paraxitus) and 29 new species (Butonastrum perkinsi, Triactiscus tumidus, Zanola deweveri, Z riedeli, Praeconocaryomma sutrismani, Sphaerostylus lukmani, etc.). E Cretaceous (Valanginian) to Oligocene 5 interval zones, 1 range zone and 3 barren zones. Ten datum planes for local biostratigraphic correlations proposed. Paleolatitude interpretation of Buton E Cretaceous (Valanginian-Hauterivian; S Tethyan; 22-30°S) and E Jurassic (Pliensbachian-Toarcian Ogena Fm; S Austral >40°S). M Jurassic 'breakup unconformity' between E Jurassic Ogena Fm and Late Jurassic Rumu Fm. Wani Fm with Late Eocene larger forams may be lateral equivalent of upper Tobelo Fm. Base of E Miocene (Te) Tondo Beds or Tondo Lst Fm is polymict conglomerate with peridotite debris, Mesozoic limestone, metamorphics, etc. is major unconformity over Oligocene? collision complex. Overlying Tono Fm clastics range into Middle-Late Miocene. Etc.)

Soeka, S. (1997)- Jurassic-Paleogene paleolatitudes of Buton (Indonesia) as indicated by radiolaria. Lemigas Scientific Contributions 20(?), p.
(not online, 2023, 2025)

Soeka, S. (2019)- New species of radiolaria from the island of Buton, South East Sulawesi. Scientific Contributions Oil and Gas (SCOG),Lemigas, 42, 2, p. 73-84.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/download/378/226/885)
(Six new species of Cretaceous radiolaria from Buton; previously flagged as 'Undetermined' in Soeka (1991))

Soeka, S. & Mudjito (1992)- Early Cretaceous- Paleogene radiolarian biostratigraphy from the microcontinent of Buton, eastern Indonesia. Abstracts 29 International Geological Congress, Kyoto, p. 252. *(Abstract)*

Soeka, S., Mudjito & Sunarto (1991)- Jurassic-Paleogene paleolatitudes of Buton (Indonesia) as indicated by radiolaria. Proc. 20th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 609. *(Abstract only)*
(Three different radiolarian assemblages in Jurassic- Paleogene of Buton: (1) South Austral assemblage in E Jurassic (Pliensbachian- Toarcian) Ogena Fm, indicating paleolatitude of >40°S; (2) South Tethyan assemblage in E Cretaceous Lower Tobelo Fm (20-30°S) and (3) Tropical assemblage in Tertiary. Support interpretation that Buton was part of Australian continent in Triassic- E Jurassic)

Soeka, S., O.S.R. Ongkosongo, M.N. Suhartati & Helfinalis (2008)- Biostratigrafi dan penelusuran evolusi posisi lintang Pulau Buton sejak Mesozoikum dengan radiolaria. In: S. Husein et al. (eds.) Prosiding Seminar Nasional Ilmu Kebumian 2008, Universitas Gadjah Mada, Yogyakarta, D11, p. 1-15.
('Biostratigraphy and investigation of the evolution of latitudinal position of Buton Island since the Mesozoic with radiolaria')

Suharni, Asrim & Sarman (2022)- Analisis penyebaran aspal Buton berdasarkan data bor di daerah Lawele. Jurnal Geomine 10, 2, p. 124-131.
(online at: https://jurnal.teknologiindustriumi.ac.id/index.php/JG/article/view/1170/pdf)
('Analysis of the distribution of Buton asphalt based on drill data in the Lawele area'. Little on geology)

Sulistyani, L. & Surono (2006)- Facies analysis on the Limestone Member, the Tondo Formation, based on samples taken from Kaisapu Area, Buton, Southeast Sulawesi Province. Proc. Jakarta 2006 Int. Geosciences Conference and Exhib., Indonesian Petroleum Association (IPA), Jakarta, 06-SPG-04, p. 1-5.
(Extended abstract. With facies map of Early Miocene limestone member of Tondo Fm in area in S Buton. Limestone Mb underlain by ultramafic unit in N, interfingers with conglomerate of Tondo Fm Clastic Mb in W

and with Sampolakosa Fm in E and S. At time of limestone deposition, land was situated to W, with open marine conditions E of study area. Four limestone facies: mudstone, boundstone, packstone and wackestone)

Tanjung, H., N. Sukarno, I.T. Mandiri & S.H. Sinaga (2009)- Understanding the genesis of Mukito metamorphics: sole metamorphism and geological consideration. Proc. 38th Annual Conv. Indonesian Association Geologists (IAGI), Semarang, PITIAGI2009-085, 1p. *(Abstract only)*
(Mukito Fm metamorphics in Kapantoreh Mts in S Buton associated with Kapantoreh ophiolite. Metamorphics imbricated with Triassic Winto Fm to W and ophiolites to E. Predominance of amphibolite facies (hornblende schist, marble) towards ophiolite, rest in green-schist facies (epidotic calcite chlorite schist). Petrochemistry suggest calc-alkaline basalts protolith. Interpreted as metamorphic sole, due to ophiolite obduction, formed from metamorphosed Cretaceous-Paleocene Tobelo Fm limestones and basalt dykes (see also Hasria et al., 2024))

Tanjung, H., N. Sukarno, Y. Yuskar, H. Hermawan, A.D. Zeiza, B.P.H. Sinaga et al. (2008)- Field observation of southern Buton: an overview of hydrocarbon manifestation and geological setting. Proc. 32nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA08-SG-074, p. 1-18.
(Literature review of Buton geology, with some field observations and geochemical analyses of source rocks)

Tanjung, H., A.D. Zeiza & I.T. Mandiri (2007)- Trend of petroleum exploration in Buton: an insight from tectonic, stratigraphic and geochemical aspects. Proc. 31st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA07-SG-030, p. 1-13.
(Literature review of Buton geology and hydrocarbon prospectivity. Buton is site of two collisions: (1) between Muna and Buton microcontinents in Miocene, (2) with Tukang Besi micro-continent from E in Plio-Pleistocene (This scenario is not commonly accepted; JTvG)).

Thoenes, D. (1936)- Het ontstaan van asfalt-bitumen. Doct. Thesis Technische Hoogeschool, Delft, p. 1-140.
(online at: https://resolver.kb.nl/resolve?urn=MMKB21:037747000:pdf)
('The origin of asphalt bitumen'. On chemistry and geology of bitumen and formation of natural asphalt, applied to Buton. Buton asphalt here thought to have formed directly from proto-bitumen, without crude oil as intermediate product. Mainly chemical study. With pictures of rich Mio-Pliocene planktonic foraminifera faunas in asphalt rocks (see also critical discussion by Ubaghs and Zeijlmans, 1947))

Tjia, H.D. (1968)- New evidence of Recent diastrophism in East Indonesia. Institute of Technology Bandung (ITB), Dept. Geologi Contribution 69, p. 71-76.
(Absence of two post-glacial sea levels in reef limestones of Tomea, Kaledupa and Wangi-wangi (Tukang Besi islands) interpreted to reflect warping of uplift after 3500-5000 BP)

Tobing, S.M. (2005)- Inventarisasi bitumen padat di daerah Sampolawa, Kabubaten Buton, propinsi Sulawesi Tenggara. Kolokium Hasil Lapangan DIM, 2005, p. 29/1- 29/10. *(online at: http://psdg.bgl.esdm.go.id/kolokium/Batubara/29.%20Prosiding%20SAMPOLAWA%20Buton_N0.8.pdf)*
(Survey of oil shale seams in Late Triassic Winto Fm in S Buton. Thickness of seams 0.05- 1.5 m, alternating with lime-siltstone and fine-grained lime-sandstone. Only four oil shale seams >1 m. All samples contain lamalginite (0.5- 50%). Rocks seem immature (mean vitrinite Rv 0.2- 0.6%). Oil content in samples 5- 40 l/ton. Oil shale resources down to 100m depth in Winto Fm ~4.5 M ton, with 504k Barrels oil)

Tobing, S.M. (2008)- Kajian potensi bitumen padat/aspal Buton, Propinsi Sulawesi Tenggara. Proc. Pemaparan hasil kegiatan lapangan dan non lapangan tahun 2007, p.
('Study of the potential of solid bitumen/asphalt Buton, Southeast Sulawesi Province')

Tobing, S.M. (2008)- Aspal Buton: analisis dan kajian geokimia hidrokarbon. Buletin Sumber Daya Geologi 3, 2, p. 29-45.
(online at: https://garuda.kemdikbud.go.id/documents/detail/746867)
('Buton asphalt: analysis and study of hydrocarbon geochemistry'. Geochemical analyses of samples from Miocene Sampolakosa Fm asphalt, Triassic Winto Fm oil shale and Tondo Fm oil seep on Buton island. Winto Fm oil shale good hydrocarbon generation potential, from Type II aquatic algal kerogen. Asphalt/bitumen

believed to be from carbonate source, oil seep from lacustrine source. No positive correlation between oil seeps, asphalt/bitumen and Winto oil shale))

Triono, U. (2005)- The preliminary survey of solid bitumen accumulation of Kalisusu and surrounding area, Muna Regency, Southeast Sulawesi Province. Kolokium Hasil Lapangan, DIM, 2005, p. 31/1- 31/8.
(online at: http://psdg.bgl.esdm.go.id/kolokium/Batubara/31.%20Prosc%20Kalisusu_No.10.pdf)
(Brief evaluation paper on asphalt on North Buton. Bitumen contained in Late Triassic Winto Fm (resource estimates 2.8 MTons) and Miocene Tondo Fm (6.8 MTons). In Indonesian)

Ubaghs, J.G.H. & C.P.A. Zeijlmans van Emmichoven (1947)- De genese der asfaltafzettingen op het eiland Boeton. Bull. Bureau Mines and Geological Survey Indonesia 1, 1, p. 3-12.
('The genesis of the asphalt deposits on the island of Buton'. Authors dispute the dominant theory on formation of Buton asphalt deposits as impregnation of porous Tertiary strata by oil from Triassic source rocks (Zwierzycki 1925, Hetzel 1936, etc.). Preferred interpretation is that asphalt formed from Tertiary oil accumulation into specific Neogene reservoir zones (Tondo- Sampolakosa Fms), 500-800m above base Tertiary, not from underlying isoclinally folded Triassic). With discussions of known aspalt terrains. (Ubaghs and Zeijlmans were two of the few Dutch geologists remaining at Bandung Geological Survey shortly after the end of the Japanese occupation)

Umbgrove, J.H.F. (1943)- Corals from asphalt deposits of the Island Buton (East-Indies). Leidsche Geologische Mededelingen 13, 1, p. 29-37.
(online at: www.repository.naturalis.nl/document/549525)
(Pliocene corals from Buton asphalt deposits at Waisiu. 9 species, 8 of which still living species, incl. Caryophyllia, Stephanotrochus, Cyphastrea, Goniastrea, Favia, Coeloria, Platygyra and Porites. Also illustration of fossil coconut)

Verstappen, H.Th. (1957)- Een en ander over het rifpantser van het eiland Muna (Z.O. Celebes). Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 74, p. 441-449.
('On the reef cap of the island of Muna'. Reefal limestone over much of Muna island (W of Buton, SE Sulawesi), attributed to multiphase Quaternary uplift. Highest uplifted reefs on S sides of both Muna (445m) and Buton islands (700m); no elevated Quaternary reef cover in N. Muna island tilted WNW and cut by transverse faults and faults subparallel to Buton straits. Tilting cannot be attributed to horizontal shifting of geanticline, as postulated in literature)

Walley, C.D. & D.T. Moffat (1988)- A review of the geology and hydrocarbon potential of Buton Island, Indonesia. Earth Research Institute (ERI) Report EB88-1, 125p. *(Unpublished study)*

Wicaksono, S. (2013)- Tektono-stratigrafi dan evolusi tektonik Buton Utara dan Kepulauan Muna, Sulawesi Tenggara. Master's Thesis, Institut Teknologi Bandung (ITB), p. 1-150? *(Unpublished)*
('Tectonostratigraphy and tectonic evolution of North Buton and Muna islands, Southeast Sulawesi'. Early stratigraphic history of Buton Island and SE Sulawesi can be tied to NW Australian margin. Main evolution stages: Pre-Rift Permian (Doole Fm; metamorphics?), Syn-Rift E Triassic (Winto and Meluhu Fms) and Post-Rift Late Triassic-E Jurassic. Continental Drift Stage Cretaceous- M Miocene (Tobelo Fm). Post-Collision stage Syn-Orogenic (Tondo and Sampolakosa Fms) and Recent Uplift (Wapulaka Formation). Collision between Buton and SE Sulawesi/Muna in M Miocene, followed by collision between Buton and Tukang Besi)

Widarsono, B., D. Sunarjanto, T.M. Susantoro, Suliantara, H.L. Setiawan, P. Wahyudi, Sugihardjo et al. (2023)- Integrated approach to investigate the potential of asphalt/ tar sand on Buton Island, Indonesia. Lemigas Scientific Contributions Oil and Gas (SCOG) 46, 2, p. 65-85.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/1583/pdf)
(Buton island large asphalt deposits known and studied since 1920s, and are the only asphalt deposits mined in Indonesia (but for road pavement only))

Wing Easton, N. (1937)- Gedachten en studies over petroleum en asfalt, 1. Van waar komt het bitumen der asfaltkalken en -zanden? Geologie en Mijnbouw 16, 3, p. 24-31.
(online at: https://resolver.kb.nl/resolve?urn=MMSHCL02:017132003:pdf)
('Thoughts and studies on petroleum and asphalt, 1- From where comes the bitumen of asphalt limestones and sandstones?'. Mainly critical discussion of Hetzel (1936) assertion that asphalt deposits in Neogene of Buton are sourced from Triassic bituminous shale. More likely source believed to be from Tertiary)

Wiryosujono, S. & J.A. Hainim (1978)- Cenozoic sedimentation in Buton Island. In: S. Wiryosujono & A. Sudradjat (eds.) Proc. Regional Conference Geology and Mineral Resources of SE Asia (GEOSEA), Jakarta 1975, Indonesian Association Geologists (IAGI), p. 109-119.
(Exposed Cenozoic on Buton island starts with basal conglomerate of M-L Miocene Tondo Fm (with reworked Cretaceous, Eocene, Oligocene forams and clasts of peridotites and Mesozoic limestones), after Late Oligocene-E Miocene folding. Grades upward into flysch-type shale-silt, passing upward into >800m thick latest Miocene-Pliocene (N18-N21) bathyal Sampolakosa Fm marls. Late Miocene Tondo Fm deposited in tectonic trench. Both formations folded in latest Pliocene- E Pleistocene time. Quaternary reefal limestones uplifted to >700m in S Buton. Mesozoic on Buton starts with Late Triassic flysch. Absence of Lower Jurassic and Lower Cretaceous; U Cretaceous- Eocene Tobelo Fm bathyal pelagic limestones. Late Eocene- E Oligocene conglomeratic 'Wani Beds' folded with Mesozoic-E Paleogene? (paper points out similarities beteween Buton, Buru and Seram tectonostratigraphy))

Yuskar, Y. (2014)- Interpretasi fasies pengendapan Formasi Tondo, Pulau Buton, Sulawesi Tenggara berdasarkan data pemetaan geologi dan potensinya sebagai batuan reservoir minyak bumi. J. Earth Energy Engineering (J-E3), p. 31-39.
(online at: https://journal.uir.ac.id/index.php/JEEE/article/view/940)
('Interpretation of the depositional facies of the Tondo Formation, Buton Island, SEt Sulawesi based on geological mapping data and its potential as a petroleum reservoir rock'. Tondo Fm in SW Buton gravel sandstone and claystone of Late Miocene age (N17-N18), porosity 8-25%, deposited in turbidite system (deep sea channel))

Zheng, C., M. Zhu & D. Zhang (2015)- Characterisation of asphaltenes extracted from an Indonesian oil sand using NMR, DEPT and MALDI-TOF.Proc. 7th Int. Conference Applied Energy (ICAE 2015), Abu Dhabi, Energy Procedia 75, p. 847-852.
(Chemical study into the molecular structure and properties of asphaltenes extracted from Buton oil sand. No geologically useful conclusions))

Zwierzycki, J. (1925)- Olie in de Trias op Boeton. De Mijningenieur 6, 1, p. 15.
('Oil in the Triassic on Buton'. Isoclinally folded Upper Triassic platy limestones, mica-bearing sandstones, and dark claystones-marls with Late Triassic molluscs Halobia, Daonella and Monotis in S part of Buton with some asphalt (similar oil shale on Buru and E Timor?; JTvG). Also Jurassic red sandstone and shales with canaliculate belemnites and Jurassic and/or Cretaceous light colored limestones with foraminifera. Late Tertiary Globigerina marls impregnated with asphalt, derived from Triassic)

VI. NORTH MOLUCCAS

VI.1. Halmahera, Ternate, Bacan, Obi, Waigeo, Molucca Sea

Abidin, R.R., V. Susanto, Sulaeman & H.M.H. Wicaksono (2022)- Karakteristik endapan laterit nikel dan unsur tanah jarang di daerah Pulau Gebe, Halmahera, Maluku Utara. Buletin Sumber Daya Geologi (BSDG) 17, 2, p. 65-79. *(online at: https://buletinsdg.geologi.esdm.go.id/index.php/bsdg/article/view/BSDG_VOL_17_NO_2_2022_1/308)*
('Characteristics of nickel laterite deposits and Rare Earth Elements in Gebe Island, C Halmahera, North Moluccas'. Gebe Island composed of M Miocene Waigeo Limestone, underlain by ultramafic rocks with laterite deposits)

Agustiyanto, D.A. (1996)- The geology and tectonic evolution of the Obi region, Eastern Indonesia. M. Phil. Thesis, University of London, p. 1-220.
(online at: https://discovery.ucl.ac.uk/id/eprint/10101177/1/The_geology_and_tectonic_evolu.pdf)
(Obi located within strands of Sorong Fault system at Australian-Philippine Sea plate boundary. Oldest rocks metamorphic complex of phyllites, schists and gneisses, probably Paleozoic in age, in greenschist- amphibolite facies. Overlain by Triassic and Jurassic micaceous sandstones and black shales, considered derived from Australian continental margin. Ophiolitic rocks, of supposed Jurassic age, form basement of most of Obi region, are unconformably overlain by Cretaceous volcaniclastic rocks, limestones and mudstones. Juxtaposition of the ophiolitic and continental rocks in south Obi probably in Late Neogene)

Agustiyanto, D.A. (1998)- Geology of the Obi islands, Eastern Indonesia. Jurnal Geologi dan Sumberdaya Mineral (JGSM), 8, 81, p. 2-9.
(Obi islands consist of rocks from Australian (SW) and Philippine Sea (N) plates, juxtaposed in SW part of Obi Majora (in Oligocene or later?). Oldest rocks on Obi island Paleozoic or older 'Australian' Tapas metamorphic complex, regional metamorphic phyllites, mica-schists and gneisses in greenschist to amphibolite facies. Overlain by Triassic- Jurassic Soligi Fm (with Jurassic Pentacrinus) and Kumumu Fm micaceous sandstones and black shales (with Jurassic ammonites in float; Wanner 1913, M-U Jurassic palynomorphs). Most of Obi is 'Philippine Sea' plate with basement of?Jurassic ophiolite, unconformably overlain by U Cretaceous Leleobasso Fm deep water volcanoclastics, limestones and mudstones and Oligocene Anggai River Fm volcanoclastics. Unconformably overlain by E-M Fluk Fm limestone and unconformably overlain by Guyuti Fm M-L Miocene clastics and Woi Fm volcanics and clastics)

Alodia, G., Nurhidayat, D.P. Sobarudin, D. Adrianto, A. Dwinovantyo, S. Solikin, M. Hanafi et al. (2023)- Discovery of a conical feature in Halmahera waters, Indonesia: traces of a late-stage hydrothermal activity. Geoscience Letters 10, 47, p. 1-14.
(online at: https://geoscienceletters.springeropen.com/articles/10.1186/s40562-023-00302-w)
(615-m-tall conical feature with traces of hydrothermal activity discovered in waters E of Halmahera, ~400-1000m below sea surface. Named Yudo Sagoro Hill, situated in SE part of 31km wide Gapuro Sagoro Seamount. In area presumably underlain by East Halmahera- Waigeo Ophiolite Terrane)

Anderson, C.D. (1999)- Cenozoic motion of the Philippine Sea Plate; new paleomagnetic data from eastern Indonesia. Masters Thesis, University of California at Santa Barbara, p. 1-164. *(Unpublished*
(Halmahera, Waigeo and other islands constitute largest land area of Philippine Sea Plate. New paleomagnetic results from 24 sites. Halmahera region motion three segments: 0-25 Ma moved N and rotated 40° CW; no rotation or latitude translation 25-40 Ma; 50° CW rotation and slight S-ward translation 40-50 Ma. Two Cretaceous sites indicate another 90° CW rotation between ~73-50 Ma, but interpretation speculative)

Anonymous (1981)- Gag Island nickel outlook not promising. Mining Magazine 144, 4, p. 287-289.
(Study by Pacific Nickel of weathered ultrabasic laterite of Gag Island in N Moluccas suggests 160 Million metric Tons of ore at 1.64% Nickel, 0.12% Cobalt, 37% Iron (BHP dropped Gag Island project in 2008))

Apandi, T. & D. Sudana (1980)- Geologic map of the Ternate Quadrangle, North Maluku, 1: 250,000. Geological Research Development Centre (GRDC), Bandung.

(Geologic map of central part of Halmahera, 1:250,000 scale. Includes large Pretertiary Ultrabasic complex, overlain by Paleogene conglomerates with ultrabasic clasts, Paleogene limestone and younger Tertiary sediments (in NE Halmahera ophiolite also overlain (?) by Upper Cretaceous sediments with Globotruncana))

Aprina, P.U., D. Santoso, S. Alawiyah, N. Prasetyo & K. Ibrahim (2024)- Delineating geological structure utilizing integration of remote sensing and gravity data: a study from Halmahera, North Molucca, Indonesia. Vietnam J. Earth Sciences 46, 2, p. 147-167.
(online at: https://vjs.ac.vn/index.php/jse/article/view/20010/2543255325)
(Remote sensing study of Halmahera island)

Bader, A.G. (1997)- Deformation de la croute oceanique lors de la fermeture d'un bassin marginal. Exemple de la Mer des Moluques (Philippines-Indonesie). Doct. Thesis Universite Pierre et Marie Curie, Paris VI, p.
(Unpublished) ('Deformation of oceanic crust during the closing of a marginal basin. Example of the Molucca Sea (Philippines-Indonesia)')

Bader, A.G. & M. Pubellier (2000)- Forearc deformation and tectonic significance of the ultramafic Molucca Central Ridge, Talaud islands (Indonesia). The Island Arc 9, 4, p. 653-663.
(online at: https://www.academia.edu/5211622/Forearc_deformation_and_tectonic_significance_of_the_ultramafic_Molucca_central_ridge_Talaud_islands_Indonesia)
(Molucca Sea basin S of Mindanao underlain by N-S ophiolitic ridge, representing outer ridge of Sangihe subduction zone, and outcrops on Talaud Islands. Forearc sediments uncomformably on (1) dismembered ophiolitic series and (2) thick melanges. Two deformation events. Earlier direction (N20°E) is thrusting event affecting ophiolitic basement associated with edge of Celebes Sea. Incipient Sangihe subduction around 15 Ma uplifted deformed crust and buried melanges beneath forearc sediments. Recent E-W shortening during subduction of Snellius Plateau reactivated melanges within thrusts cutting forearc series)

Bader, A.G., M. Pubellier, C. Rangin, C. Deplus & R. Louat (1999)- Active slivering of oceanic crust along the Molucca Ridge (Indonesia-Philippine): implication for ophiolite incorporation in a subduction wedge. Tectonics 18, 4, p. 606-620.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/abs/10.1029/1999TC900004)
(Marine geophysical survey in N Molucca Sea shows structure of classic active convergent margin, from W to E: Sangihe volcanic arc, Molucca Ridge forearc basin resting on outer ridge, accretionary wedge, and Snellius Ridge- Philippine Sea composite downgoing plate. Strong negative gravity anomaly above wedge suggests basement deepening and rupture of 700 km-long subducting lithosphere. S Snellius Ridge separated recently from S Philippine Basin by incipient Philippine Trench, deforming forearc region with backthrusting)

Baillie, M.C. & G.C. Cock (2001)- Weda Bay nickel/cobalt project- resource definition and the development of a project concept. Proc. Indonesia Mining Association (IMA) Conference and Exhibition, Jakarta, p. 2B1-2B22.

Baker, S.J. (1997)- Isotopic dating and island arc development in the Halmahera region, Eastern Indonesia. Ph.D. Thesis University of London, Birkbeck College and University College, p. 1-316.
(online at: https://discovery.ucl.ac.uk/id/eprint/10100551/1/Isotopic_dating_and_island_arc.pdf)
(Halmahera area in zone of complex tectonics at junction between Eurasian margin, Philippine Sea and Australian plates. Continental metamorphic rocks of probable Paleozoic age, derived from New Guinea, are found on Bacan and Obi. Ophiolitic rocks from Halmahera, Obi, Gag are of Philippine Sea plate origin, forming an intra-oceanic forearc-arc-backarc system of Jurassic age. Intrusives into ophiolitic rocks on Halmahera and Obi two phases of arc-related plutonic activity in Middle to Late Cretaceous

Baker, S. & J. Malaihollo (1996)- Dating of Neogene igneous rocks in the Halmahera region: arc initiation and development. In: R. Hall & D. Blundell (eds.) Tectonic evolution of Southeast Asia, Geological Society, London, Special Publ. 106, p. 499-509.
(K-Ar ages of igneous rocks from Halmahera show history of intra-oceanic arc development since late M Miocene, due to E-directed subduction of Molucca Sea plate under Philippine Sea plate. N-ward migration of volcanic activity in Late Miocene- E Pliocene. Arc volcanism began around 11 Ma on Obi, with subduction

thought to have started around 15-17 Ma. No Neogene volcanism younger than 8 Ma in Obi area; on Bacan volcanism ceased at 2 Ma. Late Pliocene crustal deformation caused 30-40 km W-ward shift of volcanic front. Formation and propagation of Halmahera arc consequence of CW rotation of Philippine Sea plate)

Ballantyne, P. (1990)- The petrology of the ophiolitic basement rocks of eastern Halmahera, Indonesia. Ph.D. Thesis, University of London, University College London, p. 1-263.
(online at: https://discovery.ucl.ac.uk/id/eprint/10112028/1/out.pdf)
(First detailed petrological and geochemical study of ophiolitic rocks of Halmahera Island, E Indonesia. Rocks of ophiolitic affinity occur extensively across E Halmahera. No intact ophiolite stratigraphy found, presumably due to poor exposure and structural dismemberment. All levels of "complete" ophiolite sequence present, with exception of sheeted dykes, but not in standard sequence. Four groups of volcanic rocks: one of boninitic affinity, two of island arc and one of oceanic island/seamount origin)

Ballantyne, P. (1991)- Petrological constraints upon the provenance and genesis of the East Halmahera ophiolite. J. Southeast Asian Earth Sciences 6, 3-4, p. 259-269.
(E Halmahera dismembered ophiolite petrology. Cumulus mineralogy comparable with cumulates of Papuan and Marum ophiolites of New Guinea. Ophiolitic rocks formed in supra-subduction zone environment. Volcanic rocks not abundant in E Halmahera, but distinct suites, of boninitic, island arc and oceanic island /seamount affinities)

Ballantyne, P. (1992)- Petrology and geochemistry of the plutonic rocks of the Halmahera ophiolite, eastern Indonesia; an analogue of modern oceanic forearcs. In: L.M. Parson, B.J. Murton & P. Browning (eds.) Ophiolites and their modern oceanic analogues, Geological Society, London, Special Publ. 60, p. 179-202.
(online at: https://earthjay.com/earthquakes/20190714_halmahera/ballantyne_1992_halmahera_ophiolite.pdf)
(Halmahera ophiolite tectonically dismembered but all elements of complete ophiolite present, except sheeted dyke complex. Ophiolite formed in supra-subduction zone setting before Late Cretaceous and interpreted to represent forearc of Mesozoic arc whose remnants are now found near margins of Philippine Sea Plate)

Ballantyne, P.D. & R. Hall (1990)- The petrology of the Halmahera Ophiolite, Indonesia; an early Tertiary forearc. In: J. Malpas et al. (eds.) Ophiolites; oceanic crustal analogues, Proc. Symposium 'Troodos 1987', Geological Survey of Cyprus, Nicosia, p. 461-475.

Bering, D. (1986)- The exploration of the Kaputusan copper-gold porphyry (Bacan Island, Northern Moluccas). Federal Inst. Geosciences Natural Resources (BGR), Hannover, Report 099386, p. 1-140.
(Kaputusan copper-gold porphyry mineralization discovered on Bacan during joint Indonesian-German (BGR) regional exploration program in late 1970's, with follow-up exploration work by BGR in 1983-1984. Hosted by Miocene tonalite porphyry stocks)

Bessho, B. (1944)- Geology of the Halmahera islands. J. of Geography (Chigaku Zasshi), Tokyo, 56, 6, p. 195-203.
(online at: www.jstage.jst.go.jp/article/jgeography1889/56/6/56_6_195/_pdf)
(In Japanese. Brief review of Halmahera geology, with one geologic map and cross-section))

Brata, K. (1989)- Petrography and provenance of Neogene sandstones of South Halmahera, East Indonesia. M.Phil. Thesis, University of London, p. . *(Unpublished)*

Brouwer, H. (1921)- Geologische onderzoekingen op de Sangi-eilanden en op de eilanden Ternate en Pisang. Jaarboek Mijnwezen Nederlandsch Oost-Indie 49 (1920), Verhandelingen 2, p. 3-68.
('Geologic investigations on the Sangi islands and on the islands Ternate and Pisang'. Mainly descriptions of various active volcanoes of Sanghi islands (Ruang, Tagoelandang, Makalehi, Mahengetang), Ternate and Pisang (SE of Halmahera) islands)

Brouwer, H. (1923)- Geologische onderzoekingen op het eiland Halmaheira. Jaarboek Mijnwezen Nederlandsch Oost-Indie 50 (1921), Verhandelingen 2, p. 5-72.

('Geological investigations on Halmaheira Island'. Pioneering survey. Includes thin section photos of deep marine U Cretaceous Globotruncana limestones, Eocene shallow marine tuffaceous sandstones-limestones with Nummulites-Alveolina-Discocyclina and Miocene (Lepidocyclina) limestone (foraminifera brief descriptions by Douville 1923 in same volume))

Brouwer, H. (1923)- Bijdrage tot de geologie van het eiland Batjan. Jaarboek Mijnwezen Nederlandsch Oost-Indie, Verhandelingen 50 (1921), Verhandelingen 2, p. 73-106.
('Contribution to geology of the island of Bacan'. Bacan mostly schists and igneous rocks, including diorites, gabbros, peridotites and andesites. Also Miocene Lepidocyclina limestone, associated with coal fragments)

Brouwer, H.A. (1924)- Bijdrage tot de geologie der Obi-eilanden. Jaarboek Mijnwezen Nederlandsch-Indie 52 (1923), Verhandelingen, p. 5-62.
('Contribution to the geology of the Obi Islands'. Mesozoic rocks reminiscent of those from Sula, Buru, Misool. Possibly Triassic micaceous sandstones, M Jurassic phyllitic shales and marls with ammonites on SW Obi Besar, possibly Cretaceous pelagic limestones, E Miocene shallow carbonates, etc. Also serpentinites, crystalline schists and various igneous rocks)

Burgath, K., M. Mohr & W. Simanjuntak (1983)- New discoveries of blueschist metamorphism and mineral occurrences in the Halmahera Gag ophiolite belt. Bull. Directorate Mineral Resources Indonesia 13, 1, p. 1-19.

Carlile, J.C., G.R. Davey, I. Kadir, R.P. Langmead & W.J. Rafferty (1998)- Discovery and exploration of the Gosowong epithermal gold deposit, Halmahera, Indonesia. J. Geochemical Exploration 60, 3, p. 207-227.
(Gosowong epithermal gold deposit low-sulphidation epithermal quartz vein in Halmahera Neogene magmatic arc. Not much on geologic setting)

Carlson, R., D. Silitonga, S.A. Wibowo & R. Ardiansyah (2024)- Gosowong re-born- Discovery and geology of the Shallut deposit, Halmahera, Indonesia. Proc. Gold24 Symposium, Perth 2024, Bull. Australian Institute of Geoscientists (AIG) 75, p. 23-27. *(Extended Abstract)*
((online at: https://www.aig.org.au/library/publications/aig-bulletins/)
(Newly evaluated Shallut gold vein deposit within PT Nusa Halmahera Mining- operated Gosowong epithermal field, discovered in 1997 in NW Halmahera. Late Pliocene mineralization)

Chandra, J. & R. Hall (2016)- Tectono-stratigraphic evolution and hydrocarbon prospectivity of the South Halmahera Basin, Indonesia. Proc. 40th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA16-46-G, p. 1-19.
(S Halmahera Basin influenced by Cretaceous- Oligocene and Pleistocene arc history, collision with Australian (New Guinea) continental margin in E Miocene from ~25 Ma, Neogene strike-slip faulting, etc. Rifting in Late Eocene formed W-E backarc basin with Late Eocene terrestrial-marginal marine clastic sediments, followed by limestone and deep marine turbidites. E Miocene arc-continent collision caused uplift and major unconformity above which widespread Miocene limestones were deposited. Two sub-basins formed in late Neogene, a response to formation of Halmahera volcanic arc to W and strike-slip movements along Sorong Fault Zone to S. Oil seep from Halmahera and similarities to productive Salawati Basin suggest petroleum potential)

Charlton, T.R., R. Hall & E. Partoyo (1991)- The geology and tectonic evolution of Waigeo Island, NE Indonesia. J. Southeast Asian Earth Sciences 6, 3-4, p. 289-297.
(online at: http://searg.rhul.ac.uk/pubs/charlton_etal_1991_waigeo.pdf)
(Waigeo ophiolitic basement of possible Late Jurassic age, overlain by Paleogene forearc sediments. Basement and sedimentary cover deformed by Late Oligocene S-directed thrusting, probably collision of arc with continental block (New Guinea?))

Clark, L.V. (2012)- The geology and genesis of the Kencana epithermal Au-Ag deposit, Gosowong Goldfield, Halmahera Island, Indonesia. Ph.D. Thesis University of Tasmania, p. 1-260.
(online at: https://eprints.utas.edu.au/17493/2/Whole-Clark-_thesis.pdf)

(Kencana Au-Ag low-sulfidation epithermal deposit in Neogene magmatic arc of Halmahera is 2002 discovery in Gosowong goldfield on E side of NW arm of Halmahera, which is composed of four superimposed volcanic arcs (subduction of Molucca Sea plate beneath Halmahera since Paleogene). Epithermal mineralization hosted by U Miocene Gosowong Fm volcaniclastics andesitic flows and diorite intrusions. Andesite emplacement at 3.73 Ma followed by diorite intrusion at ~3.5 Ma. Epithermal mineralization with 40Ar/39Ar age of hydrothermal adularia of ~2.93 Ma)

Clark, L.V. & J.B. Gemmell (2018)- Vein stratigraphy, mineralogy, and metal zonation of the Kencana low-sulfidation epithermal Au-Ag deposit, Gosowong goldfield, Halmahera Island, Indonesia. Economic Geology 113, 1, p. 209-236.
(online at: https://booksc.org/book/75783810/e9034c)
(Kencana Au-Ag low-sulfidation epithermal deposit in Neogene magmatic arc of NW Arm of Halmahera, with resource of 4 Moz Au. Part of Gosowong Goldfield, with Gosowong and Toguraci deposits. NW arm of Halmahera composed of four superimposed volcanic arcs. Epithermal mineralization in Pliocene Gosowong Fm of volcaniclastic rocks, ignimbrites, andesitic flows and diorite intrusions. Andesite emplacement at 3.73 Ma followed by diorite intrusion at ~3.50 Ma. Kencana epithermal mineralization at ~2.93 Ma)

Clor, L.E., T.P. Fischer, D.R. Hilton, Z.D. Sharp & U. Hartono (2005)- Volatile and N isotope chemistry of the Molucca Sea collision zone: tracing source components along the Sangihe Arc, Indonesia. Geochem. Geophysics Geosystems 6, 3, Q03J14, p. 1-20.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2004GC000825)
(Volcanic gases from Sangihe Arc analyzed for trace chemistry and nitrogen isotope variations. Increased slab contribution in northernmost arc, possibly by slab melting as collision stalls progress of subducting plate)

Cock, G.C. & J.E. Lynch (1999)- Discovery and evaluation of the Weda Bay nickel/ cobalt deposits, central Halmahera, Indonesia. In: G. Weber (ed.) Proc. PACRIM '99 Congress, Bali 1999, Australasian Institute of Mining and Metallurgy (AusIMM), Parkville, 4-99, p. 197-206.
(Weda Bay nickel- cobalt laterite deposits on Halmahera first drilled in 1996. Laterites developed from weathering of pre-Cretaceous serpentinised harzburgites and dunites)

Coupland, T., D. Sims, V. Singh, R. Benton, D. Wardiman & T. Carr (2009)- Understanding geological variability and quantifying resource risk at the Kencana underground gold mine, Indonesia. Seventh Int. Mining Geology Conference, Australasian Institute of Mining and Metallurgy (AusAIMM), Melbourne, p. 169-186.
(Kencana underground gold mine on Halmahera with two large epithermal vein deposits. Rel. simple planar geometry, dipping 25 to 45° to E and extend 400-600 m along strike and down dip. True width 1-20m)

Davey, G.R., J.C. Carlile, D.J. Olberg & R P, Langmead (1997)- Discovery of the Gosowong epithermal quartz-adularia vein gold deposit, Halmahera, eastern Indonesia: Proc. New generation gold mines ’97 Conference, Perth 1997, Australian Mineral Foundation, p. 3.1-3.15.
(Gosowong high-grade gold deposit on E side of North Arm of Halmahera. (see also Carlile et al. 1998, Olberg 1999))

Di Leo, J.F., J. Wookey, J.O. Hammond, J.M. Kendall, S. Kaneshima, H. Inoue, J.M. Yamashina & P. Harjadi (2012)- Deformation and mantle flow beneath the Sangihe subduction zone from seismic anisotropy. Physics Earth Planetary Interiors 194-195, p. 38-54.
(Sangihe subduction zone is where Molucca Sea microplate is subducting W beneath Eurasian plate. Anisotropic structure suggested by shear wave, probably caused by aligned cracks, possibly melt-filled beneath volcanic arc, and fossil anisotropy in overriding plate. Three regions of anisotropy: (1) within overriding lithosphere, (2) along slab-wedge interface, (3) below subducting Molucca Sea slab)

Dipatunggoro, G. (2011)- Survey tinjau bahan galian nikel daerah Soligi, Kecamatan Obi Selatan, Kabupaten Halmahera Selatan, Maluku Utara. Bull. Scientific Contribution (UNPAD) 9, 2, p. 97-106.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8266/3813)

('Survey of nickel in Soligi area, South Obi, North Maluku'. Pretertiary ophiolite and metamorphics are oldest rock in W and S Obi Island. Nickel and cobalt-bearing laterite weathering zones at tops of hills)

Djaswadi, S., B. Tjahjono & T. Sudharto (1990)- Penjajagan mineral logam di Maluku Utara. Proc. 19th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 302-324.
(online at: https://www.iagi.or.id/web/digital/47/19th-(11-13-Des-1990)-Book-I-310-332.pdf)
('Metallic minerals exploration in the North Moluccas'. Review of deposits of copper (Obi, Bacan, Halmahera), nickel (E Halmahera), chromite (E Halmahera), etc.)

Dong, M., J. Zhang, C. Jiang, T. Hao, Y. Xu, S. Huang, L. Liu, F. Nan & G. Fang (2022)- Thermal simulation of migration mechanism of the Halmahera volcanic arc, Indonesia. J. Asian Earth Sciences 232, 105042, p. 1-10.
(Halmahera volcanic arc intermittent volcanic activity and location migration since Pliocene. Magmatism. affected by dehydration depth of hornblende in oceanic crust and serpentinite in lithospheric mantle in subducted slab and subducted slab/ mantle wedge T structure, controlled by subduction and plate convergence rate. Miocene–Pliocene favored island arc magmatism (high T). M Pliocene cessation of volcanic activity and volcanic gap due to increased subduction rate beneath Halmahera arc and decreased W-ward convergence of eastern microplate fragments. In Holocene, Halmahera arc moved and resumed volcanic activity. Etc.)

Douville, H. (1923)- Sur quelques foraminiferes des Moluques orientales et de la Nouvelle Guinee. Jaarboek Mijnwezen Nederlandsch-Indie 50 (1921), Verhandelingen 2, p. 107-116.
('On some foraminifera from the eastern Moluccas and from New Guinea'. Brief description of Eocene larger forams in samples collected by Brouwer in Halmahera (Nummulites, Discocyclina, Alveolina), Roti (large Nummulites, Discocyclina), Seram (E Miocene Lepidocyclina in breccia with reworked angular clasts of Upper Cretaceous pelagic limestone), New Guinea, Kai Besar (rounded fragments of Eocene Lacazina in quartz sandstone, etc. No location info)

Electricia, K.S., M.F. Rosana, E.T. Yuningsih, I. Syafri & S.N. Viqnoriva (2017)- Quartz vein infill structure mode in Kencana deposit, Gosowong goldfield, Indonesia. Bull. Scientific Contribution (UNPAD) 15, 1, p. 35-44.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/11743/pdf)
(Gosowong gold-siver mine on Halmahera is low sulphidation epithermal veining system, hosted in Quaternary andesitic volcanics. Kencana epithermal vein system two main sub-parallel NW trending vein zones)

Evans, C.A., J.W. Hawkins & G.F. Moore (1983)- Petrology and geochemistry of ophiolitic and associated volcanic rocks of the Talaud Islands, Molucca Sea collision zone, northeast Indonesia. In: T.W.C. Hilde & S. Uyeda (eds.) Geodynamics of the western Pacific-Indonesian region, American Geophysical Union (AGU), Geodynamic Series 11, p. 159-172.
(Much of Talaud islands tectonic melange with up to 5km wide blocks of ophiolite, preserving complete oceanic crustal sections. Pillow basalts associated with bedded chert and pelagic limestones with Eocene radiolaria. Miocene basaltic andesites not considered part of ophiolitic rocks.

Fang, G., X. Wang, G. Fan, H. Wang, G. Zuo, Z. Yang & J. Zhang (2024)- The dynamic cause of volcanic age disparity in the Halmahera Arc, Eastern Indonesia, based on thermal simulation. Applied Sciences (MDPI) 14, 21, 9896, p. 1-15.
(online at: https://www.mdpi.com/2076-3417/14/21/9896)
(Volcanic activity in W Halmahera arc since M Miocene varies from S to N. Thermal simulation suggests arc magmatism is favored at lower subduction rates or higher overriding plate movement rates. During M Miocene, N-ward drift of Australian plate propelled Obi microplate S-ward via left-lateral strike-slip faults, accelerating its movement rate, while movement of Halmahera microplate in N remained lower. The above resulted in arc volcanism on Obi in late M Miocene (~10-12 Ma) and onset of arc volcanism on Halmahera in late Pliocene (??; data presented show Late Miocene, ~6-8 Ma- JTvG)

Fang, G., J. Zhang, T. Hao, M. Dong, C. Jiang & Y. He (2022)- The causal mechanism of the Sangihe forearc thrust, Molucca Sea, northeast Indonesia, from numerical simulation. J. Asian Earth Sciences 237, 105350, p. 1-11.
(online at: www.researchgate.net/publication/362205600_The_causal_mechanism_of_the_Sangihe_Fo Etc.)
(At 10 Ma, divergent double subduction in Molucca Sea was initiated, resulting in convergence of Sangihe and Halmahera forearcs, and their subsequent collision at 2 Ma. Associated with this collision, Sangihe Forearc was thrust over Halmahera Forearc)

Faral, A., F. Lavigne, B.W. Mutaqin, F. Mokadem, R. Achmad, R.W. Ningrum, P. Lahitte, D.S. Hadmoko & E.T.W. Mei (2022)- A 22,000-year tephrostratigraphy record of unidentified volcanic eruptions from Ternate and Tidore islands (North Maluku, Indonesia). J. Volcanology Geothermal Research 423, 107474, p. 1-14.
(pre-proof online at: www.researchgate.net/publication/357989205_A_22000-year_tephrostratigraphy_record_of_unidentified_volcanic_eruptions_from_Ternate_and_Tidore_isl Etc.)
(Reconstruction of eruptive history of Ternate and Tidore over past 22k years BP, based on multidisciplinary study of 15 sections in Ternate, Tidore, and Maitara Islands. A least four major explosive events from ~22,000-740 years ago: (1) Plinian caldera-forming eruption of Telaga volcano on Tidore at ~22,000-17,500 cal. BP, (2) pumiceous eruption at ~18,000 BP attributed to last Plinian eruption of Gamalama volcano on Ternate, whose current eruptive activity is mainly strombolian or phreatomagmatic. Series of pyroclastic deposits related to Ngade maar formation on Ternate, with abundant deposits of scoria, pumice, and ash in all sites, at ~14,500–13,000 cal. BP. Two eruptions of Kie Matubu volcano on Tidore at ~2500 BP and 740. BP)

Farrokhpay, S., M. Cathelineau, S.B. Blancher, O. Laugier & L. Filippov (2019)- Characterization of Weda Bay nickel laterite ore from Indonesia. J. Geochemical Exploration 196, p. 270-281.
(Weda Bay nickel deposit in E Halmahera nickel rich saprolites mainly several types of MgNi serpentines)

Fiddin, T. & A. Hendratno (2012)- Karakteristik batuan ultrabasa di Pulau Halmahera, Provinsi Maluku Utara. J. Teknik Geologi (UGM), 1, 4, p. 1-5.
(online at: http://lib.geologi.ugm.ac.id/ojs/index.php/geo/article/view/18)
('Characteristics of ultrabasic rocks on Halmahera, North Moluccas'.Ultramafic rocks of Halmahera island belong to dunite, harzburgite and serpentinite types. Chemically part of tholeiite series, low in K2O and high in MgO, and formed in mid-ocean ridge setting (N-MORB), in depleted mantle ~60-80 km above upper mantle)

Finch, E.M. & S.J. Roberts (1993)- An integrated Tertiary biozonation scheme for the Halmahera region, Eastern Indonesia. In: T. Thanasuthipitak (ed.) International Symposium Biostratigraphy of mainland Southeast Asia: facies and paleontology (BIOSEA), Chiang Mai 1993, p. 455. *(Abstract only)*
(Outcrop samples from Halmahera includes E-M Eocene volcanoclastics. Late M Eocene (45 Ma) regional unconformity, overlain by Late Eocene limestones and Oligocene volcanoclastics. Second regional unconformity at ~25 Ma, marking arc-Australian continent collision. Halmahera arc initiated in Late Miocene)

Fitzpatrick, N., A. Harris, F. MacCorquodale & D. Wardiman (2015)- The Gosowong goldfield- a world-class epithermal gold-silver district in Indonesia. Proc. PACRIM 2015 Congress, Hongkong, Australasian Institute of Mining and Metallurgy (AusIMM), Melbourne, Publ. Ser. 2/2015, p. 235-242. *(Extended Abstract)*
(Gosowong epithermal Au-Ag deposits in NW arm of Halmahera discovered in 1994. With subsequent brownfields discoveries reserves of >6 Moz Au. Main deposits named Gosowong, Toguraci and Kencana. Epithermal mineralization in Pliocene andesitic-basaltic arc volcanics of Gosowong Fm (zircon ages 3.9-3.5 Ma) and Ar/Ar age for hydrothermal alteration of 2.9 Ma. Mineralisation in multistage veins, breccias and stockwork veins. Four major types of hypogene alteration)

Flett, D., R. Hall & N. Wagimin (2011)- The geology and hydrocarbon potential of the Weda Bay area, S.W. Halmahera, Eastern Indonesia. Proc. SE Asia Exploration Society (SEAPEX) Exploration Conference, Singapore 2011, 19, p. 1-31. *(Presentation)*
(New seismic data over undrilled Weda Bay Basin, SE of Halmahera, indicates >7km of Tertiary sediment. Source rocks believed to be present, with potential to generate oil and gas. Hydrocarbon expulsion indications on many

lines. Basin flanks currently within oil and gas generative window. Potential play types both reefs and stacked clastics in compressional structures)

Forde, E.J. (1997)- The geochemistry of the Neogene Halmahera Arc, Eastern Indonesia. Ph.D. Thesis University College London, p. 1-268.
(online at: https://discovery.ucl.ac.uk/id/eprint/10100650/1/The_geochemistry_of_the_Neogen.pdf)
(Halmahera arc is N-S intra-oceanic arc cutting across the islands of Halmahera and Bacan and is result of eastward subduction of Molucca Sea Plate. K/Ar dating revealed migration of volcanism along length of Halmahera arc. Oldest volcanics (~11 Ma) in S from Obi, where volcanism now extinct. To N in Bacan, ages from 7 Ma- Quaternary, in C Halmahera from 6- 2 Ma. Volcanic rocks from Obi, C Halmahera and N Bacan typical intra-oceanic arc lavas. Volcanic rocks from W and S Bacan suggest assimilation of continental component and supports hypothesis of overthrusting of Philippine Sea Plate ophiolitic and Australian plate continental material, due to collision in Early Miocene)

Gemmell, J.B. (2007)- Hydrothermal alteration associated with the Gosowong epithermal Au-Ag deposit, Halmahera, Indonesia; mineralogy, geochemistry, and exploration implications. Economic Geology 102, 5, p. 893-922.
(online at: https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.976.4137&rep=rep1&type=pdf)
(Gosowong epithermal Au-Ag deposit discovered in 1994 in NW arm Halmahera. Host rocks Miocene shallow marine, intermediate-basic volcanic and volcaniclastic rocks of Gosowong Fm. 40Ar/39Ar dating of adularia grains from vein zone yielded late Pliocene age (2.4-2.9 Ma))

Georgiades Bey, A. (1918)- Untersuchungen uber Eruptivgesteine der Insel Halmahera (Djilolo) im Archipel der Molukken. Inaugural Dissertation University of Zurich, p. 1-46. *(Unpublished)*
('Investigations of volcanic rocks of Halmahera Island (Djilolo) in the Moluccas Archipelago'. Petrographic study of basalts, diorites, trachydolerites, andesites, etc., collected by E. Gogarten in Halmahera around 1911. Little or no locality information. This was the first ever geological thesis by a student from Turkey (Constantinople; Sengor 1988)

Gogarten, E. (1918)- Geologie van Noord-Halmahera; voorlopige mededeeling. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 2, p. 267-280.
('Geology of North Halmahera, preliminary communication'. Summary of 1911 geological reconnaissance along N coast of Halmahera. Not very useful, except for presence of belemnite in sandstone at SE Morotai island (but fossil reportedly lost in transport to Germany))

Gunawan, E., A. Gualandi, N. Rawlinson, S. Widiyantoro, M. Kholil, P. Supendi, G.H. Pramono & S.T.Wibowo (2024)- Complex fault system associated with the Molucca Sea divergent double subduction zone revealed by the 2019 Mw 6.9 and Mw 7.1 earthquakes. Tectonophysics 890, 230493, p.

Hakim, A.S. (1989)- Tertiary volcanic rocks from the Halmahera Arc, Indonesia: petrology, geochemistry and low temperature alteration. M.Phil. Thesis, University of London, p. 1-292. *(Unpublished)*

Hakim, A.S. & R. Hall (1991)- Tertiary volcanic rocks from the Halmahera arc. J. Southeast Asian Earth Sciences 6, 3-4, p. 271-287.
(onine at: http://searg.rhul.ac.uk/pubs/hakim_hall_1991_halmahera.pdf)
(In W Halmahera Arc Quaternary and Late Neogene andesites and subordinate basalts. Probably no arc volcanic activity during most of Miocene: Neogene volcanic arc initiated at beginning of Late Miocene by E-ward subduction of Molucca Sea Plate at Halmahera Trench. Basalts of Oha Fm in SW belt older than Late Miocene (Late Cretaceous-Eocene suspected) and probably products of Late Mesozoic or E Tertiary subduction within Pacific, evolved by olivine, plagioclase and clinopyroxene fractionation. With extensive sub-greenschist facies alteration reflecting deep burial and/or high heat flows, producing zeolites, chlorites, smectites etc.)

Hall, R. (1987)- Plate boundary evolution in the Halmahera Region, Indonesia. Tectonophysics 144, p. 337-352.
(online at: http://searg.rhul.ac.uk/pubs/hall_1987%20Plate%20boundaries%20Halmahera.pdf)

(Halmahera stratigraphy links to E Philippines and records history of Molucca Sea subduction. Halmahera- E Mindanao basement part of Late Cretaceous-E Tertiary arc and forearc and part of single plate since Late Eocene- E Oligocene. No evidence of Oligo-Miocene arc: Pliocene arc on E Tertiary arc basement. Arc volcanism ceased briefly in Pleistocene and shifted W after deformation episode. Present arc built on deformed Pliocene arc. Diachronous collision at W edge Philippine Sea Plate which began in Mindanao in Late Miocene impeded Philippine Sea Plate movement and further motion achieved by strike-slip along Philippine Fault, subduction at Philippine Trench and subduction of Molucca Sea lithosphere under Halmahera)

Hall, R. (1999)- Neogene history of collision in the Halmahera region, Indonesia. Proc. 27th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, G014, p. 1-8.
(Molucca Sea Plate almost entirely subducted remnant of double subduction system, with Sangihe Arc in W, Halmahera Arc in E. In N Molucca Sea Halmahera Arc entirely overridden by Sangihe forearc, and in few million years time entire Halmahera arc may have disappeared)

Hall, R., J.R. Ali & C.D. Anderson (1995)- Cenozoic motion of the Philippine Sea plate: palaeomagnetic evidence from eastern Indonesia. Tectonics 14, 5, p. 1117-1132.
(online at: https://www.researchgate.net/publication/234032284_Cenozoic_motion_of_the_Philippine_Sea_Plate_Palaeomagnetic_evidence_from_eastern_Indonesia)
(New paleomagnetic data N and S of Sorong Fault record S-ward movement in Eocene and N-ward movement in Neogene. All sites N of Sorong Fault (Halmahera- Kasiruta- Waigeo) clockwise declinations. Neogene rocks small deflections, Oligocene- M Eocene rocks clockwise declination deflections of ~40°. Declinations of lower Eocene rocks indicate ~90° of CW rotation. Sorong Fault originated after Australia- Philippine Sea plate collision at ~25 Ma. Area N of Sorong Fault always part of Philippine Sea Plate)

Hall, R., J.R. Ali, C.D. Anderson & S.J. Baker (1995)- Origin and motion history of the Philippine Sea Plate. Tectonophysics 251, p. 229-250.
(online at: https://www.researchgate.net/publication/234032284_Cenozoic_motion_of_the_Philippine_Sea_Plate_Palaeomagnetic_evidence_from_eastern_Indonesia)
(Halmahera-Waigeo good Mesozoic- Tertiary stratigraphic record indicating long arc history for S part of plate. Regional unconformities in Middle Eocene and base Miocene (~25 Ma))

Hall, R., M.G. Audley-Charles, F.T. Banner, S. Hidayat & S.L. Tobing (1988)- Basement rocks of the Halmahera region, eastern Indonesia: a Late Cretaceous- Early Tertiary arc and fore-arc. J. Geological Society, London, 145, p. 65-84. *(online at: https://earthjay.com/earthquakes/20190714_halmahera/hall_etal_1988_halmahera_basement_rocks.pdf)*
(W Halmahera active volcanic arc. E Halmahera basement dismembered ophiolites with slices of Mesozoic and Eocene sediments, unconformably overlain by M Oligocene and younger sediments and volcanics. Mesozoic-Eocene sediments similar to Marianas fore-arc. E Halmahera basement interpreted as pre-Oligocene fore-arc lacking accretionary complex. Mesozoic- Tertiary sediments imbricated with igneous and metamorphic rocks represent deeper parts of fore-arc during Late Eocene plate reorganization. S Bacan basement continental metamorphic rocks associated with deformed ophiolitic complex, different from E Halmahera. Metamorphic rocks interpreted to be part of N Australian continental margin basement, separated from Halmahera by splay of Sorong Fault system. Deformed ophiolite complex of Bacan may represent magmatism in fault zone)

Hall, R., M.G. Audley-Charles, F.T. Banner, S. Hidayat & S.L. Tobing (1988)- Late Palaeogene- Quaternary geology of Halmahera, Eastern Indonesia: initiation of a volcanic island arc. J. Geological Society, London, 145, p. 577-590. *(online at: https://www.academia.edu/71808781/Late_Palaeogene_Quaternary_geology_of_Halmahera_Eastern_Indonesia_initiation_of_a_volcanic_island_arc)*
(E Halmahera rel. complete M Oligocene- Recent sedimentary section unconformable on ophiolitic complex, and Late Cretaceous- E Eocene arc volcanics. After volcanic arc activity ceased in Eocene, former fore-arc terrane uplifted and eroded in Late Paleogene. Clasts of Eocene reefal limestone with Discocyclina-Asterocyclina in ?Oligocene- E. Miocene Jawati conglomerate. Widespread E-M Miocene carbonates, with Eulepidina, Spiroclypeus, Miogypsinoids, Miogypsina, etc.. No evidence of arc volcanism in C Halmahera

between Eocene and Pliocene. Oligo-Miocene volcanism in nearby regions interpreted as related to Sorong Fault system. Rapid subsidence in E Pliocene (tied to initiation of subduction of Molucca Sea) lead to basinal marls deposition, followed by siliciclastic turbidites with increasing amounts of calc-alkaline volcanic debris from Pliocene West Halmahera volcanic arc. Deformation in Pleistocene at junction of E and W Halmahera. Third Halmahera arc (Quaternary) active in N part of the islands since 1 Ma)

Hall, R., P.D. Ballantyne, A.S. Hakim & G.J. Nichols (1996)- Basement rocks of Halmahera, eastern Indonesia: implications for the early history of the Philippine Sea. In: G.P. & A.C. Salisbury (eds.) Trans. 5th Circum-Pacific Energy and Mineral Resources Conference, Honolulu 1990, Gulf Publishing, Houston, p. 301-317.
(Oldest rocks on Halmahera are 'supra-subduction zone' ophiolites, overlain by Late Cretaceous and Eocene arc volcanics and sediments. Late Cretaceous- Eocene age plutonic rocks intrude ophiolites. Shallow marine Eocene limestones unconformably overlain by Neogene sediments. Halmahera basement many similarities to submarine plateaus and ridges of Philippine Sea and E Philippines basement terranes, suggesting existence of extensive Late Cretaceous and Eocene volcanic arc(?) systems on Mesozoic ophiolitic basement)

Hall, R., M. Fuller, J.R. Ali & C.D. Anderson (1995)- The Philippine Sea plate: magnetism and reconstructions. In: B. Taylor & J.H. Natland (eds.) Active margins and marginal basins: a synthesis of Western Pacific drilling results, American Geophysical Union (AGU) Monograph 88, p. 371-404.
(online at: https://www.researchgate.net/profile/Jason-Ali-3/publication/234044126_Philippine_Sea_Plate_paleomagnetics_and_reconstructions/links/0912f50e7cc5746b81000000/Philippine-Sea-Plate-paleomagnetics-and-reconstructions.pdf)
(Paleomagnetic results from ocean drilling and from land on Philippine Sea Plate indicate progressive N-ward translation of plate during Tertiary. ODP Leg 126 showed large CW declination shifts of up to -90° since E Oligocene. Similar large declination shifts at land sites at E margin of plate, similar changes in inclination as ocean drilling sites, and explained as result of entire plate rotation, marginal basin opening, and/or local tectonic deformation at plate edge. Propose plate rotated clockwise since E Tertiary by 5.5° between 0- 5 Ma, 34° between 5- 25 Ma, 50° between 40-50 Ma)

Hall, R. & G.J. Nichols (1990)- Terrane amalgamation in the Philippine Sea margin. Tectonophysics 181, p. 207-222.
(Philippine Sea plate includes plateaus of thickened crust, separated by thinner oceanic crust. Arrival of plateaus at subducting SW margin of Philippine Sea plate caused Philippine Trench to propagate S-ward in increments and caused transfer of terranes to Philippine margin. New data from the Halmahera region indicate plate boundaries strongly influenced by heterogeneous character of Philippine Sea plate. At present the Philippine Trench terminates at oceanic plateau which is structurally continuous with old forearc and ophiolite terrane on Halmahera. Position of this terrane caused Philippine Sea plate- Eurasia convergence to be transferred from subduction at Philippine Trench to Molucca Sea Collision Zone through NE-SW dextral transpressional zone across Halmahera)

Hall, R. & G. Nichols (1991)- Exploration in basins of the western Pacific margin: reducing the risk. In: J.W. Cosgrave & M.E. Jones (eds.) Neotectonics and resources, Belhaven Press, London, p. 243-256.
(Mainly on Halmahera geology)

Hall, R., G. Nichols, P. Ballantyne, T. Charlton & J. Ali (1991)- The character and significance of basement rocks of the southern Molucca Sea region. J. Southeast Asian Earth Sciences 6, p. 249-258.
(online at: http://searg.rhul.ac.uk/pubs/hall_etal_1991_molucca%20basement.pdf)
(Pre-Neogene basement rocks in S Molucca Sea region include ophiolitic rocks, arc volcanics and continental rocks. Ophiolitic complexes, interpreted as oldest parts of Philippine Sea Plate, overlain by U Cretaceous and Eocene sediments and volcanics. Plutonic rocks of island arc origin intruding ophiolites yield Late Cretaceous radiometric ages; amphibolites with ophiolitic protoliths yield Eocene ages. Ophiolites speculated to have originated during mid-Cretaceous plate reorganization. Late Cretaceous-Eocene arc volcanics in basement of Morotai, E Halmahera and Bacan overlain by shallow marine M-L Eocene limestones and Oligocene rift sequence with basaltic pillow lavas and volcaniclastic turbidites. Mid Eocene-Oligocene extension synchronous with opening of central W Philippine Basin)

Hammarstrom, J.M., B.T. Setiabudi, D.N. Sunuhadi, G.R. Robinson, C.L. Dicken, S. Ludington, A.A. Bookstrom & M.L. Zientek (2013)- Porphyry copper assessment for Tract 142pCu7202, Halmahera Arc, North Molucca Islands- Indonesia. In: J.M. Hammarstrom et al., Porphyry copper assessment of Southeast Asia and Melanesia, U.S. Geological Survey, Scientific Investigations Report 2010-5090-D, Appendix K, p. 175-185.
(online at: http://pubs.usgs.gov/sir/2010/5090/d/sir2010-5090d_text.pdf)
(Assessment of porphyry copper deposits in ~400 km long Neogene Halmahera island arc, along western parts of Morotai, Halmahera, Bacan, Obi, etc. With Kaputusan porphyry copper deposit on Bacan (with 77 Mt at 0.33% copper and 0.25 g/t gold; exact age unknown))

Handayani, L. (2004)- Seismic tomography constraints on reconstructing the Philippine Sea plate and its margin. Ph.D. Thesis Texas A&M University, College Station, p. 1-144.
(online at: http://txspace.tamu.edu/bitstream/1969.1/1497/1/etd-tamu-2004C-GEOP-Handaya.pdf)
(High velocity mantle anomalies coincident with Wadati-Benioff zones. N-ward movement of Philippine Sea Plate, WNW subduction of Pacific Plate since Eocene (~50 Ma), and N-ward subduction of Indian/ Australian Plate best explain subducted slab anomalies. E plate boundary originated as transform zone that evolved into subduction zone a few million years before Pacific Plate movement change. Initiation of this subduction zone may be one of triggers of Pacific Plate motion changes. 90° rotation of Philippine Sea Plate suggested in Hall (2002) reconstruction not supported by slab distribution beneath Philippine Sea region. Minimal rotation of Philippine Sea Plate assumed in reconstruction model)

Hanyu, T., J. Gill, Y. Tatsumi, J.I. Kimura, K. Sato, Q. Chang, R. Senda, T. Miyazaki, Y. Hirahara, T. Takahashi & I. Zulkarnain (2012)- Across- and along-arc geochemical variations of lava chemistry in the Sangihe arc: various fluid and melt slab fluxes in response to slab temperature. Geochem. Geophysics Geosystems 13, 10, Q10021, p. 1-27.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/2012GC004346/epdf)
(Sangihe oceanic arc N of NE Sulawesi 500km long, with >25 Quaternary volcanoes. Is W half of active arc-arc collision. In S arc, volcanic front lavas enriched in fluid-mobile elements, while rear arc lavas more enriched in melt-mobile elements. Proportion of sediment versus altered oceanic crust in slab component only ~20% but larger than other arcs in W Pacific, suggesting more subduction of thick sediments in narrowing Molucca Sea. Lavas from dormant N Sangihe arc similar to Quaternary rear arc rather than Quaternary volcanic front lavas in S arc, possibly related to advanced collision in N arc that could have slowed subduction)

Hartadi, E.T., R. Mjos, S.I. Midtbo, P.T. Allo, G. Toxopeus, S. Hay, N. Pickard et al. (2013)- Early insights into the exploration of the Halmahera Basin, East Indonesia. Proc. 37th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA13-G-092, p. 1-6.
(Preliminary results of geologic fieldwork on islands bordering S and E rim of Halmahera II basin prior to drilling (Kofiau, Boo, Klaarbeck; compared to other islands and sole exploration well in area, Bantanta A-1x))

Hase, T., K. Yonezu, T. Tindell, Syafrizal & K. Watanabe (2015)- The characteristics and paragenesis of the Tellurium-bearing Au-Ag Kencana deposit, Halmahera Island, Indonesia. Proc. Int. Symposium on Earth Science and Technology, Fukuoka 2015, p. 264-269.
(online at: www.researchgate.net/publication/363172025_The_Characteristics_and_Paragenesis Etc.)
(On Gosowong gold mining area in north central Halmahera; see also paper below. Common Te-minerals. Te-type low-sulfidation epithermal gold deposit with principal ore mineral chalcopyrite, also electrum, native gold, galena, sphalerite, hessite, etc.)

Hase, T., K. Yonezu, T. Tindell, Syafrizal & K. Watanabe (2015)- Mineralization characteristics of the Kencana deposit, Gosowong mining area, Halmahera, Indonesia. Proc. IGC 2015 (2nd International Conference and 1st Joint Conference Faculty of Geology Universitatas Padjadjaran and Faculty of Science Natural Res. Universiti Malaysia Sabah), p. 205-212.
(online at: http://seminar.ftgeologi.unpad.ac.id/wp-content/uploads/2016/02/Mineralization-Characteristics-of-the-Kencana-deposit.pdf)

(Gosowong gold mining area in N-C Halmahera with three deposits: Gosowong (1994), Togurachi (2000) and Kencana (2003). Kencana deposit three veins in Neogene andesites of Halmahera volcanic arc; classified as low-sulfidation Au-Ag epithermal deposit with chalcopyrite, electrum, Au-Ag-Te minerals, galena, sphalerite)

Hennig-Breitfeld, J., R. Hall, L.T. White, H.T. Breitfeld, M.A. Forster, R.A. Armstrong & B.P. Kohn (2024)- Age, origin and tectonic controls on rapid recent exhumation of the Sibela Mountains, Bacan, Indonesia. Int. J. Earth Sciences 113, p. 501-521, p. 1-23.
(online at: https://link.springer.com/content/pdf/10.1007/s00531-024-02390-1.pdf)
(Sibela Mountains of Bacan island, SW of Halmahera, E Indonesia, contain one of Earth's youngest metamorphic complexes, the Bacan Metamorphic Block Complex. Rapidly exhumed in Pleistocene time (~0.7 Ma) and now exposed at elevations up to 2000 m)

Hutasoit, A., M.P. Senja, W.P. Wisnu & W.A. Gumilang (2013)- An outline of nickel laterites deposits on Buli Region, East Halmahera, Indonesia. Proc. Indonesian Soc. Economic Geology (MGEI) Annual Convention, Papua and Maluku Resources, Bali 2013, p. 35-42.

Idrus, A. & Fadlin (2021)- Lithogeochemical exploration for delineating primary gold occurrences in West Kao area, North Halmahera District, North Maluku province. Indonesian Mining J. 24, 1, p. 31-45.
(online at: https://jurnal.tekmira.esdm.go.id/index.php/imj/article/download/1173/938)
(Several gold deposits on Halmahera Island, including low sulphidation epithermal (LSE) quartz veins in Gosowong goldfield. Veins mostly in N-S and NNE-SSW directions. This study to determine prospectivity in N part of Gosowong goldfield in West Kao sub district based on surface mapping, etc.)

Irzon, R. (2019)- Proses pembentukan dan asal material Formasi Kayasa di Halmahera berdasarkan unsur jejak dan unsur tanah jarang. Eksplorium 40, 1, p. 19-32.
(online at: http://jurnal.batan.go.id/index.php/eksplorium/article/view/5445/pdf)
('Genesis and source of material of the Kayasa Formation in Halmahera based on Trace and Rare Earth Elements'. Kayasa Fm one of four volcanic rock units on Halmahera. Classified as andesite-basalt Material of Kayasa Formation likely derived from ocean plate)

Jaffe, L.A., D.R. Hilton, T.P. Fischer & U. Hartono (2004)- Tracing magma sources in an arc-arc collision zone: Helium and carbon isotope and relative abundance systematics of the Sangihe Arc, Indonesia. Geochem. Geophysics Geosystems (AGU) 5, 4, p. 1-17.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2003GC000660)
(Sangihe Arc presently colliding with Halmahera Arc in NE Indonesia, forming only extant example of arc-arc collision zone. He and C data suggest variations in primary magma source characteristics along strike of arc, which may be caused by greater volumes of sediment subduction in N, variability in subducted sediment composition, or enhanced slab-derived fluid/melt production. Northern volcanoes high contribution of CO_2 from carbonate associated with subducting slab)

Kanig, M., T. Soeprapto & G. Friedrich (1990)- Die Bindungsformen von Si, Mg, Fe, Al, Mn, Cr, Ni und Co in Saprolit und Laterit uber Serpentinit, Insel Gebe, Indonesien. Zeitschrift Pflanzenernahrung und Bodenkunde 153, 6, p. 425-431.
('The fixation of Si, Mg, Fe, Al, Mn, Cr, Ni and Co in saprolite and laterite above serpentinite, Gebe island, Indonesia' Gebe Island part of Halmahera group. In laterite, most of extractable Si, Al, Cr and Ni bound to goethitic Fe-hydroxide. In saprolite and laterite Co bound to Mn-oxides)

Khadafi, B.M., C. Danisworo & H.S. Purwanto (2013)- Potensi nikel sulphida daerah IUP Harita di Pulau Obi, Kabupaten Halmahera Selatan, Provinsi Maluku Utara. J. Ilmiah Magister Teknik Geologi (UPN) 6, 2, p. 1-8.
(online at: http://jurnal.upnyk.ac.id/index.php/mtg/article/view/262/224)
('Potential of nickel sulphides in the PT Harita area on Obi Island, S Halmahera, N Maluku Province')
(NW part of Obi Island mainly Mesozoic ultramafic rocks, overlain by Oligocene- E Miocene Bacan Fm andesitic volcanoclastics. Four areas on Obi Island with potential for nickel sulphide deposits and two for other mineralization)

Koenadi, H.S. (1995)- Gempabumi tektonik di Selat Obi, Maluku Utara. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 5, 44, p. 12-24.
('Tectonic earthquakes in Obi Straits, N Moluccas')

Konopka, G. (2018)- Lateritization of ultramafic rocks and its significance for the formation of mineral deposits- Halmahera, Indonesia study. Ph.D. Thesis, Faculty of Geology, Warsaw University, Poland, p. *(in Polish)*

Konopka, G., K. Szamałek & K. Zglinicki (2022)- Ni-Co bearing laterites from Halmahera Island (Indonesia). Applied Sciences (MDPI) 12, 15, 7586, p. 1-30.
(online at: https://www.mdpi.com/2076-3417/12/15/7586)
(Study of~10m thick lateritic Ni and Co deposits in Weda Bay laterite, in concession of PT. Halmahera Resources Perkasa Ltd in C Halmahera. Developed on serpentinized hartzburgite of E-M Jurassic supra-subduction zone ophiolite, which is overlain by Late Cretaceous- Eocene sedimentary and volcanic rocks)

Kraeff, A. (1954)- De geologie van de chrysotiel- asbest voorkomens van de Oost-arm van Halmaheira. Djawatan Geologi, Bandung. Report K54-1, p. 1-40. *(Unpublished)*
('The geology of chrysotile-asbestos occurrences in the East Arm of Halmahera')

Kuenen, P.H. (1932)- Een geologische verkenningstocht op Morotai. Tropisch Nederland 5, 18, p. 275-283.
('A geological reconnaissance on Morotai'(part 1. Notes on 1930 trip to Morotai Island N of Halmahera by geologist Kuenen with the Snellius Expedition. W coast rocks mainly composed of old volcanic rocks with enclosed blocks of limestone. Mainly travelog, not much on geology)

Kuenen, P.H. (1933)- Een geologische verkenningstocht op Morotai- II (Slot). Tropisch Nederland 5, 19, p. 291-294.
('A geological reconnaissance on Morotai- part 2 of 2'. Notes on 1930 trip to Morotai. No geology.

Kunrat, S. P. Bani, N. Haerani, U.B. Saing, A. Aiuppa & D.K. Syahbana (2020)- First gas and thermal measurements at the frequently erupting Gamalama volcano (Indonesia) reveal a hydrothermally dominated magmatic system. J. Volcanology Geothermal Research 407, 107096, p. 1-11.
(Gas and thermal measurements at summit of Gamalama volcano, off W Halmahera, indicate system dominated by hydrothermal processes, causing numerous phreatic eruptions. Since 1510, Gamalama experienced 66 confirmed eruptions, producing dense columns of ash and incandescent material, voluminous lava flows, pyroclastic flowsand lahars. Major eruptive event in September 1775, formed Tolire maar, burying village of Soela Takomi and killing 141 inhabitants)

Kusnama (1989)- Petrography and provenance of Neogene sandstones of South Halmahera, East Indonesia. M.Phil. Thesis, University of London, p. *(Unpublished)*

Kusnama (2008)- Karakteristik batubara daerah Patani, Halmahera Timur, Maluku Utara. Proc. 37th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 745-760.
('Characteristics of coal in the Patani area, E Halmahera, N Moluccas'. Around 1m thick Paleocene coals in Dorosagu Fm of Patani area, Halmahera, in two blocks: Paniti Blocks autochthonous coal with vitrinite reflectance Rv 0.42-0.54%; Bicoli Block allochthonous deltaic coal deposits with clay partings and average Rv 0.36- 0.43%)

Kusnama & D. Sukarna (1996)- The provenance of Neogene sandstones South Halmahera, East Indonesia. Bull. Geological Research Development Centre (GRDC), Bandung, p. 181-201.
(Two provenance areas in Late Neogene Weda Group: in W mainly derived from andesitic volcanics, in E mainly foraminiferal limestones?. With 3 paleogeographic maps for Late Miocene, E Pliocene, Late Pliocene)

Kusworo, A., L.D. Santy & A.J. Widiatama (2017)- Karakteristik ichnofosil pada endapan turbidit karbonat-silisiklastik Formasi Weda, Pulau Halmahera. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, p. 1-5.
(online at: https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_Karakteristik-Ichnofosil-Pada-Endapan-Turbidit-Karbonat-Silisiklastik.pdf)
('Characteristics of ichnofossil in carbonate-siliciclastic deposits of the Weda Formation, Halmahera Island'. Two deep marine trace fossils associations in 60m of Late Miocene Weda Fm turbiditic series in Lili River: Thalassinoides and Zoophycos-Chondrites)

Lallemand, S.E., M. Popoff, J.P. Cadet, A.G. Bader, M. Pubellier, C. Rangin & B. Deffontaines (1998)- Genetic relations between the central and southern Philippine Trench and the Sangihe Trench. J. of Geophysical Research 103, p. 933-950.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/pdfdirect/10.1029/97JB02620)
(On junction between C and S Philippine Trench and Sangihe Trench near 6°N. Model favors N extension of Halmahera Arc up to 8°N, with three segments offset left-laterally along NW-SE transform faults. Accretion of N segment to Mindanao Island at 4-5 Ma resulted in failure in Philippine Sea Plate. Sangihe deformation front recognized up to 7°N, but seems active only S of 6°N)

Liu, W., Q. Liu, J. Hu, Y. Yang, C. Gai, Y. Zhou & W. Zhang (2025)- Complexity of the Oligocene meridional motion of the Philippine Sea Plate. Geology 53, 2, p. 140-144.
(Magnetostratigraphic and paleomagnetic research from DSDP Site 445 show S-ward-moving trend of PSP during 29-25 Ma period, followed by N-ward motion after 25 Ma, attributed to rollback of subducted slab S of PSP before 25 Ma and subsequent collision between Australian Plate and PSP after that. Tectonic reorganization around 25 Ma can also be identified in Pacific Plate and convergence between Indian and Asian Plates)

MacPherson, C.G., E.J. Forde, R. Hall & M.F. Thirlwall (2003)- Geochemical evolution of magmatism in an arc-arc collision; the Halmahera and Sangihe Arcs, eastern Indonesia. In: R.D. Larter & P.T. Leat (eds.) Intra-oceanic subduction systems; tectonic and magmatic processes, Geological Society, London, Special Publ. 219, p. 207-220. *(online at: https://earthjay.com/earthquakes/20190412_indonesia/macpherson_etal_2003_Halmahera_Sangihe_arcs.pdf)*
(Molucca Sea Collision Zone site of collision of two active subduction systems. Both Halmahera subduction zone in E and Sangihe zone in W have subducted oceanic Molucca Sea Plate, now consumed. Both volcanic arcs active since Neogene and show increased evidence for sediment recycling as collision progressed)

Malaihollo, J.F.A. (1993)- The geology and tectonics of the Bacan region, East Indonesia. Ph.D. Thesis University of London, p. 1-406 *(Unpublished)*
(online at: https://discovery.ucl.ac.uk/id/eprint/10100987/1/The_geology_and_tectonics_of_t.pdf).
(Bacan Island SW of Halmahera in convergence zone between Australian, Philippine Sea and Eurasian plates. Part of the W Halmahera-Obi ProvinceOldest rocks Paleozoic? metamorphics of Sibela Continental Suite.Also North Sibela Mountains ophiolite. Early Oligocene pillow basalts and Late Oligocene volcanoclastic turbidites, E-M Miocene carbonate platform of Ruta and Amasing Fms. Etc. (see also below))

Malaihollo, J.F.A. & R. Hall (1996)- The geology and tectonic evolution of the Bacan region, East Indonesia. In: R. Hall & D.J. Blundell (eds.) Tectonic evolution of SE Asia, Geological Society, London, Special Publ. 106, p. 483-497.
(online at: http://searg.rhul.ac.uk/pubs/malaihollo_hall_1996%20Bacan.pdf)
(Bacan near convergence Eurasian, Philippine Sea and Australian plates. Old? Sibela metamorphics with young isotope ages juxtaposed against Sibela ophiolite with Cretaceous isotope age with Oligocene-Miocene overprint. North Bacan oldest rocks low metamorphic U Eocene Bacan Fm arc volcanics and turbiditic volcaniclastics. Similar Lower Miocene sequence in S Bacan. Major Lower Miocene (~22 Ma) unconformity, representing Australian continent- Philippine Sea plate collision, overlain by shallow marine E-M Miocene limestones with interbeds of Amasing Fm volcaniclastic sands. U Miocene- Pleistocene Kaputusan Fm arc andesites from four eruption centers, shallow marine pyroclastic rocks and fringing coastal reef limestones. Volcanic rocks produced by E-ward subduction of Molucca Sea plate. Quaternary basalts related to movement along Sorong fault. Most

of Bacan part of Philippine Sea plate since Cretaceous. Evidence for continental crust of Australian origin in Bacan area by E Miocene)

Martin, K. (1904)- Jungtertiare Kalksteine von Batjan und Obi. Sammlungen Geologischen Reichs-Museums Leiden, ser. 1, VII, p. 225-230.
(online at: www.repository.naturalis.nl/document/552413)
(Young Tertiary limestones from Bacan and Obi'. Occurrence of likely Early Miocene-age limestone with common Lithothamnium, Lepidocyclina and Heterostegina in SW Bacan (associated with coal beds?). N-Central Obi limestones with same fauna (occurrences not reported by Verbeek 1899))

Matsuoka, K. (1981)- Dinoflagellate cysts and pollen in pelagic sediments of the northern part of the Philippine Sea. Bull. Faculty Liberal Arts, Nagasaki University Natural Science 21, 2, p. 59-70.

McCaffrey, R. (1982)- Lithospheric deformation within the Molucca Sea arc-arc collision- evidence from shallow and intermediate earthquake activity. J. of Geophysical Research 87, B5, p. 3663-3678.
(online at: www.researchgate.net/publication/240484962_Lithospheric_deformation_within_the_Moluc- Etc).
(Local earthquake survey in Molucca Sea arc-arc collision zone. Concentration of earthquake foci in 10- 50km depth range in limited region under Talaud-Mayu Ridge suggests convergence between arcs proceeds by shortening within basement of intervening Molucca Sea plate)

McCaffrey, R. (1983)- Seismic-wave propagation beneath the Molucca Sea arc-arc collision zone, Indonesia. Tectonophysics 96, 1-2, p. 45-57.
(Seismograms of earthquakes from Molucca Sea arc-arc collision zone, show wide variety of coda envelope shapes and frequency contents. Shallow (<20 km) events probably originate within accretionary wedge of collision zone and their signal characters indicate intense scattering within the highly deformed accretionary material. Wide variation in efficiency of S-wave propagation from intermediate depth events suggests presence of considerable heterogeneity in deeper structure of collision zone)

McCaffrey, R. (1991)- Earthquakes and ophiolite emplacement in the Molucca Sea collision zone, Indonesia. Tectonics 10, 2, p. 433-453.
(online at: https://www.researchgate.net/publication/248816308_Earthquakes_and_ophiolite_emplacement_in_the_Molucca_Sea_Collision_Zone_Indonesia
(Earthquakes indicate high-angle (30-60°) thrust faults beneath Talaud-Mayu Ridge in Central Molucca Sea, penetrating at least 15 km into upper mantle and elevate pieces of crust and upper mantle at rapid rate. These pieces likely include thick ophiolites detached from Molucca Sea lithosphere. High seismic activity consistent with Molucca Sea accommodating much of Philippine-Eurasian convergence)

McCaffrey, R., E.A. Silver & R.W. Raitt (1980)- Crustal structure of the Molucca Sea collision zone, Indonesia. In: D.E. Hayes (ed.) The tectonic and geologic evolution of Southeast Asian seas and islands 1, American Geophysical Union (AGU), Geophysical Monograph 23, p. 161-178.
(online at: http://web.pdx.edu/~mccaf/pubs/mccaffrey_mol_sea_agu_1980.pdf)
(Scripps 1976-1977 Molucca Sea seismic refraction profiles showing thick low-velocity collision complex. Gravity models suggest steep upthrusted (up to 6 km) oceanic basement slab under Talaud- Mayu Ridge)

McConachy, T.F., H. Permana, R.A. Binns, I. Zulkarnain, J.M. Parr, C.J. Yeats, N.D. Hananto, B. Priadi et al. (2004)- Recent investigations of submarine hydrothermal activity in Indonesia. Proc. PACRIM 2004 Conference, Adelaide, Australasian Institute of Mining and Metallurgy (AusIMM), p. 161-172.
online at: www.researchgate.net/publication/252551811_First_Survey_For_Submarine_Hydrothermal_Vents_In_NE_Sulawesi_Indonesia)
(Indonesia-Australia-led marine expeditions undertaken aboard KR Baruna Jaya VIII in 2001- 2003 identified 3-4 new sites of hydrothermal activity in Sangihe arc, N Sulawesi. No evidence of sediment-hosted massive sulfides in Tomini Bay. Recently discovered Maselihe seaount in Celebes Sea, W of Sangihe Arc, most likely part of oceanic basement of Celebes Sea Basin, not product of recent eruption)

Micklethwaite, S., S. Feig, T. Falloon & S. Meffre (2012)- Subduction polarity reversal, complex slab interactions and rapid changes to arc extension: Halmahera island arc, Indonesia. In: Cause and effects of deformation in the lithosphere, Specialists Group in Tectonics and Structural Geology (SGTSG) Conf., Waratah Bay, Geological Society Australia, v. 102, p. 89. *(Abstract only)*
(Active island arc of Halmahera located at polarity reversal between subducting Molucca and Philippines Sea Plates. Majority of active volcanic arc tied to subducting Molucca Sea Plate but in N arm of Halmahera arc diverges towards tip of Philippines subduction zone. Thrust faulting of Oligocene- Miocene rocks in S and C Halmahera, but not in N. Pliocene volcanism when subduction of Philippines Sea Plate initiated and interacted with subducting Molucca Sea Plate, also leading to high-grade epithermal gold deposits at Gosowong)

Micklethwaite, S. & D. Silitonga (2011)- Transient kinematic changes in epithermal systems: Toguraci deposit, Halmahera. Proc. 11th Biennial Conf. Society for Geology Applied to Mineral Deposits (SGA), Townsville 2011, p. 748-740.
(On Late Pliocene epithermal vein systems in Toguraci Au-Ag deposit of Gosowong goldfield, N Halmahera. Host rocks bimodal basaltic to andesitic volcanic lavas, volcaniclastics and diorites with zircon U-Pb isotopic ages of ~3.1-3.7 Ma. Epithermal mineralisation dated as 2.8-2.9 Ma)

Milsom, J., R. Hall & T. Padmawidjaja (1996)- Gravity fields in eastern Halmahera and the Bonin Arc; implications for ophiolite origin and emplacement. Tectonics 15, 1, p. 84-93.
(Classic large ophiolite bodies generally associated with large gravity anomalies. No large anomalies in ophiolitic fragmented terranes like E Halmahera-Waigeo terrane. Ophiolites probably Jurassic age and associated with Cretaceous- M Eocene island arc volcanics. Crust at least 20km thick, probably thickening in intra-oceanic island arc. Waigeo also has Oligocene volcanoclastics)

Milsom, J., L. Parson, D. Massom, G. Nichols, N. Sikumbang & B. Dwiyanto (1996)- Tectonics of the Palau-Halmahera- Waigeo triangle. In: G.P. & A.C. Salisbury (eds.) Trans. 5th Circum-Pacific Energy and Mineral Resources Conference, Honolulu 1990, Gulf Publishing, Houston, p. 385-395.
(Region E of Halmahera occupied by number of blocks of thickened island-arc crust and regions of deeper water underlain by oceanic crust. Geological history still obscure. East Philippine Sea Arc formed in Eocene; had E-W strike in Oligocene, now N-S alignment after rotation of Philippine Sea Plate. In earliest Miocene, a second arc terrane, which also included Eocene volcanics, welded onto New Guinea which at that time was 2000km S of present position)

Moore, G.F., D. Kadarisman, C.A. Evans & J.W. Hawkins (1981)- Geology of the Talaud Islands, Molucca Sea collision zone, northeast Indonesia. J. Structural Geology 3, p. 467-475.
(Talaud Islands at N margin of collision zone between Sangihe and Halmahera island arc systems. Oldest rock units are dismembered ophiolites and Early Miocene(?) tectonic melange with blocks of serpentinite, M Eocene radiolarian chert, etc. Overlain by folded, W-verging M Miocene-Pleistocene marine sediments)

Moore, G.F., D. Kadarisman & Sukamto (1980)- New data on the geology of the Talaud Islands, Molucca Sea. Bull. Geological Research Development Centre (GRDC) 13, p. 5-12.
(Talaud islands at N end of Molucca Sea with E-dipping slabs of ophiolite in tectonic melange, associated with M Eocene cherts and limestones. Overlain by moderately deformed, very deep marine M Miocene- Pliocene sediments. Talaud ophiolites interpreted as fragments of Eocene or older oceanic crust and mantle, emplaced into forearc terrane in Early Miocene. Talaud Island block uplifted >2000m since Pliocene)

Moore, G.F. & E.A. Silver (1983)- Collision processes in the northern Molucca Sea. In: D.E. Hayes (ed.) The tectonic and geologic evolution of Southeast Asian seas and islands 2, American Geophysical Union (AGU), Geophysical Monograph 27, p. 360-372.
(Collision zone between two facing island arcs. W Mindanao Arc collided in mid-Tertiary with E Mindanao Arc. Thick sediments, presently being deformed in Molucca Sea collision zone, eroded from New Guinea and Halmahera in S and from collision zone in Mindanao. Substantial strike-slip motion during collision. Two new subduction zones at Cotabato and Philippine trenches are propagating S-ward)

Morrice, M.G. (1982)- Mineralogy, petrology and geochemistry of the Sangihe Arc; volcanism accompanying arc- arc collision in the Molucca Sea, Indonesia. Ph.D. Thesis University of California, Santa Cruz, p. 1-363.

Morrice, M.G. & J.B. Gill (1986)- Spatial patterns in the mineralogy of island-arc-magma series:-Sangihe-Arc, Indonesia. J. Volcanology Geothermal Research 29, p. 311-353.
(500km long Sangihe arc is W part of two colliding arcs in NE Indonesia. Andesites dominate. Plagioclase basalts at S volcanic front evolve to two-pyroxene andesites. Augite basalts behind volcanic front and to N where collision more complete, evolve to hornblende andesites. Percentage of mantle fusion highest at S volcanic front)

Morrice, M.G., P.A. Jezek, J.B. Gill, D.J. Whitford & M. Monoarfa (1983)- An introduction to the Sangihe arc: volcanism accompanying arc-arc collision in the Molucca Sea, Indonesia. J. Volcanology Geothermal Research 19, p. 135-165.
(In Molucca Sea region Sangihe and Halmahera arcs presently colliding (earth's only example of collision between facing volcanic arcs). Collision more advanced in N Molucca Sea where back-arc thrusting occurs along Cotobato and Philippine trenches and volcanic centers are inactive and dissected. Sangihe Arc ~500 km long, from NE tip of Sulawesi to Mindanao, Philippines, with 25 Quaternary volcanic centers. Active volcanic belt 70 km wide, 100-180 km above top of W-dipping Benioff zone. Rockes range from basalt to rhyolite, mainly andesites. Tholeiitic suites confined to S volcanic front. Calc-alkaline suites throughout arc. S to N increase in LIL-elements without corresponding changes in Sr-isotopes interpreted as decreasing partial melting N-ward)

Morris, J.D., P.A. Jezek, S.R. Hart & J.B. Gill (1983)- The Halmahera island arc, Molucca Sea collision zone, Indonesia: a geochemical survey. In: D.E. Hayes (ed.) The tectonic and geologic evolution of Southeast Asian seas and islands, 2, American Geophysical Union (AGU), Geophysical Monograph 27, p. 373-387.
(W Halmahera volcanic arc above 45° E-dipping Benioff zone, present down to 230 km. Three regions with distinct chemistry and tectonic setting. Most volcanoes part of calc-alkaline oceanic segment. Continental suite on Bacan reflects intersection of oceanic arc with continental fragment. Origin of alkaline rocks on inactive volcanic islands along Sorong Fault zone unclear)

Nichols, G.S. & R. Hall (1991)- Basin formation and Neogene sedimentation in a backarc setting, Halmahera, eastern Indonesia. Marine and Petroleum Geology 8, p. 50-61.
(online at: https://www.academia.edu/84142557/Basin_Formation_and_Neogene_Sedimentation_in_a_Backarc_Setting_Halmahera_Eastern_Indonesia)
(Halmahera Basin formed by subsidence of thickened crust of imbricated Mesozoic-Paleogene arc and ophiolite rocks. In Miocene basement complex formed thickened crust on which reef and reef-associated sediments were deposited, similar to Philippine Sea Plate plateaux and ridges. Late Miocene convergence between Philippine Sea Plate- Eurasian margin resulted in formation of Halmahera Trench to W. Subduction of Molucca Sea Plate at trench caused development of volcanic island arc. Subsidence in back-arc area produced sedimentary basin filled by clastics eroded from arc and uplifted basement and cover rocks. Basin asymmetric, thickest sediments on W side, against volcanic arc. Halmahera Basin modified by Plio-Pleistocene E-W compression as Molucca Sea Plate was eliminated by subduction).

Nichols, G., R. Hall, J. Milsom, D. Masson, L. Parson, N. Sikumbang, B. Dwiyanto & H. Kallagher (1990)- The southern termination of the Philippine Trench. Tectonophysics 183, p. 289-303.
(Philippine Trench in process of propagating S and some of ESE-WNW convergence is transferred via broad NE-SW zone of dextral strike-slip across N Halmahera into Molucca Sea Collision Zone. E Halmahera-Waigeo Ophiolite Terrane area of shallow water and islands underlain by ophiolitic basement between Halmahera and Sorong Fault Zone. Halmahera is in diffuse boundary zone at margin of Philippine Sea Plate)

Nichols, G., Kusnama & R. Hall (1991)- Sandstones of arc and ophiolite provenance in a backarc basin, Halmahera, eastern Indonesia. In: A.C. Morton et al. (eds.) Developments in sedimentary provenance studies, Geological Society, London, Special Publ. 57, p. 291-303.
(online at: http://searg.rhul.ac.uk/pubs/nichols_etal_1991_sandstone%20provenance.pdf)
(Late Neogene backarc basin on Halmahera distinctive detrital sandstones mineral assemblages. Quartz extremely rare, indicating no input from continental sources. Two provenance areas: volcanics in W half of basin

and black sands of ultrabasic origin interbedded with carbonate mudstones in E of basin. These reflect nature of terrains which bordered Halmahera Basin)

Nugroho, K.F. & L.S. Heliani (2019)- Analysis of Sangihe islands movements derived from recent GPS observation. J. Geospatial Information Science Engineering (UGM) 2, 2, p. 220-227.
(online at: https://jurnal.ugm.ac.id/jgise/article/view/51146/26644)
(Sangihe plate in N Moluccas horizontal movement of 9.9 mm/ year to SE)

Nur, I., R. U.R. Irfan & A. La Masinu (2018)- Mineralogy and fluid inclusion microthermometry of epithermal gold-base metal mineralization at Anggai, Obi Island, Indonesia.Int. J. Advanced Science Engineering Information Technology (IJASEIT) 8, 2, p. 469-474.
(online at: https://ijaseit.insightsociety.org/index.php/ijaseit/article/view/3822)
(Epithermal gold-base metal mineralization at Anggai village, Obi identified during BHP exploration program in 1995-1996. Host rocks porphyritic basalt and andesite of Oligocene- E Miocene Bacan Volcanics)

Olberg, D.J. (2001)- Ore shoot targeting in the Gosowong vein zone, Halmahera, Indonesia. Masters Economic Geology Thesis, University of Tasmania, Hobart, p. 1-227.
(online at: http://eprints.utas.edu.au/11602/2/Whole-Olberg%2C_2001_thesis.pdf)
(Gosowong gold mineralization in N arm of Halmahera low-sulfidation epithermal quartz vein deposit with strike length of ~400m, hosted in two S-plunging ore shoots in ?Late Miocene Gosowong Fm andesitic-dacitic volcanics, along E-dipping normal fault.)

Olberg, D.J., J. Rayner, R.P. Langmead & J.A.R. Coote (1999)- Geology of the Gosowong epithermal gold deposit, Halmahera, Indonesia. In: G. Weber (ed.) Proc. PACRIM '99 Congress, Bali 1999, Australasian Institute of Mining and Metallurgy (AusIMM), Parkville, Publ. 4/1999, p. 179-185.
(Gosowong deposit classic low-sulphidation epithermal copper-gold porphyry in Neogene Halmahera magmatic arc. Elongate dome formed by magma intrusion. Host rocks ?Late Miocene intermediate-basic volcanics and volcaniclastics. Multiphase epithermal quartz-adularia and quartz-chlorite fissure veins, breccias, and stockworks. Resource estimated at 0.99 Mt at 27 g/t Au and 38 g/t Ag for a total of 870 000 ounces Au)

Palmer, M.R. (1991)- Boron- isotope systematics of Halmahera arc (Indonesia) lavas: evidence for involvement of the subducted slab. Geology (GSA) 19, 3, p. 215-217.
(Sediments and altered oceanic crust are enriched in boron and cesium relative to uncontaminated mantle products. Combination of B-isotopes and Cs concentrations in Halmahera arc lavas suggests influence by fluids derived from dehydration or melting of subducted slab)

Permana, H. (1987)- Ofiolit daerah Akelamo, Pulau Obi, Maluku Utara. J. RISET Geologi dan Pertambangan (LIPI) 8, 1, p. 13-24.
('Ophiolite in the Akelamo area, Obi Island, North Moluccas'. Melange complex of SW Obi (presumably post-Jurassic), with basic-ultrabasic rocks (peridotite, gabbro with dikes of plagiogranite and basalt), crystalline limestone, etc. Overlain by Oligocene volcanoclastics and younger sediments)

Permana, H., T. McConachy, B. Priadi, J. Parr, N.D. Hananto, S. Burhanuddin, M. Pirlo, I.S. Brodjonegoro & Sultan (2008)- Gunungapi dan kegiatan hidrotermal bawah laut di perairan Sulawesi Utara: mineralisasi dan implikasi tektonik. J. Geologi Kelautan 6, 2, p. 69-79.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/151/141)
(Volcanoes and subsea hydrothermal activities in North Sulawesi waters: mineralization and tectonic implications'. IASSHA 2003 expedition in Sangihe islands waters identified the submarine volcano of Kawio Barat and observed hydrothermal activities at Roa, Naung and Banua Wuhu. At Kawio Barat volcano polychaete 'tube worms' colony growth on rock at methane gas seep)

Permanadewi, S., J. Wahyudiono & A. Tampubolon (2017)- Cebakan nikel laterit di Pulau Gag, Kabupaten Raja Ampat, Provinsi Papua Barat. Buletin Sumber Daya Geologi (BSDG) 12, 1, p. 55-70.
(online at: http://buletinsdg.geologi.esdm.go.id/index.php/bsdg/issue/archive)

('Lateritic nickel deposit on Gag Island, Raja Ampat Regency, West Papua Province'. Lateritic nickel (Ni, Co, Fe) deposits cover 2/3 of Gag island, derived from weathering of ultramafic rocks (serpentinite, harzburgite and pyroxenite). Ophiolite complex oceanic crust tectonically emplaced onto continental margin and island arc. Secondary nickel ore garnierite. Lateritic zone with 1.2% Ni. Iron >30% Fe in limonitic layer)

Pratita, G.A.N., I.R. Palupi & C. Prasetyadi (2023)- 2D and 3D modelling of Molucca Sea double subduction zone based on primary waves travel time seismic tomography inversion. Proc. 4th SE Asian Conference on Geophysics (SEACG 2022), Bandung, 2022, IOP Conference Series: Earth and Environmental Science 1227, 012031, p. 1-9.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1227/1/012031/pdf)
(Molucca Sea Microplate between E-ward moving Eurasian Plate (Sangihe Microplate) and W-moving Philippine Sea Plate (Halmahera Microplate). Seismic tomography shows double subductionzones along Molucca Sea. West Sangihe Thrust Fault (subduction under Sangihe Microplate) is deeper and steeper (627 km, average subduction angle of 45.3°) than East Halmahera Thrust Fault (subduction under Halmahera Microplate; 280 km, average subduction angle of 35.8°)

Priadi, B., H. Permana, R. Binns & I. Zulkarnain (2006)- Maselihe Volcano: a new discovery submarine volcano in the Sangihe Arc, Eastern Indonesia. Proc. Int. Interdisciplinary Conference Volcano International Gathering 2006, Yogyakarta, p. 47-56.
(Recently discovered Maselihe seamount, rising >400 m above sea floor in Sangihe Arc, N Moluccas (also known as Banua Wuhu). Several episodes of temporary rising above sea level in historic times (1835-1848, 1889-1895?, 1919-1935))

Priadi, B., I. Zulkarnain, R. Binns, H. Permana, I. Prasetyo et al. (2004)- Oceanic-island alkaline volcanism among submarine volcanoes along the Sangihe Arc, Eastern Indonesia. Proc. First Annual Meeting Asia Oceania Geosciences Society (AOGS) Seminar, Singapore 2004, p.

Prihatmoko, S., H. Lubis & E. Suherman (2013)- Mineral district of Bacan Island, North Maluku: geology and gold-copper exploration status. Proc. Annual Conv. Indonesian Soc. Economic Geologists (MGEI), Papua & Maluku Resources, Bali 2013, p. 65-88.
(Same paper as below)

Prihatmoko, S., H. Lubis & E. Suherman (2014)- Mineral district of Bacan Island, North Maluku: geology and gold-copper exploration status. Majalah Geologi Indonesia (IAGI) 29, 3, p. 199-224.
(Bacan islands SSW of Halmahera several tectonic domains and magmatic arcs since pre-Eocene. Incl. Eocene-E Miocene Bacan Fm volcanic arc (N-ward subduction of Australian Plate under Philippine Sea Plate). Collision of Australian continental fragment (Sibela Metamorphics) with volcanic arc in M Miocene. Late Miocene-Pliocene Kaputusan Fm arc volcanics, produced by E-ward subduction of Molucca Sea Plate under Halmahera, and Quaternary volcanics. Mineralization types in Bacan Fm include porphyry copper-gold, skarn metasomatism and polymetallic veins. High-sulphidation epithermal mineralization in Kaputusan Fm)

Prihatmoko, S. & F.E. Nugroho (1998)- Tertiary volcanic and intrusive rocks in Obi Island, Maluku Indonesia and related hydrothermal mineralization. Proc. 27th Annual Conv. Indonesian Association Geologists (IAGI), Sumberdaya Mineral Energi, Yogyakarta, p. I 29-I 45.
(online at: https://www.iagi.or.id/web/digital/56/4.pdf)
(Obi islands between two strands of Sorong Fault zone. In SW Obi Pre-Tertiary with low-metamorphic Triassic-Jurassic micaceous sandstones with Pentacrinus. Ophiolites in W Obi. In NE Obi subaequous- subaerial Late Eocene-M Miocene andesitic volcanics more similar to Moon and Mandi Volcanics of W Papua Birds Head than to W Halmahera volcanic arc. Three mineralized prospects)

Pringle, I.J. (1989)- Exploration for epithermal gold mineralisation in West Halmahera- Bacan island area, North Maluku Province. In: B. Situmorang (ed.) Proc. 6th Regional Conference Geology Mineral and Hydrocarbon Resources of SE Asia (GEOSEA VI), Jakarta 1987, IAGI, p. 291-299.
(online at: https://www.iagi.or.id/web/digital/45/PIT-IAGI-1987-Paper-19.pdf)

(Stream sampling located 16 gold/ metal anomalies in W Halmahera and Bacan, hosted by Tertiary andesitic lavas. Bacan Island mainly Tertiary volcanics with uplifted core of Sibela Fm high-grade metamorphics)

Pubellier, M., A.G. Bader, C. Rangin, B. Deffontaines & R. Quebral (1999)- Upper plate deformation induced by subduction of a volcanic arc: the Snellius Plateau (Molucca Sea, Indonesia and Mindanao, Philippines). Tectonophysics 304, 4, p. 345-368. *(online at: https://www.academia.edu/5211607/Upper_plate_deformation_induced_by_subduction_of_a_volcanic_arc_the_Snellius_Plateau_Molucca_Sea_Indonesia_and_Mindanao_Philippines)*
(N Molucca Sea incipient subduction of composite oceanic- arc volcanic block (Snellius-Halmahera- SHB) beneath Sangihe Arc outer ridge. In Mindanao, convergence generated shortening of forearc basin and backthrusting of SHB. Classic system of paired subduction (Philippine Trench) and strike-slip fault (Philippine Fault) was installed. Transition from lithospheric subduction to crustal overthrusting where Philippine Trench s.s. begins, coinciding with offshore extension of Philippine Fault. Reversal of thrusts from E-ward vergence in Molucca Sea to W-ward vergence in Mindanao at latitude where forearc is uplifted and downgoing SHB crust deepens, resulting in strong gravity low above accretionary wedge)

Pudjowalujo, H. & D. Bering (1982)- Rock multi element geochemistry at the copper- gold anomaly in Kaputusan (Bacan Island), Moluccas, Indonesia. In: S.T. Watson (ed.) Transactions Third Circum-Pacific Energy and Mineral Resources Conference, Honolulu 1982, AAPG, p. 303-324.
(Gold-copper anomaly 12 km NE of Kaputusan village (Bacan Island, W of Halmahera) tied to presence of porhyry copper mineralization. Bacan Island composed mainly of Oligo-Miocene intermediate volcanics)

Pudjowaluyo, H. & N. Suryono (1982)- Mineralisasi logam tembaga di Hulu S. Kaputusan, P. Bacan, Maluku Utara. Geologi Indonesia (IAGI) 9, 1, p. 28-35.
(Copper mineralization at Kutusupan, Bacan island)

Purwanto, H.S. & S. Agustini (2014)- Lateritisasi nikel Pulau Pakal, Kabupaten Halmahera Selatan, Provinsi Maluku Utara. J. Ilmiah Magister Teknik Geologi (UPN) 7, 1, p. 1-15.
(online at: http://jurnal.upnyk.ac.id/index.php/mtg/article/view/268/231)
(Nickel lateritization of Pakal Island, South Halmahera Regency, North Maluku Province'. Nickel laterite study in weathered ultramafic rocks in S part of Pakal island. Weathering of non-serpentinized rocks faster than serpentinites. Enriched Ni >1.5 % in saprolite zone and transition zone)

Rachman, G., B.J. Santosa, A.D. Nugraha, S. Rohadi, S. Rosalia, Zulfakriza, Sungkono et al. (2022)- Seismic structure beneath the Molucca Sea collision zone from Travel Time tomography based on local and regional BMKG Networks. Applied Sciences (MDPI), 12, 20, 10520, p. 1-21.
(online at: https://www.mdpi.com/2076-3417/12/20/10520)
(Travel time tomography of double-subducting Molucca Sea Plate. Subduction angle beneath Sulawesi North arm ~40°. Volcanoes in N active eruptions, but dormant in S. Submerged deeper into upper mantle in N than S)

Rahmalia, D., P.T. Allo, C. Zwach, R. Heggland & S.I. Midtbo (2017)- Hydrocarbon prospectivity in the South Obi Basin. Proc. 41st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA17-119-G, p. 1-15.
(Seismic data in deepwater basin between Obi and Bacan/ S Halmahera, formed as pull-apart basin along Sorong fault zone. Indications of Miocene Kais carbonate buildups and potential gas chimneys)

Ramadhan, A.R., N.I Basuki, B. Priadi, B. Sutopo & A.Bari (2020)- Lateritisasi pada kompleks melange area Wailukum, Kabupaten Halmahera Timur. Bulletin of Geology (ITB) 4, 1, p. 474-495.
(online at: https://buletingeologi.com/index.php/buletin-geologi/issue/download/10/P_3)
(Laterite deposit in Wailukum Area, Buli District, E Halmahera. Bedrock serpentinite, moderately serpentinized orthopyroxenite and weakly serpentinized olivine gabbronorite. Melange complex in Wailukum serpentinite, orthopyoxenite and olivine gabbronorite as boudinage in foliated serpentinite matrix. Melange complex result of collisional event. Laterite deposit divided into limonite and saprolite. Ni is in nickeliferous serpentine)

Rangin, G., D. Dahrin, R. Quebral & The MODEC Scientific Party (1996)- Collision and strike-slip faulting in the Northern Molucca Sea (Philippines and Indonesia): preliminary results of a morphotectonic study. In: R. Hall & D. Blundell (eds.) Tectonic evolution of southeast Asia, Geological Society, London, Special Publ. 106, p. 29-46.
(N Molucca Sea survey reveals presence of almost complete Sangihe arc and forearc, etc.)

Richards, T.H. & B.D. Priyono (2004)- Discovery of the Toguraci epithermal Au-Ag deposits, Gosowong Goldfield, Halmahera Island, East Indonesia. Proc. PACRIM 2004 Conference, Adelaide 2004, Australasian Institute of Mining and Metallurgy (AusIMM), Melbourne, 5/2004, p. 359-366.
(Toguraci low sulfidation epithermal gold vein deposits 2 km WSW of Gosowong mine, part of Gosowong Goldfield in Neogene magmatic arc on Halmahera)

Richards, T.H., I.K.G. Suyadnya, N. Tyasmudadi, D. Darmawan & A. Muryanto (2005)- The discovery of the Kencana low sulfidation epithermal deposit, Gosowong goldfields, Halmahera, Island, East Indonesia. Proc. NewGen Gold Conference, Perth 2005, p. 151-167.

Roberts, S.J. (1993)- The foraminiferal biostratigraphy and biofacies of the Neogene sediments of the Halmahera region, NE Indonesia. Ph.D. Thesis University College London, p. 1-287. *(Unpublished)*
(online at: https://discovery.ucl.ac.uk/id/eprint/10100983/)
(Halmahera is part of Philippine Sea Plate, which is moving W on N side of Sorong Fault Zone. Volcanism initiated in W Halmahera Arc in Late Miocene by E-ward subduction of Molucca Sea Plate beneath Halmahera (and associated with Late Miocene 11 Ma uplift/ regional unconformity). Basins around Halmahera with up to 5 km of Neogene sediment, now partly exposed on land as result of Pliocene or younger deformation. Sediments contain abundant and diverse foraminiferal assemblages, allowing revised Late Miocene- M Pliocene (N17-N21) stratigraphies. Benthic foraminifera produced marine paleobathymetric zonations for area. In E Halmahera, widespread Early to Late Miocene Subaim Limestone six lithofacies, representing localised reef developments (underlain by ?Late Oligocene-E Miocene Jawali conglomerate with ophiolitic clasts) With paleogeographic reconstructions of Halmahera Region for E Miocene, M Miocene, Late Miocene- E Pliocene and Post 3 Ma)

Roothaan, H.P. (1928)- Geologische en petrografische schets der Talaud en Nanoesa eilanden. Jaarboek Mijnwezen Nederlandsch-Indie 54 (1925), Verhandelingen II, p. 174-220.
('Geologic and petrographic sketch of Talaud and Nanusa Islands'. Islands near Halmahera mainly composed of igneous core, of mainly gabbros and peridotites, with thin sediment cover (probably Mesozoic radiolarian chert, breccias, overlain by presumably Tertiary unfossiliferous sandstones and marls). By BPM geologist, from 1921 field survey. With 1:200,000 map)

Ryan, M., H. Butcher, T. Halvorsen, L.W. Kuilman, J. Demichelis, Sayentika, A. Jansson et al. (2012)- An early look at the hydrocarbon prospectivity of the Halmahera Basin, Eastern Indonesia. Proc. 36th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA12-G-078, p. 1-14.
(Halmahera II PSC in Halmahera frontier basin with prospective plays in Oligocene/Miocene carbonate reefal buildups and Miocene re-deposited carbonates. Potential source rocks marine Miocene Klamogun and Klasafet-equivalent formations (but see also Yustiana et al. 2016))

Sardjono & J. Milsom (1998)- Gravity anomalies in the Talaud Island Group, Central Molucca Sea. Appendix A in Thesis of Sardjono (1998) Gravity field and structure of the Sorong Fault Zone, UC London, p. 200-203.
(Highest gravity fields in Talaud islands area associated with mafic and ultramafic rocks, but anomalies do not suggest that bulk of Talaud Rise made up of such material. Oceanic rocks considered to be slices of oceanic crust incorporated into an accretionary complex during normal subduction, not parts of coherent block uplifted as direct consequence of collision)

Sartono, S. & S. Hadiwisastra (1989)- Ophiolitic melange in Gebe Island and its olistostromal origin. In: B. Situmorang (ed.) Proc. 6th Regional Conference Geology Mineral Hydrocarbon Resources of SE Asia (GEOSEA VI), Jakarta 1987, IAGI, p. 157-169.

(Gebe Island between Halmahera and Waigeo with nickel-chromite deposits. Chaotic basement complex overlain by U Miocene-Pliocene bioclastic limestones. Basement probably olistostrome, with ultrabasic and metamorphic clasts and probably Eocene- E Miocene age)

Setyanta, B. & I. Setiadi (2011)- Model struktur subduksi kerak di perairan Laut Maluku dan vukanisme berdasarkan analisis gaya berat dan kegempaan. Jurnal Sumber Daya Geologi (JSDG) 21, 4, p. 213-223.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/148/144)
('Model of crustal subduction structure in Molucca Sea waters and volcanism by analysis of gravity and seismicity'. N-S Bouguer anomalies of -100 to 260 mGal. Gravity modelling indicates subducting slab under Halmahera steeply dipping E, while in W part (below N arm of Sulawesi) it is not visible)

Setyaraharja, E.P., T. Sutioso, L. Efendi, L. (2012)- Buli lateritic nickel deposits Halmahera: from prospecting to reserves estimation. J. Ilmiah Magister Teknik Geologi (UPN) 5, 1, p. 1-16.
(online at: http://jurnal.upnyk.ac.id/index.php/mtg/article/view/232)
(Nickel laterite nickel at Buli formed from lateritization of ultramafic rocks in obducted ophiolite, leaving stable minerals such as nickel, cobalt, cromium, iron and alumina. Three nickel deposits defined: Gee island, Tanjung Buli and Mornopo; first two have been mined since 1997 and 2001. Antam is mining high grade saprolites and limonites, and shipped it to Pomalaa, Japan and Australia for further processing).

Silitonga, D. (2013)- Characteristics of Gosowong goldfields epithermal deposits. Proc. Indonesian Soc. Economic Geologists (MGEI) Annual Conv. 2013, Papua & Maluku Resources, Bali, p. 115-124.

Silitonga, P.H., H. Pudjowalujo & H. Mollat (1981)- Geological reconnaissance and mineral prospecting on Bacan Island (Moluccas, Indonesia). In: A.J. Barber & S. Wiryosujano (eds.) The geology and tectonics of eastern Indonesia, Geological Research Development Centre (GRDC), Bandung, Special Publ. 2, p. 373-381.
(Bacan Island oldest rocks intensely deformed mica schists and amphibolites and associated ultrabasic rocks of unknown age and NNE-SSW foliation. Oldest dated rocks probably Late Oligocene- Early Miocene age submarine andesites intruded by granodiorites and with intercalated coral limestones. Volcanic series overlain byE-M Miocene marine clastics with common volcanic detritus, overlain by Late Tertiary- Quaternary Young volcanics. Recent coral reefs raised to 700m above sea level)

Silver, E.A. & J.C. Moore (1978)- The Molucca Sea collision zone, Indonesia. J. of Geophysical Research 83, B4, p. 1681-1691.
(Same as Silver & Moore 1981. N- trending Sangihe and Halmahera volcanic arcs face each other and underlain by opposing Benioff zones. Talaud-Mayu Ridge between arcs consists exclusively of deformed rocks, and underlain by at least 8-10 km of low-density material. Length of lithosphere subducted by colliding arcs >1000 km (length of Benioff zones). Obduction of melange and ophiolite belts against island arcs or continental margins. Central part of mostly submarine Talaud-Mayu ridge 1-3 km higher than flanking troughs. Two opposing vergence directions in rocks of collision complex: (1) during subduction, verging away from arcs, (2) during present phase of collision, verging towards arcs)

Silver, E.A. & J.C. Moore (1981)- The Molucca Sea collision zone. In: A.J. Barber & S. Wiryosujono (eds.) The geology and tectonics of Eastern Indonesia, Proc. CCOP-IOC SEATAR Working Group Meeting, Bandung 1979, Geological Research Development Centre (GRDC), Bandung, Special Publ. 2, p. 327-340.
(Scripps 1977 seismic profiles across Molucca Sea. Molucca Sea zone of crustal collision bordered by N trending Sangihe and Halmahera volcanic arc underlain by opposite-dipping Benioff zones. Length of Benioff zones suggest at least 1000km of subducted lithosphere. At least 8-10 km of low-density collisional melange material, now exposed on Talaud, Mayu, Tifoe islands)

Sims, D. & R. Benton (2009)- Life on the rollercoaster- mining and milling the Kencana K1 orebody, Indonesia. Proc.7th Int. Mining Geology Conference, Australasian Institute of Mining and Metallurgy, Perth 2009, p. 319-327.
(From start of underground production in March 2006 until April 2009, Kencana K1 orebody delivered >0.9 Mt of ore containing 1.18 Moz Au. Kencana part of Gosowong goldfield district, which produced >2.3 Moz since

1999 with first two deposits extracted by open pit methods. K1 vein style deposit with overall dip of ~45 degrees. Mined by underhand cut and fill methods utilising cemented paste backfill aiming for 100% extraction)

Simanjuntak, A.V.H., K.H. Palgunadi, P. Supendi, D. Daryono, T.A. Prakoso & U. Muksin (2023)- New insight on the active fault system in the Halmahera volcanic arc, Indonesia, derived from the 2022 Tobelo earthquakes. Seismological Research Letters 94, 6, p. 2586-2594.
(Relocated hypocenters of January 2022 shallow earthquakes suggest newly identified N-S Tobelo fault, dipping at ~80°W)

Sodik, A., M.G. Rukmiati & J. Purnomo (1993)- Hydrocarbon potential of frontier Weda Basin, South East Halmahera. Proc. 22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 653-663.
(online at: https://www.iagi.or.id/web/digital/53/22nd-Volume-2-(6-9-Des-1993)-47-57.pdf)
(Southernmost Halmahera metamorphic terrane is microcontinent derived from Irian Jaya (Kemum?), moved W along Sorong FZ. East arms of Halmahera are Jurassic-age ophiolite terrane. Up to 5000m of sediment in Weda basin, offshore SE Halmahera, with Miocene carbonates as main potential play)

Soeria Atmadja, R. (1981)- Ophiolites in the Halmahera paired belts, East Indonesia. In: A.J. Barber & S. Wiryosujano (eds.) The geology and tectonics of eastern Indonesia. Geological Research Development Centre Indonesia, Special Publ. 2, p. 363-372.
(Halmahera is connected double arc. N and S arms are W volcanic arc, mainly Quaternary volcanics, Neogene marine sediments and Oligo-Miocene volcanics. NE and SE arms large ophiolite belt (subduction zone ophiolite) with ultramafic rocks imbricated with Mesozoic deep water sediments and E Tertiary rocks)

Soeria-Atmadja, R. & R. Sukamto (1979)- Ophiolitic rock association on Talaud islands, East Indonesia. Bull. Geological Research Development Centre (GRDC) 1, p. 17-35.
(Ophiolite rocks as isolated blocks in melange complex, with scaly clay matrix)

Soeria-Atmadja, R., M.E. Suparka & Y.S. Yuwono (1988)- Petrology of the Pre-Tertiary and Tertiary volcanic rocks from Obi, North Molucca. Majalah Geologi Indonesia (IAGI) 13, 1, p. 1-10.
(Obi Island Pretertiary melange basement with blocks of ultrabasic rocks, basalts and Jurassic ammonite-bearing sediments in foliated clay matrix. Overlain by less-deformed Tertiary shallow marine clastics with intercalations of andesitic arc volcanics, and in upper part with reefal limestones)

Suasta, I.G.M. & G. Hartono (2011)- Kaputusan porphyry copper-gold project, Bacan island. Proc. 36th HAGI and 40th IAGI Annual Conv., Makassar, JCM2011-096, p. 1-19.
(online at: https://www.iagi.or.id/web/digital/10/2011_IAGI_Makassar_Kaputusan-Porphyry-Coper.pdf)
(Kaputusan copper-gold porphyry prospect on Bacan Island comprised of volcanic rocks intruded by three types of Neogene intermediate intrusive rocks)

Sudana, D., A. Yasin & K. Sutisna (1994)- Geological map of the Obi sheet, Maluku. Geological Research Development Centre (GRDC), Bandung, 1: 250,000.
(Obi Island composed of Triassic-Jurassic ultramafics and metamorphic rocks, overlain by Late Oligocene- E Miocene Bacan Fm andesitic volcanics and volcanoclastics and Miocene- Pliocene clastics-carbonates. Original mapping in 1975-1976)

Sukamto, R. (1980)- Tectonic significance of melange on the Talaud islands, Northeastern Indonesia. In: T. Kobayashi et al. (eds.) Geology and Palaeontology of Southeast Asia 21, Symposium Tsukuba 1978, University of Tokyo Press, p. 291-302.
(Talaud Islands part of N-S trending non-volcanic outer arc between Sangihe and Halmahera island arcs in Molucca Sea N of E Sulawesi. Melange basement of intensely tectonized peridotites, gabbros, pillow basalts, metamorphic rocks, greywacked and red pelagic sediments (blocks in matrix of scaly clay). Overlain by M Miocene- Pliocene marine sediments)

Sukamto, R. (1989)- Halmahera, a typical Cainozoic volcanic island arc in eastern Indonesia. Geologi Indonesia (IAGI) 12, 1 (Prof. Dr. J.A. Katili 60 years Special Volume), p. 177-191.
(Halmahera volcanic in W, related to subduction of Molucca Sea in W. Eastern province non-volcanic, characterized by common ophiolites imbricated with Late Jurassic- Cretaceous deep water sediments. Western arc three magmatic cycles: Late Oligocene- E Miocene, Plio-Pleistocene and Holocene.

Sukamto, R., T. Apandi, S. Supriatna & A. Yasin (1981)- The geology and tectonics of Halmahera Island and surrounding areas. In: A.J. Barber & S. Wiryosujano (eds.) The geology and tectonics of eastern Indonesia. Geological Research Development Centre (GRDC), Bandung, Special Publ. 2, p. 349-362.
(Halmahera area three sub-parallel N-S 'arcs': (1) E Halmahera- Waigeo non-volcanic arc with imbricated Jurassic-age ophiolites and Late Jurassic-Cretaceous deep sea sediments, overlain by Paleogene flysch-type rocks with ultramafic clasts and limestones with Eocene Ta-Tb forams. In SE arm also coal interbeds (2) W Halmahera- Obi volcanic arc, intermittently active since Oligocene and (3) Talaud- Tifore Ridge in Molucca sea composed of imbricated ?Eocene ophiolites and melange)

Sukamto & H. Samodra (1995)- Geological map of Indonesia, Morotai Sheet. Geological Research Development Centre (GRDC), Bandung.

Sukamto, R. & N. Suwarna (1976)- Melange di daerah Kepulauan Talaud, Indonesia Timurlaut. Proc. 5th Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, Geologi Indonesia 2, p. 19-27.
('Melange in the Talaud Islands region'. See also Sukamto 1980)

Sukamto, R. & N. Suwarna (1979)- Tectonic significance of melange on the Talaud Islands, Northeastern Indonesia. Bull. Geological Research Development Centre (GRDC) 2, p. 7-19.
(Talaud-Tifore Ridge is zone of collision between two island arc systems, Sangihe to W, Halmahera to E. Talaud island melange basement consists of blocks of serpentinized peridotite, gabbro, pillow basalt, metamorphic rocks, greywackes, chert, limestone, etc., all tectonized in pervasively sheared mass. Overlain by M Miocene- Pliocene marine sediments)

Sukamto, R. & N. Suwarna (1986)- Geologic map of the Talaud Quadrangle, 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(Also 2nd Edition, 1995. Geologic map of Talaud islands in Molucca Sea, NE of NE Sulawesi. Mainly intensely faulted Neogene sediments (ENE-dipping faults) and Karakelang melange, with large blocks of ultramafic rocks (Kabaruang Fm) (= uplifted accretionary prism?). Overlain by Oligo-Miocene Pampini Volcanics and E Miocene Tifore Fm marine sediments)

Suparan, P., R.A.C. Dam, S. van der Kaars & T.E. Wong (2001)- Late Quaternary tropical lowland environments on Halmahera, Indonesia. Palaeogeogr. Palaeoclim. Palaeoecology 171, p. 229-285.

Supriatna, S. (1980)- Geologic map of the Morotai Quadrangle, North Maluku. Geological Research Development Centre (GRDC), Bandung, p.
(Geologic map of N part of Halmahera, 1:250,000 scale. NW Arm mainly Quaternary volcanics. NE Arm with Pretertiary Ultrabasic complex, overlain(?) by Upper Cretaceous sediments with Globotruncana and Oligo-Miocene Bacan Fm andesitic volcanics with limestones with Miogypsina)

Supriatna, S., T. Apandi & W. Simandjuntak (1977)- Geologic map of Waigeo Quadrangle, Irian Jaya, 1:250,000. Geological Research Development Centre (GRDC), Bandung, p.
(Geologic map of Waigeo and Gebe islands, NW of West Papua Birds Head. Also as 1995 second edition. Intensely folded structure, with widespread Jurassic? ultramafic rocks, overlain by Late Jurassic? Tanjung Bomas Fm deep marine greywacke, shale and chert with Calpionella and Microglobigerina)

Surjono, S.S., I. Arifianto, A.A. Mitasari, F.H.M. Mahendra & M. Afandi (2025)- Tectonostratigraphic evolution of the Obi Basin, North Maluku, Indonesia, with implications for petroleum exploration potential. J. Asian Earth Sciences 293, 106745, p.

(Obi frontier basin in S Halmahera located along Sorong Fault. Up to 5km of Neogene sediment fill. Paleogene volcaniclastic of Anggai River Fm deposited during subduction of Australian Plate (or microcontinent) with older metamorphic and ophiolitic rocks beneath Philippine Sea Plate. Etc.)

Sutisna, D.T., D.N. Sunuhadi, A. Pujobroto & D.Z. Herman (2006)- Perencanaan eksplorasi cebakan nikel laterit di daerah Wayamli Teluk Buli, Halmahera Timur sebagai model perencanaan eksplorasi cebakan nikel laterit di Indonesia. Buletin Sumber Daya Geologi 1, 3, p. 48-56.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/554)
(Planning of nickel laterite exploration in Wayamli area, Buli Bay, East Halmahera, as a planning model of laterite nickel exploration in Indonesia)

Swift, L.R. & M. Alwan (1990)- Discovery of gold-silver mineralization at Binabase, Sangihe Island, Indonesia. Proc. Pacific Rim Congress (PACRIM90), Australasian Institute of Mining and Metallurgy (AusIMM), Parkville, p. 533-540. *(Extended Abstract)*
(Gold prospect on Sangihe Island (see also Wisanggono et al. 2012))

Syafrizal (2009)- Morphology and geologic structure control of nickel laterite deposition: case study nickel laterite deposit in the Gee Island and Pakal Island, East Halmahera, North Maluku. In: L.D. Setijadi et al. (eds.) Int. Conf. Earth Science and Technology, Yogyakarta 2009, p. 219-226.
(Laterite is weathering product of ultramafic rocks. Maxumum thickness of soil on Gee Island 9m, on Pakal island up to 17m)

Syefriandi & W. Akhmad F. (2013)- Tertiary Halmahera carbonate outcrop and the implications for the Halmahera Basin petroleum system. Proc. 37th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA13-G-031, p. 1-13.
(Limestone outcrops in SE arm of Halmahera, on Cretaceous peridotite basement. Two different ages: (1) Batugamping Fm Eocene reef limestones with Pellatispira, Nummulites, and (2) Weda Fm E-M Miocene detrital limestone with Miogypsina?)

Tatsumi, Y., M. Murasaki, E.M. Arsadi & S. Nohda (1991)- Geochemistry of Quaternary lavas from NE Sulawesi: transfer of subduction components into the mantle wedge. Contributions to Mineralogy and Petrology 107, 2, p. 137-149.
(Geochemistry of Quaternary Sangihe arc volcanics. Formed in intra-oceanic tectonic setting, not associated with backarc basin. All incompatible elements, except Pb, increase away from volcanic front)

Tatsumi, Y., M. Murasaki, E.M. Arsadi & S. Nohda (1991)- Geochemistry of Quaternary lavas from NE Sulawesi: transfer of subduction components into the mantle wedge. In: E.P. Utomo et al. (eds.) Proc. The Silver Jubilee LIPI- Symposium on the Dynamics of subduction and its products, Yogyakarta-Karangsambung 1991, Research and Development Center for Geotechnology, Indonesian Institut of Sciences (LIPI), Bandung, p. 144-170.
(same paper as above)

Totok, D. & G. Friedrich (1988)- Chromite potential of the nickel laterite deposit of Gebe/ Mollucas (Indonesia). Erzmetall (Germany) 41, 11, p. 564-569.
(Up to 19m thick laterite profile on ultramafic rocks of Gebe Island rich in Cr, Ni)

Trisusanti, E., A. Patonah, A. Hardiyono & A. Matano (2025)- Karakteristik fisik, geokimia dan sebaran endapan nikel laterit daerah Loji Beach, Pulau Obi, Kabupaten Halmahera Selatan, Provinsi Maluku Utara. Buletin Sumber Daya Geologi (BSDG) 20, 1, p. 19-35. *(online at: https://buletinsdg.geologi.esdm.go.id/index.php/bsdg/article/view/BSDG_VOL_20_NO_1_2025_2/351)*
('Physical, geochemical characteristics and distribution of nickel laterite deposits in the Loji Beach area, Obi Island, etc.'. One of nickel producing areas in Indonesia is Loji Beach area on W Obi Island, S of Halmahera. Study of Ni-laterite, 12-17m thick with Ni content of 1.8-2.8% in gentle hills with slopes of 0-7%. Bedrock is >85% serpentine, from (Late Triassic- E Jurassic?) harzburgite and dunite)

Umbgrove, J.H.F. (1938)- Corals from an elevated marl of Talaud (East Indies). Zoologische Mededelingen, Leiden, 20, p. 263-274.
(online at: www.repository.naturalis.nl/document/150648)
(Corals collected by Kuenen during Snellius expedition from marine marl near Mahammale, Talaud Island. Well preserved, 15 species, all still living, so young, probably Pleistocene- Holocene age)

Uneputty, H., S. Supriatna & F. Hehuwat (1991)- Evaluasi stratigrafi wilayah Halmahera dan kaitannya dengan potensi hidrokarbon. Proc. 19th Annual Conv. Indonesian Association Geologists (IAGI), Bandung 1990, 1, p. 52-68.
(online at: https://www.iagi.or.id/web/digital/47/19th-(11-13-Des-1990)-Book-I-62-78.pdf)
('Evaluation of Halmahera stratigraphy and relation to hydrocarbon potential'. In NE Arm? Jurassic-age ophiolitic rocks overlain by Late Jurassic- Cretaceous (pelagic) Gau Fm limestones (Late Cretaceous; Hall et al. 1988) and Paleo-Eocene clastics and Miocene- Pleistocene clastics and carbonates. Unconformity/hiatus at Eocene-Oligocene boundary. Weda Bay possibly with 6000m of sediments)

Van der Ent, A., A.J.M. Baker, M.M.J. van Balgooy & A. Tjoa (2013)- Ultramafic nickel laterites in Indonesia (Sulawesi, Halmahera): mining, nickel hyperaccumulators and opportunities for phytomining. J. Geochemical Exploration 128, p. 72-79.
(manuscript online at: https://espace.library.uq.edu.au/data/UQ_302524/UQ302524_OA.pdf)
(Sulawesi and Halmahera have some of largest surface exposures of ultramafic bedrock in world, with proven and potential for phytomining. Phytomining extracts residual nickel from stripped land)

Vening Meinesz, F.A. (1961)- Orogeny in the New Guinea, Palao, Halmaheira area (geophysical conclusions). Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, B64, p. 240-244.
(Mountain range of New Guinea not essentialy folded, but is huge block overthrust from N with some E-ward displacement. Deforming stress believed to mantle current rising under Asia, moving to ~N160°E), in New Guinea diverging to ~N135°E. No current radiating from Australian continent)

Verbeek, R.D.M. (1908)- Halmahera. In: Molukken Verslag, Jaarboek Mijnwezen Nederlandsch Oost-Indie 37 (1908), Wetenschappelijk Gedeelte, p. 154-176.
(First significant geologic survey of Halmahera in 1899, describing main patterns of island geology with abundant Mesozoic or older ultrabasics in C and E part of island, mainly andesitic volcanics in W. Presence of Eocene alveolinid limestone in float at E coast reported by J.W. Van Nouhuys (1903), Miocene Lepidocyclina limestone, etc.)

Verstappen, H.T. (1964)- Some volcanoes of Halmahera (Moluccas) and their geomorphological setting. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap, Ser. 2, 81, p. 297-316.
(Brief descriptions of some of the active volcanoes in the N-S curved belt of NW and W Halmahera. NE and SE arms/peninsulas of Halmahera non-volcanic)

Wajedy, M.F., Saaduddin, M.A. Massinai, Fahruddin & A. Thariq (2026)- Seismic hazard and tectonic stress in Halmahera, Indonesia based on b-value and apparent stress analyses. Physics Earth Planetary Interiors 372, 107512, p.
(Stress analyses from 1970-2024 earthquake events with magnitudes 3.0- 5.9 and focal depths between 10 - 50 km. NW Halmahera exhibits significant stress accumulation, likely associated with ongoing subduction)

Wanner, J. (1913)- Zur Geologie der Inseln Obimajora und Halmahera in den Molukken. Neues Jahrbuch Mineralogie Geologie Palaontologie, Beilage Band 36, p. 560-585.
('On the geology of Obi Besar and Halmahera islands in the Moluccas'. Halmahera with many localities with ultrabasic rocks and andesitic volcanics. Little known Obi Island S of Halmahera with in SW Obi along Akelamo River: (1) serpentinized peridotite and gabbro (2) black shales with concretions with M Jurassic ammonites Phylloceras, Stephanoceras and Macrocephalites, similar to 'Coronatenschichten' of Sula; (3) E-M Miocene limestone with Lepidocyclina and Miogypsina near S coast near Ngutenute; (4) Pliocene marine marls. Also granites, andesites, and young raised coral reef terraces up to 320m elevation along S coast)

Watanabe, T. (1960)- Report on the asbestos in Halmahera island. Geological Survey Indonesia, Unpublished Report 43/dm, p. .

Wicaksono, A., W.A. Faridsyah & F.D. Priasmara (2012)- Depositional facies and structural analysis based on field observation of Fritu area, Halmahera Island. Proc. 36th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA12-SG-010, p. 1-14.
(Padjadjaran University fieldwork on SE Halmahera encountered peridotites and sediments, incl. M Eocene reefal limestone with Nummulites, Pellatispira, Helicostegina (= Heterostegina?- JTvG) (no fosssil illustrations), and E Miocene limestone with miogypsinids)

Wichmann, A. (1898)- Petrographische Studien uber den Indischen Archipel. III. Gesteine von der Insel Gagi, IV. Gesteine von der Insel Banua Wuhu. Natuurkundig Tijdschrift voor Nederlandsch-Indie 57, 2, p. 196-220.
(online at: http://62.41.28.253/cgi-bin/)
('Rocks from the island Gagi and the island Banua Wuhu'. Gagi (Gag) island (E of Halmahera and W of Waigeo) with lherzolite/ serpentinite at SE coast and diabase. Banua Wuhu new andesitic volcano N of N Sulawesi)

Widiatama, A.J., L.D. Santy & A. Kusworo (2022)- Ichnofossils characteristics in pelagic siliciclastic carbonate turbidites of Weda Formation, Halmahera Island. RISET Geologi dan Pertambangan (Indonesian J. Geology and Mining, LIPI) 32, 1, p: 59-70.
(online at: https://jrisetgeotam.lipi.go.id/index.php/jrisgeotam/article/view/1147/pdf)
(Eight types of trace fossils in M Miocene- Pliocene turbidites of Weda Fm in E Halmahera)

Widi, B.N., M.Z. Tuakia, N.C.D. Aryanto, W. Widodo, H. Kurnio, I.Setiawan, B. Pardiarto et al. (2024)- Characteristics of epithermal gold-base metals prospect in the Anggai block, northern Obi Island, Indonesia. Bull. Geological Society Malaysia 7, 1, p. 87-96.
(online at: https://gsm.org.my/articles/bgsm202477-09/)
(Ore bodies of gold and base metals (pyrite, chalcopyrite, galena, sphalerite) hosted in Oligocene- E Miocene Bacan Fm volcanics, Anggai District, N Obi island. Mineralization 2km long and 200m wide, trending NNW-SSE (along Obi Fault). Thousands of artisanal miners active in area)

Widiatmoko, H.C., E. Mirnanda & H. Kurnio (2020)- Nickel in Buli coastal area, East Halmahera. Bulletin of the Marine Geology 35, 1, p. 41-52.
(online at: http://ejournal.mgi.esdm.go.id/index.php/bomg/article/view/598/498)
(Ferro nickel (Fe-Ni) and nickeline (Ni-As) placer deposits in coastal and stream sediments along Buli Bay, SE Halmahera, derived from outcrops of ultramafic, metamorphic, basalt and serpentine rocks)

Widiwijayanti, C., V. Mikhailov, M. Diament, C. Deplus, R. Louat, S. Tikhotsky & A. Gvishiani (2003)- Structure and evolution of the Molucca Sea area: constraints based on interpretation of a combined sea-surface and satellite gravity dataset. Earth Planetary Science Letters 215, p. 135-150.
(online at: www.ifz.ru/fileadmin/user_upload/subdivisions/507/articles/Widiwijayanti-etal-EPSL.pdf)
(Gravity interpretation of Molucca Sea area, NE of Indonesia. Bouguer anomalies show extension of Sangihe Trench to N to 5.5°N, joining it to Pujada and Miangas ridge in S Mindanao. Also clear outline of Talaud Archipelago ophiolite body and bounding thrust zones. Results support hypothesis that Talaud Archipelago formed as uplifted Central Ridge block, partly caused by compression of docking of Snellius Plateau. Docking shifted Philippine Trench E-ward and underthrust slivers of forearc lithosphere below Talaud Islands)

Widiwijayanti, C., C. Tiberi, C. Deplus, M. Diament, V. Mikhailov & R. Louat (2004)- Geodynamic evolution of the northern Molucca Sea area (Eastern Indonesia) constrained by 3-D gravity field inversion. Tectonophysics 386, 3-4, p. 203-222.
(online at: http://www.gm.univ-montp2.fr/spip/IMG/pdf/tiberi2004tectono.pdf)
(N Molucca Sea dominated by interaction between ophiolitic ridges, sedimentary wedges and rigid blocks of Philippine Sea Plate. Large density variations in C part of N Molucca Sea. N-S trending density structures along C Ridge and W dipping thrust faults on W side of region clearly imaged. In E part of region several blocks,

especially Snellius Plateau, split into two parts. We interpret this as oceanic plateau with thicker crust that previously belonged to Philippine Sea Plate, now trapped between Molucca Sea complex collision zone and Philippine Trench, due to development of new subduction zone at E side)

Widiyantoro, S. (2003)- Complex morphology of subducted lithosphere in the mantle below the Molucca collision zone from non-linear seismic tomography. Proc. ITB J. Engineering Science 35 B, 1, p. 1-10.
(online at: http://journal.itb.ac.id/index.php?li=article_detail&id=37)
(New tomographic P-wave model shows two opposing subducted slabs of Molucca Sea plate. W-ward dipping slab penetrates into lower mantle as folded slab, possibly caused by shift of whole subduction system in Molucca region toward Eurasian continent due to W-ward thrust of Pacific plate combined with left-lateral movement of Sorong fault)

Wisanggono, A., P. Abaijah, K. Akiro, D. Pertiwi & R.A. Sauzy (2011)- Supergene enriched, intrusion related low sulphidation deposit Binebase-Bawone, North Sulawesi, Indonesia. In: N.I. Basuki (ed.) Proc. Sulawesi Minerals Resources 2011 Seminar, Manado, MGEI/IAGI, p. 131-144.

Wisanggono, A., P. Abaijah, K. Akiro, D. Pertiwi & R.A. Sauzy (2012)- Supergene enriched, intrusion related low suphidation deposit, Binebase-Bawone, North Sulawesi, Indonesia. Jurnal Geologi Indonesia 7, 4, p. 241-253.
(online at: http://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/150)
(Same paper as Wisanggonono et al. 2011, above. Gold mineralization at Binebase Prospect on Sangihe Island similar to mineralization typical of other young Pacific Rim intrusion related low sulphidation systems)

Wood, D. & F. MacCorquodale (2015)- Persistence can pay off: discovery of the Gosowong District bonanza-grade gold-silver epithermal orebodies, Halmahera Island, Indonesia. SEG Discovery Newsletter 102, p. 10-16.
(Bonanza-grade epithermal Au-Ag veins in Gosowong district of Halmahera. Mining started at Gosowong in 1999 and subsequently moved to Toguraci and Kencana. Sites contained combined resources of >5.6 million ounces Au and define world-class epithermal province)

Yasin, A. (1980)- Geologic map of the Bacan Quadrangle, North Maluku, 1:250,000. Geological Research Development Centre (GRDC), Bandung, p. 1-9.
(Bacan Island off S Halmahera with core of Sibela Fm metamorphics with NW-SE and W-E trending foliation. Unconformably overlain by Late Oligocene- earliest Miocene Bacan Fm volcanics and clastics and later Miocene- Pliocene clastics- volcanoclastics)

Yu, L. (2023)- Magmatism-related thermal simulation of volcanic arcs in the Molucca Sea bidirectional subduction system. J. of Ocean University of China 22, p. 939-948.
(Active volcanic arcs on both sides of the bidirectional subduction zone in Molucca Sea are undergoing arc-arc collisions. Reconstruction of thermal evolution history of Molucca Sea Plate based on geophysical data)

Yuan, T., Z. Wang, D. Zhao, R. Gao & X. Chen (2024)- Multiple slabs and complex mantle klows in the Molucca Sea subduction zone. Geochem. Geophysics Geosystems (AGU) 25, 8, e2024GC011500, p. 1-16.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1029/2024GC011500)
(Seismic tomography allows insights in complex mantle flow around active divergent double-subducted slab of Molucca Sea Sangihe and Halmahera subduction zone(s) and nearby slabs. Maximum subduction length of Halmahera slab exceeds the previous estimate of 400-450 km, reaching 500-550 km)

Yuan, T., Z. Wang, D. Zhao, R. Gao & X. Chen (2024)- Seismic evidence for break-off of the Molucca Sea slab. Tectonophysics 874, 230218, p.
(Seismic tomography reveals two aseismic slab segments in deep upper mantle and mantle transition zone, which may reflect the earlier subducted Molucca Sea slab. Total length of Molucca Sea slab is ~1800-1900 km, ~300 km longer than previous estimates)

Yustiana, F., C. Zwach, D. Rahmalia & P.T. Allo (2016)- Halmahera Basin, Eastern Indonesia- hydrocarbon prospectivity in a frontier basin. Proc. IPA 2016 Technical Symposium, Indonesia exploration: where from- where to, Indonesian Petroleum Association (IPA), Jakarta, 34-TS-16, p. 1-23.
(Halmahera II PSC SE of Halmahera is in Tertiary deep water, undrilled frontier basin, now considered area with very high subsurface risk and lack of follow-up prospectivity. Basement most likely ophiolites and volcanics. Potential Miocene carbonate buildups now interpreted to be Oligocene thrust complexes. Clastic reservoir provenance likely dominated by volcanic rocks. No indications of active hydrocarbon system)

Zhang, Q., F. Guo, L. Zhao & Y. Wu (2017)- Geodynamics of divergent double subduction: 3-D numerical modeling of a Cenozoic example in the Molucca Sea region, Indonesia. J. of Geophysical Research: Solid Earth 122, 5, p. 3977-3998.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1002/2017JB013991)
(Molucca Sea subduction zone in NE Indonesia in SE Asia is unique Cenozoic example of 'divergent double subduction' (DDS), under active Halmahera Arc in E and Sangihe Arc in W. Asymmetrical shape. DDS probably associated with closure of narrow and short oceanic plate; large-scale double subduction is rare in nature)

Zulkarnain, I. (2002)- Geochemical signatures of volcanic rocks from Sangihe Island, North Sulawesi, Indonesia. Buletin Geologi (ITB) 34, p. 21-33.

VI.2. Sula islands, Taliabu

Ali, J.R. & R. Hall (1995)- Evolution of the boundary between the Philippine Sea plate and Australia: paleomagnetic evidence from eastern Indonesia. Tectonophysics 251, p. 251-275.
(Paleomagnetic data from Coniacian-Santonian pelagic limestones on Taliabu (Sula islands) suggest paleolatitude at 19°± 6°, similar to Misool, suggesting Sula/Taliabu and Misool part of single microcontinent, >10° farther N than expected if attached to Australia, and implying region separated from Australia before Late Cretaceous)

Ali, J.R., R. Hall & S.J. Baker (2001)- Palaeomagnetic data from a Mesozoic Philippine Sea Plate ophiolite on Obi Island, Eastern Indonesia. J. Asian Earth Sciences 19, p. 535-546.
(Paleomag of Jurassic(?) age Halmahera ophiolite exposed on SW Obi Island suggest position close to equator in middle Mesozoic. K-Ar ages of ophiolite 96±10 Ma and 103±13 Ma regarded as minimum ages. Diorite intrusions Late Cretaceous ages)

Amiruddin (2000)- Peraluminous and metaluminous Permian-Triassic granitoids of the Banggai-Sula microcontinent and the Northern Australia continent in the Bird Head Papua. Jurnal Sumber Daya Geologi (JSDG) 10, 110, p. 2-15.
(Permian- E Triassic granites on Banggai, Obi and Birds Head. Banggai granite (~225-245 Ma; M-L Triassic) on Taliabu intruded into Carboniferous (~305 Ma) schists, gneiss amphibolite. Anggi granite (~225-295 Ma) in Kemum Terrane metasediments (metamorphosed at 222-258 Ma; Late Permian-Triassic. Netoni granite (225-245; M-L Triassic) in Sorong fault zone of Birds Head intruded low-middle metamorphic rocks. Banggai and Anggi granites mostly S-type, Netoni I-type. All are peraluminous and metaluminous and could be tin granites. Plutons part of magmatic arc extending from E Australia, PNG, W Papua to Banggai-Sula Archipelago)

Boehm, G. (1904)- Die Sudkusten der Sula-Inseln Taliabu und Mangoli. I. Grenzschichten zwischen Jura und Kreide. Palaeontographica, Supplement IV, Beitrage zur Geologie von Niederlandisch-Indien 1, p. 1-46.
('The South coast of the Sula islands Taliabu and Mangoli: 1- Transitional beds between Jurassic and Cretaceous'. First systematic descriptions of rich Sula islands ammonite-dominated Jurassic- Cretaceous macrofaunas. Incl. ammonites (Hoplites spp., Himalayites, Phylloceras strigile) and bivalves (Mytilus, Nucula). Noticed great similarities with 'Spiti-Fauna' Himalayan assemblages)

Boehm, G. (1907)- Die Sudkusten der Sula-Inseln Taliabu und Mangoli, 2. Der Fundpunkt am oberen Lagoi auf Taliabu. Palaeontographica, Supplement IV, Beitrage zur Geologie von Niederlandisch-Indien I, p. 47-58.
(online at: http://sammlungen.ub.uni-frankfurt.de/botanik/periodical/pageview/4499569)
('The South coasts of the Sula islands Taliabu and Mangoli: 2- The fossil locality at the upper Lagoi on Taliabu'. Rich Late Jurassic belemnite assemblage of Belemnites gerardi group (B. alfuricus n.sp.))

Boehm, G. (1907)- Die Sudkusten der Sula-Inseln Taliabu und Mangoli. 3. Oxford des Wai Galo. Palaeontographica Supplement Vol. IV, Beitrage zur Geologie von Niederlandisch-Indien 1, p. 59-120.
(online at: http://sammlungen.ub.uni-frankfurt.de/botanik/periodical/pageview/4499569)
(*'The South coasts of the Sula islands Taliabu and Mangoli: 3- Oxfordian of the Galo River, Taliabu. Common ammonites (Phylloceras spp., Macrocephalites spp., Perisphinctes spp., Peltoceras), abundant belemnites (B. alfuricus, B. galoi, B. moluccanus, etc.), Inoceramus (I. galoi, etc.) and brachiopods (Rhynchonella))*

Boehm, G. (1912)- Die Sudkusten der Sula-Inseln Taliabu und Mangoli. 4. Unteres Callovien. Palaeontographica, Supplement IV, Beitrage zur Geologie von Niederlandisch-Indien 1, p. 121-179.
(online at: http://sammlungen.ub.uni-frankfurt.de/botanik/periodical/pageview/4499569)
('The South coasts of the Sula islands Taliabu and Mangoli: 4- Lower Callovian. Belemnites mainly Dicoelites, ammonites mainly Macrocephalites (= Gondwanan-Tethyan or Himalayan bioprovince of later workers; JTvG))

Brouwer, H.A. (1915)- Over de geologie der Soela-eilanden (voorlopig reisbericht). Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 32, p. 509-512.

('On the geology of the Sula islands (preliminary travel report)'. First, brief summary of 1915 geological survey, reporting widespread Jurassic outcrops, locally intensely folded, but not showing complicated thrust tectonics of Timor, Ceram, etc. Also granites and metamorphic rocks

Brouwer, H.A. (1921)- Geologische onderzoekingen op de Soela eilanden I. Jaarboek Mijnwezen Nederlandsch Oost-Indie, Verhandelingen 49 (1920), p. 69-158.
('Geological investigations on the Sula islands-1'. Intensely folded crystalline schists, unconformably overlain by M Jurassic quartz sandstones, at least partly derived from granitic rocks. Overlain by Callovian- Oxfordian marine shales with ammonites and Cretaceous pelagic limestones. Tertiary clastics with thin coaly beds and rare loose material of Miocene limestone. Also various types of granites, probably pre-Jurassic age.)

Brouwer, H.A. (1921)- Studien uber Kontaktmetamorphose, IX. Hornfelse von der Insel Taliabu (Sula-Inseln). Centralblatt Mineralogie Geologie Palaontologie 1921, p. 417-422.
(online at: www.biodiversitylibrary.org/item/204060#page/443/mode/1up)
('Studies on contact-metamorphism, 9. Hornfels from Taliabu Island, Sula Islands'. Granitic-dioritic rocks with biotite widespread in W and C Taliabu, with red feldspars similar to Banggai island granites, but not Mangoli granites. Many types of contact-metamorphic hornfels (andalusite-, biotite-, epidote-, amphibole-, garnet-diopside-, etc.), possibly reflecting various Jurassic sedimentary protoliths. Contacts with granite not seen)

Brouwer, H.A. (1926)- Geologische onderzoekingen op de Soela eilanden- II. Jaarboek Mijnwezen Nederlandsch Oost-Indie, Verhandelingen 54 (1925), 1, p. 3-11.
('Geological investigations on the Sula islands-2'. Brief descriptions of traverses on Taliabu and Mangoli islands. Outcrops mainly marine Jurassic- Lower Cretaceous beds with common ammonites. Oldest rocks Upper Liassic. With table of macrofossil distribution at different localities by Kruizinga)

Challinor, A.B. & S.K. Skwarko (1982)- Jurassic belemnites from Sula Islands, Moluccas, Indonesia. Geological Research Development Centre (GRDC), Bandung, Seri Paleontologi 3, p. 1-89.
(17 belemnite species from M-L Jurassic of Sula Islands. Assemblages dominated by species of Belemnopsis, Dicoelites and Hibolithes, which, with absence of Tethyan genus Duvalia, suggest it is not low-latitude Tethyan, but higher latitude 'Austral'/'peri-Gondwanan' assemblage)

Damayanti, C., Sismanto, A. Setiawan & L. Handayani (2024)- Application power spectrum analysis of gravity data to investigate subsurface structures of the North Banggai-Sula Microcontinent in Maluku Sea area. Iraqi Geological J. 57, 1E, 252-265.
(online at: https://igj-iraq.org/igj/index.php/igj/article/download/2137/1968/25630)

Ding, J., S.G. Zhang, Z.F. Xu & X.L. Qin (2011)- Geological and geochemical characteristics and genesis of the Sn-Fe polymetallic deposit in Taliabu Island, Indonesia. Acta Geoscientica Sinica 32, 3, p. 313-321. *(in Chinese, with English abstract)*
(online at: www.cagsbulletin.com/dqxbcn/ch/reader/create_pdf.aspx?file...)
(Recent discovery of large Sn-Fe polymetallic deposit in C Taliabu, Banggai-Sula islands. Sourced from Triassic monzogranite derived from partial crustal melting. Mineralization in contact zone between granite and Carboniferous metasediments, including skarn type iron ore in contact with Carboniferous marble. Ore deposit belongs to East Australia metallogenic belt that moved to SE Asia)

Diria, S.A., W. Permono, J. Anwari, H. Purba & J.T. Musu (2017)- Uses of satellite gravity to map subsurface condition (case study: WK Sula II). Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, p. 1-6.
(Gravity modeling of E Sula basin area suggests E Sula (Taliabu) island on continental crust, with oceanic crust to N and S. Basement depth in block from -954 to -10245m, gradually deepening to S. E-M Jurassic rift fill clastics (Bobong Fm) in N-S trending grabens)

Ferdian, F. (2015)- Frontier exploration using an integrated approach of seafloor multibeam, drop core and seismic interpretation- a study case from North Banggai Sula. Berita Sedimentologi 32, p. 27-34.

(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/119)
(On offshore northern Banggai-Sula high resolution seafloor multibeam bathymetry and backscatter)

Ferdian, F., J. Decker, A. Morton & M. Fanning (2012)- Provenance of East Sulawesi and Banggai Sula zircons-preliminary result. Proc. 36th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA12-G-044, p. 1-11.
(Mesozoic sandstones of SE and E Sulawesi and Banggai-Sula similarities in U-Pb zircon age spectra. Two broad age clusters: Triassic-Paleozoic (~500 Ma to ~200 Ma) and Mesoproterozoic to Paleoproterozoic (~1370 -1900 Ma). Within clusters 4 age peaks: (1) Late Permian-Triassic (~260-210 Ma); (2) Carboniferous (~360-300 Ma); (3) Mesoproterozoic (~1470 -1370 Ma); (4) Early Paleoproterozoic (~1900-1820 Ma). Older zircons most likely from Kimberley orogen in N Australia, younger peaks likely from local igneous and high grade metamorphic rocks. The Late Permian-Triassic zircons probably from underlying Banggai-Sula granite and part of major Permo-Triassic granitoid belt extending from N New Guinea to Greater Sula Spur)

Ferdian, F., R. Hall & I. Watkinson (2010)- A structural re-evaluation of the North Banggai-Sula area, Eastern Indonesia. Proc. 34th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA10-G-009, p. 1-20.
(2D seismic interpretation N of Banggai-Sula. No evidence of continuous E-W-trending N Sula-Sorong Fault)

Francis, G. & G.E.G. Westermann (1993)- The Kimmeridgian problem in Papua-New Guinea and other parts of the Indo-Southwest Pacific. In: G.J. & Z. Carman (eds.) Proc. 2nd PNG Petroleum Convention, Port Moresby, p. 75-93.
(Sula Islands most complete Jurassic ammonite sequence in W Pacific. Oxfordian 3 zones. Lower zone in Wanaea spectabilis dinoflagellate zone, middle zone with upper W. spectabilis and upper zone with Wanaea clathrata dinozones. Ammonite-rich zone overlain by ammonite-poor zone, then latest Tithonian- earliest Berriasian assemblage with P. iehiense dinos. Uncertainties of correlation of Kimmeridgian due to scarcity of age-diagnostic Kimmeridgean ammonites)

Garrard, R.A., J.B. Supandjono & Surono (1988)- The geology of the Banggai-Sula microcontinent, Eastern Indonesia. Proc. 17th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 23-52.
(Comprehensive overview of Banggai-Sula microcontinent stratigraphy and M Miocene- Pliocene collision with NE Sulawesi. Carboniferous-age metamorphic basement intruded by Late Permian- Triassic granite intrusives. Locally thick Mangole Fm Triassic volcanics affected by block faulting and unconformably overlain by Early Jurassic redbeds, then M Jurassic to Lower Cretaceous Buya Fm marine section and Late Cretaceous Tanamu Fm chalky pelagic marine sediments. Unconformably overlain by Eocene- M Miocene Salodik Fm platform carbonates. No record of Mio-Pliocene 'Sulawesi Molasse'. Raised Quaternary reefal carbonates up to 1000m. Wet gas seep in N Mangole, possibly tied to Jurassic coaly source)

Han, S.L. S.G. Zhang, J. Ding, Z.F. Xu & X.L. Qin (2012)- REE geochemistry application in discrimination of metallogenic system and ore genesis: an example from iron polymetallic orefield in Taliabu Island, Indonesia. Chinese J. Nonferrous Metals 22, 3, p. 784-794. *(in Chinese)*

Jaworski, E (1921)- Ein Beitrag zur Kenntnis des Untersten Doggers von Taliabu (Sula-Inseln). Jaarboek Mijnwezen Nederlandsch-Indie 49 (1920), Verhandelingen 2, p. 191-206.
('A contribution to the knowledge of the basal Dogger (= Middle Jurassic) of Taliabu, Sula islands'. Relatively poorly preserved molluscs (Rhynchonella, Pecten spp., Lima, Arca, etc.), Belemnites and ammonite fragment (Hammatoceras), indicative of Dogger/ Aalenian age)

Ju, W.W. (2016)- Research on geology of iron deposit in Taliabu, Sula Islands, Indonesia. Masters Thesis, China, p.
(Skarn-type iron occurrences of magnetite with some sphalerite and chalcopyrite on Taliabu Island, discovered by Chinese geologists. Magnetite orebodies at contact between Triassic granites and Carboniferous carbonate strata (see also Ding et al. 2011; exploited since 2016 by Salim Group))

Kadarusman, A., N.L. Basuki & R. Suria-Atmadja (1994)- Komplek batuan dasar Kepulauan Sula: sebuah studi pendahuluan. Proc. 30th Anniv. Symposium, R&D Centre for Geotechnology LIPI, V.1, p. 106-127.
('The basement complex of the Sula Islands: a preliminary study')

Kadarusman, A. & D.H. Natawidjaja (1995)- Komplek malihan di Kepulauan Sula, Maluku- suatu interpretasisi sejarah struktur dan metamorfisma. Proc. Seminar Sehari Geoteknologi dalam indistrialisasi, Puslitbang Geoteknologi LIPI, Bandung, p. 76-93
('The metamorphic complex in the Sula Islands, Moluccas; a historical interpretation of structure and metamorphism'. On Paleozoic(?) regional metamorphic rocks in outcrops on Mangole (amphibolite, granulite), Taliabu and Sulabesi (greenschist))

Kholiq, A., R. Widiastuti, T. Bambang S.R. & I. Firdaus (2011)- Zonasi foraminifera plangtonik Kapur Akhir dari Formasi Tanamu, Desa Parigi, Taliabu Timur, Kepulauan Sula. Proc. Joint. 36th HAGI and 40th IAGI Annual Conv., Makassar, JCM2011-108, p. 1-11.
(online at: https://www.iagi.or.id/web/digital/10/2011_IAGI_Makassar_Zonasi-Foraminifera-Plangtonik.pdf)
(Upper Cretaceous planktonic foraminifera zonation of the Tanamu Fm, Parigi Village, East Taliabu, Sula Islands'. Planktonic foraminifera zones in Tanamu Fm (unconformably on Upper Jurassic?) indicative of Lower Coniacian-Campanian: Dicarinella primitiva, D. concavata, D. asymetrica, Globotruncanita elevata and Globotruncana ventricosa zones. Good correlation with nannoplankton (no foram images))

Klompe, T.H.F. (1954)- The structural importance of the Sula Spur (Indonesia). Indonesian J. Natural Science (Majalah Ilmu Alam untuk Indonesia) 110, p. 21-40.
(Summary of geology of N Moluccas, Ceram, Buru and Sula Spur (Banggai, Sula, and Obi islands region). Sula spur is remnant of western termination of Australian-New Guinea Variscan (Paleozoic) fold belt, which acted as obstacle during Tertiary crustal movements and caused the double loop in Banda fold arcs)

Klompe, T.H.F. (1956)- The structural importance of the Sula Spur (Indonesia). Proc. 8th Pacific Science Congress, Philippines 1955, 2A, p. 869-889.
(Same as Klompe 1954)

Kruizinga, P. (1921)- De belemnieten uit de Jurassische afzettingen van de Soela eilanden. Jaarboek Mijnwezen Nederlandsch Oost-Indie 49 (1920), Verhandelingen 2, p. 161-189.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB24:073694000:00005)
(The belemnites from the Jurassic deposits of the Sula Islands'. Jurassic belemnites collected by Brouwer, mostly float material. No confident age conclusions, possibly Callovian- Oxfordian. Mainly Belemnopsis gerardi Oppel (includes forms formerly described as Belemnites taliabicus, B soelarum, B. moluccanus and B. galoi by Boehm), Belemnopsis alfoericus, Belemnopsis indicus n.sp., Belemnopsis rumphii n.sp., Hibolites brouweri n.sp., H. lagoicus, H. verbeeki n.sp., Dicoelites sp.)

Kruizinga, P. (1926)- Ammonieten en eenige andere fossielen uit de Jurassische afzettingen der Soela eilanden. Jaarboek Mijnwezen Nederlandsch Oost-Indie 54 (1925), Verhandelingen 1, p. 13-85.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB24:064958000:00005)
('Ammonites and some other fossils from the Jurassic deposits of the Sula islands'. M-L Jurassic cephalopods from Brouwer collection. Basal M Jurassic (Aalenian) in neritic facies, Bajocian- Tithonian in pelagic facies)

Kuenen, Ph.H. (1942)- Obilatoe, Kisar and Siboetoe. Contributions to the geology of the East-Indies from the Snellius Expedition II. Geologie en Mijnbouw 4, 11-12, p. 81-90.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0M0tDX2Uxbnh3cEE/view)
(Geological observations from short visits to islands of Obilatu, Kisar and Sibutu with 1929 Snellius Expedition. Obilatu composed mainly of basic-ultrabasic igneous rocks and some tuffs, similar to NW part of Obimajor. Evidence of recent submergence)

Kusnama (2008)- Fasies dan lingkungan pengendapan Formasi Bobong berumur Jura sebagai pembawa lapisan batubara di Taliabu, Kepulauan Sanana-Sula, Maluku Utara. Jurnal Geologi Indonesia 3, 3, p. 161-173.

(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/229)
('Facies and depositional environment of the Jurassic Bobong Fm at the Taliabu coalfield, Sula islands, North Moluccas'. E-M Jurassic Bobong Fm lower part conglomerate facies, followed by fluvial quartz sandstone with claystones, changing to shallow marine claystone-mudstone. Upper section well exposed in W and N Taliabu Island. Coal beds in upper Bobong Fm of N Taliabu. Two seams 30-40 cm and 100-120 cm thick, sulfur 3-5%, fixed carbon 46-54%, ash 8-16%, subbituminous to high volatile bituminous rank)

Kusnama, E. Partoyo & Rusmana (2007)- Batubara Formasi Bobong Pulau Taliabu, Maluku Utara. Majalah Geologi Indonesia (IAGI) 21, p.
('Coal of the Bobong Formation, Taliabu Island, North Moluccas'. On E-M Jurassic coal of Sula Islands)

Lelono, E.B., Irwansyah & Panujuh (2011)- The Jurassic- Cretaceous paleogeography of the Sula area, North Maluku. Lemigas Scientific Contributions 34, 1, p. 67-83.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/viewFile/793/580)
(Seven depositional sequences in Jurassic-Cretaceous succession of 2 wells off Sula island. Sequences 1 (Bobong Fm), 2, 3 and 4 (Buya Fm) of Jurassic age, sequences 5, 6 and 7 (Buya Fm) attributed to Cretaceous (no documentations of biozonations; JTvG). General deepening of depositional environment to North. Deepest environment is outer neritic (100m-200m). Jurassic-Cretaceous depocenter in N part of study area, and suggesting deepening to North for most of Jurassic-Cretaceous deposits (but only 2 control points?; JTvG))

Lelono, E.B. & Nugrahaningsih (2012)- Australian palinomorphs from the Buya Formation of the Sula Island. Scientific Contributions Oil and Gas (SCOG), Lemigas, 35, 3, p. 115-127.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/download/784/571
(Palynology of 1200m thick section of Jurassic marine Buya Fm of Mahigo River near Modafumi, Mangole Island, Sula Islands. Three microflora zones, from old to young: Contignisporites cooksoniae, Murospora florida and Retitriletes watheroensis zones. Four dinoflagellate zones, from old to young: Caddasphaera halosa, Wanaea clathrata- Wanaea indotata, Dingodinium swanense and Criboperidinium perforans zones. Omatia montgomeryi shown as ~Oxfordian-Kimmeridgean. Both zonations suggest age of Buya Fm Bathonian- E Tithonian, Middle-Late Jurassic. Palynomorph assemblages succession very similar to Australian NW Shelf)

Malod, J.A., J. Clermonte, J.P. Rehault, S. Burhanuddin, L. Sarmili, M. Villeneuve et al. (1993)- The South Sula fracture zone; a reactivated southern arm of the Sorong Fault (East Indonesia). In: 10th anniversary of the French-Indonesian cooperation in oceanography; ocean research, technology and maritime industry, Jakarta 1992, Ambassade de France en Indonesie, Adiwarna Citra, Bandung, p. 103-107.

Martin, K. (1897)- Over de geologie der Molukken. Verslagen Koninklijke Akademie van Wetenschappen, Amsterdam, Wis- en Natuurkunde, 25 sept. 1897, p. 1-3.
('On the geology of the Moluccas'. Brief, early review (summary of presentation?))

Nainggolan, D.A. (2015)- Pola anomali geomagnet daerah Pulau Taliabu dan Pulau Mangole, Maluku Utara. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 16, 2, p. 93-102.
(online at: http://kiosk.geology.esdm.go.id/artikel/pdf/pola-anomali-geomagnet-daerah-pulau-taliabu...)
('Geomagnetic anomaly pattern in the Taliabu and Mangole Islands, North Maluku'. Areas of unusually high magnetic anomalies in S)

Nasution, F.A., B. Nugroho, A. Krisyunianto & A. Bachtiar (2008)- Overview petroleum system of Taliabu-Mangole synrift in Sula sub basin. Proc. 37th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 761-772.
(Triassic-Jurassic Taliabu-Mangole N-S trending synrift basin with gas seeps and oil odor indicating mature hydrocarbons. Surface mapping, seismic interpretation and evaluation of two wells suggest Jurassic Buya Shale and E-M Jurassic Bobong coal potential source rocks and mature, but dominantly gas prone. On Taliabu Shelf source rock is immature, offshore Mangole source is mature. Bobong sand and fractured basement potential reservoirs, Buya Shale is regional seal. Common thrust anticlinal structural traps. No figures?)

Natawidjaja, D.H. & A. Kadarusman (1994)- The structural natures of the Pre-Tertiary rock complexes of the Sula Islands and their tectonic significances: a preliminary view. Proc. 23rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 1, p. 433-446.
(online at: https://www.iagi.or.id/web/digital/62/34.pdf)
(Foliation in pre-Jurassic metamorphic rocks of Banggai-Sula islands variable with two or more deformation phases. Different orientations between Taliabu-Mangole Islands and Sulabesi may be due to 90° CCW rotation of Taliabu- Mangole. Most granitoids altered and brittle-fractured; Pre-Tertiary sediments only slightly folded. Tectonic events: (1) Paleozoic Pre-rift structures and metamorphism; (2) Triassic- Jurassic synrift (N-S?) extensional structures; (3) U Cretaceous- Miocene drift structures with rotations; (4) Late Miocene collisional structures; (5) post-colisional compressional deformation and uplift of Sula islands)

Ngadenin (2016)- Kajian geologi, radiometri, dan geokimia Granit Banggai dan Formasi Bobong untuk menentukan daerah potensial uranium di Pulau Taliabu, Maluku Utara. Eksplorium 37, 1, p. 13-26.
(online at: https://ejournal.brin.go.id/eksplorium/article/view/8110/6221)
('Geological, radiometrical and geochemical studies of Banggai granites and Bobong Formation to determine potential uranium areas in Taliabu Island, North Maluku'. Late Permian-Triassic Banggai granite is potential uranium source, E-M Jurassic fluvial-deltaic sandstone of Bobong Fm is potential host rock)

Nompo, S., D.H.Amijaya & F. Anggara (2021)- Karakteristisasi petrografi dan geokimia batubara Formasi Bobong daerah Taliabu, Provinsi Maluku Utara. Jurnal Geomine 9, 1, p. 1-8.
(online at: https://jurnal.teknologiindustriumi.ac.id/index.php/JG/article/view/764/pdf)
('Petrographic and geochemical characterization of the Bobong Coal Formation in the Taliabu Region, North Maluku Province'. Jurassic coal on NW Taliabu island 3 seams, each 0.5- 1 m thick. Mainly bright coals and banded bright coals (high volatile abituminous coals))

Oloriz, F. & G.E.G. Westermann (1998)- The perisphinctid ammonite *Sulaites* n. gen. from the Upper Jurassic of the Indo-Southwest Pacific. Alcheringa 22, p. 231-240.
(New genus Sulaites comprises Oxfordian group of 'Perisphinctes' sularus and moluccanus, described from Sula Islands, and Late Oxfordian-?E Kimmeridgian 'Pseudoparaboliceras aramaraii' group described from W Papua. Genus Sulaites also known from W Papua, PNG and probably New Zealand and Nepal)

Panjaitan, S. & Subagio (2014)- Pola anomali gayaberat daerah Taliabu- Mangole dan laut sekitarnya terkait dengan prospek minyak bumi dan gas. J. Geologi Kelautan 12, 2, p. 65-78.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/247/237)
('Gravity anomaly pattern of Taliabu- Mangole area and surrounding seas, related to oil and gas prospectivity')

Panuju (2011)- Pre-Tertiary nannoplankton biostratigraphy of Bobong, Buya and Tanamu Formations, Banggai-Sula basin. Proc. Joint 36th HAGI and 40th IAGI Annual Conv., Makassar, JCM2011-053, p. 1-12.
(Nannoplankton from three M Jurassic- Cretaceous outcrop sections of Sula islands (no locality details). Bobong Fm contains zone NJ9 (Bajocian, M Jurassic; with Watznaueria brittanica, Diductius constans). Buya Fm zone NJ17 (Tithonian, Late Jurassic, with Zeugrhabdotus embergeri at bottom, Stepanolithion bigotii at top). Tanamu Fm zones CC13-CC17 (Coniacian- Campanian, Late Cretaceous, with Marthasterites furcatus at bottom, Quadrum gartneri at top))

Pertamina/BPPKA (1996)- Petroleum geology of Indonesian basins, VI-IX Eastern Indonesian Basins, VI-Banggai, Jakarta, p. 1-24.

Pessagno, E.A. & D. Meyerhoff Hull (2002)- Upper Jurassic (Oxfordian) radiolaria from the Sula Islands (East Indies): their taxonomic, biostratigraphic, chronostratigraphic, and paleobiogeographic significance. Micropaleontology 48, 3, p. 229-256.
(L-M Oxfordian radiolarians from Buya Fm mudstones of Mangole Island with common Praeparvicingula and rare pantanelliids and association with Austral ammonites suggest assemblage from outside Central Tethyan Pantanellidae realm, but belongs to Northern Austral Province Parvicingula- Praeparvicingula Realm (>30°S paleolatitude), in keeping with Gondwana origin of Sula. New species Bigrumpta moluccaenis, Crucella

capaluluensis, C. hamiltoni, C. taliabuensis, C. westermanni, Grumpta australis, Acanthocircus tansinhoki, A. waigaloensis, etc.)

Pigram, C.J., Surono & J.B. Supandjono (1985)- Geology and regional significance of the Sula Platform, East Indonesia. Bull. Geological Research Development Centre (GRDC) 11, p. 1-13.
(Sula Platform basement Paleozoic slates-schists (K-Ar age 305 Ma) and Late Permian-Triassic granitoids- acid volcanics. Unconformably overlain by E Jurassic non-marine Kabauw Fm clastics, grading upward into fossiliferous Buya Fm M Jurassic- E Cretaceous bathyal black shale, overlain by Late Cretaceous Tanamu Fm calcilutites. Unconformably overlain by Miocene shallow marine limestones. Sula stratigraphy correlates poorly with W Irian Jaya stratigraphy, but most similar to central PNG. May be detached from PNG in Jurassic. Unlikely to be transported to E Indonesia by transcurrent faults, which in PNG did not develop before Late Oligocene)

Pigram, C.J., Surono & J.B. Supandjono (1985)- Origin of the Sula Platform, Eastern Indonesia. Geology (GSA) 13, p. 246-248.
(Similar to paper above. Sula Platform stratigraphy closer to Central PNG between 141°-145° than to W New Guinea, implying E to W displacement of >2500 km. Sula stratigraphy characterized by Paleozoic low-grade metamorphics, Permo-Triassic granitoids and rel. complete marine Jurassic section, similar to PNG. Cretaceous on Sula is bathyal Late Cretaceous carbonates only, different from PNG which has more complete Cretaceous section, suggesting separation of Sula Platform in Early Cretaceous?)

Rudyawan, A. & R. Hall (2012)- Structural reassessment of the South Banggai-Sula area: no Sorong fault zone. Proc. 36th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA12-G-030, p. 1-17.
(online at: https://www.researchgate.net/publication/323555942_Structural_Reassessment_of_The_South_Banggai-Sula_Area_No_Sorong_Fault_Zone
(New seismic data suggests strands of Sorong Fault can be traced from New Guinea towards Sula Islands, but no through-going Sorong Fault Zone traceable to S of Banggai-Sula block. Absence of through-going strike-slip fault zone along S Taliabu Shelf indicates Banggai-Sula block not transported to W by Sorong Fault Zone)

Rutten, L.M.R. (1927)- De noordelijke Molukken en de Radja-Ampat groep. In: L.M.R. Rutten (1927) Voordrachten over de geologie van Nederlandsch Indie, Wolters, Groningen, p. 761-782.
(Review of geology of Northern Moluccas (Sula Islands, Obi, Bacan, Misool) and Radja Ampat Group (Waigeo, Batanta, Salawati))

Ryacudu, R., T. Wibowo & Y.E. Handiwiria (1993)- Exploration for carbonate reservoirs in the Banggai-Sula microcontinent, Eastern Indonesia. Proc. 22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 679-692.
(online at: https://www.iagi.or.id/web/digital/53/22nd-Volume-2-(6-9-Des-1993)-73-86.pdf)
(Banggai-Sula microcontinent with carbonates in U Cretaceous Tanamu Fm (drift stage; bathyal, tight), and Late Eocene?- Late Miocene Tomori + Minahaki Fm (Salodik Gp) shallow marine carbonates with good reservoir potential. End-Miocene collision between Banggai-Sula and E Sulawesi, ending the carbonate cycle)

Sardi, B., M. Ripky, F.A. Marhum,S. Nompo & M. Arif. (2023)- Analisis proksimat,ultimat,dan kadar sulfur dalam penentuan kualitas batubara pada formasi Bobong Pulau Taliabu- Maluku. Sultra J. Mechanical Engineering (SJME) 2, 1, p. 45-53.
(online at: https://jurnal-unsultra.ac.id/index.php/sjme/article/view/443/268)
('Proximate, ultimate and sulfur content analysis in determining coal quality in the Bobong Formation, Taliabu Island - Maluku'. Analysis of coal from Jurassic Bojong Fm outcrops. Coals sub-bituminous and rel. high sulfur (~4-8%), "not good enough to be used as fuel (steaming coal)" (no location or geology info))

Sardjono (1999)- Gravity field and structure of the crust of the Banggai Island region, Eastern Indonesia, implications for tectonics and hydrocarbon prospects. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 9, 99, p. 16-29.
(Rel. high gravity over Banggai Islands suggest attenuated continental crust (22km), thinning to 9km in Tomori Basin to S, and dipping gently to N, with drowned carbonate platforms. In E arm of Sulawesi gravity suggests

exposed ultramafic rocks do not extend to any great depths (<1 km, except on Poh Head, where it may extend ~5km into root zone). In Molucca Sea tectonic melange up to 8km thick on oceanic crust)

Sardjono & E. Mirnanda (2007)- Gravity field and structure of the crust beneath the East Arm of Sulawesi and the Banggai Archipelago. Proc. 31st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA07-G-024, p. 1-11.
(Gravity suggests Banggai- Sula Archipelago composed of blocks of severely attenuated continental crust)

Sato, T., G.E.G. Westermann, S.K. Skwarko & F. Hasibuan (1978)- Jurassic biostratigraphy of the Sula Islands, Indonesia. Geological Research Development Centre Bull. 4, 1, p. 1-28.
(Sula Islands visited in 1976. Jurassic section rich in fossils, probably <1500m thick. Mainly calcareous shales, some conglomerate and sandstone. Typical 'Indo-Pacific' series with Lower Callovian Macrocephalites fauna, Oxfordian Mayaites, U Tithonian Blanfordiceras, etc. Age range Late Toarcian-Tithonian, but Aalenian and M-U Callovian missing)

Septriandi, I. Syafri, Y. Adriana S. & F. Ferdian (2012)- Jurassic sandstone characteristic of Bobong Formation in Taliabu Island, Eastern Indonesia: outcrop and petrography observations. Proc. 36th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA12-SG-068, p. 1-13.
(E-M Jurassic Bobong Fm sandstone on Taliabu (Sula Islands) in alluvial fan, fluvial and beach facies. Provenance from continental block (Banggai granite and low grade metamorphics). Porosity 9-19%. Very intense compaction. No fossils found)

Septriandi, I. Syafri, Y. Adriana S & F. Ferdian (2016)- Jurassic sandstone characteristic of Bobong Formation in Taliabu Island, Eastern Indonesia: outcrop and petrography observations. Jurnal Geosains Terapan 2, 3, p. 29-39.
(online at: https://geosainsterapan.id/index.php/id/article/view/15)
(Same paper as Septriandi et al. 2012, above)

Serhalawan, Y. & P.F. Chen (2024)- Seismotectonics of Sulawesi, Indonesia. Tectonics 883, 230366, p. 1-16.
(online at: www.gep.ncu.edu.tw/storage/thesis/2024/2024%20%20Po-Fei%20CHEN_Tectonophysics.pdf)
(Extensive review of seismicity (shallow earthquakes) and tectonics of Sulawesi. Thrust earthquakes along N Sulawesi Trench in north, Makassar Strait Thrust to W, and Tolo and Buton Thrust to SE. Left-lateral strike-slip motions along C Sulawesi Fault System. Low seismicity on segment offshore SW Sulawesi, which may be beyond high relative motion between Makassar and North Sula Block)

Silver, E.A. (1977)- The Sula Spur enigma. Geological Society of America (GSA), Meeting Abstracts with Programs 9, 7, p. 1175-1176. *(Abstract Only)*

Smit Sibinga, G.L. (1933)- Heeft de Banggai-Archipel in Jongtertiairen tijd een afwijkende ontwikkeling gehad? Onhoudbaarheid der Pliocene Molukkenbrug? Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 50, p. 227-238.
('Did the Banggai Archipelago have a different development in Late Tertiairy time? Untenability of the Pliocene Moluccas land bridge?'. Discussion of Koolhoven (1930) conclusions on relation/ differences between Late Tertiary of the Banggai Archipelago and Sulawesi. Smit Sibinga. argues in favor of a zoogeograpic connection)

Sukamto, R. & G.E.G. Westermann (1992)- Indonesia and Papua New Guinea. In: G.E.G. Westermann (ed.) The Jurassic of the Circum-Pacific, Cambridge University Press, p. 181-193.
(With summary of Jurassic stratigraphy of Banggai-Sula Platform: 1000-2500m thick Jurassic section exposed on Sula islands, with richest Jurassic ammonite faunas of Indonesia. Basal part terrestrial- shallow marine Kabauw, Bobong and Nanaka Fms, mainly coarse clastics with some coal. Overlain by open marine sediments, with Macrocephalites assemblages in M Jurassic, Mayatites- Perisphinctes in Late Jurassic, etc.)

Supandjono, J.B. & E. Haryono (1993)- Geological map of the Banggai Quadrangle, Sulawesi-Maluku, 1:250,000. Geological Research Development Centre (GRDC), Bandung, p. 1-13.

(Geologic map of Taliabu, Banggai and E Peleng islands (W part of Banggai Sula islands). With M-L Jurassic marine Buya Fm rich in macrofossils: ammonites (Irianites moermanni, Stephanoceras, Macrocephalites spp., Mayaites), belemnites (Belemnopsis spp.), and bivalves. Underlying E-M Jurassic Bobong Fm thick 'redbeds' with coal, unconformable on metamorphic and igneous basement (incl. Late Triassic Banggai granite; K/Ar ages ~225 Ma))

Supandjono, J.B. & Surono (1987)- Stratigraphic correlation between Banggai- Sula Platform and Irian Jaya. Proc. 16th Annual Conv. Indonesian Association Geologists (IAGI), p.

Surono & D. Sukarna (1993)- Geological map of the Sanana Sheet, Maluku, scale 1:250,000. Geological Research Development Centre (GRDC), Bandung. (with 16-page notes)
(Geology of eastern Banggai-Sula Islands, SE of E Sulawesi (E Taliabu, Manggole, Sanana). Oldest formation ?Carboniferous metamorphics and ?Permo-Triassic Banggai granite intrusives with >400m thick co-magmatic Mangole Fm volcanic breccias and tuffs. Small occurrence of ~50-100m thick Triassic? Nofanini Fm coral-mollusc limestone off S coast of Mangole. Unconformably overlain by thick M-L Jurassic Bobong and Buya Fms rich in macrofossils: ammonites (Blanfordiceras, Himalayites, Stephanoceras, Macrocephalites), belemnites (Belemnopsis stolleyi, B. mangolensis), bivalves (Inoceramus, Malayomaorica). Overlain by Late Cretaceous Tanamu Fm Globotruncana marl-limestone)

Triono, U. & Mulyono (2011)- Penyelidikan batubara di daerah Mangole dan sekitarnya, Kabupaten Kepulauan Sula, Maluku Utara. Prosiding Hasil Kegiatan Pusat Sumber Daya Geologi 2011, I.26, p. 1-24.
('Investigations of coal in Mangole and surrounding areas, Sula Islands Regency, North Moluccas')

Van Nouhuijs, J.W. (1910)- Bijdrage tot de kennis van het eiland Taliaboe der Soela groep (Moluksche Zee). Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2), 27, p. 945-976 and p. 1173-1196.
(online at: https://resolver.kb.nl/resolve?urn=MMKB18:009131000:pdf)
('Contribution to the knowledge of Taliabu island of the Sula Group'. With geologic map of central part of south coastal area of Taliabu island. Report on first sampling of Jurassic ammonites and belemnites by Dutch Navy officer Van Nouhuijs in 1900 (ship captain and also surveyor accompanying Prof. G. Boehm) and in October-November 1904 by himself. Fossils from folded dark shales underlain by highly deformed crystalline schist (phyllites according to A. Wichmann). Discovered the famous Keeuw locality at Wai Miha River rich in M Jurassic ammonites, deposited in collections of the University of Utrecht and later described by Boehm (1912). For petrography of Van Nouhuys samples see Wichmann (1914))

Walpersdorf, A., C. Vigny, P. Manurung, C. Subaraya & S. Sutisna (1998)- Determining the Sula block kinematics in the triple junction area in Indonesia by GPS. Geophysical J. International 135, p. 351-361.
(online at: https://earthjay.com/earthquakes/20190412_indonesia/Walpersdorf_etal_1998_GPS_sula_block_dynamics_triple_junction_indonesia.pdf)
(Triple junction of three major plate boundaries (Australia- Eurasia- Philippines) is transition zone that includes Sula domain, which shows clockwise rotation)

Watkinson, I.M., R. Hall & F. Ferdian (2011)- Tectonic re-interpretation of the Banggai-Sula-Molucca Sea margin, Indonesia. In: R. Hall, M.A. Cottam & M.E.J. Wilson (eds.) The SE Asian gateway: history and tectonics of Australia-Asia collision, Geological Society, London, Special Publ. 355, p. 203-224.
(online at: http://searg.rhul.ac.uk/pubs/watkinson_etal_2011%20North%20Banggai-Sula.pdf)
New bathymetric and seismic data from area N of Banggai-Sula Islands provide new insight into boundary between E Sulawesi ophiolite, Banggai-Sula microcontinent and Molucca Sea collision zone. Previously interpreted major faults such as Sula Thrust and N Sula-Sorong Fault, are not seen. Gently dipping strata of Banggai-Sula microcontinent margin can be traced N-wards beneath younger rocks)

Westermann, G.E.G. & J.H. Callomon (1988)- The Macrocephalitinae and associated Bathonian and early Callovian (Jurassic) ammonoids of the Sula islands and New Guinea. Palaeontographica A, 203, p. 1-90.
(Five Bathonian- Early Callovian ammonite assemblages on S Taliabu. Also from Bathonian at PNG Strickland River. East Indian faunas dominated by Macrocephalitidae (many of which are species unknown outside

Indonesia- New Guinea region; one other SW Pacific occurrence in New Zealand). Because of high endemicity at species level in Macrocephalitinae and at genus level in Satoceras and Irianites, E Indonesia and PNG may be considered as separate ammonite faunal province or subprovince, perhaps part of Maorian/SW Pacific Province during Late Bajocian- E Callovian. Diversity and compositions of ammonite faunas suggest Sula was in warmer waters than Birds Head Peninsula)

Westermann, G.E.G., T. Sato & S.K. Skwarko (1978)- Brief report on the Jurassic biostratigraphy of the Sula Islands, Indonesia. Newsletters on Stratigraphy 7, 2, p. 96-101.
(Classic ammonite localities on Taliabu and Mangole reexamined. U Toarcian sst with Hammatoceras overlain by thick Bajocian micaceous marly shales (Fontannesia, etc.). No evidence for Aalenian. Overlying thick marly claystones with E Callovian 'Keeuw fauna' (Macrocephalites, etc.) and 'Wai Galo fauna' with E-M Oxfordian ammonite assemblages (Mayaitidae, Perisphinctes, etc.). No new evidence for Bathonian or higher Callovian. Thick Kimmeridgian-M Tithonian argillaceous sequence in belemnite-bivalve facies (Belemnopsis, Inoceramus, Malayomaorica). U Tithonian claystones again rich ammonite fauna (Haplophylloceras, Blanfordiceras, etc.))

Wichmann, A. (1914)- On some rocks of the Island of Taliabu (Sula-Islands). Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 17, 1, p. 226-239.
(online at: https://dwc.knaw.nl/DL/publications/PU00012640.pdf)
(Description of granites (often red biotite granite, similar to Banggai island granites) and other igneous rocks, metamorphics (incl. contact-metamphic andalusite mica schist and hornfels), Jurassic iron oolite with belemnites. Oldest rocks are intensely folded phyllites. Also Dutch version in 1913)

VI.3. Seram, Buru, Ambon

Adlan, R., J. Wahyudiono, A. Susilo, B. Salimudin, A.K. Gibran & E.S. Wiratmoko (2018)- Petroleum system potential of Lofin and Banggoi area, Seram Island. Proc. 42nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA18-250-G, p. 1-6.
(Brief review, showing highly variable porosity and TOC in Triassic Kanikeh Fm outcrop samples)

Adlan, Q., S.M. Kartanegara, A.H.P. Kesumajana & E.A. Syaripudin (2016)- Explanation of Seram Island's more prolific oil potential compared to its offshore area using palinspastic and basin modeling approaches. Proc. 40th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA16-294-G, p. 1-15. *(online at: https://www.researchgate.net/publication/305810489_Explanation_of_Seram_Island%27s_More_Prolific_Oil_Potential_Compared_to_Its_Offshore_Area_Using_Palinspastic_and_Basin_Modeling Etc.)*
(Structural restoration of SW-NE seismic line in Seram Trough E of Seram. Compressional deformation in imbricated thrust belt began at ~5 Ma, with peak of shortening at 3.5 Ma. Some Lengkuas 1 well data)

Adlan, Q., A.H.P. Kesumajana & E.A. Syaripudin (2016)- Impacts of fold-thrust belt forming on hydrocarbon occurrence in Seram Trough: Outer Banda Arc foreland system. Proc. 40th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA16-58-G, p. 1-14. *(online at: https://www.academia.edu/36758889/IMPACTS_OF_FOLD_THRUST_BELT_FORMING_ON_HYDROCARBON_OCCURRENCE_IN_SERAM_TROUGH_OUTER_BANDA_ARC_FORELAND_SYSTEM)*
(Basin modeling of petroleum systems in deepwater Seram fold-thrust belt and Seram Trough foreland basin, S of Misool-Onin-Kumawa Ridge. Hydrocarbon shows in Jurassic of Lengkuas-1 (SSW of South Onin 1 well) indicates oil accumulation before Plio-Pleistocene tectonic event)

Al-Shaibani, S. (1983)- The micropalaeontology of the Middle Triassic to Upper Miocene sediments of Seram, Eastern Indonesia. Ph.D. Thesis Imperial College, University of London, p. 1-469.
(online at: https://spiral.imperial.ac.uk/handle/10044/1/36159)
(Planktonic foraminifera of Nief Beds indicate deposition during Cretaceous, Paleocene, Eocene and Miocene in deep bathyal environment. Corroded radiolaria in U Jurassic- Lower Cretaceous part of Nief Beds indicate deposition close to silica compensation depth at ~4000m. Fine grain-size and radiolaria-dominated microfauna of Saman Saman Lst indicate deposition in very deep marine water. Microfaunas of Late Triassic Asinepe Lst reveal deposition during Norian in reefal- sublagoonal environment)

Al-Shaibani, S., D.J. Carter & L. Zaninetti (1983)- Geological and micropaleontological investigations in Upper Triassic (Asinepe Limestones) of Seram, Outer Banda Arc, Indonesia. Archives Sciences Geneve 36, 2, p. 301-316.
(Foraminifera from U Triassic Asinepe Fm tropical-reefal carbonates of Seram show Norian- Rhaetian age. Two distinct foram facies associations: (1) muddy lagoonal facies dominated by Involutinidae, with Triasina hantkeni, Aulatortus spp., etc. and (2) near-reefal facies dominated by porcellaneous forams. No location maps, stratigraphy, etc.)

Al-Shaibani, S., D.J. Carter & L. Zaninetti (1984)- Microfaunes associees aux Involudinidae et aux Milioporidae dans le Trias superieur (Rhetien) de Seram, Indonesie: precisions stratigraphiques et paleoecologie. Archives Sciences Geneve 37, 3, p. 297-313.
(Upper Triassic microfaunas from Asinepe Fm reefal and lagoonal platform limestone, Seram with Rhaetian index foram Triasina hantkeni, Agathammina, Galeanella? laticarinata, Aulaconus, etc. Many similarities with U Triassic Tethyan faunas in Europe and Asia)

Aquantino, S., N. Nastiti & A.S. Dradjat (2012)- Penggunaan metoda "the look ahead VSP survey" untuk pencitraan target Formasi di bawa mata bor pada sumur pemboran eksplorasi Lofin 1. Proc. 41st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2012-E-30, p. 1-5.
(online at: https://www.iagi.or.id/web/digital/9/2012_IAGI_Yogyakarta_Penggunaan-Metode-The-Look-Ahead-VSP-Survey.pdf)
('The use of the "look ahead VSP survey" method for imaging targets during drilling of exploration well Lofin 1'. Lofin-1 exploration well ~70km W of Oseil 2. Target Manusela Lst deeper than pre-drill predictions;not reached

at TD of 10957' (in Upper Nief Fm). Look-ahead VSP used to help predict target depths (Lofin 1 ST penetrated ~500' of gas-oil bearing fractured Manusela Fm limestone below ~14000'; JTvG))

Audley-Charles, M.G. & D.J. Carter (1977)- Interpretation of a regional seismic line from Misool to Seram: implications for regional structure and petroleum exploration. Proc. 6th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 3-12. *(also in Oil and Gas Journal 23, 1, p. 20-23)*
(Misool to Seram regional seismic shows imbricate zone at boundary of Seram island arc with New Guinea continental shelf. S wall of Seram Trough is like N wall of Timor Trough, interpreted as foothills-type fold belt. This may be regarded as an A-zone (Bally, 1975), representing margin between Banda Arc developing fold belt and Australian craton. Benioff subduction zone interpreted between non-volcanic Outer Banda arc and volcanic Inner Arc. A- and B-zones can be traced around Banda Arcs from Seram to Timor and beyond)

Audley-Charles, M.G., D.J. Carter, A.J. Barber, M.S. Norvick & S. Tjokrosapoetro (1979)- Reinterpretation of the geology of Seram: implications for the Banda arcs and northern Australia. J. Geological Society, London, 136, p. 547-568. *(also in: Geology and Tectonics of eastern Indonesia, GRDC Special Publ. 2, 1981, p. 217-237).*
(online at: http://searg.rhul.ac.uk/pubs/audley-charles_etal_1979_seram.pdf)
(Remarkable similarities between Mesozoic-Miocene deep-water 'para-autochthonous' and shallow water 'allochthonous' successions of Seram and Timor. Triassic limestones in 'Australian facies' mostly planktonic facies Saman Saman Lst in 'para-autochthonous', structurally overlain by 'Asian facies'Asinepe Lst in 'allochthonous')

Bachri, S. (2011)- Tectonostratigraphy and structures of Eastern Seram. Jurnal Geologi Indonesia 6, 2, p. 85-93.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/305)
(Seram geology re-interpreted in E Timor-analog tectonic complexes. Most of E Seram is 'Para-autochthonous complex', with Permian Kobipoto metamorphics, overlain by Triassic-Jurassic Kanikeh Fm flysch and age-equivalent Manusela Fm massive limestone, overlain by Cretaceous- Miocene pelagic deposits. 'Allochthonous' overthrusted sequence of ultrabasic rocks comparable to Timor Banda allochton (called Permian age in text, Jurassic-Cretaceous in Fig. 3; JTvG). Salas Complex is M Miocene- M Pliocene deep water olistostrome, similar to Timor Bobonaro Complex. Thrusting Neogene age and verging to NE)

Baroncini Turricchia, G. & and A. Benassi (2012)- Cave and karst prospecting within Seram Island (Maluku province) Indonesia), 23 May-22 June 2012. Rome, p. 1-31.
(online at: www.circolospeleologicoromano.it/csr/wp-content/uploads/2014/01/Seram2012.pdf)

Baskara, A.W., D.P. Sahara, A.D. Nugraha, A.A. Rusdin, Z. Zulfakriza, S. Widiyantoro, W. Triyoso et al. (2023)- Aftershock study of the 2019 Ambon earthquake using moment tensor inversion: identification of fault reactivation in northern Banda, Indonesia. Earth Planets and Space 75, 124, p. 1-23.
(online at: https://earth-planets-space.springeropen.com/articles/10.1186/s40623-023-01860-1)
(September 26, 2019, Mw 6.5 earthquake 23 km NE of Ambon City, primarily major strike-slip on N-S fault, with aftershocks along in N-S rupture zone towards Seram, of different nature?)

Beckinsale, R.D. & S. Nakapadungrat (1979)- A Late Miocene K-Ar age for the lavas of Pulau Kelang, Seram, Indonesia. In: S. Uyeda, R.W. Murphy & K. Kobayashi (eds.) Geodynamics of the Western Pacific, Proc. Int. Conf. Geodynamics Western Pacific-Indonesian Region, J. Physics of the Earth 26, Suppl. 6, p. 199-202.
(online at: https://www.jstage.jst.go.jp/article/jpe1952/26/Supplement/26_Supplement_S199/_pdf/-char/en)
(K-Ar determinations for 10 samples of pillow basalts of Kelang island, W Seram (with paleomagnetic analysis by Haile) gave Late Miocene ages of 4.7- 10.6 Ma (average 7.6 Ma, Late Miocene))

Boehm, G. (1905)- Uber Brachiopoden aus einem alteren Kalkstein der Insel Ambon. Jaarboek Mijnwezen Nederlandsch-Indie 34, Wetenschappelijk Gedeelte (Verbeek Ambon report), p. 88-93.
('On brachiopods from an older limestone of Ambon Island'. Brachiopods from dark, mica-bearing, impure limestone in sandstone series in Batu Gantung River are all new species, probably of Early Paleozoic age, possibly Triassic. Probably same faunas determined as Late Triassic by Jaworski 1925)

Boehm, G. (1908)- Vorjurassische Brachiopoden von Ambon. In: Geologische Mitteilungen aus dem Indo-Australischen Archipel VI, Neues Jahrbuch Mineralogie Geologie Palaontologie, Beilage Band 25, 2, p. 293-303.
(online at: https://opac.geologie.ac.at/ais312/dokumente/Boehm_1908_Indo-Australisch_Archipel_VI.pdf)
('Pre-Jurassic brachiopods from Ambon'. New species of Spiriferina, Athyris, Rhynchopora, Dielasma from Batu Gantung valley near town of Ambon. Age uncertain, probably Late Paleozoic- Triassic. (Deninger 1918, p. 30: similar to Late Triassic of Seram))

Boehm, G. (1910)- Zur neuen obertriadischen Fauna aus den Molukken. Centralblatt Mineralogie Geologie Palaontologie 1910, 6, p. 161-163.
(online at: www.biodiversitylibrary.org/item/192869#page/185/mode/1up)
('On the new Upper Triassic fauna from the Moluccas'. Brief note commenting on Krumbeck (1909) note on highly folded Upper Triassic asphalt beds near Fogi (W Buru) and Bara Bay (NW coast Buru), containing Daonella indica and ammonites. Buru U Triassic limestones in bivalve-cephalopod facies, different from 'athyrid facies' of Misool (mainly brachiopod-coral facies. No figures)

Brouwer, H.A. (1919)- Geologische onderzoekingen in Oost-Ceram. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 36, 6, p. 715-751.
(Geological survey of E Seram. Folded Late Triassic 'flysch-type', locally bituminous, calcareous sandstones-shales, with interbeds of 80-100m thick, dark brachiopod and coral limestones. Sandstones locally common plant fragments and muscovite (look like immature, delta-front turbidite sands, from granitic-metamorphic terrane?; JTvG). These are thought to be thrusted over 'Nief Series' (as exposed in Wai Nief canyons). Nief series at base different Triassic limestone: massive, oolitic, poor in age-diagnostic macrofossils, similar to rocks from Timor (but not Misool), and overlain by ?Jurassic, Cretacous and Tertiary cherty pelagic limestones and foram marls. Mesozoic of Ceram succession remarkably poor in macrofossils compared to Misool. Gas and oil seeps in Triassic rocks near Bula and Wai Nief)

Brouwer, H.A. (1925)- Over insluitsels en cordierietgehalte van bronziet-dacieten van het eiland Ambon. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 8 (Gedenkboek Verbeek, memorial volume), p. 73-80.
(online at: https://books.google.com/books?id=Yy0RAAAAIAAJ&pg)
('On inclusions and cordierite content of bronzite-dacites on Ambon island'. Common inclusions of gneiss in Ambon dacites, some with cordierite phenocrysts)

Brouwer, H.A. (1927)- Over Mesozoische afzettingen en eenige vulkanische gesteenten van het eiland Ambon. Jaarboek Mijnwezen Nederlandsch-Indie 55 (1926), Verhandelingen III, p. 233-245.
('On Mesozoic deposits and some volcanic rocks of Ambon island'. Reinterpretation of Verbeek (1908) conclusions and reiterates similarities of Ambon with NE part of W Timor. Upper Triassic sandstones, similar to Seram, with common quartz, possibly derived from mix of granites and schists. Also Upper Triassic dark grey limestones with crinoids, sponges, foraminifera and 11 species of brachiopods (Jaworski 1927), similar to Seram. Radiolarites of uncertain age)

Chandra, B.Y. & A. Kusworo (2019)- Palynostratigraphy and paleoenvironment of the Triassic Kanikeh Formation, Seram Island, Indonesia. Proc. 43rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA19-G-280, p. 1-10.
(Kanikeh Fm in NE Seram outcrops with six palynomorphs associations A-F, ranging in age from Early to Late Triassic, possibly into E Jurassic. Contains striate-bisaccate palynomorphs, typical of Permian- Triassic age)

Charlton, T.R. & J.T. van Gorsel (2014)- The Manusela Limestone in Seram: Late Triassic age for a 'Jurassic' petroleum play. Berita Sedimentologi 31, p. 57-69.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/124/94)
(No biostratigraphic evidence to support a Jurassic age for Manusela Limestone, which forms oil reservoir in the'Jurassic Limestone hydrocarbon play' of Oseil oilfield in NE Seram. Many paleontological studies on outcrops and wells instead document only Late Triassic macro- and microfaunas and microfloras)

Davies, G.R. & S. Tommasini (2000)- Isotopic disequilibrium during rapid crustal anatexis: implications for petrogenetic studies of magmatic processes. Chemical Geology 162, 2, p. 169-191.
(online at: https://flore.unifi.it/retrieve/handle/2158/224189/2816/2000ChemGeolv162_DisMelting.pdf)
(Rapid crustal anatexis may prevent full isotopic equilibration. Dating metamorphic rocks using mineral-whole rock or mineral-mineral pairs may yield erroneous ages, as observed in pre-Triassic metasediments of Seram where ages range from ~15 to 201 Ma, despite anatexis at 6 Ma. Consequently, some age estimates in literature may be incorrect)

Darman, H. & P. Reemst (2012)- Seismic expression of geological features in Seram Sea: Seram Trough, Misool-Onin Ridge and sedimentary basin. Berita Sedimentologi 23, 1, p. 28-34.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/190)

De Jong, H. (1923)- Studien uber Eruptiv- und Mischgesteine des Kaibobogebietes (West Ceram). In: L. Rutten & W. Hotz (eds.) Geological, petrographical and palaeontological results of explorations 1917-1919 in the Island of Ceram, First Series, Petrography, 1, Amsterdam, p. 1-87. *(also Ph.D. Thesis, University of Utrecht)*
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB21:039356000:00011)
(Petrographic descriptions of igneous and mixed rocks rocks from Kaibobo area, W Seram: granites/ gneissess (incl. cordierite granites), peridotites/ serpentinites, gabbros, etc.))

Deninger, K. (1914)- Morphologische Ubersicht der Insel Seran. Petermanns Geographische Mitteilungen 60, 2, p. 16-18.
(online at: https://zs.thulb.uni-jena.de/receive/jportal_jpvolume_00166384)
('Morphological overview of Seram island'. Brief geographic description with little or no geology)

Deninger, K. (1915)- Geographische Ubersicht vom West-Seran. Petermanns Geographische Mitteilungen 61, p. 385-388.
(online at: https://zs.thulb.uni-jena.de/receive/jportal_jpvolume_00155002)
('Geographical overview of West Seram'. Mainly brief review of West Seram population. Very little geology)

Deninger, K. (1918)- Zur Geologie von Mittel-Seran (Ceram). Palaeontographica, Supplement IV, Beitrage zur Geologie von Niederlandisch-Indien III, 2, p. 25-58.
(online at: http://sammlungen.ub.uni-frankfurt.de/botanik/periodical/pageview/4499569)
('On the geology of Central Seram'. Report on four N-S traverses of C Seram during 'Second Freiburger Moluccas Expedition' of 1911. With geologic map, cross-sections. Pre-Triassic metamorphic rocks overlain by Late Triassic micaceous sands and shales with Monotis salinaria, Halorella, plant material, etc., becoming more sandy in W direction. Grade upwards into Late Triassic- M Jurassic limestones (~150m thick), with brachiopod Misolia, 'Pharetronen' (= calcareous sponges), corals and hydrozoans. Overlain by massive grey and white limestones, locally cherty, also with Misolia. Overlain by ~20m 'Fatjet-shale' with Inoceramus and belemnites, then (~100m) red-white Late Jurassic- Cretaceous 'Fatjet-limestone', rich in Inoceramus, forams (in upper part common 'Discorbinen' = U Cretaceous Globotruncana; JTvG), radiolarians and rare canaliculate belemnites. Overlain by ~100-150m Tertiary Globigerina marls. Seram Jurassic-Cretaceous deeper marine facies than comparable series on Misool. Overlain by ~400m Tertiary massive limestone with orbitoids, alveolinids)

De Smet, M.E.M. & A.J. Barber (1992)- Report on the geology of Seram. University of London SE Asia Research Group Report 109, p. 1-103. *(Unpublished)*
(Overview of early work and stratigraphy. Extensive metamorphic complexes probably mainly Permian- E Triassic age. Kabipoto Complex metamorphics of S/SW Seram associated with ultramafic rocks, may be result of 4-5 Ma ophiolites obduction of ophiolites that once may have covered large part of Seram. Late Triassic Manusela oolitic Lst facies is large lens-like bodies in Kanikeh Fm clastics sequence, not from separate terranes as argued by earlier authors. Seram is thrustbelt composed of material from microcontinent that collided with Banda Arc in Late Miocene-Pliocene)

De Smet, M.E.M., P.A. Sumususastro, I. Siregar, L.J. van Marle, S.R. Troelstra & A.R. Fortuin (1989)- Late Cenozoic geohistory of Seram, Indonesia. Geologie en Mijnbouw 68, p. 221-235.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0N1hmWGFtRUYxVm8/view)
(SW Seram Plio-Pleistocene basin on top of Paleozoic metamorphics records up to 1500m of Late Pliocene- E Pleistocene subsidence after Late Miocene compressional deformation and uplift. Subsidence followed by 1-2 km of Late Pleistocene (~1 Ma) uplift)

Djoehanah, S. (1997)- Foraminifera Pra-Tersier dan Paleogen di daerah Saleman- Sawai, Seram Utara. Jurnal Teknologi Mineral (ITB) 4, 1, p.
('Pre-Tertiary and Paleogene Foraminifera from Saleman- Sawai area, North Seram'. Triassic benthic foraminifera in Manusela Limestone: Glomospira, Glomospirella, Diplotremina, and Meandrospira. Upper Cretaceous Sawai Fm only planktonics: Globotruncana, Hedbergella, Heterohelix, Globotruncanella, Rugoglobigerina and Rotalipora sp. Lisabata Fm has Paleogene (Oligocene?; JTvG) planktonics such as Catapsydrax dissimilis, C. unicava, Globigerina eocenica, G. tripartita, G. venezuelana, G. sellii, etc.)

Douville, H. (1923)- Sur quelques foraminiferes des Moluques orientales et de la Nouvelle Guinee. Jaarboek Mijnwezen Nederlandsch-Indie 50 (1921), Verhandelingen 2, p. 107-116.
('On some foraminifera from the eastern Moluccas and from New Guinea'. Brief description of Eocene larger forams in samples collected by H.A. Brouwer in Halmahera (Nummulites, Discocyclina, Alveolina), Roti (large Nummulites, Discocyclina), Ceram (E Miocene Lepidocyclina in breccia with reworked angular clasts of Upper Cretaceous pelagic limestone), New Guinea, Kai Besar (rounded fragments of Eocene Lacazina (= Lacazinella) in quartz sandstone, etc. No location info)

Dradjat, A.S. & C.S. Patandung (2012)- Geomechanical approach for rock strength and lithology anisotropy of Jurassic carbonate Manusela fracture reservoir from Oseil field. Proc. 41st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2012-EG43, p.
(On geomechanical relationship between lithology and rock strength in fractured limestone reservoir of Oseil field in Seram Island thrust belt. Higher rock strength has fewer fractures and less porosity. In E Nief-1 well, compacted dolostone core has highest rock strength, is less fractured and non-reservoir, while oolitic limestone has lower rock strength, more fractures and good reservoir. In Oseil-1 and 4 wells oolitic limestone and dolostone both highly fractured and highly porous)

Dradjat, A.S. & C.S. Patandung (2012)- Geomechanical approach for cores analysis of Jurassic Manusela Carbonate fractured reservoir from Oseil Field. In: AAPG Geoscience Technology Workshop (GTW) on Reservoir Quality of a Fractured Limestone Reservoir, Bali 2012, Search and Discovery Article 201489, p. 1-22.
(Abstract + Presentation)
(online at: https://www.searchanddiscovery.com/documents/2012/20149dradjat/ndx_dradjat.pdf)
(CITIC Seram Energy Ltd presentation. Similar to paper above. (NB: Jurassic age of Manusela Limestone is disputable;more likely Late Triassic?; Charlton & Van Gorsel, 2014- JTvG))

Dradjat, A.S., X. Hu & R. Primasari (2012)- Application of pre-stack seismic anisotropy for fracture detection, in Oseil Field carbonate reservoir, Seram Island, Eastern Indonesia. Presentation AAPG Workshop Fractured Carbonate Reservoirs, Bali 2012, Search and Discovery Article 20157, p. 1-17.
(online at: www.searchanddiscovery.com/documents/2012/20157dradjat/ndx_dradjat.pdf)
(Geophysical study of fracture intensity in Oseil field, East Indonesia, is fractured carbonate in Manusela Fm)

Dwijanto, B., T.A. Soeprapto & K. Budiono (1992)- Marine geology and geophysics of Ambon Bay. Jurnal Sumber Daya Geologi (JSDG) Indonesia (GRDC) 2, 12, p. 1-16.

Elly, E., M.Z. Tuakia, S. Sumardi, R. Hutagalung, T. Haryono, W. Jannah, M. Kololu, E. Bakker et al. (2025)- Mineralogy of granites from Hukurila area, Ambon Island, Indonesia: An insight into petrogenesis. Riset Geologi dan Pertambangan (BRIN) 35, 1, p. 49-58.
(online at: https://jrisetgeotam.brin.go.id/index.php/jrisgeotam/article/view/1355/pdf)

(Granite in Hukurila area in Leitimor region of Ambon Island, surrounded by Jurassic-Cretaceous peridotites. Petrography (two micas, cordierite, etc.)) and geochem suggest high T, S-type granite with significant crustal contamination during formation. (Age latest Miocene ~5.5 Ma according to Linthout & Helmers (1994), Pliocene ~3-4 Ma by Priem et al. (1978), Honthaas et al. (1999))

Everwijn, R. (1874)- Marmer op het eiland Amboina. Jaarboek Mijnwezen Nederlandsch Oost-Indie 3, 1, p. 172-173.
('Marble on Ambon Island'. Brief note on samples of light grey, grey and black marble. Age unknown)

Fischer, P.J. (1921)- Eine Pliocanfauna von Seran (Molukken). Centralblatt Mineralogie Geologie Palaontologie 1921, 8, p. 242-251 and p. 278-286.
(online at: www.biodiversitylibrary.org/item/204060#page/568/mode/thumb)
('A Pliocene fauna from Seram (Moluccas). Listings of marine molluscs (158 species of gastropods and bivalves) and smaller benthic foraminifera (54 species). Molluscs Indo-Pacific assemblages, 74 species still extant (47%); many new species. No figures? (see also Fischer (1927))

Fischer, P.J. (1927)- Beitrag zur Kenntniss der Pliozanfauna der Molukkeninseln Seran und Obi. Palaeontologie von Timor, Schweizerbart, Stuttgart, 15, 25, p. 1-179.
('Contribution to the knowledge of the Pliocene fauna of the Moluccan islands of Seram and Obi'. Mainly on molluscs from Fufa valley outcrop collected by Wanner in 1902 and from well near Bula, Seram. Also molluscs and foraminifera from Akalamo valley on Obi, incl. Amphistegina wanneriana n.sp.)

Flugel, E. (1981)- Paleoecology and facies of Upper Triassic reefs in the Northern Calcareous Alps. In: D.F. Toomey (ed.) European fossil reef models, Society for Sedimentary Geology (SEPM) Special Publ. 30, p. 291-359.
(Review of faunal and facies distributions of U Triassic reefs in Alps. Mentions Seram (p. 351): up to 150m limestone, many calcareous sponges corals, hydrozoans; believed to be of Late Norian age)

Fortuin, A. (1986)- The Snellius-II Expedition-Progress Report, Theme I- Geology and geophysics of the Banda Arc and adjacent areas, Campaign GF2- Buru, Seram and Kai-islands, August- October 1985. Royal Netherlands Academy of Arts and Sciences and Indonesian Institute of Sciences, p. 1-74. *(Unpublished)*
(online at: https://www.vliz.be/imisdocs/publications/362243.pdf)
(Observations during geological fieldwork on Buru, Seram and Kai islands in late 1985)

Fortuin, A.R., M.E.M. de Smet, P.A. Sumasusatro, L.J. Van Marle & S.R. Troelstra (1988)- Late Cenozoic geohistory of NW Buru, Indonesia and plate tectonic implications. Geologie en Mijnbouw 67, 1, p. 91-105.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0MVNjSTByNVVBYlk/view)
(Buru stratigraphy: Paleozoic? metamorphics overlain by >2500m Triassic clastics with bituminous shale near top, unconformably overlain (break-up ?) by Late Jurassic (with basaltic volcanics) and Cretaceous- Eocene pelagic marls, limestones, cherts. Oligocene unconformity (folding, uplift) overlain by deep water Late Oligocene and E Miocene. Andesitic lavas present in E Miocene. Mid-Late Miocene unconformity.

Gafoer, S., Suwitodirjo & Suharsono (1994)- Geological map of Bula and Watubela Islands Quadrangle, Seram, 1: 250,000. Geological Research Development Centre (GRDC), Bandung, p. 1-13.
(First edition 1984; Oldest rocks in Seram outcrops are presumably Permian age metamorphics, overlain by Triassic Kanikeh Fm flysch and Manusela Fm limestone, overlain by Cretaceous pelagic calcilutite/ shale. Salas melange complex formed in Mio-Pliocene, and is unconformably overlain by Pliocene Wahai Fm marls and Pleistocene Fufa Fm coarser clastics)

Germeraad, J.H. (1946)- Geology of Central Seran. In: Geological, petrographical and palaeontological results of explorations carried out from September 1917 till June 1919 in the Island of Ceram by L. Rutten and W. Hotz, 3rd Ser., Geology, 2, Amsterdam, p. 1-135.

(The geology of Central Seram, compiled from notes and study of rocks collected by Rutten & Hotz in 1918-1920. Metamorphic rocks overlain by Late Triassic greywacke/ flysch, Late Triassic platform carbonates, Late Eocene conglomerates with Discocyclina, Nummulites, Pellatispira and Alveolina, etc.)

Gerth, H. (1909)- Echte und falsche Hydrozoen aus Niederlandisch-Indien. Sitzungsberichte Niederrheinischen Gesellschaft Natur und Heilkunde, Bonn, 1909, A, p. 17-25.
('Real and fake hydrozoans from Netherlands Indies'. Includes first record from Indonesia of ?pelagic Late Triassic hydrozoan Heterastridium from Seram, collected by Verbeek from Teri Mountain, East Seram (also locally common on Timor, see Gerth 1915; JTvG). New Cretaceous coral genus from Langkat, N Sumatra: Actinacis sumatrensis)

Gerth, H. (1910)- Fossile Korallen von der Molukkeninsel Buru nebst Bemerkungen uber die polygenetischen Beziehungen der Gattung *Alveopora*. Neues Jahrbuch Mineralogie Geologie Palaeontologie 1910, 2, p. 16-28.
(online at: https://www.zobodat.at/pdf/Neues-Jb-Min-Geol-Palae_1910_2_0016-0028.pdf)
('Fossil corals from the Moluccas island of Buru, with remarks on the polygenetic relations with the genus Alveopora'. Descriptions of Late Triassic corals from Buru, collected by Deninger), incl. Alveopora deningeri n.sp. from Miocene. Also U Triassic Lovcenipora intabulata from Tifu at S coast (formerly described as Pachypora intabulata Wanner 1907 from Seram))

Gibran, A.K. & A. Kusworo (2020)- Fasies dan lingkungan pengendapan Formasi Kanikeh, Cekungan Bulu, Maluku. J. RISET Geologi dan Pertambangan (LIPI) 30, 2, p. 171-186.
(online at: http://jrisetgeotam.lipi.go.id/index.php/jrisgeotam/article/view/1108/pdf)
('Facies and depositional environment of Kanikeh Formation, Bula Basin, Maluku' (NE Seram). Triassic Kanikeh Fm distributed across Seram, Kesui and Teor islands and known as excellent hydrocarbon source rock. Lithofacies in Lofin, Oseil and Niner sections in NE Seram suggest intertidal deposition, with tidal channels, sand flat, mixed flat and tidal mudflat (but with marine mollusc Halobia superba; Kanikeh Fm usually viewed as flysch-type deposits with turbidites?; JTvG))

Gibran, A.K., A. Kusworo, J. Wahyudiono, H.L. Sunan, D. Nur Aeni & A. Alghazali (2020)- Reservoir characteristic of Triassic sandstone, Eastern Seram, Maluku, Indonesia. Proc. Int. Conference Engineering, Technology and Innovative Researches (ICETIR 2020), Purbalingga, IOP Conference Series: Materials Science Engineering 982, 012045, p. 1-9.
(online at: https://iopscience.iop.org/article/10.1088/1757-899X/982/1/012045/meta)
(Triassic Kanikeh Fm sandstones on Seram, Kesui and Teor Island. Petrography of Carnian sandstone in E Seram shows lithic wacke, litharenite and arkose. Dominant clay minerals smectite, illite, chlorite, kaolinite and halloysite. Mica is muscovite. Diagenesis includes compaction, cementation by calcite, quartz, clay minerals, iron oxides, dissolution, and alteration of unstable clastic grains. Poor reservoir characteristics)

Gibran, A.K., A. Kusworo, J. Wahyudiono & E.B. Purwasatriya (2022)- Proses diagenesis batupasir Formasi Kanikeh, Seram bagian Timur, Maluku, Indonesia. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 23, 2, p. 113-122.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/412/480)
('Sandstone diagenesis process of Kanikeh Formation, Eastern Seram, Molucca, Indonesia' Carnian-Norian Kanikeh Fm sandstone dominantly lithic wacke, litharenite and arkose. Poor reservoir characteristics)

Godefroy, W. (1897)- Verslag van een onderzoek naar petroleum nabij de Boela-Baai op noordoostelijk Ceram. Kolff & Co, Batavia, p. 1-11
('Report of an investigation into petroleum near Bula Bay on NE Seram', by Dienst van het Mijnwezen Ir. W. Godefroy. With map of Boela oil field, one well location and localities of oil and gas seeps and mud volcanoes. Also possible lignite deposits and copper ores)

Grosch, P. (1910)- Zur Geologie des Indo-Australischen Archipels, VI. Uber eine riffbildenden Koralle aus Nord-Ost Serang (Ceram). Centralblatt Mineralogie Geologie Palaontologie 1910, p. 391-395.
(online at: www.biodiversitylibrary.org/item/192869#page/416/mode/1up)

('On a reef-building coral from NE Seram'. Colonial coral collected by Wanner in 1902 in float of Fufa River, 11 km from mouth, described as Prionastraea cf. verbeeki (=Favites?, species originally described by Dollfus (1908) from Verbeek collection from Plio-Pleistocene? of Daweloor Island, Babar islands; JTvG))

Guntoro, A. (2000)- Structural, sedimentary and tectonic evolution of the Buru Island, central Molucca, Indonesia; in relation to the hydrocarbon prospect. AAPG International Conference, Exhib., Bali 2000, American Assoc. Petroleum Geol. (AAPG) Bull. 84, 9, p. 1432 *(Abstract only)*
(Buru Island part of non-volcanic outer Banda Arc and is microcontinent derived from Australian continent. Mesozoic sediments similar to Seram. Low gravity anomaly in center of island. Gravity models show deep crustal structure and provide a better understanding of basin evolution)

Hadiwisastra, S., S. Djoehanah, D. Mulyadi & D. Trisukmono (1996)- Sedimentasi batuan Pra-Tersier dan Tersier di daerah busur tektonik aktif, Seram Utara. In: Sampurno et al. (eds.) Pros. Seminar Nasional Geoteknologi III, LIPI, Bandung, p. 347-373.
('Sedimentology of Pretertiary and Tertiary rocks in the area of an active tectonic arc, North Seram'. Geology of Seram similar to Timor. Study of Triassic massive Manusela Limestone, Cretaceous calcilutites, etc.)

Haile, N.S. (1978)- Paleomagnetic evidence for the rotation of Seram, Indonesia. In: S. Uyeda et al. (eds.) Geodynamics of the Western Pacific, Proc. Int. Conference Geodynamics of the Western Pacific- Indonesian Region J. Physics Earth 26, Supplement 6, p. 191-198.
(online at: https://www.jstage.jst.go.jp/article/jpe1952/26/Supplement/26_Supplement_S191/_pdf/-char/en)
(U Triassic shale with Halobia spp. from near S coast of C Seram indicates paleolatitude 12 ± 7° S (= probably farther North than Australia NW Shelf and New Guinea at that time) and CCW rotation of 98° since Late Triassic. Late Miocene (~7.6 Ma) pillow basalt from Kelang Island, W of Seram, indicates paleolatitude 5°S and 74° CCW rotation since Late Miocene)

Hakim A.S. & B.H. Harahap (2003)- Review on the stratigraphy of Buru Island, Maluku Eastern Indonesia. Buletin Geologi (ITB) 34, 3, Special Edition (Prof. Soejono Martodjojo volume), p. 141-156.

Hall, R., A. Patria, R. Adhitama, J.M. Pownall & L.T. White (2017)- Seram, the Seram Trough, the Aru Trough, the Tanimbar Trough and the Weber Deep: a new look at major structures in the eastern Banda Arc. Proc. 41st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA17-91-G, p. 1-19. *(online at: https://www.academia.edu/104163392/Seram_The_Seram_Trough_The_Aru_Trough_The_Tanimbar_Trough_and_The_Weber_Deep_A_New_Look_at_Major_Structures_in_The_Eastern_Banda_Arc)*
(Seram Trough began to form in Late Pliocene due to loading by Seram fold-thrust belt. Tanimbar Trough originated in Late Miocene as elongate extensional structure within Australian continental margin. Weber deep is major young extensional feature. None of troughs are subduction zones. Etc.)

Hammarstrom, J.M., B.T. Setiabudi, D.N. Sunuhadi, G.R. Robinson, C.L. Dicken, S. Ludington, A.A. Bookstrom & M.L. Zientek (2013)- Porphyry copper assessment for Tract 142pCu7201, Ambon Arc, Central Molucca Islands- Indonesia. In: J.M. Hammarstrom et al., Porphyry copper assessment of Southeast Asia and Melanesia, U.S. Geological Survey, Scientific Investigations Report 2010-5090-D, Appendix J, p. 164-174.
(online at: http://pubs.usgs.gov/sir/2010/5090/d/sir2010-5090d_text.pdf)
(Assessment of porphyry copper deposits in Pliocene-Quaternary Ambon island arc. Two suites of island-arc magmas: (1) 5- 3.2 Ma, low-K calc-alkaline basalts, andesites, dacites and rhyolites, evolved from basaltic magmatism from mantle melting above W Irian Jaya Plate as it subducts along Seram Trough; (2) 2.3-1 Ma, high-K calc-alkaline andesites, dacites, rhyolites and granites (incl. ambonites= cordierite-bearing dacites) and granites, representing magmas that assimilated continental crust. Hila porphyry Cu-Au prospect on Ambon Island (3.6 Ma))

Harahap, B.H. (2002)- Stratigraphy of the Duna River Buru Island, Maluku: hydrocarbon indications. Bull. Geological Research Development Centre (GRDC) 22, p. 1-18.
(Duna River section near NW coast of Buru shows ~1500m Triassic- Pleistocene sediments overlying Permian metamorphics. Rel. thick M-U Triassic, unconformably overlain by thin Jurassic Mefa Fm lavas, interbedded

with belemnite-rich clastics, overlain by Late Cretaceous- Eocene Kuma Fm pelagic limestone, unconformably overlain by Plio-Pleistocene coarse clastics. Oil seeps from Triassic Geghan Fm calcilutite and shale)

Harahap, B.H. & S. Poedjoprajitno (2006)- The stratigraphy and lithology of the Kuma River area, Buru Island, Maluku. Jurnal Sumber Daya Geologi (JSDG) 16, 2 (152), p. 62-74.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/354)
(Stratigraphy of Kuma River area, from old to young: (1) Triassic Dalan Fm well-bedded clay-sand turbidites; (2) Jurassic Duna Fm interbedded pelagic limestone and ammonites-belemnites-rich beds; (3) Upper Cretaceous- Eocene Kuma Fm well-bedded pelagic limestone with abundant planktonic forams, (4) Oligocene-Miocene Waeken Fm micaceous mudstone, (5) Wakatin Fm massive reefal limestone; (6) Pleistocene Leko Fm conglomerate. Structuring related to block faulting)

Hartono, B.M. (2021)- Studi pembentukan, ekspulsi, preservasi, dan alterasi hidrokarbon di sistem fold-thrust belt melalui analisis geokimia organik dan analisis geohistori terintegrasi di Cekungan Seram. Masters Thesis Institut Teknologi Bandung (ITB), p. *(Unpublished)*
('Study of the hydrocabon formation, expulsion, preservation, and alteration in the fold-thrust belt system through organic geochemical analysis and integrated geohistorical analysis in the Seram Basin')

Hartono, B.M., E.A. Subroto, A.H.P. Kesumajana, R. Andrianto, G. Malvinas, J. Wahyudiono & B. Priyanto (2021)- New interpretation of the nature and origin of carbonate-derived oil in Seram Basin, Eastern Indonesia. 30th Int. Meeting on Organic Geochemistry (IMOG 2021), Montpellier, 2p. *(Abstract)*
(online at: www.earthdoc.org/docserver/fulltext/2214-4609/2021/imog-2021/Barry_Majeed_Hartono...)
(Crude oils in Seram Basin known to originate from Triassic marine carbonate source rock composed of Type II organic matter. Carbonate rock divided into several organofacies. Oils in Seram divided into Group A (crude oils from Bula Field) and Group B (Lofin, Nief, and Oseil Fields))

Hartono, B.M., E.A. Subroto, A.H.P. Kesumajana, R. Andrianto, G. Malvinas & J. Wahyudiono (2023)- Geochemistry of carbonate-derived oils in the Seram Basin, eastern Indonesia: A new hydrocarbon generation, migration, and preservation model for exploration in fold-thrust belts. J. Asian Earth Sciences 250, 105647, p. 1-18.
(online at: https://www.sciencedirect.com/science/article/pii/S1367912023001086)
(Re-interpretation of nature and origin of oils in Seram Basin (Lofin, Nief, Oseil, and Bula Fields). Two families of (Triassic-Jurassic) carbonate-derived oil: (A) derived from diatom-and-bacterial-rich basinal carbonate (from Triassic Aman Saman Fm?), and (B) derived from algae-and-plankton-rich shelf edge carbonates (from (supposedly) Jurassic Manusela Fm?). Several post-expulsion hydrocarbon alteration processes modify crude oil geochemical composition)

Hartono, B.M., E.A. Subroto, A.H.P. Kesumajana, R. Andrianto, J. Wahyudiono, G. Malvinas & B. Priyanto (2022)- The significant meaning of biodegradation to the petroleum system of the Seram Basin, eastern Indonesia: evaluation on the basis of physio-chemical composition variation of Seram oils. Proc. 1st Int. Seminar on Earth Sciences and Technology (ISEST 2021), Bandung, IOP Conference Series: Earth and Environmental Science 1047, 012032, p. 1-11.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1047/1/012032/pdf)
(Seram crude oils originated from Triassic carbonate source rock. Physio-chemical composition variations in Seram oils attributed to microbial activities. Oils from Lofin, Oseil, Nief and Bula Fields, and several oil seep samples show wide range of degrees of biodegradation. Most biodegradation in shallowest accumulation Bula)

Helmers, H., J. Sopaheluwakan, S. Tjokrosapoetro & E. Surya Nila (1989)- High-grade metamorphism related to peridotite emplacement near Atapupu, Timor with reference to the Kaibobo peridotite on Seram, Indonesia. In: J.E. van Hinte et al. (eds.) Proc. Snellius II Symposium, Jakarta 1987, Netherlands J. of Sea Research 24, 2/3, p. 357-371.
(On metamorphism associated with ophiolite obduction on Seram and N coast of Timor)

Henny, G. (1922)- Eerste verslagen der Boeroe Expeditie, A: Geologisch onderzoek. Maatschappij ter bevordering van het Natuurkundig Onderzoek der Nederlandsche Kolonien, Amsterdam, Bull. 78, p. 1-24.
('First reports of the Buru Expedition, A: geology investigation'. Brief report with first geological results of 1921-1922 expedition to Buru island, Moluccas, sponsord by the "Maatschappij ter Bevordering van het Natuurkundig Onderzoek ider Nederlandsche Kolonien". Mainly on traverses from S coast (Tifoe, etc.) to Rana Lake)

Henny, G. & L.J. Toxopeus (1922)- Eerste verslagen der Boeroe-expeditie. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 39, p. 42-64.
('First reports of the Buru Expedition'. Extracts of Henny (1922) on travel, geological and biological observations during 1921 SW Buru Expedition. Not much detail on stratigraphy/ fossils. Interesting find of white Nummulites-Discocyclina limestone N of Wai Ekin, not reported on later GRDC geologic maps)

Hill, K.C. (2005)- Tectonics and regional structure of Seram and the Banda Arc. Proc. 30th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 559-578. *(online at: https://www.researchgate.net/publication/358151135_Tectonic_and_Regional_Structure_of_Seram_and_the_Banda_Arc_Berita_Sedimentologi_Pages_5-16)*
(Tectonic reconstruction assuming Permian age of Banda Sea oceanic crust. Suggests Seram Triassic Kanikeh Fm flysch was sourced from E (New Guinea) (Conflicts with pre-WWII Rutten field observations suggesting Triassic more sandy and coarser to W, and derived from metamorphic/ volcanic arc terrane?; JTvG))

Hill, K.C. (2012)- Tectonic and regional structure of Seram and the Banda Arc. Berita Sedimentologi 23, p. 5-16.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/download/187/157
(Same paper as above)

Honthaas, C., R.C. Maury, B. Priadi, H. Bellon & J. Cotten (1999)- The Plio-Quaternary Ambon arc, Eastern Indonesia. Tectonophysics 301, 3-4, p. 261-281.
(Pliocene- Quaternary N Banda Arc at Ambon, S Seram, Kelang, Haruju, Saparua, Ambelau and Banda Api with low-K arc volcanics, but on Ambon also high-K cordierite dacites-granites, probably derived from low-K magmas with massive assimilation of overlying Seram-Ambon continental crust. Two magmatic pulses: 5- 3.2 Ma and 2.3-1 Ma. Active subduction of New Guinea crust below Ambon-Seram supported by volcanism, earthquakes, etc., but N Banda slab not connected to S Banda Arc Wetar-Manuk segment)

Hummel, K. (1923)- Geologische Ergebnisse der Reisen K. Deninger's in den Molukken. II. Die Oxford-Tuffite der Insel Buru und ihre Fauna. Palaeontographica Supplement IV, 4, p. 113-184.
(online at: http://sammlungen.ub.uni-frankfurt.de/botanik/periodical/pageview/4499569)
('Geological results of K. Deniger's travels in the Moluccas, 2: The Oxfordian tuffites of Buru islands and its fauna'. Descriptions of Late Jurassic fossils from 9 localities at SW coast and NW Buru, collected by Boehm and Deninger in 1907, 1912. These are from reddish 'Mefa Beds tuffites', 200-300m thick?, most fossiliferous near top. Almost everywhere overlain by thick, latest Jurassic- Cretaceous deep water Buru Limestone, and probably directly overlying U Triassic Lovcenipora limestone or bituminous shale. Fossils mainly ammonites (Phylloceras spp., Harpoceras, Oppelia, Perisphinctes), rare belemnites (to be described by Stolley), thick-walled bivalves (Opis, Pecten, Alectryonia; no Inoceramus), ribbed brachiopods (Rhynchonella spp.), etc. Age believed to be E Oxfordian. Facies rel. shallow marine compared to generally bathyal facies of age-equivalent rocks in Moluccas (Sula, Seram). Faunal affinities with Mediterranean-Caucasian Realm)

Idrus, A., Fadlin, I. Setiawan, S. Abdullah & B. Smith (2012)- Preliminary study on primary gold mineralization in Buru Island, Moluccas Province, Indonesia. In: N.I. Basuki (ed.) Proc. Annual Conv. Indonesian Soc. Economic Geologists (MGEI). Malang 2012, Banda and Eastern Sunda arcs, p. 233-242.
(Gold nuggets from quartz vein mineralization hosted by mica schist of Carboniferous-Permian Wahlua Metamorphic Complex, discovered in 2012 around Gunung Botak, E Buru Island. Two types: (1) early quartz veins, discontinous and low in gold; (2) Quartz veins in 'mineralized zone' ~100m wide and ~1000m long. Ore mineralization characterized by pyrite, native gold, pyrrhotite and arsenopyrite. Mineralizing hydrothermal fluid CO_2-rich, Temperature 300-400 ºC and low salinity (0.36- 0.54% NaCl eq). Mineralization in Buru Island meets characteristics of 'mesothermal' gold deposit type or 'orogenic' gold deposit type)

Idrus, A., S. Prihatmoko, Ernowo & Franklin (2013)- Update of metamorphic rock-hosted gold mineralization in Buru Island, Moluccas Province. Proc. Papua and Maluku Resources, Indonesian Soc. Economic Geologists (MGEI) Annual Conv., Bali, p. 89-98.

Idrus, A., S. Prihatmoko, H.G. Hartono, Fadlin, Ernowo, Moetamar & I. Setiawan (2014)- Some key features and possible origin of the metamorphic rock-hosted gold mineralization in Buru Island, Indonesia. Indonesian J. on Geoscience (IJOG) 1, 1, p. 9-19.
(online at: http://ijog.bgl.esdm.go.id/index.php/IJOG/article/view/172/172)
(Buru primary gold deposits mainly in 2 localities Gogorea and Gunung Botak in E half of island, Two types of gold-bearing quartz veins in micaschists of U Carboniferous- Lw Permian Wahlua Fm metamorphic complex (similar to Bombana in Pompangea complex, E Sulawesi).Mineralization may be controlled by N-S of NE-SW trending strike-slip faults)

Isnani, D.K., Afrilita, M.Z. Yusrizal, S.I. Safira, D. Ariyanto, B. Wicaksana, M.L.S. Muchtar et al. (2025)- Provenance and depositional history of the sandstone from the Eastern Part of Seram Island, Indonesia: insights from petrography and palynology analysis. Proc. 7th Int. Conference on Earth Science, Mineral and Energy (ICEMINE 2024), Yogyakarta, IOP Conference Series: Earth and Environmental Science 1486, 012015, p. 1-7.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1486/1/012015/pdf)
(UPN provenance study of Triassic? in E Seram. Mainly lithic arenites (35-73% quartz, 6-53% lithics, 3-18% feldspars; recycled orogen tectonic setting), likely from mountains of New Guinea. Palynology suggests Late Triassic- E Jurassic age ranges (Callialasporites turbatus and Corollina torosa biozones) (N.B.:no location map, or determination of rock formation(s) sampled!; JTvG)

Jaworski, E. (1927)- Obertriadische Brachiopoden von Ambon (Molukken). Jaarboek Mijnwezen Nederlandsch-Indie 55 (1926), Verhandelingen III, p. 201-229.
('Upper Triassic brachiopods from Ambon (Moluccas)'. Brachiopods from dark limestones (locally bituminous) intercalated in several 100m thick sandy-shales series. With Rhynchonella, Spiriferina spp., Spirigera, etc., indicating Late Triassic age)

Juhanah, S. (1987)- Foraminifera plankton Plio-Plestosen dari Pulau Ambon. LIPI/ IAGI? 13p.
(Plio-Pleistocene planktonic foraminifera from Ambon island')

Kemp, G. (1992)- The Manusela Formation- an example of a Jurassic carbonate unit of the Australian Plate from Seram, Eastern Indonesia. In: C.T. Siemers et al. (eds.) Carbonate rocks and reservoirs of Indonesia: a core workshop, Indonesian Petroleum Association (IPA), Jakarta, Core Workshop Notes 1, p. 11/1-11/31.
(Manusela Fm high energy skeletal and oolitic grainstones deposited on NW margin of Australian Plate in Pliensbachian-Bathonian (E-M Jurassic) (more likely U Triassic?; JTvG), before onset of Callovian breakup and sea-floor spreading. Subsequent N-ward movement of Australian plate and collision with Eurasian/ Pacific-Philippine Plates in Late Miocene, resulted in development of detached thrust belt and formation of Seram island. Matrix and fracture porosity in Manusela. East Nief-1 with uncommercial hydrocarbons)

Kemp, G., R. Barraclough, W. Mogg, E. Budhiman & N. Heriyanto (1996)- Seram Basin. In: Pertamina/BPPKA (eds.) Petroleum geology of Indonesian Basins VIII, p. 1-33.
(Review of Seram geology and hydrocarbons)

Kemp, G.J. & Kufpec (Indonesia) (1995)- Seram PSC field trip. Indonesian Petroleum Association (IPA), Jakarta, p. 1-20.
(Oil seeps in Seram known sice 1865. Late 1800s wells by Bula Oil Company, after 1902 by Seram Oil Syndicate and after 1913 by BPM, who established first commercial production. Six wells drilled during Japanese occupation. After long period of inactivity new PSC signed in 1969 by Gulf and Western Indonesia. In 1985 Kufpec consortium farmed in, drilling wells East Nief 1, BolifarUtara, Oseil 1 (first oil flow from Pretertiary in Indonesia), etc. Visits to Nief Gorge, with bitumen-stained fractures in Triassic-Jurassic oolitic Manusela

Limestone, Bula Field and oil seep, Triassic Kanikeh Fm proximal turbidites with Halobia molluscs, common wood/coaly debris, etc., latest Miocene-Pliocene Salas Fm ?syntectonic chaotic beds. Etc.))

Kemp, G. & W. Mogg (1992)- A re-appraisal of the geology, tectonics, and prospectivity of Seram Island, eastern Indonesia. Proc. 21st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta), p. 499-520.
(Distinguish 'Australian' (Triassic- U Miocene) and 'Seram' Series (U Miocene-Recent). 'Australian' series E Triassic and older pre-rift), E Triassic- M Jurassic intracratonic syn-rift, latest M Jurassic- E Cretaceous continental breakup and E Cretaceous- Late Miocene post-breakup/ passive margin sequence. Late Miocene-Present Seram Series strongly influenced by interaction of Australian, Pacific-Philippine and Eurasian plates, which led to periods of thrusting, uplift and erosion and are reflected in structural style)

Kemp, G., W. Mogg & R. Barraclough (1995)- Exploration in the Mesozoic in the Seram PSC, eastern Indonesia: recent developments in geological knowledge. Symposium & Workshop on the Mesozoic of Eastern Indonesia, Jakarta 1995, Pertamina, p. 1-26. (*Unpublished*).

Kendrick, D. & N. Nilandaroe (2004)- Fracture characterization from outcrop data, Manusela Formation, Seram Island, Indonesia. 7p.
(online at: www.3d-geo.com/publications)
(Well-developed fracturing in 'Jurassic' Manusela Fm in Nief Gorge outcrop is possible analog to fracture porosity in Oseil oilfield, ~10km to NW)

Koch, R. (1925)- Eine jungtertiaren Foraminiferenfauna aus Ost-Seran. Eclogae Geologicae Helvetiae 19, p. 207-213.
(online at: https://www.e-periodica.ch/digbib/view?pid=egh-001:1925-1926:19#220)
'A Young Tertiary foraminifera fauna from East Seram'. Marl sample collected by M. Muhlberg of Royal Dutch/ BPM in 1902 along Kasama River in 9 km W of Waru in NE Seram contains rich Pliocene shallow marine foraminifera fauna with 85 species)

Kossmat, F. (1906)- Bemerkungen uber die Ammoniten aus den Asphaltschiefern der Bara-Bai (Buru). Neues Jahrbuch Mineralogie Geologie Palaontologie, Beilage Band 22, p. 686-691.
('Remarks on the ammonites from the asphalt shales of Bara Bay, Buru'. Float collected by Boehm in Wai Sifu River at Bara Bay, NW coast of Buru, contains Jurassic 'Buru Limestone' with inoceramids and belemnites. Also common flat pieces of dark bituminous shales with numerous ammonites, incl. generally crushed Tissotia weteringi. This ammonite was interpreted by Kossmat to signify Upper Cretaceous age, but was subsequently re-identified as Neotibetites of Late Triassic (Norian) age by Krumbeck 1909, 1913)

Krumbeck, L. (1909)- Kurze vorlaufige Mitteilung uber eine neue obertriadische Fauna aus den Molukken. Centralblatt Mineralogie Geologie Palaontologie 1909, p. 561-562.
('Brief preliminary communication on a new Upper Triassic fauna from the Moluccas'. Ammonites from Buru interpreted as Cretaceous Tissotia by Kossmat (1909) are Upper Triassic 'ceratiten')

Krumbeck, L. (1911)- Bemerkungen zu K. Deninger: Einige Bemerkungen uber die Stratigraphie der Molukken. Centralblatt Mineralogie Geologie Palaontologie 1911, 1, p. 21-23.
(online at: https://www.zobodat.at/pdf/Centralblatt-Mineral-Geol-Palaeont_1911_0021-0023.pdf)
('Remarks on K. Deninger's 'Remarks on the stratigraphy of the Moluccas'. Objects to Deninger's interpretation of Triassic (Norian) Ceratiten (Neotibetites) ammonites from marls of SW Buru as Jurassic)

Krumbeck, L. (1913) - Obere Trias von Buru und Misol. A. Die Fogi-Schichten West Burus. Palaeontographica Supplement IV, 2, Beitrage zur Geologie von Niederlandisch-Indien II, 1, p. 1-119.
(online at: http://sammlungen.ub.uni-frankfurt.de/botanik/periodical/pageview/4499569)
('Upper Triassic of Buru and Misool. A. The Fogi Beds of West Buru'. Macrofaunas collected by Boehm and Wanner from lower Norian? Fogi-Beds of W Buru. Distal, but not very deep marine dark marls and limestones with bituminous limestone interbeds (up to 19% bitumen). Rich in fossils: mainly bivalves (Pseudomonotis, Pinna, Lima, Pecten, Placunopsis, Alectryonia, Nucula, Myophoria, Cardita, ?Megalodon, Protocardia, Burmesia, etc.),

also ammonites (Sibirites, Sagenites, Tibetites, Neotibetites weteringi) and brachiopods (Misolia). Late Triassic brachopod faunas similar to Juvavites Beds of Spiti, N India Himalayas and Late Triassic of S Qiantang Block adjacent to Bangong-Nujiang Meso-Tethys Ocean suture in C Tibet (Xiao, 2022))

Krumbeck, L. (1913)- Obere Trias von Buru und Misol. B. Die Asphaltschiefer am Sifu (N.W.-Buru). Palaeontographica, Supplement IV, 2, Beitrage zur Geologie von Niederlandisch-Indien II, 1, p. 120-127.
(online at: http://sammlungen.ub.uni-frankfurt.de/botanik/periodical/pageview/4499569)
('Upper Triassic of Buru and Misool. B. The asphalt beds at Sifu (NW Buru)'. Macrofaunas collected by Boehm and Wanner from Triassic (Lower Norian?) asphalt beds of NW Buru: bivalves (Pecten), ammonites (Neotibetites weteringi), fish scales. Age similar to Fogi Beds)

Krumbeck, L. (1923)- Geologische Ergebnisse der Reisen K. Deninger's in den Molukken. III. Brachiopoden, Lamellibranchiaten und Gastropoden aus der oberen Trias der Insel Seran (Mittel-Seram). Palaeontographica, Supplement IV, Beitrage zur Geologie von Niederlandisch-Indien III, 5, p. 185-246.
(online at: http://sammlungen.ub.uni-frankfurt.de/botanik/periodical/pageview/4499569)
('Geological results of Deniger's 1912 trip in the Moluccas, III. Brachiopods, bivalves and gastropods from the Upper Triassic of Seram island (Central Seram)'. On Carnian Halobia shales of Wai Isana near Manusela with Halobia spp., Norian Kanikeh Beds with Myophoria, Cardita, Trigonia, etc., and Monotis bed at Wai Ehana (typical Monotis limestone rich in Monotis salinaria). Also Misolia Limestone)

Krumbeck, L. (1923)- Zur Kenntnis des Juras der Insel Timor, sowie des Aucellen-Horizontes von Seran und Buru. In: J. Wanner (ed.) Palaeontologie von Timor 12, 20, Schweizerbart, Stuttgart, p. 1-120.
('On the knowledge of the Jurassic of Timor, as well as the Aucella horizon of Seram and Buru'. Includes first description of Upper Jurassic 'Aucella' (=Malayomaorica) malayomaorica from Seram, also known from Timor, Buru, etc.)

Kuenen, P.H. (1949)- Ambon and Haroekoe. Contributions to the geology of the East Indies from the Snellius Expedition III. Verhandelingen Nederlands Geologisch Mijnbouwkundig Genootschap, Geologische Serie 15, p. 44-62.
(Brief description of parts of Ambon and Haruku Islands. Presence of folded Triassic sediments on crystalline schists, peridotites, granites and 'ambonites' volcanics)

Kusnida, D., T. Naibaho & Y. Firdaus (2016)- Depositional modification in Seram Trough, Eastern Indonesia. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 17, 2, p. 99-106.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/22/22)
(Seismic profiles at Seram Trough show avalanches of Pliocene- Quaternary base-of slope sediments in front of Seram accretionary prism)

Lapulisa, A.K., R. Andrianto & A.S. Dradjat (2012)- Seismic to geological modeling workflow, an integrated approach to determine the reservoir quality of a fractured limestone: Oseil Field example. Berita Sedimentologi 23, p. 47-52.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/193)
(On the use of seismic attributes to predict fracture porosity in 'Jurassic' Manusela Lst heavy oil reservoir. Oolitic, partly dolomitized limestones with low matrix porosity. Early extensional faulting, followed by SW-NE directed compression)

Lewerissa, R., Sismanto, A. Setiawan & S. Pramumijoyo (2020)- The igneous rock intrusion beneath Ambon and Seram islands, eastern Indonesia, based on the integration of gravity and magnetic inversion: its implications for geothermal energy resources. Turkish J. Earth Sciences 29, 4, p. 596-616.
(online at: https://journals.tubitak.gov.tr/earth/vol29/iss4/2)
(Igneous intrusion interpreted beneath Ambon and Seram from high gravity and magnetic datasets. No independent verification)

Lopulisa, A.K., R. Andrianto & A.S. Dradjat (2012)- Seismic to geological modeling workflow, an integrated approach to determine the reservoir quality of a natural fractured limestone reservoir: Oseil Field example AAPG Workshop Fractured Carbonate Reservoirs, Bali 2012, Search and Discovery Article 20144, p. 1-26.
(online at: www.searchanddiscovery.com/documents/2012/20144lopulisa/ndx_lopulisa.pdf)

Linthout, K. & H. Helmers (1994)- Pliocene obducted, rotated and migrated ultramafic rocks and obduction-induced anatectic granite, SW Seram and Ambon, Eastern Indonesia. J. Southeast Asian Earth Sciences 9, p. 95-109.
(online at: https://www.academia.edu/4420497/Pliocene_obducted_rotated_and_migrated_ultramafic_rocks_and_obduction_induced_anatectic_granite_SW_Seram_and_Ambon_Eastern_Indonesia)
(SW Seram and Ambon ultramafics obduction minimum age ~4.4 Ma. Obducted oceanic lithosphere was created at ~14.5 Ma. Obduction probably simultaneous with strong anticlockwise rotation of Seram)

Linthout, K., H. Helmers & P.A.M. Andriessen (1991)- Dextral strike-slip in Central Seram and 3-4.5 Ma Rb/Sr ages in pre-Triassic metamorphics related to Early Pliocene counterclockwise rotation of the Buru-Seram microplate (E. Indonesia). J. Southeast Asian Earth Sciences 6, p. 335-342. *(online at: www.academia.edu/4420494/Dextral_strike_slip_in_Central_Seram_and_3_4_5_Ma_Rb_Sr_ages_in Etc.)*
(Major WNW trending right-lateral strike slip fault in SW Seram. Pre-Triassic metamorphics show Pliocene radiometric ages, possibly resetting from ophiolite obduction. Structural analyses suggest 45° counter clockwise rotation and radiometric age resetting between 4.5- 3 Ma, and final ~30° rotation in last 3 Ma)

Linthout, K., H. Helmers, J. Sopaheluwakan & E. Surya Nila (1989)- Metamorphic complexes in Buru and Seram, northern Banda Arc. In: J.E. van Hinte et al. (eds.) Proc. Snellius II Symposium, Jakarta 1987, Netherlands J. of Sea Research 24, 2/3, p. 345-356. *(online at: https://www.academia.edu/7322505/Metamorphic_complexes_in_Buru_and_Seram_Northern_Banda_Arc)*
(SE Buru Wahlua and C Seram Tehoru metamorphic complexes similar pre-Triassic metamorphic history, and probably originated in same belt. Mylonites in N Tehoru indicate right-lateral, N300E directed strike-slip along transcurrent fault between metamorphics in S and non-metamorphic block in N, caused by anticlockwise rotation of Seram since Late Triassic. Kaibobo metamorphics T up to 740°C, caused by overriding ultramafic sheet in Late Miocene- E Pliocene. K/Ar ages of 4-5 Ma of micas from Wahlua and Tehoru complex explained by re-heating of pre-Triassic mica due to overthrusting by hot mantle slabs, now largely eroded. Average uplift of ~0.1 cm/yr during last 4-5 Ma in SE Buru and C Seram. Thrusting of metamorphics over non-metamorphics in 'median' Seram and of ultramafic sheet in SW Seram also related to Seram anticlockwise rotation)

Linthout, K., H. Helmers, J.R. Wijbrans & J.D.A.M. van Wees (1996)- 40Ar/39Ar constraints on obduction of the Seram ultramafic complex: consequences for the evolution of the southern Banda Sea. In: R. Hall & D.J. Blundell (eds.) Tectonic Evolution of SE Asia. Geological Society, London, Special Publ. 106, p. 455-464.
(On Kaibobo (SW Seram) obduction of hot oceanic lithosphere produced high-grade metamorphism and granite in overthrust continental crust. Ages from sole 5.65- 6.0 Ma and 5.4 Ma. Post-emplacement exhumation began <8 Ma ago. Undoing 8 Ma of migration back-tracks Kaibobo to site where obduction ended: near SE corner of Banda Sea plate. Similarities between Kaibobo and N Timor ophiolites suggests E Miocene slow spreading in oceanic lithosphere S Banda Sea, S of current volcanic arc)

Liu, Z.Y.C. & R.A. Harris (2013)- Discovery of possible mega-thrust earthquake along the Seram Trough from records of 1629 tsunami in eastern Indonesian region. Natural Hazards 72, p. 1311-1328.
(online at: https://link.springer.com/article/10.1007/s11069-013-0597-y)
(Most likely source of mega-thrust earthquake that caused 15m high tsunami in 1629 at Banda Islands is Seram Trough, ESE of Seram Island. Mega-thrust earthquakes of magnitude needed to produce tsunami observed in Banda Islands have rupture lengths of >500 km)

Marini, L. & A.E. Susangkyono (1999)- Fluid geochemistry of Ambon Island (Indonesia). Geothermics 28, p. 189-204.
(On composition of hot spring waters discharging in Tulehu peninsula of Ambon island)

Martin, K. (1888)- Ein *Ichthyosaurus* von Ceram. Sammlungen Geologischen Reichs-Museums Leiden, Ser. 1, 2, p. 70-86.
(online at: www.repository.naturalis.nl/document/552431)
('An Ichthyosaurus from Seram'. Skull/ jaw fragment of large Mesozoic (Jurassic?) Ichthyosaurus ceramensis n. sp., probably collected at E Seram South coast)

Martin, K. (1888)- Ein *Ichthyosaurus* von Ceram. Jaarboek Mijnwezen Nederlandsch Oost-Indie 17 (1888), Wetenschappelijk Gedeelte, p. 3-18.
(*('An Ichthyosaurus from Seram'. Same as Martin (1888) paper above*)

Martin, K. (1899)- Einige Worte uber den Wawani sowie uber Spaltenbildungen und Strandverschiebungen in den Molukken. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap, Ser. 2, 16, p. 709-742.
('Some remarks about the Wawani and about fissures and beach displacements in the Moluccas'. Mainly reply to A. Wichmann (1898-1899) papers on Wawani volcano of Ambon, which contains critical remarks on Martin's (1897) descriptions of Wawani)

Martin, K. (1901)- Over de geologie van West-Seran (Ceram). Handelingen 8e Nederlandsch Natuur-Geneeskundig Congres, Rotterdam 1901, p. 301-304.
('On the geology of West Seram'. Old, brief summary of W Seram geology. Widespread 'Archean' metamorphic rocks, locally associated with peridotites, Paleozoic greywackes and limestones, steeply dipping Mesozoic chert-bearing globigerinid-radiolarian limestone, overlain by brightly colored Globigerina limestone. No maps or figures)

Martin, K. (1901)- Reise Ergebnisse aus den Molukken. Centralblatt Mineralogie Geologie Palaontologie 1901, p. 460-464.
(online at: www.biodiversitylibrary.org/item/196149#page/379/mode/1up)
('Travel results from the Moluccas'. Summary of geological observations on Seram. No figures. More detail in Martin (1903))

Martin, K. (1902)- Reise Ergebnisse aus den Molukken. 3. Ein Profil durch Buru. Centralblatt Mineralogie Geologie Palaontologie, 1902, 15, p. 460-464.
(online at: www.biodiversitylibrary.org/item/192789#page/476/mode/1up)
('Travel results from the Moluccas, 3, A traverse through Buru'. Brief, early description of Buru stratigraphy across N-S traverse. No figures, fossils)

Martin, K. (1903)- Reisen in den Molukken, in Ambon, den Uliassern, Seran (Ceram) und Buru. Geologischer Teil. Brill, Leiden, p. 1-296.
(online at: http://resolver.staatsbibliothek-berlin.de/SBB0000778100030000)
(also online at: http://storage.lib.uchicago.edu/pres/2015/pres2015-0673.pdf)
('Travels in the Moluccas, in Ambon, the Uliassers, Seram (Ceram) and Buru- Geologic part'. Early geological reconnaissance of Moluccas islands in 1891-1892 by Prof. K. Martin from the Geological Museum, Leiden. Including the first N-S traverse through Buru Island, Kai Besar with Eocene Lacazina limestone and Miocene limestones, etc.)

Martin, K. (1904)- Over het eiland Boeroe. Jaarboek Mijnbouwkundige Vereeniging Delft 1903-1904, p. 47-54.
(online at: http://lib.tudelft.nl/mscans/mscans0071)
(Brief travel report on K. Martin's trip to previously unexplored parts of Buru island in 1891-1892. Locally intensely folded Buru Limestone with globigerinids and radiolaria, already recognized here as Mesozoic deep marine deposits)

Martini, R., L. Zaninetti, B. Lathuilliere, S. Cirilli, J.J. Cornee & M. Villeneuve (2004)- Upper Triassic carbonate deposits of Seram (Indonesia): palaeogeographic and geodynamic implications. Palaeogeogr. Palaeoclim. Palaeoecology 206, 1-2, p. 75-102.

(Seram Upper Triassic limestones of Gondwanian-Australian type in 'Parautochthonous' and of Laurussian-Asian type in 'Allochthonous'. Carnian-Norian to Rhaetian Asinepe Lst (=Manusela Fm) part of allochthonous series. Four reefal facies: (1) boundstone forming buildup cores with calcisponges and calcareous algae, <20% coral; (2) oncolitic grainstones; (3) foraminiferal packstone-grainstones; (4) foraminiferal-megalodont mudstones. Geochemical and geodynamic interpretations placed Seram-Buru Block as derived from New Guinea. Palynology suggests Seram-Buru Block more tropical than Sulawesi/ Kolonodale Block, but cooler than Timor/ NW Shelf. Foraminifera suggest Seram, E Sulawesi, Wombat Plateau and Sinta Ridge all part of same N Australian margin marine bioprovince)

Menzie, W.D., D.A. Singer, N. Karangan & H. Tresnadi (1997)- The Hila Prospect: a recently discovered copper occurrence on Ambon Island, Republic of Indonesia. U.S. Geological Survey (USGS) Open-File Report 97-86, p. 1-17.
(online at: http://pubs.usgs.gov/of/1997/0086/report.pdf)
(Mineral prospect in part of Indonesia with no previously reported mineralization. Hila Prospect, SE of Hila village, NW Ambon, with copper sulfide minerals in Pliocene (4.4 Ma) Ambon volcanics. Host rocks andesite, dacites, breccia and tuff locally intruded by biotite and biotite-cordierite granite. Geologic setting, alteration, sulfide minerals, and geochemistry suggest possible periphery of porphyry copper-gold deposit)

Milsom, J. (1979)- Preliminary gravity map of Seram, eastern Indonesia. Geology (GSA) 5, p. 641-643.
(Steep gravity gradients in survey area, related to transition from continental to oceanic crust and existence of root zone of ultramafic thrust sheet S of islands. Positive anomaly over rel. small area of ultramafic outcrop near Kaibobo, mainland Seram)

Milsom, J.S. (1979)- Origin of the Uliasser Islands, Eastern Indonesia. J. Geological Society, London, 136, 5, p. 581-582.
(Seram segment of Banda Arc appears to conform to structure of typical arc, but geology of area reveals number of deviations. Late Tertiary or Quaternary volcanoes forming Uliasser Islands mark S margin of extensional zone, and intruded along localized transform fault. Interpretation of geology of Seram area simplified if Uliasser volcanics are not regarded as subduction-related)

Monnier, C., J. Girardeau, J.P. Rehault et al. (2002)- The Seram ophiolites complexe (Central Indonesia): geochemical evidences for Early Miocene arc-splitting, 19e RST Nantes, p. 181-182. *(Abstract)*

Monnier, C., J. Girardeau, J.P. Rehault, H. Permana & H. Bellon (2003)- Dynamics and age of formation of the Seram-Ambon ophiolites (Central Indonesia). Bull. Societe Geologique France 174, 6, p. 529-543.
(online at: http://documents.irevues.inist.fr/handle/2042/282)
(Seram-Ambon peridotites-gabbros mostly back arc basin characteristics, with 20-15 Ma K/Ar ages. Formed in small Early Miocene transtensional basin, bordered in E by active margin and in W by passive continental margin over which it was later obducted towards SW, in Late Miocene, 9-7 Ma)

Morrison, K. (2019)- The East Seram PSC opportunity: Potential to be one of the most exciting blocks in Southeast Asia. Proc. 2019 SE Asia Petroleum Exploration Society (SEAPEX) Conference, Singapore 2019, p. 1-14. *(Abstract + Presentation)*
(Lion Energy Ltd farmout opportunity in NE Seram Basin fold belt play with more than 60 MMBBL oil and 2 TCF gas, 20 MMBBL condensate. Primary reservoirs Pliocene Fufa Fm and Triassic-Jurassic Manusela limestone Fm. Regional seal is the Jurassic Kola shale)

Morrison, K. (2023)- New insights into the exploration potential of the Plio-Pleistocene foreland Basin of North-Eastern Seram. Proc. 2023 SE Asia Petroleum Exploration Society (SEAPEX) Conference, Singapore 2023, p. 1-33. *(Abstract + Presentation)*
(East Seram two main hydrocarbon plays: Plio-Pleistocene foreland basin and deeper fold belt play with massive Manusela carbonate objective. New prospects promoted by Lion Energy)

Morrison, K. (2023)- East Seram PSC Opportunity High impact, under-explored fold belt & exciting shallow Plio-Pleistocene prospects. Proc. 2023 SE Asia Petroleum Exploration Society (SEAPEX) Conference, Singapore 2023, p. 1-20. *(Abstract + Presentation)*
(Lion Energy East Seram PSC farmout presentation, touting Plio-Pleistocene Fufa Fm prospects)

Morrison, K. (2024)- New onshore seismic and gravity data confirms the potential for giant-sized discoveries within the Seram fold-thrust belt of Eastern Indonesia. Proc. GESGB-SEAPEX Asia Pacific Conference, Exploring Asia Pacific's Energy Future, London 2024, p. 11-12 + Powerpoint presentation)
(Lion Energy interpreted Kobi prospect in folded Manusela carbonate in N Seram fold-thrust belt)

Morrison, K. & A. Gartrell (2019)- The Seram fold belt: an emerging high impact play in Eastern Indonesia. Proc. SE Asia Petroleum Exploration Society (SEAPEX) Conference, Singapore 2019, p. 1-27.
(Abstract + Presentation) (online at: https://www.seapex.org/wp-content/uploads/Abstract/4_2%20Lion%20-%20Seram%20Fold%20Belt.pdf)
(NE Seram foldbelt underexplored hydrocarbon play., only six wells penetrated Manusela fractured limestone, all discoveries, with over 420 MMBOE found to date (incl. Lofin gas field, 2 TCF))

Moss, S.J., J. Milsom & M.E.J. Wilson (1996)- The geology of Buru Island, Eastern Indonesia. London University, Southeast Asia Research Group, Report 150, p. 1-22. *(Unpublished)*
(Late Paleozoic metamorphics overlain by >1000m Triassic sediments. Two facies: sandy slope turbidites and carbonate/ bituminous shale with reefal facies. Triassic unconformably overlain by ~1000m deep water Late Jurassic- Paleogene calcilutes/ marls, with ~100m of Late Jurassic submarine basaltic volcanics. Late Oligocene marls overlain by thick, folded Early Miocene marine sediments with earliest Miocene arc volcanics. Pliocene NE- prograding fan-delta sediments above major unconformity. Quaternary reefs and terraces up to 750m above sea level. No complex thrusting like Seram. Buru-Seram microcontinent originally part of 'Greater Sula Spur', separated from N Australia margin (Bonaparte Gulf?) by mid-Jurassic)

Moyle, I.P., S. Dyer, D.G.S. Lamb & W.G. Mogg (2000)- Experiences in underbalanced drilling and testing low gravity oil from a high productivity reservoir in Seram Island, Maluku Province, Indonesia. Proc. 27th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 1-36.
(Results of Oseil 2 and 4 wells drilling. Oseil 2 with 720' of oil column in (Triassic) Manusela Fm fractured carbonate, testing up to 650 BOD of 22°API oil. Oseil 4 with 410' of oil pay, testing 2200 BOD of 16.1° API gravity)

Muliani, R. (2005)- Haruku base metal deposits, Maluku. In: S. Prihatmoko et al. (eds.) Indonesian mineral and coal discoveries, Indonesian Association Geologists (IAGI) Special Issue, p. 118-136.
(Haruku Island, between Ambon and Saparua, with some poorly known Cu-Pb-Zn-Ag-Au high-sulphide mineralization prospects, with galena, sphalerite, chalcopyrite, etc., hosted by U Miocene- Lower Pliocene? brecciated andesitic-dacitic volcanics)

Munasri, H. Permana & S. Siregar (1999)- Is Seram island the mirror image of Timor island? In: I. Busono & H. Alam (eds.) Developments in Indonesian tectonics and structural geology, Proc. 28th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 1, p. 51-61.
(online at: https://www.iagi.or.id/web/digital/63/5.pdf)
(In Indonesian. Many similarities in tectonostratigraphies of Seram and Timor. Cretaceous Sawai Fm of N Seram (Albian- Campanian) and Nakfunu Fm (Berriasian- Aptian) on Timor show differences in lithology and radiolaria biostratigraphy)

Munasri, S. Siregar & D. Mulyadi (1999)- Studi geodinamika sedimentasi satuan batuan sedimen di Pulau Seram dan korelasinya dengan yang di Pulau Timor. Laporan Penelitian Puslitbang Geoteknologi-LIPI, 1998/1999, p. 45-60.
('Study of geodynamics of sedimentation of sedimentary rock units of Seram Island and correlation with Timor'. Micropaleontological, petrographic and sedimentological analysis of Triassic- Tertiary series suggest Timor is mirror image of Seram)

Mutiah, S, (2023)- Model struktur bawah permukan Pulau Buru, Seram, dan sekitarnya menggunakan mata gaya berat dan aeromagnet. M.Sc Thesis ITB, p.
('Subsurface structural model of Buru, Seram and surrounding islands using gravity and aeromagnetic data')

Nilandaroe, N. (2005)- Relationship between facies and fracturing- a comparison of fractured carbonate reservoirs on Seram Island, Indonesia and Southern Italy. Indonesian Petroleum Association (IPA) Newsletter 2005, 11, p. 20-24.
(online at: www.ipa.or.id/download/news/IPA_Newsletter_11_2005_10.pdf)
(Brief comparison of fracturing in 'Jurassic' Manusela Fm in Seram fold-thrust belt and fractured carbonates in Apennines. Larger fractures better developed in coarser-grained facies (oolitic grainstones) than in muddier facies of Manusela Fm carbonates)

Nilandaroe, N., W. Mogg & R. Barraclough (2001)- Characteristics of the fractured carbonate reservoir of the Oseil Field, Seram Island, Indonesia. Proc. 28th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 439-456.
(Oseil oil field reservoir is fractured 'E-M Jurassic' Manusela carbonate (recrystallised oolitic grainstone, dolomites, wackestones) (NB: no evidence for Jurassic age ever published; more likely Late Triassic age; JTvG). Reservoir extensively fractured with pervasive, open, near-vertical fractures, preferentially striking in NNE-SSW orientation. Fracture porosity <5-8%; negligible matrix porosity due to complex diagenesis)

Noor, M.K., A. Tonggiroh & A. Maulana (2016)- Type of gold hydrothermal deposits on metamorphic rock, District Buru, Province Maluku. Int. Journal of Engineering and Science Applications (UNHAS) 3, 1, p. 39-45.
(online at: http://pasca.unhas.ac.id/ojs/index.php/ijesca/article/view/276/160)
(Gold-bearing quartz veins in greenschist facies metamorphic rocks (muscovite schist and phyllite; probably metasediments) at Gunung Botak, Buru, reflect epithermal- high sulphidation gold mineralization)

Oemar, S. & C.H. Remington (1993)- A new view on the petroleum geology of the Buru Island, Eastern Indonesia. Proc. 22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 693-703.
(Brief summary of Pertamina fieldwork on Buru. Main sedimentary basin in S part of island, but gravity study suggests W and N parts of island may also have enough sediments for hydrocarbon accumulation)

O'Sullivan, T.D., D. Pegum & J. Tarigan (1985)- Seram oil search, past discoveries and future oil potential. Proc. 14th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 3-20.
(Bula oilfield in E Seram discovered in 1897, produced >13 million barrels of oil have been produced, mainly form Pleistocene Fufa Fm. Seram is imbricate accretionary prism formed by subduction of Australian Plate. Shale diapirism and regional left-lateral wrenching important roles in structural development)

Pairault, A.A., R. Hall & C.F. Elders (2003)- Tectonic evolution of the Seram Trough, Indonesia. Proc. 29th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, IPA03-G-013, p. 1-16.

Pairault, A.A., R. Hall & C.F. Elders (2003)- Structural styles and tectonic evolution of the Seram Trough, Indonesia. Marine and Petroleum Geology 20, 10, p. 1141-1160.
(online at: http://searg.rhul.ac.uk/pubs/pairault_etal_2003%20Seram%20Trough_MPG.pdf)
(Study of recent 2D seismic lines across Seram Trough in N part of Banda Arc, between Birds Head of New Guinea and Seram Island. Formerly interpreted as (1) subduction trench, (2) intra-continental thrust zone and foredeep, and (3) strike-slip fault zone. E Pliocene inversion of Misool-Onin anticlinorium produced angular unconformity, which truncates sediments as old as M Jurassic, later folded and now dippping S towards Seram Trough. Contraction in Trough occurred after E Pliocene and continues to present day. This work suggests Seram Trough is not subduction trench but foredeep within Australian continental margin, produced in response to loading by Seram fold-thrust belt. (This ignores dipping subducting slab as imaged by tomography, earthquake epicenters, also >100km wide accretionary prism, etc.; JTvG))

Panuju, J.S. Hadimulyono & J. Anwari (2015)- Hydrocarbons resource assessment of the eastern offshore area of Seram Island, Indonesia. Proc. 39th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA15-G-196, p. 1-15.
(Lemigas assessment of eastern offshore area of Seram. Same Mesozoic and Neogene plays as adjacent onshore)

Patria, A. & R. Hall (2017)- The origin and significance of the Seram Trough, Indonesia. Proc. 41st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA17-19-G, p. 1-19.
(online at: http://searg.rhul.ac.uk/pubs/patria_hall_2017%20Seram%20Trough.pdf)
(Seram Trough commonly interpreted as accretionary wedge/ subduction zone beneath Seram, but is shallower than typical subduction zone and marks deformation front of fold-thrust belt resulting from young oblique convergence between Outer Banda arc and Birds Head. Fold-thrust belt zone narrower in W (with thrusting ceases at E edge of Buru oceanic basin) and widens to SE. Thrusting at Trough started in Late Pleistocene)

Patria, A. & R. Hall (2018)- Oblique intraplate convergence of the Seram Trough, Indonesia. Bulletin of the Marine Geology 33, 1, p. 41-58.
(online at: https://ejournal.mgi.esdm.go.id/index.php/bomg/article/view/553/438)
(Most plausible explanation for Banda Arc is single slab model. Most plausible model for Seram Trough foredeep model, not subduction trench, associated with exhumation processes on Seram; deep feature caused by loading by Seram fold-thrust belt. Seram Trough different from common subduction systems: shallower depth (<3000m) and almost aseismic)

Patria, A., M. Hanif, Amar & H. Tsutsumi (2023)- Late Quaternary deformation of the Ambon fault, Indonesia: preliminary results. Proc. 4th SE Asian Conference on Geophysics (SEACG 2022), Bandung, IOP Conference Series: Earth and Environmental Science 1227, 012004, p. 1-4.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1227/1/012004/pdf)
(Tectonic geomorphic features, like fault scarps, etc., indicate late Quaternary activity of Ambon fault and predominantly normal sense of motion with dip of ~60-70°. Related to extensional tectonics in Banda Sea)

Pertamina/BPKKA (1996)- Petroleum geology of Indonesian basins, vols. VI-IX Eastern Indonesian Basins, VIII-Seram, p. 1-33.

Pia, J. (1924)- Einige Dasycladaceen aus der Ober-Trias der Molukken. Jaarboek Mijnwezen Nederlandsch Oost-Indie 52 (1923), Verhandelingen, p. 137-149.
(First record from Indonesia of U Triassic (probably Norian) dasyclad algae from (1) NE Seram: Bula river, Macroporella sondaica n.sp. from limestone breccia interbed in Monotis-bearing flysch-like Upper Triassic series; (2) SW Buru: S of Tifu, massive U Triassic limestone with Lovcenipora and Macroporella irregularis n.sp.; (3) NW Buru: Wai Tina 'Fatu Lst', possibly Jurassic. Few species, all new)

PND- Patra Nusa Data (2006)- Northern offshore Seram. Inameta Journal 2, p. 26-29.
(online at: www.patranusa.com)
(Brief overview of Seram geology and prospectivity)

PND- Patra Nusa Data (2006)- Misool and Seram Basin. In: Indonesia Basin Summaries (IBS), PT Patra Nusa Data, Inameta Series, Jakarta, p. 392-409.
(Brief summary of hydrocarbon system elements of Misool-Seram region. Saman Saman- Manusela Limestone Fms of Seram shown as Late Triassic- Middle Jurassic in age)

Pownall, J.M. (2014)- Neogene tectonometamorphic evolution of Seram, eastern Indonesia. Ph.D. Thesis, Royal Holloway, University of London, p. 1-538. *(Unpublished)*

Pownall, J.M. (2015)- UHT metamorphism on Seram, eastern Indonesia: reaction microstructures and P-T evolution of spinel-bearing garnet-sillimanite granulites from the Kobipoto Complex. J. Metamorphic Geology 33, 9, p. 909-935.

(Seram Kobipoto Metamorphic Complex with Mio-Pliocene granulite facies migmatites and less common granulites. Migmatites associated with ultramafic rocks of lherzolitic composition, exhumed by lithospheric extension beneath low-angle detachment faults. Post-peak evolution of granulites may be related to published U-Pb zircon and 40Ar/39Ar ages of ~16 Ma. Kobipoto Complex granulites demonstrate how UHT conditions may be achieved by extreme lithospheric extension, in this case driven by slab rollback of Banda Arc)

Pownall, J.M., R.A. Armstrong, I.S. Williams, M.F. Thirlwall, C.J. Manning & R. Hall (2018)- Miocene UHT granulites from Seram, eastern Indonesia: a geochronological-REE study of zircon, monazite and garnet. In: S. Ferrero et al. (eds.) Metamorphic geology: microscale to mountain belts, Geological Society, London, Special Publ. 478, p. 167-196.
(online at: http://searg.rhul.ac.uk/pubs/pownall_etal_2018%....)
(Ultra-high T (>900°C) garnet-sillimanite granulites of Seram formed by extensional exhumation of hot mantle rocks behind rolling-back Banda Arc. Miocene age confirmed by ~16 Ma zircons and monazites U-Pb ages. These geochronometers date retrograde overprints. Zircons shielded within garnet with 216-173 Ma ages (Late Triassic- E Jurassic. UHT conditions very short-lived and very rapid exhumation of granulite complex)

Pownall, J.M., M.A. Forster, R. Hall & I.M. Watkinson (2017)- Tectonometamorphic evolution of Seram and Ambon, eastern Indonesia: insights from 40Ar/39Ar geochronology. Gondwana Research 44, p. 35-53.
(manuscript online at: https://core.ac.uk/download/pdf/141204897.pdf)
(Two main phases in Seram Neogene tectonic evolution: (1) 16 Ma episode of extreme extension that exhumed hot lherzolites from subcontinental lithospheric mantle and drove UHT metamorphism and melting of adjacent continental crust (kyanite-grade metamorphic event of Tehoru Fm across W and C Seram); and (2) 5.7, 4.5 and 3.4 Ma episodes of extensional detachment faulting and strike-slip faulting that further exhumed granulites and mantle rocks across Seram and Ambon. Events interpreted to be result of W Seram ripping off from SE Sulawesi, extended, and dragged E by Banda Slab subduction rollback)

Pownall, J.M. & R. Hall (2014)- Neogene extension on Seram: a new tectonic model for the northern Banda Arc. Proc. 38th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA14-G-305, p. 1-17. *(online at: https://www.researchgate.net/publication/323554082_Neogene_Extension_on_Seram_a_New_Tectonic_Model_for_the_Northern_Banda_Arc)*
(Neogene tectonic evolution of Seram not dominated by thrusting/ shortening due to collision of N Banda Arc with Australian passive continental margin. Peridotites represent subcontinental lithospheric mantle, rapidly exhumed beneath low-angle detachment faults during extreme crustal extension. Kobipoto Mts of C Seram with peridotites intimately associated with granulite facies migmatite, recording ultrahigh P/T of 25-30 km depth. Granitoids emplacement in Seram and Ambon from 16 Ma (Kobipoto Mts) until 3.5 Ma (Ambon). Extreme extension of Seram by detachment faulting best explained by E-ward rollback of Banda slab since 16 Ma)

Pownall, J.M., R. Hall & R.A. Armstrong (2017)- Hot lherzolite exhumation, UHT migmatite formation, and acid volcanism driven by Miocene rollback of the Banda Arc, eastern Indonesia. Gondwana Research 51, p. 92-117. *(manuscript online at: https://openresearch-repository.anu.edu.au/bitstream/1885/122881/1/01_Pownall_Hot_Iherzolite_2017.pdf)*
(N Banda Arc (Seram) exposes upper mantle lherzolites and lower crust granulite facies migmatites of 'Kobipoto Complex'. Granulites experienced ultrahigh-T (>900˚C) at 16 Ma due to heat supplied by lherzolites exhumed during slab rollback in Banda Arc. Ages of detrital zircons from Kobipoto Complex 3.4 Ga- 216 Ma, suggesting W Papua/ W Australian Archean protolith and post-Late Triassic metamorphism. Zircons in granulites three later growth episodes: 215-173 Ma (= subduction beneath Birds Head and Sula Spur?), 25-20 Ma (collision between Sula Spur and N Sulawesi?), and ~16 Ma. 16 Ma zircon rims grew during M Miocene metamorphism and melting of Kobipoto complex rocks beneath Seram under HT-UHT conditions. Extension during continued slab rollback exhumed both lherzolites and adjacent granulites beneath extensional detachment faults in W Seram at 6.0-5.5 Ma, and on Ambon at 3.5 Ma. Ambonites and dacites sourced mainly from melts generated in Kobipoto Complex migmatites erupted on Ambon from 3.0-1.9 Ma.)

Pownall, J.M., R. Hall, R.A. Armstrong & M.A. Forster (2014)- Earth's youngest known ultra high temperature granulites discovered on Seram, eastern Indonesia. Geology (GSA) 42, 4, p. 279-282.

(late Early Miocene (16 Ma) ultrahigh-T (≥900 °C) granulite metamorphics in Kobipoto Mountains, Seram, youngest at Earth surface. Slab rollback-driven lithospheric extension caused metamorphic core complex-style exhumation of hot subcontinental lithospheric mantle)

Pownall, J.M., R. Hall & I.M. Watkinson (2013)- Extreme extension across Seram and Ambon, eastern Indonesia: evidence for Banda slab rollback. Solid Earth (EGU) 4, 2, p. 277-314.
(online at: www.solid-earth.net/4/277/2013/se-4-277-2013.pdf)
(Seram island in N part of Banda Arc previously interpreted as fold-and-thrust belt formed during arc-continent collision, with ophiolites intruded by granites. New geological mapping and re-examination of field relations suggest recent N-S extension caused high-T exhumation of mantle peridotites and granites (Kobipoto Complex) beneath low-angle lithospheric detachment faults)

Prasetya, L., L. Christi, S. Abigail, N.A. Manaf & S.E. Saputra (2023)- Southeast Seram offshore hydrocarbon prospectivity using PBE approach: new petroleum possibilities. Proc. 47th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA23-G-71, p. 1-17.
(SE Seram offshore believed to have hydrocarbon potential, in sub-thrust play with Jurassic carbonates as potential reservoirs)

Price, P.L., T. O'Sullivan & R. Alexander (1987)- The nature and occurrence of oil in Seram, Indonesia. Proc. 16th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 141-172.
(First Seram oilfield Bula in 1897, with oil produced from Pleistocene clastics and Late Triassic- E Jurassic carbonates. Oil from carbonat source, probably Late Triassic, but no source rock identified)

Priem, H.N.A., P.A.M. Andriessen, N.A.I.M. Boelrijk et al. (1978)- Isotopic evidence for a Middle to Late Pliocene age of the cordierite granite on Ambon, Indonesia. Geologie en Mijnbouw 57, 3, p. 441-443.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0aXVNVFJuSnAxVlk/view)
(Rb-Sr dating of cordierite-biotite granite from Ambon yields age of 3.3 ± 0.1 Ma and K-Ar age of biotite of 3.8 ± 0.2 Ma, both suggesting Middle-Late Pliocene age for associated 'ambonite' basaltic magmatism. Initial 87Sr/ 86Sr = 0.7221. Geology of Ambon related to SW subduction from Seram Trough)

Rittmann, A. (1931)- Gesteine von Kellang und Manipa. Geological, Petrographic and Palaeontological results of explorations carried out from September 1917 till June 1919 in the Island of Ceram by L. Rutten and W. Hotz, First Series, Petrography, 2, De Bussy, Amsterdam, p. 1-135.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:033008000:00009)
(Petrographic descriptions of rocks from Manipa and Kellang' (islands between Buru and Seram). Collected by L. Rutten & W. Hotz aroud 1919. Primarily igneous (peridotites/ serpentinites, gabbros, basalts) and metamorphic rocks (primarily contact metamorphism from ultramafics and gabbro intrusions). Sediments only in central syncline of Kellang, i.e. Triassic sandstones rich in feldspars, muscovite and plant remains and shales, with grey-red limestone lenses with corals and brachiopods, all similar to those found in W Seram)

Roques, D. (1999)- The metamorphic core of Buru. University of London SE Asia Research Group, Report 204, p. 1-49. *(Unpublished)*
(Buru phyllites/ schist/quartzites usually interpreted as Late Carboniferous-E Permian metamorphosed flysch. Amphibolite facies corresponds to burial depth of 20-25 km. Metamorphics overlain by unmetamorphosed Triassic. Young cooling ages reflect uplift/ exhumation between 5- 2.5 Ma, removing >6 km of sediment)

Rutten, L.M.R. (1918)- Uit het eerste verslag over de geologische expeditie naar Ceram. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (KNAG), Amsterdam, Serie 2, 35, p. 112-121.
(collected Rutten-Ceram papers online at: https://www.delpher.nl/nl/boeken/objectsearch/pagejump?identifier=MMKB31:037121000:00001)
(First of series of ten interim reports by Rutten (and later with W. Hotz) on the scientific geological expedition to Seram from August 1917- June 1919, sponsored by 'Maatschappij tot Bevordering van Natuurkundig Onderzoek der Nederlandse Kolonien' and KNAG (Netherlands Geographic Society). Mainly summaries of travel, but with geological observations. Unfortunately, no final documentation from Rutten's extensive Seram fieldwork was

published, except in the Rutten (1927) chapter on Seram and in Ph.D. theses by Rutten's students De Jong (1923), Valk (1945), Germeraad (1946) and Van der Sluis (1952))

Rutten, L.M.R. (1918)- De geologische expeditie naar Ceram- tweede verslag (13 Aug.- 11 Sept. 1917). Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap, Amsterdam, Serie 2, 35, p. 228-234.
('The geological expedition to Seram- Report 2')

Rutten, L.M.R. (1918)- De geologische expeditie naar Ceram- derde verslag (12 Sept.-11 Nov. 1917). Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap, Serie 2, 35, p. 368-378.
('The geological expedition to Seram- Report 3')

Rutten, L.M.R. (1918)- De geologische expeditie naar Ceram- vierde verslag (12 Nov. 1917- 4 Jan. 1918). Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap, Serie 2, 35, p. 547-555.
('The geological expedition to Seram- Report 4')

Rutten, L.M.R. (1919)- De geologische expeditie naar Ceram- vijfde verslag (4 Jan.- einde Maart 1918). Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap, Serie 2, 36, p. 36-42.
(online at: https://resolver.kb.nl/resolve?urn=MMUBA13:001665001:pdf)
('The geological expedition to Seram- Report 5')

Rutten, L.M.R. (1919)- De geologische expeditie naar Ceram- zesde verslag (April- Mei 1918). Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap, Amsterdam, Serie 2, 36, p. 42-48.
(online at: https://resolver.kb.nl/resolve?urn=MMUBA13:001665001:pdf)
('The geological expedition to Seram- Report 6'. Traverses in East Ceram. Visit to Nief Gorge, the only place where Rutten observed oil seeps on Seram)

Rutten, L.M.R. (1919)- De geologische expeditie naar Ceram- zevende verslag (Juni- Juli 1918). Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap, Serie 2, 36, p. 199-207.
(online at: https://resolver.kb.nl/resolve?urn=MMUBA13:001665001:pdf)
('The geological expedition to Seram- Report 7'. Brief report in June-July 1918 travels. No figures)

Rutten, L.M.R. (1919)- De geologische expeditie naar Ceram- achtste verslag. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap, Serie 2, 36, p. 460-466.
(online at: https://resolver.kb.nl/resolve?urn=MMUBA13:001665001:pdf)
('The geological expedition to Seram- Report 8'. With geological map of Piroe Bay area in West Ceram)

Rutten, L.M.R. & W. Hotz (1919)- De geologische expeditie naar Ceram- negende verslag (medio September-medio December 1918). Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (KNAG), Amsterdam, Serie 2, 36, p. 559-579.
(online at: https://resolver.kb.nl/resolve?urn=MMUBA13:001665001:pdf)
('The geological expedition to Seram- Report 9'. Rutten now accompanied by Swiss former NKPM geologist Dr.Walter Hotz. Work near Piroe Bay, Kaibobo, etc. Kaibobo area with intensely folded phyllites, schists, younger greywackes with schist detritus but no serpentinite detritus, with limestone interbeds (Strike W/ WNW). Also granites, large serpentinite terrain, etc. Granites younger than serpentinites. Kellang and Manipa islands with crystalline schists overlain by ?Triassic sediments. Etc. With 3 maps and cross-sections)

Rutten, L.M.R. & W. Hotz (1920)- De geologische expeditie naar Ceram- tiende verslag (medio September-medio December 1918). Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap, Serie 2, 37, p. 17-31.
('The geological expedition to Seram- Report 10')

Rutten, L.M.R. (1920)- De geologische expeditie naar Ceram- elfde (laatste) verslag. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap, Sere 2, 37, p. 32-42.
('The geological expedition to Seram- Report 11 (final)')

Rutten, L.M.R. (1927)- Ceram, Ambon, Boeroe en de kleinere eilanden in hunne omgeving. In: L.M.R. Rutten (1927) Voordrachten over de geologie van Nederlandsch Indie, Wolters, Groningen, p. 716-749.
(online at: https://resolver.kb.nl/resolve?urn=MMKB02:000119126:pdf)
(Insightful review of geology of Seram, Ambon, Buru and adjacent small islands in Rutten's 1927 lecture series)

Sachse, F.J.P. (1906)- Toelichtingen bij de schetskaart van de afdeelingen Wahai en West-Seran op het eiland Seran. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2) 23, 3, p. 439-450.
('Explanatory notes of the sketch-map of the districts of Wahai and West Seram on Seram island'. Early geographic description of parts of Seram island)

Sahara, D., A.D. Nugraha, A. Muhari, A.A. Rusdin, S. Rosalia, A. Priyono, Z. Zulfakriza, S. Widiyantoro et al. (2021)- Source mechanism and triggered large aftershocks of the Mw 6.5 Ambon, Indonesia earthquake. Tectonophysics 799, 228709, p. 1-13. *(proof online at: https://www.academia.edu/44850938/Tectonophysics_xxx_xxxx_xxx_xxx_Source_mechanism_and_triggered_large_aftershocks_of_the_Mw_6_5_Ambon_Indonesia_earthquake)*
(Analysis of fault plane of September 29, 2019 Ambon Mw 6.5 earthquake suggests earthquake along N-S fault plane, with ~35 km rupture length, from Kairatu down to Haruku Strait. With reactivation of preexisting NE-SW fault crossing Ambon Island, causing further damages to already weakened infrastructure)

Samalehu, H., A. Idrus & N.I. Setiawan (2022)- Geologi daerah Tamilouw-Haya, Kecamatan Tehoru, Kabupaten Maluku Tengah, Provinsi Maluku. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 23, 3, p. 177-187.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/680/486)
('Geology of Tamilouw-Haya, Tehoru District, Central Maluku Regency, Maluku Province'. Geology of area in S Seram. Dominated by quartz-muscovite meta-sediments of Tehoru Complex. Structures minor anticline fold and NNW-SSE and NE-SW trending lineaments which form sinistral and dextral shear faults)

Samalehu, H., A. Idrus & N.I. Setiawan (2022)- Mineralisasi endapan sinabar daerah Bukit Tembaga, Kecamatan Huammual, Kabupaten Seram Bagian Barat, Maluku. Buletin Sumber Daya Geologi 17, 1, p. 41-50.
(online at: www.academia.edu/109659308/Mineralisasi_Endapan_Sinabar_Daerah_Bukit_Tembaga Etc.))
('Mineralization of the cinnabar deposit at Tembaga Hill, Huamual District, Western Seram, Maluku'. Iha-Luhu cinnabar deposits in W Seram formed in veins and as dissemination in Taunusa phyllitic metamorphic complex, controlled by NNW-SE and NE- SW trending faults. Mineralization of cinnabar, arsenopyrite, stibnite, sphalerite, hematite, etc. Cinnabar(mercury) ore also contains Zn, Sb, Fe, As (Hg) up to 72%)

Samalehu, H., A. Idrus & N.I. Setiawan (2022)- Alterasi hidrotermal endapan sinabar daerah Bukit Tembaga, Iha-Luhu, Pulau Seram, Maluku. Buletin Sumber Daya Geologi 17, 3, p. 137-148.
(online at: http://103.87.161.68/index.php/bsdg/article/view/BSDG_VOL_17_NO_3_2022_1/313)
(Hydrothermal alteration of cinnabar deposit in Tembaga Hill, Iha-Luhu, Seram Iskand, Maluku'. SW Seram)

Samalehu, H., A. Idrus & N.I. Setiawan (2023)- Ore-forming fluids of orogenic gold deposit In Tamilouw-Haya, Seram Island, Indonesia. Indonesian J. on Geoscience (IJOG) 10, 3, p. 363-377.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/810/434)
(Tamilouw-Haya orogenic gold mineralization in Tehoru Metamorphic Complex in S arm of Seram. Gold mineralization mainly as veins, stockwork and breccia, with minor dissemination. Dominated by native gold, pyrite, chalcopyrite, sphalerite, etc. High-grade gold ores generally in quartz-carbonate veins. Gold deposit formed at depth of ~ 6-9 km in epizonal-mesozonal zones (comparable to E Sulawesi and Buru?)

Samalehu, H., A. Idrus & N.I. Setiawan (2023)- Studi fluida pembawa bijih endapan sinabar di Bukit Tembaga, Iha Luhu, Pulau Seram- Maluku. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 24, 4, p. 205-214.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/727)
('Ore-forming fluid of the Cinnabar deposit at Tembaga Hill, Iha-luhu, Seram Island-Maluku'. Cinnabar (mercury) ore deposits in W Seram low grade metamorphic rocks likely formed at depth of 6-8.5 km)

Sapiie, B. & M. Hadiana (2014)- Analogue modeling of oblique convergent strike slip faulting and application to the Seram Island, Eastern Indonesia. Indonesian J. on Geoscience (IJOG) 1, 3, p. 121-134.
(online at: http://ijog.bgl.esdm.go.id/index.php/IJOG/article/view/189/181)
(Sandbox modeling to understand deformation of Seram Island. Best matched as oblique convergent strike-slip transpressional regime)

Sapiie, B., M. Hadiana, M. Patria, A.C. Adyagharini, A. Saputra, P. Teas & Widodo (2012)- 3D structural geology analysis using integrated analogue sandbox modeling: a case study of the Seram thrust-fold belt. Proc. 36th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA12-G-045, p. 1-14.
(Offshore+onshore Seram fold-thrust belt broad deformation zone >400 km long, ~100 km wide. Peak deformation in last 3 My. Fault pattern changes along strike (trends in W mainly E-W, middle NW-SE, and E (SE) mainly N-S), accompanied by change in dip of faults from NE to SW. Large amounts of shortening. Left-lateral strike-slip component in deformation, suggesting oblique convergent system)

Schmid, K. (1934)- Biometrische Untersuchungen an Foraminiferen (*Globorotalia menardii* (d'Orb.)- *Globorotalia tumida* (Brady) und *Truncatulina margaritifera* Brady- *Truncatulina margaritifera granulosa* Fischer) aus dem Pliocaen von Ceram (Niederl.-Indien). Eclogae Geologicae Helvetiae 27, 1, p. 45-134.
(online at: http://retro.seals.ch/cntmng?type=pdf&rid=egh-001:1934:27::574&subp=hires)
('Biometric investigations on foraminifera (...) from the Pliocene of Seram'. Extensive measurements on selected planktonic and smaller benthic forams from ?Pliocene Fufa Beds foram marls from Wai Wahai hinterland of N Central Seram. Most of samples collected by Weber. (not overly useful))

Schneider, C.F.A. (1852)- Geognostisch uitstapje naar de zuidkust van Ceram. Natuurkundig Tijdschrift voor Nederlandsch-Indie 3, 1, p. 101-107.
(online at: http://62.41.28.253/cgi-bin/)
('Geognostic excursion to the south coast of Seram'. Early description of rock types encountered along S coast of Seram. Not much detail, no maps)

Schroeder van der Kolk, J.L.C. (1895)- Mikroskopische Studien uber Gesteine aus den Molukken. 1. Gesteine von Ambon und den Uliassern. Jaarboek Mijnwezen Nederlandsch-Indie 24 (1895), p. 1-57.
('Microscopic studies of rocks from the Moluccas, I. Rocks from Ambon and the Uliasser islands'. Petrographic decriptions of rocks collected by K. Martin in 1891-1892. No illustrations)

Schroeder van der Kolk, J.L.C. (1900)- Mikroskopische Studien uber Gesteine aus den Molukken, 2. Gesteine von Seran. Sammlungen Geologischen Reichs-Museums Leiden, ser. 1, 6, p. 1-39.
(online at: www.repository.naturalis.nl/document/552397)
('Microscopic studies of rocks from the Moluccas, 2. Rocks from Seram'. Petrographic descriptions of rocks collected by K. Martin in 1891-1892, incl. granite (with and without cordierite), diorite, peridotite, Augite-andesite, cordierite gneiss, amphibolite, mica schist, greywacke and breccia). No illustrations)

Schroeder van der Kolk, J.L.C. (1902)- Mikroskopische Studien uber Gesteine aus den Molukken, 3. Gesteine von Buru. Sammlungen Geologischen Reichs-Museums Leiden, ser. 1, 6, p. 77-127.
(online at: www.repository.naturalis.nl/document/552389)
('Microscopic studies of rocks from the Moluccas, 3. Rocks from Buru'. Petrographic descriptions of rocks collected by K. Martin in 1891-1892, incl. granite from N coast near Waepote, andesites from 2 localities, gneiss from Batubua and Lumaiti, mica schists, phyllites and quartz schists from several localities, graywackes, conglomerate and limestone.No illustrations)

Setyanta, B. & I. Setiadi (2007)- Anomali gaya berat dan tataan tektonik sekitar perairan Laut Banda dan Pulau Seram. Jurnal Sumber Daya Geologi (JSDG) 17, 6 (162), p. 408-419.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/319/287)
(Gravity anomalies of Banda Sea and Seram Island used to build crust structure model. Banda Sea mainly composed of basaltic crust. Banda Sea basaltic crust under volcanic Banda Island, while granitic crust is under Pre-Tertiary sediments at Seram)

Setyanta, B. & I. Setiadi (2010)- Pola struktur dan geodinamika Cekungan Bula, berdasarkan anomali gaya berat. Jurnal Sumber Daya Geologi (JSDG) 20, 1, p. 41-55.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/161/156)
('Structure and geodynamics of the Bula Basin, based on gravity anomaly data'. Seram. Gravity shows two regional fault structures, horizontal faults trending NE-SW and E-W)

Setyawan, W.B., B. Wijaya & A. Guntoro (2000)- Mengurai perkembangan tektonik Pulau Seram dan Ambon. Proc. 29th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 4, p. 33-45.
(online at: https://www.researchgate.net/profile/Wahyu-Setyawan-3/publication/357174986_Mengurai_Perkembangan_Tektonik_Pulau_Seram_Ambon Etc.)
('Unraveling the tectonic development of Seram and Ambon islands'. Mainly literature review. Geological history divided into 3 periods (1) basement rock formation (Late Carboniferous -E Permian), (2) deposition of Australian margin series (Late Permian - Late Miocene; with M Jurassic continental break-up, followed by Oxfordian-Neocomian seafloor spreading and (3) Mio-Pliocene thrusting due to CCW rotation of Bird's Head- and deposition of Plio -Pleistocene Seram Series (in E Seram only). Etc.)

Siagian, H.P., B.S. Widijono, J. Nasution, B. Setyanta, Nurmaliah, K. McKenna & A. Noetzli (2016)- High resolution magnetic anomaly modelling and its implication for petroleum prospectively on Seram Island, Maluku, Indonesia. Proc. 25th Geophysical Conference and Exhibition ASEG-PESA-AIG 2016, Adelaide, p. 207-210.
(online at: http://www.publish.csiro.au/ex/pdf/ASEG2016ab173)
(Airborne magnetic survey over Seram- Buru in 2012 shows high anomalies mainly in W part of survey area and small anomalies in SE of island, interpreted as Paleozoic Taunusa Fm. Medium anomaly range in E, NE and WNW of Seram reflects occurrence of Mesozoic rocks from Kanikeh Fm. Low magnetic anomalies in C and NE reflect 'Jurassic' Manusela Fm. Modelling of magnetic anomalies indicates folds, thrust fault structures, basement fractures and thickness of (Triassic) Kanikeh Fm source (~2623m), Jurassic seal rocks (~1166m))

Simanjuntak, A.V.H. & K. Ansari (2024)- Multivariate hypocenter clustering and source mechanism of 2017 Mw 6.2 and 2019 Mw 6.5 in the South Seram subduction system. Geotechnical and Geological Engineering 42, p. 4303-4316.
(Two devastating earthquakes in S Seram area: (1) Mw 6.2 (2017) with thrust mechanism, suggesting active subduction with steep dipping angle of 20°-25° to N) and (2) Mw 6.5 (2019) with left-lateral mechanism due to unknown active fault

Sopaheluwakan, J. (1994)- Basement evolution of the Buru- Seram microplate and its bearing on hydrocarbon occurrences. In: J.L. Rau (ed.) Proc. 30th Session Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Bali 1993, 2, p. 17-32.
(online at: https://repository.unescap.org/items/177e9366-1a15-4fc9-986f-15520603d2c3)
(Two types of metamorphic rocks comprise Buru- Seram crystalline basement: (1) Paleozoic low-grade schist of continental character on Buru and S Seram; (2) W Seram low-high-grade (greenschist to granulite) metamorphic sole at base of dismembered ophiolite is Neogene re-metamorphism of Paleozoic during obduction of hot Weber Deep materials)

Sopaheluwakan, J., K. Linthout, H. Helmers & H. Permana (1992)- Peridotite- metamorphite relation in West Seram: constraints to vertical movements of the North Banda Arc. Proc. 21st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2, p. 599-609.
(online at: https://www.iagi.or.id/web/digital/50/21th-Vol-II-(7-10-Des-1992)-229-240.pdf)
(W Seram three or four metamorphic complexes (Kobipoto, Saku, Tehuru, Taunusa). Paleozoic low-grade metamorphics overthrusted in Pliocene from ESE by peridotite, a hot mantle slab of NW Weber Deep origin, forming metamorphic sole with granulite-facies mylonite near contact. Surprisingly young Rb-Sr age of 3-4.5 Ma (K-Ar 4-6 Ma). Same age as cordierite granite on Ambon (3.3Ma), which may be product of melting of continental crust below peridotite)

Supandjono, R.J.B. (1994)- Geologi daerah Lofin, Seram Tengah. Proc. 23rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 1, p. 112-122.
(online at: https://www.iagi.or.id/web/digital/62/10.pdf)
('Geology of the Lofin area, C Seram'. Most of area ~1500m M-L Triassic Kanikeh Fm sands, shale and coaly beds. Overlain by ~500m Late Triassic- E Jurassic Manusela Lst (with Halobia, Montivaltia, Lovcenipora= Triassic? JTvG) bedded, nodular calcilutites with radiolaria and bituminous lenses. In S unconformably overlain by ~300m latest Oligocene-E Miocene Lisabata Lst (with Spiroclypeus, Miogypsina). In N ~250m of latest Miocene- Pliocene (N18-N19, NN11) marine Wahai Fm clastics directly on folded Triassic Kanikeh clastics. Two major N-directed thrust faults)

Susilo, A., I. Budiman, I. Setiadi & T. Padmawijaya (2006)- High gravity anomaly around the Kelang Island, Maluku. Proc. Jakarta 2006 International Geoscience Conference Exhib., Indonesian Petroleum Association, Jakarta06-PNS-07, p. 1-4. *(Abstract)*
(High gravity anomaly around Kelang Island, W of Seram, is expression of N end of Banda Sea basaltic ultra-basic crust and it continues to peak to S and SW (S of Buru)).

Sykora, J.J. (2000)- The buried fold-thrust belt of offshore Seram. AAPG International Conference Bali 2000, American Assoc. Petroleum Geol. (AAPG) Bull. 84, p. 1502. *(Abstract only)*

Tjokrosapoetro, S. (1977)- The regional structure of Seram island as interpreted from satellite imagery. Proc. 13th Session Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Kuala Lumpur, p. 366-377.

Tjokrosapoetro, S., A. Achdan, K. Suwitodirdjo, E. Rusmana & H.Z. Abidin (1993)- Geological map of the Masohi quadrangle, Maluku, scale 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(Geological map of Central Seram. N part of island folded Kanikeh Fm Triassic/Jurassic 'flysch' interfingering with Manusela Fm limestones, overlain by pelagic limestones and red shale (Nief Beds of older authors?) of Upper Cretaceous (Sawai Fm) and Paleo-Eocene age (Hatuolo Fm, overlain by Oligo-Miocene Lisabata shallow marine limestone with Spiroclypeus, Miogypsina, etc. Unconformably overlain by Miocene-Pliocene Salas Complex 'block clay' and Plio-Pleistocene Wahai and Fufa sediments. South part of island mainly ?Permian-Triassic Tehoru-Saku metamorphic complexes, commonly associated with ?Jurassic-Cretaceous ultramafics, all thrusted to N over Triassic rocks)

Tjokrosapoetro, S. & T. Budhitrisna (1982)- Geology and tectonics of Northern Banda Arc. Bull. Geological Research Development Centre (GRDC) 6, p. 1-17.
(Comparison of Buru, Seram and Misool, mainly based on stratigraphy. Buru geology similar to Misool in Late Paleozoic- Miocene. Seram more complicated with overthrusts, mantle rocks, etc., and similarity with Timor. In M Miocene- Present Buru displaced SW along Buru Fracture between Buru and Seram. Pliocene S-dipping subduction below Seram terminates in W by Buru Fracture)

Tjokrosapoetro, S., T. Budhitrisna & E. Rusmana (1981)- Report on the geology of Buru Quadrangle, Maluku. (with provisional geological map). Report of Geological mapping and aerial photo interpretation project., Geological Research and Development Centre, Bandung, p. 1-32. *(Unpublished)*
(Referenced in Fortuin et al., 1988))

Tjokrosapoetro, S., T. Budhitrisna & E. Rusmana (1993)- Geology of the Buru Quadrangle, Maluku, scale 1:250,000. Geological Research Development Centre (GRDC), Bandung, p. 1-24. + map.
(Second edition of 1981 map. Buru much less structured than Seram. Widespread outcrops of probable Late Carboniferous- Permian metamorphics. Unconformably overlain by Triassic turbiditic clastics of Dalan Fm (with clasts of quartz and metamorphics), probably overlain by up to 2000m of Ghegan Fm (limestones and bituminous marls with Triassic Halobia, etc.= Fogi beds of Wanner 1922). Unconformably overlain by Late Jurassic- Paleo-Eocene Kuma Fm deep water calcilutites. Near contact Ghegan-Kuma rel. small outcrops of ~100m Mefa Fm basalts and marly tuffs with (Late?) Jurassic ammonites. In S Buru Kuma Fm and Triassic rocks ?unconformably

overlain by sandy-marly Waeken Fm of latest Oligocene- E Miocene age. Folded Oligo-Miocene sediments unconformably overlain by Pliocene marine sediments. Pliocene andesites (dated as 4.5 Ma) similar to Ambon)

Tjokosapoetro, S., E. Rusmana & Suharsono (1994)- Geology of the Ambon Sheet, Maluku, 1:250,000. Geological Research Development Centre (GRDC), Bandung, p. 1-15. + map.

Umbgrove, J.H.F. (1924)- Report on Pleistocene and Pliocene corals from Ceram. In: L. Rutten & W. Hotz (eds.) Geological, petrographical and palaeontological results of explorations, carried out from September 1917 till June 1919 in the island of Ceram, 2nd ser., Palaeontology, p. 1-22.
(Corals collected by Rutten from 13 localities in C and E Seram. 25 species identified, about 80 Recent species, probably all Late Pliocene or younger age)

Usna, L. (1977)- Note on a seismic reflection profile across the Seram Trough. Newsletter Indonesian Geological Survey 9, 16, p. 193-194.

Valk, W. (1945)- Contributions to the geology of West Seran. Doct. Thesis University of Utrecht. In: Geological, petrographical and palaeontological results of explorations carried out from September 1917 till June 1919 in the Island of Ceram by L. Rutten and W. Hotz. De Bussy, Amsterdam, 3rd serie, Geology, 1, p. 1-109.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:033004000:00001)
(Geology of W Seram, compiled from notes and study of rocks collected during Rutten & Hotz (1918-1920) Seram fieldwork. Pre-Upper Triassic metamorphics (folded schist, phyllite, gneiss, amphibolite) more common than in E Seram. Upper Triassic more sandy than in C and E Seram: greywacke sandstones composed mainly composed of detritus of schists, phyllites and andesites and are probably of Norian- Carnian age. Overlying shales Upper Norian. Also U Triassic coralline limestone, U Eocene conglomerates with Discocyclina, non-metamorphic peridotites, etc.)

Van der Sluis, J.P. (1950)- Geology of East Seran. Doct. Thesis University of Utrecht. In: Geological, petrographical and palaeontological results of explorations carried out from September 1917 till June 1919 in the Island of Ceram by L. Rutten and W. Hotz, De Bussy, Amsterdam, 3rd ser., Geology, 3, p. 1-71.
(The geology of East Seram, compiled from notes and study of rocks collected during Rutten & Hotz (1918-1920) Seram fieldwork. Mainly listings of rock types and faunas (crystalline schists and phyllites, Triassic limestone, Upper Cretaceous-Paleocene cherty limestone, Eocene marl, Plio-Pleistocene marls, etc.) (Upper Triassic Lovcenipora limestone was re-interpreted as being to Late Jurassic age, a suggestion accepted by Van Bemmelen (1949) but disputed by Wanner (1952) and subsequent authors (incl. Charlton & van Gorsel (2014))

Van Gogh, F.A.A. (1913)- Geologisch onderzoek in Noord Oost Ceram van 15 Juni tot 15 September, 1913. BPM Report 4575, p. *(Unpublished)*
('Geological investigations in NE Seram, from 15 June to 15 September 1913'. Unpublished BPM-Shell report)

Van Gogh, F.A.A. (1914)- Geologische beschrijving der vergunningen tot het verrichten van mijnbouwkundige opsporingen Nos. 101, 102, 103, 104, Exploratieterreinen Boela Bai en Nief, Oost Ceram. BPM Report No. 4623, p. *(Unpublished BPM-Shell report)*
('Geologic description of the permits to carry out mining exploration numbers 101, 102, 103, 104, exploration areas Bula Bay and Nief, East Ceram' (Price et al. 1986: oils from Triassic Nief /Manusela carbonate sequence of different origin from that of Fufa oils)

Van Marle, L.J. (1989)- Recent and fossil benthic foraminifera and late Cenozoic palaeobathymetry of Seram, Eastern Indonesia. In: J.E. van Hinte et al. (eds.) Proc. Snellius II Symposium, Jakarta 1987, Netherlands J. of Sea Research 24, 4, p. 445-457.
(Two M Pliocene- Pleistocene (N19-N22) outcrop sections in SW Seram, directly on Paleozoic metamorphics, suggest paleobathymetries between 400- 1100m (probably 600-900m) and >2 km of post E Pleistocene uplift)

Verbeek, R.D.M. (1899)- Kort verslag over de aardbeving te Ambon op 6 januari 1898. Bijvoegsel Javasche Courant 1899, 6, Landsdrukkerij, Batavia, p. 1-28.

(online at: https://books.google.com/books/...)
('Brief report on the earthquake at Ambon on 6 January 1898')

Verbeek, R.D.M. (1899)- Over de geologie van Ambon- I. Verhandelingen Koninklijke Akademie van Wetenschappen, Amsterdam, sectie 2, 6, 7, p. 3-26.
(online at: https://dwc.knaw.nl/DL/publications/PU00011831.pdf)
('On the geology of Ambon-1'. Ambon composed of two peninsulas, Hitoe and Leitimor. Complex geology, including granites, perodotites, metamorphic rocks, Triassic sandstone- limestone interbeds, younger volcanics and Pliocene or younger reefal limestone terraces up to 500m above sea level, etc.)

Verbeek, R.D.M. (1900)- Over de geologie van Ambon- II. Verhandelingen Koninklijke Akademie van Wetenschappen, Amsterdam, sectie 2, 7, 5, p. 3-9.
(online at: https://dwc.knaw.nl/DL/publications/PU00011896.pdf)
('On the geology of Ambon-2'. Continuation of paper above. Age of Banda Sea is Early Miocene or younger)

Verbeek, R.D.M. (1905)- Geologische beschrijving van Ambon. Jaarboek Mijnwezen Nederlandsch Oost-Indie 34, Wetenschappelijk Gedeelte, p. 1-308.
('Geological description of Ambon'. On geology and rock types of Ambon. With four maps, cross sections)

Von Huene, F. (1931)- Ichthyosaurier von Seran und Timor. Neues Jahrbuch Mineralogie Geologie Palaontologie, Beilage Band 66, B, p. 211-214.
('Ichthyosaurus fossils from Seram and Timor'. Collected by BPM geologist Weber: vertebrae of Eurypterygius from E Jurassic? of Bula, NE Seram, and material from Triassic? of Basleo, W Timor)

Von John, C. (1906)- Ueber die chemische Beschaffenheit der Asphaltschiefer der Bara Bai (Buru). Neues Jahrbuch Mineralogie Geologie Palaontologie, Beilage Band 22, p. 691-692.
('On the chemical properties of Bara Bai asphalt shales of Buru'. Ammonite-rich Late Triassic bituminous shales from Bara Bai, NW Buru, with 23% organic matter)

Von Rosenberg, H. (1860)- Aardolie van Ceram. Natuurkundig Tijdschrift voor Nederlandsch-Indie 21, p. 336. (also vol. 22, p. 366 and p. 412.
('Petroleum from Seram'. Short communication on bottle of oil, collected from active surface seep at N coast of Seram, E of Wahai. First report on presence of oil on Seram island. No locality details or map)

Wahyudiono, J., R. Adlan, S. Permanadewi & A.K. Gibran (2018)- Karakteristik minyak bumi di Blok Bula dan Blok Oseil, Pulau Seram, Maluku. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 19, 4, p. 233-241.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/384/365)
('Oil characteristics in the Bula and Oseil Blocks, Seram Island Maluku'. Oil samples taken from Bula and Oseil Blocks on NE Seram have same source, from Type II marine algal organic matter)

Wahyudiono, J., A. Susilo, R. Adlan, B. Salimudin, A.K. Gibran & E.S. Wiratmoko (2018)- Integrated field mapping, organic chemistry and subsurface geological interpretation of Kanikeh Formation as potential source rock in Seram Island. Proc. 42nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA18-247-G, p. 1-6.
(Outcrop samples of Kanikeh Fm clastics on Seram with Triassic (Carnian-Norian) Halobia spp. and gas-prone Type III kerogen. Oil samples from Oseil and Bula oil fields suggest no terrestrial organic source material; hydrocarbons from Type II marine algae in carbonate rocks deposited in reducting conditions)

Wanner, J. (1907)- Zur Geologie und Geographie von West-Buru. Neues Jahrbuch Mineralogie Geologie Palaontologie, Beilage Band 24, 1907, p. 133-160.
(Summary of 3-week reconnaissance geological survey in Fogi region of West Buru in 1904. Various types of Mesozoic deep marine rocks. Also limestone breccia with clasts of white Buru Limestone with chert (= Cretaceous?; HvG) and with Eocene alveolinids and Discocyclina in matrix)

Wanner, J. (1907)- Geologische Mitteilungen aus dem Indo-Australischen Archipel IV, Triaspetrefakten der Molukken und des Timorarchipels. Neues Jahrbuch Mineralogie Geologie Palaontologie, Beilage Band 24, Schweizerbart, p. 159-220.
(online at: http://mmtk.ginras.ru/pdf/Wanner_1907_Tr_Timor_HI.pdf)
('Triassic fossils from the Moluccas and Timor Archipelago'. Late Triassic molluscs, corals, ammonites faunas from Misool (Carnian dark shales with Daonella), Seram (typical Tethys-Mediteranean Norian molluscs Monotis salinaria, Amonotis and brachiopod Halorella). From Seram limestone come corals Thecosmilia aff. clathrata and Montlivaltia molukkana and Pachypora intabulata (= Lovcenipora). Also Triassic fossils from Timor-Roti-Savu (generally deeper water facies, but potentially similar 'alpine' character with mainly Halobia, Daonella, but also 'Pacific' mollusc Pseudomonotis ochotica). Timor/Roti/ Savu Triassic reminiscent of North Sumatra Upper Triassic as described by Volz (1899). One of first first authors (after Rothpletz 1892) to recognize Alpine/ Tethyan affinities of Late Triassic bivalves and ammonites of Seram and Timor- Roti)

Wanner, J. (1923)- Geologische Ergebnisse der Reisen K. Deninger's in den Molukken. I. Beitrage zur Geologie der Insel Buru, nach den Tagebuchern und Sammlungen K. Deniger's. Palaeontographica Supplement IV, Beitrage zur Geologie von Niederlandisch-Indien III, 3, p. 59-112.
('Geological results of the travels of K. Deninger in the Moluccas, I. Contributions to the geology of Buru island'. Summary of field notes of Deninger's 1912 Second Freiburg University Moluccas expedition. NE half of Buru mainly schists and phyllite, overlain by Triassic flysch. Overlain by Fogi Beds bituminous limestones and marls, rich in molluscs and ammonites (Lower Norian), grey Misolia limestone and Norian massive limestones/ dolomites with Lovcenipora. E-M Jurassic appears to be missing. Oldest Jurassic rocks red-brown marine tuffites (Sasifu beds; upper Callovian or Lower Oxfordian), overlain by Oxfordian Mefa Beds green-brown tuffites rich in ammonites, with age-equivalent volcanics at W coast. Youngest Jurassic beds probably Oxfordian dense Kartina limestone with chert lenses. Cretaceous represented by pelagic limestones with red-brown chert. Rare Eocene limestone with Discocyclina, Nummulites, alveolinids, etc., and also reworked Cretaceous carbonate clasts near Fogi near W coast (suggesting Eocene uplift-erosion event). More widespread E-M Miocene clastics and limestone)

Wanner, J. (1928)- Ueber einige Juvaviten von Ceram (Molukken). Wetenschappelijke Mededeelingen Dienst Mijnbouw Nederlandsch-Indie 10, Bandung, p. 37-42.
('On some Juvavites from Seram (Moluccas)'. Description of 'Tethyan' ceratitid ammonites collected by F. Weber from Late Triassic flysch of Wai Sabora in SE Seram. Probably of Norian age. Incl. Juvavites ceramensis n.sp. and J. aff. continuus)

Wanner, J. (1949)- Lebensspuren aus der Obertrias von Seran (Molukken) und der Alpen. Eclogae Geologicae Helvetiae 42, p. 183-195.
(online at: http://retro.seals.ch/cntmng?type=pdf&rid=egh-001:1949:42::702&subp=hires)
('Trace fossils from the Upper Triassic of Seram (Moluccas) and the Alps'. On deep-water Palaeodictyon seranense n.sp., Chondrites gonidioides n.sp. and other trace fossils from Norian flysch-type clastics of E Seram)

Wanner, J. & H.C.G. Knipscheer (1951)- Der Lias der Niefschlucht in Ost-Seran (Molukken). Eclogae Geologicae Helvetiae 44, 1, p. 1-18.
(online at: https://www.e-periodica.ch/digbib/view?pid=egh-001:1951:44#5)
('The Liassic of the Nief Gorge in East Seram'. In Nief Gorge very thin (60 cm) glauconitic limestone with Middle Liassic diverse brachiopods (Rhynchonella spp., Spririferina spp., Terebratula), cephalopods (Oxynoticeras, Phylloceras, Lytoceras, Dactylioceras, etc.), bivalves and gastropods (Pleurotomaria, etc.), overlying (Triassic?) massive oolitic limestone. Most species related to European Tethys faunas)

Wanner, J., H.C.G. Knipscheer & E. Schenk (1952)- Zur Kenntnis der Trias der Insel Seran (Indonesien). Eclogae Geologicae Helvetiae 45, 1, p. 53-84.
(online at: https://www.e-periodica.ch/digbib/view?pid=egh-001%3A1952%3A45%3A%3A65#65)
('On the knowledge of the Triassic of Seram'. Good documentation of NE Seram Late Triassic (Carnian- Norian) 'flysch', limestones and macrofossils. Carnian dominated by clays, marls, quartz sandstones with plant debris; Norian more platy limestones, marly limestones and calcareous sandstones. Upper Norian with lenses of massive

Lovcenipora- Halorella limestone. Lovcenipora coral limestones erroneously interpreted as Late Jurassic in age by Van der Sluis (1949) and Van Bemmelen (1949). Similar Upper Triassic limestones in C Seram, S Buru and Timor. Triassic macrofaunas dominated by Tethyan elements like Monotis salinaria, Halobia spp. and Juvavites. Triassic overlain by Jurassic- Cretaceous deep water marls and limestones. Rare loose fossil material suggests limited presence of E-M Jurassic. Upper Jurassic represented by marly calcareous shales with Aucella malayomaorica and Belemnopsis gerardi)

Weber, F. (1926)- Eindrapport omtrent het geologisch onderzoek en den vooruitzichten van Oost Ceram. BPM-Shell Report 96, 11p. *(Unpublished)*
('Final report on the geological survey and the prospectivity of East Seram'. Unpublished BPM report. Sediment series of E Seram starts with Upper Triassic; no older sediments present. Carnian-Norian flysch is poor in fossils. On S coast of Seram Triassic sequence is locally complete and includes~100m thick late Norian limestone, the base of which is bitumen-impregnated and has asphaltic joint fillings. In E part of S Mountains 300-400m thick oolitic limestone. E Seram folded/uplifted above sea level in E Eocene: in narrow strip N of the S mountains is pink coarse lime-sandstone with Eocene Nummulites and Alveolina, and Cretaceous is missing. Main folding-thrusting in Seram is towards end of Miocene)

Welter, O.A. (1923)- Bemerkungen uber die von Deninger gesammelten Ammoniten und Nautilidenreste von Seran. Palaeontographica, Supplement 4, III, 4, p. 245.
('Remarks on the ammonite and nautilid fossils collected by Deninger from Seram'. Appendix in Krumbeck (1923) Seram brachiopod/mollusc paper. Fragments of Upper Triassic ammonites (Choristoceras, Anatomites, Juvavites) and nautilids (Phoioceras) from C Seram resemble species known from Timor and of 'alpine' affinity)

Wichmann, C.E.A. (1898)- Der Wawani auf Amboina und seine angeblichen Ausbruche (parts 1-2). Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2), 15, p. 1-20 and p. 200-218.
(part 1 online at: https://www.e-rara.ch/zut/wihibe/content/titleinfo/29136524)
('The Wawani on Ambon and its reported eruptions, parts 1-2'. Historic records suggest eruptions of Wawani on Ambon in 1672, 1674, 1694, 1695, 1704, 1783,1797,1816,1820 and 1824. No figures)

Wichmann, C.E.A. (1899)- Der Wawani auf Amboina und seine angeblichen Ausbruche (part 3). Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap, Serie 2, 16, p. 109-142.
('The Wawani on Ambon and its reported eruptions, part 3'. Wawani mountain on Ambon with diabase and porphyric igneous rock, but is not a volcano. With one map of volcanoes of the Moluccas in part III)

Wilckens, O. (1937)- Korallen und Kalkschwamme aus dem obertriadischen Pharetronenkalk von Seran (Molukken). Beitrage zur Palaontologie des Ostindischen Archipels 14, Neues Jahrbuch Mineralogie Geologie Palaeontologie, Beilage Band B77, p. 171-211.
('Corals and calcareous sponges from the Upper Triassic Pharetronen-limestone of Seram'. Triassic corals and sponges of Seram and Timor have 'alpine' character. Includes new coral species Thecosmilia alfurica, Isastrea seranica, etc., and new calcareous sponge genera Deningeria, Seranella, Cryptocoelia. Flugel (2002, p. 420) suggested W Seram Late Triassic corals and sponges mostly endemic taxa or taxa known from Timor, but Martini et al. (2004) found no endemic fauna, only species of Tethyan affinity. Flugel also suggests close similarities with Timor Fatu Limestone)

Xi, Z., X. Hu, Y. Fang, X. Yin & H. Du (2016)- Tectonic evolution of North Seram Basin, Indonesia, and its control over hydrocarbon accumulation conditions. China Petroleum Exploration 21, 6, p. 1-8.
(online at: www.cped.cn/CN/item/downloadFile.jsp?filedisplay=20161230153808.pdf)
(N Seram Basin evolution interpreted as four stages: E Triassic initial rifting, M Triassic- M Jurassic rifting, Late Jurassic- M Miocene passive continental margin and Late Miocene-Quaternary thrusting of foreland foldbelt (Seram and Birds Head viewed here as part of same continental block; no subduction/collision; unlikely related, JTvG))

Yang, X., S.C. Singh & I. Deighton (2021)- The margin-oblique Kumawa strike-slip fault in the Banda Forearc, East Indonesia: structural deformation, tectonic origin and geohazard implication. Tectonics 40, 4, e2020TC006567, p. 1-23.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2020TC006567)
(Margin-oblique Seram-Kumawa Shear Zone greatly deformed N Banda forearc with 80 km displacement. It trends ~ WNW-ESE, from Kawa shear zone on Seram island to E offshore as Kumawa fault. KF is young (~2 Ma) fault zone, propagating SE and cross-cuts entire upper plate with prominent seafloor expression, but no seismicity. KF formed primarily by upper plate extension induced by subduction rollback. Slip rate reduced from average 40 mm/yr over 2 Myrs to <14 mm/yr at present; it is currently locked awaiting large earthquake)

Zillman, N.J. & R.J. Paten (1975)- Geology and petroleum prospects of Seram island, eastern Indonesia. Australian Petroleum Exploration Assoc. (APEA) Journal 15, p. 73-80.
(Two main Pliocene- E Pleistocene basins in N and NE Seram (Bula and Wahai) with up to 1400/ 2800m of sediment. Oil seeps common in Bula but not in Bahai basin. Bula field 1897 discovery in Pleistocene clastics; producing horizons ~80-280m below SL. Folded Pre-Tertiary rocks regarded as basement by BPM and AAR. Middle or Late Miocene folding preceded Early Pliocene renewed subsidence. Early Pleistocene uplift created rel. subtle regional unconformity.

Zillman, N.J. & R.J. Paten (1975)- Petroleum prospects, Bula Basin, Seram, Indonesia. Proc. 4th Annual Conv. Indonesian Petroleum Association (IPA), 2, p. 129-148.
(Plio-Pleistocene Bula Basin with Early Pleistocene unconformity. Bula field 1897 BPM discovery below surface oil seep in shallow Pleistocene sands, producing since 1913. Limited hydrocarbons and potential in Mesozoic Nief limestone)

Zulfiah, S.V. Aponno & E. Elly (2024)- Planktonic foraminifera biostratigraphy of Taeno Limestone, Ambon, Maluku Province, Indonesia. J. Geoscience Engineering Environment Technology (JGEET) 9, 4, p. 534-540.
(online at: https://journal.uir.ac.id/index.php/JGEET/article/view/15808/7441)
(Recently uplifted calcarenitic limestone near Ambon City with planktonic forminifera suggesting Pleistocene age (Globorotalia truncatulinoides zone; N21-N23). Quaternary reefal limestones on Ambon uplifted up to 500m above S.L.)

VII. BANDA SEA, LESSER SUNDA ISLANDS

VII.1. Banda Sea, East Banda Arc (incl. Tanimbar, Kai, Aru Islands)

Abimanyu, R., J. Bates, J. Boast et al. (1996)- Tanimbar Basin. In: Pertamina/BPPKA (ed.) Petroleum geology of Indonesian Basins, Jakarta, IX, p. 1-32.

Achdan, A. & T. Turkandi (1994)- Geologic map of the Kai and Tayandu Islands, Maluku, Quadrangle 2810, 2910, scale 1:250,000. Geological Research Development Centre Indonesia, Bandung.
(Second edition of 1982 map. Pre-Cambrian? metamorphic rocks on Kur and Fadol Islands (biotite schist and granitic gneiss). Oldest rocks on Kai Besar: gently folded (dips <35 °) (1a,b) 200m thick Yamtimur Fm marls with Middle Eocene planktonic foraminifera interfingering with 700m thick Eocene Elat Fm limestones with Lacazinella wichmanni, Discocyclina, Nummulites, Alveolina (= Tb); (2) unconformably overlain by Late Oligocene Tamingil Lst with Eulepidina, Spiroclypeus, etc (= Lower Te) .and E- M Miocene Meduar marls and limestones)

Agustiyanto, D.A, M. Suparman, E. Partoyo & D. Sukarna (1994)- Geological map of the Moa, Damar and Bandanaira sheets, Maluku, Quadrangles 2607, 2707, 2708, scale 1:250.000. Geological Research Development Centre (GRDC), Bandung.
(Geology of outer arc islands E of Timor: Kisar, Leti, Moa. Also active Banda Sea volcanoes Damar, Serua, Nila. South Leti with Permian sandstones; most of island Permian? metamorphics and ultrabasics)

Agustiyanto, D.A, M. Suparman, E. Partoyo & D. Sukarna (1994)- Geological map of the Babar sheet, Southeast Maluku, scale 1: 250 000. Geological Research Development Centre (GRDC), Bandung.
(Most of Babar island Mio-Pliocene melange with blocks of ?Permian metamorphics, Permo-Triassic limestone, Jurassic shales, ophiolite (equivalent of Bobonaro Complex of Timor). Also minor Jurassic shales with ammonites and belemnites) (equivalent of Wailuli Fm of Timor). Sermata Island with ?Permian metamorphic rocks only)

Baillie, P., P. Carter & P. Martinez Duran (2019)- Evolution and plays of the Banda Arc. AAPG Annual Convention Exhib., San Antonio 2019, Search and Discovery Article 11245, p. 1-28. *(Abstract+ Presentation)*
(online at: https://www.searchanddiscovery.com/pdfz/documents/2019/11245baillie/ndx_baillie.pdf.html)
(Brief review of petroleum potential of Banda Arc)

Baillie, P., M. Keep, P. Martinez Duran, E. Carrillo & G. Duval (2020)- Broadband seismic imaging around the Banda Arc: changes in the anatomy of offshore fold-and-thrust belts. In: J.A. Hammerstein et al. (eds.) Fold and thrust belts: structural style, evolution and exploration, Geological Society, London, Special Publ. 490, p. 351-360. *(online at: https://api.research-repository.uwa.edu.au/ws/files/273833438/Baillie_etal_2020_GSLSP_Banda_F_TB.pdf)*
(Regional seismic lines around Banda Sea. Deep and ultra-deep Banda Sea enclosed by magmatic inner arc and outer deformed zone of series of orogens. Outer orogenic zone comprises islands with extended- hyperextended continental crust, marginal foredeeps and intervening fold-thrust belts)

Bowin, C., G.M. Purdy, C. Johnston, G. Shor, L. Lawver, H.M.S. Hartono & P. Jezek (1980)- Arc-continent collision in Banda Sea region. American Assoc. Petroleum Geol. (AAPG) Bull. 64, 6, p. 868-915.
(online at: https://www.academia.edu/117406852/Arc_Continent_Collision_in_Banda_Sea_Region)
(Elaborate, key paper on E Indonesia tectonic history. The Banda Outer Arc of Timor, etc., contains fragments of Australian crust that probably rifted off in Jurassic time, collided with Sulawesi and split off and collided with Australian continental margin in last 3 My. Water depths of 5km and low heatflow values (1.1. HFU average) suggest ages of Banda Sea basins >60 Ma. Etc.)

Bowin, C. & C. Johnston (1981)- Arc-continent collision in Banda Sea region: reply. American Assoc. Petroleum Geol. (AAPG) Bull. 65, p. 867.
(Response to Crostella (1981). Reiterate they regard all Timor rocks N of Kolbano thrust belt as originally part of pre-collision Banda Arc outer arc ridge)

Brouwer, H.A. (1923)- Geologische onderzoekingen op de Tenimbar eilanden. Jaarboek Mijnwezen Nederlandsch Oost-Indie 50 (1921), Verhandelingen 2, p. 117-142.
('Geological investigations on the Tanimbar Islands')

Brouwer, H. (1923)- Bijdrage tot de geologie van Groot Kei en de kleine eilanden tussen Ceram en de Kei-eilanden. Jaarboek Mijnwezen Nederlandsch Oost-Indie 50 (1921), Verhandelingen 2, p. 143-168.
('*Contribution to the geology of Kai Besar and small islands between Ceram and the Kai islands'. Few new observations during reconnaissance trip in 1915. Steep east coast represents large normal fault. Incl. coarse Eocene calcareous sandstones on Kai Besar rich in worn Lacazinella wichmanni. Foraminifera in Brouwer samples identified in Paris by H. Douville (1923)*).

Brown, B.J., R.D. Muller, C. Gaina, H.I.M. Struckmeyer, H.M.J. Stagg & P.A. Symonds (2003)- Formation and evolution of Australian passive margins: implications for locating the boundary between continental and oceanic crust. Geological Society of America (GSA), Special Paper 372, p. 223-243.

Burhanuddin, S. (1994)- Geologie des bassins de la Mer de Banda (Indonesie). Ph.D. Thesis, Universite de Bretagne Occidentale, Brest, p. 1-197. *(Unpublished)*
('Geology of the Banda Sea basins'. Grab samples from North Banda Basin seafloor suggest crust of NE Banda Basin is oceanic to transitional, and is a Late Miocene backarc basin dated as 7-10 Ma. Exact age of South Banda Basin remains unknown. Triassic platform carbonate and island arc volcanics sampled from the N part of Banda Ridges. Volcanic arc remnants successively younger in S direction. Banda Sea domain currently under compression)

Burhanuddin, S., J.A. Malod, Ulva R., F. Hinschberger & Sultan (1999)- A new morphology and discovery of sea mount in the basin between Ambon and Buru islands: Result of Image IV Expedition. In: I. Busono & H. Alam (eds.) Developments in Indonesian tectonics and structural geology, Proc. 28th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 1, p. 43-49.
(online at: https://www.iagi.or.id/web/digital/63/4.pdf)
(New submarine volcano between Buru and Ambon in small, 4000m deep East Buru basin. Seamount water depth range from -3600m- -200m. Dredge samples andesitic volcanics. Part of Pliocene- Quaternary Ambelau-Ambon volcanic arc of Honthaas et al. 1998)

Burhanuddin, S., L. Sarmili, J.P. Rehault, J.A. Malod, R.C. Maury, H. Bellon, Y. Anantasena & Syaefuddin (1994)- Cekungan Laut Banda Utara (Indonesia Timur): suatu sketsa baru punggungan Tampomas dan batuan dasar samuderanya. Proc. 23rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 1, p. 509-519.
(online at: https://www.iagi.or.id/web/digital/62/41.pdf)
('The North Banda Sea Basin (E Indonesia): a new sketch of the Tampomas ridge and oceanic basement'. New bathymetric map confirms oceanic nature of North Banda Sea. Main morphological feature in N Banda Sea is NW-SE trending Tampomas Ridge, SW of Buru, interpreted as remnant strike-slip fault. Pillow lavas dredged from E flank indicate Late Miocene (9 ±3Ma) back-arc basin floor (cross-section looks like big rotated fault block with 2 sec of relief; JTvG))

Burollet, P.F. & C.L. Salle (1985)- Tectonic significance of the Banda Sea. Proc. 14th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 477-490.
(Geological reconnaissances in Kai and Tanimbar Archipelagoes show E-W succession of: (1) folded Paleogene-Miocene of Australian borderland and accretionary wedges; (2) Neogene basins with overpressured shales and mud volcanoes; (3) melange olistolites or nappes overthrusting part of Neogene basins; (4) Pre-Tertiary basement terranes in W part. Banda Sea represents extended internal sea)

Bursch, J.G. (1947)- Mikropalaontologische Untersuchungen des Tertiars von Gross Kei (Molukken). Inaugural-Dissertation Universitat Basel, Schweizerische Palaontologische Abhandlungen, 65, 3, p. 1-69.
('Micropaleontological investigations of the Tertiary of Kai Besar'. Classic report with well-illustrated descriptions of larger foraminifera from Late Eocene- E Oligocene and E Miocene limestones, along E and SE coasts of Kai Besar: (1) Eocene with Discocyclina spp., Nummulites, Lacazina wichmanni and L. reicheli (should

be Lacazinella; JTvG) and large, thin Heterostegina (but no Pellatispira); (2) E Oligocene with Nummulites fichteli- intermedius, Halkyardia minima, Neoalveolina and Gypsina; (3) E Miocene ('Aquitanian'; Upper Te) rich in Lepidocyclina spp. (incl. large Eulepidina; JTvG), Spiroclypeus, (Austro)Trillina howchini, etc, but, remarkably, no miogypsinids). Samples collected by Swiss BPM geologist F. Weber in 1922-1923; now stored in Naturhistorisches Museum in Basel, Switzerland. (Earlier reports on Kai Besar larger foraminifera by K. Martin (1890), R. Verbeek (1908), L. Rutten and H. Douville (1923)))

Callomon, J.H. & G. Rose (2000)- Middle Jurassic ammonites from the island of Babar in the southern Moluccan forearc, Indonesia. Revue de Paleobiologie, Geneve, Special Volume 8, p. 53-64.
(M Jurassic ammonites from outcrops on Babar. Fauna dominated by Satoceras satoi (=Macrocephalites group), a bioprovincially Austral sphaeroceratid genus, unknown in W Tethys, but characterizes Late Bajocian- Early Callovian, and known also from Sula and W Irian Jaya)

Charlton, T.R., M.E.M. de Smet, H. Samodra & S.J. Kaye (1991)- The stratigraphic and structural evolution of the Tanimbar islands, eastern Indonesia. J. Southeast Asian Earth Sciences 6, 3-4, p. 343-358.
(Stratigraphy of Tanimbar islands comparable to other Banda forearc islands like Timor, with Australian continental margin sequences added to forearc/collision complex by accretionary processes. Oldest rocks M-Late Triassic sandstones and E-M Jurassic grey shales, found only in ejecta of mud volcanoes. Oldest rocks in normal outcrop is Ungar Fm sandstone of probable Late Jurassic-E Cretaceous age. Major unconformity cut out Late Cretaceous-Paleogene. Miocene siliciclastic Tangustabun Fm and succeeding carbonate clastic Batimafudi Fm deformed in Pliocene, and unconformably overlain by E Pleistocene-Recent post-orogenic sediments. Structurally Tanimbar comparable to W Timor)

Charlton, T.R., M.E.M. de Smet, H. Samodra & S.J. Kaye (1991)- Stratigrafi dan perkembangan struktur di Kepulauan Tanimbar, Indonesia Timur. Bull. Geological Research Development Centre (GRDC), Bandung, 16, p. 45-69.
(Bahasa Indonesia version of above paper)

Charlton, T.R., S.J. Kaye, H. Samodra & Sardjono (1991)- Geology of the Kai Islands: implications for the evolution of the Aru Trough and Weber Basin, Banda Arc, Indonesia. Marine and Petroleum Geology 8, 1, p. 62-69.
(E Kai islands dominated by normal faults, downthrowing to Aru Trough, with no sign of earlier compressive forearc deformation. Oldest exposed rocks on Kai Besar M-U Eocene Elat Fm, interpreted as pelagic-hemipelagic carbonates deposited on distal Australian continental slope. Aru Trough extensional feature, in direct bathymetric continuity with compressional Timor-Tanimbar Trough. Banda Arc thrust front steps W-ward as result of extension in Aru Trough. Thrust front runs N-S through Kai group, separating inactive accretionary complex to W from active extension in E. Weber Basin results from E-W extension, with pre-existing thrust faults probably reactivated in extensional regime as low-angle normal faults. Both compressional and extensional deformation since Pliocene)

Charlton, T.R., S.J. Kaye, H. Samodra & Sardjono (1991)- Geologi kepulauan Kai dan implikasinya terhadap perkembangan Palung Aru dan Cekungan Weber, Indonesia Timur. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 3, 18, p. 2-11.
(' Geology of the Kai Archipelago and its implications for the development of the Aru Trench and Weber Basin, Eastern Indonesia'. Bahasa Indonesia version of Charlton et al. (1991) paper, above)

Cornee, J.J., J. Butterlin, P. Saint-Marc, J.P. Rehault, C. Honthaas et al. (1998)- An Early Miocene reefal platform in the Rama Ridge (Banda Sea, Indonesia). Geo-Marine Letters 18, p. 34-39.
(Early Miocene reefal carbonate with Lepidocyclina (N) dredged from Rama Ridge, indicating Banda Sea ridges were present in Early Miocene, with major tectonic subsidence between M Miocene and E Pliocene. (Age assignment may be questioned; could also be Late Oligocene or Middle-Late Miocene; JTvG))

Cornee, J.J., M. Villeneuve, M. Ferrandini, F. Hinschberger et al. (2002)- Oligocene reefal deposits in the Pisang Ridge and the origin of the Lucipara Block (Banda Sea, Eastern Indonesia). Geo-Mar Letters 22, p. 66-74.

(M-L Oligocene reefal deposits with Pararotalia mecatepecensis and pelagic E Pliocene muds dredged from Pisang Ridge in Banda Sea, confirming it is part of continental/ continental arc Lucipara Block (incl. Tukang Besi, Lucipara and Rama ridges). Lucipara Block drifted from N Irian Jaya in M Miocene and collided with Kolonodale Block in Late Miocene. A late Early Oligocene volcanic arc developed in Weber Trough area, then uplifted to shallow-water position at Early-Late Oligocene boundary in Pisang Ridge. Late Oligocene- E Miocene metamorphism subsequently developed, prior to deposition of E Miocene coral reefs in Rama Ridge. Locally, Late Miocene metamorphism identified in Lucipara Ridge, prior to latest Miocene-Pliocene drowning and splitting of Lucipara Block into several small blocks throughout Banda Sea region)

Cornee, J., M. Villeneuve, J.P. Rehault, J. Malod, J. Butterlin, P. Saint-Marc, G. Tronchetti et al. (1997)- Stratigraphic succession of the Australian margin between Kai and Aru islands (Arafura Sea, eastern Indonesia), interpreted from Banda Sea II cruise dredge samples. J. Asian Earth Sciences 15, 4-5, p. 423-434.
(Dredges in Aru Trough E of Kai Besar recovered fairly complete Australian margin section, 3000-4000m thick, from ?Carboniferous- Permian to Jurassic- Miocene. Displaced Eocene carbonate with Lacazinella)

Cox, L.R. (1924)- Some Late Kainozoic pelecypoda from the Aru Islands. Geological Magazine 61, 2, p. 56-63.
(Brief descriptions of ?Mio-Pliocene pelecypods, incl. Ostrea, Pecten spp., Clementia, etc.)

Cummins, P.R., I.R. Pranantyo, J.M. Pownall, J.D. Griffin, I. Meilano & S. Zhao (2020)- Earthquakes and tsunamis caused by low-angle normal faulting in the Banda Sea, Indonesia. Nature Geoscience 13, p. 312-318.
(manuscript online at: https://helda.helsinki.fi/bitstream/10138/327490/1/CumminsEtal_NatGeo_final.pdf)
(Past destructive earthquakes in Banda Sea not caused by supposed megathrust of Banda outer arc, but due to vast submarine normal fault system recently discovered along Banda inner arc. Tsunamis likely caused by earthquake-triggered submarine slumping along fault's massive scarp, the Weber Deep)

Currie, E.D. (1924)- On fossil Echinoidea from the Aru Islands. Geological Magazine 61, 2, p. 63-72.
(Brief descriptions of small collection of ?Mio-Pliocene echinoids from limestones and sandy limestones of Aru Islands. Believed to be of probable Pliocene age)

De Marez Oyens, F.A.H. Weckherlin (1913)- De geologie van het eiland Babber. Handelingen XIVe Nederlandsch Natuur- Geneeskundig Congres, Delft 1913, p. 463-468.
(online, read only at: http://babel.hathitrust.org/cgi/pt?id=uc1.b3093404;view=1up;seq=999)
('The geology of the island Babar'. Brief review. Rocks-fossils similar to Timor: Permian pink crinoidal limestone and marl (100m tall 'fatu' in middle course of Jer Lawi river, believed to be part of nappe over Triassic-Jurassic sediments), Triassic sandstones-claystones with Daonella, Jurassic marls rich in ammonites and molluscs (Arietes, Phylloceras, Stephanoceras, Lytoceras, Posidonia; Liassic- Callovian; Wanner 1931). Sandstones with plant remains, mica-bearing and probably Triassic. Associated with volcanics (diabase). Complex thrust structural style similar to nearby Timor. Left bank of Jer Lawang river composed of serpentinized peridotite. Distinct young coral limestone terraces at 150, 210, 260, 550, 615 and 650m, highest in NE. No figures)

De Smet, M.E.M., A.R. Fortuin, S. Tjokrosapoetro & J.E. van Hinte (1989)- Late Cenozoic vertical movements of non-volcanic islands in the Banda Arc area. In: J.E. van Hinte et al. (eds.) Proc. Snellius II Symposium, Jakarta 1987, Netherlands J. of Sea Research 24, 2-3, p. 263-275.
(Late Cenozoic sections on non-volcanic outer arc islands Timor, Buton, Buru, Seram and Kai suggest vertical movements were intermittent and differed widely in arc. Short periods of uplift alternated with longer periods of tectonic rest or subsidence. Deformation has character of tilting or doming of whole islands or parts of islands)

De Smet, M.E.M., T.R. Charlton, S.J. Kaye, S.R. Troelstra & L.J. Van Marle (1989)- Late Cenozoic history of the island of Yamdena, Tanimbar archipelago, eastern Indonesia. In: L.J. van Marle (1989) Benthic foraminifera from the Banda Arc region, Indonesia, and their paleobathymetric significance for geologic interpretations of the Late Cenozoic sedimentary record, Free University Press, Amsterdam, p. 145-162.
(Yamdena mostly folded Miocene slope sediments, with large amounts of reworked Late Cretaceous, Paleogene and Early Miocene fauna. Angular unconformity between Late Miocene and Pleistocene records Pliocene folding

and uplift event. Mud volcanoes along Yamdena Strait common ferro-manganese nodules, ?Triassic sst, ?Cretaceous calcilutite, serpentinite, metabasites)

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('On the Lepidocyclinas from a limestone from Kai Besar island'. Description of 'Aquitanian' Lepidocyclina (Eulepidina) from Tamangil, Kai Besar, collected by Verbeek in 1899(?))

Dwiyanto, B. (1985)- Marine geology and geophysics of the Northern Banda Sea. M.Sc. Thesis University College London, p. 1-94. *(Unpublished)*

Fakhruddin, R. (2019)- Facies associations of Early Cretaceous Arumit Formation and Early to Late Cretaceous Ungar Formation in Vulmali and Ungar Islands, Tanimbar (Indonesia). Indonesian J. on Geoscience (IJOG) 6, 2, p. 185-208.
(online at: http://ijog.bgl.esdm.go.id/index.php/IJOG/article/view/527/286)
(Cretaceous sediments in Tanimbar area. E Cretaceous Arumit Fm progradational open-coast tidal flat depositional environment. Mid- to Late Cretaceous Ungar Fm in open-coast wave dominated environment)

Fakhruddin, R. (2020)- Pre-Tertiary stratigraphy of the Tanimbar Islands, Indonesia.Proc. 2nd Int. Conf. Earth Science Mineral and Energy, Yogyakarta (ICEMINE 2019), AIP Conference Proceedings 2245, 070008, p. 1-11.
(Outcrops of Pretertiary in Tanimbar islands rel. rare and mainly on small outer islands W of Yamdena: (1) Wotar Fm Late Triassic (Carnian-Norian) limestone, sandstone, claystone; (2) Selu Fm E-M Jurassic (Hettangian-Bajocian) marine sandstone and claystone; (3) Arumit Fm E Cretaceous (Berriasian-Barremian) tidal red and brown claystone and siltstone, and (4) Ungar Fm Cretaceous (Aptian-Santonian) coastal sandstone. M-U Jurassic not found in outcrop, but in mud volcanoes (Babar, Mitak islands) with clay matrix rich in M-U Jurassic palynomorphs)

Fisher, T.M.L. (2014)- The 1852 Banda Arc mega-thrust earthquake and tsunami in Indonesia M.Sc. Thesis, Brigham Young University, Utah, p. 1-41.
(online at: https://scholarsarchive.byu.edu/etd/5674)
(1852 Banda Arc Mega Thrust earthquake and tsunami hit Banda Arc region, causing uplift of new islands and sent tsunami across Banda Sea that reached height of 8 m at Banda Neira. Earthquake most likely mega-thrust event along Tanimbar Trough)

Fisher, T.M.L. & R.A. Harris (2016)- Reconstruction of 1852 Banda Arc megathrust earthquake and tsunami. Natural Hazards 83, p. 667-689 . *(online at: https://geology.byu.edu/0000017e-60a5-da2e-ad7f-77e74d350001/2016-fisher-and-harris-1852-eq-and-tsunami-pdf)*
(Summary of 2014 thesis, above))

Fitriannur, M.R. (2015)- New insights into the development of the Timor- Tanimbar Trough based on 3D seismic data. Proc. SE Asia Petroleum Exploration Society (SEAPEX) Conference, Singapore 2015, 4.3, p. 1-6. *(Extended Abstract)*
(Seismic interpretation of BP West Aru I-II PSC blocks, NE of Tanimbar. Australia- Indonesia collision in Miocene heralded onset of Neogene transpressions, local uplift and flexural extension. Sedimentary cover forming accretionary wedge uplifted and exposed in Timor during collision and fore-deep known as Timor-Tanimbar Trough developed)

Fitriannur, M.R. (2017)- A future play in a frontier area: deltaic systems of the Late Cretaceous play in the West Aru area at the Indonesia-Australia continental margin. Proc. 41st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA17-106-G, p. 1-15.
(Late Cretaceous (Campanian-Maastrichtian) progradational package in Barakan-Tanimbar (W Aru) margin. Late Cretaceous ('Ekmai') delta top sands without hydrocarbons penetrated by Barakan-1 and Koba-1 wells. Potential new hydrocarbon play)

Granath, J.W., J.M. Christ, P.A. Emmet & M.G. Dinkelman (2010)- Insights into the tectonics of Eastern Indonesia from ArafuraSPAN, a long-offset long-record 2D seismic reflection dataset. Proc. 34th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA10-G-063, p. 1-9. *(online at: https://www.researchgate.net/publication/299548808_INSIGHTS_INTO_THE_TECTONICS_OF_EASTERN_INDONESIA_FROM_ARAFURASPAN_A_LONG-OFFSET_LONG-RECORD_2D_SEISMIC_RE Etc.))*
(Examples of deep seismic images in Seram- Aru Trough- Arafura shelf- Bonaparte Basin. Seram thrust believed to initiate with obduction of ophiolites in hinterland at ~9 Ma and frontal deformation continues today with interaction of thrust front with young Tarera-Aiduna left-lateral fault system. Seram thrust wedge detached above Cretaceous. Timing of extension in Aru Trough Late Pliocene-Quaternary. Weber Deep large normal offset on edge of shelf cross-cutting Banda accretionary prism, with young oceanic crust in deepest parts)

Gregory, J.W. (1923)- The Banda Arc: its structure and geographical relations. The Geographical Journal 62, p. 20-30.
(Early overview of geology of Banda island, including description of Kai Besar, Aru Islands)

Gregory, J.W., L.R. Cox & E.D. Currie (1924)- The geology of the Aru Islands. Geological Magazine 61, p. 52-72.
(Aru Archipelago group of some eighty low islands, probably extension of SW New Guinea. According to Verbeek (1908) consist of almost horizontal limestone plateau, broken by uplift into more than 80 pieces. Probably with core of Mio-Pliocene? limestone with quartz sand)

Hadiwisastra, S. (1995)- Revisi umur Formasi Batilembuti, Tanimbar, Maluku: implikasi umur dan biostratigrafi nannoplangton. J. RISET Geologi dan Pertambangan (LIPI) 1, 1, p. 12-19.
(online at: http://pustaka.geotek.lipi.go.id/wp-content/uploads/2016/02/Riset-Vol.1-No.1-1995-.pdf)
('Revision of the age of the Batilembuti Formation, Tanimbar, Moluccas: implications for age and nannoplankton biostratigraphy'. Upper Tertiary calcarenites-shales of Batilembuti Fm of Yamdena Island with E Pliocene NN14-NN15 nannofossils)

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Harris, R.A. (1992)- Peri-collisional extension and the formation of Oman-type ophiolites in the Banda Arc and Brooks range. In: L.M. Parsons et al. (eds.) Ophiolites and their modern oceanic analogues, Geological Society, London, Special Publ. 60, p. 301-325.
(Banda orogen ophiolites internal structure shows extensional strains. High-T metamorphic sole with continental protoliths locally preserved. Savu and Weber basins provided modern analogues of peri-collional extension processes, which open small ocean basins that may be obducted shortly after they form)

Hartono, H.M.S. (1990)- Terbentuknya busur volkanik Banda. Geologi Indonesia 13, 2, p. 105-112.
('Formation of the Banda volcanic arc')

Hartono, H.M.S. (1996)- Initial development of the Banda volcanic arc. In: G.P. & A.C. Salisbury (eds.) Trans. 5th Circum-Pacific Energy and Mineral Resources Conference, Honolulu 1990, Gulf Publishing, Houston, p. 155-161.
(Oldest age of E Sunda magmatic arc is 19 ± 2 Ma, (E Miocene) from Flores (FT dating of zircons of andesites by Nishimura et al. 1979). Minimum age for initiation of Banda Arc volcanism is age of Metan Volcanics of Timor, Eocene, 39-56 Ma (but questionable if these are part of Banda Arc?; most other ages latest Miocene and younger; JTvG))

Hartono, H.M.S., C.S. Hutchison, S. Tjokrosapoetro & B. Dwiyanto (1991)- Studies in East Asian Tectonics and Resources (SEATAR) Crustal Transect 4- Banda Sea. Committee for Co-ordination of Joint Prospecting for Mineral Resources in Asian Offshore Areas (CCOP) and IOC, p. 1-30.

Hartono, H.M.S. & M. Istidjab (1976)- Preliminary report: geochemical analyses of volcanic rocks of the Banda island arc volcanos and its regional implications. Proc. 13th Session Session Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Kuala Lumpur, p. 345-364.

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(online at: https://www.degruyterbrill.com/document/doi/10.1515/geo-2022-0710/pdf)
(Analysis of earthquakes in and around Banda Sea. August 29, 2023, M7+ earthquake in S Banda Sea at 512 km depth, linked to high-velocity anomaly, possibly due to ancient subduction processes)

Heim, A. (1939)- Geological reconnaissance report on the Tanimbar, Kai and Aroe islands, N.E.I.. Geological Survey Indonesia (GSI/GRDC), Bandung, Open File Report H39-01, p. 1-75. *(Unpublished)*
(Unpublished, but commonly used oil company field survey report by Swiss geologist Arnold Heim Jr, under contract with the Nederlandse Koloniale Petroleum Maatschappij (NKPM/Stanvac). Apparently a follow-up of the F. Weber BPM survey, to which Heim apparently had access (Heim, 1942). Most of the Cenozoic formation names that are currently in use for the Kai, etc., islands were first defined here by Heim)

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(online at: http://retro.seals.ch/cntmng?type=pdf&rid=egh-001:1942:35::400&subp=hires)
('Active diapirs (mud volcanoes) in the SE Moluccas'. Tanimbar and Kei islands contain active diapirs/mud volcanoes, which Arnold Heim visited in 1939 during his NKPM field survey. About 30 young diapirs identified on Tanimbar islands. With brief descriptions of geologic setting)

Hinschberger, F., J.A. Malod, J. Dyment, C. Honthaas, J.P. Rehault & S. Burhanuddin (2001)- Magnetic lineations constraints for the back-arc opening of the Late Neogene South Banda Basin (Eastern Indonesia). Tectonophysics 333, p. 47-59.
(online at: https://www.ipgp.fr/~jdy/Publis/Hinsberger_TcPhys_01_Banda.pdf)
(New analysis of magnetic lineations E part of S Banda (Damar) Basin infers opening in Late Miocene- E Pliocene, 6.5- 3.5 Ma. Cessation of spreading probably arc-continent collision at ~3 Ma. Damar basin began as intra-arc basin, separating Banda arc in S from incipient Lucipara arc to N)

Hinschberger, F., J.A. Malod, J.P. Rehault, J. Dyment, C. Honthaas, M. Villeneuve & S. Burhanudin (2000)- Origine et evolution du bassin Nord-Banda (Indonesie): apport des donnees magnetiques. Comptes Rendus Academie Sciences, Paris, Earth Planetary Science 331, 7, p. 507-514.
(online at: http://www.ipgp.fr/~jdy/Publis/Hinsberger_CRAS_00.pdf)
(N Banda Sea Basin opened in Late Miocene in back arc setting. Magnetic, bathymetric data and radiometric dates from seafloor dredges used to reconstruct basin evolution. Sea floor spreading occurred from 12.5- 7.15 Ma directed by three large NW-SE transform faults, West Buru, Tampomas and Hamilton fracture zones)

Hinschberger, F., J.A. Malod, J.P. Rehault & S. Burhanuddin (2003)- Apport de la bathymetrie et de la geomorphologie a la geodynamique des mers de l'Est-Indonesien. Bull. Societe Geologique France 174, 6, p. 545-560.
(online at: http://documents.irevues.inist.fr/bitstream/handle/2042/283/019-034.pdf?sequence=1)
(N and S Banda Seas and Weber Trough formed in Neogene by back-arc spreading and slab roll-back. Magnetic anomalies define ages of 12.5- 7.1 Ma for N Banda Basin and 6.5- 3.5 Ma for S Banda Basin. Weber Trough >7300m deep, remains enigmatic. N Banda Basin SE rifted margin morphology preserved along Sinta Ridges. Basin presently in compression and crust subducted W under E Sulawesi. N border N Banda Basin reactivated into sinistral transcurrent motion in S Sula Fracture Zone. S Banda Sea two parts (Wetar, Damar), separated by NNW-SSE volcanic Gunung Api Ridge, interpreted as sinistral strike-slip zone. Dredging of Triassic limestones and metamorphic basement suggests Sinta and Rama Ridges are continental block fragments. Banda Ridges fringed to S by Nieuwerkerk- Emperor of China- Lucipara volcanic chains with andesites and basalts of

8- 3.5 Ma. New volcanic seamount SE of Buru and volcano on Pisang Ridge with sub-aerial volcanic morphology and subsidence evidenced by reefal limestones on flank, now at ~3000m depth. Basement depths ~1000m below age-depth curve for back-arc basins and ~2000m below curve for oceanic crust. Except for one M Eocene (46-Ma) N-MORB type basalt (from ophiolitic complex?), Basalts-andesites dredged from Banda Sea ridges of Neogene ages (Tukang Besi ~10 Ma, Nieuwerkerk- Emperor of China 8-7 Ma, Lucipara 7-3 Ma). Lucipara- Nieuwerkerk- Emperor of China and Wetar segment of Banda Arc were part of single volcanic arc at 8-7 Ma, with subduction of Indian Ocean continental crust below continental blocks of Australian origin, followed by back-arc rifting/ spreading. End of magmatic activity at 3 Ma result of collision of Timor with Wetar segment of Sunda arc)

Honthaas, C., J.P. Rehault, R.C. Maury, H. Bellon, C. Hemond, J.A. Malod, J.J. Cornee, M. Villeneuve et al. (1998)- A Neogene back-arc origin for the Banda Sea basins: geochemical and geochronological constraints from the Banda ridges (East Indonesia). Tectonophysics 298, p. 297-317. *(online at: https://www.academia.edu/9537131/A_Neogene_back_arc_origin_for_the_Banda_Sea_basins_geochemical_and_geochronological_constraints_from_the_Banda_ridges_East_Indonesia)*
(Except for one M Eocene (46-Ma) N-MORB type basalt (thought to belong to ophiolitic complex), volcanics dredged from Banda Sea ridges all of Neogene age: ~10 Ma for Tukang Besi back-arc basalts, 8-7 Ma for Nieuwerkerk–Emperor of China calc-alkaline andesites and 7-3 Ma for Lucipara OIB-type transitional basalts and cordierite-bearing andesites. Isotope signatures suggest assimilation of continental crust. Lucipara-Nieuwerkerk- Emperor of China Ridges and Wetar segment of Banda Arc parts of single volcanic arc at 8-7 Ma, with subduction of Indian Ocean continental crust below continental blocks of Australian origin, followed by back-arc rifting/ spreading. End of magmatic activity on both volcanic segments at 3 Ma thought to result from collision of Timor with Wetar segment of Sunda arc)

Honthaas, C., M. Villeneuve, J.P. Rehault, H. Bellon, J.J. Cornee et al. (1997)- Kur island: geology of the Eastern flank of the Weber Trough (Eastern Indonesia). Comptes Rendus Academie Sciences, Paris 325, 11, p. 883-890. *(online at: https://www.researchgate.net/publication/263681223_Kur_island_Geology_of_the_Eastern_flank_of_the_Weber_trough_Eastern_Indonesia)*
(Data from Kur Island and nearby dredgings show unknown events on E margin of Weber basin: (1) E Oligocene magmatic arc; (2) E Miocene metamorphism event between 24-17 Ma; and (3) E Pliocene deformation, related to Australian plate- Banda arc collision. Weber Basin was created in Pleistocene with uplift of E margin)

Huang, Y.S., T.Q. Lee, S.K. Hsu & T.N. Yang (2009)- Paleomagnetic field variation with strong negative inclination during the Brunhes chron at the Banda Sea, equatorial southwestern Pacific. Physics Earth Planetary Interiors 173, p. 162-170.
(Analysis of paleomagnetic variation of last 820 kyr in core from Banda Sea)

Hukubun, C., Abdurrokhim, Y.A. Sendjaja & W.G. Hukubun (2022)- Litofacies and depositional environment in the Elat Formation, Kei Besar District, Southeast Maluku Regency, Maluku. J. Geologi Kelautan (JGK), 20, 1, p. 42-55
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/download/759/552) ('could not be reached')
('Lithofacies and depositional environment in the Elat Formation, Kei Besar District, Southeast Maluku Regency'. Based on Padjadjaran University students S2 thesis work? Eocene Elat Fm on Kai Besar composed of interbedded turbiditic fining-upward calcarenites and shales, with slump deposits, etc.)

Hutchison, C.S. (1977)- Banda Sea volcanic arc: some comments on the Rb, Sr and cordierite contents. Warta Geologi (Newsletter Geological Society Malaysia) 3, 2, p. 27-35.
(online at: https://gsmpubl.files.wordpress.com/2014/09/ngsm1977002.pdf)
(Unusually high Rb/Sr ratios in volcanic rocks and cordierite in rhyolite at Tanjong Illipoi (Wetar) indicate strong continental crustal influence in source of volcanic rocks. Romang also with higher Rb/Sr ratios than active volcanic arc. Wetar different from other islands of Banda Arc because of abundant light grey rhyolite and dacite. This extinct, eroded and uplifted portion of Banda volcanic arc N of Timor affected by subducted Australian continental Plate. Cordierite in rocks of Ambon also imply continental crustal basement in N part of Banda Arc)

Hutchison, C.S. & P.A. Jezek (1978)- Banda Arc of eastern Indonesia: petrography, mineralogy and chemistry of the volcanic rocks. In: P. Nutalya (ed.) Proc. 3rd Regional Conference Geology and Mineral Resources of SE Asia (GEOSEA III), Bangkok, Asian Institute of Technology, p. 607-619.
(Four distinct volcanic rock series in Neogene Banda arc: High-K alkaline andesites (Gunung Api, Damar, etc.), calcalkaline andesites (Serua, Manuk), tholeitic basalts (Ambon, Banda Neira, Kelang), cordierite-bearing dacites and rhyolites (Ambon))

Irwansyah & Panuju (2012)- Integrated microfossil analysis of Pre-Tertiary sediments in the Bubuan Island, Tanimbar, Maluku. Proc. 41st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2012-SS-26, 1p. *(Abstract only)*
(In Indonesian. Biostratigraphy analysis of outcrop samples of Pre-Tertiary sediments from mud volcano deposits on Bubuan island, Tanimbar group, shows Late Triassic (with early nannofossils Obliquipithonella prasina and Cassianospica), Jurassic and Late Cretaceous ages)

Jacobson, R.S., L.A. Lawver, K. Becker & G.G. Shor (1977)- Anomalously uniform heat flow in the Banda Sea. EOS, Transactions American Geophysical Union (AGU) 58, p. 515. *(Abstract)*

Jacobson, R.S., G.G. Shor, R.M. Kieckhefer & G.M. Purdy (1979)- Seismic refraction and reflection studies in the Timor-Aru Trough system and Australian continental shelf. In: J.S. Watkins et al. (eds.) Geological and geophysical investigations of continental margins, American Assoc. Petroleum Geol. (AAPG), Memoir 29, p. 209-222.
(Timor-Tanimbar-Aru Trough system of Banda Sea not deeper than 3.6 km, and is E extension of Java Trench. Seismic profiles strongly suggest it is surface trace of subduction zone, with downwarping of continental crust into subduction zone)

Jasin, Basir & N. Haile (1996)- Uppermost Jurassic- Lower Cretaceous radiolarian chert from the Tanimbar Islands (Banda Arc), Indonesia. J. Southeast Asian Earth Sciences 14, p. 91-100.
(Two radiolarian assemblages from deep marine cherts on Ungar Island: (1) Upper Tithonian- Berriasian Archaeodictyomitra apiara Assemblage, with mixture of Tethyan and non-Tethyan species (incl. Archaeodictyomitra brouweri A Tan, Pantanellium lanceola, Cyrtocapsa, etc.)) and (2) Late Valanginian-Barremian (Cerops septemporatus assemblage) (= similar to Argo Abyssal Plain assemblages decribed by Baumgartner 1993?; JTvG))

Jiang, C., P. Zhang, M.C.A. White, R. Pickle & M.S. Miller (2022)- A detailed earthquake catalog for Banda Arc-Australian plate collision zone using machine learning phase picker and an automated workflow. The Seismic Record 2, 1, p. 1-10. *(online at: https://pubs.geoscienceworld.org/ssa/tsr/article/2/1/1/610661/A-Detailed-Earthquake-Catalog-for-Banda-Arc)*
(New catalog of earthquake hypocenters and magnitudes from 5 years of seismic data monitoring (in Timor Leste?) with detection and location of ~19,000 events during 2014-2018. Reveals complex pattern of crustal events across collision zone and into back-arc, as well as abundant deep slab seismicity)

Jongsma, D., T. Sumantri, A.J. Barber, W. Huson, J.M. Woodside & S. Suparka (1989)- Bathymetry and geophysics of the Snellius-II triple junction and tentative seismic stratigraphy and neotectonics of the northern Aru Trough. Proc. Snellius II Symposium, Jakarta 1987, Netherlands J. of Sea Research 24, 2-3, p. 231-250.

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(Three marine geophysical regional transects across Banda Arc- Australian continent collision zone, East of Timor, North of Tanimbar and SE of Seram)

Karta, K. (1985)- Etude geodynamique de la mer de Banda (Indonesie) par interpretation des donnees magnetiques et gravimetriques. These Docteur-Ingenieur, Universite Bretagne Occidentale, p. *(Unpublished)*
('Study of geodynamics of Banda Sea by interpretation of magnetic and gravity data')

Karta, K. (1986)- Penentuan umur kerak samudera di Laut Banda dengan metode kontaminasi anomali magnetik pada kecepatan ekspansi yang rendah. Proc. 14th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta 1985, p. 35-47.
('Determination of the age of oceanic crust in the Banda Sea from magnetic anomaly contamination at low expansion speeds'. Age of Banda Sea oceanic crust Lower- Upper Cretaceous, 140-100 Ma (age no longer accepted; should be Late Neogene; JTvG)))

Koesoemadinata, R.P., Humbarsono & B. Riyanto (1983)- Sekitar munculnya pulau baru di Kepulauan Kai, busur kepulauan Banda. Proc. 12th Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, p. 53-59.
(online at: https://www.iagi.or.id/web/digital/37/PIT-1983-Paper-7.pdf)
('The emergence of a new island in the Kai islands', Banda arc'. On 19 November 1983, a new island appeared near Tayundu island, W of Kai Besar Island, Banda Sea, proved to be mud volcano/ diapyr with blocks of bedrock. Deposits resemble olistostrome deposit. Similar features known from other parts of the Banda Arc)

Kuncoro, D., Y. Asnawi, Y. Halauwet, A. Simanjuntak & A. Susilo (2024)- Seismotectonic analysis of Mw 7.6 2023 South Molucca intermediate depth earthquake. Int. J. of Geomate (Japan) 27, 120, p. 9-16.
(online at: https://geomatejournal.com/geomate/article/view/4117/3452)
(Analysis of 10 Jan. 2023 intermediate depth earthquake of Banda Arc subduction zone. Main shock resolved with NW-SE thrust fault, steeply dipping to SW, with magnitude of ~Mw 7.6, at depth of ~34-37 km)

Kurniasih, A., N. Qadaryati & R. Setyawan (2019)- Surface geological investigation as the initial stage of hydrocarbon exploration in Kei Besar Island, Southern Maluku. Proc. Int. Conference on Geoscience, Makassar 2018, IOP Conference Series: Earth and Environmental Science, 279, 012018, p. 1-8.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/279/1/012018/pdf)
(Summary of UNDIP student fieldwork on Kai island)

Kurnio, H., T. Naibaho & C. Purwanto (2019)- Review of submarine landslides in the Eastern Indonesia region. Bulletin of the Marine Geology 34, 2, p. 63-76. *(online at: https://media.neliti.com/media/publications/381622-review-of-submarine-landslides-in-the-ea-1582f56f.pdf)*
(Blocky slide and slump deposits were observed around Kei islands and in Seram Sea, S of Birds Head, Papua. Blocky slides may trigger giant landslides that may affect seafloor infrastructure and trigger tsunamis)

Lapouille, A., H. Haryono, M. La Rue, S. Pramumijoyo & M. Lardy (1985)- Age and origin of the seafloor of the Banda Sea (eastern Indonesia). Oceanologica Acta 8, 4, p. 379-389.
(online at: https://archimer.ifremer.fr/doc/00112/22285/19960.pdf)
(Magnetic anomalies of Banda Sea oceanic crust tied to Cretaceous, suggesting plate is piece of trapped Indian Ocean floor crust. (More recent work suggests Miocene age of Banda Sea hyperextended oceanic crust; JTvG))

Lee, C.S. & R. McCabe (1986)- The Banda-Celebes-Sulu Basin: a trapped piece of Cretaceous-Eocene oceanic crust? Nature 322, 6074, p. 51-54.
(Banda, Celebes and Sulu basins poorly understood marginal seas. Banda basin possibly trapped oceanic basin once continuous with Late Jurassic Argo abyssal plain. Celebes and Sulu basins also underlain by oceanic crust. Celebes and Sulu Seas may have been continuous with Banda basin. (NB: most of suggested Cretaceous ages proven wrong by subsequent ODP wells, dredge results, etc.; Hutchison 1992, etc.))

Leybourne, B.A. & N.B. Adams (1999)- Modeling mantle dynamics in the Banda Sea triple junction:exploring a possible link to El Nino Southern Oscillation. OCEANS 99 MTS/IEEE. Riding the Crest into the 21st Century 2, 2, p. 955-966.
(online at: https://www.iiisci.org/journal/pdv/sci/pdfs/IP093LL20.pdf)

(Evaluation of mantle depths from gravity and seismic studies indicates upwelling of mantle from ~30-40 km under continental shelf of Australia to 21 km in Banda Arc. From here mantle rises to 14 km in Weber Deep and reaches depth of 7 km in N Banda Sea. Seismic epicenter data delineate spatial boundaries of flow regimes and define magmatic migration routes. Epicenter magnitudes are visualized in 3 dimensions by color-coding. Animation portrays upwelling and divergence of mantle flow structures (geostreams) underlying tectonic trends of region and resulting counterflow in volcanic arcs based on 'surge tectonic' hypothesis)

Linthout, K., H. Helmers & J. Sopaheluwakan (1997)- Late Miocene obduction and microplate migration around the southern Banda Sea and the closure of the Indonesian Seaway. Tectonophysics 281, 1-2, p. 17-30.
(online at: https://www.academia.edu/7322502/Late_Miocene_obduction_and_microplate_migration_around_the_southern_Banda_Sea_and_the_closure_of_the_Indonesian_Seaway)
(Ultramafites on Timor N coast, on smaller islands in S Outer Banda Arc and on SW Seram are fragments of M Miocene oceanic lithosphere, obducted in Late Miocene. Cool sole rock metamorphosed by overriding oceanic lithosphere. Kaibobo lherzolitic complex (SW Seram) obduction started ~9.5 Ma, emplacement completed at ~8 Ma and fast vertical movements continued until ~7 Ma. Obduction of lherzolite on N Timor also at 8 Ma and cooling to 300° C at 5.5 Ma. Oceanic lithosphere formed in E Miocene (~6 Ma prior to start of obduction). Obducted ultramafites formed close to passive margin by slow spreading in short-lived interarc Timor Plate (16-9.5 Ma). Model good agreement with 9.9-7.5 Ma history of shallowing and closure of Indonesian Seaway, as inferred from biogeographic patterns and thermal evolution of Miocene equatorial Pacific waters)

Martin, K. (1890)- Die Kei-Inseln und ihr Verhaltnis zur Australisch-asiatischen Grenzlinie, zugleich ein Beitrag zur Geologie von Timor und Celebes. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2), 7, p. 241-274.
(online at: https://www.delpher.nl/nl/tijdschriften/view?identifier=MMUBA13:001604001:00265)
('The Kai islands and their position relative to the Australian- Asian border line, with a contribution to the geology of Timor and Celebes'. No sharp faunal boundary can be determined between Asia and Australia. Includes descriptions of samples collected by C.J.M. Wertheim during the KNAG expedition to the Kai islands in late 1888-early 1889. These are all gently dipping Tertiary limestones, younger pure limestones with large Miocene orbitoids and older, more sandy grey-brown, chert-bearing Alveolina limestones of possible Eocene age (Alveolina re-determined as Lacazina by Verbeek (1908) and later re-named Lacazinella by Crespin, 1962). Also mentions mica- and quartz-schists from Kur Island to the E. No figures)

McCaffrey, R. (1989)- Seismological constraints and speculations on Banda Arc tectonics. In: J.E. van Hinte et al. (eds.) Proc. Snellius II Symposium, Jakarta 1987, Netherlands J. of Sea Research 24, 2-3, p. 141-152.
(Australian continent- Banda Arc collision shortens overriding Indonesian plate in N-S direction and elongates it in E-W direction by combination strike-slip and thrust faulting. Two plates subduct beneath Banda Arc: (1) Australia-Indian Ocean plate N-ward beneath Java Trench-Timor Trough-Aru Trough, and (2) Birds Head SW-ward beneath Seram Trough. Slab of Indian Ocean plate forms W-ward plunging synform beneath Banda Basin. Birds Head lithosphere subducted under Seram Trough down to 300 km depth. At surface decoupling between Australian and Birds Head by left-lateral strike slip at Tarera-Aiduna fault zone and convergence in New Guinea foldbelt. Seismic quiescence 50-380 km beneath Timor and inactive volcanic arc, but S-wave propagation suggests continuous lithospheric slab)

McCaffrey, R. & G.A. Abers (1991)- Orogeny in arc-continent collision: the Banda arc and western New Guinea. Geology (GSA) 19, p. 563-566.
(online at: https://www.researchgate.net/publication/240669545_Orogeny_in_arc-continent_collision_The_Banda_arc_and_western_New_Guinea)
(Shallow earthquakes show crustal deformation in Banda Arc and W New Guinea dominated by thrust and strike-slip faulting. Tarera- Aiduna left-lateral strike slip zone (~20mm/year) and New Guinea thrust belt accommodate WSW motion of Birds Head with respect to Australia. Left-lateral Sorong- Yapen fault zone accommodates main part of Australia -Pacific relative motion (~80mm/year). Possible E-ward extrusion of Banda Arc may be 40mm/yr. Seismic zone of Seram subduction zone beneath Seram at least 600km long)

Merton, H. (1910)- Forschungsreise in den sudostlichen Molukken (Aru- und Kei-Inseln) im Auftrage der Senckenbergischen Naturforschenden Gesellschaft. Abhandlungen Senckenberg Naturforschenden Gesellschaft, Frankfurt, 33, 1-2, p. 1-208.
(online at: https://ia800608.us.archive.org/30/items/abhandlungenders33senc/abhandlungenders33senc.pdf)
('Expedition to the SE Moluccas (Aru and Kai islands) on behalf of the Senckenberg Natural History Society'. On natural history, geography and geology of Aru- Kai islands from 1907-1908 expedition, mainly focused on zoogeographic questions. With brief notes on sedimentary rock samples by R.D.M. Verbeek (p. 206-207))

Michael-Leiba, M.O. (1984)- The Banda Sea earthquake of 24 November 1983: evidence for intermediate depth thrust faulting in the Benioff zone. Physics Earth Planetary Interiors 36, 2, p. 95-98.
(24 November 1983, major earthquake at 180 km depth beneath Banda Sea. Shear failure took place within NNW dipping Benioff zone by thrust faulting along S-dipping plane. Focal mechanism solution does not conform to usual pattern and not caused by down-dip tension or compression within sinking slab)

Milsom, J. (1999)- The Banda Sea: continental collision at the eastern end of Tethys. In: G.H. Teh (ed.) Proc. 9th Regional Congress Geology Mineral Energy Resources of SE Asia (GEOSEA '98), Kuala Lumpur 1998, Bull. Geological Society Malaysia 43, p. 41-47.
(online at: https://gsm.org.my/articles/702001-100836/)
(Banda Sea is Late Neogene post-collisional collapse basin, similar to Tyrrhenean and Alboran Seas in Mediterranean (arcuate orogenic belts with outward-directed thrusts enclosing rapidly expanding extensional regimes). New oceanic basins produced by rollback have depths typical of much older crust. Timor and Seram may have been part of M Miocene Sulawesi orogen prior to Banda Sea extensional collapse (This and Milsom 2000, 2001 papers are first to propose Banda Sea creation by Late Neogene slab rollback extension, before similar models were proposed in Hinschberger et al. (2003, 2005) and Spakman and Hall (2010))

Milsom, J. (2005)- The Vrancea seismic zone and its analogue in the Banda Arc, Eastern Indonesia. Tectonophysics 410, p. 325-336.
(online at: https://www.academia.edu/52286567/The_Vrancea_seismic_zone_and_its_analogue_in_the_Banda_Arc_eastern_Indonesia)
(Comparison of Carpathian orogenic belt with Banda Arc. Intermediate depth earthquakes define subducted slab that dips N, S and W beneath Banda Sea, a configuration explained as consequence of rapid expansion of Banda Sea during roll-back subduction)

Milsom, J., M.G. Audley-Charles, A.J. Barber & D.J. Carter (1983)- Geological-geophysical paradoxes of the Eastern Indonesian collision zone. In: T.W.C. Hilde & S. Uyeda (eds.) Geodynamics of the Western Pacific-Indonesian region, American Geophysical Union (AGU) and Geological Society of America (GSA) Geodynamic Series 11, p. 401-412.

Milsom, J., S. Kaye & Sardjono (1996)- Extension, collision and curvature in the eastern Banda arc. In: R. Hall & D. Blundell (eds.) Tectonic Evolution of Southeast Asia, Geological Society, London, Special Publ. 106, p. 85-94.
(Discussion of compressional deformation front between Kai Besar- Kai Kecil islands. Eocene- Pleistocene sediments on Kai Besar never deeply buried or imbricated but experienced large-scale extensional faulting. Associated gravity high requires upfaulting of accretionary complex, attenuated Australian continental crust on which it rests and underlying mantle at W side of Aru Trough. Deformation front in Aru Trough is SE of Kai Islands but entirely to W further N. Instead of continuing NNE to offset near New Guinea coast, collision trace passes through strait between Kai Besar and other islands, and mimics smooth curve of gravity contours, rather than discontinuities of bathymetric troughs. Continuity in deep and shallow structures is evidence for existence of outer arc as single geological unit prior to present phase of arc-continent collision)

Milsom, J., Sardjono & A. Susilo (2001)- Short-wavelength, high-amplitude gravity anomalies around the Banda Sea, and the collapse of the Sulawesi Orogen. Tectonophysics 333, p. 61-74.
(Ophiolitic rocks around Banda Sea commonly associated with strong gravity anomalies and steep gradients, but relationships not always straightforward. Bouguer gravity levels and gradients over E Sulawesi ophiolite

generally low. In Banda Arc, most positive ophiolite anomalies on steep regional gradient but in W Seram distinct spatial separation. On Buru >10 mGal/km gradient suggests dense rocks near surface, despite absence of ophiolites in outcrop. Gravity variations and ophiolite distribution around Banda Sea compatible with extension in Sulawesi following Oligo-Miocene collision with Australian-derived microcontinent. Association of ultramafic rocks and local strong regional gravity gradient is largely coincidental)

Mutaqin, B.W., F. Lavigne, P. Wassmer, M. Trautmann, P. Joyontono, C. Gomez, B. Septiangga et al. (2021)- Evidence of unknown paleo-tsunami events along the Alas Strait, West Sumbawa, Indonesia. Geosciences (MDPI) 11, 2, 46, p. 1-20.
(online at: https://www.mdpi.com/2076-3263/11/2/46)
(Tsunami deposits of marine sands with coral rubble, etc., along W coast al area of Sumbawa, some up to 1.5m thick. No clear ties to 1257 CE eruption of Samalas (Rinjani), Lombok, or eruption of Tambora in 1815)

Nasution, A., I. Takashima, H. Takahashi, K. Matsuda, H. Akasako, H. Muraoka, D. Kusnadi, F. Nanlohi & M. Futagoishi (2000)- The geology and geochemistry of Mataloko-Nage-Bobo geothermal areas, Central Flores, Indonesia. Proc. World Geothermal Congress, Kyushu- Tohoku 2000, p. 2165-2170.
(online at: www.geothermal-energy.org/pdf/IGAstandard/WGC/2000/R0766.PDF)
(Geothermal features of Bajawa prospect on Flores associated with NW-SE, SW-NE and N-S trending fracture systems in Quaternary andesitic-basaltic volcanics)

Norvick, M.S. (1979)- The tectonic history of the Banda Arcs, eastern Indonesia: a review. J. Geological Society, London, 136, p. 519-527.
(Banda Sea is small marginal oceanic plate, formed in early Tertiary. Complexity result of Late Miocene- E Pliocene collision and obduction of Banda island arc over leading edge of Australian-lrian continental plate. Transcurrent faulting on N limb of collision zone may have accentuated curvature of arc. Subduction and volcanism ceased after collision in Timor and Seram sectors, but still active at E extremity of arc)

Noya, Y., O. Effendhy, H.Z. Abidin & Y. Pakaya (2009)- Geological background and economic prospect of the Soripesa deposit, eastern Sumbawa. Proc. 38th IAGI Annual Conv. Exh. Indonesian Association Geologists (IAGI), Semarang, PIT IAGI 2009-002, p. 1-9.
(online at: https://www.iagi.or.id/web/digital/26/2009_IAGI_Semarang_Geological-Background.pdf)
(Sumbawa island part of Late Cenozoic Banda Arc. Regional fault structures trend NW-SE and NE-SW. E Sumbawa underlain by Lower Miocene andesitic- basaltic lavas with intercalations of tuff and limestone. Soripesa epithermal-porphyry type gold-copper prospect hosted in Miocene volcanic sequences)

Ogierman, J. (2016)- Discovery, geology and origin of the Lakuwahi volcanogenic Au-Ag-Pb-Zn deposit, Romang Island, eastern Indonesia. Proc. 8th Annual Conv. Indonesian Soc. Economic Geologists (MGEI), Bandung, p. 76-79.
(Lakuwahu cluster of mineral deposits hosted by andesitic Lakuwahi Volcanics on S Romang near Wetar. Formed in shallow submarine caldera, subsequently covered by reefal limestones. Dominant Pb-Zn mineralization. Uplift in past 1-2Myr caused emergence of Romang Island)

Okal, E.A. & D. Reymond (2003)- The mechanism of great Banda Sea earthquake of 1 February 1938: applying the method of preliminary determination of focal mechanism to a historical event. Earth Planetary Science Letters 216, p. 1-15.
(Large 1938 Banda Sea earthquake ranks among 10 largest moments ever published. Resulted from mostly thrust-faulting mechanism (strike 276°; dip 63°; slip 70°). Took place in region of sparse seismicity, away from presumed block boundaries. The 1938 event shares compressional axis with smaller and deeper 1963 shock to SW, showing coherence in regional contortion of subducting Australian plate lithosphere)

Osada, M. & K. Abe (1981)- Mechanism and tectonic implications of the Great Banda Sea earthquake of November 4, 1963. Physics Earth Planetary Interiors 25, 2, p. 129-139.
(Banda Sea earthquake of 1963 (h = 100 km, mB = 7.8) large intermediate-depth shock within subducting plate of Banda Arc. Estimated fault area of 90×70 km^2, average dislocation of 7m. Represents oblique thrust

movement on plane with dip direction N170°E, dip 48° and rake 52°. Faulting took place within subducted plate and offset it. Further repetition of such faulting might eventually break subducted plate)

Papp, Z. (1980)- A three-dimensional model of the seismicity in the Banda Sea region. Tectonophysics 69, p. 63-83.
(Tectonic earthquake data from 1918-1965, between 120°. -134°E and 0- 10'S, used to build 3-D model of hypocenters in Banda Sea)

Papp, Z. (1981)- Temporal variation of elastic strain release in the Banda Sea region. Bull. Geological Research Development Centre (GRDC), Bandung, 4, p. 13-17.

Patria, A., H. Tsutsumi & D.H. Natawidjaja (2021)- Active fault mapping in the onshore northern Banda Arc, Indonesia: Implications for active tectonics and seismic potential. J. Asian Earth Sciences 218, 104881, p. 1-13.
(Fault mapping in Buru-Seram area. N Banda Arc accommodates some of left-lateral slip due to Pacific plate W-ward movement relative to Australian plate. Discussion of active tectonics of N Banda Arc. Identified 11 active onshore faults in N Banda Arc, capable of generating earthquakes with magnitude of 6.4-7.6)

Pertamina/BPPKA (1996)- Petroleum geology of Indonesian basins, vols. VI-IX Eastern Indonesian Basins, IX-Tanimbar, Jakarta, p. 1-32.

Pigram, C.J. & H. Panggabean (1983)- Age of the Banda Sea, eastern Indonesia. Nature 301, 5897, p. 231-234.
(Banda Sea floor probably trapped Jurassic Indian Oceanc crust more (recent work favors hyperextension in Late Miocene-Pliocene
for creation of Banda Sea; JTvG))

Porritt, R.W., M.S. Miller, L.J. O'Driscoll, C.W. Harris, N. Roosmawati & L.T. da Costa (2016)- Continent-arc collision in the Banda Arc imaged by ambient noise tomography. Earth Planetary Science Letters 449, p. 246-258.
(Interpretation of structure of Australia- Banda Arc collision zone from broadband seismic noise)

Pownall, J.M., R. Hall & G.S. Lister (2016)- Rolling open Earth's deepest forearc basin. Geology (GSA) 44, 11, p. 947-950.
(online at: https://pdfs.semanticscholar.org/6c23/ea0ef8e9d8782aec89c3b8640502cd595c6c.pdf)
(Weber Deep 7.2-km-deep forearc basin in Banda Sea is deepest point of Earth's oceans not within trench. Formed by forearc extension driven by E-ward subduction rollback. Lithospheric extension in upper plate accommodated by major low-angle normal fault system named 'Banda detachment' ("biggest exposed fault on Earth"). Bathymetry data reveal Banda detachment fault is450km long, and exposed on Weber Deep floor. Slip along detachment fault >120 km)

Pownall, J.M., R. Hall & G.S. Lister & A. Trihatmojo (2018)- Geological aspects of Banda Sea ecosystems and how they shape the oceanographical profile. Proc. International Symposium on Banda Sea Ecosystem (ISBSE), Jakarta 2017, IOP Conference Series: Earth and Environmental Science, 184, 012005, p. 1-9.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/184/1/012005)
(Banda Sea collage of young oceanic basins and fragmented Australian continental terranes in Australia- SE Asia collision zone. Formed by SE-ward rollback of Banda Slab since ~16 Ma, which opened new oceanic basins and extended and fragmented Australian crust (now as 'Banda Ridges' and thrust-sheets on NW Australian shelf). Deepest part of Banda Sea is 7.2 km Weber Deep, formed by extreme lithospheric extension during late stages of Banda Slab rollback, accommodated by low-angle 'Banda Detachment')

Prasetyo, H. (1984)- Contribution on the marine geology and geophysics of the Banda Sea and adjacent regions. Marine Geology Institute (MGI), Bandung, Atlas, p. 1-41.

Prasetyo, H. (1988)- Marine geology and tectonic development of the Banda Sea region, Eastern Indonesia: a model of an 'Indo-Borderland' marginal basin. Ph.D. Thesis, University of California Santa Cruz, p. 1-475. *(Unpublished)*
(Study of origin of Banda Sea using single channel seismic profiles, bathymetry, SeaMARC II sonographs, marine gravity data, dredge and piston core samples and geologic investigations of surrounding islands of Misool, Sumba. Buton and Sawu. Banda Sea region neither young spreading basin or trapped piece of oceanic crust, but collage of oceanic and continental fragments displaced from N Australian continental margin and trapped within Banda basin, prior to 7 Ma, similar to S California 'Borderland')

Prasetyo, H. (1989)- Marine geology and tectonic development of the Banda Sea region, Eastern Indonesia: a model of an 'Indonesian-borderland' marginal basin. Marine Geology Institute of Indonesia, Special Publ. 1, p. 1-427.
(Same as Prasetyo (1988) UC Santa Cruz Thesis)

Prasetyo, H. (1991)- From California borderland to Eastern Indonesia collision zone. Proc. 16th Annual Conv. Indonesian Association Geophysicists (HAGI), p.

Prasetyo, H. (1994)- Marine geoscientific survey of the West-East Indonesia back arc transition zone, Southeast Sulawesi margin. In: J.L. Rau (ed.) Proc. 29th Session Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Hanoi 1992, Bangkok, 2, p. 127-146.
(Overview of backarc region between SE Sunda Shelf- SW Sulawesi- N Bali- N Flores (E Java Sea). Four main tectonic phases: (1) Paleocene rifting; (2) Miocene inversion of rifts to create 'Sunda folds', tied to collision of Buton with Sulawesi Arc; (3) flexure of SE Sunda shield to S, under volcanic ridge and (4) post-Neogene formation of back-arc fold and thrust zone, associated with Australia- Banda Arc collision)

Prasetyo, H., Y.R. Sumantri, B. Situmorang & S. Wirasantosa (1995)- The 'Doang Borderland System' in Southwest Sulawesi margin: implications for hydrocarbon prospect in the Eastern Indonesian frontier region. In: A. Noor & A. Tahir (eds.) Proc. International Seminar on the Sea and its environment, Ujung Pandang 1995, p.

Prasetyo, H. (1998)- Peningkatan pemahaman terhadap tatanan geologi kelautan kawasan Indonesia. Marine Geology Inst., Bandung, p.
('Increase of understanding of the marine geology of the Indonesian region')

Prasetyo, H. (1999)- Marine geology and tectonic development of the Banda Ridges system, eastern Indonesia; implication for Banda marginal basin formation. Proc. 35th Session Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Subic Bay 1998, 2, Technical Reports, p. 11-38.
(Banda Sea neither young spreading basin nor trapped piece of oceanic crust, although N (Sula) and S (Banda) basins appear to be trapped Pre-Tertiary oceanic crust. Banda Ridges in central part composed of continental borderland formed in Irian Jaya and emplaced in present position by Late Miocene. Basement rock dredged from Banda Ridge can be correlated with similar lithologies on Irian Jaya, Misool, Buru and PNG. Banda Ridge Terrane overlain by Upper Miocene- younger sediments that consist of pelagic limestones and Miocene volcanic rocks in the Lucipara Islands)

Purdy, G.M. & R.S. Detrick (1978)- A seismic refraction experiment in the Central Banda Sea. J. of Geophysical Research: Solid Earth 83, B5, p. 2247-2257.
(online at: https://www.academia.edu/8706614/A_Seismic_Refraction_Experiment_in_the_Central_Banda_Sea)
(Seismic refraction experiment in C Banda Sea suggests oceanic crustal structure, with velocities typical of oceanic layers 2, 3A, and 3B and mantle. Layer 3B unusually thick (2.5-4.6 km); greater than normal depths to Moho of 9-10 km below sea floor. These and earlier results from S Banda basin indicate that entire Banda Sea is underlain by oceanic type crust)

Rahmadani, S., I. Meilano, D. Sarsito & Susilo (2021)- Crustal deformation of Eastern Indonesia regions derived from 2010-2018 GNSS Data. Proc. 3rd Southeast Asian Conference on Geophysics (SEACG), Bandung 2020, IOP Conference Series: Earth and Environmental Science 873, 012089, p. 1-6.

(online at: https://iopscience.iop.org/article/10.1088/1755-1315/873/1/012089)
(GPS velocity observations fron 49 permanent and 61 campaign stations from 2010 to 2018. Not much detail)

Rahmadani, S., I. Meilano, S. Susilo, D.A. Sarsito, H.Z. Abidin & P. Supendi (2022)- Geodetic observation of strain accumulation in the Banda Arc region. Geomatics Natural Hazards and Risk 13, 1, p. 2579-2596.
(online at: https://www.tandfonline.com/doi/full/10.1080/19475705.2022.2126799)
(Data from 110 GPS stations across E Indonesia over ~10 years indicates deformation in greater Banda Arc region characterized mainly by crustal shortening, caused by interaction of Australian, Pacific and Philippine Sea plates (except around Papuan Bird's Head))

Ratumanan, R.C.F., V. Isnaniawardhani & B. Muljana (2023)- Nannofossil biostratigraphy of Elat Formation, Kei Besar Island, Southeast Maluku. Proc. 2nd Maritime Continental Fulcrum Int. Conference, Tanjungpinang 2022, IOP Conference Series: Earth and Environmental Science 1148, 012027, p. 1-7.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1148/1/012027/pdf)
(Nannofossils from Elat Fm pelagic-hemipelagic calcarenite-calcareous claystone on Kai Besar island indicate three M- L Eocene nannofossil zones: Reticulofenestra umbilica zone (NP16; 43- 38.7 Ma), Helicosphaera compacta zone (NP17; 38.7-37.9 Ma) and Helicosphaera euphratis zone (NP18-NP19; 37.9-36.8 Ma)).

Ratumanan, R.C.F., V. Isnaniawardhani & B. Muljana (2023)- Middle Eocene nannofossil assemblages responding to depositional dynamics of the Elat Formation, Maluku. Jurnal Geocelebes 7, 2, p. 138-153.
(online at: https://journal.unhas.ac.id/index.php/geocelebes/article/view/25371/10409)
(Elat Fm interbedded limestones and calcareous claystones of Kai Besar Island, S Moluccas, contain (late) M Eocene (zones NP16-N17) nannofossil assemblages. Larger foraminifera (not described here) include Baculogypsina (?), Cycloclypeus, Heterostegina, Lacazinella, Nummulites, Planorbulinella. Pellatispira, etc. Deposition in foreef slope conditions. Reworked fossils suggest turbiditic deposition (N.B. Pellatispira unlikely in this province?; not illustrated here and not described in classic Kai Besar Eocene-Miocene larger foram study of Bursch (1947); JTvG))

Rehault, J.P., J.A. Malod, M. Larue, S. Burhanuddin & L. Sarmili (1991)- A new sketch of the central North Banda Sea, eastern Indonesia. J. Southeast Asian Earth Sciences 6, p. 329-334.
(New bathymetric map of oceanic North Banda Basin. NW-SE structural pattern appears to be result of orientation of large NW-SE strike-slip faults and present direction of NE-SW convergence. Faulting and underthrusting of N Banda Sea crust beneath E Sulawesi along active Tolo accretionary prism)

Rehault, J.P., R. Maury, H. Bellon, L. Sarmili, S. Burhanuddin, J.L. Joron, J. Cotten & J.A. Malod (1994)- La mer de Banda Nord (Indonesie): un bassin arriere-arc du Miocene superieur. Comptes Rendus Academie Sciences, Paris 318, p. 969-976.
(Pillow-lavas dredged from basement of N Banda Sea are transitional basalts and trachyandesites with negative Nb-Ta anomalies similar to lavas from back-arc basins. K-Ar ages 9 and 6.9 Ma. Oceanic basement now subducting beneath E Sulawesi not trapped piece of Indian Ocean, but Late Miocene back-arc basin floor. (one of first papers after Hamilton (1979) to suggest Late Miocene back arc basin interpretation)

Richardson, A. (1993)- Lithosphere structure and dynamics of the Banda Arc collision zone, Eastern Indonesia. Bull. Geological Society Malaysia 33, p. 105-118.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1993008.pdf)
(Reconstruction of Australian continental subducting slab from earthquake data. Vertical and lateral discontinuities, some reflecting slab separation during previous microcontinental collision event at ~10-7 Ma)

Richardson, A.N. (1994)- Lithospheric structure and dynamics of the Banda Arc, Eastern Indonesia. Ph.D. Thesis, University of London, p. 1-348. *(Unpublished)*

Richardson, A.N. & D.J. Blundell (1996)- Continental collision in the Banda arc. In: R. Hall & D. Blundell (eds.) Tectonic evolution of Southeast Asia, Geological Society, London, Special Publ. 106, p. 47-60.

(Two deep seismic profiles E of Timor show Australian continental crust bent down to N. Overriding upper plate too much volume to be only sediments accreted from Australian Plate: must include continental crustal material, like microcontinent or outer margin high. Micro-continental fragment collided with subduction zone at ~8 Ma (age of Aileu Fm metamorphism) and caused Late Miocene Banda allochton uplift)

Ritsema, A.R. (1953)- New seismicity maps of the Banda Sea. J. Scientific Research Indonesia 2, p. 48-54.

Ritsema, A.R. (1986)- Subduction in the Banda Arc. Gerlands Beitrage Geophysik 95, 5, p. 414-417.

Ritsema, A.R., R.P. Sudarmo & I. Putu Pudja (1989)- The generation of the Banda Arc on the basis of its seismicity. Proc. Snellius II Symposium, Jakarta 1987, Netherlands J. of Sea Research 24, 2-3, p. 165-172.
(Seismicity of Banda Sea region suggests Banda Arc originated as Pacific Ocean subduction zone, Banda basin originally started as backarc spreading center. Deformation of Banda Arc with strong curvature caused by adoption of northern slivers of N-moving Australian plate by W-moving Pacific plate. S-N stress influence up to region of N Banda Arc, etc.)

Roberts, G., C. Ramsden, T. Christoffersen, N. Wagimin & Y. Muzaffar (2011)- East Indonesia: plays and prospectivity of the West Aru, Kai Besar and Tanimbar Area- identified from new long offset seismic data. AAPG Annual Convention, Houston 2011, Search and Discovery Article 10348, p. 1-15. *(Expanded abstract)*
(online at: https://www.searchanddiscovery.com/documents/2011/10348roberts/ndx_roberts.pdf)
(Observations from recent seismic survey of SE Arafura Platform/Basin, Tanimbar and Aru Troughs and E part of Banda Arc collision zone)

Rutten, L.M.R. (1927)- De eilanden tussen Timor en Ceram. In: L.M.R. Rutten (1927) Voordrachten over de geologie van Nederlandsch Indie, Wolters, Groningen, p. 705-716.
(online at: https://resolver.kb.nl/resolve?urn=MMKB02:000119126:pdf)
('The islands between Timor and Seram'. Brief reviews of geology of Leti, Moa, Babar, Kai islands, etc.)

Rynn, J.M.W. & I.D. Reid (1983)- Crustal structure of the western Arafura Sea from ocean bottom seismograph data. J. Geological Society of Australia, 30, 1-2, p. 59-74.
(Refraction data taken from ocean bottom seismograph recordings in W Arafura Sea indicate continental-type structure: ~2 km of sediments, with velocities of 2-4 k/s, over two layer crust. Moho is at depth of 34 km)

Sandiford, M. (2008)- Seismic moment release during slab rupture beneath the Banda Sea. Geophysical J. International 174, 2, p. 659-671.
(Differential vertical stretching of downgoing slab along Damar Zone (largely submerged segment of Banda arc E of Roma) consistent with slab rupture front ~100-200 km under Roma propagating E at ~100 km/ Myr. Detached lower slab sinking at ~60-70 km/Myr. Anomalous trends beneath Damar, where subhorizontal constriction suggests extreme stress ~100 km ahead of slab rupture front. Stress concentrations may explain anomalously deep ocean gateways in region)

Saputra, A. & M. Ohara (2016)- Basin and petroleum system modeling of offshore Tanimbar Region: implications of structural development history. Proc. 40th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA16-546-G, p. 1-17.
(Petroleum system modeling of offshore SW Tanimbar and N Bonaparte Basin. Abadi gas field sourced from Masela Deep and Malita Graben. Offshore Tanimbar region mostly charged by potential northern kitchen)

Sarmili, L. (1993)- A new tectonic framework in the North Banda basin. Bull. Marine Geological Institute 8, 3, p. 1-19.

Sarmili, L., N. Sukmana & A. Saripudin (2000)- Indication of a manganese crust on volcanic rocks within the North Banda Sea (East Indonesia). Proc. 29th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 79-86.

(N Banda Sea up to 6000m deep. Dredge samples of U Miocene volcanics, representing young oceanic crust. Rocks from 3500-4000m water depth have iron-manganese coating)

Schluter, H.U. (1983)- Geology and tectonics along the convergent Australian and Banda Sea margins from the Tanimbar Trench to the Aru Trough: results of geophysical investigations with the R/V Sonne Cruise SO-116 in 1981. BGR Report 94605, Hannover, p. 1-37.

Schluter, H.U. & J. Fritsch (1985)- Geology and tectonics of the Banda Arc between Tanimbar Island and Aru Island (Indonesia). Results of R/V Sonne Cruise SO-16, Geologisches Jahrbuch E30, p. 3-41.
(BGR 1981 seismic and gravity-magnetics program between Australian continental shelf and Tanimbar and Kai Island groups, with examples of Tanimbar-Kai trench-accretionary prisms, young normal faulting on shelf and slope, etc.)

Sentani, E.A. & A. Nugraha (2009)- Opportunities (III), Kai- Tanimbar. Inameta J. 7, p. 28-31.
(online at: www.patranusa.com)
(Brief overview of Kai- Tanimbar foldbelt area, W of Arafura Sea, in conjunction with tender round offering. Note similarities to Timor- Seram foldbelts)

Setiadi, I. & A.R. Riyanda (2016)- Delineasi cekungan sedimen dan interpretasi geologi bawah permukaan cekungan Tanimbar berdasarkan analisis data gayaberat. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 17, 3, p. 153-169.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/14)
('Delineation of sedimentary basin and subsurface geological interpretation of the Tanimbar basin based on analysis of gravity data'. Gravity survey on and around Yamdena Island suggest six sub-basins. NE-SW trending basement high)

Setyanta, B. (2010)- Medan gaya berat dan model geodinamika di sekitar Kepulauan Kai dan Kepulauan Aru, Maluku. Jurnal Sumber Daya Geologi (JSDG) 20, 6, p. 305-316.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/181/177)
('Gravity field and geodynamic models around the Kai and Aru Islands, Moluccas'. Kai- Aru area underlain by continental crust. Kai islands formed by thrusting, Aru islands by rifting)

Shah, A.A., M.G. Rachman & A.M. Lubis (2024)- The discovery of the Banda Bend, a >2000 km-wide tectonically formed extensional bend in Eastern Indonesia, Southeast Asia. Acta Geologica Sinica (English Edition) 98, S1, p. 53-57.
(online at: https://onlinelibrary.wiley.com/doi/pdf/10.1111/1755-6724.15238)
(Mainly based on modern earthquake data, authors argue that slab rollback model is inadequate in explaining crustal extension in Aru Trough and Birds Neck regions. Prefer crustal extension associated with oblique convergence of Australian and Sunda plates (not clear if and how Banda Arc was discovered here?- JTvG))

Silver, E.A., J.B. Gill, D. Schwartz, H. Prasetyo & R.A. Duncan (1985)- Evidence for a submerged and displaced continental borderland, North Banda Sea, Indonesia. Geology (GSA) 13, p. 687-691.
(Banda Sea two oceanic fragments (S and N Banda basins), separated by Banda Ridges submerged and displaced continental borderland. Dredged andesitic volcanics from Banda Ridges mainly Late Miocene, 7-9 Ma. Suggest origin from Birds Head between 5-10 Ma (?))

Situmorang, M. (1989)- Lithofacies and depositional pattern of sea floor sediments in the North Banda Sea, Indonesia. In: J.E. van Hinte et al. (eds.) Proc. Snellius II Symposium, Jakarta 1987, Netherlands J. of Sea Research 24, 4, p. 405-413.
(On N Banda Sea Quaternary terrigenous and volcanogenic deposits)

Situmorang, M. (1992)- Sedimentology and marine geology of the Banda Arc, Eastern Indonesia. Ph.D. Thesis University of Utrecht, Geologica Ultraiectina 84, p. 1-191.
(online at: https://dspace.library.uu.nl/bitstream/handle/1874/315946/Situmorang_Mangatas_84_1992.pdf)

(Collection of papers on Quaternary sediments and heavy minerals of E Indonesia Seas, followed by synthesis)

Situmorang, M. (1993)- The forms and characteristics of detrital heavy minerals in Banda Sea and the adjacent areas. Bull. Marine Geological Institute (MGI) 8, 1, p. 9-31.
(Detrital heavy minerals in Banda Sea seafloor sediments predominantly mafic volcanic and sedimentary minerals with some metamorphic minerals)

Situmorang, M. & L. Sarmili (1997)- Composition, morphometry, dispersal patterns of gravel clasts and basement rocks in the Banda Arc sea floor, eastern Indonesia. Bulletin of the Marine Geology, Bandung, 12, 1, p. 1-26.
(Gravel on Banda Arc seafloor includes clasts of sediments (limestone, sandstone, coral, claystone, marl), volcanics (pyroxene andesite, pumice) and minor metamorphics. Seram, Timor, and Gorong Islands supplied majority of clasts. Volcanic clasts on Bandaneira and Serua volcanic arcs, and in Weber Deep likely derived from Banda volcanic arc and Manuk, Serua, Nila and Teon volcanoes. Part of metamorphic clasts derived from basement cropping out at sea floor)

Snyder, D.B. & A.J. Barber (1997)- Australia- Banda Arc collision as an analogue for early stages in Iapetus closure. J. Geological Society, London, 154, p. 589-592.
(Comparison of structures formed across Banda Arc since Pliocene during Australia- Arc collision with structures in central British Isles)

Snyder, D. & R. Hobbs (1999)- BIRPS Atlas II: a second decade of deep seismic reflection profiling. Geological Society, London, MPB 42, 3 CD's.
(Deep seismic sections from different parts of world, including across Banda Arc. Data quality rel. poor)

Snyder, D.B., J. Milsom & H. Prasetyo (1996)- Geophysical evidence for local indentor tectonics in the Banda arc east of Timor. In: R. Hall & D. Blundell (eds.) Tectonic evolution of Southeast Asia, Geological Society, London, Special Publ. 106, p. 61-73.
(Seismic reflection profiles and gravity across Banda arc E of Timor. Reflectors beneath Sahul Platform indicative of extensional rift structures overprinted by recent shortening. Negative Bouguer gravity associated with S parts of accretionary complex unusually broad and deep. Further N, forearc basin narrow near E Timor and little sediments, mostly undeformed. Backarc region to N has N-S trending line of seamounts culminating in active Gunung Api volcano, 400 km above Benioff zone. Anomalously thick, bouyant crust beneath Banda Arc E of Timor either local promontory in irregular boundary of Australian craton was underthrust 50-70 km beneath volcanic arc and forearc, or Paleozoic basin similar to nearby Bonaparte underthrust and former crustal structure inverted and thickened to form buoyant crust)

Snyder, D.B., H. Prasetyo, D.J. Blundell, C.J. Pigram, A.J. Barber, A. Richardson & S. Tjokosaproetro (1996)- A dual doubly vergent orogen in the Banda arc continent-arc collision zone as observed on deep seismic reflection profiles. Tectonics 15, 1, p. 34-53.
(Interpretation of deep seismic lines across Banda Arc E of Timor (BIRPS 1992). Crustal thicknesses inferred from seismic velocities, reflectors, and gravity anomalies are consistent with merging of thinned continental shelf margin with oceanic lithosphere to form orogenic belt near Timor. W of Timor oceanic lithosphere subducts beneath oceanic crust south of the arc islands from Flores to Bali)

Soetrisno, S. (1983)- Hydrogeological map of Indonesia, 1:250,000, Sheet Flores (Barat & Timur/ West & East). Directorate of Environmental Geology, 2 map sheets.

Spicak, A., V. Kuna & J. Vanek (2013)- Earthquake occurrence reveals magma ascent beneath volcanoes and seamounts in the Banda region. Bulletin of Volcanology 75, 12, p.
(Seismicity patterns beneath volcanic arcs of Banda region suggest magma ascent beneath submarine portions of arcs, forming yet-unrecognised submarine volcanoes. Most pronounced earthquake series in Manipa submarine basin, ESE of Buru (with morphology resembling huge caldera (60 km wide) with distinct cone seamount in center, reaching almost 3000m above seafloor. Also in area between Banda Api and Manuk)

Stevens, G.R. (1964)- A new belemnite from the Upper Jurassic of Indonesia. Palaeontology 7, 4, p. 621-629.
(online at: www.palass-pubs.org/palaeontology/pdf/Vol7/Pages%20621-629.pdf)
(Belemnopsis stolleyi n.sp. for Belemnopsis aucklandica specimens collected by Weber in variegated Upper Oxfordian marls of the 'Belemnitenbach' (belemnite creek), 6 km from W coast of North Yamdena, Tanimbar. First described by Stolley (1929))

Sukardi, T. & Sutrisno (1990)- Geologic map of the Tanimbar Islands Quadrangle, Maluku, scale 1: 250,000. Geological Research Development Centre (GRDC), Bandung.
(Tanimbar Islands SW-directed thrust faults. NE edge of Yamdena and offshore islands tectonically complex melange and/or mud volcanoes ('Molu Complex') with Triassic and Jurassic sandstones and limestones, also metamorphic and volcanic rock types

Suparka & D. Jongsma (1987)- Snellius-II. triple junction. Proc. 16th Annual Conv. Indonesian Association Geologists (IAGI), p.

Taib, M.I.T., M.T. Zen, M. Untung & F. Hehuwat (1997)- Dilema Banda. Proc. 26th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 354-370.
(online at: https://www.iagi.or.id/web/digital/64/28.pdf)
('The Banda dilemma'. Discussion of nature and age of crust below Banda Sea (at that time still debated whether Banda Sea was underlain by Cretaceous oceanic crust or by Late Miocene-Pliocene crust; Cretaceous option has since been discarded; JTvG))

Tissot van Patot, J.W. (1908)- Een viertal tochten door het eiland Terangan (Aroe Eilanden) in Maart en April 1907. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2) 25, p. 77-93.
('Four trips through Terangan island (Aru Islands) in March and April 1907')

Tjia, H.D. (1977)- Fracture systems near Dobo, Aru Islands, Indonesia. Sains Malaysiana 6, 2, p. 185-193.

Tjokosapoetro, S. & T. Budhitrisna (1982)- Geology and tectonics of the Northern Banda Arc. Bull. Geological Research Development Centre Bandung (GRDC) 6, p. 1-17.

Untung, M. (1985)- Subsidence of the Aru Trough and the Aru Island, Irian Jaya, Indonesia. Tectonophysics 112, 1-4, p. 411-422.
(Aru Trough isostatic anomalies show region is in subsidence. Crustal extension may be active in zone E of Aru Trough, resulting in graben formation. Root of Aru Island pulled downward to E. Crustal extension indicates separation of block of Australian continental crust from Australian platform)

Usna, I., S. Tjokrosapoetro & S. Wiryosujono (1977)- Geological interpretation of a seismic reflection profile across the Banda Sea between Wetar and Buru Islands. Bull. Geological Research Development Centre (GRDC) 1, p. 7-15.

Van Bemmelen, R.W. (1979)- Crustal convergence or divergence in the Banda Sea region of Indonesia? In: W.J.M. van der Linden (ed.) Fixism, mobilism or relativism: Van Bemmelen's search for harmony, Geologie en Mijnbouw 58, 2, p. 101-106.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0YW80b3Q5MEhSUUU/view)
(Supposed to be a review of manuscript of Bowin et al. (1980) paper 'Arc-continent collision in the Banda Sea region', but mainly vanB's hard-to-understand alternative interpretation of dynamics of Banda Sea region, in terms of undations, etc. (vanBemmelen was not a supporter of plate tectonics; HvG) No figures)

Van der Vlerk, I.M. (1966)- *Miogypsinoides*, *Miogypsina*, *Lepidocyclina* et *Cycloclypeus* de Larat, Moluccas. Eclogae Geologicae Helvetiae 59, 1, p. 421-429.
(online at: https://www.e-periodica.ch/digbib/view?pid=egh-001:1966:59#571
(Three limestone samples from central part of Larat Island (commonly assumed to be from Larat, Kai Besar, but according to Bursch (1947), samples were collected by De Haart from Larat island in the Tanimbar archipelago).

Larat miogypsinids already described by Drooger (1953). Type locality of Miogypsinoides dehaartii Van der Vlerk 1924. No locality map or local stratigraphy. Miogypsinoides dehaartii and Miogypsina borneensis suggest Aquitanian age. No locality descriptions or local stratigraphy)

Van Gool, M., W.J. Huson, R. Prawirasasra & T.R. Owen (1987)- Heat flow and seismic observations in the northwestern Banda arc. Proc. 23rd Session Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Madang, PNG, 1986, 2, p. 1-15.
(Heat flow measurements in deep N Buru and Lucipara basins, N Banda Sea, during Snellius II expedition in 1985 all show high values, interpreted to be result of recent E-W strike-slip movement in NW Banda Arc)

Van Gool, M., W.J. Huson, R. Prawirasasra & T.R. Owen (1987)- Heat flow and seismic observations in the northwestern Banda Arc. J. of Geophysical Research 92, B3, p. 2581-2586.
(High heat flow values in centers of three basins in NW Banda Arc. Average in N Buru basin 161 mW/m2. Two small, N-S to NW-SE elongated subbasins in Lucipara basin 175 and 134, mW/m2, respectively. High heat flow in N Buru and Lucipara basins interpreted to be result of recent E-W strike-slip movement in NW Banda Arc)

Van Marle, L.J. & M.E.M. de Smet (1990)- Notes on the Late Cenozoic history of the Kai Islands, Eastern Indonesia. Geologie en Mijnbouw 69, p. 93-103.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0QmlrdXZacGpTZ0E/view)
(Kai Besar large anticlinorium with Eocene rocks in center. M Eocene- M. Miocene in bathyal calcilutite facies, recording deep water passive margin deposis (with common displaced shallow water carbonate debris). Kai Islands emerged in Late Miocene- Pliocene, with ~2 km of uplift in last 10 My. Kai Besar no elevated coral reefs, suggesting it is subsiding; Kai Kecil 4-5 elevated reefs unconformable over Pleistocene core)

Vening Meinesz, F.A. (1951)- A third arc in many island arc areas. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, B54, 5, p. 432-442.
(In several island arcs a third arc seems to be present: Antilles, Marianas and Lucipara Islands Ridge in Banda Sea, which possibly continues into Tukang Besi islands and Kangean. See also Westerveld 1954)

Verbeek, R.D.M. (1901)- Geologische beschrijving van de Banda-eilanden. Jaarboek Mijnwezen Nederlandsch Oost-Indie 29 (1900), p. 1-29.
('Geological description of the Banda islands'. Banda Neira/ Gunung Api and Run composed of young volcanics and coral limestones. With 1:20,000 scale map of Banda Neira and Gunung Api)

Verbeek, R.D.M. (1908)- Residentie Amboina. In: Molukkenverslag, Geologische verkenningstochten in het oostelijke gedeelte van den Nederlandsch OostindischeArchipel. Jaarboek Mijnwezen Nederlandsch Oost-Indie 37 (1908), Wetenschappelijk Gedeelte, p. 428-655.
(Early descriptions of islands of Banda arc, from E of Timor to Seram-Buru. Includes descriptions and cross-sections of Kai Besar and illustrations of Eocene Discocyclina- Asterocyclina from Kai Besar. First author to recognize unconformity between Late Eocene and Early Miocene in Kai Besar. Oldest beds on Kai Besar weakly folded Late Eocene marly limestones, dipping 10° W. Unconformably overlain by horizontal limestone terraces, oldest with large 'Aquitanian' (basal Miocene) Lepidocyclina dilatata; younger limestones post-Miocene. Overlain by uplifted Quaternary coral reef terraces)

Villeneuve, M., J.J. Cornee, R. Martini, L. Zaninetti, J.P. Rehault, S. Burhanudin & J. Malod (1992)- Upper Triassic shallow-water limestones in the Sinta Ridge (Banda Sea, Indonesia). Geo-Marine Letters 14, p. 29-35.
(online at: https://archive-ouverte.unige.ch/unige:26438)
(10 dredge samples from N slope Sinta Ridge (separates N and S Banda basins). Some are shallow marine limestones with Upper Norian- Rhaetian? benthic foraminifera, (incl. Aulatortus, Triasina oberhauseri, Duostominidae). Similarities with E Sulawesi, Buru and Seram consistent with independent Upper Triassic block. Origin of Banda Sea microcontinents questionable)

Villeneuve, M., J.P. Rehault, J.J. Cornee, J.A. Malod, J. Clermonte, J.M. Auzende, L. Sarmili, S. Burhanuddin, G. Glacon, G. Tronchetti, L. Zaninetti & R. Martini (1993)- Plio-Quaternary evolution of the North Banda Sea

and East Sulawesi margin. In: M.T. Zen (ed.) 10th anniversary of the French-Indonesian cooperation in oceanography; ocean research, technology and maritime industry, Jakarta 1993, Adiwarna Citra, Bandung, p. 109-118.
(online at: https://archive-ouverte.unige.ch/unige:26392)
(Cruise of vessel Baruna Jaya III provided new seismic data and dredge samples from W part of Sinta Ridge (incl. Triassic limestones). Late Miocene age of opening of North Banda Sea (6-9 Ma basalts). Continental Sinta Ridge went down from surface to 3000m during creation of N Banda Sea oceanic crust. General compressive regime in whole N Banda Sea)

Von Der Borch, C.C. (1979)- Continent-island arc collision in the Banda Arc. Tectonophysics 54, p. 169-193.
(Timor-Tanimbar-Ceram troughs and adjacent outer Banda Arc very similar to arcs subducting oceanic lithosphere and sediments, despite fact that outer Banda Arc is underlain by continental crust(??). Alignment with oceanic Indonesian Arc, gravity anomalies, and persistence of morphological and structural entities around arc favour subduction in Timor-Tanimbar-Ceram Troughs rather than gravity sliding towards troughs. Outer Banda Arc is accretionary prism of subduction zone which was formerly in ocean-crust setting but since Pliocene has been interacting with continental lithosphere. This model for Banda Arc differs from other structural interpretations of Timor island, which is emergent outer arc)

Wandel, G. (1936)- Beitrage zur Kenntnis der Jurassischen Molluskenfauna von Misol, Ost Celebes, Buton, Seran und Jamdena. In: J. Wanner (ed.) Beitrage zur Palaeontologie des Ostindischen Archipels 13, Neues Jahrbuch Mineralogie Geologie Palaontologie, Beilage Band 75B, p. 447-526.
('Contributions to the knowledge of Jurassic molluscs from Misool, East Sulawesi, Buton, Seram and Yamdena'. Description of Mollusca, mainly collected by F. Weber. Misool faunas include upper Liassic Harpoceraten beds, lower Dogger Hammoceraten beds, Oxfordian Aucella malayomaorica marls (also in E Sulawesi), etc.)

Wanner, J. & E. Jaworski (1931)- Liasammoniten von Jamdena und Celebes. Neues Jahrbuch Mineralogie Geologie Palaontologie, Beilage Band 66, B, p. 199-210.
('Liassic ammonites from Yamdena and Sulawesi'. Sulawesi ammonites from poorly known central part of East arm, collected by BPM geologist Weber, are first records of Early Jurassic ammonites from E Sulawesi (Arnioceras cf. seilaeve from dark grey sandy limestone as float in upper Balingara River, 20km SE of river mouth). Yamdena ammonites from Tasik Selwasa and Botenjahu mud volcano deposits include Echioceras wichmanni, Asteroceras sparsicostatum n.sp. and Arnioceras cf. arnouldi. Fauna and lithology very similar to Krumbeck (1922)'s 'grey cephalopod nodule marl' of Roti and Timor)

Wahab, A., Susanto & R. Nyak Baik (1991)- Seismic expression across Tanimbar trough, Eastern Indonesia. Proc. 16th Annual Conv. Indonesian Association Geophysicists (HAGI), Bandung, p.

Wallace, A.R. (1857)- On the natural history of the Aru Islands. Annals and Magazine Natural History, ser. 2, 20, p. 473-485.

Weber, F. (1923)- Rapport omtrent het geologisch onderzoek van Klein Kei. Unpublished BPM Report, 23p.
('Report of geological investigation of Kai Kecil island'. Unpublished BPM report at GRDC library No. H 23-2/(H5) 55)

Weber, F. (1924)- Rapport omtrent het geologisch onderzoek van het eiland Groot Kei of Noehoe Tjoet. BPM Report, p. *(Unpublished)*
('Report of geological investigation of Kai Besar (Nuhu Cut) island'. Unpublished BPM-Shell report on 1923-1924 fieldwork by Swiss geologist Friedrich (Fritz) Weber. Samples and larger foraminifera collected by Weber described by Bursch (1947), and stored at the Naturhistorisches Museum of Basel, Switzerland. Open File Report at GRDC library No. H 24-2/(H5) 55)

Weber, F. (1925)- Verslag omtrent het geologisch onderzoek der eilandgroep van Koer en Tajando (Westelijke Kei eilanden). BPM Report, 40p. *(Unpublished)*

('Report of geological investigation of island group of Kur and Tajando'. Unpublished BPM report; Open File Report at GRDC library No. H 25-3/(H4) 55)

Weber, F. (1925)- Verslag omtrent het geologisch onderzoek der Z.W. Tanimber eilanden. BPM Report, p. *(Unpublished)*
('Report of geological investigation of the SW Tanimbar islands'. Commonly quoted BPM oil company survey report, a copy of which is Pone File Report at Geological Survey, Bandung. Weber's macrofossil collections described by Wanner, Stolley, Wandel, etc.)

Welc, J.L. & T. Lay (1987)- The source rupture process of the Great Banda Sea earthquake of November 4, 1963. Physics Earth Planetary Interiors 45, p. 242-254.
(1963 Banda Sea earthquake one of largest (Mw=8.3) intraplate events. Involved oblique thrusting at intermediate depth within subducted lithosphere near abrupt bend in SE Banda arc (6.86° S, 129.58° E). Rupture initiated at 120 km depth and expanded over vertical extent of ~50 km. Along-strike rupture length only ~100 km. Tied to slab rupture at edge of subducting Australian continental lithosphere?)

Wertheim, C.J.M. (1892)- Verslag van mijne reis naar de Kei-Eilanden. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2) 9, p. 757-821 and p. 921-973.
(online at: https://www.delpher.nl/nl/tijdschriften/ Etc.)
('Report of my journey to the Kai islands'. Earliest geographic-geological exploration of the Kai Islands (South Moluccas, Banda Sea), carried out by Royal Dutch Geographic Society expedition in 1888-1889. Mainly travels description, of historic interest only. No maps. Collected many limestone samples, from which foraminifera were studied by K. Martin in Leiden(1890))

Westerveld, J. (1955)- The Lucipara Islands Ridge and a third arc in the Banda Sea. Geologie en Mijnbouw 17, 3, p. 84-88.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0dkduRDNOejUyT2s/view)
(Existence of third volcanic arc in Banda Sea N of modern active volcanic arc at Lucipara Islands, as suggested by Vening Meinesz (1951), not supported by geological and bathymetric evidence)

Widhiyatmoko, M., V. Isnaniawardhani & M.H.H. Zajuli (2023)- Distribusi nannofosil dan foraminifera pada batas Pliosen-Plistosen Formasi Batilembuti di Pulau Yamdena, Provinsi Maluku dan relevansinya dengan tektonik regional. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 24, 1, p. 39-50.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/737/524)
('Nannofossil and foraminifera distribution at the Pliocene-Pleistocene boundary of Batilembu Fm of Yamdena Island, Maluku Province and their relevance to regional tectonics'. Nannofossils in Batilembuti Fm suggest zones NN18-NN19 (~Pliocene-Pleistocene boundary, as marked by Top Discoaster brouweri and FA Gephyrocapsa caribbeanica). Planktonic foraminifera show zones N21-N22 (Top Globigerinoides fistulosus, Gs. obliquus extremus and FA Globorotalia truncatulinoides). Benthic foraminifera indicate upper bathyal deposition (incl. Laticarinina, Eggerella, Gyroidina, etc.), suggesting young uplift of Yamdena since ~1-2 Ma. Batilembuti Fm unconformably overlain by shallow marine limestone of Saumlaki Fm)

Wiryosujono, S. (1976)- Melange assemblage in Babar Islands. Berita Direktorat Geologi (Geological Survey Indonesia Newsletter), Bandung, 9, 6, p. 71-75.
(Wiryosujono & Tjokrosapoetro 1978: large blocks of pillow basalt and diabase in valley of main river on surface of Triassic and Jurassic flysch deposits)

Woodside, J.M., D. Jongsma, M. Thommeret, G. Strang van Hees & Puntodewo (1989)- Gravity and magnetic field measurements in the eastern Banda Sea. In: J.E. van Hinte et al. (eds.) Proc. Snellius II Symposium, Jakarta 1987, Netherlands J. of Sea Research 24, 2-3, p. 185-203.
(Magnetic anomalies may indicate volcanic material associated with topographic features in Aru and Weber Troughs. Discontinuity along W extension of Tarera-Aiduna Fault between Seram subduction zone and Aru Trough/ Kuenen Bank (larger variations of gravity to S and change in magnetic trends) although both gravity and magnetic anomalies exhibit NE-SW trend obliquely across SE section of Seram Trough. Seram Trench

accretionary complex over dynamically-depressed crust of subducting plate. Weber Basin crust excessively depressed and thinned. Positive gravity anomalies suggest outer part of Timor-Tanimbar accretionary complex either above rising or shallower subducting plate, or contains substantial denser material. Major strike-slip feature may be present NE of Tanimbar, cutting accretionary complex obliquely)

Zaim, Y., B. Ernawan & Fachrizal (2012)- Mud volcanoes in SE Maluku: evidence for neotectonics in East Indonesia. Berita Sedimentologi 24, p. 18-23.
(online at: www.iagi.or.id/fosi/berita-sedimentologi-no-24-timor-and-arafura-sea.html)
(On active mud volcanoes on Babar, Tanimbar and Kai islands, generally associated with accretionary complexes)

Zhang, Z., X. Yang, W.D. Mooney, R.E. Bell, S. Zhao, J. Lin, T. Zheng & H. Xu (2024)- An integrated study of age and formation of the Aru Trough, Eastern Banda Arc, Indonesia: implications for seismic hazards. Tectonics 43, 9, e2024TC008449, p. 1-17. *(online at: https://www.researchgate.net/profile/Xiaodong-Yang-7/publication/384225681_An_Integrated_Study_of_Age_and_Formation_of_the_Aru_Trough_Eastern_Banda_Arc_Indonesia_Implications_for_Seismic_Hazards)*
(Banda Arc in E Indonesia complex tectonic history. Subduction rollback began at 16 Ma, causing notable upper plate extension evidenced by Banda Sea and Weber Deep. Aru Trough initiated by slab rollback at 3 Ma. Effects of rollback on lower plate less understood. Aru Trough, shaped like inverted triangle narrowing from 160 to 40 km S-ward. Fast 54 mm/yr extensional rate today, suggesting age of 3 Ma. High-angle faults (>60°) at margins and interior, and high seismicity. Lower plate deformation profoundly influenced by subduction rollback, oblique arc-continent collision and regional strike-slip faulting)

Zwierzycki, J. (1927)- Geologische overzichtskaart van den Nederlandsch-Indischen Archipel. Toelichting bij blad XX (Aroe-, Kei- en Tenimbereilanden). Jaarboek Mijnwezen Nederlandsch-Indie 56 (1927), Verhandelingen 1, p. 309-336.
(text online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:041767000:00012)
(map online at: https://digitalcollections.universiteitleiden.nl/view/item/814661)
('Geological overview map of the Netherlands Indie. Explanatory notes of sheets XX (Aru, Kai and Tanimbar islands'. Compilation of geology of three rel. little-known island groups in E Indonesia. Most extensive earlier work by BPM geologists in 1922-1925, but remains unpublished. On Kai Besar, Verbeek (1908) distinguished gently folded (mainly W-dipping) Eocene Lacazina limestones, unconformably overlain by massive Miocene limestones and younger coral reef terraces. Etc. No figures).

VII.2. Lesser Sunda- West Banda Volcanic Arc (Bali- Lombok- Flores- Sumbawa- Wetar)

Abbott, M.J. & F.H. Chamalaun (1981)- Geochronology of some Banda Arc volcanics. In: A.J. Barber & S. Wiryosujono (eds.) The geology and tectonics of Eastern Indonesia, Geological Research Development Centre (GRDC), Proc. CCOP-IOC SEATAR Working Group Meeting, Bandung 1979, Bandung, Special Publ. 2, p. 253-268.
(E Indonesia K/Ar geochronology program at Flinders University. Banda Arc volcanism ceased in Alor-Wetar sector and on Ambon at ~3 Ma, reflecting minimum age of Timor/ Seram collisions. Inactive parts of arc characterized by rapid uplift. Wetar volcanism may have started 12 Ma. N Timor Oecusse pillow basalts island-arc tholeite with wide radiometric age range, but ~6-4 Ma most likely)

Abdul-Jabbar, G., H. Rachmat & M. Nakagawa (2019)- Temporal change of Barujari Volcano magmatic process: inferred from petrological study of erupted products since AD 1944. The 1st Workshop on Environmental Science Society Technology, Medan 2018, Journal of Physics: Conference Series 1363, p. 1-6.
(online at: https://iopscience.iop.org/article/10.1088/1742-6596/1363/1/012030)
(Active Barujari volcano part of post-caldera stage of Rinjani volcano, Lombok. Eerupted several times during past 70 years. Magma mixing with repeated injection of more mafic magma play important role in producing most of basaltic-andesitic lava)

Al Habib, J., L.D. Setijadji, A. Maryono & I. Rompo (2024)- Identification of paleovolcanic centers in the Bima District, East Sumbawa Island (Indonesia) as guidance for future exploration of Cu-Au deposits. J. Applied Geology (UGM) 9, 1, p. 64-75.
(online at: https://journal.ugm.ac.id/jag/article/viewFile/98713/40279)
(Identification of ancient volcanoes in Bima District, E Sumbawa Island, from literature, remote sensing, field survey, petrographic analysis, etc. At least ten paleo-volcano remnants identified in Oligo-Miocene arc of Southern Mountains:('Old Andesites'): Doro Mbangga, D. Baku, D. Donggo Masa, D. Rompo, D. Sape, D. Kowo, Doro Jia, D. Sambori, D.Mangge and D. Lambu, each with one or more eruption centers, often with hydrothermal alteration. May help discover potential Cu-Au mineralizations)

Ali, E. (1997)- Batu Hijau porphyry copper-gold deposit, exploration and evaluation. Proc. 26th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 193-205.
(online at: https://www.iagi.or.id/web/digital/64/16.pdf)
(Batu Hijau porphyry copper-gold deposit, discovered by Newmont in 1990 in SW Sumbawa, in Banda volcanic arc. Geometry of deposits resembles upright cylinder with high grade ore in multiple tonalite porphyries, intruded into E Tertiary diorite and andesite wall rocks. Chalcopyrite and bornite main Cu minerals)

Alzwar, M. (1981)- A structural discontinuity with associated potassic volcanism in Indonesian island arc: first results of the CNR-CNRS-VSI mission to the island of Sumbawa. Societa Geologica Italiana Rendicanti 4, p. 275-288.
(About discontinuity in Indonesian Arc (Sunda Arc), where arc volcanism changes from continental nature in W (Sumatra- Java) to more oceanic character in E (Flores) (see also Barberi et al. 1986)

Arif, J. & T. Baker (2004)- Gold paragenesis and chemistry at Batu Hijau, Indonesia: implications for gold-rich porphyry copper deposits. Mineralium Deposita 39, p. 523-535.
(Sumbawa Batu Hijau world-class porphyry copper-gold deposit. Neogene volcanism progressive change from calc-alkaline to shoshinitic affinities with time. E- M Miocene andesitic volcaniclastic rock succession dips gently in W direction, cut by several phases of M- Late Miocene intrusions (5.9-3.7 Ma; hypabyssal andesites, equigranular quartz diorite plutons, late-stage tonalite- granodiorite dikes))

Arif, J., D. Setyandhaka & J. Proffett (2008)- Characteristic of the root of Cu-Au porphyry system: results of study from Batu Hijau Cu-Au porphyry deposit. Proc. PACRIM 2008 Conference, Australasian Institute of Mining and Metallurgy (AusIMM), Melbourne, p. *(Extended Abstract)*

(Copper and gold mineralisation at Batu Hijau related to quartz veining and wall rock alteration associated with multiple tonalite porphyry intrusions. Batu Hijau comparatively minor late alteration and mineralisation overprints. This paper summarises results of cores from deeper sections of Batu Hijau)

Arifin, L. (1998)- Stratigrafi seismik perairan Lombok Barat. Jurnal Sumber Daya Geologi (JSDG) 8, 80, p. 17-26.
('Seismic stratigraphy of the waters of West Lombok')

Armstrong, J.T. (2012)- Deciphering the evolution of ore fluids at the Batu Hijau copper- gold porphyry deposit, Sumbawa, Indonesia. M.Sc. Thesis, University of Nevada, Las Vegas, p. 1-165.
(online at: http://digitalscholarship.unlv.edu/cgi/viewcontent.cgi?article=2533&context=thesesdissertations)
(Four types of fluid inclusions recognized at Batu Hijau Cu-Au deposit, SW Sumbawa, suggesting ore fluids at Batu Hijau formed in two stages:(1) initial high T fluid precipitating only minor Cu and (2) cooler, denser, but compositionally similar fluid that contributed significantly to mineral precipitation)

Aryanto, N.C.D. & H. Kurnio (2020)- Tectonics of volcanogenic massive sulphide (VMS) deposits at Flores back arc basin: a review. Bulletin of the Marine Geology 35, 2, p. 91-102.
(online at: http://ejournal.mgi.esdm.go.id/index.php/bomg/article/view/679/513)
(NW-SE trending submarine ridges in Flores back-arc basin with volcanism-related hydrothermal activity. Submarine hydrothermal alteration in Komba Ridge associated with volcanogenic sulphide deposit)

Aswan, Y. Zaim, Y. Rizal, I.N. Sukanta, S.D. Anugrah, A.T. Hascaryo, I. Gunawan, T. Yatimantoro et al. (2017)- Age determination of paleotsunami sediments around Lombok Island, Indonesia and identification of their possible tsunamigenic earthquakes. Earthquake Science 30, 2, p. 107-113.
(online at: https://link.springer.com/content/pdf/10.1007%2Fs11589-017-0179-2.pdf)
(210Pb age dating method of young paleotsunami sediments of W and SW Lombok. Gawah Pudak sediments deposited 37 and 22 years ago (1977 and 1992). Three paleotsunami sediments from Gili Trawangan deposited 149, 117 and 42 years ago. Tied 1857 Bali Sea earthquake, 1897 Flores Sea or Sulu Sea earthquake, 1975 Nusa Tenggara earthquake, 1977 Sumba earthquake and 1992 Flores earthquake)

Audley-Charles, M.G. (1974)- Banda Arcs. In: A.M.Spencer (ed.) Mesozoic-Cenozoic orogenic belts, Geological Society, London, Special Publ. 4, p. 349-363.
(Review of structural zones in Banda Arcs, E Indonesia)

Audley-Charles, M.G. (2004)- Ocean trench blocked and obliterated by Banda forearc collision with Australian proximal continental slope. Tectonophysics 389, 1-2, p. 65-79.
(online at: http://searg.rhul.ac.uk/pubs/audley-charles_2004.pdf)
(E end of Java Trench now blocked SE of Sumba by Australian continental margin forming Roti-Savu Ridge. Present position of defunct Banda Trench buried below foothills of S Timor. Large part of Banda forearc carried over Australian margin during subduction between ~12- 3.5 Ma. Collision deformed forearc with part of unsubducted Australian lower plate cover, now forming exposed Banda orogen with parts of forearc basement. Forearc overrode Australian continental slope. Parts of proximal forearc prism and proximal continental slope cover detached and thrust N over Java-Banda Trench and forearc up to 80 km along S-dipping Savu Thrust and Wetar Suture. Reinterpretations explain absence of discernible subduction ocean trench in S Banda Arc and narrow forearc (30 km at Atauro, N of E Timor))

Aye, M.T., A. Imai, N. Araki, S. Pramumijoyo, A. Idrus, L.D. Setijadji & J. Arif (2010)- Copper-gold bearing skarn mineralization at the Batu Hijau deposit, Sumbawa Island, Indonesia. Proc. 39th Annual Conv. Indonesian Association Geologists (IAGI), Lombok, PIT-IAGI-2010-057, p. 1-6.
(online at: https://www.iagi.or.id/web/digital/12/2010_IAGI_Lombok_Copper-Gold-Bearing-Skarn.pdf)
(Batu Hijau copper-gold skarn in SW Sumbawa Island resulted from interaction of hydrothermal fluids associated with E-M Pliocene tonalite porphyry intrusion into E-M Miocene andesitic volcaniclastic rocks and limestones)

Aye, M.T., A. Imai, N. Araki, S. Pramumijoyo, A. Idrus, L.D. Setijadji & J. Arif (2011)- Mineralisasi skarn pembawa tembaga dan emas pada cebakan Batu Hijau, Pulau Sumbawa, Indonesia. Majalah Geologi Indonesia (IAGI) 26, 3, p. 191-198.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/762)
('Copper and gold bearing skarn mineralization at the Batu Hijau deposit, Sumbawa Island, Indonesia'. Same as Aye et al. 2010)

Aye, M.T., S. Pramumijoyo, A. Idrus, L.D. Setijadji, A. Imai, N. Araki & J. Arif (2011)- The mineralogy of gold-copper skarn related porphyry at the Batu Hijau deposit, Sumbawa, Indonesia. J. Southeast Asian Applied Geology (UGM) 3, 1, p. 12-22.
(online at: http://geologic-risk.ft.ugm.ac.id/fresh/jsaag/vol-3/no-1/jsaag-v3n1p012.pdf)
(Gold-copper bearing skarn mineralizations found during 2003 drilling program at deep level of deposit (-450m to -1050m) in Batu Hijau porphyry deposit, W Sumbawa Island)

Aye, M.T., Subagijo, A. Idrus, L.D. Setijadji & A. Imai (2010)- Ore mineral sssemblages of skarn at the Batu Hijau porphyry Cu-Au deposit, Sumbawa Island, Indonesia. Proc. 3rd Regional Conference Geological Engineering Research in ASEAN 'Sustainable Geological Education', Siem Reap 2010, p. 71-75.

Aziz, F., M.J. Morwood & G.D. van den Bergh (eds.) (2009)- Pleistocene geology, palaeontology and archaeology of the Soa Basin, Central Flores, Indonesia. Geological Survey, Bandung, Special Publ. 36, p. 1-146.
(Geology and vertebrate paleontology of Soa Basin, Flores. Surrounded by volcanics. Late Pliocene andesitic volcanics, Pleistocene pumice tuff and lacustrine tuffaceous sediments with 'island' mammal faunas like giant tortoise, komodo dragon and pygmy Stegodon)

Barbieri, F., B. Bigioggero, A. Boriani, M. Cattaneo, A. Cavallin et al. (1987)- The island of Sumbawa: a major structural discontinuity in the Indonesian Arc. Boll. Societa Geologica Italiana 106, p. 547-620.
(Multidisciplinary paper. Scarce sediments: thin E-M Miocene carbonates/clastics on older volcanics, overlain by Pliocene-Recent volcanics; 4 volcanic phases: pre-Early Burdigalian, Pliocene 4.9- 3.1 Ma, Pleistocene 1.8-1.1 Ma and Holocene (large Tambora caldera 43 ka))

Bastian, A., N.I. Basuki & Y. Rizal R (2024)- The geochemical signature of the Elang porphyry Cu-Au deposit, Sumbawa, Nusa Tenggara Barat, Indonesia. Bulletin of Geology (ITB) 8, 2, p. 1322-1333.
(online at: https://buletingeologi.com/index.php/buletin-geologi/article/view/406/104)
(Cu-Au mineralization at Elang porphyry system in S Sumbawa mainly within and around multiple tonalite intrusions. Copper, zinc, lead, and molybdenum clearly point to central part of porphyry system, while broad zones of high gold anomalies are associated with epithermal high-sulfidation systems)

Bastian, A., S. Kepli, H. Sulistyo & D. Hendri (2015)- Exploration significance of Elang porphyry Cu-Au deposit, Sumbawa Indonesia. Proc. MGEI 7th Annual Convention, Balikpapan 2015, NNT presentation, p.

Breen, N.A., E.A. Silver & S. Roof (1989)- The Wetar backthrust belt, eastern Indonesia: the effects of accretion against an irregularly shaped arc. Tectonics 8, 1, p. 85-98.
(350-km-long, E-W trending, N-vergent thrust belt N of Wetar is result of Australia-Indonesian arc collision. Four main thrust segments: Wetar, Liran Atauro and Alor faults, probably controlled by presence of small rigid blocks in collision zone)

Brouwer, H.A. (1919)- On the non-existence of active volcanoes between Pantar and Dammer (East Indian archipelago) in connection with the tectonic movements in this region. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 21, 2, p. 795-802.
(Online at: https://dwc.knaw.nl/DL/publications/PU00012047.pdf)
(Early paper describing absence of active volcanism in part of Banda Arc N of Timor, between Alor-Wetar Roma, in area where non-volcanic outer arc is closest to volcanic inner arc (in plate tectonic terms it can now be understood as locking of subduction zone after collision of Australian Plate and Banda Arc at Timor; JTvG)

Brouwer, H.A. (1938)- The tectonic evolution of the Lesser Sunda Islands near Australia. Quarterly J. Geological Society of London, 1349, p. 3-6. *(bad reference?)*

Brouwer, H.A. (1940)- Geological and petrological investigations on alkali and calc-alkali rocks of the islands Adonara, Lomblen and Batoe Tara. In: H.A. Brouwer (ed.) Geological expedition of the University of Amsterdam to the Lesser Sunda Islands, II, Noord Hollandsche Uitgevers Mij, Amsterdam, p. 1-94.
(online at: https://resolver.kb.nl/resolve?urn=MMKB31:046047000:pdf)
(On three volcanic islands of Banda Arc, East of Flores. All rocks are relatively young volcanics, dominated by andesites and basalts, overlain by uplifted coral reef terraces (up to ~250m elevation on Lomblen). Batu Tara volcano in Flores Sea North of main line of volcanoes and has potassic, leucite-bearing basanitic lavas)

Brouwer, H.A. (1942)- Granodioritic intrusions and their metamorphic aureoles in the Young-Tertiary of Central Flores. In: H.A. Brouwer (ed.) Geological expedition of the University of Amsterdam to the Lesser Sunda Islands 4, Noord Hollandsche Publ. Co., Amsterdam, p. 291-317.
(online at: (online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:046050000:00009)
(Granodioritic intrusions outcropping across Flores have distinct metamorphic contact aureoles in what looks like Neogene globigerinid-bearing sediments, and are therefore young intrusions)

Brouwer, H.A. (1943)- Leuciethoudende en leucietvrije gesteenten van den Soromandi op het eiland Soembawa. Verslagen Koninklijke Akademie van Wetenschappen, Amsterdam 52, p. 303-307.
('Leucite-bearing and leucite-free rocks of Soromandi volcano on Sumbawa island'. Descriptions and chemical compositions of young volcanic rocks of Soromandi volcano near N coast of Sumbawa)

Brouwer, H.A. (1944)- Over vulkanische gesteenten van Oost-Flores. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 14 (Tesch memorial volume), p. 95-103.
(On young volcanic rocks from East Flores'. Mainly young pyroxene andesites (Quaternary))

Brouwer, H.A. (1954)- Evolution magmatique et tectonique des Petites Iles de la Sonde. Comptes Rendus 19th Session Congres Geologique Int. (International Geological Congress), Algeria 1952, XV, XVII, p. 63-70.
('Magmatic and tectonic evolution of the Lesser Sunda Islands'. Mainly on Timor, where Permian shallow marine sediments are associated with trachybasaltic volcanic series. During Mesozoic geosynclinal phase abundant ophiolites and spilites and associated andesites and more acid volcanics: all are parts of major thrust sheet complex that formed in Tertiary. Etc.)

Burrows, D.R., M. Rennison, D. Burt & R. Davies (2020)- The Onto Cu-Au discovery, Eastern Sumbawa, Indonesia: A large, Middle Pleistocene lithocap-hosted high-sulfidation covellite-pyrite porphyry deposit. Economic Geology 115, 7, p. 1385-1412.
(online at: https://www.segweb.org/pdf/brian-j-skinner-award/2021-burrows-p1385.pdf)
(Large and blind Onto copper-gold deposit discovered in E Sumbawa in 2013. Copper occurs as disseminated covellite with pyrite, and as pyrite-covellite veinlets. Spatially related with coalesced porphyry stocks that intrude polymictic diatreme breccia, capped by intramaar laminated siltstones, volcaniclastic and pyroclastic rocks, and overlain by andesite flows. Porphyry intrusions emplaced at ≤1.3 km. System exceptionally young (~0.7-0.8 Ma; M Pleistocene) and not significantly eroded)

Charlton, T.R. (1997)- Backthrusting on the BIRPS deep seismic reflection profiles, Banda Arc, Indonesia, a response to changing slab inclination? J. Geological Society, London, 154, p. 169-172.
(BIRPS deep seismic profiles across Banda arc-continent collision complex indicate backthrusting in volcanic arc and between arc- forearc ridge. This differs from W Timor-Savu Sea and Tanimbar sectors of arc where backarc thrusting is absent and interarc region is extensional. Structural styles controlled by whether subducted slab is steepening or straightening through time. Straightening through buoyant post-collisional rebound induces extension normal to arc, steepening of slab is associated with arc-normal compression)

Clode, C., J. Proffett, P. Mitchell & I. Munajat (1999)- Relationships of intrusion, wall-rock alteration and mineralisation in the Batu Hijau copper-gold porphyry deposit. In: G. Weber (ed.) Proc. PACRIM '99 Congress, Bali 1999, Australasian Institute of Mining and Metallurgy (AusIMM), Parkville, 4-99, p. 485-498.
(Batu Hijau world-class island arc porphyry copper-gold deposit in SW corner of Sumbawa, related to quartz veining and wall rock alteration associated with multiple tonalite porphyry intrusions. Island underlain by Early Tertiary low-K calc-alkaline volcanics and intrusives)

Crostella, A. (1977)- Geosynclines and plate tectonics in Banda Arcs, Eastern Indonesia. American Assoc. Petroleum Geol. (AAPG) Bull. 61, 12, p. 2063-2061.
(Obsolete 'expanding earth/ geosynclinal' tectonic model for Timor, Banda Arc. See also discussion by Audley-Charles et al. (1979))

Curray, J.R., G.G. Shor, R.W. Raitt & M. Henry (1977)- Seismic refraction and reflection studies of crustal structure of the eastern Sunda and western Banda Arcs. J. of Geophysical Research 82, 17, p. 2497-2489.
(Seismic refraction profiles S of C Java and Bali, Flores, Banda and Arafura Seas and in Timor Trough. Outer ridge, along gravity minimum, consists primarily of sedimentary rocks, in N-dipping imbricate thrust sheets. Layer 2 jumps upward ~5 km under crest of ridge. From here to islands crust is probably oceanic but intermediate in thickness, probably thickened old oceanic crust and mantle trapped here by seaward jump in subduction zone in E Tertiary. N and E of Bali, behind volcanic arc, crustal structure intermediate between oceanic and continental. Farther E in Flores Basin thickness decreases, suggesting this is transitional edge of cratonization of Sunda Shelf, and typical thin oceanic crust is farther E in S Banda Sea)

Darman, H. (2012)- Seismic expression of tectonic features in the Lesser Sunda Islands, Indonesia. Berita Sedimentologi 25, p. 16-25.
(online at: www.iagi.or.id/fosi/files/2012/12/BS25-Lesser_Sunda_Final_small.pdf)

Das, S. (2004)- Seismicity gaps and the shape of the seismic zone in the Banda Sea region from relocated hypocenters. J. of Geophysical Research 109, B12303, p. 1-18.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/2004JB003192/epdf)
(>800 relocated earthquakes >50 km deep along Banda arc. Distribution non-uniform, with gaps in hypocenters along depth in most places. Seismic zone between 129-131°E and 100-200 km deep is widest along arc both in strike and downdip. This region, near highest arc curvature, has highest seismic activity and is only part of arc with continuous earthquakes down to >600 km. Very deep earthquakes under Sulawesi part of W-SW dipping Seram slab. In W-most part of Banda arc slab under downdip tension between 50-250 km, with deepest portion of slab under compression. From 128-131°E slab between 100-200 km under horizontal compression. Study supports 'two-slab' model for Banda arc. Depth of Wadati-Benioff zone below volcanoes 60-100 km for five volcanoes between 128- 130°E and 150 km for 23 volcanoes between 118- 124°E)

De Azeredo Leme, J.de & J. Bailim Pisarra (1962)- Notas sobre a geologia e a petrografia da ilha de Atauro (Timor portugues). In: Prof. Carrington da Costa Festschrift, p. 325-348.
(Notes on the geology and petrography of Atauro island Portuguese Timor)'. Atauro N of Timor Leste, composed of volcanic rocks and terraces of emergent coral reefs)

De Jong, J.D. (1941)- Geological investigations in West Wetar, Lirang and Solor (Eastern Lesser Soenda Islands). Thesis University of Amsterdam, p. 1-136.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:038266000:00009)
(See also in H.A. Brouwer (ed.) Geological expedition of the University of Amsterdam to the Lesser Sunda Islands, III, p. 241-380. Reconnaissance of currently inactive volcanic islands of Banda arc N of Timor. Wetar composed of lavas, breccias and tuffs with interbedded Globigerina marls, probably submarine formations of Neogene age. Facies, raised coral reefs and terrace at 820m suggests at least this amount of late uplift. Lirang Island different, with granodiorite and dacite, probably also Young Tertiary and possibly uplifted even more than Wetar. Solor multiple eroded volcanic complexes with pyroxene andesites and basalts, with raised coral reefs up to 180m)

De Jong, J.D. (1942)- Hydrothermal metamorphism in the Lowo-Ria region, Central Flores. In: H.A. Brouwer (ed.) Geological Expedition of the University of Amsterdam to the Lesser Sunda Islands 1937, 4, Noord Hollandsche Publ. Co., Amsterdam, p. 319-343.

Dekov, V., A. van Put, D. Eisma & R. van Grieken (1999)- Single particle analysis of suspended matter in the Makasar Strait and Flores Sea with particular reference to tin-bearing particles. J. of Sea Research 41, p. 35-53.
(online at: https://www.vliz.be/imisdocs/publications/273784.pdf
(Suspended matter samples filtered from surface waters and two depth profiles from Flores Sea and Makasar Strait contained high levels of tin-bearing particles:(1) tin oxide/hydroxides (cassiterite, etc.); (2) iron-oxyhydroxides with adsorbed tin; and (3) mixed oxidation state tin hydroxysulphates. Dissolved and suspended tin originate from local sources as well as from remote sources in Indonesian Archipelago)

De Neve, G.A. (1950)- Subsurface geology of Ampenan (West Lombok) and the Bay of Bima (East Sumbawa). De Ingenieur in Indonesie 5, 2, p. IV.17- IV.23.
(online at: https://colonialarchitecture.eu/islandora/object/uuid%3A6cdd1184-7f8c-4d56-8823-3cc86d06abef/datastream/PDF/view)
(Mainly on young sediments in water wells; nothing on older rocks)

Dewi, L.M., R. Damayanti, Y.I. Mandang, S. Rulliaty & Suprihatna (2024)- A new fossil wood of *Shoreoxylon* from Flores Island, Indonesia. Proc. Second International Conference of Lignocellulose (ICONLIG 2), Bogor 2022, AIP Conference Proceedings 2973, 070009, p. 1-
(Silicified wood from M Miocene volcanic rocks in Komodo quadrangle on Flores Island. Provisionally considered to be a new taxon, Shoreoxylon floresiensis)

Dirk, M.H.J. (1994)- Petrologi dan geokimia unsur utama intrusi Wolowaru, Ende, Flores. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 4, 38, p. 26-36.
('Petrology and major element geochemistry of the Wolowaru intrusion, Ende, Flores'. Wolowaru intrusion quartz diorite at exterior, granodiorite and granite in interior. High Al content and size ~15 x 10 km. Classified as subalkaline tholeiite of volcanic arc (with Late Miocene fission track ages; Saefudin 1995))

Dirk, M.H.J. (1996)- Mekanisme penzonaan dan petrogenesis intrusi Wolowaru, Ende, Flores. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 6, 54, p. 12-16.
('Mechanism of zoning and petrogenesis of the Wolowaru intrusion, Ende, Flores')

Drescher, F. (1921)- Eruptivgesteine der Insel Flores. Dissertation Universitat Basel, Stein (Argau), p. 1-49.
('Volcanic rocks from the island Flores'. Short thesis under guidance of Prof. C. Schmidt, on petrographic descriptions of dacites, andesites and basalts. Samples collected by J. Pannekoek van Rheden in 1910-1911, who donated samples to the 'Indies Collection' of the Basel Museum)

Edwards, C.M.H. (1990)- Petrogenesis of tholeiitic, calc alkaline and alkaline volcanic rocks, Sunda Arc, Indonesia. Ph.D. Thesis, Royal Holloway and Bedford New College, University of London, p. 1-373. *(Unpublished) (Review of Java volcanism*

Ehrat, H. (1925)- Tin(?) op Flores. De Mijningenieur 6, p. 123-128.
(On the question of presence of tin on Flores)

Ehrat, H. (1928)- Geologische mijnbouwkundige onderzoekingen op Flores. Jaarboek Mijnwezen Nederlandsch-Indie 54 (1925), Verhandelingen 2, p. 221-315.
(Reconnaissance geological and mining investigations of Flores with 1:250k scale geological map of island based om 1923-1924 field work. Mainly young andesitic volcanics, but also multiple Neogene? granite-granodiorite outcrops (Musper (1928) suggests possibility of Pretertiary ages). Oldest sediments exposed on NW Flores folded Miocene sediments, possibly 2000m thick, with locally thick Lepidocyclina limestone with interbedded volcanics and Globigerina marls. One of the goals of this surveywas to locate tin deposits (after failed Van Schelle 1890-1891 tin expeditions and Pannekoek van Rheden 1910-1911 mapping work), but none could be found)

Ehrat, H. (1928)- Die Tiefengesteine der kleinen Sunda Inseln. Neues Jahrbuch Mineralogie Geologie Palaontologie, Abhandlungen, Beilage Band 58, A, 3, p. 433-452.
('The plutonic rocks of the Lesser Sunda islands'. Descriptions of granites, granodiorites, diorites, etc. collected by Ehrat during his 1927 private journey in the Lesser Sunda islands, incl. Flores, Sumba, Sumbawa. Most of them as inclusions in Recent lavas, and mainly hornblende-biotite-granodiorite, but granite, diorite and gabbro also in outcrop on Flores)

Elbert, J. (1911)- Meteorologische und geologische Untersuchungen auf der Insel Lombok. In: Die Sunda-Expedition des Vereins fur Geographie und Statistik zu Frankfurt am Main 1, p. 78-87 and 112-120.
('Meteorological and geological investigations on Lombok Island'. On weather and Rinjani and Sembalun volcanic massifs. Lombok formations and mountain ranges similar to Java zones)

Elbert, J. (1912)- Die geologisch-morphologischen Verhaltnisse der Insel Sumbawa. In: Die Sunda-Expedition des Vereins fur Geographie und Statistik zu Frankfurt am Main, Frankfurt, 2, p. 132-174.
('The geological- morphological relationships of Sumbawa island'. Mainly description of young volcanoes (incl. Tambora; 2935m since 1815 eruption, Satona, Sangeang Island) and common volcano ruins. Oldest volcanics E Miocene in age. Along coast marine terraces up to 800 above sea level)

Elburg, M.A., J.D. Foden, M.J. van Bergen & I. Zulkarnain (2005)- Australia and Indonesia in collision: geochemical sources of magmatism. J. Volcanology Geothermal Research 140, p. 25-47. *(online at: /www.academia.edu/3247358/Australia_and_Indonesia_in_collision_geochemical_sources_of_magmatism)*
Alor, Lirang, Wetar and Romang in extinct section of Sunda-Banda arc, where collision with Australia brought subduction to halt. Pb isotopes reflect mixing from subducting Australian crust)

Elburg, M.A., V.S. Kamenetsky, J.D. Foden & A. Sobolev (2007)- The origin of medium-K ankaramitic arc magmas from Lombok (Sunda arc, Indonesia): mineral and melt inclusion evidence. Chemical Geology 240, p. 260-279. *(online at: www.academia.edu/3247289/The_origin_of_medium_K_ankaramitic_arc_magmas_from_Lombok Etc.)*
(Quaternary high-Ca, nepheline-normative ankaramitic basaltic lavas from Rinjani volcano, Lombok, with phenocrysts of clinopyroxene and olivine with inclusions of spinel. Melts probably formed from water-poor, clinopyroxene-rich mantle source)

Elburg, M.A., M.J. van Bergen & J.D. Foden (2004)- Subducted upper and lower continental crust contributes to magmatism in the collision sector of the Sunda-Banda arc, Indonesia. Geology (GSA) 32, 1, p. 41-44.
(Pb isotopes in igneous rocks from Banda-Sunda arc show increase in 206Pb/204Pb ratios toward zone of collision with Australian continent, reflecting input of subducted upper-crustal material. Maximum values coincide with anomalously radiogenic 3He/4He ratios, earlier attributed to involvement of continental margin. New interpretation does not call for involvement of ocean-island basalt (OIB) -type mantle or Australian subcontinental lithospheric mantle, as suggested previously)

Elburg, M.A., M. van Bergen, J. Hoogewerff, J. Foden et al. (2002)- Geochemical trends across an arc-continent collision zone: magma sources and slab-wedge transfer processes below the Pantar Strait volcanoes, Indonesia. Geochimica Cosmochimica Acta 66, 15, p. 2771-2789. *(online at: https://www.academia.edu/6887812/Geochemical_trends_across_an_arc_continent_collision_zone_magma_sources_and_slab_wedge_transfer_processes_below_the_Pantar_Strait_volcanoes_Indonesia)*
(Volcanoes in Pantar Strait (W part of extinct sector of E Sunda arc) across-arc variation in isotopic and trace element ratios best explained by modification of MORB-type source by subducted continental material (SCM). Frontal volcano highest proportion of fluid component. Source of rear-arc volcano influenced by partial melt of SCM that underwent previous dehydration event. Unique Pantar Strait volcanoes properties reflect magma generation where edge of Australian continent, rather than subducted sediment, contributes to magma source)

Ely, K.S. (2006)- The rise of Atauro Island, Banda Arc, East Timor. AESC 2006, Melbourne, Abstract, 2p.

(Quaternary coral uplifted to ~700m above sea level on Atauro. Brecciated dacite lavas dominate most of island; SW part of island contemporaneous basaltic andesite lavas. Volcanism ceased at ~3 Ma, linked to collision and end of subduction)

Ely, K.S., M. Sandiford, M.L. Hawke, D. Phillips, M. Quigley & J.E. dos Reis (2011)- Evolution of Atauro Island: temporal constraints on subduction processes beneath the Wetar zone, Banda Arc. J. Asian Earth Sciences 41, 6, p. 477-493.
(Atauro island in Banda Arc N of Timor. Bi-modal subaqueous volcanism with basaltic andesite and dacite-rhyolite continued until 3.3 Ma, followed by uplift of coral reef terraces to 700m elevation. Continuity of terraces at constant elevations reflects regional-scale uplift, most likely linked to slab detachment. Subduction of Australian lithosphere until near 3.3 Ma consistent with extent of Wetar seismic gap to depth of 350 km, suggesting slab breakoff started at 4 Ma)

Esenwein, P. (1930)- Petrographische Untersuchungen an Gesteinen von Paloeweh. Vulkanologische en Seismologische Mededeelingen, Dienst Mijnbouw Nederlandsch-Indie, Bandung, 11, p. 94-141.
('Petrographic investigations of rocks from Paluweh', Paluweh Island 10 km N of Flores, with active Rokatenda volcano.60 rock samples, mainly collected by Neumann van Padang. Young and older lava rocks. Not a single biotite crystal)

Esenwein, P. (1931)- Verdere onderzoekingen van eruptiefgesteenten van Paloeweh. De Mijningenieur 7, p. 116-118.
('Additional studies on volcanic rocks from Paloeweh'. Young volcanics from Paluweh island' (N of Flores))

Eva, C., M. Cattaneo & F. Merlanti (1988)- Seismotectonics of the central segment of the Indonesian Arc. Tectonophysics 146, 1-4, p. 241-259.
(On seismicity between 110° and 126° (E Java- W Timor). The Sumbawa-Flores-Wetar sector different from adjacent sectors)

Fadlin (2023)- Geology, geochronology and zircon geochemistry study of the Humpa Leu East porphyry copper-gold prospect in Hu'u District, Sumbawa Island, Indonesia. Doctoral Thesis, Graduate School of International Resource Studies, Akita University, p. 1-145.
(online at: https://air.repo.nii.ac.jp/record/6123/files/shihakukou1441.pdf)
(Humpa Leu East porphyry Cu-Au prospect in SE Sumbawa, in E end of Sunda metallogenic belt, with several world class porphyry Cu-Au deposits of Miocene-Quaternary age (Elang, Batu Hijau, etc.). U-Pb zircon dating of porphyry intrusions show age of 1.2-1.0 Ma (M Pleistocene). Zircon geochemistry suggests HLE porphyry intrusion is product of subduction in Sunda plate continental crust, not island arc in oceanic crust (not sure why; would expect older recycled zircons, not just Quaternary age zircons?; JTvG))

Fadlin, H.V. Nhatinombe, W.N. Hamzah, A. Farisan, R.M. Asfaro & M.R. Aditama (2024)- Excess alumina of plagioclase related to copper-gold enrichment: study case at the Humpa Leu East (HLE) porphyry Cu-Au prospect in HU'U District, Sumbawa Island, Indonesia. Iraqi Geological J. 57, 2B, p. 188-204.
(online at: https://igj-iraq.org/igj/index.php/igj/article/download/2282/2039/27819)
(Chemical signatures of plagioclase in intrusive rocks may be indicator of magma fertility forming porphyry copper-gold deposits)

Fadlin, R.I.H. Sulistyawan, A. Idrus, R.M. Asfaro, H.V. Nhatinombe & W.N. Hamzah (2024)- Magma petrogenesis study based on morphology and texture of zircon minerals: case study at the causative intrusive in the HLE porphyry copper-gold prospect, Sumbawa Island, Indonesia. J. Geoscience Engineering Environment Technology (JGEET) 9, 2, p. 82-89.
(online at: https://journal.uir.ac.id/index.php/JGEET/article/view/13248/6597)
(Crystal types and zoning textures of zircons from diorite near (Pliocene?) Humpa Leu East porphyry Cu-Au prospect, SW Sumbawa)

Fadlin, R. Takahashi, A. Agangi, H. Sato, A. Idrus, B. Sutopo, & R. Pratiwinda (2023)- Geology, mineralization and calcite-rich potassic alteration at the Humpa Leu East (HLE) porphyry Cu-Au prospect, Hu'u district, Sumbawa Island, Indonesia. Resource Geology 73, 1, e12309, p. 1-23.
(Humpa Leu East newly discovered porphyry Cu-Au prospects in Hu'u district, Sumbawa Island. Related to multiphase diorite and quartz diorite porphyry intrusions, hosted by andesitic crystalline tuff, volcanic breccia, and andesite lava)

Faesal, A., M.I.K.A. Aminuddin, A.S. Ubaidillah (2022)- Host rock petrology, hydrothermal alteration characteristics and ore mineralogy of porphyry copper-gold deposit, Brambang, Lombok, West Nusa Tenggara Indonesia. Proc. Materials Today, 14th AUN/SEED-Net Regional Conference on Materials, 66, p. 3071-3076.
(Brambang porphyry copper deposit in SW tip of Lombok island. Hosted in dacitic volcanic rock, diatreme breccia, and diorite intrusion)

Farmer, F. (2011)- Wetar copper project: a bugs life- 5 million years and counting? Proc. Joint 36th HAGI and 40th Annual Conv. Indonesian Association Geologists (IAGI) Conference Exhib., Makassar, p. 1-14.
(online at: https://www.iagi.or.id/web/digital/10/2011_IAGI_Makassar_Wetar-Copper-Project.pdf)
(Wetar Island comprises Miocene-Pliocene lavas (incl. pillow basalts), overlain by Pliocene deep marine Globigerina limestone and Quaternary dacitic-andesitic volcanics. Hydrothermally altered andesite lavas and basalts are host to economic mineralization. Precious metal-bearing barite sand caps were mined between 1989 and 1997. Deposits at Kali Kuning, Lerokis and Meron characterized by Au-Ag bearing unconsolidated barite sands onlapping pyritic massive sulphide mounds with Cu-Zn-Pb)

Felix, R.P., J.A. Hubbard, K.E. Bradley, K.H. Lythgoe, L. Li & A. D. Switzer (2022)- Tsunami hazard in Lombok and Bali, Indonesia, due to the Flores back-arc thrust. Natural Hazards Earth Systems Science 22, p. 1665-1682.
(online at: https://nhess.copernicus.org/articles/22/1665/2022/nhess-22-1665-2022.pdf)
(Flores backarc thrust fault system in Lombok and Bali region generated at least six ≥Ms 6.5 tsunamigenic earthquakes since 1800 CE)

Ferneyhough, A.B. & I.A. Qarana (1999)- Case history study over the Batu Hijau copper-gold porphyry in SW Sumbawa, Indonesia. SEG Technical Program, 1999, 15, 1, p. 1159-1162. *(Extended Abstract)*
(History of large 1990 Batu Hijau copper-gold porphyry discovery on SW Sumbawa by Newmont in 1990. Typical island arc porphyry deposit, hosted within tonalite intrusive complex in diorite and andesitic metavolcanics wallrock)

Fichtner, A., M. de Wit & M. van Bergen (2010)- Subduction of continental lithosphere in the Banda Sea region: combining evidence from full waveform tomography and isotope ratios. Earth Planetary Science Letters 297, p. 405-412
(Subduction of old continental lithosphere to >100 km under Banda arc suggested by tomographic images and isotope signatures in arc volcanics. Late Jurassic ocean lithosphere N of N Australian craton was capable of entraining large volumes of continental lithosphere. Timor tomographic images indicate island not directly above N margin of N Australian craton. Possible explanation involves delamination within continental crust, separating upper from lower crustal units, consistent with massive accretionary complex on Timor island, with evidence from Pb isotopes for lower-crust involvement in arc volcanism)

Fiorentini, M.L. & S.L. Garwin (2010)- Evidence of a mantle contribution in the genesis of magmatic rocks from the Neogene Batu Hijau district in the Sunda Arc, South Western Sumbawa, Indonesia. Contributions to Mineralogy and Petrology 159, p. 819-837.
(Sumbawa island is E Miocene- Holocene volcanic arc built on oceanic crust. Low-K calc-alkaline magmatic suite of Sunda arc in Batu Hijau district with juvenile signature and minimal involvement of sediment component in arc petrogenesis. Arc-transverse fault system facilitated rise of mantle-derived melts above kink or tear in subducting Indian Ocean Plate under Sunda arc. De-hydrogenation of tonalite plutons may have been crucial to genesis of Cu-Au porphyry mineralization and development of Pliocene Batu Hijau deposit)

Franchino, A., E. Bellini & A. Brizio (1988)- Geological notes on the age of the limestones of the Island of Lombok. Indonesia. Memorie di Scienze Geologiche, Padova, 40, p. 335-368.
(Lombok mainly composed of Tertiary volcanics, in S part associated with limestones and marls. At Sekotong Barang on SW coast isolated hills of Late Oligocene limestone (Te1-4; with Spiroclypeus, Eulepidina, etc.). Central southern hills limestones with Late Oligocene- E Miocene (Te4-Te5; Miogypsinoides) and M Miocene ages (Tf1; Lepidocyclina, Miogypsina) (limestone ages on Lombok partly older than Wonosari Limestone of S Java and Nusa Dua/ S Bali?; JTvG))

Garwin, S.L. (2000)- The setting, geometry and timing of intrusion-related hydrothermal systems in the vicinity of the Batu Hijau porphyry copper-gold deposit, Sumbawa, Indonesia. Ph.D. Thesis, University of Western Australia, Nedlands, p. 1-320. *(Unpublished)*
(~1500m thick E-M Miocene low-K calc-alkaline andesitic volcanoclastics of Sunda-Banda arc, with thin limestone interbeds, and cut by several phases of Mio-Pliocene intrusions. Sumbawa segment of arc overlies oceanic crust. Felsic magmatism and related hydrothermal systems between ~7.1- 3.7 Ma probably related to collision with microcontinent or leading edge of Australian Shelf and Banda Arc near Timor. Subduction of buoyant Roo Rise oceanic plateau, S of Sumbawa, inferred to have caused kink or tear in downgoing slab, which enhanced delivery of mantle-derived melts to overlying arc)

Garwin, S. (2002)- The geologic setting of intrusion-related hydrothermal systems near the Batu Hijau porphyry copper-gold deposit, Sumbawa, Indonesia. In: R.J. Goldfarb & R.L. Nielsen (eds.) Global Exploration in the 21st Century, Colorado, Soc. Economic Geologists (SEG), Special Publ. 9, p. 333-366.

Garwin, S. (2012)- District-scale expression of intrusion-related hydrothermal systems near the Batu Hijau porphyry copper-gold deposit, Sumbawa, Indonesia. In: N.I. Basuki (ed.) Proc. Annual Conv. Indonesian Soc. Economic Geologists (MGEI). Malang 2012, Banda and Eastern Sunda arcs, p. 133-158.

Garwin, S.L. & Herryansyah (1992)- Geological setting, style and exploration of gold-silver mineralisation on Romang Island, Moluccas province, East Indonesia. In: M. Simatupang & N. Wahju Beni (eds.) Indonesian mineral development 1992, Indonesian Mining Association (IMA), p. 258-274.

Gerteisen, C.N. (1998)- Volcanic stratigraphy of the Batu Hijau porphyry copper-gold deposit, southwest Sumbawa, Indonesia. M.Sc. Thesis, Curtin University, Western Australia School of Mining, Kalgoorlie, p. 1-58. *(Unpublished)*
(Batu Hijau porphyry copper-gold deposit in SW Sumbawa in Sunda-Banda volcanic arc, but also affected by S-dipping subduction N of Sumbawa (more recent arc polarity reversal), a configuration conducive to porphyry type mineralization. Copper-gold mineralization associated with tonalite intrusive, which intruded older quartz diorite and low K, calc-alkaline andesites. Volcanic rocks generally SW dipping, with 4 major units, formed on flanks of stratovolcano: (1) volcaniclastic sandstone and breccia/conglomerate; (2) volcaniclastic breccia; (3) volcaniclastic mudstone, sandstone, breccia; (4) basal hypabyssal andesite)

Griffin, J., Ngoc Nguyen; P. Cummins & A. Cipta (2018)- Historical earthquakes of the Eastern Sunda Arc: source mechanisms and intensity-based testing of Indonesia's National Seismic Hazard Assessment. Bull. Seismological Society of America 109, 1, p.

Guzman-Speziale, M. & J.F. Ni (1996)- Seismicity and active tectonics of the Western Sunda Arc. In: A. Yin & M. Harrison (eds.) The tectonic evolution of Asia, Cambridge University Press, p. 63-84.

Halbach, P., L. Sarmili, M. Karg, B. Procejus, B. Melchert, J. Post, E. Rahders & Y. Haryadi (2003)- The break-up of a submarine volcano in the Flores-Wetar Basin (Indonesia); implications for hydrothermal mineral deposition. InterRidge News 12, 1, p. 18-22.
(online at: https://www.interridge.org/files/interridge/IR_news_12a.pdf)
(BANDAMIN I cruise in 2001 examined SE trending submarine ridge in tectonically active Flores-Wetar Basin, extending to Komba (Batu Tara) volcano. Seamount cross-cut by left-lateral NW-SE faults, with intervening z-

shaped plain (pull-apart structure). Rock samples K-rich porphyritic volcanics (trachyandesites, trachydacites), locally impregnated with sulphides (epithermal low-sulphidation metal deposits))

Halbach, P., L. Sarmili, B. Procejus, M. Karg, B. Melchert, J. Post et al. (2003)- Tectonics of the "Komba-ridge" area in the Flores-Wetar Basin (Indonesia) and associated hydrothermal mineralization of volcanic rocks. Bulletin of the Marine Geology (MGI, Bandung) 18, 3, p. 1-27.
(In Flores-Wetar basin N of Lomblen NW-SE trending submarine hills extending to Komba Island (Batu Tara). Hills cut by several NW-SE faults. Samples mainly porphyritic K-rich basaltic trachyandesite and trachydacite. With epithermal-type mineralization halo)

Hantoro, W.S., P.A. Pirazzoli, C. Jouannic, H. Faure, C.T. Hoang, U. Radtke, C. Causse, M. Borel Best, R. Lafont, S. Bieda & K. Lambeck (1994)- Quaternary uplifted coral reef terraces on Alor Island, East Indonesia. Coral Reefs 13, 4, p. 215-223.
(Alor Island in Banda Arc N of Timor has six major coral reef terraces, up to 580m in altitude, up to 500 ka old. Radiometric dates of terraces correspond to Holocene oxygen-isotope stages 5c, 5e and 7. Mean rate of uplift 1.0-1.2 mm/y. Extrapolation to whole sequence of terraces reveals good correlation between major terraces and interglacial stages corresponding to up to oxygen isotope stage 13)

Harahap, B.H., H.Z. Abidin, H. Utoyo, D. Djumhana & R. Yuniarni (2014)- Prospect of mineral deposits in the Central Flores Island, Eastern Indonesia. Proc. 43rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, PIT IAGI 2014-068, p. 1-22.
(online at: https://www.iagi.or.id/web/digital/6/2014_IAGI_Jakarta_Prospect-Of-Mineral.pdf)
(Sikka and Ende Regencies of C Flores with unexploited gold, base metal, iron ore and manganese deposits. With potential for commercial mineral deposits in Miocene and younger volcanics, including epithermal, porphyry, skarn and volcanogenic massive sulfide of Kuroko type)

Harahap, B.H., H.Z. Abidin, H. Utoyo, D. Djumhana & R. Yuniarni (2015)- Prospect of mineral deposits in the Central Flores Island, Eastern Indonesia. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 16, 1, p. 1-13.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/46/48)
(Same paper as Harahap et al. 2014, above)

Harris, C.W. & S. Miller (2022)- Mantle flow deflected by arc-continent collision and continental subduction in Eastern Indonesia. Seismological Research Letters 93, 3, p. 1812-1834.
(Indo-Australian plate subduction beneath Sunda-Banda arc shows along-strike transition from oceanic subduction to continental subduction and collision (near C Flores). Teleseismic SKS and SKKS waves reveal shift in sub-slab fast axes from trench-parallel to trench-perpendicular near ocean-continent boundary in lower plate, related to regional subslab mantle flow being deflected around subducted continental lithosphere)

Harris, C.W., S. Miller, P. Supendi & S. Widiyantoro (2020)- Subducted lithospheric boundary tomographically imaged beneath arc-continent collision in eastern Indonesia: J. of Geophysical Research: Solid Earth 125, 8, e2019JB018854, p. 1-16.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1029/2019JB018854)
(P-wave tomographic model of upper mantle beneath E Indonesia, where subduction of Indo-Australian plate under Banda Arc transitions to arc-continent collision, due to change from oceanic to continental lithosphere in lower plate. Subducted Indo-Australian slab with difference in dip angle between oceanic and continental sections, but without tearing across continent-ocean boundary. Deformation in tectonic collisions can be localized along continent-ocean boundary, even at depth. Future slab tearing may develop)

Hartono, H.M.S. (1961)- Geological investigation at Olabula. Djawatan Geologi (Bandung), p. 1-42.
(Unpublished? report on geology of area that became well-known for its Pleistocene faunas, including hominid stone tools, etc. (see a.o. Maringer & Verhoeven 1971 and later Dutch and Australian expeditions)

Heering, J. (1942)- Geological investigations in East Wetar, Alor and Poera Besar. In: H.A. Brouwer (ed.) Geological Expedition of the University of Amsterdam to the Lesser Sunda Islands 4, Noord Hollandsche Publ. Co., Amsterdam, p. 1-129. *(also as Proefschrift (Doct. Thesis) University of Amsterdam, June 1941)*
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:038262000:00011)
(Results of 1937 geological survey of three (currently inactive) Banda Arc volcanic islands North of Timor (E Wetar, C Alor and Poera Besar). E Wetar mainly Late Teriary andesitic-dacitic submarine lavas (some with cordierite), associated with Globigerina marls. C Alor mainly pyroxene andesite, also with submarine characteristics with Globigerina marl intercalations. Poera Besar between Pantar and Alor is 1015m high currently inactive volcano island. Uplifted terraces succest recent uplift. Etc.)

Hendaryono (1998)- Contribution a l'etude geologique de l'ile de Flores. Doct. Thesis Universite de Savoie, Chambery, p. 1-200. *(Unpublished)*
(Abstract at http://edytem.univ-savoie.fr/archives/lgham/hendaryono-r-eng.html)
('Contribution to the geological study of Flores island'. Flores has 13 active volcanoes. Two cycles of volcanism: oldest exposed lavas Late Oligocene (radiometric ages 25.7-27.7 Ma), 17 other lavas M-L Miocene ages (16-8.4 Ma). Latest Miocene- Quaternary calc-alkaline andesites-dacites (6.7-1.2 Ma) in S coastal areas. Associated sediments with reworked microfaunas: turbiditic tuffaceous M Miocene Nangapanda Fm, M-U Miocene Bari Fm reef limestone, U Miocene Laka Fm chalky tuffaceous beds with pumice)

Hendaryono, J.P. Rampnoux, H. Bellon, R.C. Maury, C.I. Abdullah & R. Soeria-Atmadja (2001)- New data on the geology and geodynamics of Flores Island. Eastern Indonesia. Proc. 30th IAGI and 10th GEOSEA Regional Congress, Yogyakarta, p. 195-199. *(Extended Abstract)*

Herman, D.Z. (2008)- Mineralisasi pada batuan induk batugamping di daerah Lepadi, Dompu, Nusa Tenggara Barat. Jurnal Geologi Indonesia 3, 3, p. 175-182.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/230)
('Mineralization in limestone rocks near Lepadi, Dompu' (Sumbawa). Limestones (supposedly Miocene age and looking like pelagic biomicrite and associated with Miocene volcanics) with hydrothermal quartz veins with galena and other metallic minerals)

Herrington, R.J., P.M. Scotney, S. Roberts, A.J. Boyce & D. Harrison (2011)- Temporal association of arc-continent collision, progressive magma contamination in arc volcanism and formation of gold-rich massive sulphide deposits on Wetar Island (Banda arc). Gondwana Research 19, 3, p. 583-593.
(Sr, O and He analyses of volcanic rocks and sulphides- sulphates from mineralized rocks on Wetar indicate increased continental contamination in Pliocene during distinct magmatic events between 5-4 Ma, and at 2.4 Ma when 87Sr/86Sr ratios in unaltered lavas increase from 0.707484 to extreme radiogenic values of 0.711656. (highest crustal assimilation in region). Magmatic events of 5- 4 Ma with volcanogenic massive sulphide/ gold-barite deposits near N coast of Wetar. Event at 2.4 Ma (coincident with arrival of Australian continental margin at subduction zone along Banda arc))

Hoschke, T. (2012)- Geophysics of the Elang Cu-Au porphyry deposit, Indonesia, and comparison with other Cu-Au porphyry systems. In: 22nd ASEG Int. Geophysical Conf. Exhib., Brisbane 2012, p. 1-3. *(Extended Abstract)*
(online at: www.publish.csiro.au/ex/pdf/ASEG2012ab178)
(Elang large porphyry Cu-Au deposit ~70 km E of Batu Hijau on SE Sumbawa. Associated with tonalite porphyry intrusions hosted by andesitic volcanics. Elang typical of number of Cu-Au porphyry systems where magnetite associated with mineralisation produces strong magnetic anomaly)

Hunerwadel, F.M. (1921)- Die Eruptivgesteine von Nord-Mittel Soembawa (Niederlandisch-Indien). Inaugural Dissertation Universitat Basel, p. 1-28.
('The volcanic rocks of North-Central Sumbawa'. Petrographic descriptions of andesites, dacites and basalts, collected by Pannekoek van Rheden in 1910-1912)

Hutabarat, J., A.D. Haryanto & L. Sarmili (2006)- Petrografi batuan beku volkanik bawah laut kompleks Gunung Komba, Laut Flores, Indonesia. Bull. Scientific Contribution (UNPAD) 4, 1, p. 62-67.

(online at: http://jurnal.unpad.ac.id/bsc/article/viewFile/8115/3691)
('Petrography of submarine volcanic rocks of the Mount Komba complex, Flores Sea, Indonesia'. Dredge samples from water depths 130-900m of Gunung Komba submarine volcano complex, NE of Flores, composed of andesite-basaltic lava flows. Varying degrees of propylitic or sericitic alteration)

Idrus, A. (2006)- Petrology, geochemistry, and compositional changes of diagnostic hydrothermal minerals within the Batu Hijau porphyry copper-gold deposit, Sumbawa Island, Indonesia: Ph.D. Thesis RWTH Aachen University, p. 1-351. *(Unpublished)*

Idrus, A. (2006)- P-T conditions and oxygen fugacity of the intrusion emplacement at the Batu Hijau porphyry copper gold deposit, Sumbawa Island: a constraint from geothermobarometric data. Media Teknik (UGM) 28, 2, p. 11-18.
(Large Batu Hijau porphyry copper-gold deposit in SW Sumbawa. Tonalite porphyries emplaced at ~5.5 km depth (764°C, 1.5 kbar). Hornblende and plagioclase crystallized at 540°C. Uplift rate since 3.7 Ma 1.2 mm/yr)

Idrus, A. (2008)- Transport and deposition of copper and gold in porphyry deposit: a constraint from microthermometry and hydrothermal biotite chemistry. Media Teknik (UGM) 30, 3, p. 276-283.
(On deposition of copper and gold in Batu Hijau porphyry deposit, SW Sumbawa)
(online at: http://isjd.pdii.lipi.go.id/admin/jurnal/3308276283.pdf)

Idrus, A. (2018)- Petrography and mineral chemistry of magmatic and hydrothermal biotite in porphyry copper-gold deposits: a tool for understanding mineralizing fluid compositional changes during alteration processes. Indonesian J. on Geoscience (IJOG) 5, 1, p. 47-64.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/402/254)
(On magmatic and hydrothermal biotite in Batu Hijau porphyry copper-gold deposit, Sumbawa)

Idrus, A. (2018)- Halogen chemistry of hydrothermal micas: a possible geochemical tool in vectoring to ore for porphyry copper-gold deposit. J. Geoscience Engineering Environment Technology (JGEET) 3, 1, p. 30-38.
(online at: journal.uir.ac.id/index.php/JGEET/article/download/1022/797/)
(On hydrothermal micas in alteration zone of Batu Hijau porphyry copper-gold deposit, Sumbawa)

Idrus, A., J. Kolb & F.M. Meyer (2006)- Physicochemistry and evolution of ore-related hydrothermal fluids at the Batu Hijau porphyry copper-gold deposit: a constraint from mineral composition and microthermometry. Proc. 35th Annual Conv. Indonesian Association Geologists (IAGI), Pekanbaru, p. 1-15.
(Changes in mineral chemistry in Batu Hijau porhyry copper deposit document progressive chemical fluid evolution, with predominance of magma-derived fluids in central deposit and increasing degree of mixing with less saline, cool meteoric water from towards the distal deposits)

Idrus, A., J. Kolb & F.M. Meyer (2007)- Chemical composition of rock-forming minerals in copper-gold-bearing tonalite porphyry intrusions at the Batu Hijau deposit, Sumbawa Island, Indonesia: implications for crystallisation conditions and fluorine-chlorine fugacity. Resource Geology 57, 2, p. 102-113.
(online at: http://onlinelibrary.wiley.com/doi/10.1111/j.1751-3928.2007.00010.x/epdf)
(Batu Hijau copper-gold porphyry deposit on Sumbawa related to emplacement of multiple stages of Pliocene (~3.7 Ma) tonalite porphyries into Late Oligocene- M Miocene andesitic volcanics. Tonalites emplaced at ~764°C and hornblende and plagioclase phenocrysts crystallized at depths of ~5.5 km)

Idrus, A., J. Kolb, F.M. Meyer, J. Arif, D. Setyandhaka & S. Kepli (2009)- A preliminary study on skarn-related calcsilicate rocks associated with the Batu Hijau porphyry copper-gold deposit, Sumbawa Island, Indonesia. Resource Geology 59, 3, p. 295-306.
(online at: http://onlinelibrary.wiley.com/doi/10.1111/j.1751-3928.2009.00097.x/epdf)
(Deep drilling at Batu Hijau porphyry Cu-Au deposit on Sumbawa indicates several intervals of calcic-exoskarn near contact with copper-gold-bearing tonalite porphyries. Massive magnetite-chalcopyrite-pyrite assemblages formed by contact metasomatism of andesitic volcaniclastic rocks)

Idrus, A., F.M. Meyer & J. Kolb (2009)- Mineralogy, lithogeochemistry and elemental mass balance of the hydrothermal alteration associated with the gold-rich Batu Hijau porphyry copper deposit, Sumbawa Island, Indonesia. Resource Geology 59, 3, p. 215-230.
(online at: http://onlinelibrary.wiley.com/doi/10.1111/j.1751-3928.2009.00092.x/epdf)
(Hydrothermal alteration and mineralisation at Batu Hijau porphyry copper-gold deposit developed in four stages. Early central biotite alteration associated with highest copper-gold grades and originated by magmatic hydrothermal fluid. Emplacement of tonalite porphyry intrusions at ~3.7 Ma)

Idrus, A. & E.B. Pramutadi (2008)- Mineralisasi bijih dan geokimia batuan samping vulkanoklastik andesitik yang berasosiasi dengan endapan tembaga- emas porfiri Elang, Pulau Sumbawa, Nusa Tenggara Barat. Seminar Nasional Aplikasi Sains dan Teknologi 2008, IST AKPRIND, Yogyakarta, p. 29-37.
(online at: http://repository.akprind.ac.id/sites/files/conference-paper/2008/idrus_21165.pdf)
('Ore mineralization and geochemistry of volcanoclastic andesitic rocks associated with the deposition of copper-gold porphyry of Elang, Sumbawa, West Nusa Tenggara'. Elang porphyry copper-gold deposit in Late Oligocene-M Miocene andesitic volcaniclastic rocks with multiple Miocene-Pleistocene (mainly at ~3.7 Ma) tonalite intrusions)

Iksan Bin Matrais, D. Pfeiffer, R. Soekardi & L.W. Stach (1972)- Hydrogeology of the island of Lombok. Beihefte Geologisches Jahrbuch, 123, p. 1-23.
(Summary of 1969-1970 hydrogeological survey of Lombok. S Lombok mainly E Miocene ('Old Andesite') andesite-dacite volcanics, overlain by 150m of S-dipping U Miocene limestones. Mainly Quaternary volcanics in northern mountains. With 1:400k scale hydrogeologic map)

Imai, A. & Y. Nagai (2009)- Fluid inclusion study and opaque mineral assemblage at the deep and shallow part of the Batu Hijau porphyry Cu-Au deposit, Sumbawa, Indonesia. Resource Geology 59, 3, p. 231-243.
(online at: http://onlinelibrary.wiley.com/doi/10.1111/j.1751-3928.2009.00093.x/epdf)
(Batu Hijau mine on SW Sumbawa is only porphyry type deposit in production in Sunda-Banda arc, Indonesia. Sumbawa island formed by E Miocene- Recent volcanism on ~14-23 km thick oceanic crust. Four types of quartz veins. Bornite and chalcopyrite inclusions in coarse magnetite grains in quartz veins indicates hydrothermal activity initially deposited magnetite and copper sulfides at depth)

Imai, A. & S. Ohno (2005)- Primary ore mineral assemblage and fluid inclusion study of the Batu Hijau porphyry Cu-Au deposit, Sumbawa, Indonesia. Resource Geology 55, 3, p. 239-248.
(online at: http://onlinelibrary.wiley.com/doi/10.1111/j.1751-3928.2005.tb00245.x/epdf)
(Batu Hijau porphyry Cu-Au deposit associated with tonalitic intrusive complex. Bornite and chalcopyrite are major copper ore minerals associated with quartz veins. Temperature and pressure during hydrothermal activity at Batu Hijau deposit ~300 °C and 50 bars)

Irianto (1990)- Geologi gunungapi Sangeanapi, Bima- Nusatenggara Barat. Proc. 19th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 214-219.
(online at: https://www.iagi.or.id/web/digital/48/19th-(11-13-Des-1990)-Book-II-202-207.pdf)
('Geology of the Sangeanapi volcano, Bima, West Nusatenggara'. Sangeang Api Quaternary active volcano off NE tip of Sumbawa island)

Irianto, B. & G.H. Clark (1995)- The Batu Hijau porphyry copper-gold deposit, Sumbawa Island, Indonesia. In: J.L. Mauk & J.D. St. George (eds.) Proc. Pacific Rim Congress 95, Auckland 1995, Australasian Institute of Mining and Metallurgy (AusIMM), Melbourne, Publ. Ser. 9-95, p. 299-304.

Johnstone, R.D. (2005)- Contrasting geothermal fields along the magmatic Banda Arc, Nusa Tenggara, Indonesia. Proc. World Geothermal Congress, Antalya, Turkey, 2005, p. 1-8.
(online at: http://iga.igg.cnr.it/geoworld/pdf/WGC/2005/0627.pdf)

Kadar, D. (1972)- Upper Miocene planktonic foraminifera from Bali. Jahrbuch Geologischen Bundesanstalt, Vienna, Sonderband 19, p. 58-70.

(online at: https://www.zobodat.at/pdf/JahrbGBA-SB_19_0058-0072.pdf)
(Well-illustrated descriptions of planktonic foraminifera from outcrops of open marine marls in SW Bali and calcareous sandstone from SE Bali, interpreted as latest Miocene in age (may include E Pliocene?; JTvG)

Kadar, D. (1973)- Notes on the age of the limestones in the southern peninsula, Bali Island. Direktorat Geologi Indonesia, Bandung, Publikasi Teknik- Seri Paleontologi, p. 13-15.
(Samples from 500-600m thick, S-dipping Selatan Fm limestones of southern peninsula of Bali, with Lepidocyclina (looks like rel. young radiate type; JTvG), Cycloclypeus and some planktonic foraminifera including Orbulina. Good evidence for Middle-Late Miocene age)

Kadar, D. (1978)- Upper Pliocene and Pleistocene planktonic foraminiferal zonation of Ambengan drill hole, southern part of Bali island. Proc. 2nd Working Group Meeting, Biostratigraphic datum-planes of the Pacific Neogene IGCP Project 114, Geological Research Development Centre (GRDC), Bandung, Special Publ. 1, p. 137-158.
(Planktonic foraminifera zones N21-N23 in 201 m deep Ambengan core hole)

Kazmer, M., R. Nahar & K. Gaidzik (2024)- Late Holocene seismic uplift events depicted by coastal karst formations in Bali, Indonesia. Quaternary International 712, 109577, p. 1-9.
(online at: https://www.sciencedirect.com/science/article/pii/S1040618224003641)
(Set of four marine limestone terraces at Suluban Beach, up to 2 m above level, linked to earthquakes)

Kepli, S., A. Bastian, H. Sulistyo & D. Hendri (2015)- Exploration significance of Elang porphyry Cu-Au deposit, Sumbawa, Indonesia. In: N.I. Basuki (ed.) Proc. Indonesian Soc. Economic Geologists (MGEI) 7th Annual Conv., Balikpapan, p. 35-46.
(Elang deposit is large Cu-Au orebody 60 km E of Batu Hijau mine on S Sumbawa. Discovered in 1991. Multiple diorite-tonalite intrusive complexes in andesitic volcanic unit. Resources 1476 Mt at 0.34% copper, 0.35 g/t gold and 1.0 g/t silver. Mineralization mainly chalcopyrite and minor bornite, related to multiple tonalite porphyry intrusions in andesitic volcanics)

Kant, W., I.W. Warmada, A. Idrus, L.D. Setijadji & K. Watanabe (2012)- Ore mineralogy and mineral chemistry of pyrite, galena, and sphalerite at Soripesa prospect area, Sumbawa Island, Indonesia. J. of Applied Geology (UGM) 4, 1, p. 1-14.
(online at: http://geologic-risk.ft.ugm.ac.id/fresh/jsaag/vol-4/no-1/jsaag04-art01-WinKant.pdf)
(Soripesa prospect area in E Sumbawa in lithic-crystal tuff of andesitic and dacitic composition and bedded limestone. Polymetallic epithermal quartz veins hosted by (Lower Miocene?) andesitic volcaniclastic rocks)

Kant, W., I.W. Warmada, A. Idrus, L.D. Setijadji & K. Watanabe (2012)- Fluid inclusion study of the polymetallic epithermal quartz veins at Soripesa prospect area, Sumbawa Island, Indonesia. J. Southeast Asian Applied Geology (UGM) 4, 2, p. 77-89.
(online at: https://jurnal.ugm.ac.id/jag/article/view/7199)
(Soripesa prospect at Maria village, Bima region in E Sumbawa Island in Cenozoic calc-alkaline volcanic inner Banda-Sunda Arc. Five main polymetallic epithermal quartz veins. Fluid inclusion stud suggest formation T of all veins are between 250-260◦C. Estimated paleodepths of formations are 270m for Merpati vein, 400m for Dollah vein, 480m for Rini vein, 570m for Arif vein, and 680m for Jambu Air vein. Etc..

Kemmerling, G.L.L. (1926)- De vulkaan G. Dobo op Flores. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 43, 2, p. 257-
('The volcano G. Dobo on Flores'. Gunung Dobo near Maumere on Flores island commonly listed as active volcano, but it is not and needs to be reclassified. Probably confused with Gunung Egon)

Kemmerling, G.L.L. (1927)- Les volcans actifs de l'Ile de Flores. Bulletin of Volcanology (Bulletin Volcanologique) 4, 1, p. 50-68.
('The active volcanoes of Flores Island')

Kemmerling, G.L.L. (1929)- Bespreking van Ehrat, H., Die Tiefengesteine der kleinen Sunda Inseln. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (KNAG) (2), 46, p. 273-275.
('Review of Ehrat (1928) paper on plutonic rocks from Flores and other northern Lesser Sunda Islands, occurring mainly as granodiorite and gabbro inclusions in Recent lavas. In Flores granite, diotite and gabbro in outcrop. All collected during Ehrat's private expedition the Lesser Sunda Islands)

Khant, W., I.W. Warmada, A. Idrus, L.D. Setijadji & K. Watanabe (2012)- Alteration mineralogy and quartz textures of polymetallic epithermal quartz veins at Soripesa prospect area, Sumbawa Island, Indonesia. Proc. 2nd Asia Africa Mineral Resources Conferences, Bandung 2012, p. 1-6.
(online at: www.researchgate.net/publication/259990678_Alteration_Mineralogy_and_Quartz_Textures Etc.)

Khant, W., I.W. Warmada, A. Idrus, L.D. Setijadji & K. Watanabe (2013)- Geochemical characteristics of host rocks of polymetallic epithermal quartz veins at Soripesa prospect area, Sumbawa Island, Indonesia. Procedia Earth Planetary Science 6, p. 30-37.
(online at: https://www.sciencedirect.com/science/article/pii/S1878522013000052)
(Soripesa prospect area in Wawo district, Bima region, E Sumbawa, with five main polymetallic epithermal quartz veins. Host rocks mainly lithic-crystal tuff of andesitic and dacitic composition (formed in volcanic arc basalt and island arc basalt tectonic setting) and bedded limestone)

Khant, W., I.W. Warmada, A. Idrus, L.D. Setijadji & K. Watanabe (2013)- Host rocks' geochemistry and mineralization potential of polymetallic epithermal quartz veins at Soripesa prospect area, Sumbawa Island, Indonesia. J. Southeast Asian Applied Geology (UGM) 5, 1, p. 30-40.
(online at: http://geologic-risk.ft.ugm.ac.id/fresh/jsaag/vol-5/no-1/jsaag05-art04-WK.pdf)
(Soripesa prospect in Bima region, E Sumbawa, with five main polymetallic epithermal quartz veins. Dominant lithology andesitic- dacitic lithic-crystal tuff and bedded limestone. E Sumbawa underlain by Lower Miocene andesitic- basaltic lava and breccia, with intercalations of tuff and limestone, overlain by M Miocene dacitic tuff and bedded limestone. Units intruded by numerous small-medium bodies in M-U Miocene. Formation of quartz veining, alteration and mineralization at Soripesa related to N-S faulting. Host rocks of veins formed in volcanic arc basalt and island arc basalt tectonic settings)

Kirom, N., A. Idrus, L.D. Setijadji & A. Vanessa (2024)- Geology and ore mineralization characteristics of the Selodong Prospect, Lombok Island, Indonesia. Proc. Int. Conf. Geological Engineering and Geosciences, Yogyakarta 2023, IOP Conference Series: Earth and Environmental Science 1373, p. 012038, p. 1-16.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1373/1/012038/pdf)
(Selodong gold prospect in SW Lombok in eroded portions of Miocene arc with porphyry Cu-Au mineralized complexes. Likely porphyry deposit type, transitional to overlying high sulfidation epithermal mineralization)

Koesoemadinata, S., Y. Noya & D. Kadarusman (1994)- Geological map of the Ruteng Quadrangle, Nusa Tenggara, 1: 250,000. Geological Research Development Centre (GRDC), Bandung.
(online at: https://perpustakaan.big.go.id/index.php?p=fstream-pdf&fid=2290&bid=5390)
(Western Flores island map. Among oldest formations is M Miocene Nangapanda Fm, >1000m thick, mainly pelagic clastics at base, sands and limestones towards top (~16.2-10.2 Ma; Muraoka et al. 2002). Unconformably overlain by Late Miocene- Pliocene Waihekang tuffaceous sediments and Wangka Andesite (K-Ar ages 4.13, 2.96 Ma; Muraoka et al. 2002). Common young volcanic deposits

Komazawa, M., K. Matsukubo, Z. Nasution & Sundhoro (2002)- Gravity anomalies of the central Flores Island, Indonesia. Bull. Geological Survey of Japan 53, 2/3, p. 231-238.
(online at: https://www.gsj.jp/data/bulletin/53_02_15.pdf)

Kusnida, D. (2001)- Results of a marine geophysical survey in the Bali basin, Indonesia. Proc. 37th Annual Session CCOP, Bangkok 2000, 2, United Nations ESCAP, Technical Reports, p. 122-128.
(Marine geophysical survey in deep water Bali Basin, between East Java and Flores basins. Back arc basin developed on SE Sunda shelf margin, underlain by thinned transitional to continental like crusts. Present tectonic activity governed by Late Pliocene collision of Indian-Australian and Eurasian plates. Three Late Pliocene-

Recent deep-water seismostratigraphic sequences, probably indicating three stages of differential tectonic uplift of surrounding highs)

Kusnida, D., I.N. Astawa & A. Wahib (1992)- Preliminary results of marine geophysical surveys in the Bali Sea, eastern Madura Strait. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 2, 13, p. 2-7.
(Seismic and magnetic anomalies in series of profiles from N of Bali/ E Madura Straits. Late Neogene folding event shown along S flank of Madura-Kangean High. -200mgal contour on steep slope of Total Magnetic Anomaly contour map (close to 150m bathymetric contour) indicates E-W trending boundary between SE passive margin of Sunda Shelf in N and W-most tip of Flores backarc basin in S)

Kusnida, D., E. Mirnanda;,T.B. Nainggolan, Subagio & A. Albab (2023)- Interpretation and mapping of geologic structure in the Bali Basin based on integrated gravity, magnetic, and seismic data analysis. The Leading Edge 42, 12, p. 837-844.

Kusnida, D., M.E.R. Suparka & M.I.T. Taib (2000)- Basement rocks interpretation of the Bali backarc basin: deduced from marine geomagnetic data. Proc. 29th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 4, p. 227-234.
(Marine magnetic survey data from deep basin N of Bali-Lombok suggest underlain by 6-9.5km thick gabbroic-basaltic oceanic or transitional crust)

Kusnida, D., M.T. Zen, M.I.T. Taib & M. Bayuargo (2000)- A preliminary appraisal of the magnetic anomalies over the Bali backarc basin- Indonesia. Proc. 36th Session Coord. Comm. Coastal and Offshore Programmes E and SE Asia (CCOP), Hanoi 1999, p. 73-81.
(Marine geomagnetic survey data from deep water Bali backarc basin N of Bali and Madura Straits show different character. Madura Straits and Madura-Kangean high total magnetic intensity anomalies and underlain by dioritic rocks, Bali Basin low magnetic intensity and interpreted to be underlain by basaltic rocks)

Large, S.J.E., J.F. Wotzlaw, M. Guillong, A. von Quadt & C.A. Heinrich (2020)- Resolving the timescales of magmatic and hydrothermal processes associated with porphyry deposit formation using zircon U-Pb petrochronology. Geochronology 2, 2, p. 209-230.
(online at: https://www.researchgate.net/publication/343355657_Resolving_the_timescales_of_magmatic_and_hydrothermal_processes_associated_with_porphyry_deposit_formation_using_zircon_U-Pb_petro Etc.))
(High-precision Zr geochronology (CA-ID-TIMS) and spatially resolved Zr geochemistry (LA-ICP15 MS) used to constrain magmatic evolution of magma reservoir at Pliocene Batu Hijau porphyry-Cu-Au deposit. Emplacement of the oldest pre- to syn-ore tonalite ~3.74 Ma; youngest tonalite porphyry cutting economic Cu-Au mineralisation 3.65 Ma, constraining duration of metal precipitation to less than 90 ± 32 kyr)

Liang, Y., X. Sun, W. Zhai, A. Li, Li Xu, Q. Tang & J. Liang (2009)- Geochemistry of ore-forming fluids and genesis of Soripesa Cu-polymetallic deposit in Indonesia. Geology and Exploration 45, 1, p. 41-45.
(Soripesa epithermal hydrothermal Cu-polymetallic deposit on Sumbawa with three types of fluid inclusions)

Luschen, E., C. Muller, H. Kopp, M. Engels, R. Lutz, L. Planert, A. Shulgin & Y.S. Djajadihardja (2011)- Structure, evolution and tectonic activity of the eastern Sunda forearc, Indonesia, from marine seismic investigations. Tectonophysics 508, p. 6-21.
(online at: https://www.academia.edu/49178646/Structure_evolution_and_tectonic_activity_of_the_eastern_Sunda_forearc_Indonesia_from_marine_seismic_investigations)
(Study of forearc structures of E Sunda Arc. Seismic profiles show high along-strike variability of subducting oceanic plate, accretionary wedge, outer arc high, forearc basins, etc. Images of large-scale duplex formation of oceanic crust and mud diapyrs. Wrench fault system in E Lombok forearc basin decouples subduction regime of Sunda Arc from continent-island arc collision regime of W Banda Arc)

Malawani, M.N. (2023)- Impacts of volcanic eruptions on the landscape evolution of Lombok Island, Indonesia. Geography. Universite Pantheon-Sorbonne, Paris I, p. 1-254.
(online at: https://theses.hal.science/tel-04531914v1/file/MALAWANI.pdf)

(On impacts of volcanic eruptions on Lombok Island, from field studies and ancient manuscripts, primarily about impacts of 1257 CE Samalas volcano eruption in W Lombok (ejecta volume ~40 km3 dense rock equivalent, leaving 6km-wide caldera) and the giant >500km^2, 40km wide Holocene Kalibabak debris avalanche deposit (volcanic sector collapse and resulting debris avalanche S of Samalas volcano between 5,000- 2,600 BCE) (ranking 3rd after Raung and Galunggung debris avalanch deposits). Etc.)

Malawani, M.N., D.S. Hadmoko, F. Lavigne, R.F. Agniy, D.M. Hayat, R.D. Astabella, A. Laksono, Syamsuddinn & B.W. Mutaqin (2024)- Review on the impacts of the Samalas Eruption (1257 CE) to the hydrogeological conditions of Mataram, Lombok. Indonesian J. on Geoscience (IJOG) 11, 3, p. 339-348.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/953/482)
(Mataram Plain alluvial layer of sand mixed woth Samalas pumice now forms unconfined freshwater aquifer)

Malawani, M.N., F. Lavigne, D.S. Hadmoko,M.A. Marfai & B.W. Mutaqin (2020)- Hummocky terrain of the Kalibabak debris avalanche deposit, Lombok Island, Indonesia. Proc. 1st Geosciences and Environmental Sciences Symposium (ICST 2020), UGM, Yogyakarta (virtual), E3S Web of Conferences 200, 02015, p. 1-6.
(online at: https://www.e3s-conferences.org/articles/e3sconf/pdf/2020/60/e3sconf_icst2020_02015.pdf)
(Kalibabak volcaniclastic debris avalanche deposit in central Lombok Island (S of Rinjani/Samalas volcanic complex). Hummock field spans ~200 km^2, with volume ~ 8.8 km^3 and >756 hills/hummocks, with av. size 2.7 ha and height 10-20m. Distance between hummocks ~150-300m. Hummocks characterized by steep slopes (25-45 %). Max. runout distance ~36km, larger than any known volcanic debris avalanche, like Mt St Helens, etc. (see also Malawani etal. 2024, below, with larger dimensions for Lombok debris avalanche))

Malawani, M.N., F. Lavigne, D.S. Hadmoko, Syamsuddin, L. Handayani, Y. Sudrajat et al. (2023)- Coastal sedimentation and topographic changes in the Mataram Plain, Lombok (Indonesia) following the 1257 CE eruption of Samalas volcano. Earth Surface Processes and Landforms 48, 10, p. 2100-2116.
(The 1257 CE eruption of Samalas volcano, buried entire island of Lombok beneath various thicknesses of pyroclastic material during VEI 7 event. Relief has not significantly changed in last 700 yrs, except for location of river mouths and degree of rivers meandering, and~1.6 km of shoreline progradation)

Malawani, M.N., F. Lavigne, K. Kelfoun, P. Lahitte, D.S. Hadmoko, C. Gomez, P. Wassmer, Syamsuddin & A. Faral (2024)- Large debris avalanche and associated eruptive event at Samalas volcano, Lombok, Indonesia. Bulletin of Volcanology 86, 3, 202486, p.
(Vast area in middle of Lombok Island dominated by hummock hills, interpreted as Kalibabak debris avalanche deposit that may have originated from sector collapse of Samalas volcano (area 535 km^2). Width 41 km, runout distance up to 39 km from source. Average thickness 28 m, max. thickness 58 m, volume ~15 km^3. Possibly tied to eruption that produced Propok pumice fall deposit at ~ 3,500 BCE)

Mangga, S.A., S. Atmawinata, B. Hermanto, B. Setyogroho & T.C. Amin (1994)- Geologic map of Lombok, Nusatenggara, sheet 1807, scale 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(Lombok Island oldest rocks along S coast, composed of latest Oligocene- E Miocene Pengulung Fm volcanic breccias and lavas, overlain by Miocene Ekas Fm limestone and with Miocene dacite/basaltic intrusives (= 'Old Andesites'; continuation of Southern Mountains of Java - S Bali). N part of island mainly covered by Late Pliocene- Recent volcanics from Rinjani volcano complex)

Maryono, A. (2015)- Overview of the tectonic setting and geology of porphyry copper-gold deposits along the Eastern Sunda magmatic arc, Indonesia. In: World-class ore deposits: discovery to recovery, SEG 2015 Int. Conf., Hobart, 1p. *(Abstract only)*
(online at: www.segweb.org/SEG/_Events/Conference_Archives/2015/Conference_Proceedings/files/pdf/Oral-Presentations/Abstracts/Maryono.pdf)
(E Sunda arc major porphyry metallogenic belt (Tumpangpitu/ Tujuh Bukit Au-Ag-Cu deposit in E Java, Batu Hijau and Elang on Sumbawa). Porphyry mineralization confined to E segment (E Java to Sumbawa), where Roo Rise subducting beneath island arc. Subeconomic porphyry prospects at Selogiri, Ciemas, Cihurip with low sulfidation epithermal deposits (Pongkor, Cikotok, Cibaliung, Cikondang, Arinem) along W segment of Sunda arc, developed on thick continental crust on S Sundaland margin, associated with 'normal' Indian oceanic crust

subduction. Porphyry deposits typically with large lithocaps (>20 km^2), with high sulfidation epithermal gold-silver veins within lithocaps at Elang, Selodong, Brambang and Tumpangpitu)

Maryono, A. & R. Harrison (2013)- Porphyry copper-gold mineralization styles along the Eastern Sunda magmatic arc, Indonesia. Proc. Symposium East Asia: Geology, exploration technologies and mines, Bali 2013, Bull. Australian Institute of Geoscientists (AIG) 57, p. 58-59. *(Extended Abstract)*
(online at: https://www.aig.org.au/library/publications/aig-bulletins/)
(E Sunda magmatic arc with three world class porphyry Cu-Au deposits: Batu Hijau, Elang, Tujuh Bukit. All mineral deposits tied to magmatic arc intrusions of Late Miocene- Pliocene age: 3.7 Ma at Batu Hijau, 2.7 Ma at Elang, 7.5 Ma at Selodong, 2.5 Ma at Pongkor and 3.0 Ma at Arinem)

Maryono, A., R.L. Harrison, D.R. Cooke, I. Rompo & T.G. Hoschke (2018)- Tectonics and geology of porphyry Cu-Au deposits along the eastern Sunda magmatic arc, Indonesia. Economic Geology 113, 1, p. 7-38.
(manuscript online at: https://eprints.utas.edu.au/26304/3/124588%20-%20Tectonics%20and%20geology%20of%20porphyry.pdf)
(Key paper. E Sunda arc hosts three premier porphyry Cu-Au deposits between E Java and Sumbawa: Batu Hijau, Elang, and Tumpangpitu. Built on island-arc crust where Roo Rise is being subducted. Along W Java segment of arc major epithermal deposits associated with poorly endowed porphyry prospects, on thick continental crust of S margin of Sundaland, associated with subduction of thin Indian oceanic crust. Porphyry Cu-Au deposits associated with small, nested, dioritic-tonalitic intrusive complexes, with mineralization during three main events. Large (>20 km^2) lithocaps with high-sulfidation epithermal systems. Porphyry deposits formed between 2-2.5 Ma, suggesting important change in metallogeny of arc at this time)

Maryono, A., R. Harrison, I. Rompo, E. Priowasono & M. Norris (2016)- Successful techniques in exploring the lithocap environment of the Sunda magmatic arc, Indonesia. Proc. 8th Annual Conv. Indonesian Soc. Economic Geologists (MGEI), Bandung, p. 7-13.
(On exploration techniques of large Cu-Au porphyry deposits under barren or mineralized lithocaps. Five major discoveries in last 15 years in E Java and Sumbawa)

Maryono, A., H. Lubis, A. Perdanakusumah & W. Hermawan (2005)- The Elang porphyry copper and gold mineralization style Sumbawa. In: S. Prihatmoko et al. (eds.) Indonesian mineral and coal discoveries, Indonesian Association Geologists (IAGI), Jakarta, Special Issue, p. 1-17.
(Elang porhyry copper-gold mineralization of SW Sumbawa, 60km E of similar Batu Hijau Cu-Au deposit. First discovered in 1991. Wall rocks Late Oligocene- M Miocene andesitic volcanics, with numerous M Miocene-Pliocene intrusions. Mineralization associated with Pliocene (2.7Ma) tonalite intrusions. Central Cu-Au+Mo zone, proximal As-Ag zone, distal Pb-Zn zone)

Maryono, A., L.D. Setijadji, J. Arif, R. Harrison & E. Soeriaatmadja (2012)- Gold, silver and copper metallogeny of the eastern Sunda magmatic arc, Indonesia. In: N.I. Basuki (ed.) Proc. Banda and Eastern Sunda arcs (BESA), Indonesian Soc. Economic Geologists (MGEI) Annual Convention, Malang 2012, p. 23-38.
(Same as Maryono et al. 2014, below)

Maryono, A., L.D. Setijadji, J. Arif, R. Harrison & E. Soeriaatmadja (2014)- Gold, silver and copper metallogeny of the eastern Sunda magmatic arc, Indonesia. Majalah Geologi Indonesia (IAGI) 29, 2, p. 85-99.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/847)
(Same as Maryono et al. 2012, above) (Recent discovery of large porphyry gold-silver-copper deposit at Tujuh Bukit Project in Banyuwangy Regency of E Java. E astSunda Magmatic Arc built on thin island arc crust, bounded by margin of Sundaland to W and by Australian continental crust to E. Five different ages of Cenozoic magmatic belts. Overwhelming number of gold, silver, and copper deposits associated with Late Miocene- Pliocene intrusions. E Sunda magmatic arc dominated by gold, silver, and copper, in porphyry and epithermal deposits. Mineralization styles similar to those in typical island arc settings, e.g. the Philippines)

Masturyono (1994)- Seismicity of the Bali region from a local seismic network; constraints on Bali back arc thrusting. Masters Thesis, Rensselaer Polytechnic Institute, Troy, NY, p. 1-92. *(Unpublished)*

(Locations of 513 microearthquakes near Bali island. Deepest events at 200 km depth, associated with N-dipping Wadati-Benioff zone of subducting Indian ocean lithosphere. Two prominent belts of shallow micro earthquakes (1) S belt along boundary of Sunda- Indian ocean plates and (2) opposite-dipping zone along island arc, showing back-arc thrusting N of Bali, dipping 15 -20° S. Back arc thrusting extends to 30km depth below S coast of Bali island)

Maula, S. & B.K. Levet (1996)- Porphyry copper-gold signatures and the discovery of the Batu Hijau deposit, Sumbawa, Indonesia. Proc. Conference Porphyry-related copper and gold deposits of the Asia Pacific Region, Cairns 1996, Australian Mineral Foundation (AMF), Glenside, p. 8.1-8.13.

McBride, J.H. (1987)- Arc-continent collision in the Banda Arc: new gravity observations integrated with geological and geophysical data. In: E. Brennan (ed.) Proc. Pacific Rim Congress 1987, Gold Coast, Australasian Institute of Mining and Metallurgy (AusIMM), Parkville, p. 887-890.
(New marine gravity data and gravity models of transect across Timor- Savu Sea. Main issue is major negative anomaly over Savu Sea)

McBride, J.H. & D.E. Karig (1987)- Crustal structure of the outer Banda Arc; new free-air gravity evidence. Tectonophysics 140, p. 265-273.
(online at: https://www.sciencedirect.com/science/article/pii/0040195187902344)
(Gravity analysis of W Timor- Savu Sea-Sumba region. Mass deficit below Savu Sea may be subducted lighter continental crust, downward flexing of upper crustal plate in forearc area, or anomalous low-density upper mantle. Gravity high over N Sumba Ridge in Savu Sea may be E-M Tertiary volcanic arc between present arc and Timor. Crust under N Savu Basin appears nearly oceanic, but thickens beneath modern arc)

McCaffrey, R. (1988)- Active tectonics of the eastern Sunda and Banda arcs. J. of Geophysical Research 93, B12, p. 15163-15182. *(online at: www.researchgate.net/publication/248791200_Active_tectonics_of_the_Eastern_Sunda_and_Banda_Arcs)*
(E Sunda arc and S Banda arc and forearc respond to collision by shortening in direction of convergence, elongating normal to convergence, and thrusting over back arc basin. Shallow thrust and strike-slip earthquakes beneath Banda Basin demonstrate deformation in back arc accommodating some of N-ward motion of Australia. N-S shortening of upper plate near Timor ~20% of predicted Australia- SE Asia convergence. Strike-slip faulting in Banda Basin results in E-ward motion of Banda arc, with thrusting at Aru Trough. Weber forearc basin on subducting lithosphere, without intervening asthenosphere, so subsides in response to sinking of subducting lithosphere. Birds Head subducts beneath Seram, is decoupled from Australian plate in W New Guinea and probably moves W or SW with respect to Australia)

McCaffrey, R. (1989)- Seismological constraints and speculations on Banda Arc tectonics. In: J.E. van Hinte et al. (eds.) Proc. Snellius II Symposium, Geology and geophysics of the Banda Arc and adjacent areas, Jakarta 1987, Netherlands J. of Sea Research 24, 2/3, p. 141-152.
(Shallow earthquakes show collision of Australian continent- Banda Arc shortens overriding Indonesian plate in N-S and elongates it in E-W direction by strike-slip and thrust faulting. Two plates subduct beneath Banda Arc: Australia-Indian Ocean plate N-ward and Birds Head SW-ward. Bird's Head subducted lithosphere beneath Seram Trough now reaches 300 km depth. At surface decoupling between Australia and Bird's Head probably by left-lateral strike slip at Tarera-Aiduna fault zone and convergence in New Guinea fold-and-thrust belt. Seismic quiescence at 50-380 km beneath Timor may result from removal of part of Australian continental crust prior to subduction of lower lithosphere; crust stacked up to form Timor Island)

McCaffrey, R., P. Molnar, W. Roecker & Y.S. Joyodiwiryo (1985)- Microearthquake seismicity and fault plane solutions related to arc-continent collision in the eastern Sunda arc. J. of Geophysical Research 90, B6, p. 4511-4528.
(online at: www.researchgate.net/publication/253364305_Microearthquake_seismicity_and_fault_plane Etc.)
(Microearthquakes used to model subducting Australian continental plate under Timor. Suggest leading edge of Australian continental lithosphere now at 150 km depth (at 45° slab angle that means subducted slab length = ~300km; at ~75km/My of convergence Australian margin continental crust arrived at Timor Trench at ~4 Ma).

Fault plane solutions of several events show nearly vertical nodal planes trending parallel to strike of seismic zone, with down-to-NW displacement. These suggest subducted lithosphere presently detaching in 50-100 km depth range beneath E Savu Sea)

McCaffrey, R. & J. Nabelek (1984)- The geometry of backarc thrusting along the eastern Sunda arc, Indonesia: constraints from earthquake and gravity data. J. of Geophysical Research 89, B7, p. 6171-6179.
(online at: http://web.pdx.edu/~mccaf/pubs/mccaffrey_flores_jgr_1984.pdf)
(1978 earthquake N of Flores first seismic evidence for active backarc thrusting behind E Sunda arc)

McCaffrey, R. & J. Nabelek (1986)- Seismological evidence for shallow thrusting North of the Timor Trough. Geophysical J. International 85, 2, p. 365-382.
(online at: https://academic.oup.com/gji/article/85/2/365/727679)
(In E Sunda Arc infrequent, large earthquakes near volcanic arc within upper plate rather than as interplate events under forearc. 1977 event E of Alor and N of C Timor indicates nearly pure thrust mechanism at depth of 10 km, along S- dipping plane, probably related to Wetar thrust zone at S margin of Banda Sea backarc basin. Suggest most of plates convergence accommodated by thrusting of Banda Sea marginal basin S-ward beneath Sunda arc. Present geometry represents initial stage of reversal of arc polarity)

McCaffrey, R. & J. Nabelek (1987)- Earthquakes, gravity, and the origin of the Bali Basin: an example of a nascent continental fold-and-thrust belt. J. of Geophysical Research: Solid Earth 92, B1, p. 441-459.
(online at: https://www.researchgate.net/publication/248791246_Earthquakes_gravity_and_the_origin_of_the_Bali_Basin_An_example_of_a_Nascent_Continental_Fold-and-Thrust_Belt)
(Bali Basin is downwarp in Sunda Shelf crust produced by thrusting along Flores back-arc zone. Early foreland basin flanked by Tertiary Java Basin to W and oceanic Flores Basin to E)

McKechnie, K.R., I. Saracik & D.M. Sewell (1992)- Development of the Lerokis gold-silver-barite mine in Indonesia; challenges of a unique project. In: M. Simatupang & B.N. Wahju (eds.) Indonesian mineral development 1992, Indonesian Mining Association (IMA), p. 404-414.
(On discovery and development of Wetar Island barite deposits (See also Scotney et al. 2014))

Meldrum, S.J., R.S. Aquino, R.I. Gonzales, R.J. Burke, A. Suyadi, B. Irianto & D.S. Clarke (1994)- The Batu Hijau porphyry copper-gold deposit, Sumbawa Island, Indonesia. In: T.M. van Leeuwen et al. (eds.) Mineral deposits in Indonesia, Discoveries of the past 25 years, J. Geochemical Exploration 50, p. 203-220.
(online at: https://www.academia.edu/73563666/The_Batu_Hijau_porphyry_copper_gold_deposit_Sumbawa_island_Indonesia)
(Batu Hijau porphyry in SW Sumbawa world-class porphyry Cu-Au deposit in island arc setting, discovered by PT Newmont in early 1990s. Mineralisation hosted in tonalite intrusive complex, and diorite and metavolcanic wall rocks. Not much on age or regional geology)

Militaire Memories (1914)- De eilanden Alor en Pantar, residentie Timor en onderhoorigheden. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 31, p. 70-102
(online at: https://resolver.kb.nl/resolve?urn=MMUBA13:001660001:pdf)
('The islands of Alor and Pantar, Timor Residency and dependencies'. Geographic descriptions of two Banda Arc volcanic islands, from 1910-1911 Military Exploration reports)

Miller, M.S., P. Zhang, M.P. Dahlquist, A.J. West, T.W. Becker & C.W. Harris (2021)- Inherited lithospheric structures control arc-continent collisional heterogeneity. Geology (GSA) 49, 6, p. 652-656.
(online at: https://www-udc.ig.utexas.edu/external/becker/preprints/m20.pdf)
(From W to E along Sunda-Banda arc, convergence of Indo-Australian plate transitions from subduction of oceanic lithosphere to arc-continent collision.Geological and geophysical data along Banda Arc place constraints on geometry and history of arc-continent collision. Ambient noise tomography shows velocity anomalies along strike and across arc, attributed to inherited structure of incoming and colliding rifted

continental margin of Australian plate. Uplift from river profiles from outer arc islands suggests rapid uplift at ends of islands of Timor and W Sumba, which coincide with edges of subducted volcanic-margin protrusions)

Minarwan (2012)- Tectonic models of the Lesser Sunda islands. Berita Sedimentologi 25, p. 8-15.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/170
(Review of tectonic setting of Lesser Sunda islands, East of Java)

Monk, K.A., Y. de Fretes & G. Reksodiharjo-Lilley (1997)- The ecology of Nusa Tenggara and Maluku. The Ecology of Indonesia 5, Periplus Editions, Singapore, p. 1-966.

Muller, C., U. Barckhausen, A. Ehrhardt, M. Engels, C. Gaedicke, H. Keppler, R. Lutz, E. Luschen & S. Neben. (2008)- From subduction to collision; the Sunda-Banda Arc transition. EOS Transactions American Geophysical Union (AGU) 89, 6, p. 49-52.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2008EO060001
(Sunda-Banda part of Indian Ocean subduction zone has received less attention from earthquake studies than Sumatra segment, but may be just as hazardous. Overriding lithosphere is continental along Sumatra and Java, but oceanic crust farther E, along Lombok and Sumbawa)

Muraoka, H. & A. Nasution (2004)- En echelon volcanic arc as a key to recognize mantle diapirs in the Lesser Sunda Arc, Eastern Indonesia. J. Geothermal Research Soc. Japan 26, 3, p. 237-249.
(online at: www.journalarchive.jst.go.jp/...) (In Japanese with English summary)
(Flores to Alor segment of Lesser Sunda arc characterized by en echelon shaped volcanic islands, reflecting NNW-SSE left-lateral shear between N-moving Australian continent in East and relatively fixed Sundaland in West. Each element of 'en echelon volcanic islands is elongated dome consisting of anticline of volcanic basement units and rows of young volcanoes. Coexistence of both structures in same area can be explained when mantle diapirs are assumed)

Muraoka, H., A. Nasution, J. Simanjuntak, S. Dwipa, M. Takahashi, H. Takahashi, K. Matsuda & Y. Sueyoshi (2005)- Geology and geothermal systems in the Bajawa volcanic rift zone, Flores, Eastern Indonesia. Proc. World Geothermal Congress 2005, Antalya, Turkey, p. 1-13.
(online at: www.geothermal-energy.org/pdf/IGAstandard/WGC/2005/0629.pdf)
(Setting of Bajawa geothermal field, Flores, characterized by NNW-SSE left-lateral shear between N-moving Australia and rel. stable Sundaland in W, creating inner Lesser Sunda volcanic arc of en echelon volcanic islands. En echelon elements are ENE-WSW trending elongated domes, ~90 x 30 km, composed of culmination of cluster of young volcanoes. Oldest exposed unit M Miocene (~16.2-10.2 Ma) Nangapanda Fm submarine clastics, chert, limestone and pumice tuff. After hiatus subaerial volcanism of Wangka Andesite and Maumbawa Basalt at 4-3 Ma. Bajawa volcanic rift zone 60 monogenetic breccia cone volcanoes)

Muraoka, H., A. Nasution, M. Urai, M. Takahashi & I. Takashima (2002)- Geochemistry of volcanic rocks in the Bajawa geothermal field, central Flores, Indonesia. Bull. Geological Survey of Japan 53, p. 147-159.
(online at: https://www.jstage.jst.go.jp/article/bullgsj/53/2-3/53_147/_pdf)
(Volcanic rocks from Bajawa geothermal field, C Flores, include common tholeiitic basalt to dacite, but Bajawa rift zone volcanics calc-alkaline andesite)

Muraoka, H., A. Nasution, M. Urai, M. Takahashi, I. Takashima, J. Simandjuntak, H. Sundhoro, D. Aswin et al. (2002)- Tectonic, volcanic and stratigraphic geology of the Bajawa geothermal field, Central Flores, Indonesia. Bull. Geological Survey of Japan 53, p. 109-138.
(online at: https://www.jstage.jst.go.jp/article/bullgsj/53/2-3/53_109/_pdf)
(Evaluation of geothermal resources around Bajawa, Flores. Since 4 Ma, volcanic activity in C Flores and S coast. 800m uplift in both terranes in past 2.5 million years. Bajawa Cinder Cone Complex more than 60 cones aligned 20 km along NNW-SSE trending Bajawa rift zone rift zone, which formed after 0.8 Ma, related to left-lateral shear between N- moving Australian accretion block in E and relatively fixed Sundaland block in W)

Musper, K.A.F.R. (1928)- Over den ouderdom der intrusie-gesteenten van Flores. De Mijningenieur 8, p. 163-165.
('On the age of the intrusive rocks of Flores'. Brief note on age relationships between granitoid outcrops and surrounding Neogene sediments. Ehrat (1927) suggested likely Neogene age of intrusives on Flores, but lack of well-documented contact-metamorphic zones allows for possibility of older, pre-Neogene age of granites)

Mutaqin, B.W., F. Lavigne, Y. Sudrajat, L. Handayani, P. Lahitte, C. Virmoux, Hiden, D.S. Hadmoko et al. (2019)- Landscape evolution on the eastern part of Lombok (Indonesia) related to the 1257 CE eruption of the Samalas Volcano. Geomorphology 327, p. 338-350.
(One of most powerful eruptions of Holocene was Samalas eruption in 1257 CE on Lombok (W of Rinjani). Thick tephra fall covered entire island, and pyroclastic density currents (PDCs) up to 50m thick buried almost half of Lombok. Estimated ~4435 × 106 m3 of pumice-rich deposits over 171 km^2 buried E Lombok. Remaining volume of pumice after erosion only14% of initial volume)

Nebel, O., P.Z. Vroon, W. van Westrenen, T. Iizuka & G.R. Davies (2011)- The effect of sediment recycling in subduction zones on the Hf isotope character of new arc crust, Banda arc, Indonesia. Earth Planetary Science Letters 303, p. 240-250.
(In Banda Arc systematic decrease in Hf-Nd isotopes, suggesting along-arc increase in involvement of subducted continental material in arc magma source from <2% in NE to >2% in SW)

Nebel, O., P.Z. Vroon, D.F. Wiggers de Vries, F.E Jenner & J.A. Mavrogenes (2010)- Tungsten isotopes as tracers of core- mantle interactions: the influence of subducted sediments. Geochimica Cosmochimica Acta 74, 2, p. 751-762.
(Includes Th, W and U abundance data for E Indonesian sediments across Banda Arc, potentially useful to determine presence of subducted sediments in arc volcanics)

Nishimura, S., Y. Otofuji, T. Ikeda, E. Abe, T. Yokoyama, Y. Kobayashi, S. Hadiwisastra, J. Sopaheluwakan & F. Hehuwat (1981)- Physical geology of the Sumba, Sumbawa and Flores islands. In: A.J. Barber & S. Wiriyusono (eds.) The geology and tectonics of Eastern Indonesia, Geological Research Development Centre (GRDC), Bandung, Special Publ. 2, p. 105-113.
(Evidence of E Miocene 'Old andesite' arc volcanics from 19 ± 2 Ma zircon fission track age in Kiro Fm andesite of E Flores. Imply presence of Jurassic mudstones on Sumba without mentioning evidence for age. Paleomag data from Sumba suggests 60° CW rotation of Sumba between Jurassic-Miocene)

Noya, Y., G. Burhan & S. Koesoemadinata (1993)- Geology of the Alor and West Wetar quadrangle, Nusa Tenggara. 1:250,000. Geological Research Development Centre (GRDC), Bandung, p.
(online at: https://perpustakaan.big.go.id/index.php?p=fstream-pdf&fid=2282&bid=5380)

Noya, Y. & S. Koesoemadinata (1990)- Geology of the Lomblen quadrangle, East Nusatenggara. 1:250,000. Geological Research Development Centre (GRDC), Bandung, p. 1-17.

Padmawidjaja, T. (2010)- Kondisi geologi daerah Ruteng ditafsir pada data gaya berat. Jurnal Sumber Daya Geologi (JSDG) 20, 5, p. 251-260.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/177/173)
('Geological condition of the Ruteng area as interpreted from gravity data'. C Flores gravity survey shows locations of basement high and intermontane basins)

Pannekoek van Rheden, J.J. (1912)- Eenige geologische gegevens omtrent het eiland Flores. Jaarboek Mijnwezen Nederlandsch Oost-Indie 39 (1910), Verhandelingen, p. 132-138.
('Some geologic data on Flores Island'. Report on brief visit to Flores, noticing volcanoes, young coral limestone terraces up to 50-80m above sea leve,l and fossiliferous marls and tuffs of unspecified age)

Pannekoek van Rheden, J.J. (1913)- Overzicht van de geographische en geologische gegevens, verkregen bij de mijnbouwkundig-geologische verkenning van het eiland Flores in 1910 en 1911. Jaarboek. Mijnwezen Nederlandsch Oost-Indie. 40 (1911), Verhandelingen, p. 208-226.
('Overview of geographic and geological data obtained from the mining-geological reconnaissance of the island of Flores in 1910-1911'. Mainly young volcanic deposits, some associated with limestones. Due to unfavorable political situation, the previously reported occurrence of tin ore in the Ngada area (Wichmann, Van Schelle) could not be further investigated)

Pannekoek van Rheden, J.J. (1915)- Voorloopige mededeelingen over de geologie van Soembawa. Jaarboek. Mijnwezen Nederlandsch Oost-Indie 42 (1913), Verhandelingen, p. 15-21.
('Preliminary notes on the geology of Sumbawa'. Mainly young volcanics. Also older volcanics with associated sandstones and limestones, suggested to be of Miocene age by Elbert (mainly Middle Miocene larger foraminifera from samples collected by PvR desribed in Basel thesis of Van der Vlerk (1922))

Pannekoek van Rheden, J.J. (1918)- Geologische Notizen uber die Halbinsel Sanggar, Insel Soembawa (Niederlandisch-Ost-Indien). Zeitschrift fur Vulkanologie 4, 2/3, p. 85-192.
(online at: google books (without maps))
('Geological notes on the Sanggar Peninsula, Sumbawa Island'. Results of 'Mijnwezen' geological survey work in 1911-1913. Main feature of Sanggar Peninsula of N Sumbawa is historically active Tambora volcano. With appendix by A. Tobler on Late Neogene foraminifera from 10 samples, incl. Baculogypsina noetetraedra n.sp.)

Pannekoek van Rheden, J.J. (1920)- Einige Notizen uber die Vulkane auf der Insel Flores. Zeitschrift fur Vulkanologie 5, p. 109-163.
('Some notes on the volcanoes of Flores island'. Probably first review of Flores volcanoes, from survey conducted for Dienst van het Mijnwezen in 1910-1911, after Flores had only just become deemed safe to travel for Europeans. Petrography of samples see Drescher, 1921)

Pannekoek van Rheden, J.J. (1941)- Een merkwaardige grintbank in den Brang Enek (Eiland Soembawa, Ned.-Indie). Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 58, 2p.
('A remarkable gravel bank in the Brang Enek (Sumbawa island)')

Planert, L., H. Kopp, E. Lueschen, C. Mueller, E.R. Flueh, A. Shulgin, Y. Djajadihardja & A. Krabbenhoeft (2010)- Lower plate structure and upper plate deformational segmentation at the Sunda-Banda arc transition, Indonesia. J. of Geophysical Research: Solid Earth 115, B8, B08107, p. 1-25.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2009JB006713)
(On effects of lower plate variability on upper plate deformational segmentation at Sunda-Banda arc transition. Incoming plate 8.6-9.0 km thick oceanic crust, progressively faulted and altered when approaching trench. Oceanic slab can be traced over 70-100 km beneath fore arc. Shallow serpentinized mantle wedge at ~16 km depth offshore Lombok is absent offshore Sumba. Thickness of fore-arc crust below Lombok Basin generally 9-11 km suggesting oceanic-type velocity structure, which precludes possible continuation of accreted Gondwana continental fragment from NW Australia into this area)

Polhaupessy, A.A. (2001)- Vegetation and environment of the Soa Basin, Central Flores. Majalah Geologi Indonesia (IAGI) 16, 3, p. 135-145.
(Palynology of Pleistocene mammal bearing deposits on Flores island)

Poorter, R.P.E. (1989)- Geochemistry of hot springs and fumarolic gases from the Banda arc. In: J.E. van Hinte et al. (eds.) Proc. Snellius II Symposium, Jakarta 1987, Netherlands J. of Sea Research 24, 2-3, p. 323-331.

Poorter, R.P.E., R. Kreulen, J.C. Varekamp, R.J. Poreda & M.J. Van Bergen (1991)- Chemical and isotopic compositions of volcanic gases from the East Sunda and Banda arcs, Indonesia. Geochimica Cosmochimica Acta 55, 12, p. 3795-3807.
(E Sunda Arc and Banda Arc represent continent-arc collision zone, with magma genesis influenced by subducted continent-derived material. Volcanic gases provide information on sources of volatiles in arc magmas. Abundant

He and high He/Ar ratios consistent with subduction of terrigenous components in local sediments (or slivers of continental crust))

Praptisih (1994)- Fasies batugamping terumbu Kuarter di daerah Wera dan sekitarnya, Bima, Sumbawa. Proc. 23rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 1, p. 33-40.
(online at: https://www.iagi.or.id/web/digital/62/3.pdf)
('Quaternary reefal limestone facies in the Wera area and surroundings, Bima, Sumbawa'. One modern and 7 uplifted Pleistocene coral reef terraces up to 120m elevation along N coast of Sumbawa. Overlie Quaternary volcanics. One C14 age date ~6300 years)

Pratama, B., D. Setyandaka, A. Maryono, W. Hermawam & C.H. Clode (2002)- Application of PIMA technology in defining gold and copper exploration targets in island arc settings. A case study from Sumbawa and Lombok, Indonesia. Proc. 31st Annual Conv. Indonesian Association Geologists (IAGI), Surabaya, 2, p. 954-967.
(online at: www.iagi.or.id/web/digital/18/APPLICATION-OF-PIMA-TECHNOLOGY-IN-DEFINING-GOLD-AND-COPPER-EXPLORATION-TARGETS-IN-ISLAND-ARC-SETTINGS;-A-CASE-STUDY-FROM-SUMBA)
(PT Newmont review of methodology of porphyry gold-copper exploration associated with Miocene- Pliocene volcanics on Sumbawa and Lombok, including the use of Portable Infrared Mineral Analyser for identifying argillic lithocaps)

Pratomo, I. & H. Rachmat (2011)- 'Fosil' gunungapi bawah laut, Tanjung Aan- Kuta, Lombok Selatan, Nusa Tenggara Barat. Proc. Joint 36th HAGI and 40th IAGI Annual Conv., Makassar, JCM2011-218, p. 1-9.
('Fossil submarine volcano, Kuta, S Lombok'. Submarine volcanic edifice recognized in Late Oligocene- E Miocene 'Old andesite' Pengulung Fm, S coast of Lombok)

Prihatmoko, S. (2021)- Eastern Sunda Arc: an emerging belt for porphyry Cu-Au and epithermal Au deposits. Presentation Webinar 40, Teknik Geofisika ITS, Surabaya, p. 1-35.
(online at: https://www.its.ac.id/tgeofisika/wp-content/uploads/sites/33/2021/06/Webinar-Teknik-Geofisika-ITS_Porphyry-Sunda_arc_Sukmandaru.pdf)

Priowasono, E. & A. Maryono (2002)- Structural relationships and their impact on mining at the Batu Hijau mine, Sumbawa, Indonesia. Proc. 31st Annual Conv. Indonesian Association Geologists (IAGI), Surabaya, 2, p. 943-953.
(online at: https://www.iagi.or.id/web/digital/18/STRUCTURAL-RELATIONSHIP-AND-THEIR-IMPACT-ON-MINING-AT-THE-BATU-HIJAU-MINE,-SUMBAWA,-INDONESIA.pdf)
(Porphyry veins, fractures, faults and joints in and around Batu Hijau mine in SW Sumbawa show 5 general structural trends, from early to late:N-S, E-W, NE, Radial and NW)

Priyono, A., A.D. Nugraha, M. Muzli, Ardianto, A.N. Aulia, B.S. Prabowo, Zulfakriza, S. Rosalia et al. (2021)- Seismic attenuation tomography from 2018 Lombok earthquakes, Indonesia. Frontiers in Earth Science 9, 639692, p. 1-16.
(online at: https://www.frontiersin.org/articles/10.3389/feart.2021.639692/full)
(Tomographic model across Lombok from 2018 earthquake and aftershocks. Main earthquake activity along S-dipping Flores back-arc thrust)

Purbo-Hadiwidjoyo, M.M. (1971)- Geological map, Bali, scale 1:250,000. Geological Survey Indonesia, Bandung.
(Also 2nd Edition in 1998. Most of Bali Late Miocene- Recent volcanics. Oldest rocks are Late Oligocene- E Miocene volcanics of Ulakan Fm in SE of island (= continuation of 'Old Andesites' belt of South Java). Overlain by Late Miocene-Pliocene? reefal limestones of Selatan Fm in S (Nusa Dua, Nusa Pendida; should be M-L Miocene; D. Kadar (1973); looks like continuation of Wonosari Lst of Southern Mountains of Java?; JTvG))

Purwandono, A.F., D. Bonte, P. Utami, S. Pramumijoyo, A. Harijoko, F. Beekman & J.D. van Wees (2019)- Tectonic and compositional variation in Flores Island, Indonesia: implication for volcanic structure and geothermal occurrences. Proc. European Geothermal Congress The Hague (EGC 2019), p. 1-4. *(online at:*

www.researchgate.net/publication/337331311_Tectonic_and_compositional_variation_in_Flores_Island_Indonesia_implication_for_volcanic_structure_and_geothermal_occurrences) (also as Poster at uu.nl)
(Flores Island is now transition zone from subduction (W) to collision of Australian Continental Crust (E). Trenchward migration of volcanism in W half of island. E Flores volcanism dominated by High-K volcanism, W Flores dominated by calc-alkaline - low-K volcanism. W Flores more heat source for geothermal energy (high volcano edifice spacing, thus higher potential geothermal energy)

Purwandono, A.F., D. Bonte, P. Utami, A. Harijoko, F. Deon, F. Beekman, S. Pramumijoyo & J.D. van Wees (2019)- Evolution of the volcanic arc on Flores Island, Indonesia, and its implication to geothermal resources. EGU General Assembly 2019, Geophysical Research Abstracts 21, EGU2019-16098, p. 1. *(Abstract only)*
(online at: https://meetingorganizer.copernicus.org/EGU2019/EGU2019-16098.pdf)
(Flores Island at transition from Indian Ocean plate subduction to collision of NW Australia continental crust. Mostly built by young volcanic activity that migrated from N-S in last 7 Ma. Two main magmatic periods: Oligocene-Late Miocene and Pliocene-Recent, with short hiatus. In W Flores, Oligo- Miocene volcanism formed in extensional regime due to opening of Flores and Savu basins, with volcanism mainly in N part of Flores Island. Pliocene-Recent volcanism formed in compressional regime and distributed to S of previous area in W Flores. In E Flores volcanism has not shifted. Volcanic edifices of Flores shortest spacing (av. 21km) in Sunda-Banda arc)

Puspito, N.T. & K. Shimazaki (1995)- Mantle structure and seismotectonics of the Sunda and Banda arcs. Tectonophysics 251, p. 215-228.
(P-wave tomography and earthquake focal points show subducted slab down to ~500 km below W Sunda Arc, but no seismicity >250 km. In E Sunda arc seismic gap between 300-500 km, but slab continuous into lower mantle. Banda arc seismicity down to ~650 km, slab dips gently and does not penetrate into lower mantle. Positive gravity anomaly along E Sunda arc larger than in W Sunda and Banda arcs. Along back-arc side of Sunda and Banda arcs, heat flow decreases from W to E. W Sunda Arc characterized by normal earthquakes along trench and back-arc thrust earthquakes N of volcanic line. In W and E Sunda arcs down-dip extensional earthquakes dominant down to 200 km, down-dip compression earthquakes below 500 km. Banda arc deep earthquakes extensional to 500 km; deeper state of stress not clearly defined)

Putra, Z.A.M., A. Idrus & I.M. Warmada (2024)- Mineralogical and ore-fluid characteristics of the Onto Porphyry-HSE transition in Hu'u district, West Nusa Tenggara, Indonesia. Proc. Int. Conf. Geological Engineering and Geosciences, Yogyakarta 2023, IOP Conference Series: Earth and Environmental Science 1373, p. 012039, p. 1-14.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1373/1/012039/pdf)
(Onto gold-copper prospect in E Sumbawa, porphyry mineralization system associated with Neogene porphyry intrusion)

Rack, G. (1912)- Petrographische Untersuchungen an Ergussgesteinen von Soembawa und Flores. Neues Jahrbuch Mineralogie Geologie Palaontologie, Beilage Band 34, p. 42-84.
('Petrographic studies on volcanic rocks of Sumbawa and Flores'. Origunally published as Inaugural Dissertation at the Friedrich Wllhelms Universitat, Berlin, in July 1912. Descriptions of rocks collected by the Elbert 1909-1910 expedition in Sumbawa and Central Flores: andesites, dacites, leucite tephrite)

Rack, G. (1913)- Beitrage zur Petrographie von Flores. Centralblatt Mineralogie Geologie Palaontologie 1913, 5, p. 134-139.
(online at: https://www.zobodat.at/pdf/Centralblatt-Mineral-Geol-Palaeont_1913_0134-0139.pdf)
('Contributions to the petrography of Flores'. Follow-up of Rack (1912) paper, with petrographic descriptions of rocks collected by the Elbert 1909-1910 expedition near Larentoeka in E Flores: augite-olivine andesite, hyperthene-augite andesite and augite-andesite)

Ratman, N. & F. Agustin (2005)- Stratigrafi daerah Sumbawa Besar dan sekitarnya, Sumbawa. Jurnal Sumber Daya Geologi (JSDG) 15, 4 (150), p. 3-16.
('Stratigraphy of the Sumbawa Besar area and surroundings'. Rocks range in age from E Miocene- Holocene. Unfossiliferous E-M Miocene Pontotanu Fm volcanics interfinger with Airbeling Fm clastics and Batutering Fm

limestone (with Lepidocyclina sumatrensis, Flosculinella bontangensis, Cycloclypeus). Three formations unconformably overlain by Mio-Pliocene Parateh Fm tuffs and Plio-Pleistocene Moyo Fm coralline limestone. M Miocene andesite intrusions and basalt. All units overlain by Quarternary volcanics)

Ratman, N. & I. Pratomo (2001)- Geologi Gili Trawangan, Gili Meon dan Gili Air (Nongol) lepas pantai barat laut P. Lombok. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 12, 122, p. 2-12.
('Geology of Gili Trawangan, Gili Meno and Gili Air (Nongol) off the NW coast of Lombok Island'. Gili Trawangan with Plio-Pleistocene basaltic pillow lavas, suggesting submarine eruption and Pleistocene uplift of island)

Ratman, N. & I. Pratomo (2002)- Tinjauan kembali stratigrafi Tersier, P. Lombok bagian selatan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 12, 127, p. 2-14.
('Review of the Tertiary stratigraphy of the southern part of Lombok island'. Late Oligocene- Holocene clastics, limestones and volcanics)

Ratman, N. & A. Yasin (1978)- Geologic map of Komodo Quadrangle, Nusatenggara, 1: 250 000. Geological Research Development Centre (GRDC), Bandung.
(Geologic map of E Sumbawa- Komodo- W Flores islands, part of modern western Banda volcanic arc. Oldest rocks 'Old Volcanics' andesites- basalts (incl. pillow lavas and red cherts), associated E Miocene limestones. Overlain by M Miocene limestone (with Flosculinella bontangensis) and younger volcanics-dominated deposits. NW-SE trending normal faults on Sumbawa (Late Miocene?). Late Miocene intrusives associated with mainly dacitic volcanics and with mineralization (Au, Ag, Pb))

Robba, E., A. Franchino, G. Piccoli, M.P. Bernasconi & D. Kadar (1986)- Notes on the limestones of Bukit southern peninsula of Bali Island (Indonesia). Memorie di Scienze Geologiche, Padova, 38, p. 79-89.
(Planktonic and larger foraminifera from ~400m thick 'Selatan Fm' limestones on Bukit Peninsula of S Bali suggest lower Rembangian age (M Miocene): N9-N10 planktonic foram zones, Lower Tf larger foram zone. Samples of cliff near Ulawatu temple with Miogypsina (Lepidosemicyclina), Katacycloclypeus annulatus, etc. (looks like equivalent of Wonosari Lst of C-E Java Southern Mountains; JTvG))

Rompo, I., A. Rowe & A. Maryono (2012)- Porphyry Cu-Au and epithermal Au-Au mineralization systems in South West Lombok. In: N.I. Basuki (ed.) Proc. Annual Conv. Indonesian Soc. Economic Geologists (MGEI). Malang 2012, Banda and Eastern Sunda arcs, p. 283-
(On Selodong, etc., porphyry and high-sulfidation prospect in Late Oligocene-E Miocene andesitic arc volcanics of SW-most Lombok)

Saefudin, I. (1995)- Pentarikhan jejak belah tajur granitik daerah Wolowaru, Ende, Flores. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 5, 50, p. 29-38.
('Fission track analyses of Wolowaru area granites, Ende, Flores'. Late Miocene FT ages of hornblende granite and granodiorite from E Flores, NE of Ende, between ~7.5-10 Ma, with granodiorite ~1-2 Myr older)

Salman, R. E. O. Lindsey, K.H. Lythgoe, K. Bradley, M. Muzli, S.H. Yun, S.T. Chin, C.W.J. Tay et al. (2020)- Cascading partial rupture of the Flores Thrust during the 2018 Lombok earthquake sequence, Indonesia. Seismological Research Letters 91, 4, p. 2141-2151.
(Four earthquakes struck N Lombok in 3 weeks July-August 2018. Thought to be associated with Flores thrust, but exact mechanism remained elusive (likely associated with imbricate thrust faults above main Flores fault))

Santy, L.D. & A.J. Widiatama (2021)- Pedaro formation, equivalent of Plover sandstone at Savu Island, Outer Banda Arc. Int. Conf. Geological Engineering and Geosciences, Yogyakarta 2021, IOP Conference Series: Earth and Environmental Science 851, 012052, p. 1-12.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/851/1/012052/pdf)
(Outcops of 27-39m thick unfossiliferous quartz-rich sandstone in S Savu Island, here named Pedaro Fm. Lower part braided fluvial conglomerates, changing upward to tidal sand flat association of shale, sand and coal. Upper

part thick -bedded quartz sandstone with thin siltstones, deposited in shoreface environment. Interpreted as E Jurassic interior craton deposit, correlated to E Jurassic 'Plover' Sst in Banli well, SW Timor)

Sarjan, A.F.N., Z. Zulfakriza, A.D. Nugraha, S. Rosalia, S. Wei, S. Widiyantoro, P.R. Cummins et al. (2021)- Delineation of upper crustal structure beneath the Island of Lombok, Indonesia, using Ambient Seismic Noise Tomography. Frontiers in Earth Science 9, 560428, p. 1-12.
(online at: https://www.frontiersin.org/articles/10.3389/feart.2021.560428/full)
(First ambient noise tomography survey on Lombok, in August- September 2018. 2-D tomographic maps good resolution in Cr and E Lombok. Low shear velocity up to 4 km depth beneath Rinjani Volcano, and E Lombok.NE of Rinjani Volcano characterized by higher Vs, possibly due to igneous intrusive rock at depth)

Sarmili, L. & J. Hutabarat (2014)- Indication of hydrothermal alteration activities based on petrography of volcanic rocks in Abang Komba submarine volcano, East Flores Sea. Bulletin of the Marine Geology (MGI, Bandung) 29, 2, p. 91-100.
(online at: http://ejournal.mgi.esdm.go.id/index.php/bomg/article/download/69/70)
(Mineral alteration on Abang Komba submarine volcano, Flores Basin, caused by hydrothermal solutions)

Sarmili, L. & M.A. Suryoko (2012)- The formation of submarine Baruna Komba Ridge on Northeast Flores waters in relation to low anomaly of marine magnetism. Bulletin of the Marine Geology (MGI, Bandung) 27, 2, p. 67-75.
(online at: ejournal.mgi.esdm.go.id/index.php/bomg/article/download/46/47)
(Three submarine ridges off NE Flores waters: Baruna Komba (S of Komba/Batutara active volcano), Abang and Ibu. Magnetic data suggest Baruna Komba Ridge not volcanic, but possibly volcanic detritus. Abang and Ibu Komba ridges related to submarine magmatism)

Schirra, M., O. Laurent, T. Zwyer, T. Driesner & C.A. Heinrich (2022)- Fluid evolution at the Batu Hijau porphyry Cu-Au deposit, Indonesia: hypogene sulfide precipitation from a single-phase aqueous magmatic fluid during chlorite-white-mica alteration. Economic Geology 117, 5, p. 979-1012. *(manuscript online at: https://hal.science/hal-04246717/file/Schirra%20et%20al.%202022_EconGeol_BatuHijau.pdf)*
(New formation model for Batu Hijau porphyry Cu-Au deposit: barren quartz veins formed at high T (>400°C) in central part of system, while sulfide mineralization started to form around this zone. The economic ore shell grew inward and downward as zone of active sulfide precipitation at 300°–360°C shifted in response to progressive descrease in T, while barren quartz vein formation continued in core at higher T. Etc. Cu-Fe sulfide precipitation by low-T aqueous fluid was driven by rehomogenization of S-rich vapor with Cu-rich brine originating from same input fluid. Selective dissolution of earlier quartz veins in inward- and downward-growing ore shell explains correlation between ore grades and density of earlier quartz veining (even though copper mineralization postdates quartz vein formation))

Schirra, M., T. Zwyer, T. Driesner & C.A. Heinrich (2020)- Hydrothermal fluid evolution at the Batu Hijau Cu-Au porphyry deposit, Indonesia.Meeting Abstract, p. 1-4. *(online at: https://meetings.chelscience.ru/wp-content/uploads/sites/34/2020/11/Abstract_BatuHijau_Schirra.pdf)*
(Model of ore formation in giant Batu Hijau Cu-Au porphyry deposit in SW Sumbawa by Swiss ETH team. Associated with multiple generations of low-K tonalite porphyry intrusions emplaced at ≤ 2km into volcano-sedimentary sequences at ~3.7 Ma. Ore metal precipitation dominantly postdates formation of quartz stockwork veins and is more closely associated with quartz re-dissolution and incipient feldspar-destructive alteration)

Scotney, P.M. (2002)- The geology and genesis of massive sulphide, barite-gold deposits on Wetar Island, Indonesia. Ph.D. Thesis, University of Southampton, p. 1-220.
(online at: https://eprints.soton.ac.uk/464943/1/895100.pdf)
(Pliocene volcanic hosted massive sulphide mounds ('black smoker deposits') at Wetar Island, with flanking Au-Ag-Hg-barite ore bodies. Island composed of Oligocene-Recent volcanics and minor oceanic sediments with mineralisation centers at Kali Kuning and Lerokis, ~3 km inland at 400-500m elevation. Ore bodies adjacent to rhyodacite domes. 40Ar/39Ar age of biotite of syeno-granite intrusion 4.7 ± 0.2 Ma, from overlying dacitic flow 2.4 ± 0.3 Ma. Massive sulphides mainly pyrite with some chalcopyrite. Mining removed Au-Ag-bearing barite

sands at Lerokis and Kali Kuning. Ore bodies covered by post-mineralisation Globigerina bearing limestone, submarine debris flows and pyroclastics. K-Ar illite age of altered footwall volcanics gives mineralisation age of 4.7 ± 0.16 Ma; 40Ar/ 39Ar age of same sample 4.5 ± 0.2 Ma)

Scotney, P.M., S. Roberts, R.J. Herrington, A.J. Boyce & R. Burgess (2005)- The development of volcanic hosted massive sulfide and barite-gold orebodies on Wetar Island, Indonesia. Mineralium Deposita 40, 1, p. 76-99.
(online at: www.academia.edu/10121511/The_development_of_volcanic_hosted_massive_sulfide_and_barite_gold_orebodies_on_Wetar_Island_Indonesia)
(Wetar Island, Banda Arc, composed of Neogene volcanic rocks and minor oceanic sediments. Wetar volcanic edifice formed at ~12 Ma by extensive rifting and associated volcanism within oceanic crust. Youngest dated volcanic rock dacite of ~2. 4 Ma. 'Kuroko-type' volcanogenic precious metal-rich massive sulfide (mainly pyrite) overlain by barite deposits, which produced ~17 tonnes gold. Ages of hydrothermal alteration around ore bodies ~4.7-4.9 Ma. Sr isotopes of unaltered volcanic rocks suggest contributions from subducted continental material. Mineral deposits formed on flanks of volcano at water depth of ~2 km. Ore bodies covered by post-mineralization cherts, gypsum, Globigerina limestone, subaqueous debris flows and pyroclastics)

Self, S., M.R. Rampino, M.S. Newton & J.A. Wolff (1984)- Volcanological study of the great Tambora eruption of 1815. Geology (GSA) 12, 11, p. 659-663.
(Tambora 1815 eruption one of largest explosive volcanic events of past 10,000 yr, with ~175 km^3 of nepheline-normative trachyandesitic pyroclastic material was erupted in 24 hours. Plinian and co-ignimbrite ash fall >1 cm thick covered >500,000 km^2 of Java Sea and surrounding islands)

Seran, H. & C. Farmer (2012)- Scratching at the surface: hidden mineralization at Wetar? In: N.I. Basuki (ed.) Proc. Annual Conv. Indonesian Soc. Economic Geologists (MGEI). Malang 2012, Banda and Eastern Sunda arcs, p. 217-232. *(also in Majalah Geologi Indonesia (2013),28, 1, p. 51-63)*
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_download/720)
(Ongoing exploration for deeper metal prospects on Wetar Island. High sulfidation epithermal alteration may suggest presence of deeper porphyry style deposits that are related to known massive sulfides and extensive unexplored anomalies on island)

Setyandhaka, D. & J. Arif (2006)- Characteristics of the root of Cu-Au porphyry system: results of study from Batu Hijau Cu-Au porphyry deposit. Proc. 35th Annual Conv. Indonesian Association Geologists (IAGI), Pekanbaru, p. 1-11.
(online at: https://www.iagi.or.id/web/digital/15/2006_IAGI_Pekan-Baru_-Characteristics-Of-The-Root.pdf)
(Deep portion of world class Batu Hijau porphyry copper-gold system in SW Sumbawa shows high grade Cu-Au ores within host rock intrusion body of tonalites associated igneous breccia, and wall rocks of volcanics and quartz diorite. Below -600 m elevation mineralization almost barren even though still common quartz veins)

Setyandhaka, D., J. Proffett, S. Kepli & J. Arif (2008)- Skarn mineralization in Batu Hijau Cu-Au porphyry system. Proc. 37th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 664-671.
(online at: https://www.iagi.or.id/web/digital/14/2008_IAGI_Bandung_Skarn-Mineralization-in-Batu.pdf)
(Sumbawa Batu Hijau deposit classic Cu-Au porphyry system. Several intervals of calc-silicate rock and skarn interbedded with volcanics. Potential to find significant skarn-type mineralizations)

Sewell, D.M. & C.J.V. Wheatley (1994)- Integrated exploration success for gold at Wetar, Indonesia. In: T.M. van Leeuwen et al. (eds.) Mineral deposits of Indonesia; discoveries of the past 25 years, J. Geochemical Exploration 50, 1-3, p. 337-350.
(online at: www.academia.edu/12327894/Integrated_exploration_success_for_gold_at_Wetar_Indonesia
(Wetar island gold discovery. Most significant Au values associated with barite-rich rocks in basinal structures)

Sewell, D.M. & C.J.V. Wheatley (1994)- The Lerokis and Kali Kuning submarine exhalative gold-silver-barite deposits, Wetar Island, Maluku, Indonesia. In: T.M. van Leeuwen et al. (eds.) Mineral deposits of Indonesia; discoveries of the past 25 years, J. Geochemical Exploration 50, 1-3, p. 351-370. *(online at:*

www.academia.edu/12327895/The_Lerokis_and_Kali_Kuning_submarine_exhalative_gold_silver_barite_deposits_Wetar_Island_Maluku_Indonesia)
(Wetar Island (Banda Arc, N of Timor) composed of submarine volcanics, with oldest exposed rocks dated at 12 Ma. Basaltic andesite pillow lavas and volcaniclastics overlain by felsic volcanics and sediments. Gold-silver mineralization on N coast in stratiform barite sand, clay or silt. Sediments underlain by Cu-rich pyrite in volcanic breccias and overlain by limestone dated at ~4 Ma. Formed in submarine volcanic environment at 600m water depth in sea floor caldera. Now at 400m asl, suggesting 1000m of young uplift)

Shulgin, A., H. Kopp, C. Muller, E. Lueschen, L. Planert, M. Engels, E.R.Flueh, A. Krabbenhoeft & Y. Djajadihardja (2009)- Sunda-Banda arc transition: incipient continent-island arc collision (northwest Australia). Geophysical Research Letters 36, L10304, p. 1-6.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2009GL037533)
(E Sunda arc in early stages of continent-arc collision. Australian margin colliding with Banda island arc, causes back arc thrusting. New composite structural model reveals deep geometry of collision zone. Changes in crustal structure encompass 10-12 km thick Australian basement in S and 22-24 km thick Sumba Ridge in N, where backthrusting of 130 km wide accretionary prism is documented)

Sianipar D.S.J. (2022)- Earthquake source characteristics along the Flores Thrust Fault, Indonesia. Ph.D. Thesis, National Central University, Taiwan, p. 1-207.
(online at: https://sianipar17.com/earthquake-source-characteristics-along-the-flores-thrust-fault-indonesia)
(Seismically active, S-dipping Flores Thrust fault N of Lombok, Sumbawa and W Flores, in backarc of E Sunda-Banda arc, with several M5.7+ earthquakes recorded. Study of earthquakes between 1999 and 2022. Normal faulting event of 2003 was within subducted slab below Flores Thrust fault zone)

Sianipar D.S.J., B.S. Huang, K.F. Ma, M.C. Hsieh, P.F. Chen & D. Daryono (2022)- Similarities in the rupture process and cascading asperities between neighboring fault patches and seismic implications: The 2002-2009 Sumbawa (Indonesia) earthquakes with moment magnitudes of 6.2-6.6. J. Asian Earth Sciences 229, 105167, p.
(Study of seismic activity along S-dipping Flores Thrust)

Silitonga, F. (1994)- Gravity profiles of the back arc thrust zone, north offshore Sumbawa, Indonesia. In: J.L. Rau (ed.) Proc. 30th Session Comm. Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Bali 1993, 2, p. 33-42.
(online at: https://repository.unescap.org/items/177e9366-1a15-4fc9-986f-15520603d2c3)
(Major linear gravity low N of Sumbawa modeled as backarc accretionary prism, possibly with common shale diapyrism, on oceanic crust)

Silver, E.A., N.A. Breen, H. Prasetyo & D.M. Hussong (1986)- Multibeam study of the Flores backarc thrust belt, Indonesia. J. of Geophysical Research 91, B3, p. 3489-3500.
(online at: http://bpls.go.id/bplsdownload/library/paper/Silver-Flores-MB-JGR-86.pdf)
(SeaMARC II seafloor bathymetry and seismic reflection profiles used to map segment of Flores back arc thrust zone. Mud diapirs formed throughout accretionary wedge, but concentrated at ends of thrust faults. Overall orientation of deformation front of accretionary wedge is 100°)

Silver, E.A., D. Reed, R. McCaffrey & Y. Joyodiwiryo (1983)- Back arc thrusting in the eastern Sunda Arc, Indonesia: a consequence of arc-collision. J. of Geophysical Research 88, B9, p. 7492-7448.
(online at: https://www.academia.edu/62882398/Back_arc_thrusting_in_the_Eastern_Sunda_Arc_Indonesia_A_consequence_of_arc_continent_collision)
(Eastern Sunda arc backarc (N of volcanic arc) dominated by large N-directed thrusts (Wetar and Flores thrusts), likely representing early stage subduction polarity reversal. Mechanism of backarc thrusting not clear)

Simon, A. (1913)- Beitrage zur Petrographie der kleinen Sunda-Inseln Lombok und Wetar. Inaugural Dissertation Universitat Marburg, Germany, p. 1-74.
('Contributions to the petrography of the Lesser Sunda islands Lombok and Wetar'. Petrography of mainly andesitic volcanic rocks collected during the 1909-1910 Frankfurter Sunda-expedition of J. Elbert)

Soepri, W., P.A. Pirazzoli, C. Jouannic, H. Faure et al. (1992)- Differential vertical movement along the Sunda-Banda arc, Indonesia. In: M. Flower, R. McCabe & T. Hilde (eds.) Symposium Southeast Asia structure, tectonics and magmatism, Texas A&M, College Station, p. 1-3. *(Extended abstract only)*

Soeprihantoro, W. (1992)- Etude des terrasses recifales Quaternaires soulevees entre le detroit de la Sonde et l'ile Timor, Indonesie; mouvements verticaux de la croute terrestre et variations du niveau de la mer. Doct. Thesis University Aix-Marseille II, p. 1-922. *(Unpublished)*
('Study of the uplifted Quaternary reef terraces between Sunda Strait and Timor island; vertical movements of earth crust and variations of sea level')

Soeria Atmadja, R., Y. Sunarya, Sutanto & Hendaryono (1998)- Epithermal gold-copper mineralization associated with Late Neogene-magmatism and crustal extension in the Sunda-Banda Arc. Bull. Geological Society Malaysia 42, p. 257-268.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1998021.pdf)
(Majority of gold-copper mineralization along Sunda-Banda arc low-sulfidation epithermal, related to Late Neogene fine silicic pyroclastics of calc-alkaline to potassic calc-alkaline affinity)

Subarsyah, D. Kusnida & L. Arifin (2014)- Interpretasi struktur bawah permukaan berdasarkan atribut anomali magnetik perairan Wetar, NTT. J. Geologi Kelautan 12, 1, p. 5-23.
(online at: ejournal.mgi.esdm.go.id/index.php/jgk/article/download/242/232)
('Subsurface structure interpretation based on magnetic anomaly attributes of Wetar waters, East Nusa Tenggara'. Identification of back-arc frontal thrust and submarine volcano edifices from magnetic and shallow seismic data in E Flores Sea/ S Banda Sea, N of Banda Arc islands Alor- Wetar)

Subarsyah & R. Rahardiawan (2016)- Geological structures appearances and its relation to mechanism of arc-continent collision, northern Alor-Wetar Islands. Bulletin of the Marine Geology 31, 2, p. 55-66.
(online at: http://ejournal.mgi.esdm.go.id/index.php/bomg/article/view/326/274)
(Shallow seismic lines in S Banda Sea, N of Alor- Wetar, in zone of recent back-arc thrusting. Delineation of Alor Thrust and Wetar Thrust, offset by N-S left-lateral strike-slip fault. Also possible submarine volcano structures)

Sudijono (1997)- On the age of the limestone in the island of Lombok, West Nusatenggara. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 7, 72, p. 14-34.
(Limestones in S Mountains of Lombok. Limestones generally in isolated outcrops, 36m or less thick. Three separate units, formerly all grouped in Ekas Fm: (1) Sekotong Lst in SW: latest Oligocene (Te1-4), with larger forams Miogysinoides complanatus and Spiroclypeus, and associated with 'Old Andesites' volcanics (2) C-S Lombok, near Orokgendang dam and Lawang Gua, E-M Miocene (upper Te5-Tf1-2) with Katacycloclypeus, Flosculinella bontangensis, Miogypsina, etc., associated with marls with zone N8 planktonic forams (looks like equivalent of Wonosari Lst of S Java; JTvG) and (3) SE Lombok, N of Ekas and Serewe, Late Miocene (Tf3/ N16) with Lepidocyclina (Trybliolepidina) rutteni and Radiocycloclypeus (see also Franchino et al. (1988)).

Sudradjat, A., S. Andi Mangga & N. Suwarna (1998)- Geologic map of the Sumbawa Quadrangle, Nusatenggara, scale 1: 250,000. Geological Research Development Centre (GRDC), Bandung.
(Geologic map of West and C Sumbawa. Miocene- Recent volcanic rocks, with E and M Miocene limestone lenses. With Tambora volcano in N)

Sulaeman, C., S. Hidayati, A. Omang & I.C. Priambodo (2018)- Tectonic model of Bali Island inferred from GPS Data. Indonesian J. on Geoscience (IJOG) 5, 1, p. 81-91.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/389/257)
(GPS campaign shows horizontal displacements between 1.9 and 22.5 mm/yr, dominantly to NE. Deformation in Bali mostly controlled by subduction in S and East Flores back-arc thrust in N)

Supendi, P., A.D. Nugraha, S. Widiyantoro, C.I. Abdullah, N. Rawlinson, P.R. Cummins, C.W. Harris, N. Roosmawati & M.S. Miller (2020)- Fate of forearc lithosphere at arc-continent collision zones: evidence from

local earthquake tomography of the Sunda-Banda Arc transition, Indonesia. Geophysical Research Letters 47, 6, e2019GL086472, p. 1-9.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2019GL086472)
(New seismic P wave velocity model of Sunda-Banda Arc transition from local earthquake tomography shows (1) N-ward subduction of oceanic lithosphere, as high-velocity zone extending down to ~200 km depth; (2) two distinct low-velocity zones, one immediately above slab (likely zone of partial melt) 0-40 km deep, probably magma chambers associated with active volcanoes above; (3) N- dipping high-velocity zone that bisects two low-velocity anomalies, interpreted as underthrust forearc sliver of continental origin)

Supendi, P., N. Rawlinson, A.D. Nugraha, S. Widiyantoro, C.I. Abdullah, Daryono, B.S. Prayitno, M. Sadly & D. Karnawati (2022)- Focal mechanism analysis of the earthquakes beneath the Sunda-Banda Arc transition, Indonesia, using the BMKG data. Proc. 3rd Int. Conference on Geoscience and Earth Resources Engineering, Bandung 2021, IOP Conference Series: Earth and Environmental Science 1031, 012012, p. 1-6.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1031/1/012012/pdf)
(Focal mechanism study for 20 events in Sunda-Banda transition region from 2014-2016 for earthquakes of magnitude Mw ≥ 5.0. Earthquakes in subduction zone rupture on thrust faults for shallow- intermediate events, while deep events have normal fault mechanisms. Shallow events in collision zone on thrust faults, generally parallel to Timor trough. Also normal fault mechanisms for deep events below collision zone, consistent with remnant slab activity that persists to today. Shallow events N of Sumbawa indicate thrust fault with strike almost parallel to back-arc thrust in area. Also evidence of strike-slip motion along local-scale faults)

Sutawidjaja, I.S. & Sugalang (2007)- Multi-geohazards of Ende city area. Jurnal Geologi Indonesia 2, 4, p. 217-233.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/40/40)
(Geohazard assessmnet of Ende area, Flores. Flores Island is segment of Banda Arc that contains 11 active volcanoes and numerous inactive volcanic cones)

Suwarno, N. & Y. Noya (1985)- Stratigrafi regional wilayah busur bergunungapi Nusatenggara. Proc. 14th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta 1985, p. 71-79.
(online at: https://www.iagi.or.id/web/digital/40/PIT_IAGI_1985_paper8.pdf)
('Regional stratigraphy of the central part of the Lesser Sunda Islands volcanic arc'. Stratigraphy of Bali-Alor sector of Sunda- Banda volcanic arc. Oldest rocks basaltic-andesitic volcanics, interfingering with E-M Miocene sediments ('Old Andesites' or younger?; JTvG). Overlain by late M or Late Miocene- Pliocene sediments (mainly limestones) and volcanics, unconformably overlain by Pleistocene- Holocene andesitic basaltic volcanics)

Suwarno, N., S. Santosa & S. Keosoemadinata (1989)- Geological map of the Ende Quadrangle, East Nusatenggara, Quadrangle 2207, 2208, 2307, 2308, scale 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(Geologic map of East Flores Island. Oldest rock E-M Miocene Kiro and M Miocene Tanahau arc volcanics, some with pillow structures intruded by M Miocene granodiorites. Overlain by Late Miocene Waihekang Fm tuffaceous limestones with Lepidocyclina, Alveolinella and tuffaceous marine Loka Fm. With 21p. report)

Syuhada, S., N.D. Hananto, C.I. Abdullah, N.T. Puspito, T. Anggono, F. Febriani & B. Soedjatmiko (2020)- Lithospheric mantle anisotropy from local events beneath the Sunda–Banda arc transition and its geodynamic implications. Acta Geophysica 68, p. 1565-1593.
(High mantle anisotropy followed by rotational pattern of fast directions in area N of Timor may be related to the induced mantle flow due to lateral tearing of the slab)

Syuhada, S., N.D. Hananto, C.I. Abdullah, N.T. Puspito, T. Anggono & T. Yudistira (2016)- Crustal structure along Sunda-Banda Arc transition zone from teleseismic receiver functions. Acta Geophysica 64, p. 2020-2049.
(online at: https://link.springer.com/article/10.1515/acgeo-2015-0098)
(Teleseismic events recorded at 12 broadband stations from Sumbawa to Timor allow estimates of crustal thickness, etc., along Sunda-Banda arc transition zone. Crustal thickness of 34-37 km below Timor Island. Thick crust (> 30 km) also under Sumba and Flores. In Timor and Sumba high Vp/Vs ratio with low velocity zone

possibly associated with presence of mafic-ultramafic materials and fluid filled fracture zone. High Vp/Vs ratio at Sumbawa and Flores volcanic Islands might be indication of partial melt related to upwelling of hot asthenosphere material through subducted slab)

Syuhada, S., N.D. Hananto, C.I. Abdullah, N.T. Puspito, T. Anggono, T. Yudistira & M. Ramdhan (2017)- Crustal anisotropy along the Sunda-Banda arc transition zone from shear wave splitting measurements. J. Geodynamics 103, p. 1-11

Syuhada, S., N.D. Hananto, C.I. Abdullah, N.T. Puspito, T. Yudistira & T. Anggono (2017)- Study on 2-D crustal shear wave splitting tomography along the Sunda-Banda Arc transition zone. Proc. Southeast Asian Conference on Geophysics, Bali 2016, IOP Conference Series: Earth and Environmental Science 62, 012054, p. 1-6.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/62/1/012054)

Takashima, I., A. Nasution & H. Muraoka (2002)- Thermoluminescence dating of volcanic and altered rocks in the Bajawa geothermal area, central Flores Island, Indonesia. Bull. Geological Survey of Japan 53, 2/3, p. 139-146.
(online at: https://www.gsj.jp/data/bulletin/53_02_07.pdf)
(Ages of young basalts-andesites around Bajawa geothermal area of C Flores, determined by thermoluminescence dating, range from 32-160 ka)

Tampubolon, B.T. & Y. Saamena (2009)- Savu Basin: a case of frontier basin area in Eastern Indonesia. Proc. 33rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, IPA09-SG-078, p. 337-347.
(Review of deepwater (3km deep) Savu forearc basin, based on gravity, seismic and bathymetry data (no wells). Basin underlain by thin (12-14km) crust, probably oceanic. Relatively undeformed forearc basin fill unconformably on block-faulted pre-Late Miocene basement)

Tobler, A. (1918)- Notiz uber einige foraminiferenfuhrende gesteine von der Halbinsel Sanggar (Soembawa). Zeitschrift fur Vulkanologie 4, p. 189-192.
('Notes on some foraminifera-bearing rocks from the Sanggar Peninsula (Sumbawa)'. Appendix in Pannekoek van Rheden (1918) paper. Incl. first description of Schlumbergerella neotetraeda from Quaternary? limestones)

Ubaidillah, A.S., A. Idrus, I Wayan Warmada & S. Maula (2021)- Geology, rock geochemistry and ore fluid characteristics of the Brambang copper-gold porphyry prospect, Lombok Island, Indonesia. J. Geoscience Engineering Environment Technology (JGEET) 6, 1, p. 67-73.
(online at: https://journal.uir.ac.id/index.php/JGEET/article/view/6145/3128)
(Brambang copper prospect on Lombok shares key features with classic porphyry copper-gold deposits)

Umbgrove, J.H.F. (1939)- Miocene corals from Flores (East-Indies). Leidsche Geologische Mededelingen 11, 1, p. 62-67.
(online at: www.repository.naturalis.nl/document/549421)
(Corals from limestone at N coast of Flores near Papang, collected by Kuenen. 9 species, probably Miocene age, incl. Cyphastrea monticulifera, Progyrosmilia vacua, Fungophyllia spp., Leptoseris, Goniopora planulata)

Van der Vlerk, I.M. (1922)- Studien over Nummulinidae en Alveolinidae. Haar voorkomen op Soembawa en haar betekenis voor de geologie van Oost-Azie en Australie. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 5, p. 329-464. *(also as Doct. Thesis Leiden University)*
(online at: https://resolver.kb.nl/resolve?urn=MMKB21:031771000:pdf)
('Studies on Nummulinidae and Alveolinidae. Their occurrence on Sumbawa and significance for the geology of East Asia and Australia'. Limestone samples from Sumbawa, collected by J. Pannekoek van Rheden, with Miocene larger foraminifera, incl. Lepidocyclina spp., Alveolinella (incl. Alveolinella fennemai Checchia Rispoli, A. globulosa Rutten, A quoii)), Miogypsina, Cycloclypeus (incl. C. annulatus), etc. (Looks like mainly M Miocene, equivalent of Wonosari Lst of S Java?. With discussions of Indonesian larger foram species and distribution. With locality map. Little stratigraphic info; JTvG))

Van der Werff, W. (1996)- Variation in forearc basin development along the Sunda Arc, Indonesia. J. Southeast Asian Earth Sciences 14, 5, p. 331-349.
(Includes details on fore-arc areas off Sumba)

Van der Werff, W., H. Prasetyo & T.C.E. van Weering (1991)- The Bali-Lombok forearc region: trapped forearc basin or rifted continental origin? Proc. International Seminar Geodynamics, Indonesian Association Geophysicists (HAGI), p. 14-22.
(Geologic development of Sumba analogous to Doang borderland at leading edge of Sunda shield margin?)

Van Heek, J. (1910)- Bijdrage tot de geologische kennis van het eiland Lombok. Jaarboek Mijnwezen Nederlandsch Oost-Indie 38 (1909), Wetenschappelijk Gedeelte, Landsdrukkerij, Batavia, p. 1-82.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:046039000:00001)
('Contribution to the geological knowledge of Lombok Island'. Most of Lombok composed of young volcanic rocks. Narrow range of hills along S coast ?E Miocene volcanics, overlain by ?M Miocene Lithothamnium-rich limestone with Lepidocyclina, looking like continuation of Java S Mountains. (Fig. 11 also shows Miogypsina and advanced Lep. (N), suggesting M Miocene age, similar to Wonosari Lst of S Java; JTvG). With geologic map 1:200,000)

Van Heek, J. (1911)- Onderzoek van een looderts voorkomen in Zuid-Lombok. Jaarboek Mijnwezen Nederlandsch Oost-Indie 38 (1909), Technisch Administratief Gedeelte, p. 177-201.
('Investigation of a lead ore occurrence in South Lombok'. Survey confirms older reports on presence of lead deposits (galena in quartz veins, with minor Ag, Cu) at Sukadana hill and at Bukit Pedjere near Lentek in S Central Lombok, but not deemed to be extensive. Hosted in (Early Miocene?) diagenetically altered andesitic volcanics, which are overlain by (Late?) Miocene limestones (geologically looks like continuation of Southern Mountains of Java)

Van Schelle, C.J. (1890)- Verslag van het onderzoek naar het voorkomen van tinertshoudende gronden op Flores. Extra-Bijvoegsel der. Javasche Courant, Batavia, February 1890, p. 1-24.
(online at: https://books.google.com/books....)
('Report of the investigation into the presence of tin-bearing soils on Flores'. Travel narrative of Van Schelle's first expedition of December 1889 into 'non-pacified' Rokka area from S coast of Flores (W of Endeh), with purpose of confirming reported tin ore occurrences in area. Expedition members were violently attacked and robbed off all supplies by 150 armed Rokkanese. Tin ores not (yet) found, but van Schelle remained optimistic about presence of tin N of Rokka area (NB: a second Van Schelle expediitie followed in mid-late 1890 and also ended prematurely; with no official Van Schelle report? (but summary in Jaarboek Mijnwezen 21 (1892), Techn.-Admin. Gedeelte 2, p. 63, 69))

Verdiansyah, O., H.G. Hartono & O. Sugarbo (2021)- Review of the volcano setting concept to discover the precious metal mineralization in Sunda Arc, Indonesia: An approach proposal for mineral exploration. Proc. 2nd Int. Conference on Industrial and Technology and Information Design (ICITID 2021), Institut Teknologi Nasional Yogyakarta, p. 1-18.
(online at: https://repository.itny.ac.id/id/eprint/4896/1/eai30-8-20212311541%20%281%29.pdf)
(Mineralization in Sunda belt generally formed in ancient (Oligo-Miocene) arc volcanic systems. Boundary between Eastern Sunda and Banda Arc is Flores Island. Kulon Progo mountain, C Java, is an example of Composite complex volcano of 3-4 paleovolcano complexes (Ijo Complex, Gadjah, Menoreh). Etc.)

Verdiansyah, O., A. Idrus, L.D. Setijadji, B. Sutopo & I.G. Sukadana (2021)- Mineralogy of hydrothermal breccia cement of Humpa Leu East porphyry copper-gold prospect, Sumbawa Island, Indonesia. Proc. 2nd Geoscience Environmental Management Symposium (ICST 2021), E3S Web of Conferences 325, 04008, p. 1-6.
(online at: www.e3s-conferences.org/articles/e3sconf/pdf/2021/101/e3sconf_icst2021_04008.pdf)
(Hu'u district in S Sumbawa interpreted as paleo-volcano in Old Volcanics Fm. Humpa Leu East porphyry prospect lithology consists of pre-volcanics unit (lava and pyroclastics), diorite, andesite -diorite, and tonalitic intrusion at depth. Hydrothermal alteration evolved from tonalite body outward. Several phases of hydrothermal activities. Etc.)

Verdiansyah, O., A. Idrus, L.D. Setijadji, B. Sutopo & I.G. Sukadana (2022)- Veins system and their mineralogical and micro thermometric charactertistics within the Humpa Leu East porphyry copper-gold mineralization at Hu'u District, Sumbawa Island, Indonesia. Jurnal Teknologi (UTM) 84, 5, p. 35-49.
(online at: https://journals.utm.my/jurnalteknologi/article/view/17906/7976)
(Humpa Leu East porphyry prospect in Sumbawa in paleo-volcano member of Late Miocene-Pleistocene volcanics. Hydrothermal alteration evolved from the tonalitic body. Mineralization dominated by chalcopyrite. Humpa Leu East identified as 'push-up porphyry system' that still remains more extensive at depth)

Vermaes, S.J. (1917)- Tinerts op Flores. De Ingenieur 32, p. 584-590.
('Tin ore on Flores' Report on a piece of tin ore present in the collection of the former Koloniaal Museum in Haarlem, by Prof. Vermaes from Delft, reportedly coming from 'Gunung Rokka', Flores. Its significance was disputed by Wichmann (1919), arguing tin is not associated with volcani arcs (mining engineer C.J. van Schelle had conducted two mostly unsuccesful expedions to this area in 1889-1890, to locate source of tin; JTvG))

Von Koenigswald, G.H.R. (1958)- A tektite from the island of Flores, Indonesia. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, B 61, p. 44-46.
(Report on occurrence of tektite from Flores, part of the Pleistocene Australasian impact strewn field)

Wawryk, C.M. & J.D. Foden (2017)- Iron-isotope systematics from the Batu Hijau Cu-Au deposit, Sumbawa, Indonesia. Chemical Geology 466, p. 159-172.
(Iron isotope values of andesite and quartz diorite and coeval hypogene ore minerals from Batu Hijau porphyry copper-gold deposit in Sumbawa)

Wichmann, A. (1891)- Bericht uber eine im Jahre 1888-89 im Auftrag der Niederlandischen Geographischen Gesellschaft ausgefuhrte Reise nach dem Indischen Archipel, Part 2, III. Flores. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 1891, p. 188-293.
('Report on a voyage carried out for KNAG (Royal Netherlands Geographic Society) in 1888-1889 to the Indies Archipelago, part 2- III. Flores'. Part 2 of Wichmann geographic narrative of expedition to Indonesia)

Wichmann, A. (1892)- Ueber das angebliche Tertiar der Insel Adonara. Neues Jahrbuch Mineralogie Geologie Palaontologie 1892, 1, p. 61-64.
(online at: https://www.zobodat.at/pdf/Neues-Jb-Min-Geol-Palae_1892_0049-0070.pdf)
('About the alleged Tertiary age of the island Adonara'. Debate between Wichmann and Martin on whether presence of silicified corals Clementia papyracea, Coeloria singularis Martin and Hydnophora astraeoides Martin in limestone of W coast of Adonara represent Miocene age (as preferred by Wichmann) or something younger (N.B. latter two coral species also reported from latest Oligocene Rajamandala Limestone of W Java by Gerth 1921, supporting Miocene or older age; JTvG))

Wichmann, C.E.A. (1914)- On the tin of the island of Flores. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 17, 2, p. 474-490.
(online at: https://dwc.knaw.nl/DL/publications/PU00012691.pdf)
(Extensive review of old reports on tin occurrences at Rokka Mts of Flores, incl. by trader, Mr Freyss in 1860, partly based on tin-lead alloy ornaments possessed by Flores natives could not be confirmed by subsequent investigations (including an aborted mission in late 1889 led by Mijnwezen mining engineer C.J. van Schelle, which was assaulted by locals and had to retreat, followed by a second expedition with armed escort in 1890, which only encountered volcanic rocks (but also apparently did acquire two tin-rich samples). No tin found in follow-up geological survey work by J. Pannekoek van Rheden in 1910-1911. Tin in SE Asia is associated with Pretertiary granites, and older rocks gradually disappear E of Java. Outcrops on Flores limited to Tertiary volcanics and sediments, and Mt. Rokka location is in active volcanic area. Presence of tin in Flores therefore extremely unlikely, tin ornaments of natives were 'probably imported in former times')

Wichmann, A. (1919)- On tin-ore in the Island of Flores. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 21, 1, p. 409-416.

(online at: https://dwc.knaw.nl/DL/publications/PU00012095.pdf)
(Repeats Wichmann (19140 conclusion that no tin is present on Flores, despite it being further promoted in a 1917 paper by Prof. S.J. Vermaes from TH Delft, based on the presence of a piece of tin ore displayed in the Koloniaal Museum in Haarlem, reportedly from 'Gunung Rokka', Flores ('Tinerts op Flores', De Ingenieur 32, p. 584-590))

Widiyantoro, S. & Fauzi (2005)- Note on seismicity of the Bali convergent region in the eastern Sunda Arc, Indonesia. Australian J. Earth Sciences 52, 3, p. 379-383.
(Recent earthquakes around Bali show seismic activity concentrated down to ~200 km, along forearc and in backarc. Stress field dominated by N-S compression. Thrust events in backarc N of Bali likely due to W continuation of backarc thrust fault of Sumbawa and Flores. Local earthquake hypocentres form image of S-ward subduction of Java Sea oceanic crust, in opposite direction of main subduction of Indo-Australian Plate)

Wilkinson, J.J., Z. Chang, D.R. Cooke, M.J. Baker, C.C. Wilkinson, S. Inglis, H. Chen & J.B. Gemmel (2015)- The chlorite proximitor: a new tool for detecting porphyry ore deposits. J. Geochemical Exploration 152, p. 10-26.
(Major, minor and trace element chemistry of chlorite evaluated as tool for mineral exploration in propylitic environment of Batu Hijau Cu-Au porphyry deposit, SW Sumbawa)

Wong, H.K. & U. Salge (1992)- Seismic facies, sedimentary structures and tectonics around Sumbawa island in East Indonesia. In: E.T. Degens, H.K. Wong & M.T. Zen (eds.) The sea off Mount Tambora, Mitteilungen Geologisch-Palaontologisch Institut, Universitat Hamburg 70, p. 37-57.

Yang, X., S.C. Singh & A. Tripathi (2020)- Did the Flores backarc thrust rupture offshore during the 2018 Lombok earthquake sequence in Indonesia? Geophysical J. International 221, 2, p. 758-768.
(online at: https://academic.oup.com/gji/article/221/2/758/5757908)
(Flores thrust forms W segment (~450 km) of very active, ~E–W striking, ~800-km-long backarc thrust along the east Sunda Arc. In 2018 deadly earthquake sequence rattled Lombok island near Flores thrust. Offshore portion of Flores thrust likely did not rupture during this earthquake)

Yeh, H., F. Imamura, C. Synolakis, Y.Tsuji, P. Liu & S. Shi (1993)- The Flores Island tsunamis. EOS Transactions American Geophysical Union (AGU) 74, 33, p. 369, 371-373.
(December 12, 1992 Ms 7.5 earthquake and tsunami off N Flores with epicenter 50km NW of Maumere, hypocenter depth 15km. Considered to reflect activity in N Flores backarc thrust zone. Tsunami runup height up to 26m, inundation distance ~600m)

Zardi D, A., T. Sihombing, A. Purba & N.I. Basuki (2012)- Resource of Pangulir lode deposit, Sumbawa, Indonesia. Proc. Banda and Eastern Sunda Arcs, MGEI Annual Convention, Malang 2012, p. 159-179.
(Pangulir newly discovered Au-Ag-Cu epithermal quartz-sulfide vein breccia lode in S Sumbawa Island. Hosted in Tertiary arc volcanics)

Zen, M.T., S. Soemarno & F. Ilyas (1992)- Structural pattern and tectonic position of Sumbawa Island in East Indonesia. In: E.T. Degens, H.K. Wong & M.T. Zen (eds.) The sea off Mount Tambora, Mitteilungen Geologisch-Palaontologisch Institut, Universitat Hamburg 70, p. 21-35.

Zhang, P. (2023)- Understanding arc-continent collision in the Banda Arc through 3-D seismic imaging. Ph.D. ThesisAustralian National University, Research School of Earth Sciences, Canberra, p.
(online at: https://oatd.org/oatd/record?record=handle%5C:1885%5C%2F282604)
(Mainly collection of five earlier publications by P. Zhang, N.S. Miller, etc.))

Zhang, P. & M.S. Miller (2020)- Seismic imaging of the subducted Australian continental margin beneath Timor and the Banda Arc collision zone. Geophysical Research Letters 48, 4, e2020GL089632, p. 1-11.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/full/10.1029/2020GL089632)

(Crustal and uppermost mantle structure imaged from ~4 years of new broadband seismic data in Timor-Leste and Nusa Tenggara, Indonesia. Tomographic images show low-velocity anomalies (<30 km) beneath Timor related to underthrusted Gondwana sequence from Australian plate, vertically offset by high-velocity backstop of Banda forearc terrane. Structure changes along strike. At greater depth seismically fast lithospheric mantle (>30 km) and arc-ward dipping Moho beneath Timor, interpreted to be from Australian plate)

Zhang, P., M.S. Miller & C.M. Eakin (2022)- Unraveling an enigmatic boundary along the Sunda-Banda volcanic arc. Earth Planetary Science Letters 599, 117860, p. 1-13.
(Broadband seismic project across E Indonesia shows intriguing arc-perpendicular change in seismic anisotropy and velocity structure in C Flores. Correlates with change in strike of highest topography and presence of ~N-S aligned cinder cones. 3-D shear wave velocity model suggests sharp structural change in C Flores from rel. thin transitional crust in W to continental lithosphere in E. Observations correlate with previously identified changes in volcanic geochemistry across C Flores and indicate structural and/or compositional boundary)

Zhang, P., M.S. Miller & V. Schulte-Pelkum (2022)- Tectonic fabric in the Banda Arc-Australian continent collisional zone imaged by teleseismic receiver functions. Geochem. Geophysics Geosystems (AGU) 23, 6, e2021GC010262, p. 1-16.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1029/2021GC010262)
(Seismic data from 30 seismic stations deployed in 2014-2019 across islands of E Indonesia and Timor-Leste, to observe processes of plate collision. Some of imaged structures related to active volcanoes; others associated with crustal deformation during collision of Australian plate with active volcanic arc)

Zhao, S., P.R. Cummins, S. McClusky & M.S. Miller (2025)- Interseismic coupling along the Java-Timor subduction-collision zone at East Indonesia. Geophysical Research Letters 52, 6, e2024GL112563, p. 1-11.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2024GL112563)
(GPS velocities and earthquake slip vectors used to investigate variation in interseismic coupling along Java-Timor megathrust and Flores-Wetar back-arc thrust. Heterogeneous coupling along systems)

Zollinger, H. (1850)- Verslag van eene reis naar Bima, Soembawa en naar eenige plaatsen op Celebes, Saleijer en Floris gedurende de maanden Mei tot December 1847. Verhandelingen Bataviaasch Genootschap Kunsten Wetenschappen 23, p. 1-224.
('Report on a journey to Bima, Sumbawa and some places on Sulawesi, Salayar and Flores in the months May-December 1847'. Probably the first observations on the geology, vegetation, people, language, history, etc. of Sumbawa, Bima (with discussion of 1815 eruption of Tambora volcano, which left >3' thick pumice layer near the volcano), Salayar, Flores, etc. by Swiss naturalist Heinrich Zollinger. Includes a mention of asphalt and crude oil in the interior of Flores near Bari (p. 65))

Zubaidah, T. (2010)- Spatio-temporal characteristics of the geomagnetic field over the Lombok Island, the Lesser Sunda Islands region: New geological, tectonic, and seismo-electromagnetic insights along the Sunda-Banda Arcs transition. Geo Forschungs Zentrum, Potsdam, Scientific Technical Report STR10/07, p. 1-115.
(online at: http://ebooks.gfz-potsdam.de/pubman/item/escidoc:10278:3/component/escidoc:10279/1007.pdf)

Zubaidah, T., M. Korte, M. Mandea, Y. Quesnel & M. Hamoudi (2014)- New insights into regional tectonics of the Sunda-Banda Arcs region from integrated magnetic and gravity modelling. J. Asian Earth Sciences 80, p. 172-184.
(Lombok Island lies between zones characterized by large intensity magnetic anomalies. Geomagnetic ground surveys and modelling suggest two active Quaternary normal faults and magmatic arc related to subduction region. Magnetic anomalies and gravity models suggest extension of Flores Thrust zone (reaching NW off Lombok Island). Flores Thrust zone may be considered as mature subduction in back arc region, showing tendency of progressive subduction during last decades)

Zubaidah, T., M. Korte, M. Mandea, Y. Quesnel & B. Kanata (2010)- Geomagnetic field anomalies over the Lombok Island region: an attempt to understand the local tectonic changes. Int. J. Earth Sciences (Geologische Rundschau) 99, 5, p. 1123-1132.

(Magnetic survey of SW Lombok. Magnetic high tied to large igneous intrusive body)

Zwyer, T. (2011)- Temporal and spatial evolution of hydrothermal, ore-related fluids in the Batu Hijau porphyry copper-gold deposit, Sumbawa (Indonesia), M.Sc. Thesis, Institute of Petrology and Geochemistry, ETH Zurich, p. 1-52. *(Unpublished)*

VII.3. Sumba, Savu, Savu Sea

Abdullah, C.I. (1994)- Contribution a l'etude geologique de l'isle de Sumba: apports a la connaissance de la geodynamique de l'archipel indonesien orientale. Doct. Thesis Universite de Savoie, Chambery, p. 1-255.
('Contribution to the geological study of Sumba island and relevance to the geodynamics of the east Indonesian archipelago'. Sumba island with thinned continental crust, located in forearc of Banda Arc. No significant folding, but evidence of long-lasting extension. Four sedimentary cycles recognized: (1) U Cretaceous - Paleocene marine deposits with turbiditic inputs (Llasipu Fm), associated with Santonian - Campanian and Maastrichtian- Danian island arc volcanic episodes; (2) Eocene-Oligocene volcano-sedimentary and neritic deposits associated with Lutetian-Rupelian island arc volcanism; (3) transgressive Neogene cycle of deep sea deposits, with volcanoclastic turbidites and synsedimentary tectonics; (4) Quaternary cycle of uplifted reef terraces. Sumba part of Eurasian Plate since U Cretaceous, paleogeographically close to W Sulawesi)

Abdullah, C.I. (2010)- Evolusi magmatisme Pulau Sumba. Proc. 39th Annual Conv. Indonesian Association Geologists (IAGI), Lombok, PIT-IAGI-2010-049, p. 1-3.
(online at: https://www.iagi.or.id/web/digital/12/2010_IAGI_Lombok_Evolusi-Magmatisme-Pulau-Sumba.pdf)
('Magmatic evolution of Sumba Island'. Short paper without figures, describing 3 periods of calk-alkaline island arc magmatism in Cretaceous- Paleogene of Sumba: (1) U Cretaceous (Santonian- Campanian; 85.4- 78.6 Ma), (2) Maastrichtian- Thanetian (71.7- 56.6 Ma), (3) M Eocene- Oligocene (Lutetian- Rupelian; 42.3- 31.4 Ma)

Abdullah, C.I., J.P. Rampnoux, H. Bellon, R.C. Maury & R. Soeria-Atmadja (2000)- The evolution of Sumba Island (Indonesia) revisited in the light of new data on the geochronology and geochemistry of the magmatic rocks. J. Asian Earth Sciences 18, 5, p. 533-546.
(online at: https://www.academia.edu/24640542/The_evolution_of_Sumba_Island_Indonesia_revisited_in_the_light_of_new_data_on_the_geochronology_and_geochemistry_of_the_magmatic_rocks)
(Sumba continental crustal fragment, with 3 Cretaceous-Paleogene arc volcanic episodes: Late Cretaceous (86-77 Ma), Maastrichtian- Thanetian (71-56 Ma) and Lutetian- Rupelian (42-31 Ma). W-ward shift of volcanism through time. No Neogene volcanism (considered reworked!?). Very similar to SW Sulawesi. Sumba was part of 'Andean' magmatic arc near SW Sulawesi magmatic belt and SE Kalimantan coast at margin of Asian Plate)

Abdullah, C.I., J.P. Rampnoux & R. Soeria-Atmadja (1996)- Data baru geochronologi, analysis kimia dan tinjauan geodinamik Pulau Sumba. In: Sampurno et al. (eds.) Pros. Seminar Nasional Geoteknologi III, LIPI, Bandung, p. 324-346.
('New data on geochronology, chemical analysis and review of geodynamics of Sumba Island'.Similar to above?. Sumba Block started to separate from Sundaland margin by oceanic rifting in Sumba Strait in Oligo-Miocene?)

Abdullah, C.I., E. Suparka & V. Isnaniawardhani (2008)- Sedimentary phases of Sumba Island (Indonesia). Proc. 37th Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 66-79.
(online at: https://www.iagi.or.id/web/digital/14/2008_IAGI_Bandung_Sedimentary-Phase-of-Sumba.pdf)
(Sumba continental block never subjected to intense deformation. Stratigraphy with slightly to unmetamorphosed Cretaceous-Paleogene sediments, unconformably overlain by less deformed Neogene-Quaternary deposits. Four sedimentary phases: (1) Late Cretaceous-Paleocene marine turbidites with Santonian-Campanian (86-77 Ma) and Maastrichtian- Thanetian (71-56 Ma) magmatic episodes; (2) Paleogene neritic sedimentation with Lutetian-Rupelian magmatic episode (42-31 Ma); (3) Neogene rapid sedimentation in deep sea environment; (4) Quaternary uplift of terraces. Lack of intense deformation suggests Sumba was never involved in collision between Indian- Australian and Asiatic plates, except during minor compressive episode in Paleogene)

Audley-Charles, M.G. (1975)- The Sumba fracture: a major discontinuity between Eastern and Western Indonesia. Tectonophysics 26, p. 213-228.
(Sunda-Banda Arc not a continuous subduction system. Major tectonic discontinuity separates E Indonesia (Sumba, Banda Arcs, E Sulawesi) from W Indonesia (W Sulawesi and islands west of Sumba). Sumba fracture initially a Late Jurassic wrench fault that became Cretaceous and Cainozoic transform. Sumba detached from N Australia; Timor, etc., represent deformed Australian continental margin. Overthrust Asian elements also present. No subduction has taken place between Outer Banda Arc islands and Australia since Early Permian)

Audley-Charles, M.G. (1985)- The Sumba enigma: is Sumba a diapiric fore-arc nappe in process of formation? Tectonophysics 119, 1-4, p. 435-449.
(online at: http://searg.rhul.ac.uk/pubs/audley-charles_1985_Sumba%20enigma.pdf)
(Sumba Cretaceous-Miocene stratigraphy similar to Timor allochthonous Palelo-Cablac series and both with Cretaceous forearc deposits on thin continental crust. Postulated Sumba nappe not yet thrust onto Australian margin and may be diapyric dome)

Authemayou, C., G. Brocard, B. Delcaillau, S. Molliex, K. Pedoja, L. Husson, S. Aribowo & S. Y. Cahyarini (2018)- Unraveling the roles of asymmetric uplift, normal faulting and groundwater flow to drainage rearrangement in an emerging karstic landscape. Earth Surface Processes and Landforms 43, 9, p. 1885-1898.
(online at: https://www.researchgate.net/publication/328527912_Unraveling_the_roles_of_asymmetr Etc.)
(Assesment of drainage response to spatially heterogeneous rainfall, asymmetric uplift, and normal faulting on emerging carbonate platform (Sumba Island))

Authemayou, C., K. Pedoja, D. Chauveau, L. Husson, G. Brocard, B. Delcaillau, J. Perrot, S. Aribowo, S.Y. Cahyarini, M. Elliot, D.H. Natawidjaja & D. Scholz (2022)- Deformation and uplift at the transition from oceanic to continental subduction, Sumba Island, Indonesia. J. Asian Earth Sciences 236, 105316, p. 1-15.
(manuscript online at: www.sciencedirect.com/science/article/pii/S1367912022002474)
(Sumba island located at transition from oceanic to continental Indo-Australian plate subduction. Sumba affected by dextral en-echelon folding. Emergence of island and dextral shearing of accretionary prism triggered by subduction of W boundary of Australian continental margin. Plio-Quaternary tectonic evolution of region, with transpression and migration of trench toward Australian margin primarily dictated by shear stress transfer from lower plate to overriding plate and by SW-ward escape of Savu-Sumba block following impingement of Australian continental margin against Timor)

Bard, E., C. Jouannic, B. Hamelin, P. Pirazzoli, M. Arnold, G. Faure, P. Sumosusastro & Syaefudin (1996)- Pleistocene sea levels and tectonic uplift based on dating of corals from Sumba Island, Indonesia. Geophysical Research Letters 23, 12, p. 1473-1476.
(online at: https://www.academia.edu/8178092/Pleistocene_sea_levels_and_tectonic_uplift_based_on_dating_of_corals_from_Sumba_Island_Indonesia)
(Quaternary tectonic uplift rate calculated from uplifted reef terraces at Cape Laundi, NE coast Sumba, 0.2-0.5m/ 1000 yrs, Reefs terraces outcrops correspond to major sea level high stands, and timing of terraces broadly consistent with sea level fluctuations predicted by astronomical theory of paleoclimates)

Beiersdorf, H. & K. Hinz (1980)- Active ocean margins in SE Asia. In: H. Cloos et al. (ed.) Mobile Earth: International Geodynamics project, p. 121-125.
(Savu Basin underlain by 12-14 km thick oceanic crust, probably oceanic)

Boehm, G. (1911)- *Posidonomya becheri* in Niederlandisch-Indien? Centralblatt Mineralogie Geologie Palaontologie 1911, 11, p. 350-352.
(online at: https://www.zobodat.at/pdf/Centralblatt-Mineral-Geol-Palaeont_1911_0350-0352.pdf)
(On possible occurrence of bivalve Posidonomya, collected by Witkamp in 1910 in dark grey sandy shales from Lobewi village, near S coast of W Sumba (this identification implied Carboniferous age, but fossil re-identified by Roggeveen (1929) as Jurassic or Cretaceous mollusc of genus Inoceramus; JTvG))

Breen, N.A, E.A. Silver & D.M. Hussong (1986)- Structural styles in an accretionary wedge south of the island of Sumba, Indonesia, revealed by SeaMARC II side scan sonar. Geological Society of America (GSA) Bull. 97, 10, p. 1250-1261.
(Accretionary wedge S of Sumba in early stages of continent-island arc collision. Australian continental shelf sediments accreted to Sunda arc at Timor trough. Deformation concentrated on lower slope of accretionary wedge, within 15-25 km of thrust front, above which strain rate appears to decrease. Three structural styles developed in area. W part of accretionary wedge is being indented and redeformed by basement ridge)

Brouwer, H.A. (1943)- Leuciethoudende en leucietvrije gesteenten van den Soromandi op het eiland Soembawa. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam 52, 6, p. 303-307.
('Leucite-bearing and leucite-free rocks of the Soromandi volcano on Sumbawa Island')

Budiharto, R. (2002)- Oblique divergent wrench fault movement between the islands of Sumba and Timor. Proc. 31st Annual Conv. Indonesian Association Geologists (IAGI), Surabaya, 1, p. 315-326.
(online at: https://www.iagi.or.id/web/digital/17/OBLIQUE-DIVERGENT-WRENCH-FAULT-MOVEMENT-BETWEEN-THE-ISLANDS-OF-SUMBA-AND-TIMOR-.pdf)

Burollet, P.F. & C. Salle (1981)- A contribution to the geological study of Sumba (Indonesia). Proc. 10th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 331-344.
(Basement exposed along S coast of Sumba is folded, low metamorphic Late Cretaceous deep marine sediments. ?Early Paleocene calk-alkaline volcanics and intrusives. Early Miocene carbonates unconformable over Eocene; thick E Miocene tuffs. Paleomag suggests 60° clockwise rotation since Cretaceous. Quaternary reef terraces 500m above sea level)

Burollet, P.F. & C. Salle (1982)- Histoire geologique de l'ile de Sumba (Indonesie). Bull. Societe Geologique France 24, 3, p. 573-580.
('Geologic history of Sumba Island'. Marine turbiditic and pelagic Cretaceous sediments strongly folded at end of Cretaceous and cut by numerous intrusions of a 66-59 Ma major volcanic phase. Unconformably overlain by gently folded Paleogene, including M-L Eocene limestones rich in larger forams and M Eocene andesitic volcanics (39-42.5 Ma, deepening upward into radiolarian clays. E Miocene carbonates- marls unconformable over all older formations. Total Neogene limestone-marl thickness ~500-600m; slightly dipping to NE)

Caudri, C.M.B. (1934)- Tertiary deposits of Soemba. Doctoral Thesis, University of Leiden, p. 1-225.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB21:029044000:00007)
(M-L Eocene carbonates (zones Ta2 and Tb) with Nummulites spp., Assilina, Discocyclina, Asterocyclina, alveolinids (Fasciolites), Pellatispira (= 'Sundaland' genus; not known from Australia/ New Guinea; JTvG), unconformably over folded and intruded Mesozoic (Jurassic?). Oligocene angular unconformity separates Late Eocene-earliest Oligocene (Tb-Tc) limestones with dips of 30°, from more horizontal earliest Miocene (zone Te5) sediments with Lepidocyclina (N.), Spiroclypeus and Miogypsina)

Chamalaun, F.H., A.E. Grady, C.C. von der Borch & H.M.S. Hartono (1981)- The tectonic significance of Sumba. Bull. Geological Research Development Centre (GRDC), Bandung, 5, p. 1-20.

Chamalaun, F.H., A.E. Grady, C.C. von der Borch & H.M.S. Hartono (1982)- Banda Arc tectonics: the significance of the Sumba Island (Indonesia). In: J.L. Watkins & C.L. Drake (eds.) Studies in continental margin geology, American Assoc. Petroleum Geol. (AAPG), Memoir 34, p. 361-375.
(Sumba not part of subduction tectonics of Sunda Arc to W, nor collision tectonics of Banda Arc system. Sumba is continental fragment from Australia or from Sundaland (Flores Basin), that became trapped behind E Java Trench. Data not convincing, but appears to favor Australian origin (more likely Sundaland magin; JTvG))

Chamalaun, F.H. & W. Sunata (1982)- The paleomagnetism of the Western Banda Arc System-Sumba. In: Paleomagnetic Research in Southeast and East Asia, Proceedings of a CCOP Workshop, Kuala Lumpur 1982, p. 162-194.

Chauveau, D. (2021)- Étude du couplage tectonique/erosion/eustatisme sur la morphogenèse de la sequence de terrasses de recifs coralliens du Cap Laundi (île de Sumba, Indonésie). Doctoral Thesis, L'Universite de Bretagne Occidentale, 598, p. 1-329.
(online at: https://hal.science/tel-03613575v1/file/These_ChauveauDenovan_ManuscritFinal_Corrige.pdf)
('Study of the tectonic/erosional/eustatic coupling of the morphogenesis of the Cape Laundi coral reef terrace sequence (Sumba Island, Indonesia)'. Discussions on genesis of uplifted coral reef terraces on Sumba and their degradation of the terraces series))

Chauveau, D., C. Authemayou, S. Molliex, V. Godard, L. Benedetti, K. Pedoja, L. Husson & S.Y. Cahyarini (2021)- Eustatic knickpoint dynamics in an uplifting sequence of coral reef terraces, Sumba Island, Indonesia. Geomorphology 393, 107936, p. 1-16.
(manuscript online at: https://archimer.ifremer.fr/doc/00720/83181/88117.pdf)
(Emerged coral reef terrace sequence flanking N coast of Sumba created by joint effects of uplift and Quaternary sea level oscillations. Morphology dissected by multiple catchments drained by deep canyons, whose stream profiles display several knickpoints. Knickpoints form at distal edge of emergent reef at each regressive stage following a sea level highstand, then propagates upward by regressive erosion. Etc.)

Chauveau, D., C. Authemayou, K. Pedoja, S. Molliex, L. Husson, D. Scholz, V. Godard, A.M. Pastier et al. (2021)- On the generation and degradation of emerged coral reef terrace sequences: First cosmogenic 36Cl analysis at Cape Laundi, Sumba Island (Indonesia). Quaternary Science Reviews 269, 5, 107144, p.
(manuscript online at: https://archimer.ifremer.fr/doc/00718/83000/89518.pdf)

Chauveau, D., A.M. Pastier, G. de Gelder, L. Husson, C. Authemayou, K. Pedoja & S.Y. Cahyarini (2023)- Unravelling the morphogenesis of coastal terraces at Cape Laundi (Sumba Island, Indonesia): Insights from numerical models. Earth Surface Processes and Landforms 49, 2, p. 549-566. *(manuscript online at: www.researchgate.net/publication/374549932_Unravelling_the_morphogenesis_of_coastal_terraces Etc.)*
(Chronology of development long-lasting sequence of coral reef terraces at Cape Laundi, Sumba Island, remains poorly constrained. Numerical modeling with eustatic sea level curves, etc., suggests lowermost main terrace was first constructed during marine transgression MIS 5e (~125 ka) and was later reshaped (higher terraces older, up to ~600 ka?))

Chauveau, D., K. Pedoja, C. Authemayou L. Husson, G. de Gelder, S. Aribowo, M. Elliott et al. (2025)- Morphogenesis of the Holocene coastal landforms on Sumba Island, Indonesia. J. Asian Earth Sciences: X, 14, 100208, p. 1-20.
(online at: https://www.sciencedirect.com/science/article/pii/S2590056025000192)
(Another review of Holocene coastal reef terraces of Sumba Island. Preservation of terraces favoured on leeward coast (N); almost absent on windward coast (S). Earlier Pleistocene coral reef limestones dominate in N, Miocene/Pliocene tuffs and pelagic carbonates outcrop on S coast. Etc.)

De Gelder, G., T. Solihuddin, D.A. Utami, M. Hendrizan, R. Rachmayani, D. Chauveau et al. (2023)- Stratigraphy and morphogenesis of Pleistocene coral reefs at Tambolaka (Sumba Island, Indonesia). Earth Surface Processes and Landforms, 2023, p. 1-18.
(online at: https://www.researchgate.net/publication/371229839_Geodynamic_control_on_Pleistocene_coral_reef_development_insights_from_northwest_Sumba_Island_Indonesia)
(= preliminary version of paper below?)

De Gelder, G., T. Solihuddin, D.A. Utami, M. Hendrizan, R. Rachmayani, D. Chauveau, C. Authemayou et al. (2023)- Geodynamic control on Pleistocene coral reef development: insights from northwest Sumba Island (Indonesia). Earth Surface Processes and Landforms 48, 13, p. 2536-2553.
(online at: https://onlinelibrary.wiley.com/doi/10.1002/esp.5643)
(On uplifted Pleistocene reef terraces and underlying sediments near Tambolaka, NW Sumba. Four lower layers of bedded chalky limestone units, attributed to M Miocene-Pliocene Waikabukak Fm based on nannofossils and planktonic forams. Uppermost layer calcretized reefal limestone attributed to Plio–Pleistocene reef sequence of Kalianga Fm. Seven marine terraces, four correlated with Marine Isotope Stages 5e (~125 ka), 7e, 9e, and 11c (400 ka) terraces of Cape Laundi in NE. Compared with Cape Laundi, Tambolaka has lower Quaternary uplift rate (~0.16 mm/yr instead of ~0.5 mm/yr). Morphodynamics of reef sequences impacted by tectonic evolution)

Djoehanah, S. & S. Hadiwisastra (1984)- Korelasi umur nannoplangton dan foraminifera Paleogen di daerah Wanokaka, Sumba Barat. J. RISET Geologi dan Pertambangan (LIPI) 5, 1, p. 1-8.
(online at: http://pustaka.geotek.lipi.go.id/wp-content/uploads/2016/02/Riset-Vol.5-No.1-2.pdf)

(Samples from S coast of W Sumba, S of Waikabukak, with common Late Eocene (zone NP19) nannoplankton, incl. Discoaster barbadiensis, D. saipanensis, etc. From same horizon planktonic foraminifera of zone P16 (Hadiwisastra 1980) and zone Tb larger foraminifera (Caudri 1934))

Djumhana, N. & D. Rumlan (1992)- Tectonic concept of the Sumba continental fragment, Eastern Indonesia. Proc. 21st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2, p. 585-598.
(online at: https://www.iagi.or.id/web/digital/50/21th-Vol-II-(7-10-Des-1992)-215-228.pdf)
(Sumba island fragment of continental crust. Structure rel. simple. Seismic data suggest Sumba originally continuous with N part of Timor, from which it separated in M-L Miocene (11-10 Ma) and rotated 60° CW)

Effendi, A.C. & T. Apandi (1994)- Geology of the Waikabubak and Waingapu sheets, Nusatenggara. Geological Research Development Centre (GRDC), Bandung, 2nd Edition.
(1:250,000 geologic map of Sumba Island, originally completed in 1981. Oldest rocks recognized in outcrops is >1000m thick series of Upper Cretaceous deep marine flysch/greywacke with Globotruncana, associated with lavas and volcanic breccias and tuffs (Masu Fm). Intruded by Paleocene granodiorites (61.5 Ma) and andesitic volcanics, overlain by Eocene greywackes, Eocene and Lower Oligocene limestones and E Miocene andesitic volcanics (Jawila Fm.) Uplifted coral reefs suggest rapid recent uplift along N coastal areas (not in S))

Ely, K.S. & M. Sandiford (2010)- Seismic response to slab rupture and variation in lithospheric structure beneath the Savu Sea, Indonesia. Tectonophysics 483, 1-2, p. 112-124.
(Banda Arc earthquake focal mechanisms suggest subducting slab under W Savu Sea in down-dip compression at 70-300 km, while down-dip tension typifies intermediate depth Sunda slab to W and Banda slab to E. Compression reflects subduction of transitional crust of Scott Plateau. Enhanced magma flux indicated by narrower volcano spacing in overlying arc. E of Savu Sea, near complete absence of intermediate depth seismicity attributed to slab window where Australian continental crust has collided with arc. Differences in seismic moment release around this slab window indicate asymmetric rupture, propagating to E faster than W. Volcano spacing from Bali-Sumbawa average 68 km, in E Banda Arc average of 72 km)

Fleury, J.M. (2005)- De la subduction oceanique a la subduction continentale: deformations associees et heritage structural: l'exemple du bloc Sumba-Savu, terminaison orientale du fosse de la Sonde. Thesis Universite Pierre & Marie Curie, Paris, p. 1-278. *(Unpublished)*
('From oceanic to continental subduction: associated deformation and structural heritage: the example of the Sumba-Savu Block at the eastern end of the Sunda arc'. East of 120ºE abrupt change in style of subduction deformation of upper plate. Fieldwork on Sumba demonstrated volcanic activity from Upper Cretaceous until Oligocene, followed by well-developed carbonate sedimentation. Miocene paleogeography shows E-W oriented platform-basin configuration. Currently Sumba is in extensional regime. Savu Basin is marine extension of Sumba structure. Internal part is little deformed and acts as rigid buttress and transfers convergence to backarc. Arrival of Australian margin at subduction zone forms, at end of Mio-Pliocene orogeny in Timor, a rigid block composed of Sumba island in W, Timor in E and the little deformed Savu Basin in middle. W limit of this block unknown)

Fleury, J.M., M. Pubellier, M. de Urreiztieta & N. Chamot-Rooke (2006)- Crustal erosion and subduction of continental asperity: Sumba Island and forearc, Indonesia. Geophysical Research Abstracts 9, 06054, 2007, European Geosciences Union, EGU2007-A-06054 *(Abstract only)*

Fleury, J.M., M. Pubellier & M. de Urreiztieta (2009)- Structural expression of forearc crust uplift due to subducting asperity. Lithos 113, p. 318-330.
(Sumba Island presently undergoing extension, associated with regional uplift. Crustal uplift may have been created by major thrust emerging in S of island, associated with NE tilt of island. The consequent anomalous positive topography along S coast compensated by significant tectonic erosion along large-scale curvilinear normal faults in SE half of island. Expression of this gravitational collapse at receding side of an advancing circular dome striking similarities with accretionary wedges being affected by seamount subduction. Savu Basin moderately deformed and acts as rigid buttress in convergence between Banda Arc and Australian plate)

Fortuin, A.R., Th.B. Roep & P.A. Sumosusastro (1994)- The Neogene sediments of east Sumba, Indonesia- products of a lost arc? J. Southeast Asian Earth Sciences 9, 1-2, p. 67-79.
(M Miocene- Pliocene deep water sediments overlie Oligocene- E Miocene carbonate platform, overlying Paleogene volcanics and Late Cretaceous turbidites. Common arc volcanic debris in Mid-Late Miocene sourced from SSW (but present-day Sunda-Banda arc is to N))

Fortuin, A.R., Th.B. Roep, P.A. Sumosusastro, T.C.E. van Weering & W. van der Werff (1992)- Slumping and sliding in Miocene and Recent developing arc basins, onshore and offshore Sumba (Indonesia). Marine Geology 108, p. 345-363.
(Neogene slidemasses in E Sumba compared to analogues in seismic profiles off Lombok and Savu basins. Onshore examples were deposited in deep marine base-of slope environments, within reach of large amounts of clastics derived from volcanic arc. Tectonically induced oversteepening considered main cause of failure)

Fortuin, A.R., W. van der Werff & H. Wensink (1997)- Neogene basin history and palaeomagnetism of a rifted and inverted forearc region, on- and offshore Sumba, eastern Indonesia. J. Asian Earth Sciences 15, 1, p. 61-88.
(online at: https://dspace.library.uu.nl/bitstream/handle/1874/19036/fortuin_97_neogene.pdf)
(Sumba island is emerged part of SE Asian terrane, with angular unconformity between Paleogene platform carbonates and Mid-Late Miocene volcanoclastic submarine fan deposits, representing break-up stage. At least 3 km subsidence in M Miocene. High volcanic supply in M Miocene and E-M Tortonian, waning in late Tortonian and renewed supply during Messinian.Volcanoclastics sourced from S. Possible start of >4 km Sumba uplift at ~7 Ma, but most of uplift Pliocene- Recent.Since Late Miocene, only minor counter-clockwise rotation of Sumba (~5 degrees CCW). Emergence of Sumba probably not before 3 Ma)

Hadiwisastra, M.S. (1980)- Biostratigrafi Tersier Bawah daerah Wanokaka, Sumba Barat. J. RISET Geologi dan Pertambangan (LIPI) 3, 2, p. 18-26.
(online at: http://pustaka.geotek.lipi.go.id/wp-content/uploads/2016/02/Riset-Vol.3-No.2-2.pdf)
'Biostratigraphy of the Early Tertiary of the Wanokaka area, Sumba'. Late Eocene Tb shallow marine larger foraminifera (incl. Nummulites, Pellatispira) and 32 species of planktonic foraminifera (Late Eocene zone P16; incl. Globigerinatheka semiinvoluta, Pseudohastigerina micra, Globorotalia cerroazulensis, etc.) in marls/ limestones along road Waikabukak and Padedewatu, 2km N of Padedewatu)

Hantoro, W.S. (1993)- Linear result of 230^{Th}/234U and ESR dates of coral fossils obtained from Quaternary uplifted reef in the Savu Sea area. Proc. 18th Annual Conv. Indonesian Association Geophysicists (HAGI), Jakarta, p.

Hantoro, W.S. (1993)- Neotektonik dan kurva variasi paras muka laut Pleistosen: studi teras terumbu koral terangkat di Pulau Sumba, Nusa Tenggara Timur, Indonesia. Proc.22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 159-180.
(online at: https://www.iagi.or.id/web/digital/61/21.pdf)
('Neotectonics and Pleistocene sea level variation curve: study of uplifted coral reef terraces on Sumba Island, East Nusa Tenggara, Indonesia'. NE Sumba island with 6 main uplifted Pleistocene reef terraces up to 475m elevation. Radiometric dating and correlation to oxygen isotope curves suggest ages up to ~1.0 Ma)

Hantoro, W.S., C. Jouannic & P.A. Pirazzoli (1989)- Terrasses coralliennes Quaternaires soulevees dans l'ile de Sumba (Indonesie). Photo-Interpretation 28, 1, p. 17-34.
('Quaternary uplifted coral reef terraces on Sumba Island (Indonesia)'. See also Pirazzoli et al. 1993, Bard et al., 1996, Chauveau et al., 2021-2023, de Gelder 2023, etc.)

Inamoto, A. & M. Sayama (1993)- Hydrogeology of Sumba Island, Nusa Tenggara Timur, Indonesia. J. Japan Society Engineering Geology 34, 4, p. 178-193.
(online at: www.journalarchive.jst.go.jp...) (in Japanese)

Isnaniawardhani, V., C.A. Abdullah & S.D. Pratiwi (2021)- Korelasi biostratigrafi foraminifera plankton dan nannoplankton Tertsier Indonesia bagian Timur (Studi kasus: Pulau Sumba). Bull. Scientific Contribution: Geology (UNPAD) 19, 1, p. 9-19.
(online at: https://jurnal.unpad.ac.id/bsc/article/view/33039/pdf)
('Biostratigraphic correlation of planktonic foraminifera and nannoplankton of Eastern Tertiary Indonesia (Case study: Sumba Island)'. Biostratigraphy of deep marine Late Eocene- Pliocene sediments on Sumba Island. Paleogene rocks generally exposed in W Sumba; Neogene exposed in W and E Sumba. Planktonic foraminifera (12 zones) and nannoplankton (11 zones) abundant; zones correlate well with earlier zonation schemes)

Jouannic, C.R., W.S. Hantoro, C.T. Huang, M. Fournier, R. Lafont & M.L. Ichram (1988)- Quaternary raised reef terraces at Cape Laundi, Sumba, Indonesia: geomorphological analysis and first radiometric age determinations. Proc. 6th International Coral Reef Symposium, Townsville, Australia, 3, p. 441-447.
(Quaternary reef terraces uplifted up to 500m in N and C Sumba (see also Pirazzoli et al. 1991, Nexer 2015)

Karmini, Mimin (1985)- Paleontological analysis of the Sawu basin, Lombok basin and Argo abyssal plain. Proc. 14th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 205-221.
(online at: https://www.iagi.or.id/web/digital/40/PIT_IAGI_1985_paper19.pdf)
(Foraminifera from Recent seafloor box core samples collected during Snellius II expedition in Savu and Lombok basins (2000-3500m water depth) and Argo Abyssal Plain. Lysocline depth 4500-5000m in Savu-Lombok, at ~5300m in Argo Plain. (no obvious paleobathymetric or other conclusions on foram distributions; JTvG))

Keep, M., I. Longley & R. Jones (2003)- Sumba and its effect on Australia's northwestern margin. In: R.R. Hillis & R.D. Muller (eds.) Evolution and dynamics of the Australian Plate. Geological Society of America (GSA), Special Paper 372 and Geological Society Australia Special Publ. 22, p. 309-318.
(Suggest 8 Ma collision of Sumba forearc and promontory of Australian continent, resulting in Sumba uplift)

Kruizinga, P. (1939)- Two fossil Cirripedia from the Pleistocene marls of Sumba. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 12, p. 259-264.
(On two fossil barnacles attached to Spondylus mollusc collected by Verbeek in 1899 from Pleistocene marls near N coast Sumba)

Kusnida, D. (1992)- Stratigraphic break of the Sawu forearc basin. Bull. Marine Geological Institute, Bandung, 7, 1, p. 1-14.
(Interpretation of shallow seismic profiles of Savu Basin, acquired by Snellius II expedition)

Laufer, F. (1950)- Geology and morphology of West and Central Sumba. Organization for Scientific Research in Indonesia (O.S.R.) News, Jakarta, 2, 12, p. 161-166.

Laufer, F. & A. Kraeff (1957)- The geology and hydrology of West and Central Sumba and their relationship to the water-supply and rural economy. Djawatan Geologi (Geological Survey Indonesia, Bandung), Publikasi Keilmuan 33, Seri Geologi, p. 1-48.
(Sumba island with thick, folded Cretaceous? flysch-type slates and quartzites with possible NNW strike in S mountains of W Sumba. Cut by pre-Eocene basalt and gabbros and probably also large granodiorite massif. Unconformably overlain by Late Eocene limestones with larger forams including Pellatispira. Miocene and younger limestones probably with minor unconformity over Paleogene limestones. E Miocene Jawila volcanics. Quaternary reefal limestone terraces up to 300m above sea level)

Lytwyn, J., E. Rutherford, K. Burke & C. Xia (2001)- The geochemistry of volcanic, plutonic and turbiditic rocks from Sumba, Indonesia. J. Asian Earth Sciences 19, p. 481-500.
(online at: https://www.academia.edu/107966611/The_geochemistry_of_volcanic_plutonic_and_turbiditic_rocks_from_Sumba_Indonesia)
(Sumba underlain by Late Cretaceous- Early Oligocene volcanic arc rocks and associated turbiditic sediments, and is fragment of an oceanic island arc, not piece of Sundaland continent)

Meiser, P., D. Pfeiffer, M. Purbohadiwidjojo & Sukardi (1965)- Hydrogeological map of the isle of Sumba, scale 1:250,000. Indonesia Geological Survey, Bandung.

Nexer, M. (2015)- Etude conjointe des reseaux de drainage et des paleocotes plio-quaternaires soulevees: exemples de l'Indonesie et du golfe Normand Breton. Doctoral Thesis Universite de Caen Normandie, p. 1-365. *(online at: https://tel.archives-ouvertes.fr/tel-01258570/document)*
('Joint study of the drainage systems and uplifted Pliocene-Quaternary paleocoasts: examples from Indonesia and the Gulf of Normandy-Brittany'. In French. With chapters on raised coral reef terraces of Sumba (E Indonesia) and Huon Peninsula (PNG))

Nexer, M., C. Authemayou, T. Schildgen, W.S. Hantoro, S. Molliex, B. Delcaillau, K. Pedoja, L. Husson & V. Regard (2015)- Evaluation of morphometric proxies for uplift on sequences of coral reef terraces: a case study from Sumba Island (Indonesia). Geomorphology 241, p. 145-159. *(online at: www.academia.edu/12542023/Evaluation_of_morphometric_proxies_for_uplift_on_sequences_of_coral_reef_terraces_A_case_study_from_Sumba_Island_Indonesia_?from=cover_page)*
(Study of uplifted Pleistocene coral reef terraces, preserved along 2/3 of coast of Sumba island (not along most of S coast). Six main terraces, up to 30 km wide. Max. elevations of 470m along NE coast. Uplift rates variable, between 0.10- 0.63 mm/yr)

Nishimura, S., Y. Otofuji, T. Ikeda, E. Abe, T. Yokoyama et al. (1981)- Physical geology of the Sumba, Sumbawa and Flores islands. In: A.J. Barber & S. Wiriyusono (eds.) The geology and tectonics of Eastern Indonesia, CCOP-SEATAR Meeting, Bandung 1979, Geological Research Development Centre (GRDC), Bandung, Special Publ. 2, p. 105-113.
(Major tectonic discontinuity between Sumbawa and Flores. Paleomag suggests about 60° clockwise rotation of Sumba island between Jurassic and Early Miocene. No stratigraphy/age control for their 'Jurassic mudstones' from SW Sumba (more likely Cretaceous?; HvG))

Otofuji, Y., S. Sasajima, S. Nishimura, S. Hadiwisastra, T. Yokoyama & F. Hehuwat (1980)- Palaeoposition of Sumba Island, Indonesia. In: S. Nishimura (ed.) Physics and geology of the Indonesian island arcs, Kyoto University Press, Kyoto, p. 59-66.

Otofuji, Y., S. Sasajima, S. Nishimura & F. Hehuwat (1979)- Paleomagnetic evidence for the paleoposition of Sumba Island, Indonesia. Rock magnetism and paleogeophysics, Tokyo, 6, p. 69-74. *(online at: http://peach.center.ous.ac.jp/rprep/Rock%20Magnetism%20and%20Paleogeophysics%20vol6%201979.pdf)*
(Paleomagnetic work on 15 sites, ranging in age from Jurassic (more likely Upper Cretaceous?; HvG) to Miocene, during which Sumba rotated CW by 59°. 'Late Jurassic' paleolatitude of 25.9°S, suggests Sumba formed part of Australian continent)

Otofuji, Y., S. Sasajima, S. Nishimura, T. Yokoyama, S. Hadiwisastra & F. Hehuwat (1981)- Paleomagnetic evidence for the paleoposition of Sumba Island, Indonesia. Earth Planetary Science Letters 52, p. 93-100.
(Sumba underwent 59.2° CW rotation since Jurassic and 79 4 ° relative to Timor since Jurassic (Cretaceous?). Until Jurassic, Sumba and Timor situated at Australian continental margin; Sumba at paleolatitude of ~26°S ('Jurassic' rocks analyzed more likely Cretaceous?; JTvG) (similar paper to Otofuji et al. 1979, 1980))

Permanadewi, S. & I. Saefudin (1994)- Umur mutlak batuan tuf daerah pegunungan Tanadaro dan sekitarnya, Sumba, Nusa Tenggara Timur: berdasarkan metoda pentarikhan jejak belah. Jurnal Sumber Daya Geologi (JSDG) 4, 34, p. 20-26.
('Absolute ages of tuffs in the Tanadaro Mts area, Sumba, E Nusa Tenggara, using fission track method'. Zircon fission track ages of 3 andesitic tuff samples from Masu Fm of C Sumba: (1) 57.3± 5.4 Ma (= ~Paleocene- Eocene boundary), (2) 49.3± 2.9 Ma (= ~E-M Eocene boundary) and (3) 45.3 ± 5.7 Ma (= M Eocene))

Pfeiffer, D. & P. Meiser (1968)- Geologische, hydrogeologische und geoelectrische Untersuchungen auf der Insel Sumba (Indonesia). Geologisches Jahrbuch 86, p. 885-918.
('Geological, hydrogeological and geoelectrical investigations on the island of Sumba, Indonesia')

Pirazzoli, P.A., U. Radtke, W.S. Hantoro, C. Jouannic, C.T. Hoang, C. Causse & M. Borel Best (1993)- Quaternary raised coral reef terraces on Sumba island, Indonesia. Science 252, p. 1834-1836.
(Sequence of coral-reef terraces (6 main steps >500m wide and many substeps) near Cape Laundi, Sumba Island, between 475m elevation and sea level. Uplift rate 0.5 mm/yr. Most terraces correspond to specific interglacial stages, with oldest terrace formed 1 million years ago)

Pirazzoli, P.A., U. Radtke, W.S. Hantoro, C. Jouannic, C.T. Hoang, C. Causse & M. Borel Best (1993)- A one million-year-long sequence of marine terraces on Sumba Island, Indonesia. Marine Geology 109, p. 221-236.
(11 Pleistocene coral reef terraces at N coast Sumba Island, <1 million years old, up to 475m above sea level)

Prasetyo, H. (1994)- The tectonics of the 'Sunda-Banda' forearc transition zone, eastern Indonesia. Bull. Marine Geological Institute, Bandung, 9, 1, p. 23-47.
(Marine geophysical and geological studies of forearc area between Sumba and Timor, including field studies of accretionary wedge of Sawu Island and uplifted portion of forearc basement (Sumba Ridge) of Sumba Island. Region of transition from conventional Andean-type Indian Ocean subduction along E Sunda Trench in W to arc-continent collision along Timor Trough in E. Several major problems remain unresolved)

Reed, D.L. (1985)- Structure and stratigraphy of the eastern Sunda forearc, Indonesia. Geologic consequences of arc-continent collision. Ph.D. Thesis, Scripps Inst. Oceanography, La Jolla, University of California, p. 1-235.
(Unpublished)
(Study of marine seismic profiles and piston cores in E Sunda fore-arc, with geologic fieldwork on Late Miocene-E Pliocene accretionary complex on Savu island. Savu with imbricated, well-indurated U Triassic- Jurassic quartzose turbidites/ deep water limestones (mainly ENE trending and WNW-dipping?) and more intensely deformed, sheared, poorly consolidated Cretaceous- Tertiary pelagic sediments (with scaly clays). Sumba Ridge best described as continental landmass (crustal thickness 24km), trapped in forearc during Miocene initiation of E Sunda arc-trench system, but rel. undeformed in Neogene. Between Sumba and Savu outflow of Pacific Ocean deep from Savu Basin water caused significant (up to 1000m?) submarine erosion on crests of ridges, with material re-deposited along Savu Thrust and Sumba Basin (mainly as muddy contourites/ drifts). Triassic limestones on Savu with Monotis salinaria, Halobia and radiolaria. U Jurassic with blocks of pillow basalts. Deformed strata on Savu never deeply buried. Blocks ('boudins'?) and scaly matrix formed by common deformation process. Opposite sense of imbrication along N and S coasts? Rel. undeformed U Miocene-Pliocene marls overlie U Miocene scaly clay of deformed section of Savu; uplifted >2km. N-directed backthrust N of Savu separates forearc basin from accretionary wedge. Refraction line across Savu Basin indicates oceanic crust)

Reed, D.L., A.W. Meyer, E.A. Silver & H. Prasetyo (1987)- Contourite sedimentation in an intraoceanic forearc system: Eastern Sunda Arc, Indonesia. Marine Geology 76, p. 223-241.
(Sedimentation in E Sunda forearc strongly influenced by vigorous deep- and bottom-water circulation. Sumba Ridge and Savu-Timor Ridge together form barrier to outflow of Pacific Ocean Deep Water from Savu Sea to E Indian Ocean. Outflow bottom currents eroded gap in sill at 1150m between Sumba and Savu. SW of gap, exposure of consolidated M Miocene- Pliocene foraminiferal chalks and oozes along Sumba Ridge suggests up to 1 km of overburden removed by currents. Eroded sediments re-deposited as muddy contourites in >1 km sediment drift in adjacent Sumba Basin. Drift forms elongated mound of reworked calcareous ooze and is bounded by moat-like channels)

Reed, D.L., E.A. Silver, H. Prasetyo & A.W. Meyer (1986)- Deformation and sedimentation along a developing terrane suture: Eastern Sunda forearc, Indonesia. Geology (GSA) 14, p. 1000-1003.
(Discussion of Savu thrust, a S-dipping reverse fault thrusting Savu-Timor terrane Neogene accretionary wedge towards Sumba Ridge terrane, which is part of Banda forearc)

Rigg, J.W.D. & R. Hall (2011)- Structural and stratigraphic evolution of the Savu Basin, Indonesia. In: R. Hall et al. (eds.) The SE Asian gateway: history and tectonics of Australia-Asia collision. Geological Society, London, Special Publ. 355, p. 225-240.

(Savu Basin located in Sunda-Banda forearc at change from oceanic subduction to continent-arc collision. Interpreted to be underlain by continental crust, added to Sundaland margin in mid-Cretaceous. Before M Miocene Sumba and Savu Basin close to sea level and subsided rapidly in late M Miocene in response to extension induced by subduction rollback at Banda Trench)

Rigg, J.W.D. & R. Hall (2012)- Neogene development of the Savu Forearc Basin, Indonesia. Marine and Petroleum Geology 32, p. 76-94.
(Savu Basin records M Miocene initiation of subduction of Banda oceanic embayment, subsequent arc volcanism and Pliocene- Recent collision of Australian continent and Banda forearc. Four Neogene units: Unit 1 underlain by continental crust and Cretaceous-Paleogene arc rocks, capped by Oligocene- Lower Miocene shallow water carbonates. Subduction rollback-induced extension in M Miocene caused subsidence to depths of several km. Units 2-4 include M Miocene-Pliocene arc-derived volcaniclastic turbidites and deep water carbonates. Savu Basin little deformed, except near Savu and Roti Thrusts. Sumba Ridge elevated as Australian margin continental crust underthrust forearc to form broad flexure, tilting older units. Savu- Roti Ridge is pre-collision Banda forearc accretionary complex and Australian margin sedimentary cover and has risen >2 km since 2 Ma)

Roep, T.B. & A.R. Fortuin (1996)- A submarine slide scar and channel filled with slide blocks and megarippled *Globigerina* sands of possible contourite origin from the Pliocene of Sumba, Indonesia. Sedimentary Geology 103, p. 145-160.
(Early Pliocene deep-water sequences (~1-2 km deep) near Kambatatana, Sumba island, include slide scar which evolved into channel, >120m wide, 20m deep. Origin of the mega-rippled planktonic foraminiferal sand-units uncertain, butpossible formed by contour currents)

Roggeveen, P.M. (1928)- Jura op het eiland Soemba. Verhandelingen Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 32, p. 674-676.
('Jurassic on Sumba Island'. See also Dutch version of paper below)

Roggeveen, P.M. (1929)- Jurassic in the island of Sumba. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam 32, p. 512-514.
(online at: https://dwc.knaw.nl/DL/publications/PU00015738.pdf)
(English version of paper above. Inoceramus molluscs and fragment of an aegoceratid ammonite from S coast of W Sumba in rocks collected by Witkamp. In opinion of Kruizinga this could be Hammatoceras molukkanum, as known from Jurassic of Sula islands. Tentatively placed in U Liassic by Wanner (1931)(Other specialists deemed the ammonite fragment indeterminate and the Inoceramus more likely a Cretaceous species (Van Gorsel 2012). More likely age of beds is Cretaceous according to Von der Borch et al. (1983)). Folded Mesozoic intruded by igneous rocks and unconformably overlain by Eocene (Caudri, 1934))

Roggeveen, P.M. (1932)- Abyssische und hypabyssische Eruptivgesteine der Insel Soemba. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam 35, 6, p. 878-890.
(online at: https://dwc.knaw.nl/DL/publications/PU00016297.pdf)
('Abyssal and hypabyssal igneous rocks of Sumba island'. Petrographic descriptions of outcrop samples of igneous rocks collected mainly by Witkamp in Central Sumba: granite, granodiorite, diorite, porphyrite, hornfels, etc. Igneous rocks unconformably overlain by marls and limestones with Eocene larger forams (Discocyclina; Rutten 1912), and may be of Late Mesozoic age)

Rutherford, E., K. Burke & J. Lytwyn (2001)- Tectonic history of Sumba Island, Indonesia, since the Late Cretaceous and its rapid escape into the forearc in the Miocene. J. Asian Earth Sciences 19, 4, p. 453-479.
(online at: https://www.academia.edu/107966616/Tectonic_history_of_Sumba_Island_Indonesia_since_the_Late_Cretaceous_and_its_rapid_escape_into_the_forearc_in_the_Miocene
(In Late Cretaceous- Early Oligocene Sumba was part of Great Indonesian Volcanic arc system (~86- 31 Ma). At 16 Ma Sumba torn away from relict arc and moved WSW, moving ~450 km until present position at ~7 Ma)

Rutten, L. (1912)- On orbitoids of Sumba. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 15, 1, p. 461-467.

(online at: https://dwc.knaw.nl/DL/publications/PU00012991.pdf)
(English translation of Dutch version 'Over orbitoiden van Soemba') Presence of Eocene Orthophragmina (= Discocyclina) javana and O. dispansa, in samples collected by H. Witkamp at S coast of Sumba. Also samples with Miocene Lepidocyclina. No detailed localities information or fossil pictures (see also more extensive report of B. Caudri (1934))

Rutten, L.M.R. (1927)- Soemba, Rendjoewa, Savoe en Rotti. In: L.M.R. Rutten (1927) Voordrachten over de geologie van Nederlandsch Indie, Wolters, Groningen, p. 666-679.
(online at: https://resolver.kb.nl/resolve?urn=MMKB02:000119126:pdf)
(Old, brief, but still insightful reviews of geology of Sumba, Renjuwa, Savu and Roti islands, as known in 1927. Sumba with Eocene and older rocks that underwent minor folding, unconformably overlain by rel. thin, largely horizontal Miocene and younger rocks. Young sediments uplifted to over 900m asl. Rendjoewa island (between Sumba and Timor) with highly-folded Eocene marls-limestones (with Nummulites, Discocyclina, Alveolina) and moderately folded Miocene Lepidocyclina limestone (Verbeek, 1908) (= similar tectonostratigraphy to Sumba and ' Banda Terrane' of Timor?; HvG). Savu island with Permian coral limestone (possibly associated with basic volcanics), highly folded Triassic limestones, sandstones, radiolarites, etc. Roti island (investigated by Wichmann, Verbeek, Wanner and Brouwer in 1892-1920), with highly folded Permian-Eocene: Permian limestones, Triassic-Jurassic deep marine limestones with'Tethyan' fauna, Cretaceous in pelagic facies, etc.)

Santy, L.D. & A.J. Widiatama (2021)- Pedaro formation, equivalent of Plover sandstone at Savu Island, Outer Banda Arc. Proc. Int. Conf. Geological Engineering and Geosciences, Yogyakarta 2021, IOP Conference Series: Earth and Environmental Science 851, 012052, p. 1-12.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/851/1/012052/pdf)
(Unfossiliferous quartz-rich sandstones in outcrop on S Savu island, 39m thick. Previously mapped as Pedaro Fm. Underlies M Jurassic Wailuli shales and deposited in fluvial-tidal facies. Interpreted as equivalent of Plover Fm of Australian NW Shelf)

Satyana, A.H. & M.E.M. Purwaningsih (2011)- Sumba area: detached Sundaland terrane and petroleum implications. Proc. 35th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA11-G-009, p. 1-32.
(Sumba Island is microcontinental fragment in forearc of Sunda-Banda volcanic arc, here believed to be detached from SE/E Sundaland. Paleogene stratigraphy of Sumba similar to S Sulawesi, with arc volcanics, Eocene low-latitude Pellatispira larger foram fauna, etc.)

Satyana, A.H. & M.E.M. Purwaningsih (2011)- Multidisciplinary approaches on the origin of Sumba terrane: regional geology, historical biogeography, linguistic-genetic coevolution and megalithic archaeology. Proc. Joint 36th HAGI and 40th IAGI Annual Conv., Makassar, JCM2011-018, p. 1-28.
(online at: www.academia.edu/16757344/MULTIDISCIPLINARY_APPROACHES_ON_THE_ORIGIN Etc.)
(Sumba continental terrane came from E/SE margin of Sundaland based on stratigraphy, geochronology-geochemistry of magmatic rocks, paleomagnetism, and isotope geology. Sumba Paleogene stratigraphy similar to S Sulawesi, magmas characteristic of island arc at Sundaland margin. Late Cretaceous Lasipu Fm volcanics with Pb-Nd isotope characteristics suggesting affinities with Sundaland. Sumba Eocene with low-latitude 'Assilina-Pellatispira' Sundaland larger forams, no higher latitude Australian 'Lacazinella', suggesting Sumba shared closer biotic relationship with Sundaland before dispersal)

Satyana, A.H. & M.E.M. Purwaningsih (2012)- New look at the origin of the Sumba Terrane: multidisciplinary approaches. Berita Sedimentologi 25, p. 26-34.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/download/172/142)
(Extensive review of geology of Sumba island. Unlike nearby Timor, Sumba island stratigraphy and tectonics relatively simple. Basement of Upper Cretaceous turbidites, overlain unconformably by gently dipping Palaeogene shallow water sediments and volcanic rocks, resembling stratigraphy of Sundaland margin in SW Sulawesi and SE Kalimantan, but very different to that of NW Australian shelf. Also typical Eocene low-latitude Sundaland larger foram fauna. Part of Late Cretaceous-Paleogene volcanic arc near W Sulawesi)

Simandjuntak, T.O. (1993)- Tectonic origin of Sumba Platform. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 3, 22, p. 10-19.
(Geology of Sumba different from adjacent Neogene Banda volcanic arc islands and allochthonous Paleozoic microcontinents in Banda Sea region. Cretaceous- Miocene stratigraphy of Sumba most similar to SW arm of Sulawesi. Oldest sediments in outcrop are thick U Cretaceous flysch with volcanics series, very similar to Latimojong Fm of S Sulawesi and Pitap Fm of SE Kalimantan. Sumba probably detached from Sulawesi, possibly from N part of Bone Bay or from Walanae Depression and displaced S before development of Banda volcanic arc. May also have been detached from SE margin of Sundaland. Deepening of facies suggest detachment of Sumba took place in M Miocene)

Siregar, D.A. & D. Setyagraha (1995)- Pentarikhan radiokarbon terhadap teras batugamping Waingapu, Sumba, Nusatenggara Timur. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 5, 51, p. 16-22.
('Radiocarbon analysis of the Waingapu limestone terraces, Sumba, E Nusatenggara'. Sumba NE coast near Waingapu with 14 Quaternary uplifted coral reef terraces. Radiocarbon dating suggests ages between 5660 ± 260 BP and 1650 ± 130 BP. During this time two phases of marine transgression and regression)

Soeria-Atmadja, R., S. Suparka, C. Abdullah, D. Noeradi & Sutanto (1998)- Magmatism in western Indonesia, the trapping of the Sumba Block and the gateways to the east of Sundaland. J. Asian Earth Sciences 16, 1, p. 1-12.
(Similarities in Late Cretaceous-Paleogene stratigraphy and calc-alkali magmatism between Sumba, S Sulawesi and SE Kalimantan suggest Sundaland origin for all these areas. Southward migration of Sumba to frontal arc position of Sunda-Banda arc since Late Cretaceous-Paleocene)

Spence, W. (1986)- The 1977 Sumba earthquake series: evidence for slab pull acting at a subduction zone. J. of Geophysical Research: Solid Earth 91, B7, p. 7225-7239.
(Focal mechanism analysis of great (8.3 Mw) August 1977 earthquake at eastrn Sunda Trench under Sumba suggest normal faulting throughout upper 28 km of the oceanic lithosphere; no evidence for thrust faulting of deeper aftershocks. Probably evidence for slab pull of the~650 km deep and old subducting Indian Ocean plate beneath Sunda-Banda arc)

Toothill, S. & D. Lamb (2009)- Hydrocarbon prospectivity of the Savu Sea Basin. Proc. 33rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA09-G-013, p. 657-668.
(Seismic surveys in Savu basin suggest potential for hydrocarbons. Up to 4.8 km of sediment; no wells drilled. Basin origin complex: four to five phases of rifting and uplift and erosion in region, and overprinted in recent geological time by collision tectonics. Significant number of gas chimneys and bright amplitudes)

Umbgrove, J.H.F. (1946)- Tertiary corals from Sumba (East Indies). Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 13, p. 393-398.
(Small collections of corals by Witkamp (1911) from W Sumba give conclusive evidence of Miocene and Eocene sediments. Corals mainly solitary species (Phyllangia, Hydnophyllia, Goniastrea, Diploastaea))

Van der Werff, W. (1995)- Cenozoic evolution of the Savu Basin, Indonesia: forearc basin response to arc-continent collision. Marine and Petroleum Geology 12, 3, p. 247-262.
(Savu Basin initial E Miocene subsidence of outer forearc basin and development of M-Late Miocene volcanic 'proto' arc in S of basin resulted from Late Oligocene-E Miocene E-ward propagation of Java-Timor Trench. N of accretionary prism, forearc basement flexed down and reshaped into trenchward- dipping backstop that facilitates backthrusting of accretionary prism. Southern forearc basement probably acted as barrier against compression. Thickness of continental basement critical in response of forearc- continent collision. Savu Basin responded to underthrusting of continental crust by reactivation of basement ridges. This resulted in differentiation of forearc basin into extinct and uplifted Miocene S Savu Basin and Pliocene-Recent active N Savu Basin. Late Miocene-Recent uplift of large segments of outer forearc and subsidence of N Savu Basin)

Van der Werff, W. (1995)- Structure and morphotectonics of the accretionary prism along the Eastern Sunda-Western Banda Arc. J. Southeast Asian Earth Sciences 11, p. 309-322.

(Forearc region near Sumba- Savu variation in structure related to incipient collision with Australia. Arc-trench system changes from ridged S of Bali- Lombok- Sumbawa to sloped S of Sumba. E of Sumba, accretionary wedge backthrust over forearc basin, incorporating forearc sediments and basement. Accretionary wedge probably little of sediment subducted. Decrease in width of prism from Bali to Sumbawa corresponds to E-ward younging trend of arc-trench system from Late Oligocene to E Miocene. S of Sumba width of prism increases considerably, due to accretion of thick continental margin carbonates which deform by thrust-bounded folds. Buoyancy of partially subducted marginal Scott plateau increases basal shear stresses, adding to growth of large accretionary wedge. Further E, subduction of thick continental crust results in even higher basal shear stresses distributed through accretionary wedge, causing backthrusts and internal deformation, leading to shortening and thickening of wedge)

Van der Werff, W. (1996)- Forearc development and early orogenesis along the eastern Sunda/ western Banda arc (Indonesia). Ph.D. Thesis Vrije Universiteit, Amsterdam, pp. 1-311. *(Unpublished)*
(Collection of 7 previously published 1992-1996 papers, mainly on Snellius II seismic and land program in E Sunda- W Banda fore arc areas)

Van der Werff, W., D. Kusnida, H. Prasetyo & T.C.E. van Weering (1994)- Origin of the Sumba forearc basement. Marine and Petroleum Geology 11, 3, p. 363-374.
(Basement structures in E Sunda/ W Banda forearc suggests continuity between Sumba and N Timor. Structures trend E-W in W, gradually change into NE-SW trends in E. Major NE-SW trending discontinuity W of Sumba between 117° 30' and 118° 30' E marks transition between intraoceanic volcanic arc system in W and volcanic arc-continent collision zone in E. Extent of Sumba basement suggests either common (Late Jurassic) rift/drift history for Sumba and N Timor or (E Miocene) magmatic welding of two continental fragments of different origin, resulting in structural continuity between two microplates)

Van der Werff, W., H. Prasetyo & T.C.E. van Weering (1991)- The accretionary wedge South of Sumba Timor: an accreted terrane in the process of slivering? Proc. International Seminar on Geodynamics of fore-arc sliver plate, Indonesian Association Geophysicists (HAGI), p. 55-60.

Van der Werff, W., H. Prasetyo, D. Kusnida & T.C.E. van Weering (1994)- Seismic stratigraphy and Cenozoic evolution of the Lombok forearc basin. Marine Geology 117, p. 119-134.
(Lombok Basin probably underlain by thinned rifted continental crust. Five Cenozoic seismostratigraphic sequences (1) Paleogene synrift deposits, predating initiation of convergent margin; (2) and (3) two phases of evolution of accretionary prism, between Late Oligocene and M Miocene; (4) and (5) slope front fill deposits reflecting volcanic activity and tectonic uplift of magmatic arc from M Miocene onwards. By Late Miocene, increased convergence between subducting Indian and overlying Asian plates resulted in stronger mechanical coupling, expressed in southern forearc basin by folding of oldest basin fill. Present activity governed by Late Pliocene collision of accretionary prism with Scott marginal and Roo Rise oceanic plateaus, resulting in uplift of outer-arc ridge and southern part of forearc basement)

Van Gorsel, J.T. (2012)- No Jurassic rocks on Sumba? Berita Sedimentologi 25, p. 35-37.
(Identification of an ammonite fragment from SW Sumba as M Jurassic Hammatoceras by Roggeveen (1929) is highly questionable, and Cretaceous age is more likely. Oldest proven rock age on Sumba is thus Cretaceous)

Van Weering, T.C.E., D. Kusnida, S. Tjokrosapoetro, S. Lubis, P. Kridoharto & S. Munadi (1989)- The seismic structure of the Lombok and Savu forearc basins, Indonesia. In: J.E. van Hinte et al. (eds.) Proc. Snellius II Symposium, Jakarta 1987, Netherlands J. of Sea Research 24, 2-3, p. 251-262.
(Four seismic sequences in Lombok and Savu forearc basins, separated by unconformities (Late Oligocene, mid-Miocene and Pliocene S of Java). Upper Miocene- Pleistocene forearc fill turbidite-dominated. Faulting strongest in E Lombok Basin; growth faults, shale diapirs and mud volcanoes reflect intensity of deformation caused by merge of Sunda and Banda Arc collision systems. Tilted and uplifted basement ridges W of Sumba separate turbidite filled sub-basins from forearc basin. Sumba was in present position before onset of Sunda -Banda Arcs subduction system and initial Lombok and Savu forearc basins were connected)

Von der Borch, C.C., A.E. Grady, S. Hardjoprawiro, H. Prasetyo & S. Hadiwisastra (1983)- Mesozoic and Late Tertiary submarine fan sequences and their tectonic significance, Sumba, Indonesia. Sedimentary Geology 37, p. 113-132.
(Sumba Cretaceous with tropical Tethyan mollusc fauna, volcanoclastic component and andesite dykes. Part of major submarine fan complex with turbidite flow directions to N240°, suggesting paleoslope to SW (restoring ~90° of clockwise rotation (Wensink 1997) would become paleodip to SE, which would fit well with Cretaceous position at SE margin of Sunda Shelf; JTvG)

Vorkink, M. (2004)- Incipient arc-continent collision: structural analysis of Savu Island, Indonesia. Masters Thesis, Brigham Young University, Utah, p. 1-87.
(online at: www.geology.byu.edu/wp-content/uploads/2013/03/2004-Vorkink-Michael-W.pdf)
(Savu island is uplifted part of Banda fore-arc accretionary wedge, W of Timor. Consists of N and S verging thrust sheets of Late Triassic- M Jurassic Australian continental margin sediments, rimmed by discontinuous melange belt. Pillow basalts in Jurassic Wai Luli Fm. Detachment probably in Triassic Lower Babulu/ upper Aitutu Fm, at depth of ~2600m. Foraminifera in syn-orogenic deposits of Savu suggest water depths of 1-1.5 km at 1.8 Ma)

Vorkink, M.W. & R.A. Harris (2004)- Tectonic development of the incipient Banda Arc-continent collision: geologic and kinematic evolution of Savu Island, Indonesia. Abstracts with Programs Geological Society of America 2004 Annual Meeting, Denver, 36, 5, p. 319. *(Abstract only)*
(Savu both N and S-verging thrust sheets of Late Triassic- M Jurassic distal NW Australian continental margin units, rimmed by discontinuous melange of forearc basement fragments and synorogenic units. Pillow basalt in Jurassic Wai Luli Fm. N-verging folds move back of accretionary wedge over S Savu forearc basin. S-verging thrust sheets are bulk of island and well-exposed in S Savu. Detachment for thrust sheets in Triassic Lower Babulu or upper Aitutu Fms at ~2600m depth. Maximum age for initiation of collision 4.0 Ma. Foraminifera in syn-orogenic units indicate outer arc was at 1.0-1.5 km below sea level at 1.8 Ma, a surface uplift rate of ~1 mm/yr. At this rate, it takes 3.2-5.0 Ma to uplift these from pre-collisional depth of 3.5-4.0 km)

Wensink, H. (1991)- The paleoposition of the island of Sumba, derived from paleomagnetic data. In: E.P. Utomo, H. Santoso & J. Sopaheluwakan (eds.) Proc. Silver Jubilee Symposium on the dynamics of subduction and its products, Yogyakarta-Karangsambung 1991, Research Development Centre Geotechnology, Indonesian Institut of Sciences (LIPI), Bandung, p. 238-244.

Wensink, H. (1994)- Paleomagnetism of rocks from Sumba: tectonic implications since the Late Cretaceous. J. Southeast Asian Earth Sciences 9, p. 51-65.
(online at: https://dspace.library.uu.nl/handle/1874/19116)
(Overview of Sumba geology. In Late Cretaceous Sumba was at 8° (not sure if N or S, but both demonstrate Sumba was not part of Australia at that time). In this paper concluded to various CCW rotations between Late Cretaceous and Miocene, but re-interpreted to more reasonable CW rotations in Wensink 1997)

Wensink, H. (1997)- Palaeomagnetic data of Late Cretaceous rocks from Sumba, Indonesia; the rotation of the Sumba continental fragment and its relation with eastern Sundaland. Geologie en Mijnbouw 76, p. 57-71.
(Paleomagnetic studies on Sumba continental fragment. Tanadaro granodiorite (65 Ma) paleolatitude 8.3° S. E Sundaland with Borneo, W and S Sulawesi, and Sumba formed one continental unit in Late Mesozoic, most likely attached to SE Asian mainland. Borneo and W and S Sulawesi large CCW rotations since Jurassic (45° in Cretaceous, 45° in Paleogene). Sumba microcontinent detached from E Sundaland soon after Late Cretaceous. Paleomagnetic data show Sumba underwent CW rotations of up to 96° (CW 53° between 82-65 Ma; 38° between 65-37 Ma; 9° between Late Eocene-Late Miocene and ~4° CCW since Late Miocene- E Pliocene). E Sundaland and Sumba close to equator since Jurassic)

Wensink, H. & M.J. van Bergen (1995)- The tectonic emplacement of Sumba in the Sunda-Banda Arc: paleomagnetic and geochemical evidence from the Early Miocene Jawila volcanics. Tectonophysics 250, p. 15-30.
(online at: http://dspace.library.uu.nl/handle/1874/19118)

(Paleomag of E Miocene Jawila arc volcanics suggests very similar position to present-day Sumba. Original position of Sumba in Late K- Paleocene probably 18° N; drift and rotation completed before Mid Miocene? Early Miocene arc volcanics on Sumba suggest island arc and imply older arc S of modern arc (= same as Java 'Old Andesites'?; JTvG), or was within E Sunda arc between Sumbawa and E Flores and drifted S. (NB: Fortuin et al. (1997) and Abdullah et al. (2000) suggest Jawila Volcanics Late Eocene- E Oligocene age)

Widiatama, A.J. (2019)- Sedimentasi batuan Mesozoikum Palau Sawu, Nusa Tenggara Timur. Masters Thesis Institut Teknologi Bandung (ITB), p. 1-175 ? *(Unpublished)*
(selections read online at: https://digilib.itb.ac.id/gdl/view/40380)
('Sedimentation of Mesozoic rocks on Savu island, East Nusa Tenggara'. Mesozoic rocks in Savu Island W of Timor three tectonostratigraphic units (1) Gondwana synrift (Late Triassic Babulu Fm, E Jurassic Quartz Sandstone Unit, M Jurassic Wailuli Fm, and Late Jurassic- E Cretaceous Oebaat Fm), (2) Post-break up Kolbano sequence (Cretaceous Nakfunu Fm and Ofu Fm, and (3) rocks from collision of passive margin of Australia with Banda Arc/ Viqueque sequence (Bobonaro Fm and Viqueque Fm))

Witkamp, H. (1912)- Een verkenningstocht over het eiland Soemba Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2) 29, p. 744-775.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:046883000:00007)
('A reconnaissance trip across the island of Sumba'. 4 May- 14 June 1910. First of four parts of geographic-geologic reconnaissance across much of Sumba island during 3-month survey in May-August 1910, which previously had only been visited briefly in 1899 by Verbeek (Verbeek, 1908). Not much on geology. Eocene and Miocene larger foraminifera from Witkamp samples identified by Rutten (1912))

Witkamp, H. (1913)- Een verkenningstocht over het eiland Soemba- II. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2) 30, 1, p. 8-27.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:046883000:00007)
('A reconnaissance trip across the island of Sumba'; part 2'. 2-14 June 1910. Mentions likely Upper Cretaceous-age sandstone-shale with Inoceramus, (Eocene) limestone with large Nummulites, pumice tuff, andesites, gabbro, etc. No evidence for recent volcanism)

Witkamp, H. (1913)- Een verkenningstocht over het eiland Soemba- III. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2) 30, p. 484-505.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:046883000:00007)
('A reconnaissance trip across the island of Sumba'; part 3. 15 June- 14 July, 1910. Mentions limestone, andesite, augite-andesite breccia, etc.)

Witkamp, H. (1913)- Een verkenningstocht over het eiland Soemba- part IV. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2) 30, 5, p. 619-637.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:046883000:00007)
('A reconnaissance trip across the island of Sumba'; part 4. 15 July- 5 August 1910. Little or no geology)

Zonneveld, J.P., Y. Zaim, Y. Rizal, Aswan, A. Fortuin, R. Larick & R.L. Ciochon (2021)- The Palaeo-Kambaniru river mouth, Sumba, East Nusa Tenggara, Indonesia: A record of strongly seasonal catastrophic flow in a monsoon controlled deltaic complex. In: Prof. Yahdi Zaim Retirement Volume, ITB, Berita Sedimentologi 47, 3, p. 65-72.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/360)
(Kambaniru River valley near Waingapu, NE Sumba, preserves thick Late Pleistocene fluvial-deltaic coarse volcanogenic sediments, which cuts through thick uplifted coral reef terrace succession)

VII.4. Timor, Roti, Leti, Kisar, Moa (incl. Timor Leste) (non-volcanic Outer Banda Arc)

Aben, F.M., M.J. Dekkers, R.R. Bakker, D.J.J. van Hinsbergen, W.J. Zachariasse, G.W. Tate, N. McQuarrie, R. Harris & B. Duffy (2014)- Untangling inconsistent magnetic polarity records through an integrated rock magnetic analysis: a case study on Neogene sections in East Timor. Geochem. Geophysics Geosystems 15, 6, p. 2531-2554.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1002/2014GC005294)
(Magnetic polarity analysis of latest Miocene-Pliocene 'post-orogenic' deep-marine siliciclastics and limestones at Viqueque and Cailaco Rivers, Timor Leste, shows (1) magnetic carriers mainly greigite and magnetite; (2) paleomagnetic directional analysis yields magnetic polarity patterns inconsistent with biostratigraphic constraints. Detrital magnetite suite yields largely viscous remanence signals and deemed unsuited; greigite suites more reliable and giving revised polarity pattern of Viqueque latter section more consistent with biostratigraphy)

Amaral, A.P., P. Cardoso, J. Pires, E. da Silva Cabral, A.M. Hornai & G. Ribeiro da Costa (2022)- Reassessment of the Tchinver Shale type section. Proc. 5th IPG International Conference on Geoscience Data and Information for Investment and Sustainability Development of Timor-Leste, Dili 2022, p. 67-71.
(Review of Late Jurassic Tchinver shale in Tchinver river section, S of Lospalos, Timor Leste)

Amelia, N.R., Supriyanto & Haryanto (2021)- Identifikasi stuktur geologi sebagai potensi area jebakan hidrokarbon berdasarkan integrasi data gaya berat dan data seismik di Pulau Timor, Indonesia Timur. Jurnal Geosains Terapan (UI) 4, 1, p. 1-14.
(online at: https://geosainsterapan.id/index.php/id/article/view/59)
(Subsurfce structure interpretation of westernmost Timor Island and adjacent offshore, from 2D seismic sections, gravity modelling and surface data. Showing most of Timor as imbricated/accretionary complex.)

Andaru, A., M.B. Wiranatanagara, M.Y.A. Madjid, N. Ardiansyah & J. Kristian2 (2022)- Offshore-onshore geological model to define deformation zone in West Timor and its implication to petroleum system. Proc. Asia Petroleum Geoscience Conference and Exhibition (APGCE 2022), Kuala Lumpur, p. 1-5.
(New geological model from onshore to offshore in West Timor. Four deformation zones based on depth and age of detachment surfaces. Detachment surfaces cut deeper sediment and lift older sediment in each zone. Petroleum potential highest opportunity in zone 1 and decreasing N-ward towards more deformed zone 4)

Archbold, N.W. & S.T. Barkham (1989)- Permian brachiopoda from near Bisnain village, West Timor. Alcheringa 13, p. 125-140.
(Permian brachiopoda from outcrops of calcarenites-shales attributed to Maubisse Fm near Bisnain, W Timor. Assemblage correlative to late Sakmarian (E Permian), temperate climate, Callytharra Fm of W Australia)

Archbold, N.W. & P.R. Bird (1989)- Permian brachiopoda from near Kasliu Village, West Timor. Alcheringa 13, p. 103-123.
(Permian brachiopoda from outcrops of Maubisse Fm volcanoclastics near Kasliu, W Timor. Assemblage probably Chidruan age and correlative of classic Late Permian 'Tethyan' Basleo and Amarassi faunas)

Astjario, P. & S. Tjokrosapoetro (1985)- Kecapatan pengangkatan Pulau Timor di zaman Kuarter. Proc. 14th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 31-34.
(online at: https://www.iagi.or.id/web/digital/40/PIT_IAGI_1985_paper4.pdf)
('Uplift rates of Timor island in the Quaternary'. Uplift rates 2-3mm/ year. No figures)

Ati, E.M. (2012)- Geologi dan karakteristik endapan mangan tipe sedimen di daerah Supul, Kab. Timor Tengah Selatan, Provinsi Nusa Tenggara Timur. Thesis S2, Gadjah Mada University, Yogyakarta, p. 1-197.
(Unpublished; see also Imam et al., 2012)
('Geology and characteristics of sedimentary-type manganese deposits in the Supul area, south Central Timor district, ...'. Sedimentary manganese layers in Supul area interbedded with red-brown deep sea claystone. Spatial linkage with mud volcano intrusion. Manganese layers 2mm- 4cm thick and highly deformed. Primarily manganite, also pyrolusite, lithiophorite, etc. Manganese ores as nodules and manganese layers)

Audley-Charles, M.G. (1965)- The geology of Portuguese Timor. Ph.D. Thesis Imperial College, University of London, p. 1-401.
(online at: https://spiral.imperial.ac.uk/bitstream/10044/1/17036/2/Audley-Charles-MG-1965-PhD-Thesis.pdf)
(Published in 1968. Detailed descriptions of field geology of East Timor. Lolotoi Metamorphic Complex is considered to be 'klippen', resting everywhere on a thrust plane and strongly eroded surface of folded Permian and Mesozoic rocks; age of thrusting possibly Early Eocene ('Timorean orogeny'). Base Lower Miocene Cablac Lst major unconformity. Bobonaro Scaly Clay of M-L Miocene (Tf) age, not tectonic unit but huge gravity slide, associated with overthrusting of large masses of mainly Permian strata. Major orogenic phase M Miocene. Etc.)

Audley-Charles, M.G. (1965)- A Miocene gravity slide deposit from East Timor. Geological Magazine 102, p. 267-276.
(E Timor formation of unbedded scaly bentonitic clay with scattered exotic blocks and smaller fragments formed by submarine sliding of unstable clay mass from area N of Timor under influence of gravity, associated with the emplacement of large overthrusts. Proposed to call it Bobonaro Scaly Clay)

Audley-Charles, M.G. (1965)- A geochemical study of Cretaceous ferromanganiferous sedimentary rocks from Timor. Geochimica Cosmochimica Acta 29, p. 1153-1173.
(*Manganese nodules nodules from Cretaceous Wai Bua Fm in W Timor very similar to Pacific deep sea nodules; nodules from E Timor perhaps shallower ? M Eocene Seical Fm ferromanganiferous, radiolarian-bearing pelagic limestones from N coast E Timor also look 'oceanic')*

Audley-Charles, M.G. (1965)- Some aspects of the chemistry of Cretaceous siliceous sedimentary rocks from Eastern Timor. Geochimica Cosmochimica Acta 29, 11, p. 1175-1192.
(Chemical analysis of Cretaceous chert and radiolarites from E Timor indicate deposition in bathypelagic environment, paucity of land derived detritus, and analogy with modern biogenous deep-sea radiolarian ooze)

Audley-Charles, M.G. (1967)- Greywackes with a primary matrix from the Viqueque formation, Upper Miocene-Pliocene, Timor. J. Sedimentary Petrology 37, 1, p. 5-11.
(Silt-clay matrix of post-orogenic Mio-Pliocene Viqueque Fm is primary detrital deposit, not result of diagenesis of sand grains. Basal conglomerates contain metamorphic and volcanic rocks as well as Triassic limestone)

Audley-Charles, M.G. (1967)- Petrology of a Lower Miocene polymict intracalcirudite from Timor. Sedimentary Geology 1, p. 247-257.
(Base E Miocene Cablac Limestone is unconformity: polymict conglomerate, incl. variety of carbonate rocks, volcanics, Cretaceous deep water carbonates and cherts, Triassic sandstones, etc.)

Audley-Charles, M.G. (1968)- The geology of Portuguese Timor. Geological Society, London, Memoir 4, p. 1-76.
(Originally Ph.D. Thesis University of London, 1965. Classic E Timor study. Oldest dated rocks Lower Permian age. Metamorphic rocks interpreted as probably pre-Permian. Most formations autochthonous. Four formations completely allochthonous: Lolotoi Complex, Aileu Fm, Maubisse Fm and Bobonaro Scaly Clay. Bobonaro Scaly Clay emplaced as submarine gravity slide, and unlike other allochthonous formations, does not rest on thrust-plane. 'Autochthonous' Aitutu Fm up to 1000m thick with rich, mainly Carnian-Norian faunas)

Audley-Charles, M.G. (1972)- Cretaceous deep-sea manganese nodules on Timor: implications for tectonics and olistostrome development. Nature Physical Science 240, 102, p. 107-139.
(Cretaceous manganese nodules of W Timor, first described by Molengraaff, resemble deep-sea nodules of modern oceans. Occur with micronodules in red clay similar to deep-sea red clays. Chemistry and physical characters suggest deposition on ocean floor, now at ~480m above sea level ('Maubisse seamounts' of Tethys Ocean, incorporated in Bobonaro melange))

Audley-Charles, M.G. (1973)- Paleoenvironmental significance of chert in the Franciscan Formation of western California: discussion concerning the significance of chert in Timor. Geological Society of America (GSA) Bull. 84, p. 363-368.
(Discussion of Chipping (1971) paper, who argued that cherts in Timor (following Grunau 1965) are 'important constituent' of melange and reflect subduction of oceanic crust beneath continental crust. However, chert is relatively insignificant in Timor melange and no evidence of subduction of oceanic crust below continental crust in Timor region since Early Permian. Chert in Timor reflects lack of supply of coarse terrigenous detritus and formed above sedimentary sequence on continental crust close to outer margin of continental slope)

Audley-Charles, M.G. (1981)- Geometrical problems and implications of large-scale overthrusting in the Banda arc- Australian margin collision zone. In: K. McClay & N.J. Price (eds.) Thrust and nappe tectonics, Geological Society, London, Special Publ. 9, p. 407-416.
(Geometrical problems in structural history interpretion of Australia-Banda Arc collision zone (mainly Timor area): (1) apparent absence of subduction trench and accretionary arc-trench gap in Banda Arc; (2) location of surface trace of Benioff zone before collision; (3) history of Benioff zone after Pliocene oceanic trench was destroyed; (4) relationship of developing fold- thrust belt to pre-collision geometry of Australia-New Guinea continental margin; (5) apparent absence of continental slope and rise in N Australia collision zone; (6) relationship of crystalline basement of Outer Banda Arc to cover rocks and (7) tectonic significance of apparent continuity of stratigraphically and structurally different Sunda and Banda Arcs. Australia- Banda arc collision associated deformation, represented by folding-imbrication of Australian continental rise sediments of Outer Banda Arc with emplacement of overthrust exotic sheets, was accomplished in 2 My. Geometrical considerations suggest Benioff zone and most of ~200 km wide arc-trench gap were overridden by Australian lithospheric plate during continued plate convergence of last 3 My. Banda Arc fold-thrust belt developed in proximal continental rise deposits at foot of Australian continental slope)

Audley-Charles, M.G. (1986)- Timor-Tanimbar Trough: the foreland basin to the evolving Banda orogen. In: P.A. Allen & P. Homewood (eds.) Foreland Basins, Int. Association of Sedimentologists (IAS), Special Publ. 8, p. 91-102.

Audley-Charles, M.G. (1986)- Rates of Neogene and Quaternary tectonic movements in the Southern Banda arc based on micropalaeontology. J. Geological Society, London, 143, p. 161-175.
(online at: http://searg.rhul.ac.uk/pubs/audley_charles_1986%20Timor%20uplift%20rates.pdf)
(Outer Banda Arc composed of highly deformed sediments that accumulated at Australian continental margin. Dating of onset of folding/uplift of Timor, from deep submarine position at end Neogene nappe emplacement, to mountains now 3 km high, indicates post-collision uplift rate initially 3 mm/yr, then slowed to ~1.5 mm/yr. Where Australian continental margin meets E end of present Java Trench Australian margin has overridden Trench in Timor region by 240 km. After nappe emplacement shortening of continental crust migrated towards Australian continent and shelf became involved in imbrication with shortening of cover rocks between nappes and present shelf edge amounting to ~40 km during last 2 Ma)

Audley-Charles, M.G. (1990)- Triassic Aitutu Formation of Timor, Indonesia. In: Triassic biostratigraphy and paleogeography of Asia, ESCAP Atlas of Stratigraphy IX, Mineral Resources Development Series, 59, United Nations, New York, p. 11-15.
(online at: https://www.unescap.org/kp/1990/stratigraphic-correlation-between-sedimentary-basins-escap-region-vol-xv-escap-atlas)
(Shortened version from Audley-Charles (1968) thesis. Due to structural complexity and generally poor fossils, hard to conduct detailed stratigraphic studies. Deep marine Carnian- Norian Aitutu Fm thickness ~1000m, probably unconformable over Permian limestones. Basal series dark Tallibellis Mb mudstones, probably Norian age, overlain by Aitutu Fm radiolarian calcilutites (80%)/ shales (15%)/ calcarenites (5%), radiolarites, bituminous rocks with Halobia and Daonella. Top Aitutu Fm unconformable below E Jurassic Wai Luli Fm)

Audley-Charles, M.G. (2011)- Tectonic post-collision processes in Timor. In: R. Hall et al. (eds.) The SE Asian gateway: history and tectonics of Australia-Asia collision, Geological Society, London, Special Publ. 355, p. 241-266.

(online at: https://earthjay.com/earthquakes/20200506_indonesia/audley_2011_tectonics_timor.pdf)
Australian continental margin collided with Asian fore-arc at 4 Ma, transforming Banda Trench into Timor fold-thrust belt. Tectonic Collision Zone (TCZ) progressively filled by two Australian continental upper crust mega-sequences. Slowing subduction of Australian sub-crustal lithosphere after ~2.5 Ma led to uplift of TCZ that raised Timor 3 km above sea level. Asian Banda fore-arc deformation linked to ~30 km SE-wards rollback of subducting Australian lithosphere. Two Asian fore-arc nappes (Banda, Aileu-Maubisse) thrust S-wards from Banda fore-arc onto older of two highly deformed Australian continental margin upper crust mega-sequences. Wetar Suture created as thrust at base of Australian partially detached continental lower crust propagated into Asian fore-arc)

Audley-Charles, M.G. & A.J. Barber (1976)- The significance of the metamorphic rocks of Timor of the Banda arc, Eastern Indonesia. Tectonophysics 30, p. 119-128.
(All metamorphic rocks in Timor allochthonous. Three groups: lustrous slate, amphibolite-serpentinite, and granulite-amphibolite-greenschist complex. Granulite facies meta-anorthosite in Timor must have originated near continental mantle-crust boundary and may represent slices of ancient Asian continental basement. Metamorphic rocks of Seram remarkably similar to those of Timor. Overthrust directions of metamorphic rocks in Timor is S-ward, in Seram N-ward. Opposite thrusts may be explained in terms of Banda Arc acquiring sinuosity after emplacement of metamorphic rocks)

Audley-Charles, M.G., A.J. Barber & D.J. Carter (1979)- Geosynclines and plate tectonics in Banda Arcs, Eastern Indonesia: Discussion American Assoc. Petroleum Geol. (AAPG) Bull. 63, p. 249-252.
(Discussion of Crostella (1977) paper on Timor geology)

Audley-Charles, M.G. & D.J. Carter (1972)- Palaeogeographical significance of some aspects of Palaeogene and Early Neogene stratigraphy and tectonics of the Timor Sea region. Palaeogeogr. Palaeoclim. Palaeoecology 11, p. 247-264.
('Autochthonous' Early Miocene Cablac limestones unconformable on folded Early Eocene carbonates, which unconformably overlie metamorphic schists, implying Paleocene and ?Late Eocene- Oligocene? orogenic phase on Timor. Four Eocene facies on Timor, incl. Late Eocene limestones with Pellatispira and deep-water facies and volcanoclastics, all different from NW Australian Shelf and Timor Trough, where most of Tertiary is deepwater carbonate. Cretaceous- M Miocene paleogeography)

Audley-Charles, M.G. & D.J. Carter (1974)- Petroleum prospects of the southern part of the Banda Arc, eastern Indonesia. Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas, CCOP, Technical Bulletin 8, p. 55-70.
(online at: https://repository.unescap.org/items/5c4180c7-fd49-442d-b437-1bf01f68b63f)
(Mainly overview of geology of Timor, with some paleogeographic reconstructions and with comments on oil seeps and prospectivity of island)

Audley-Charles, M.G. & R. Harris (1990)- Allochthonous terranes of the Southwest Pacific and Indonesia. Philosophical Transactions Royal Society London, A 331, p. 571-587. *(online at: https://www.researchgate.net/publication/239038046_Allochthonous_Terranes_of_the_Southwest_Pacific_and_Indonesia_and_Discussion#fullTextFileContent)*
(Timor is deformed Australian margin, overridden by allochthonous nappes. Lowest is 'Lolotoi metamorphics'- 'Palelo Arc' (basal metamorphics, Cretaceous-Eocene arc volcanics and marine sediments, unconformably overlain by mid-Eocene-Early Miocene carbonates; similar succession in Sumba; thrusted over Australian margin in latest Miocene (= 'Banda Terrane" of later authors). Second exotic terrane is Maubisse Permo-Triassic limestone with pillow basalts; supposedly most distal part of rifted Australian margin. Third terrane is 'supra-subduction zone' Ocussi ophiolite, now being thrust over N Timor margin)

Audley-Charles, M.G. & J.S. Milsom (1974)- Comment on 'Plate convergence, transcurrent faults, and internal deformation adjacent to southeast Asia and the western Pacific'. J. of Geophysical Research 79, 32, p. 4980-4981.
(A&M suggest Timor Trough and its eastward extensions are 'downbuckle in continental crust, with limited underthrusting', not surface trace of subduction zone. See also reply by Fitch and Hamilton (1974), who still do interpret this as subduction zone that continues East uninterrupted from Java Trench, based in part on Shell

Group seismic profiles across N side of Timor Trough showing large-scale S-ward directed overthrusts and imbrications)

Aulia, D., S.H. Sinaga, R. Adiarsa, F. Al'ayubie, I.B. Arindra, F. Nikmata & I. Rodelian (2011)- Petrology and provenance of sandstone from Mesozoic sequence Soe-Kapan Block, West Timor, NTT. Proc. 35th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA11- SG-034, p. 1-12.
(Sandstones (lithic arenites) from Soe-Kapan Block, SW Timor: Permian Bisane Fm (quartz 45-57%, feldspar 9-13%, lithic fragments 9-19% (andesite, diorite, carbonate, sandstone, chert, schist and phyllite) and Triassic Aitutu Fm (quartz 31-72%, feldspar 9-39%, lithics 5-21%). Most likely provenance recycled orogen. Flute casts in Aitutu Fm indicate dominant NW to SE transport directions)

Bachri, S. (1995)- The origin of the Aileu and Maubisse Formations in the East Timor area, Indonesia. In: J. Ringis (ed.) Proc. 31st Session Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Kuala Lumpur 1994, 2, p. 232-241. *(online at: https://repository.unescap.org/server/api/core/bitstreams/4198bc42-86c9-49fe-843e-60aebea03e54/content)*
(Aileu Fm metamorphics at N coast of E Timor decrease in metamorphic grade in S direction and grade into both Permian Maubisse Fm and Jurassic Wai Luli Fm, suggesting it is composed of metamorphosed Permian and Jurassic NW Australian passive margin sediments)

Bachri, S. (2004)- The relationships between the formation of the multi-genesis chaotic rocks and the Neogene tectonic evolution in Timor. Jurnal Sumber Daya Geologi (JSDG) 14, 3, p. 94-100.
(Chaotic rocks of Bobonaro Complex of Timor occupy 40% of Timor island. Composed of scaly matrix with exotic blocks of Permian- Quaternary(?) age. Scaly clay matrix rich in deep marine foraminifera, varying in age from Triassic, Mesozoic and Late Cretacous. Generated in multiple ways: mainly sedimentary olistostrome, less common tectonic melange and shale diapirs. Tectonic melange formed since N-dipping subduction in Paleogene. Arc-continent collision since E Neogene, with shale diapirs and olistostrome at beginning of collision. Olistostrome may have covered most of tectonic melange, which is probly older. After subduction ceased in post-Neogene, shale diapirism continued)

Bachri, S. (2008)- Formasi Maubisse dan Aileu di bagian Barat Timor Leste dalam kerangka tektonostratigrafi Pulau Timor. Jurnal Sumber Daya Geologi (JSDG) 18, 5, p. 281-289.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/254/234)
('The Maubisse and Aileu Formations in the west of East Timor, in the framework of Timor tectonostratraphy'. Position of Maubisse and Aileu Fms in Timor Leste controversial, but tendency to place them in para-autochthonous sequence. Formations transitional relationships with overlying para-autochthonous Wailuli Fm. Paleontological evidence indicates Maubisse Fm derived from Australian continent, and related Aileu Fm was located on NW flank of Australia until Neogene arc-continent collision event)

Bachri, S. (2011)- Tektonostratigrafi Busur Banda dengan referensi bagian barat Timor Leste dan bagian timur Pulau Seram. Jurnal Sumber Daya Geologi (JSDG) 21, 2, p. 53-62.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/135/132)
('Tectonostratigraphy of the Banda Arc, with reference to the western part of Timor Leste and the eastern part of Seram'. Timor and Seram similar parts of Banda Outer Arc collision zone between Australia NW Shelf and Banda Arc subduction system. Three tectonostratigraphic sequences of differents origins: (1) para-autochthonous sequence, derived from Australia; (2) Banda forearc sequence (allochthonous sequence), nappe structures overthrust on para-autochthonous sequence; (3) autochthonous sequence unconformably over previous sequences. Bobonaro olistostrome unit of Timor Island can be compared with Salas Complex on Seram. Lolotoi metamorphic complex on Timor Island can be correlated with Kobipoto Complex on Seram Island, forming basement of para-autochthonous sequence)

Bachri, S., B. Hermanto & E. Partoyo (1995)- Genesa kompleks Bobonaro di Timor Timur. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 5, 45, p. 17-22.
('Genesis of the Bobonaro Complex in East Timor'. Bobonaro Complex of Timor multiple genesis:(1) mainly deep marine M Pliocene olistostromal deposits, (2) minor tectonic melange, and (3) minor part formed by shale

diapirism and mud volcano activity. Matrix with planktonic foraminifera suggest age range within Late Miocene-E Pliocene (zones N14-N19) and in deep marine setting based on benthic foraminifera like Planulina wuellerstorfi, Favocassidulina, etc. Overlying Viqueque Fm marls with Late Pliocene- E Pleistocene (N21-N22) planktonics)

Bachri, S. & A.K. Permana (2015)- Tektonostratigrafi cekungan Timor di bagian barat Pulau Timor. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 16, 2, p. 79-91.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/43)
('Tectonostratigraphy of Timor Basin in Western Timor'. Brief review of W Timor tectonostratigraphy. Three tectonostratigraphic units, i.e. parautochtonous (Permian-Late Jurrasic), allochtonous (Late Jurassic-Pliocene) and autochtonous unit (Late Miocene-Pleistocene) Etc.).

Bachri, S. & R.L. Situmorang (1994)- Geological map of the Dili Sheet, East Timor, Scale: 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(Geologic map of western part of Timor Leste, With Late Miocene (Bobonaro complex) to Pliocene-Pleistocene Autochthonous, E Miocene Allochthonous (Cablac Lst, on Lolotoi Metamorphics and Maubisse Fm) and Permian- Eocene 'Australia margin' Para-autochthonous units. Area S of Dili mainly Permian Aileu Fm metamorphics over Permian Maubisse Fm)

Bakhtiar, A. (1984)- Geologi daerah Kapan, Kabupaten Timor Tengah Selatan, Nusa Tenggara Timur. Ph.D. Thesis, Institut Teknologi Bandung (ITB), p. 1-425. *(Unpublished)*
(The geology of the Kapan area, Kapubaten S Central Timor, NTT province)

Bakker, P.J. (2002)- Timor-Leste natural and mineral resources inventory, policy and development strategy-Economic geology, development strategy, and capacity building. Final Consultancy Report, ESCAP/UNDP/TIM 01/022, Dili, p. 1-70.
(online at: https://www.laohamutuk.org/OilWeb/RDTLdocs/ESCAP/Bakker.pdf)
(Review of economic geology and resources potential of East Timor (gold, chromite, copper, etc.). Mainly literature survey, for UN ESCAP, prepared at time of Timor Leste Independence, after Indonesian annexation)

Bakker, R.R. (2011)- Surface uplift in world's youngest orogen, can crustal thickening explain the uplift in Timor? M.Sc. Thesis, University of Utrecht, p. 1-32.
(online at: http://dspace.library.uu.nl/handle/1874/208928)
(Recent uplift of Timor may be explained by buildup of fold-and-thrust belt. Age model and paleobathymetry using benthic foraminifera used to reconstruct uplift history of syn-orogenic Viqueque Fm basin. Timor uplifted in two phases: (1) very low rates during deposition of lower Viqueque Fm; (2) followed by rapid uplift, up to ~3 mm/yr. Homogeneous thickening of fold-and-thrust belt not enough to explain rapid uplift. Slab detachment unlikely cause, because there is no evidence that slab has broken off. Delamination most likely process)

Bando, Y. & K. Kobayashi (1981)- Upper Triassic cephalopods from Eastern Timor (Paleontological Study of Eastern Timor 6). Memoirs Faculty of Education Kagawa University, Japan, II, 31, 1, p. 57-142.

Barber, A.J. (1978)- Structural interpretations of the island of Timor, Eastern Indonesia. Proc. SE Asia Petroleum Exploration Society (SEAPEX) Conference 4, Singapore 1977/1978, p. 9-21.
(Timor evolution model with 'Lolotoi microcontinent' breaking off Australia in Jurassic, colliding with Sundaland in Early K, separating from Sundaland in Late K- Paleocene, colliding with Australia in Pliocene)

Barber, A.J. (1981)- Structural interpretations of the island of Timor, eastern Indonesia. In: A.J. Barber & S. Wiryosujono (eds.) The geology and tectonics of Eastern Indonesia, Proc. CCOP-IOC SEATAR Working Group Meeting, Bandung 1979, Geological Research Development Centre (GRDC), Bandung, Special Publ. 2, Bandung, p. 183-197.
(online at: http://searg.rhul.ac.uk/pubs/barber_1981%20Timor%20structure.pdf)
(Reprint of Barber (1978) SEAPEX paper. Three interpretations of structure of Timor: imbricate melange model of Hamilton 1979, overthrust model of Audley-Charles et al., upthrust model of Chamalaun & Grady (1978). New

model incorporates elements of all three models: Late Jurassic breakup of piece of Australia, Cretaceous collision with Sundaland, Eocene breakup of Sundaland margin during Banda Sea opening and Pliocene collision of 'Lolotoi microcontinent' with Australia)

Barber, A.J. (1991)- The origin of melange in the Timor collision complex. In: E.P. Utomo et al. (eds.) Proc. The Silver Jubilee LIPI- Symposium on the Dynamics of subduction and its products, Yogyakarta-Karangsambung 1991, Research and Development Center for Geotechnology, Indonesian Institut of Sciences (LIPI), Bandung, p. 52-61.

Barber, A.J. & M.G. Audley-Charles (1976)- The significance of the metamorphic rocks of Timor in the development of the Banda Arc, eastern Indonesia. Tectonophysics 30, p. 119-128.
(online at: http://searg.rhul.ac.uk/pubs/barber_audleycharles_1976%20Timor%20metamorphics.pdf)
(All metamorphic massifs on Timor are allochthonous. Various grade metamorphic rocks on Timor. Three distinct metamorphic grade groups: lustrous slate, amphibolite-serpentinite and granulite- amphibolite-greenschist complex. Highest grade metamorphic rocks (granulite facies) in Booi massif. Amphibolite facies in many massifs through Timor. Many high-grade metamorphic rocks affected by subsequent lower grade (greenschist) metamorphism. Ailei Formation laterally grades into Permian-Triassic Maubisse Fm. High-grade metamorphic rocks interpreted as fragments of ancient continental crust, perhaps from Asia/ Sundaland)

Barber, A.J., M.G. Audley-Charles & D.J. Carter (1977)- Thrust tectonics in Timor. J. Geological Society of Australia 24, p. 51-62.
(Reply to Grady (1975) who argued structure of Timor can be interpreted without major overthrusting. Reasons for major overthrusting restated here and tied to collision between Australian continental margin and detached portion of Asiatic continental margin. Timor is series of overlapping thrust slices, resting on folded sediments of Australian continental margin. Kolbano lowest thrust sheet, composed of deformed deep-water calcilutites. Followed to N by Lolotoi thrust sheet (metamorphics with unmetamorphosed ophiolites, clastic sediments and massive Miocene limestones). Overlying this group to N is Maubisse-Aileu thrust sheet (with Permian crinoidal limestones and volcanics in S, passing N into shales and sandstones, with increase in deformation and metamorphism from S to N. Slates in S pass into amphibolite facies on N coast of E Timor. A further thrust-slice composed of ophiolites rests on this thrust unit on N coast of W Timor between Wini and Atapupu. Mesozoic cherts sandwiched between metamorphic thrust sheets and 'autochthonous' Bisane Fm Permian clastics suggest ocean floor separated this from Maubisse Fm Permian carbonates)

Barber, A.J. & K. Brown (1988)- Mud diapirism: the origin of melanges in accretionary prisms? Geology Today 4, p. 89-94.
(Chaotic melange deposits, mixed blocks in clay matrix, commonly attributed to submarine slumping, but in accretionary complexes shale diapirism produces large volumes of melange. With examples from Timor mud volcanoes and associated deposits of Bobonaro scaly clay with blocks)

Barber, A.J., S. Tjokrosapoetro & T.R. Charlton (1986)- Mud volcanoes, shale diapirs, wrench faults and melanges in accretionary complexes, Eastern Indonesia. American Assoc. Petroleum Geol. (AAPG) Bull. 70, p. 1729-1741.
(Timor mud volcanoes. Bobonaro scaly clay commonly interpeted as melange or olistostrome, but more likely product of shale diapyrism)

Barkham, S.T. (1993)- The structure and stratigraphy of the Permo-Triassic carbonate formations of West Timor, Indonesia. Ph.D. Thesis University of London, p. 1-379. *(Unpublished)*
(Detailed study of Permian (Maubisse) to Triassic (Aitutu) carbonates of W Timor. Focus areas: SW of Soe (Late Triassic Aitutu Fm pelagic radiolarian-mollusc (Halobia-Monotis) limestones and marls in Noil Meto), Bisnain and Laktitus areas. Includes reports of E Permian fusulinids from Maubisse Fm)

Barros, I.S., D.W. Haig & E. McCartain (2022)- Uppermost Triassic Halstatt-like cephalopod limestone (Lilu Facies) and foraminifera, Timor-Leste. Alcheringa 46, 3-4, p. 244-256.

(2m thick 'Halstatt-like' red and grey ammonoid-rich wackestone near Maliana in western Timor Leste. Called 'Lilu facies', underlain by Norian (- E Rhaetian?) shallow marine limestone of Bandeira Gp, and overlain by 'basinal' Lower Jurassic Wailuli Gp limestones-calcareous mudstones. Age-diagnostic involutinid foraminifera include Involutina liassica, Variostoma, etc., and conodont Norigondolella steinbergensis, indicating Rhaetian age. Interpreted to be deposited in few 10s of m of water depth and reflect drowning. Very low conodont colour alteration index of 1, suggesting low post-burial T and limited tectonic loading No identifications of ammonites)

Barros, I.S., D.W. Haig & E. McCartain (2025)- Upper Triassic (Norian-Rhaetian) variostomatids (Foraminifera), Timor Leste: systematics, paleoenvironmental, and biostratigraphic implications. J. Foraminiferal Research 55, 2, p. 188-217.
(online at: https://pubs.geoscienceworld.org/cushmanfoundation/jfr/article/55/2/188/653698/UPPER-TRIASSIC-NORIAN-RHAETIAN-VARIOSTOMATIDS)
(Late Triassic basinal facies in central area of Timor-Leste with diverse variostomatid foraminifera,including new genus Pualacana (type species P. hortai). Genus includes species formerly included in Variostoma. Six species recognised in Norian-Rhaetian of Timor-Leste. Associated with Duostomina turboidea, Diplotremina subangulata and Oberhauserella rhaetica ('Tethyan affinities'). Pualacana most common in thin-bedded carbonate-cemented mudstones of Aitutu Group of 'East Gondwana Interior Rift Association' and a facies association similar to the Pötschenkalke in the Hallstatt Basin of the Austrian Alps)

Bassler, R. (1929)- The Permian bryozoa of Timor. In: Palaontologie von Timor, Schweizerbart, Stuttgart, 16, Lieferung 28, p. 37-90.
(Principal (and only?) work on Permian bryozoa of Timor from Wanner and Molengraaff collections. Faunas generally poorly preserved. Artinskian Bitauni Beds sparse bryozoan fauna, early Late Permian Basleo beds more abundant, overlying Amarassi beds sparse bryozoan. Some species, like Fistulipora timorensis, rel. widespread in M-U Permian of Tethys region. Also Ulrichotrypa, Rhombopora, Streblotrypa, Fenestella, Polypora, etc.)

Bather, F.A. (1913)- The fossil crinoids referred to *Hypocrinus* Beyrich. Proc. Zoological Society of London 83, 4, p. 894-913.
(Re-description of Permian crinoid species Hypocrinus schneideri, first described by Beyrich (1865) from Air Mati locality near Kupang, Timor)

Bather, F.A. (1920)- Reviews: Echinoid or crinoid? Geological Magazine 57, 8, p. 371-372.
(Discusses genus Timorocidaris as described in Wanner (1920), Uber einige Palaeozoische Seeigelstacheln, etc. from Permian of Timor. Believed to be echinoid radiole by Wanner, but may be crinoid fragments)

Bather, F.A. (1929)- Triassic echinoderms of Timor. In: J. Wanner (ed.) Palaeontologie von Timor, Schweizerbart, Stuttgart, 16, 30, p. 214-272.
(Description of probably Upper Triassic crinoid fragments (incl. pentacrinids Isocrinus spp.) and echinoids (Miocidaris timorensis n.sp.))

Baud, A. (2013)- The Olenekian (Early Triassic) red ammonoid limestone, a time-specific facies on the Gondwana margin: Timor- Roof of the World- Oman connection. Acta Geologica Sinica (English Ed.), 87 (Supplement), p. 894-895.
(online at: https://onlinelibrary.wiley.com/doi/pdf/10.1111/1755-6724.12150_2)
(Lower Triassic red limestone blocks with abundant ammonoids in Basleo, W Timor, of Smithian (Lower Olenekian) age occur as exotic blocks in Neogene Bobonaro melange, and believed to originate from detached Triassic Tethyan seamount, incorporated in NW Australian margin accretion prism. Similar blocks of same age and facies known from Oman Mountains and in melange of Indus suture of Ladakh Himalaya (Lamayuru Exotic block, etc.). Olenekian 'Time-Specific Facies' of condensed red ammonoid limestone deposited on isolated seamounts or submarine rise and plateau, possibly also on distal tilted blocks of continental shelves/slope (all are remnants of Permian-Cretaceous-Mesotethys Ocean, which closed in Late Cretaceous?; JTvG))

Baud, A. & H. Bucher (2019)- Time specific facies: the red ammonoid limestone at the Paleozoic-Mesozoic turnover and the Tethyan Redox evolution. In: 4th Int. Congress of Paleogeography, Beijing 2019, Abstract book, p. 54-56. *(Extended Abstract)* *(online at: https://www.researchgate.net/publication/336025092_Time_specific_facies_the_red_ammonoid_limest Etc.)*
(Examples of red, condensed ammonoid-rich limestones, believed to be from rifted/drifted oceanic seamounts and apparently mainly from near distal Gondwana margin of Neotethys: (1) M. Permian (Wordian; Sicily, Timor, Oman); (2) E Triassic (Smithian; Oman, Himalayas, W Timor), and others like Late Triassic Hallstatt facies, Jurassic 'Ammonitico Rosso', etc.)

Belford, D.J. (1960)- Micropalaeontology of samples from Ossulari No. 1 and No. 1A bores, Portuguese Timor. Bureau Mineral Resources Geology Geophysics (BMR), Record 1960/33, p. 1-2.
(online at: https://ecat.ga.gov.au/geonetwork/srv/eng/catalog.search#/metadata/10621)
(Brief summary of analysis of cutting samples from wells Ossulari 1 (2840'-3010') and Ossulari 1a (2960'-3100'). All contain mixed Permian, Jurassic-Cretaceous and ?Miocene fauna)

Belford, D.J. (1960)- Micropalaeontology of samples from Portuguese Timor. Bureau Mineral Resources (BMR), Record 1960/98, p. 1-6.
(online at: www.ga.gov.au/products/servlet/controller?event=GEOCAT_DETAILS&catno=10686)
(Biostrat of 76 outcrop samples collected by Timor Oil Co in Timor Leste. Oldest rocks with Permian foraminifera and one sample with mollusc Atomodesma exarata. Tertiary samples M-U Eocene (with Nummulites and planktonics and reworked U Cretaceous plankton), Lower Miocene (Te with Spiroclypeus and reworked U Cretaceous Globotruncana limestone) and pelagic U Miocene (more likely Plio-Pleistocene; JTvG). Also several samples rich in radiolaria, probably Mesozoic. No locality maps))

Belford, D.J. (1961)- Micropalaeontology of samples from Portuguese Timor. Bureau Mineral Resources (BMR), Record 1961/6, p. 1-5.
(online at: www.ga.gov.au/products/servlet/controller?event=GEOCAT_DETAILS&catno=10733)
(Biostrat of 56 outcrop samples collected by Timor Oil Co. Oldest samples are of Permian age (foraminifera). Radiolarian-rich sediments are probably of Triassic age (probable Halobia). Also Eocene limestone with Alveolina and planktonics-rich U Miocene sediments (more likely Pliocene?; JTvG; one sample with reworked Permian). No locality maps)

Belford, D.J. (1961)- Micropalaeontology of samples from Matai No. 1 bore, Portuguese Timor. Bureau Mineral Resources (BMR), Record 1961/31, p. 1-3.
(online at: www.ga.gov.au/products/servlet/controller?event=GEOCAT_DETAILS&catno=10758)
(Summary of biostratigraphy of Matai 1 cuttings (370'- 2000'). Interval 370-760' regarded as 'block clay' of Upper Miocene age (but faunal lists include Pleistocene Gr. truncatulinoides and Hyalinea balthica; JTvG) with reworked Upper Cretaceous and Eocene forams. Eocene limestone with Discocyclina and Alveolina rel. common at 760-830'. Also limestone chips between 880-1000' with Late Eocene Discocylina and Pellatispira, but not sure if in situ. Sample gap between 1040-1300', and no microfossils observed between 1300-2000')

Benincasa, A. (2009)- The geology of Mount Mundo Perdido, Timor Leste. Thesis University of Western Australia, Perth, p. 1-169. *(Unpublished)*
(Mt Mundo Perdido 1750m high massif, originally interpreted as coherent block of Lower Miocene Cablac Limestone, but is complex of rock types of different ages and tectonostratigraphic affinities, including 'Gondwanan affinity' Triassic-Jurassic carbonates, Cretaceous- Oligocene pelagites (pink-white Cretaceous, red shaly Eocene), 'Banda-Terrane' earliest Miocene limestones on Barique Fm mafic island arc volcanics and associated with gabbros and schists, and Plio-Pleistocene synorogenic(?) deposits. Dominant structures late stage, high-angle, oblique-slip faults, probably in sinistral strike-slip zone)

Benincasa, A. (2015)- The 'fatus' of East Timor: stratigraphy and structure. Ph.D. Thesis University of Western Australia, Perth, p. 1-504.
(online at: https://research-repository.uwa.edu.au/files/5338890/Benincasa_Aaron_2015.pdf)

(Studies of isolated limestone peaks ('fatus') of Timor Leste, incl. Mt Mundo Perdido, Laritame, Builo, Bibileu, Paitchau, Matebian, etc. Many fatus previously mapped as Miocene Cablac Lst, but cores of all fatus contain Late Triassic- E Jurassic shallow water limestones associated with Triassic- Jurassic rift deposits, Cretaceous-Oligocene pelagic limestones, Asian-affinity Tertiary limestones and volcanics, etc. Many fatus are pop-up structures, with recent high-angle oblique slip and strike-slip faults (map suggests all are associated with Banda Terrane?))

Benincasa, A., M. Keep & D. Haig (2012)- A restraining bend in a young collisional margin: Mount Mundo Perdido, East Timor. Australian J. Earth Sciences 59, 6, p. 859-876.
(online at: www.academia.edu/3675152/A_restraining_bend_in_a_young_collisional_margin_Mount_Mundo_Perdido_East_Timor)
(Appendix 1 online at: www.gsa.org.au/pdfdocuments/AJES_Supplementary%20Papers/59-6%20supp%20papers_Benincasa%20et%20al%20AJES%20.pdf)
(Mt Mundo Perdido 1 km NW of Ossu. Like Mt Cablac, originally mapped as Miocene 'Cablac Lst', but has core of highly deformed (Late Triassic?) to E Jurassic oncoidal- ooid limestone, overlain by bathyal latest Jurassic-E Cretaceous calpionellid/ Inoceramus wackestone and mid-Cretaceous-Oligocene pelagic limestones. It is surrounded (looks like overlain?; JTvG) by less-deformed latest Oligocene- earliest Miocene (N4) Booi Limestones and Pleistocene bathyal limestones. Structure dominated by high angle, oblique-slip and strike-slip faults that were active into Pleistocene, comparable to pop-up structures at restraining bends within E-W zone of sinistral strike-slip. Appendix 1 documents E Jurassic age of 'Perdido Limestone' algal limestone (incl. Thaumatoporella ?parvovesiculifera and agglutinated forams (Siphovalvulina, Duotaxis))

Berry, R.F. (1979)- Deformation and metamorphism of the Aileu Formation, East Timor. Ph.D. Thesis, School of Earth Sciences, Flinders University of South Australia, Adelaide, p. 1-393.
(online at: http://eprints.utas.edu.au/11496/2/Whole-Berry,_R.F.,_PhD_(Flinders),_1979.pdf)
(Aileu Fm along N coast of E Timor composed of metamorphosed shales, siltstones and arenites with minor limestones and basites. Greater proportion of coarser and quartz-rich sediment towards N coast. Fossils rare, dominated by crinoid ossicles, probably Permian age. Metamorphic grade lower greenschist facies in SW, almandine-amphibolite facies in NE. Amphibolite and schists with marble close in composition to Permian Maubisse Fm. On N coast of E Timor is Hili Manu peridotite, faulted against Aileu Fm in S; lherzolite and serpentinite abut Aileu Fm at highest metamorphic grade (p. 239). Five structural phases recognised. K/Ar ages of hornblendes from amphibolites 7.7- 16.5 Ma (av.11.3 Ma). Geology of Timor consistent with evolution as rift valley in Late Paleozoic-Early Mesozoic and trailing margin from Cretaceous- E Miocene, Late Miocene arc-continent collision followed by uplift and minor Plio-Pleistocene deformation)

Berry, R.F. (1981)- Petrology of the Hili Manu lherzolite, East Timor. J. Geological Society of Australia 28, 4, p. 453-469.
(Spinel lherzolite outcrop on N coast of E Timor. Most common rock-type clinopyroxene-poor lherzolite, but also clinopyroxene-rich lherzolite and harzburgite. Three events indicated by geothermometry (1) coarse exsolution lamellae of orthopyroxene in clinopyroxene porphyroclasts (1250°C); (2) granoblastic texture equilibrated at 1100°C; and (3) rocks mylonitised at 800-1000°C. Peridotite probably oceanic upper mantle trapped between Java Trench and Inner Banda Arc)

Berry, R.F., C. Burrett & M. Banks (1984)- New Triassic faunas from East Timor and their tectonic significance. Geologica et Palaeontologica 18, p. 127-137.
(online at: https://www.researchgate.net/publication/285778371_New_Triassic_faunas_from_East_Timor_and_their_tectonic_significance)
(Conodonts from red ammonoid-bearing limestone 6 km W of Manatuto, previously assigned to Permian Maubisse Fm, contains Upper Smithian (E Triassic) Tethyan conodonts. Area previously interpreted as thrusted, with inverted ages (Permian on Triassic), but probably simple Triassic stratigraphic succession and structure mainly steeply dipping normal faults. Conodonts well-preserved with CAI of 1, suggesting rel. low paleotemperatures <100°C)

Berry, R.F., K. Goemann & L. Danyushevsky (2021)- Geology of the Mutis Complex, Miomaffo, West Timor. Proc. Australian Earth Science Convention (AESC 2021, online) Session 12.3, 1p. *(Presentation Abstract)*
(online at: https://aesconvention.com.au/mutis-complex-west-timor/)
(Mesozoic accretionary assemblages in overthrust terranes on Timor (commonly called 'Banda Terranes'; JTvG). Oldest rocks in allochthonous Mutis Complex (at Miomaffo) highly deformed Jurassic melange with blocks of N-MORB basalt (194 ±5 Ma= E Jurassic), amphibolite (metamorphism at 175 Ma), garnet and actinolite bearing schists, arkosic sandstone and volcanogenic material. Sediments sourced from Mesozoic island arc along S margin of Sundaland; ~200 Ma detrital zircons). Sequence intruded by calc-alkaline andesitic dykes (possibly in Eocene). To W of melange transition to greenschist facies rocks with isoclinal folding. Further W amphibolite facies metamorphics, with same N-MORB composition as basalt in E. Same bulk composition as melange including detrital zircon ages. Metamorphic assemblages overprint low T isoclinal folds. Peak metamorphism at 38 Ma (M-L Eocene) reflects event within Sundaland active margin. At ~5 Ma, NW Australia collided with this margin and Mutis Complex was thrust over Timor. Late generation cataclastic faults largely result of extensional collapse)

Berry, R.F., K. Goemann, L. Danyushevsky & E. Lounejeva (2024)- Geology of the Mutis Complex, Miomaffo, West Timor. Australian J. Earth Sciences 71, 2, p. 231-250.
(online at: https://www.tandfonline.com/doi/full/10.1080/08120099.2023.2290702)
(Oldest rocks in W Timor allochthonous Mutis Complex ("Banda Terrane'), are E Jurassic basaltic rocks and melange with blocks of N-MORB basalt with (~194 Ma zircons), amphibolite (metamorphism at ~184 Ma; E Jurassic), garnet and actinolite-bearing schists, arkosic sandstone and volcanogenic sedimentary rocks. The common Jurassic material suggests relationship with Woyla oceanic terrane. E Miomaffo massif complexly deformed with dominant foliation overprinted by several fold- fault events including late normal cataclastic zones. Intruded by calc-alkaline andesitic dykes (possibly in Eocene). Central Sector of Miomaffo high-strain greenschist facies rocks, with composition same as volcaniclastic rocks in E. FurtherW, amphibolite facies with same N-MORB composition as basalt in E, but with more arc-sourced protoliths. Peak metamorphic conditions 650℃ and 0.9 GPa, occurring at 37 Ma (N.B.:M-L Eocene age of metamorphism= younger than overlying Cretaceous marine sediments; impossible?-JTvG), reflecting subduction on SE Sundaland, whereas low-grade Mesozoic metamorphism of E Sector of massif occurred in accretionary prism along Woyla Arc. Miomaffo demonstrates strong oceanic character of Banda terrane and complex geological history of Mesozoic rocks in E Indonesia)

Berry, R.F. & A.E. Grady (1981)- Deformation and metamorphism of the Aileu Formation, North coast, East Timor and its tectonic significance. J. Structural Geology 3, p. 143-167.
(Aileu Fm at N coast of Timor probably metamorphosed Permian (+ Jurassic?) flysch. Metamorphism increasing from low greenschist facies in SW to upper amphibolite facies in E. Five deformation phases; second phase post-dates metamorphic maximum (Jurassic?), produced tight folds and may be Late Miocene. Metamorphic maximum occurred before 11 Ma)

Berry, R.F. & A.E. Grady (1981)- The age of the major orogenesis in Timor. In: A.J. Barber & S. Wiryosujono (eds.) The geology and tectonics of Eastern Indonesia. Proc. CCOP-IOC Working Group Meeting, Bandung 1979, Geological Research Development Centre (GRDC), Bandung (GRDC), Special Publ. 2, p. 171-181.
(Radiometric dates of N coast E Timor Aileu Fm metamorphic rocks suggest metamorphism peak before Late Miocene (8-9 Ma; possibly even before 70 Ma; Harris & Long 2001), with most intense deformation probably between 11-6 Ma)

Berry, R.F. & G.A. Jenner (1982)- Basalt geochemistry as a test of the tectonic models of Timor. J. Geological Society, London, 139, 5, p. 593-604. (+ Supplemental papers)
(Geochemistry of metamorphosed Permo-Triassic basic volcanics on Timor from both 'allochthonous' and parautochthonous' formations are all consistent with rift or ocean floor setting; no calc-alkaline arc volcanics)

Berry, R.F. & I. McDougall (1986)- Interpretation of 40Ar/39Ar and K/Ar dating evidence from the Aileu Formation, East Timor, Indonesia. Chemical Geology 59, p. 43-58.

(Aileu Fm-Maubisse metamorphics retrograde metamorphism (=collision?) at 8 Ma. Cooling to 300°C by 5.5 Ma)

Berry, R.F., J.M. Thompson, S. Meffre & K. Goemann (2016)- U-Th-Pb monazite dating and the timing of arc–continent collision in East Timor. Australian J. Earth Sciences 63, 4, p. 367-377.
(Metamorphic age of highest-grade rocks formed in Timor arc collision remains controversial. U-Th-Pb dating of monazite from Aileu Fm amphibolite-grade schists suggests peak metamorphism at 5.5-4.7 Ma)

Beyrich, E. (1862)- Gebirgsarten und Versteinerungen welche von dem Arzte Dr. Schneider in der Gegend von Koepang auf der Insel Timor gesammelt... Zeitschrift Deutschen Geologischen Gesellschaft 14, p. 537.
(online at: https://archive.org/details/zeitschriftderd141862deut/page/536/mode/2up)
('Mountain types and fossils collected by medical doctor Schneider in the area of Kupang on Timor.'. First brief note summarizing the occurrence of Late Paleozoic fossils in Timor (brachiopods, crinoids (incl. Hypocrinus schneideri)) from Air Mati, collected by Dr. C.F.A. Schneider and studied by Prof. E.Beyrich from Berlin. Now known to be of M-L Permian age)

Beyrich, E. (1865)- Uber eine Kohlenkalk-Fauna von Timor. Abhandlungen Koniglichen Akademie Wissenschaften Berlin, 1864, p. 59-98.
(online at: https://www.digitale-sammlungen.de/de/view/bsb10225842?page=1)
('On a Carboniferous fauna from Timor'. First description of 'Carboniferous' (now accepted as Late Permian) limestone fauna from Timor, collected in Kupang area by Dr. C.F.A. Schneider. Includes mollusc genus Atomodesma, solitary rugose coral Zaphrentis, new brachiopod species Spirifer kupangensis (= Arcullina; Waterhouse 2004), Rhynchonella timorensis (assigned to Uncinunellina timorensis by later authors; JTvG), new crinoid species Hypocrinus schneideri, etc.)

Bird, P.R. (1987)- The geology of the Permo-Triassic rocks of Kekneno, West Timor. Ph.D. Thesis, University of London, p. 1-264. *(Unpublished)*
(Structure, stratigraphy and sedimentology of 'parautochthonous' mainly fine clastic Permo-Triassic in Kekneno area. Sandstone petrography shows Timor Permian sands less mature than those of NW Shelf of Australia. Paleocurrents mainly towards WSW, suggesting source from E (Arafura) and/or N (terrane removed in Jurassic rifting), not from NW Shelf. Slice of Banda fore-arc basement obducted over parautochthonous, with fossiliferous Permian Maubisse carbonates and volcanics very different from parautochton)

Bird, P.R., K. Brata & I. Umar (1989)- Sedimentation and deformation of the Permo-Triassic of Kekneno, West Timor: from intracratonic basin to accretionary complex. In: B. Situmorang (ed.) Proc. 6th Regional Conference Geology mineral and hydrocarbon resources of SE Asia (GEOSEA VI), Jakarta 1987, IAGI, p. 3-23.
(Permian and Triassic turbiditic marine clastics in Kekneno area of Timor considered deposited in intra-cratonic basin near NW margin of Gondwana. Thickness hard to estimate due to common imbrication along mainly N-dipping thrust planes. Oldest formation Atahoc Fm, >600m thick, with common ammonites of Sakmarian Properrinites zone; in E with pillow lavas near top. Overlain by Kungurian Cribas Fm with Atomodesma, 400m thick, current ripple directions to SE. Sandstones petrologically much less mature than age-equivalent rocks of NW Australia Shelf, indicating Timor sediments not derived from Australian hinterland. Paleocurrents show sediment transport predominantly to WSW and secondary transport to SE. Northerly source removed by Jurassic rifting. Kekneno Permo-Triassic overthrusted by Mutis allochthon (W-ward thrusting?))

Bird, P.R. & S.E. Cook (1991)- Permo-Triassic successions of the Kekneno area, West Timor: implications for palaeogeography and basin evolution. J. Southeast Asian Earth Sciences 6, 3-4, p. 359-371.
(Permian sandstones less mature and different heavy mineral assemblages from Bonaparte/Timor Sea equivalents. This and Permian paleocurrent data suggests mainly northerly provenance of Timor Permian. Late Triassic Babulu Fm turbidites dominant sediment transport directions NE to SW or E to W)

Bless, M.J.M. (1987)- Lower Permian ostracodes from Timor (Indonesia). Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, B, 90, 1, p. 1-13.

(Lower Permian (Sakmarian- Artinskian) ostracodes from Bitauni, Mutis, Nono Ofien and Noil Toensieh in W Timor. Diverse 'Thuringian-type' assemblages with 40 species, usually interpreted as deep marine, as also suggested by Grundel & Kozur 1975)

Boavida, N., K. Kawamura, C. Cardoso, O. Sarmento, A. Soares, J. Guterres, A. Lira, M. Mendonca & F. Estefes (2023)- The hidden Sunda-Forearc Complex evidence underneath the Raitahu mud volcano, Southeastern Coast of Timor. Timorese Academic J. Science and Technology 6, p. 205-215.
(online at: http://fect.untl.edu.tl/tajst_article-136-tp.html)
(Raitahu (Bibiluto) mud volcano near SE coast of Timor Leste with clasts of Permian-Neogene rocks reflecting underlying geology. These include 'Gondwana/Australian sediments of Atahoc, Cribas, Aituto, Wailuli, Waibua/Nakfunu, etc. Fms (dominantly Triassic sst clasts). Source of overpressured clays probably E-M Jurassic-Lower Cretaceous of Gondwana/Australian margin. Sunda forearc complex represented by Lolotoi schist, green metavolcanics and Eocene Same/Dartollu Lst. Formed originally in subduction channel as tectonic melanges during Sunda forearc emplacement over Australian passive margin and subsequently intruded into Sunda and synorogenic deposit by diapiric processes (similar to Bobonaro melange?))

Boehm, G. (1908)- Jungeres Paläozoicum von Timor. In: G. Boehm (ed.) Geol. Mitteilungen Indo-Australischen Archipel VIc, Neues Jahrbuch Mineralogie Geologie Palaeontologie, Beilage Band 25, p. 303-323.
(online at: https://opac.geologie.ac.at/ais312/dokumente/Boehm_1908_Indo-Australisch_Archipel_VI.pdf)
('Late Paleozoic of Timor'. (with F.A. Bather). Two new Permian blastoids from Timor, collected by Verbeek in 1899 from Bisano Hill S of Baung (Schizoblastus (now called Deltablastus), S. timorensis and S. delta. Associated with brachiopod Spirifer lineatus, ammonoid Agathiceras timorense n.sp., trilobite Phillipsia)

Boehm, G. (1908)- Jura von Rotti, Timor, Babar und Buru. In: G. Boehm (ed.) Geol. Mitteilungen Indo-Australischen Archipel VIc, Neues Jahrbuch Mineralogie Geologie Palaeontologie, Beilage Band 25, p. 324-343.
(online at: https://opac.geologie.ac.at/ais312/dokumente/Boehm_1908_Indo-Australisch_Archipel_VI.pdf)
('The Jurassic of Roti, Timor, Babar and Buru'. Descriptions of Jurassic brachiopods (Rhynchonella) and ammonites (Phylloceras, Perisphinctes from Buru; Aegoceras, Harpoceras, Stephanoceras, Macrocephalites from Batu Berketak Roti; Stephanoceras from Babar and Perisphinctes from Timor), all collected by Verbeek)

Boger, S.D. (2012)- The Aileu Formation of Timor Leste. First International Geological Congress of Geology of Timor-Leste, Dili 2012, p. 85. *(Abstract only; see also Boger et al. (2017))*

Boger, S. D., O. Lindenmayer, T.R. King, L.G. Spelbrink & M. Sandiford, M. (2016)- Laclo 1:50 000 geological map (Timor Leste). Geological Map Serias Dili Timor Leste 2407 33 ZONE 51/52, The University of Melbourne.
(online at: http://www.faultrock.nz/uploads/4/4/8/3/44833089/dili1-50000.pdf)
(Geologic map along north coast of western Timor Leste. Mainly Permian Aileu Fm clastics)

Boger, S.D., L.G. Spelbrink, R.I. Lee, M. Sandiford, R. Maas & J.D. Woodhead (2017)- Isotopic (U-Pb, Nd) and geochemical constraints on the origins of the Aileu and Gondwana sequences of Timor. J. Asian Earth Sciences 134, p. 330-351.
(Detrital zircon U-Pb age data from Aileu Complex and 'Gondwana Sequence' of Timor, indicate both derived from common source, with zircon age peaks of 200-600 Ma, 900-1250 Ma and 1450-1900 Ma. Most significant age population ~260 Ma (M-L Permian). Similar spectrum of ages along E active margin of Pangea, today best exposed along NE coast of Australia. Mudstones of Aileu Complex more siliceous and other chemical differences from 'Gondwana Sequence', so possibly eroded from different sections of margin and deposited in separate basins. Present proximity result of Pliocene- Recent collision between N Australia plate and Banda Arc)

Boutakoff, N. (1965)- Geological investigations in Portuguese Timor. Report for Timor Oil Ltd, R05372, p.
(Unpublished. Mainly discussion of drilled and undrilled anticlines; no maps, good cross-sections)

Boutakoff, N. (1968)- Oil prospects of Timor and the Outer Banda Arc, SE Asia. Australian Oil and Gas Review 14, p. 44-55.
(Review of Timor area oil prospectivity by Russian-Australian geologist Nicholas Boutakoff (1903-1977))

Boz, A., M. Bakhrudin, P. Bernardelli, F. Coraggio, A. Ardjuna & A. Radityo (2014)- Potential field data acquisition and interpretation supporting exploration activities in The West Timor PSC area. Proc. 38th Annual Conv., Indonesian Petroleum Association (IPA), Jakarta, IPA14-G-0547, p. 1-20.
(Potential fields data acquired over parts of W Timor. No details on geo-structural interpretation)

Breimer, A. & D.B. Macurda (1965)- On the systematic position of some blastoid genera from the Permian of Timor. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, B68, p. 209-217.

Breimer, A. & D.B. Macurda (1972)- The phylogeny of the fissiculate blastoids. Verhandelingen Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, ser. 1, 26, 3, p. 1-390.
(online at: https://dwc.knaw.nl/DL/publications/PU00011028.pdf)
(Monograph on Paleozoic fissiculate blastoids (echinoderms). Mainly taxonomy, anatomy and phylogeny, also discussions of geographic distribution (worldwide), stratigraphic distribution (Silurian- Permian) and paleoecology (open marine, attached to limy-muddy seafloors). Most extensive development of Permian fissiculates is on Timor, associated with tuffs (12 genera; all in allochthonous blocks). Main collecting area is Basleo, with many endemic species. Some also in other areas, e.g. Pterotoblastus gracilis in Thailand)

Broili, F. (1915)- Permische Brachiopoden der Insel Letti. Jaarboek Mijnwezen Nederlandsch Oost-Indie 43 (1914) Verhandelingen 1, p. 187-207.
('Permian brachiopods from Leti Island' (E of Timor). Small brachiopod fauna collected by Molengraaff. With Productus spp., Chonetes strophomenoides, Spirifer spp., Martinia nucula, Retzia, Dielasma and Notothyris)

Broili, F. (1916)- Die Permischen Brachiopoden von Timor. In: J. Wanner (ed.) Palaeontologie von Timor, Schweizerbart, Stuttgart, VII, 12, p. 1-104.
('The Permian brachiopods of Timor'. Descriptions of 46 species in material from numerous localities in W and some from E Timor, collected by Wanner and Molengraaff (mainly from Basleo= late M Permian?; JTvG). Many are long-ranging and widely distributed Tethys forms, incl. Productus, Spirifer, Spirigera, Retzia, Camarophoria, Dielasma, etc. Rare Lyttonia (Leptodus) cf. tenuis from Basleo and Amarassi/ Niki-Niki areas)

Broili, F. (1922)- Permische Brachiopoden von Rotti. In: G.A. Molengraaff (ed.) Nederlandsche Timor expeditie 1910-1912- III, Jaarboek Mijnwezen Nederlandsch Oost-Indie 49 (1920), Verhandelingen 3, p. 223-227.
(Brief report on Permian brachiopods from Roti island, W of Timor, collected by H.A. Brouwer in 1912. Species rel. long-ranging, incl. Derbya beyrichii, Productus waageni, Productus cf. semireticulatus, Spirifer fasciger, Spirigera timorensis, Retzia radialis, Camarophoria purdoni, Notothyris, etc.)

Broili, F. (1931)- Mixosauridae von Timor. Wetenschappelijke Mededeelingen Dienst Mijnbouw Nederlandsch-Indie 17, p. 3-10.
(Vertebrae collected from clays with manganese nodules and ammonites by Jonker in 1873 in NE part of W Timor near E Timor border ('Wai Loelik/ Ramea, Beloe district'). Looks like primitive Ichtyosaurus group and described as Mixosaurus timorensis n.sp. Age probably Triassic (manganese nodules known in Timor-Roti from Upper Triassic, Jurassic and Upper Cretaceous; JTvG; see also Zammit, 2010))

Brouwer, H.A. (1913)- Neue Funde von Gesteinen der Alkalireihe auf Timor. Centralblatt Mineralogie Geologie Palaontologie 1913, p. 570-576.
(online at: www.biodiversitylibrary.org/item/192907#page/594/mode/1up)
('New discoveries of rocks of the alkali series on Timor'. Descriptions of basic igneous-volcanic rocks collected during Molengraaff 1912 Timor Expedition. Some associated with Permian sediments. No figures (probably 'Maubisse Fm'))

Brouwer, H.A. (1914)- Neue Funde von Gesteinen der Alkalireihe auf Timor (Zweite Mitteilung). Centralblatt Mineralogie. Geologie Palaontologie 1914, p. 741-745.
(online at: https://babel.hathitrust.org/cgi/pt?id=uc1.b4291847;view=1up;seq=767)

('New finds of rocks of the alkali series on Timor'- Part 2. Brief note on reddish alkalirhyolites SW of Sufa collected during Molengraaff West Timor Expedition 1912. (No figures or details on geologic setting))

Brouwer, H.A. (1914)- Voorlopig overzicht der geologie van het eiland Roti. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2) 31, p. 611-617.
(online at: https://resolver.kb.nl/resolve?urn=MMUBA13:001660001:pdf)
('Preliminary overview of the geology of Roti island'. December 1911-January 1912 visit found 'Timor-like' (W of Niki-Niki) intensely folded Permian- Eocene section. Permian marls with brachiopods, coral, etc., on amygdaloidal basaltic rock similar to camptonite (plagioclase rich rock). Upper Triassic reddish deep water Halobia-Daonella limestone with radiolarian chert and mica-sandstones (no Triassic in 'Halstatt facies'). Jurassic dark marls with some belemnites, ammonites, locally rich in manganese nodules. One locality of Eocene Nummulites-alveolinid limestone on Landoe Peninsula (similar to Timor). All unconformably overlain by young coral limestones, some elevated to over 400m. Active mud volcanoes (see also Brouwer, 1921))

Brouwer, H.A. (1915)- Gesteenten van het eiland Letti. Nederlandsche Timor Expeditie 1919-1912 (G.A.F. Molengraaff, fieldwork by H.A. Brouwer and G.A.F. Molengraaff), vol. I, Jaarboek Mijnwezen Nederlandsch Oost-Indie 43 (1914), Verhandelingen 1, p. 89-160.
('Rocks from Leti Island', E of Timor)

Brouwer, H.A. (1918)- Gesteenten van het eiland Moa. In: Nederlandsche Timor-expeditie 1910-1912, vol. II. Jaarboek Mijnwezen Nederlandsch Oost-Indie 45 (1916), Verhandelingen 1, p. 13-34.
('Rocks from Moa Island'. Petrographic descriptions of gabbros, diorites, lherzolites, phyllites and crystalline limestones from Moa island E of Timor)

Brouwer, H.A. (1918)- Geologie van een gedeelte van het eiland Moa. In: Nederlandsche Timor-expeditie 1910-1912, vol. II, Jaarboek Mijnwezen Nederlandsch Oost-Indie 45 (1916), Verhandelingen 1, p. 37-56.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB21:040193000:00001)
('Geology of a part of the island of Moa'. Island with broad, low rim of young raised reefal limestone. Older rocks in hills in center include folded metamorphics (phyllites, crystalline limestone; probably metamorphic Permian, with more limestone than on Leti), ultrabasic rocks (peridotites, serpentinite, gabbro), reddish limestones and radiolarian cherts, poorly bedded crystalline limestone (Triassic?) and mica-bearing sandstones with conglomerates (similar to Triassic of Timor-Seram). With 1: 200,000 geological sketch map)

Brouwer, H.A. (1918)- Gesteenten van Oost-Nederlandsch Timor. In: Nederlandsche Timor-expeditie 1910-1912, vol. II, Jaarboek Mijnwezen Nederlandsch Oost-Indie 45 (1916), Verhandelingen 1, p. 67-260.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB21:040193000:00001)
('Rocks from East Netherlands Timor'. Petrographic descriptions of igneous, metamorphic and sedimentary rocks from W Timor. Sandstones and conglomerates rich in feldspars and lithics of schists and andesites)

Brouwer, H.A. (1921)- Geologische onderzoekingen op het eiland Rotti. In: G.A.F. Molengraaff (ed.) Nederlandsche Timor-expeditie 1910-1912, vol. III, Jaarboek Mijnwezen Nederlandsch Oost-Indie 49 (1920), Verhandelingen, p. 33-106.
('Geological investigations on the island Roti' (SW of Timor). Rel. detailed description of geology of Roti island (in Dutch), based on December 1911- January 1912 field work by Brouwer. Timor-like stratigraphy of highly folded, predominantly deep marine sediments, from Permian (reddish limestone with brachiopods and basaltic layers), Upper Triassic limestone with Halobia, etc., Jurassic (with Macrocephalites and other ammonites, Belemnites gerardi and other belemnites and small manganese nodules), Cretaceous limestones with planktonic foraminifera and radiolaria (latter described by Tan Sin Hok, 1927), Eocene limestone with Nummulites- Discocyclina- Asterocyclina, Late Tertiary marls with planktonic forams and radiolaria, and uplifted ?Quaternary reef terraces up to ~450m asl. Fossils described in same volume by Broili and Krumbeck. Also metamorphic rocks as mud volcano ejecta)

Brouwer, H.A. (1922)- Geologische onderzoekingen op de eilanden Loeang en Sermata. Jaarboek Mijnwezen Nederlandsch Oost-Indie 49 (1920), Verhandelingen 2, p. 207-222.

('Geological investigations on the islands Luang and Sermata'. Two small islands NE of Timor. Luang mostly intensely folded Permian marls and crinoidal limestone. Also quartzose and calcareous sandstones, which may be Permian or Triassic. Strike directons highly variable: NW-SE in W of island, more or less E-W in East. On Sermata only crystalline schists representing metamorphosed sediments and basic volcanics)

Brouwer, H.A. (1928)- On the age of alkaline rocks from the island of Timor. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 31, p. 56-58.
(online at: https://dwc.knaw.nl/DL/publications/PU00015549.pdf)
(Permian sediments of Timor mainly tuffs, marls with tuffaceous material, marls, limestones and volcanics. Also locally conglomerates with pebbles of volcanics. Conglomerate studied from near path Sufa-Maubesi. Clasts of syenite and trachyte up to several cm, probably also of Permian age)

Brouwer, H.A. (1938)- Preliminary remarks on geological investigations in the Lesser Sunda islands near Australia. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 41, 4, p. 334-335.
(online at: https://dwc.knaw.nl/DL/publications/PU00017173.pdf)
(Summary of preliminary results of 1937 University of Amsterdam expedition to Timor and nearby islands. Age of 'flysch' on Timor is Ladinian- Norian (Late Triassic). Overthrusting superposes two very different units of Permian rocks, separated by intensely crushed and squeezed zone)

Brouwer, H.A. (1939)- Exploration in the Lesser Sunda islands. The Geographical Journal 94, 1, p. 1-10.
(Review of lecture on recent geologic work on Lesser Sunda islands, particularly Timor- Wetar: distribution of volcanics, uplifted young coral reef terraces, older and younger thrusting directed towards Australian continent, etc.))

Brouwer, H.A. (ed.) (1940)- Geological Expedition of the University of Amsterdam to the Lesser Sunda Islands in the South Eastern part of the Netherlands East Indies 1937, vol. I, Noord-Hollandsche Uitgevers Mij., Amsterdam, p. 1-348.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:046046000:00009)
(Collection of 2 Ph.D. theses (D. Tappenbeck, A.L. Simons) on geology of Timor and two papers by J. Wanner on Permian blastoids and F. de Marez Oyens on Permian crinoids from Timor)

Brouwer, H.A. (ed.) (1940)- Geological Expedition of the University of Amsterdam to the Lesser Sunda Islands in the South Eastern part of the Netherlands East Indies 1937, vol. II., Noord-Hollandsche Uitgevers Mij. Amsterdam, p. 1-395.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:046047000:00009)
(Collection of two Ph.D. theses on Timor geology by W.P. De Roever and J. van Voorthuysen, also two papers by H. Brouwer on volcanics of Adonara, etc., and J. Wanner on Permian bivalves)

Brouwer, H.A. (ed.) (1941)- Geological Expedition of the University of Amsterdam to the Lesser Sunda Islands in the South Eastern part of the Netherlands East Indies 1937, vol. III, Noord-Hollandsche Uitgevers Mij, Amsterdam, p. 1-380.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:046048000:00280)
(Collection of 3 Ph.D. theses, by F.van West and D.L. de Bruyne on geology of West Timor and one thesis by J. de Jong on Banda Arc islands Wetar, Lirang and Solor)

Brouwer, H.A. (ed.) (1942)- Geological Expedition of the University of Amsterdam to the Lesser Sunda Islands in the South Eastern part of the Netherlands East Indies 1937, vol IV. Noord-Hollandsche Uitgevers Maatschappiij, Amsterdam, p. 1-401.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:046050000:00009)
(Collection of one Ph.D. thesis by J.Heering on Wetar- Alor islands of Banda Arc, and four papers by H.A. Brouwer (summary Timor expedition), C. Wanner (Permian gastropods- Timor), W.P. de Roever (Permian olivine basalts- Timor) and J. de Jong (Flores))

Brouwer, H.A. (1942)- Summary of the geological results of the expedition. In: H.A. Brouwer (ed.) Geological Expedition of the University of Amsterdam to the Lesser Sunda Islands in the South Eastern part of the Netherlands East Indies 1937, 4, p. 345-402.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:046050000:00001)
(Overview of geology of northern Banda arc islands Flores, Pantar, Alor, Wetar, etc., and southern rows of outer arc islands (Timor). Timor structure characterized by large overthrusts, formed mainly in pre-Miocene, also younger movements. 'Kekneno series' Permian-Triassic flysch facies derived from metamorphic and feldspar-rich volcanic rock. "Schist-Palelo Complex" (now usually called Banda overthrust terrane; JTvG) is high nappe unit with crystalline schists overlain by Upper Cretaceous Palelo clastics with Upper Cretaceous Globotruncana and conglomerates rich in volcanics, metamorphics and Paleogene Lower Palelo ('other rocks in neighbourhood apparently not exposed' Early Miocene unconformable over older rocks, etc.)

Brown, K.M. (1987)- Structural and physical processes in accretionary complexes: the role of fluids in convergent margin development. Ph.D. Thesis, Durham University, p. 1-500.
(online at: http://etheses.dur.ac.uk/7186/1/7186_4368.PDF)
(General study on accretionary prisms and mud volcanoes, with chapters on North Borneo and Timor)

Brown, M. & M.M. Earle (1983)- Cordierite-bearing schists and gneisses from Timor, eastern Indonesia. P-T conditions of metamorphism and tectonic implications. J. Metamorphic Geology 1, p. 183-203.
(Mutis Complex in W Timor Boi Massif composed of basement schists and gneisses and dismembered remnants of ophiolite. Mineral assemblages sugggest P-T path of rocks started with initial metamorphism at P= 10 kbar and T=>750°, followed by decompression probably during rifting and syn-metamorphic ophiolite emplacement resulting from processes during initiation and development of convergent plate junction located in SE Asia in late Jurassic- Cretaceous)

Brunnschweiler, R.O. (1978)- Notes on the geology of Eastern Timor. BMR Bull. Australian Geology Geophysics 192 (Crespin volume), p. 9-18.
(online at: https://d28rz98at9flks.cloudfront.net/68/Bull_192.pdf)
(Mainly critical review of E Timor mapping by Audley-Charles (1968). Much of what was mapped as Bobonaro melange is Late Triassic mudstone. Late Jurassic rocks also common. At least 3 different ages of 'block clays'; much of what was mapped as olistostrome is complexly thrusted sediment. Two types of Eocene limestones: (1) Early Eocene 'Coinassa Lst' with Orbitolites and Alveolina (= 'Same series' of Gageonnet and Lemoine 1958), (2) late Middle-Late Eocene Dartollu Lst. Evidence of Early and Late Tertiary thrusting phases in Timor, etc.)

Bucknill, M., B. Duffy, J. Noble & A. Berkovitch (2019)- What lies beneath? Prospecting for hydrocarbons under a metamorphic allochthon, Timor-Leste. 2nd Australasian Exploration Geoscience Conference, Perth 2019, Extended Abstracts, p. 1-5.
(online at: https://www.tandfonline.com/doi/abs/10.1080/22020586.2019.12073217)
(Interpretation of reprocessed 1994 seismic data, interpreting subsurface Lolotoi Metamorphic Complex as allochthonous unit. Suggesting 'It is thus near impossible to reconcile the Charlton (2002) Australian Basement model requiring a vertical displacement greater than 10 km with our well and outcrop-constrained interpretations'. (N.B.: re-interpretation of same data by Charlton et al. 2021; JTvG))

Burck, H.D.M. (1923)- Overzicht van de onderzoekingen der 2de Nederlandsche Timor-expeditie. In: H.A. Brouwer (ed.) 2e Nederlandsche Timor-Expeditie onder leiding van Dr. H.G. Jonker+, vol. I, Jaarboek Mijnwezen Nederlandsch Oost-Indie 49 (1920), Verhandelingen 4, p. 1-55.
('Overview of investigations of the 2nd Netherlands Timor Expedition'. W Timor localities sampled by the 2nd Dutch Timor expedition in January- May1916., Led by Prof. H.G. Jonker from TH Delft, assisted by L.J.C. van Es (Mijnwezen geologist) and H.D.M. Burck (TH Delft student). Main purpose was to collect Permian and Triassic fossils. Good documentation of fossil localities (Baoen/ Baung, Niki Niki, Basleo, Kapan, Noil Toko, Bitauni, Sufa, Atambua) (with little geology/ stratigraphy context): the fossil-rich blocks excavated here are probably all isolated blocks in melange; JTvG)

Burke, J.J. (1966)- On the occurrence of *Oklahomacrinus* in Ohio and Timor. Ohio J. Science 66, 5, p. 464-468.

(Delocrinus expansus Wanner from M Permian of Basleo, W Timor, re-assigned to Oklahomacrinus)

Cardoso, C., A. Freitas, O. Sarmento, N. Boavida, A. de Araujo, A. Soares, M. Mendonca & A.de Jesus Lira (2023)- Porosity analysis of Triassic sandstone rock implication for petroleum reservoir potential in Timor onshore. Timorese Academic J. Science and Technology 6, p. 205-215.
(online at: http://fect.untl.edu.tl/tajst_article-134-tp.html)
(Triassic Babulo (= Babulu) Fm and Foura Sst best potential petroleum reservoir rocks onshore Timor. Samples from Maubui, Cassa and Sahem River sections in S Timor Leste. Light gray micaceous sandstones 3m or more thick, interbedded with thin mudstone and silty shale layers. Porosities poor-fair (7-11%))

Carter, D.J. (1971)- Report on Suai Loro boreholes Nos. 1 & 2. Timor Oil Palaeontological Report 10, p.
(Unpublished micropaleontology report of oil exploration well near S coast of SW Timor Leste)

Carter, D.J. (1972)- Cota-Taci-1 Palaeontology report. Timor Oil Palaeontological Reports 15 & 16.
(Unpublished micropaleontology report of Cota Taci 1 hydrocarbon exploration well, Timor Leste)

Carter, D.J. (1973)- Report on borehole Betano No. 2. Timor Oil Palaeontological Report 20, p.
(Unpublished micropaleontology report of oil exploration well near S coast of Timor Leste)

Carter, D.J., M.G. Audley-Charles & A.J. Barber (1976)- Stratigraphical analysis of island-arc-continental margin collision in eastern Indonesia. J. Geological Society, London, 132, p. 179-198.
(Stratigraphic analysis of collision zone in Timor reveals pre-Pliocene deformation in allochthon elements before M Pliocene overthrusting onto Australian margin. Australian para-autochthon below thrust sheets not involved in pre-Pliocene deformations. Distinction of elements with different structural histories and opposite facies polarity permits identification of plate margin. Lowest thrust sheet part of Asian outer arc ridge, overthrust by fragments of continental margin metamorphic basement and volcanic-sedimentary cover. Model interprets progressive Mio-Pliocene collision between Australian margin and island arc migrating from SE Asia by spreading of Banda Sea. Asian arc was underthrust by Australian continental margin, but buoyancy restricted process to overthrusting slivers of rocks from trench and trench-arc gap)

Chamalaun, F.H. (1977)- Paleomagnetic evidence for the relative positions of Timor and Australia in the Permian. Earth Planetary Science Letters 34, 1, p. 107-112.
(Paleomag suggests pole from Cribas Fm redbeds very close to Australian P-Tr poles, so'autochthonous' Timor was part of Australia. Magnetic inclination places Timor at 34°)

Chamalaun, F.H. (1977)- Paleomagnetic reconnaissance result from the Maubisse Formation, East Timor and its tectonic implication. Tectonophysics 42, 1, p. T17-T26.
(Paleolatitude of 'allochthonous' Permian Maubisse Fm is 26°, indistinguishable from 'autochthonous' Permian Cribas Fm red beds, therefore not supporting Asian origin of Maubisse. Conclusions deemed unjustified by Wensink (1990, 1994) (possible alternative solution: Maubisse and Cribas are both allochthonous; JTvG))

Chamalaun, F.H. & A.E. Grady (1978)- The tectonic development of Timor: a new model and its implications for petroleum exploration. Australian Petroleum Exploration Assoc. (APEA) Journal, p. 102-108.
(Preferred tectonic model for Timor intermediate between Audley-Charles overthrust model and Hamilton accretionary wedge model: (1) initial collision/trench downwarp at ~15-10 Ma, creating Bobonaro melange; followed by (2) slab breakoff causing late, rapid uplift)

Chamalaun, F.H. & A.E. Grady (1978)- Timor tectonic development: new model and exploration implications. Oil and Gas Journal 76, 42, p. 114-116.
(Tectonic model without major allochthonous terranes and overthrusts would predict simpler structural geology and stratigraphic continuity between Timor and NW Shelf)

Chamalaun, F.H., K. Lockwood & A. White (1976)- The Bouguer gravity field and crustal structure of eastern Timor. Tectonophysics 30, p. 241-259.

(N-S gravity traverse from Betano to Dili in Timor Leste Strong 6 mGal/km gravity gradient at N coast, which is part of significant geophysical trend along Outer Banda Arc. Interpreted to be fault, separating oceanic in NW from continental crust in SE)

Chappell, J. & H.H. Veeh (1978)- Late Quaternary tectonic movements and sea level changes at Timor and Atauro Island. Geological Society of America (GSA) Bull. 89, p. 356-368.
(Atauro Island N of Timor has raised Quaternary coral reefs up to 500m)

Charlton, T.R. (1987)- The tectonic evolution of the Kolbano-Timor Trough accretionary complex, Indonesia. Ph.D. Thesis University of London, p. 1-374. *(Unpublished)*

Charlton, T.R. (1988)- Tectonic erosion and accretion in steady-state trenches. Tectonophysics 149, p. 233-243.
(Analysis of relations between rate of plate convergence, sedimentation rates and angle of decollement in subduction zones. Tectonic accretion where decollement steeper than outer trench slope, tectonic erosion where decollement shallower than outer slope dip. Applied to Timor Trough to demonstrate subduction has ceased)

Charlton, T.R. (1989)- Geological cross-section through the Timor collision complex, Eastern Indonesia. In: B. Situmorang (ed.) Proc. 6th Regional Conference Geology mineral hydrocarbon Resources of SE Asia (GEOSEA VI), Jakarta 1987, IAGI, p. 93-104.
(online at: https://www.iagi.or.id/web/digital/45/PIT-IAGI-1987-Paper-8.pdf)
(Cross-section across Timor collision zone with characteristics of subduction-accretion complex, but Timor Trough subduction trench has recently become inactive. Plate convergence being transferred to young zone of thrusting N of volcanic arc, with reverse sense of polarity. Accretionary complex morphology modified by sinistral wrench faulting. Kolbano area thrust-bounded repetitions of Cretaceous- Miocene of sediments accumulated at outermost edge of Australian NW Shelf (up to 9 imbricates onshore?))

Charlton, T.R. (1989)- Stratigraphic correlation across an arc-continent collision zone: Timor and the Australian Northwest Shelf. Australian J. Earth Sciences 36, p. 263-274.
(online at: https://www.researchgate.net/publication/252527289_Stratigraphic_correlation_across_an_arc-continent_collision_zone_Timor_and_the_Australian_Northwest_Shelf)
(Facies of Triassic- Neogene series of imbricate stack of Kolbano foldbelt, SW Timor, is deep to very deepwater, suggesting it represents outermost edge of pre-collisional Australian margin. Similarities include ?Early Jurassic redbeds, Oxfordian 'breakup unconformity' with Early Cretaceous missing, etc. Implication is that N Timor is either block that rifted off Australia, then collided in Pliocene (Barber 1979) or partly rifted marginal plateau off NW shelf)

Charlton, T.R. (2001)- The petroleum potential of West Timor. Proc. 28th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 303-317.
(online at: https://www.researchgate.net/publication/323148722_The_Petroleum_Potential_of_West_Timor)
(Timor island has numerous oil and gas seeps, and contains high-quality hydrocarbon source rocks, but island widely considered to have only moderate petroleum potential due to its structural complexity, but complexity is limited to shallow structural levels, and below this simpler structural style predominates. Kolbano area of SW Timor interpreted to be underlain by large, simple inversion anticline. Banli-1 penetrated flank of this structure, below prospective crest)

Charlton, T.R. (2002)- The petroleum potential of East Timor. Australian Petroleum Production Exploration Association (APPEA) J. 42, p. 351-369.
(Hydrocarbon prospectivity of E Timor widely considered to be only moderate due to Timor island's complex structure, but here interpreted as having higher potential in large, simple inversion structures below shallow complexly folded thrust/ melange terain)

Charlton, T.R. (2002)- The structural setting and tectonic significance of the Lolotoi, Laclubar and Aileu metamorphic massifs, East Timor. J. Asian Earth Sciences 20, 7, p. 851-865.

(Two types of metamorphic complexes on Timor: (1) Australian continental basement (Lolotoi, Lachlubar), (2) allochthonous basement derived from Banda forearc (Mutis in W Timor, Aileu in E Timor; with inverted metamorphic gradients))

Charlton, T.R. (2003)- The petroleum potential of sub-thrustbelt inversion anticlines in the Banda forearc. Indonesian Petroleum Association (IPA) Newsletter, March 2003, p. 22-27.

Charlton, T.R. (2004)- The petroleum potential of inversion anticlines in the Banda Arc. American Assoc. Petroleum Geol. (AAPG) Bull. 88, 5, p. 565-585.
(Mainly on structural style of Timor. Banda forearc is fold- thrust belt, with imbricated outer edge of Australian continent, overlain locally by fragments of precollisional oceanic forearc, and is established petroleum province in Seram. Structural complexity overstated. Basement-involved inversion structures in deeper parts of collision complex. Inverted graben basins filled with Permian-Jurassic continental margin sequences, including Late Triassic- E Jurassic source rocks and potential reservoirs, sealed by M-L Jurassic shales. Jurassic shales decollement separates shallow-level structural complexity from deeper simpler structural style of large inversion anticlines)

Charlton, T.R. (2020)- 2507-131 Gunung Ranac 1:25,000 Geological map sheet. Data compilation and interpretation *(Unpublished) (online at: www.researchgate.net/project/Geological-mapping-of-Timor-Leste/update/61b1fb42d248c650edb7b87b)*
(North-Central Timor Leste map sheet with Cribas anticline, cored by Permian and Triassic sediments)

Charlton, T.R. (2020)- 2406-523 Suai 1:25,000 Geological Map sheet. Data compilation and interpretation *(Unpublished) (online at: www.researchgate.net/project/Geological-mapping-of-Timor-Leste/update/61b1fb42d248c650edb7b87b)*
(Southern Timor Leste map sheet with Suai oil exploration wells)

Charlton, T.R. (2024)- Metamorphic complexes in Timor: no field or drilling evidence for a fundamental basal thrust? Manuscript, 36p.
(preprint online at: https://www.researchgate.net/publication/386075851_Metamorphic_complexes_in_Timor_no_field_or_drilling_evidence_for_a_fundamental_basal_thrust)
(20 years of of geological fieldwork at 79 Lolotoi metamorphic complex boundary localities on Timor failed to confirm the commonly suggested basal thrust plane or structual melange complex under 'Banda Terrane' Lolotoi metamorphic complexes)

Charlton, T.R. (2025)- Notes on the geology of Timor. Part 1: Introduction to a stratigraphic framework for Timor. Slide Presentation, p. 1-18.
(online at: https://www.researchgate.net/publication/394432269_Notes_on_the_geology_of_Timor_Part_1_Timor_lithostratigraphy)
(Broad overview of Permian-Recent lithostratigraphic schemes for West Timor and Timor Leste)

Charlton, T.R. (2025)- Notes on the geology of Timor. Part 2. The pre-Permian Slide Presentation, p
(online at: https://www.researchgate.net/profile/Tim-Charlton-2/publication/394432422_Notes_on_the_geology_of_ Timor_Part_2_The_pre-Permian)

Charlton, T.R. (2025)- Notes on the geology of Timor. Part 3. The Permian (stratigraphy). Slide Presentation, p. 1-40.
(online at: https://www.researchgate.net/publication/394432328_ Notes_on_the_geology_of_Timor_Part_3_The_Permian_stratigraphy)
(Review of Permian stratigraphy of Timor. Two main groups, of parallel ages: Maubisse Gp (limestone with fusulinds and (pillow-)basaltic volcanics) and Akraun Fm (= Atahoc- Cribas Fms) basinal clastics. Etc.)

Charlton, T.R. (2025)- Notes on the geology of Timor 4. The Triassic. Slide Presentation, p. 1-39.
(online at: www.researchgate.net/publication/395303812_Notes_on_the_geology_of_Timor_4_The_Triassic)

(Elegant review of lithostratigraphy (many formation names))

Charlton, T.R. (2025)- Notes on the geology of Timor 5. The Jurassc. Slide Presentation, p. 1-21.
(online at: https://www.researchgate.net/publication/396245974_Notes_on_the_geology_of_Timor_5_The_Jurassic)

Charlton, T.R. (2026)- Notes on the geology of Timor 7. The Paleolo Association. Slide Presentation, p. 1-29.
(online at: https://www.researchgate.net/publication/399755403_Notes_on_the_geology_of_Timor_7_The_Palelo_Association)
(Palelo/ unit (= Banda Terrane) generally regarded as allochthonous Sundaland margin unit, but here suggested to have formed at originated on outer edge of the Australian continental margin)

Charlton, T.R. (2026)- Notes on the geology of Timor 8. The syn-to post-orogenic succession. Slide Presentation, p. 1-23.
(online at: https://www.researchgate.net/publication/399950664_Notes_on_the_geology_of_Timor_8_The_syn-to_post-orogenic_succession)
(Review of Late Pliocene Viqueque Formation of marine post-orogenic siliciclastic deposits, overlying E Pliocene Butu Putih Fm pelagic marls. Reflect uplift and erosion of the Timor orogenic complex)

Charlton, T.R. (2026)- Notes on the geology of Timor 9. The Bobonaro Complex, melange and broken formation.. Slide Presentation, p. 1-26.
(online at: https://www.researchgate.net/publication/400544660_Notes_on_the_geology_of_Timor_9_The_Bobonaro_Complex_melange_and_broken_formation)

Charlton, T.R., A.J. Barber & S.T. Barkham (1991)- The structural evolution of the Timor collision complex, Eastern Indonesia. J. Structural Geology 13, 5, p. 489-500.
(New Timor structural evolution model combining element of previous three Timor models; foldbelt as rel. simple progressive thrusting of Australian crustal elements, starting in N at 8 Ma)

Charlton, T.R., A.J. Barber, R.A. Harris, S.T. Barkham, P.R. Bird, N.W. Archbold, N.J. Morris, R.S. Nicoll, H.G. Owen, R.M. Owens, J.E. Sorauf, P.D. Taylor, G.D. Webster & J.E. Whittaker (2002)- The Permian of Timor: stratigraphy, palaeontology and palaeogeography. J. Asian Earth Sciences 20, p. 719-774. *(online at: www.academia.edu/63258400/The_Permian_of_Timor_stratigraphy_palaeontology_and_palaeogeography)*
(Extensive compilation of Timor Permian stratigraphy and paleontology, with specialist reviews of brachiopods, bryozoans, cephalopods, conodonts, corals, echinoderms, foraminifera, molluscs, trilobites, etc. Permian sequences deposited on Australian continental basement which was undergoing extension, with basaltic volcanism. Carbonates of Maubisse Fm deposited on horst blocks and volcanic highs, clastic sediments of Atahoc and Cribas Fms deposited in grabens)

Charlton, T.R., A.J. Barber, A.J. McGowan, R.S. Nicoll, E. Roniewicz, S.E. Cook, S.T. Barkham & P.R. Bird (2009)- The Triassic of Timor: lithostratigraphy, chronostratigraphy and palaeogeography. J. Asian Earth Sciences 36, p. 341-363.
(online at: www.researchgate.net/publication/222896332_The_Triassic_of_Timor_Lithostratigraphy_c Etc.)
(Overview of Triassic successions of Timor, exposed in fold-and-thrust belt and melange complex. Three formal lithostratigraphic units defined previously (Niof, Aitutu and Babulu Fms), with a fourth, Wai Luli Fm, primarily Jurassic in age but extending down into Triassic. Triassic extension not associated with major volcanism, unlike Early Permian extension)

Charlton, T.R. & D. Gandara (2012)- Structural-stratigraphic relationships at the boundary of the Lolotoi Metamorphic Complex, Timor-Leste: field evidence against an allochthonous origin. In: P. Noguera (ed.) 1st Int. Congress of Geology of Timor-Leste, Dili 2012, p. 41-44. *(Extended Abstract) (online at: https://dspace.uevora.pt/rdpc/bitstream/10174/8197/1/1%C2%BA%20Congresso%20Internacional%20de%20Geologia%20de%20Timor.pdf)*

(Results of new fieldwork at several Lolotoi Complex massifs ofTimor Leste suggests Australian continental basement origin for complex. S front of Lolotoe metamorphic massif controlled primarily by down-to-S normal faults, not N-dipping thrust front, and metamorphics extend to depth of 2805m at TD in Cota Taci-1 well in Suai Basin. Stratigraphic contacts observed between Lolotoi Complex and Eocene Dartollu Fm, but also between Lolotoi Compex and Permian Maubisse Fm. One outcrop of Dartollu Fm with reworked fragments of Maubisse Fm crinoid limestone clasts and porphyritic volcanics. Similar relationships at Legumau Range)

Charlton, T.R. & D. Gandara (2014)- The petroleum potential of onshore Timor-Leste. Proc. 38th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA14-G-017, p. 1-7.
(Brief review of petroleum prospectivity in Mesozoic of 6 areas of onshore Timor Leste. Two new lithostratigraphic units recognized: (1) Foura Sst, thick-bedded but fine-grained sandstone of probable E Jurassic age; appears to interdigitate with shales of Wai Luli Fm and possibly correlative to 'Plover Sst' in Banli 1 well of SW Timor; (2) Late Jurassic Tchinver Shale, 100-200m thick shale section, with Belemnopsis-type belemnites, disconformably over shales-thin sandstones of Wai Luli Fm; with source rock/seal potential)

Charlton, T.R., D. Gandara & N. da Costa Noronha (2017)- TIMOR GAP's onshore Block: a preliminary assessment of prospectivity in onshore Timor-Leste. In: SEAPEX Exploration Conference 2017, Singapore, Session 4, p. 1-30. *(Abstract + Presentation)*
(Onshore block in SW part of Timor Leste now held by national oil company Timor Gap EP. 18 exploration wells drilled between 1960-1973: ten with hydrocarbons, two (Matai-1/-1A and Cota Taci-1) tested oil in subcommercial quantities. At least 37 surface hydrocarbon seeps (14 oil, 23 gas) across block. Gas from seeps both high-mature thermogenic (from Permian?) and biogenic. Triassic calcareous restricted marine shale likely source for all Timor oils. Likely subthrust inversion anticlines of Permo-Triassic rifts)

Charlton, T.R., D. Gandara, D. Freitas, M. Guterres & N. da Costa Noronha (2018)- TIMOR GAP's onshore Block: a preliminary assessment of prospectivity in onshore Timor-Leste. In: PEGSB SEAPEX Asia Pacific E&P Conference, London, p. 1-8.
(Review of 3 onshore oil exploration blocks in SW Timor Leste: A- Suai (Suai Late Miocene - Recent syn-orogenic basin in 'Banda Terrane' basement), C- Betano-Same, and Block B)

Charlton, T.R., D. Gandara, D. Freitas, M. de Araujo, M. Guterres, F. Tilman, L. Fernandes et al. (2021)- Mid-crustal detachment beneath southern Timor-Leste: seismic evidence for Australian basement in the Timor collision complex (and implications for prospectivity). Proc. 45th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA21-G-98, p. 1-12.
(Pertamina-Mobil 1994 seismic data over SW Timor Leste shows two regional seismic reflectors: (1) 'Red' reflector, deepening S-ward, with block-faulted morphology, corresponding to top of "Lolotoi" metamorphic basement; (2) deeper 'Blue' horizon at which bases of normal faults merge, also deepens S-ward, has geometry of mid-crustal extensional detachment. No indications for thrusting on seismic section below Red horizon (although surface geology over much of Lolotoi Complex shows thin-skinned fold-thrust belt). Lolotoi Complex interpreted as Australian continental basement underthrust beneath S Timor collision complex)

Charlton, T., D. Gandara, M. Guterres, D. Freitas & N da Costa Noronha (2020)- TIMOR GAP's lithostratigraphic framework for Timor-Leste. Unpublished Report, p. 1-84. *(online at: https://www.researchgate.net/publication/374386686_Lithostratigraphic_framework_for_Timor-Leste)*
(Updated December 2022. Detailed first pass of a Timor Leste lithostratigraphic framework, with numerous references to equivalent formations in W Timor (many new names))

Charlton, T.R. & Suharsono (1990)- Mesozoic-Tertiary stratigraphy of the Kolbano area, southern West Timor. Bull. Geological Research Development Centre (GRDC) 14, p. 38-58.
(Kolbano complex interpreted as accretionary complex. Late Jurassic- Miocene accumulated on outermost edge of Australian NW Shelf. Possible unconformity at base Ofu Fm deepwater marls, with Eocene planktonics but also abundant reworked Cretaceous and Paleocene planktonics)

Charlton, T.R. & A. Titu-Eki (2023)- 'Banda Terrane' basement and cover in the Noil Meto River section, southern West Timor (Timor Barat, Nusa Tenggara Timur, Indonesia). Berita Sedimentologi 49, 1, p. 1-24.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/398/378)
(New outcrop of Mutis metamorphic complex from Noil Meto River, ~7km S of Soe, SW Timor. Mutis Complex overlain by Cretaceous Haulasi Fm (= upper Palelo Group), most likely unconformable on metamorphics. Permian Maubisse Fm may overlie Mutis Complex with unresolved stratigraphic or structural contact. First record of Mutis Complex and Palelo Group S of Central Basin. These elements of Banda Terrane (widely considered allochthonous 'Asiatic' elements), overthrust by Triassic-Jurassic Aitutu and Wai Luli Fms of Australian continental margin succession)

Charlton, T.R. & D. Wall (1994)- New biostratigraphic results from the Kolbano area, southern West Timor: implications for the Mesozoic-Tertiary stratigraphy of Timor. J. Southeast Asian Earth Sciences 9, 1-2, p. 113-122. *(online at: https://www.academia.edu/27703759/New_biostratigraphic_results_from_the_Kolbano_area_southern_West_Timor_Implications_for_the_Mesozoic_Tertiary_stratigraphy_of_Timor)*
(On Kolbano area Late Jurassic- Neogene stratigraphy and dinoflagellate, forams, nannofossil contents of selected samples. Youngest sediments involved in Kolbano foldbelt thrusting N18-N19/20, latest Miocene- earliest Pliocene (but nothing younger than N15 suggested by Keep and Haig 2010))

Chiang, H.W., R.A. Harris, C. Prasetyadi, C.C. Shen, T.C. Chiu, N.L. Cox & Y.G. Chen (2010)- Th-230 dates of MIS 5e coral terraces in Kisar Island, Eastern Indonesia. EGU General Assembly, Vienna, Conference Abstracts 12, p. 13467. *(Abstract)*
(online at: http://adsabs.harvard.edu/abs/2010EGUGA..1213467C)
(New 230Th dates of raised Quaternary coral terraces at Kisar suggest ages of ~122 ka and minimum uplift rate of 0.1 m/kyr. On N coast of Timor-Leste MIS 5e terraces reach 55m high, with uplift rate of ~0.4 m/kyr. No remnant Holocene fringe reefs around Kisar Island, also suggesting rel. low recent active tectonics at Kisar)

Clowes, E. (1997)- Micropalaeontological analysis of the Kolbano sequence (Jurassic to Pliocene), West Timor and its radiolarian fauna. Ph.D. Thesis, University College London, London, p. 1-443. *(Unpublished)*
(online at: https://discovery.ucl.ac.uk/id/eprint/10104677/)
(Detailed descriptions of SW Timor Kolbano foldbelt Early Cretaceous- E Miocene radiolarian-rich deep-water pelagic facies. Nakfunu Fm dated as Valanginian-Aptian. Albian-Coniacian hiatus. Ofu Fm mainly Santonian-Maastrichtian. Early Cretaceous species dominated by endemic species known only from high S latitudes, but Tethys species present as well. Aptian-Albian more common Tethys species)

Cockcroft, P., C. Kenyon & W. Spencer (2005)- A journey into East Timor's exploration history. Proc. 2005 SE Asia Petroleum Exploration Society (SEAPEX) Conference, Singapore, p. 1-64. *(Abstract + Presentation)*
(Five phases of oil-gas exploration in Timor Leste since 1893. Oil-gas seeps known since 18th century, mainly along S coast, and exploited by local communities.~1945-1947 Royal Dutch-Shell fieldwork. Late 1950 s-1960s wells by Timor Oil at Aliambata, Ossulari, Matai, Tafara, Suai, etc.1990s Mobil Oil field study, 1993 Amoseas Banli 1 well. Etc.)

Cook, S.E. (1984)- Geochemical evaluation of outcrop samples from Timor, Indonesia with geological notes. University of London, Geological Research in SE Asia, Report 27, p. 1-37. *(Unpublished)*
(16 outcrop samples from Permian and Triassic of Kekneno window analyzed for TOC (generally lean, woody and inertinite) and thermal maturation (generally immature- mature))

Cook, S.E. (1986)- Triassic sediments from East Kekneno, West Timor. Ph.D. Thesis, University of London, p. 1-384. *(Unpublished)*
(Facies trends and current directions suggest Triassic turbiditic sediments in NW Timor derived from clastic source in easterly direction. Sandstone composition less mature than in most age-equivalent Australia NW shelf well samples. Heavy mineral assemblages suggest some similarities with two samples from Sahul Shoals 1 well; may be from similar source)

Cook, S.E., K. Hasan, A. Said & S. Hidayat (1989)- Stratigraphic sequences in deep-water Triassic sediments from Timor. In: B. Situmorang (ed.) Proc. 6th Regional Conference Geology mineral hydrocarbon resources of SE Asia (GEOSEA VI), Jakarta 1987, IAGI, p. 25-41.
('Para-autochthonous' deep-water M-L Triassic in E Kekneno area, W Timor. Three parallel sequences of same age, dut different stratigraphies. New formation names: Niof Fm for fine-grained slope deposits, Babulu Fm for base-of-slope turbidites.With bivalves Halobia and Daonella. Turbidite sole marks suggest dominant flow direction from ENE to WSW. Main deformation NNE-to-SSW low-angle thrusting)

Cook, S.E., K. Hasan, A. Said & S. Hidayat (1990)- Stratigraphic sequences in deep-water Triassic sediments from Timor. J. Southeast Asian Earth Sciences 4, p. 74 *(Abstract only)*
(E Kekneno area of W Timor with 11 units in Triassic, representing 3 separate sequences, all deep water. Sediment source predominantly from NNE)

Costa, J., S. Kiyokawa, T. Ito, Y. Tsutsumi & V. Vilanova (2020)- U-Pb detrital zircon age dating of central portion of East Timor: estimate stratigraphy of the Aileu Formation and depositional ages and source of sediments. Timorese Academic J. Science and Technology 3, p. 93-104.
(online at: http://fect.untl.edu.tl/tajst_article-53-tp.html)
(LA-ICP-MS U-Pb detrital zircon analyses of sandstones in central portion E Timor:(1) Permian Aileu Fm meta-sandstones (5 age groups: main peak ~283-290 Ma= Artinskian (37%) and significant old Paleoproterozoic peak around 1780-1823 Ma. Clastic source of Aileu Fm mainly from Sula Spur fragment; (2) Red Maubisse Fm sandstone with E-M Triassic zircons (245 Ma) (= not same as Maubisse Fm red limestones with rich Permian marine faunas?; JTvG), (3) Barique Fm arc volcanoclastics M Eocene (34-41 Ma))

Cotelo Neiva, J.M. (1955)- Alguns marmores do Timor Portugues. Garcia de Orta 3, 2, p. 205-209.
('Some marbles from Portuguese Timor'. With some chemical analyses)

Cox, N. (2009)- Variable uplift from Quaternary folding along the Northern coast of East Timor based on U-series age determinations of coral terraces. M.Sc. Thesis, Brigham Young University, p. 1-135.
(online at: https://scholarsarchive.byu.edu/cgi/viewcontent.cgi?article=2680&context=etd)
(Mapping of uplifted Pleistocene marine coral reef terraces along ~180 km of N coast of E Timor. Highest terrace/platform elevations of ~500-650m asl. Above Miocene synorogenic material. Mean uplift of 0.6m/ ka for last 150,000 yrs. Uplift likely associated with folding above N-directed thrust faults)

Cox, N., R. Harris & D. Merritts (2006)- Quaternary uplift of coral terraces from active folding and thrusting along the northern coast of Timor-Leste. EOS Transactions AGU, 87, 52, Fall Meeting Suppl., p. *(Abstract only)*
(Number of major emergent coral terraces along N coast Timor-Leste increases from 2 to 25 over 150 km from C to E Timor-Leste. Vertical displacement increases from <0.3 in W to 1.0-1.5 mm/yr in E. Both erosional (regressional) and depositional terraces. Active uplift associated with N-ward movement along retro-wedge thrust faults)

Crespin, I. (1956)- Micropalaeontological examination of rock specimens from Portuguese Timor. Bureau Mineral Resources Geology Geophysics (BMR), Record 1956/65, p. 1-3.
(online at: www.ga.gov.au/products/servlet/controller?event=GEOCAT_DETAILS&catno=10139)
(Brief report on 8 samples from Timor Leste (presumably Timor Oil Ltd outcrop samples). Include Late Eocene larger foram limestone with common Pellatispira, Biplanispira, Discocyclina from localities Suai and Ranuc)

Crespin, I. (1959)- Micropalaeontological report on rock samples from Portuguese Timor. Bureau Mineral Resources Geology Geophysics (BMR), Record 1959/92, p. 1-3.
(online at: www.ga.gov.au/products/servlet/controller?event=GEOCAT_DETAILS&catno=10523)
(Report on 6 samples from Timor Leste (Timor Oil Ltd outcrop samples). Samples from tuffaceous breccia near base of fatu/ ophiolite at Mota Cena (Barique) contains limestone boulders with M-U Eocene larger forams (Nummulites, Discocyclina). Sample from matrix of Bibileu block clay N of Fatu Lulic, below Viqueque Fm, is of M Eocene age)

Crespin, I. & D.J. Belford (1959)- Micropalaeontology of further rock samples from Portuguese Timor. Bureau Mineral Resources Geology Geophysics (BMR), Record 1959/118, p. 1-3.
(online at: www.ga.gov.au/products/servlet/controller?event=GEOCAT_DETAILS&catno=10548)
(Report on 7 more samples from Timor Leste (Timor Oil Ltd outcrop samples). Mainly Cretaceous (Albian-Turonian) deep water shale and radiolarite from E of Betano Landing)

Cross, I. (1990)- Hydrocarbon potential of Timor laid bare. Petromin, October 1990, p. 40-44.

Cross, I. (2000)- The search for oil and gas on East Timor. Petroleum Exploration Society Great Britain (PESGB) Newsletter, February 2000, p. 62-66.

Crostella, A.A. & D.E. Powell (1975)- Geology and hydrocarbon prospects of the Timor area. Proc. 4th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 149-171.
(Exploration history of Timor, etc. Consider Timor sediments all parts of Australian margin)

Da Costa, E.F., A.L. Guterres de Sa Benevides & U. Chwae (2012)- Melange and thrust geometry of the western Covalima District, Timor Leste. In: P. Noguera (ed.) 1st Int. Congress of Geology of Timor-Leste, Dili 2012, p. 112-113. *(Abstract only; no figures) (online at: https://dspace.uevora.pt/rdpc/bitstream/10174/8197/1/1%C2%BA%20Congresso%20Internacional%20de%20Geologia%20de%20Timor.pdf)*
(W part of Covalima District, SW Timor-Leste, with sedimentary melange, with very low dip and with pre-Permian-Miocene megablocks brought up from depth, including Lolotoi Complex schist and metavolcanics in Fohorem Subdistrict, M-L-Triassic Aitutu Fm (limestone, mudstone, sandstone' between Mt. Maubesse and Mt. Nanu, and U Babulu Fm (mudstone, limestone). Melange might be correlated to Bobonaro Fm, previously considered to be of Miocene age, but possibly younger. Melange matrix variecolored scaly clay, with unsorted fragments or huge boulders, and with sheared cleavage indicating movement to SE. Melange is shear-zone melange. not diapiric melange. Five limestone klippes, regarded as allochthonous nappe)

Da Costa Monteiro, F. (2003)- Late Triassic strata from East Timor: stratigraphy, sedimentology and hydrocarbon potential. M.Sc. Thesis, University of Auckland, p. 1-115. *(Unpublished)*
(With palynology analyses by R. Helby)

Da Costa Monteiro, F., J.A. Grant-Mackie, B. Ricketts & B. Woods (2003)- Some Late Triassic rocks in Timor Leste. In: Int. Conf. Opportunities and challenges for oil & gas & mining sectors in Timor-Leste, Dili 2003, p. 1-31.

Da Costa Monteiro, F. & V. da Costa Pinto (2003)- Exploring Timor-Leste- minerals potential. Pacific Economic Cooperation Council-PECC Minerals Network, Brisbane, Queensland, p. 1-16. *(online at: https://www.pecc.org/resources/minerals-a-energy/1264-exploring-timor-leste-minerals-potential-paper/file)*
(Mainly summary of UN ESCAP-(2003) report. Main metallic minerals in Timor-Leste are gold (mainly alluvial deposits probably derived from quartz veins in crystalline schist of Aileu Fm), copper (in allochthonous ophiolite units in north), silver, manganese (interbedded with Mesozoic deep marine red shale), chromite (in ophiolites))

Da Costa Monteiro, F., B. Ricketts, J.A. Grant-Mackie & B. Woods (2002)- Late Triassic strata from East Timor-stratigraphy, sedimentology and hydrocarbon potential. Geological Society New Zealand, Annual Conference Abstracts, p. 17.
(E Timor Late Triassic flysch-like interbedded sandstone- shale in lower part; upper part mainly calcarenites, massive sandstones and polymict conglomerates. Locally, Wailuli Fm, a name applied to E-M Jurassic rocks based on ammonites and belemnites, extends down into Late Triassic. Much of Wailuli Fm is Late Triassic, with Carnian- Norian age ammonites (Juvavites, etc.) and Halobia in marls and limestones. Babulu Fm, defined in W Timor as Late Triassic flysch facies, can be extended into E Timor to cover most rocks previously mapped as Wailuli Fm. Abundant organic matter may be source for hydrocarbons)

Davydov, V.I., D.W. Haig & E. McCartain (2013)- A latest Carboniferous warming spike recorded by a fusulinid-rich bioherm in Timor Leste: implications for East Gondwana deglaciation. Palaeogeogr. Palaeoclim. Palaeoecology 376, p. 22-38. *(online at: https://www.researchgate.net/publication/256822315_A_latest_Carboniferous_warming_spike_recorded_by_a_fusulinid-rich_bioherm_in_Timor_Leste_Implications_for_East_Gondwana_deglaciation)*
(Lensoidal limestone body of Maubisse Fm near Kulau village in central highlands of Timor Leste is bioherm with massive lower unit, including reef framework at base, and bedded grainstone upper unit. Bioherm developed on basalt substrate in warm shallow water. Fusulinid foraminifera including Schwagerina spp. and Eostaffella suggest latest Carboniferous (-earliest Permian) age. Kulau bioherm is oldest unit recognized in Maubisse Fm of Timor. Also suggest subtropical environment at paleolatitude of ~40° S, at N margin of Gondwana (where E Permian is glacial-dominated) (Authors do not consider previous interpretations that Maubisse Fm may be 'allochthonous' (Intra-Tethys oceanic arc or Sundaland margin), and not part of Australian margin; JTvG))

Davydov, V.I., D.W. Haig & E. McCartain (2014)- Latest Carboniferous (late Gzhelian) fusulinids from Timor Leste and their paleobiogeographic affinities. Journal of Paleontology 88, 3, p. 588-605.
(Uppermost Gzhelian (possibly lowermost Asselian) 9-24m thick bioherm on basalt near Kalau, 6 km WNW of Maubisse, in highlands of Timor Leste. With abundant foraminifera belonging to 17 genera (incl. fusulinids Ozawainellidae, Schubertellidae, Schwagerinidae, etc. Two new Schwagerina species: S. timorensis and S. maubissensis in oldest carbonate unit recorded frome Maubisse Fm. Also Eostaffella spp., Schellwienia spp. Timor was in N part of N-S East Gondwana rift system along which W margin of Australia later developed. Timor fauna most closely related to faunas from S China and Changning-Menlian region of Yunnan)

De Azeredo Leme, J. (1963)- The eastern end geology of Portuguese Timor (a preliminary report). Garcia de Orta (Lisboa) 11, 2, p. 379-388.

De Azeredo Leme, J. (1968)- Breve ensaio sobre la geologia da provincia de Timor. Junta de Investigacoes do Ultramar, Curso de Geologia do Ultramar, Lisbon, 1, p. 105-161.
('Brief overview of the geology of the province of Timor'. Principal publication on geology of East Timor during Portuguese colonial time. In Portuguese)

De Azeredo Leme, J. & A.V.P. Coelho (1962)- Sombre una rocha granitoide da parte oriental da Ilha de Timor. Garcia de Orta (Lisboa) 10, 2, p. 407-410.
('On a granitoid rock from the eastern part of Timor island')

De Azeredo Leme, J. & A.V.P. Coelho (1962)- Geologia do enclave de Oecusse (Provincia de Timor). Garcia de Orta (Lisboa) 10, 3, p. 553-566.
('Geology of the Ocussi enclave, Timor'. Occurrence of U Triassic and Tertiary sediments and igneous rocks)

De Beaufort, L.F. (1923)- On a collection of Upper Cretaceous teeth and other vertebrate remains from a deep sea deposit in the island of Timor. In: H.A. Brouwer (ed.) 2e Nederlandsche Timor-Expeditie onder leiding van Dr. H.G. Jonker+, vol. I, Jaarboek Mijnwezen Nederlandsch Oost-Indie 49 (1920), Verhandelingen 4, p. 57-70.
(Decalcified Elasmobranchii shark teeth and reptile teeth from U Cretaceous oceanic red clays with manganese nodules from Niki Niki area, SW Timor (abyssal deposits originally described and recognized by Molengraaff, 1920). Overlie thin-bedded Late Triassic limestone with Halobia. Locality is at NW margin of Kolbano foldbelt)

De Bruijn, H. (1869)- Ontwerp van kopermijn-ontginning op het eiland Timor, 2nd Ed., De Breuk & Smits, Leiden, p. 1-74.
('Design of copper mine exploitation on the island Timor'. On (vague unconfirmed reports of) occurrences of copper ore (malachite) reported by Macklot (1828 trip with S. Muller; 1830 unpublished report). Concession for copper mining issued to J.S. Crawfurd in 1868 in Timor Leste near Atapupu. In brochure, De Bruijn is looking for investors (copper occurrences on Timor were later confirmed by Jonker (1873) and 't Hoen and Van Es (1928), butall deemed non-commercial; associated with serpentinites)

De Bruyne, D.L. (1941)- Sur la composition et la genese du basin central de Timor. Ph.D.Thesis University of Amsterdam, p. 1-98.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:046873000:00001)
(Also in H.A. Brouwer (ed.) Geological expedition of the University of Amsterdam to the Lesser Sunda Islands, III, p. 135-238) ('On the composition and genesis of the Central basin of Timor'. Mainly on the Neogene deposits of Central Basin of W Timor. Small outcrops of Late Eocene reefal limestones with Discocyclina, Nummulites and Pellatispira. 'Early Miocene' calcareous conglomerates with schist fragments and Spiroclypeus (probably latest Oligocene 'Cablac Limestone' equivalent?; see also Marks 1954, JTvG), suggesting Late Oligocene uplift-erosion event? Pliocene Globigerina marls)

De Marez Oyens, F.A.H. Weckherlin (1933)- On *Paralegoceras sundaicum* Haniel and related forms. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 36, 1, p. 88-98.
(online at: https://dwc.knaw.nl/DL/publications/PU00016378.pdf)
(Six species of Permian ammonite Paralegoceras were erected by Smith (1927) from specimens in Jonker collection from Timor. All are here believed to be variations of Paralegoceras sundaicum Haniel)

De Marez Oyens, F.A.H. Weckherlin (1938)- Preliminary note on the occurrence of a new ammonoid fauna of Permian age on the island of Timor. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 41, 10, p. 1122-1126.
(online at: https://dwc.knaw.nl/DL/publications/PU00017273.pdf)
(Brief listing of 23 Permian ammonite species from tuffaceous marls of new locality Tae Wei, 5 km NE of Basleo. Thought to be stratigraphically transitional between known Basleo and Bitauni faunas (probably Roadian/ Wordian= early Middle Permian). Incl. Agathiceras brouweri, A. cf. sundaicum, Popanoceras, Metalegoceras, Sicanites, Parapronorites, etc.)

De Marez Oyens, F.A.H. Weckherlin (1940)- Neue Permische Krinoiden von Timor, mit Bemerkungen uber deren Vorkommen im Basleogebiet. In: H.A. Brouwer (ed.) Geological Expedition of the University of Amsterdam to the Lesser Sunda Islands, etc., 1937, Noord Hollandsche Publ., Amsterdam, 1, p. 285-348.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:046046000:00009)
('New Permian crinoids from Timor, with remarks on their occurrence in the Basleo area'. NW of Basleo Permian limestones generally thin lenses, associated with marls and common diabase with tuffs, coarse conglomerates with brachiopods. Marls locally rich in crinoids. In some areas this Permian adjacent to deep marine Cretaceous with manganese nodules and fish teeth)

De Marez Oyens, F.A.H. Weckherlin (1940)- *Platycrinus tuberculatus* Oyens, a correction. Geological Magazine 77, 3, p. 253-254.
(Proposes to replace name Platycrinus tuberculatus Oyens for a Permian crinoid, from Basleo, Timor, with Platycrinus wrighti nov. nom, as P. tuberculatus has already been used)

De Marez Oyens, F.A.H. Weckherlin (1941)- Over het voorkomen van *Fusulina*-kalken in het Basleo gebied. Handelingen 28th Nederlandsch Natuur- Geneeskundig Congres, Utrecht, p. 240-242.
('On the occurrence of Fusulina limestones in the Basleo area'. Loose blocks of fusulinid limestones in Noil Boenoe river deposits. In Noil Toeke in Permian limestones that are probably remnants of once more widely distributed thrust sheet over Mesozoic rocks. Timor island has two drainage divides, a northern one over Fatu Leo, Mutis Mt, etc., and southern one along Kolbano thrust belt, which may have formed two parallel island chains like Tanimbar Islands today)

Demouchy, S., F. Barou, A. Ishikawa, E. Gardes & A. Tommasi (2024)- Microstructures, hydrogen concentrations, and seismic properties of a tectonically exhumed sliver of oceanic mantle lithosphere, Moa Island, Timor-Tanimbar outer-arc, eastern Indonesia. Tectonophysics 887, 230443, p. 1-15.
(online at: https://www.sciencedirect.com/science/article/pii/S0040195124002452)
(Kerbau and Kaiwatu peridotite massifs outcropping on Moa Island (Leti archipelago) are tectonically exhumed slivers of Asia Plate (Banda Sea) oceanic lithospheric mantle. Petrophysics and microstructures of peridotites (harzburgite, lherzolite) (not sure what it means for local geology: JTvG)

De Oliveira, G.G.A. (2012)- Cartografia e estrutura da regiao oeste do anticlinal de Cribas. Implicacoes para a genese de hidrocarbonetos. M.Sc. Thesis, Evora University, Portugal, p. 1-94. *(in Portuguese; Unpublished)*
(online at: https://dspace.uevora.pt/rdpc/handle/10174/15182)
('Mapping and structure of the western area of the Cribas anticline; implications for hydrocarbon generation'. W Cribas anticline three lithotectonic units: (1) allochthonous Lolotoi metamorphics, Maubisse (Permian limestones and pillow basalts) and Bobonaro Fms melange; (2) parautochthonous Permian-Triassic flysch (Atahoc, Cribas and Aitutu Fms); (3) post-tectonic Plio-Pleistocene Ainaro Fm. Three deformation events. Etc. Geochemical study show all lithologies have low organic matter content and high Tmax values, suggesting rocks suffered high temperatures, probably related to emplacement of allochthonous units (see also companion thesis by Ferreira, 2011)

De Roever, W.P. (1940)- Geological investigations in the Southwestern Moetis Region (Netherlands Timor). Ph.D. Thesis University of Amsterdam, p. 1-244.
(also in H.A. Brouwer (ed.) Geological Expedition of the University of Amsterdam to the Lesser Sunda Islands 1937, 2 (1940), Noord Hollandsche Publ., Amsterdam, p. 97-344)
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:046047000:00009)
(Detail maps and descriptions of SW Mutis Mts region of W. Timor. Distinguishes tectonically juxtaposed rock series of similar ages, but different facies. Rock types Pre-Permian(?) crystalline schists, Kekneno series (Permian-Triassic flysch), Sonnebait series (= 'Maubisse Fm'; Permian crinoid/brachiopod limestones with basic volcanics, Triassic cephalopod- limestones, Jurassic marls with cherts and radiolarites, U Cretaceous pelagic Globotruncana limestone and marls with cherts), Fatoe series (Triassic oolitic limestones and Liassic Mytilus limestones) and ophiolite-spilite complex. Major thrust plane between Kekneno and Sonnebait series. Fatoe series youngest nappe complex overlies ophiolite-spilite complex which may belong to same nappe as crystalline schists. Main strike direction NW-SE, dipping NE)

De Roever, W.P. (1940)- Description of some Permian ammonoids from F. Koekatoe, Lidak. Palaeontological Appendix to Simons (1940), in H.A. Brouwer (ed.) (1940) Geological Expedition of the University of Amsterdam to the Lesser Sunda Islands 1937, 1, p. 206-210.
(New species of cyclolobid ammonite Waagenoceras lidacense from Lower Permian of NE West Timor, in A.L. Simons (1940) Doctoral Thesis)

De Roever, W.P. (1940)- Uber Spilite und verwandte Gesteine von Timor. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 43, 5, p. 630-634.
(online at: https://dwc.knaw.nl/DL/publications/PU00017447.pdf)
('On spilites and related rocks from Timor'. Mutis area in W Timor with complex of Pre-Tertiary spilite, dolerite, basalt, gabbro, lherzolite and serpentinite. Associated with crystalline schists and Palelo series (= Banda Terrane of later authors). Rock types also common below Triassic 'Fatu limestones'. Common albitization in spilite)

De Roever, W.P. (1941)- Die permischen Alkaligesteine und die Ophiolite des Timorischen Faltengebirges. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 44, 8, p. 993-995.
(online at: https://dwc.knaw.nl/DL/publications/PU00017655.pdf)
('The Permian alkaline rocks and ophiolites of the Timor foldbelt'. Permian Sonnebait series (= Maubisse Fm of later authors; JTvG) mainly marine, highly fossiliferous crinoidal limestones with volcanic rocks (mainly olivine basalts, trachybasalts, alkali trachytes and alkali rhyolites, also spilites and poeneites). Present both N and S of Plio-Pleistocene Central Basin. No similar volcanics observed in Permian- Triassic flysch facies of the Kekneno series. Post-Permian igneous rocks mainly ophiolites)

De Roever, W.P. (1941)- De prae-Miocene tektoniek van het ZW Moetis gebied (Timor) in verband met het karakter der oudere eruptiefgesteenten. Handelingen 28e Nederlandsch Natuur- Geneeskundig Congres, 1941, p. 242-244. *(Abstract)*
('The pre-Miocene tectonics of the SW Mutis area, Timor, in relation to the nature of older volcanic rocks')

De Roever, W.P. (1942)- Olivine-basalts and their alkaline differentiates in the Permian of Timor. In: H.A. Brouwer (ed.) Geological Expedition of the University of Amsterdam to the Lesser Sunda Islands 1937, 4, Noord-Hollandsche Uitgevers Maatschappij, Amsterdam, p. 209-289.
(online at: (online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:046050000:00009)
(Descriptions of Permian olivine basalts, alkali-rhyolites, etc. of the 'geosynclinal' Sonnebait series (=Maubisse complex; JTvG), associated with shallow marine Permian crinoidal limestones. Very different from age-equivalent Kekneno flysch series. Possibly 'embryonal geosynclinal phase' (today called oceanic crust succession?; JTvG). Triassic-Jurassic-Cretaceous of Sonnebait overthrust complex all pelagic sediments) (see also De Roever, 1959)

De Roever, W.P. (1959)- Schwach alkalischer fruhgeosynklinaler Vulkanismus in Perm der insel Timor. Geologische Rundschau 48, p. 179-184.
('Weakly alkaline, early geosynclinal volcanism in the Permian of Timor'. Permian basic volcanics of Timor (of Maubisse Terrane) mainly olivine basalts, also trachybasalt, alkali-trachyte. Do not belong in cratonic setting, but are similar to oceanic basalts and here called 'early geosynclinal')

De Smet, M.E.M, A.R. Fortuin, S.R. Troelstra, L.J. Van Marle, Mimin Karmini, S. Tjokrosapoetro & S. Hadiwisastra (1990)- Detection of collision-related vertical movements in the Outer Banda Arc (Timor, Indonesia), using micropaleontological data. J. Southeast Asian Earth Sciences 4, p. 337-356.
(Timor Central Basin fill Late Pliocene pelagic calcilutites with vitric tuffs (Batu Putih Fm), unconformably over Bobonaro scaly clay and imbricated Early Pliocene- older rocks. Batu Putih carbonates change to submarine fan clastics at ~2.2 Ma (Noele Fm). Source of turbidites was from N Timor and include serpentinite fragments. Two rel. short uplift periods: (1) >600m uplift at 2.2- 2.0 Ma, associated with creation of Central Basin and emergence of N Timor and (2) >1500m of uplift starting at 0.2 Ma and still ongoing)

De Waard, D. (1954)- Contributions to the geology of Timor. I. Geological research in Timor. Indonesian J. Natural Science (Majalah Ilmu Alam Indonesia) 110, p. 1-8.
(Summary of 1953 Timor expedition of Geology Department of University of Indonesia, Bandung (now ITB))

De Waard, D. (1954)- Contributions to the geology of Timor, II. The orogenic main phase in Timor. Indonesian J. Natural Science (Majalah Ilmu Alam untuk Indonesia) 110, p. 9-20.
(Lalan Asu area, SW Timor, typical Palelo Series of schists overlain by Cretaceous flysch, with unconformities at base of shallow marine Eocene and Base Miocene limestones. Basal Miocene conglomerate has Miogypsinoides complanata (= Aquitanian age according to Marks 1954, but signifies zone Te4/Chattian/ latest Oligocene; JTvG). Structural analysis suggests thrusting to S and SSW. Strike directions of Cretaceous, Eocene and Miocene similar, suggesting rel. minor overthrusting in pre-Lower Miocene, main phase in Late Miocene; Sonnebait overthrusts Palelo complex)

De Waard, D. (1954)- Contributions to the geology of Timor, V. Structural development of the crystalline schists in Timor. Tectonics of the Lalan Asu Massif. Indonesian J. Natural Science (Majalah Ilmu Alam untuk Indonesia) 110, 4-6, p. 143-153.
(Structural analysis of foliation in Lalan Asu schists suggests 2 main structural events; (1)'Pre-Permian?' event caused E-W striking foliation and low-medium grade metamorphism and (2) Late Miocene folding/thrusting, with minor tectonic events in-between. Serpentine masses, occasionally with gabbro, along border of massif between schist and overthrust series)

De Waard, D. (1954)- Contributions to the geology of Timor, VI. The second geological Timor expedition, preliminary results. Indonesian J. Natural Science (Majalah Ilmu Alam untuk Indonesia) 110, 4-6, p. 154-160.
(Tectonics of Timor very complex; overthrusting present, but not like rel. coherent and flat alpine nappes. Crystalline massifs and associated ophiolites probably lenticular masses in overthrust succession. Chaotic structures in Sonnebait series suggest gravity tectonics)

De Waard, D. (1955)- Contributions to the geology of Timor, VII. On the tectonics of the Ofu series. Indonesian J. Natural Science (Majalah Ilmu Alam untuk Indonesia) 111, 4-6, p. 137-143.

(Ofu series in mountainous area near S coast of W Timor (later called Kolbano foldbelt = young accretionary prism of distal Australian NW margin rocks; JTvG) consists of Jurassic-Cretaceous marly limestones, highly folded with E-W orientation of fold-axes and dominantly N-ward dips. Ofu series may be thrust over more marly Permo-Triassic 'parautochthonous' Kekneno series)

De Waard, D. (1955)- Contributions to the geology of Timor, VIII. Tectonics of the Sonnebait overthrust unit near Nikiniki and Basleo. Indonesian J. Natural Science (Majalah Ilmu Alam untuk Indonesia) 111, 4-6, p. 144-150.
(SW Timor Sonnebait overthrust unit in Nikiniki- Basleo region with famous Permian-Triassic fossil localities. Mainly composed of 500-750m of Permian shales and reddish limestones with common pillow basalt flows, subordinate Triassic cephalopod limestones and U Cretaceous deep-sea clays with manganese nodules. Structurally not as complex as previously reported: NW-SE trending open folds with wavelength of 1.5- 2 km. Tectonically thrusted over Ofu series in S, which is separate overthrust sheet with different stratigraphy (Jurassic-Cretaceous deep-water marly limestones) and with E-W trending fold axes. Different orientations suggest two separate fold-thrust events))

De Waard, D. (1956)- Contributions to the geology of Timor, IX. Geology of a N-S across Western Timor. Indonesian J. Natural Science (Majalah Ilmu Alam untuk Indonesia) 112, 2, p. 1-13.
(W Indonesian Timor northern and southern zones of overthrust structures, separated by central basin with latest Miocene-Pleistocene sediments and bordered on S by major (~2000m of throw) Nikiniki fault. Overthrusting completed in Early Miocene. Orogenic movements continued with faulting, tilting of blocks, and formation of central depression. Position of Tertiary volcanic rocks along N coast not yet clear)

De Waard, D. (1957)- Contributions to the geology of Timor, XII. The third Timor geological expedition, preliminary results. Indonesian J. Natural Science (Majalah Ilmu Alam untuk Indonesia) 113, p. 7-43.
(1957 Timor Expedition. Name Mutis unit proposed for tectonic unit composed of crystalline basement overlain by Palelo (+U Jurassic?+ Cretaceous greywackes and volcanics), Eocene limestone and volcanics and Lower Miocene reefal limestones and volcanics, all folded (=Banda Terrane of Harris). Fatus, previously assumed to be separate tectonic units, now considered to be bioherms in Permian, Triassic and Jurassic of Sonnebait overthrust unit. Only one overthrust sheet of importance: Sonnebait overthrust, which overlies all other tectonic units, incl. Mutis and parautochthonous Kekneno unit)

De Waard, D. (1957)- Zones of regional metamorphism in the Lalan Asu Massif, Timor. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 60, p. 383-392.
(Five metamorphic zones ranging from muscovite-chlorite subfacies to amphibolite facies in crystalline schists of Lalan Asu massif, W Timor. Massif surrounded by marly sediments of Sonnebait overthrust sheet)

De Waard, D. (1959)- Anorthite content of plagioclase in basic and pelitic crystalline schists as related to metamorphic zoning in the Usu massif. Timor. American Journal of Science 257, p. 553-562.
(Sampling of schists in Usu massif yielded detailed pattern of isopleths based on An values of plagioclase. An10 isopleth marks isograd separating greenschist facies from almandine amphibolite facies. Grade of metamorphism probably responsible for plagioclase equilibrium values)

Dias, R. (2012)- Strike-slip tectonics in arc-continent collision: The Timor-Leste example. First International Geological Congress of Geology of Timor-Leste, Dili 2012, p. 53-58. *(Extended Abstract)*
(online at: www.rdpc.uevora.pt/bitstream/10174/8173/1/Dias_2012_Strike-slip%20tectonics%20in%20arc-continent%20collision.pdf)
(Recent detailed structural mapping in Cribas region led to new data on submeridian sinistral strike-slip fault system and relation with E-W Cribas anticline)

Diener, C. (1923)- Ammonoidea trachyostraca aus der mittleren und oberen Trias von Timor. In: H.A. Brouwer (ed.) 2e Nederlandsche Timor-Expeditie onder leiding van Dr. H.G. Jonker+, vol. I, Jaarboek Mijnwezen Nederlandsch Oost-Indie 49 (1920), Verhandelingen 4, p. 75-276 + Atlas.
(online at: https://opac.geologie.ac.at/ais312/dokumente/Diener_1922_Ammonoidea_trachyostraca_Timor.pdf)

(Descriptions of >300 species of M-U Triassic ammonoids from W Timor collected by Jonker 1916 2nd Timor expedition. Assemblages from blocks very rich in well preserved ammonites, resembling 'Halstatt Limestones' in Austrian Alps, with species of both Alpine-Mediterranean and Himalayan affinities. Dominated by Haloritids. Different blocks different ages, mainly Carnian- Norian or mix of these, but also Anisian and Ladinian faunas. Upper Norian-Rhaetian faunas not demonstrated. Total thickness of M-U Triassic may be only 2 meters)

Dinis, P.A., J.S. Pereira, E.I. Alves & J. Serra Pratas (2021)- Compositional variability of regoliths on equatorial highlands (East Timor). Source-rock control and competing effects of weathering and denudation. J. Asian Earth Sciences 219, 104658, p. 1-14.
(Mineralogical and geochemical data from weathering mantles on mountainous region of Maubisse, S of Dili, Timor Leste. Chemical weathering highly limited by high denudation rates))

Dinis, P.A., C. Tassinari & M.M.S. Cabral Pinto (2013)- Geochemistry and detrital geochronology of stream sediments from East Timor: implications for the origin of source units. Australian J. Earth Sciences 60, 4, p. 509-519.
(Geochemistry and detrital zircon geochronology of Recent stream sediments in E Timor. Zircons with ages of 2150-1500 Ma and 365-210 Ma most common populations in all samples. Sampling sites with Banda Terrane units in watersheds have common Triassic zircons, also common in Sula Spur. Significant component of zircon in allochthonous units of Timor probably inherited from crustal fragments that drifted from Sula Spur. These were carried S as Banda Arc progressed towards Australian continent and emplaced in Timor with Banda Terrane. Geochem interpretation: 'none of the studied sediments plot in the fields of passive margins')

Djohor, D.D. & J. Sopaheluwakan (2006)- Studi batuan metamorf dalam mempelajari evolusi geologi (studi kasus di daerah Komplek Miomaffo- Timor). MINDAGI (Trisakti) 10, 1, p. 1-10.
(online at: www.journal.trisakti.ac.id/index.php/MINDAGI/article/view/101/109)
('Study of metamorphic rocks in the study of geological evolution (case study in the area of the Miomaffo-Complex, Timor)'. Brief descriptions of low-grade metamorphic rocks, incl. metatuff, schist (no locality maps: not sure if samples actually from Miomaffo Massif or Mutis Complex? Mainly summary of Sopaheluwakan 1989 data?; JTvG))

Donovan, S.K. & G.D. Webster (2013)- Platyceratid gastropod infestations of *Neoplatycrinus* Wanner (Crinoidea) from the Permian of West Timor: speculations on thecal modifications. Proc. Geologists Association, London, 124, 6, p. 988-993.
(Distinctive traces on camerate crinoid Neoplatycrinus from Permian of Timor reflect infestation by coprophagous platyceratid gastropods)

Donovan, S.K. & G.D. Webster (2016)- A Permian *Barycrinus*? Wachsmuth (Crinoidea, Cladida) from Timor. Alcheringa 40, 2, p. 216-218.
(*online at: https://www.researchgate.net/publication/286490144_A_Permian_Barycrinus_Wachsmuth_Crinoidea_Cladida_from_Timor)*
(A Permian crinoid pluricolumnal from Noil Simaam, Timor, identified as Barycrinus? sp., youngest member of this otherwise E Carboniferous genus)

Donovan, S.K., G.D. Webster & J.A. Waters (2016)- A last peak in diversity: the stalked echinoderms of the Permian of Timor. Geology Today 32, 5, p. 179-185.
(online at: https://www.researchgate.net/publication/308706064_A_last_peak_in_diversity_the_stalked_echinoderms_of_the_Permian_of_Timor)
(Timor island is one of most notable sites in world for marine Permian rocks , where thick, olistostromic blocks of limestone yielded 1000+ shelly species. Over a third of these are stalked crinoids and blastoids (Palaeozoic groups that would later be devastated by the end-Permian mass extinction))

Dos Santos, J.B., M. Cabral Pinto, V.A.S. Vicente, A. Ram Soares, and J.A.M S. Pratas (2026)- Geochemical framework of Atauro Island (Timor Leste) in an arc-continent collision setting. Minerals (MDPI) 16, 1, 89, p. 1-24.

(online at: https://www.mdpi.com/2075-163X/16/1/89)
(Atauro island N of Dili and SW of Wetar Island, is extinct volcanic island in Banda arc. Outcrops mainly Late Pliocene-age basaltic-andesitic volcanics dacite domes overlain by Pleistocene limestones. Stream sediments analyses show three geochemical process domains (see also Ely et al., 2011))

Dropkin, M.J., R.A. Harris & P.K. Zeitler (1993)- An Oligocene forearc crustal flake exposed in a contemporary arc continent collision, Timor, Indonesia. Geological Society of America (GSA), Meeting Abstracts, 25, 6, p. A-482. *(Abstract only)*
(Harris et al. 2000: Banda Terrane of Timor from continental and oceanic protoliths, and reached thermal peak at or before 35-40 Ma)

Ducrocq, S. (1996)- The Eocene terrestrial mammal from Timor, Indonesia. Geological Magazine 133, 6, p. 763-766.
(Discussion of skull of Eocene Anthracothema/ Anthracotherium verhoeveni (= extinct ancestral Hippopotamus relative) from northern West Timor. First described by Von Koenigswald (1967), and recognizing Asian affinities. Can not be autochthonous, unless part of Timor is Asian continental microplate that migrated S and collided with Timor (Late Eocene anthracotheres common in mainland SE Asia, but also known from W Kalimantan (Stromer 1931) (also in W Sulawesi? (Villeneuve et al. 2010); JTvG))

Duffy, B. (2012)- The structural and geomorphic development of active collisional orogens, from single earthquake to million year timescales, Timor Leste and New Zealand. Ph.D. Thesis, University of Canterbury, Christchurch, p. 1-221.
(online at: https://ir.canterbury.ac.nz/bitstream/10092/7527/1/thesis_fulltext.pdf
(Geomorphology and structural geology of Timor records lateral extrusion of orogenic wedge that developed by underthrusting of Australian continental terrace below Banda forearc)

Duffy, B., J. Kalansky, K. Bassett, R. Harris, M. Quigley, D.J.J. van Hinsbergen, L.J. Strachan & Y. Rosenthal (2017)- Melange versus forearc contributions to sedimentation and uplift, during rapid denudation of a young Banda forearc-continent collisional belt. J. Asian Earth Sciences 138, p. 186-210.
(online at: https://www.sciencedirect.com/science/article/pii/S1367912017300561)
(Along Timor sector of Banda Arc synorogenic piggy-back basins formed above melange unit, exhumed to sea floor in latest Messinian. Following deep marine marl sedimentation, increasingly muddy sediment flux indicates emergence of Timor 4.5 Ma. Sediment source probably 50-60 km to N. Sedimentation between 4.5-3.2 Ma probably derived from mudstone-dominated landscape with geochemical affinities to Triassic-mudstone-rich synorogenic melange, which overlies and surrounds Banda Terrane. After 3.2 Ma, sedimentation dominated by hard rock lithologies of Banda Terrane, and accompanied by rapid uplift)

Duffy, B., B. Lew, K. Boland, B. Kohn, E. Matchan, R. Maas, D. Dixon, L. Pedro, P. de Carvalho & M. Sandiford (2021)- Cenozoic affinity of the Gondwanan rocks of eastern Timor: evidence from geo-thermochronometry. Australian Earth Science Convention (AESC 2021, online) Session 12.3, 1p. *(Presentation Abstract)*
(online at: https://aesconvention.com.au/cenozoic-affinity-of-the-gondwanan-rocks-of-eastern-timor-evidence-from-geo-thermochronometry/)
(New field mapping in type-area of Lolotoi Metamorphic Complex (LMC) shows pre-Permian basement exposed in erosional window. Much of previously mapped LMC overlies alkaline Permian basalt. U-Pb ages for zircons, etc., from LMC type-area are Precambrian, and consistent with Gondwanan continental slivers that now form basement of E Java and W Sulawesi. Such basement ages also in inherited zircons peaks from LMC elsewhere in Timor. Basement faults separating LMC from Triassic and Jurassic sediments contain white micas with Ar-Ar ages of ~38 Ma, similar to white micas from 'Asian-affinity' Mutis complex of W Timor. Low vitrinite reflectance values in much of study area do not support previous models of Cenozoic overthrusting. Thermochronometric data indicate rapid Eocene-Oligocene cooling, similar to thermal history of Mutis complex of W Timor. Based on these data, we revive Barber's (1978) interpretation that almost all of pre-Neogene exhumed rocks of E Timor (including the 'Gondwanan' rocks), resided in Sundaland during Cenozoic)

Duffy, B., M. Quigley, R. Harris & U. Ring (2013)- Arc-parallel extrusion of the Timor sector of the Banda arc-continent collision. Tectonics 32, 3, p. 641-660.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/full/10.1002/tect.20048)
(New structural and geomorphic evidence for syn-collisional extension in converging plate boundary zone between Australian Plate and Banda Arc. Dominantly NW-SE dextral normal faults and NE-SW sinistral normal faults. Extension resulted from collision of outlying plateau that arrived S of Wetar and was bounded by ocean crust to both W and E)

Dun, W.S. & E. David (1922)- Notes on the occurrence of *Gastrioceras* at the Irwin River coal-field, W. Australia, and a comparison with the so-called *Paralegoceras* from Letti, Dutch East Indies. J. and Proceedings of the Royal Society of New South Wales, Sydney, 56, p. 249-252.
(online at: https://www.biodiversitylibrary.org/page/41505106#page/301/mode/1up)
(W Australia Permian ammonoid Gastrioceras, locally abundant in Irwin River coal field, W Australia. Very similar to Paralegoceras sundaicum Haniel from Leti island, E of Timor (now assigned to Metalegoceras; see Glenister et al., 1973)

Earle, M.M. (1979)- Mesozoic ophiolite and blue amphibole on Timor and the dispersal of eastern Gondwanaland. Nature 282, p. 375-378.
(Timor 'Lolotoi unit' is dismembered metamorphosed ophiolite formed during Jurassic rifting of NW margin of Australia. Rift developed into ocean basin which carried rifted microcontinental block N-wards, which accreted to SE Asia in M-Late Cretaceous and experienced low grade metamorphism with crossitic amphibole)

Earle, M.M. (1980)- A study of Boi and Molo, two metamorphic massifs on Timor, Eastern Indonesia. Ph.D. Thesis Chelsea College, University of London, p. 1-240. *(Unpublished)*
(Metamorphic Mutis Unit of W Timor regarded as microcontinental fragment detached from margin of W Indonesia in Oligocene and underthrust by continental rise deposits of the Australia-New Guinea plate during Pliocene orogenic main phase on Timor. Structural correlations between Boi, Molo and Lalan Asu regions demonstrate Mutis Unit forms coherent thrust sheet, subsequently folded and imbricated during Late Pliocene- E Pleistocene. Etc.)

Earle, M.M. (1981)- The metamorphic rocks of Boi, Timor, Eastern Indonesia. In: A.J. Barber & S. Wiryosujono (eds.) The geology and tectonics of Eastern Indonesia, Proc. CCOP-IOC SEATAR Working Group Meeting, Bandung 1979, Geological Research Development Centre (GRDC), Bandung, Special Publ. 2, Bandung, p. 239-251. *(online at: www.researchgate.net/publication/285976880_The_metamorphic_rocks_of_Boi_Timor_eastern_Indonesia)*
(In W Timor Boi Massif 'Mutis' metamorphics with isoclinally folded pelitic gneiss at base, amphibolite and metamorphosed gabbroic rocks and serpentinite at top. Late Cretaceous radiometric age. Boi metamorphics overlain by M Eocene and Miocene carbonates. In other similar massifs on Timor, metamorphics covered by Palelo Group radiolarian cherts (E-M Cretaceous) and Eocene and Miocene carbonates. Regional foliation E-W strike, S dip. Boi and Lalan Asu massifs part of larger metamorphic overthrust sheet, emplaced from N)

Earle, M.M. (1983)- Continental margin origin for Cretaceous radiolarian cherts in western Timor. Nature 305, p. 129-130. *(online at: https://www.researchgate.net/profile/Michael-Earle/publication/239282570_Continental_margin_origin Etc.)*
(Deep water Cretaceous radiolarian cherts interpreted as deep sea deposits, in both 'autochthonous' (Wai Bua, Kolbano) and 'allochthonous' (Noni Fm of Palelo Series in Molo and Miomaffo massifs) parts of Timor. Palelo Group was derived from SE Asia)

Earle, M.M. (2023)- Protolith origin and plate tectonic setting of metamorphic complexes in the Timor fold and thrust belt, Indonesia. Earth-Science Reviews 246, 104589, p. 1-12.
(online at: https://www.sciencedirect.com/science/article/pii/S0012825223002787)
(Review of 'Banda Terrane' overthrust metamorphic complexes on Timor. Represent polymetamorphic basement complexes, originally from Gondwana, but accreted to Sundaland margin in Cretaceous, from which they separated again in Eocene time. Four periods of metamorphism recognized)

El Wakeel, S.K. & J.P. Riley (1961)- Chemical and mineralogical studies of fossil red clays from Timor. Geochimica Cosmochimica Acta 24, p. 260-265.
(Manganese nodules from Cretaceous red clay from Noil Tobe, W Timor, chemically very similar to Pacific-Indian oceanic deep sea nodules, providing strong confirmation of deep sea origin)

Ely, K.S. (2009)- Geochronology of Timor-Leste and seismo-tectonics of the southern Banda Arc. Ph.D. Thesis, University of Melbourne, p. 1-262.
(online at: https://minerva-access.unimelb.edu.au/handle/11343/35296)
(Detrital zircons from N Timor Leste Aileu Metamorphic Complex of N Timor Leste show age modes at 270-425 Ma, 860-1180 Ma and 1460-1870 Ma, favoring sediment source from E Malaya- Indochina and maximum depositional age of 270 Ma (E-M Permian). Aileu Complex cooling ages of 6-10 Ma, implying metamorphism started by at least ~12 Ma. Metamorphism attributed to arc setting rather than collision of Australian continent with Banda Arc. Atauro island N of Timor bi-modal subaqueous volcanism ceased by ~3 Ma, followed by uplift of coral reef terraces to 700m around island. N of Timor absence of intermediate depth seismicity attributed to slab window down to 350 km depth. Slab under W Savu Sea in down-dip compression at ~70-g 300 km, beneath region of arc with closest spacing of volcanoes in Sunda-Banda arc system. Unusual state of stress attributed to subduction of N extension of Scott Plateau)

Ely, K.S., M. Sandiford, D. Phillips & S.D. Boger (2014)- Detrital zircon U-Pb and 40Ar/39Ar hornblende ages from the Aileu Complex, Timor-Leste: provenance and metamorphic cooling history. J. Geological Society, London, 171, 2, p. 299-309.
(online at: https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=6e67417abc36c9 Etc.)
(Detrital zircons from metasediments of Permian Aileu Complex of N Timor Leste have major U-Pb age modes at 275-440 Ma (peak at 290 Ma, reflecting nearby E Permian magmatism?), 860-1240 Ma and 1460-1870 Ma, most compatible with sediment source from now fragmented Sula Spur. 40Ar/39Ar cooling ages of hornblende show W parts cooling through hornblende closure temperature by 10 Ma and central parts by 6 Ma, consistent with variable exhumation history. Onset of cooling by 10 Ma implies metamorphism was probably coeval with initiation of Banda Arc. Aileu Complex cooling ages record deformation related to fragmentation of Sula Spur and early development of Banda Arc, rather than collision between Australian continent and Banda Arc)

Erdi, A., B. Sapiie, N.M. Kusuma, A. Rudyawan & I. Gunawan (2018)- New perspective of Mesozoic hydrocarbon prospectivity within West Timor. Proc. Australian Exploration Geoscience Conference (AEGC 2018), Sydney, ASEG Extended Abstracts, 1, p. 1-7. *(Extended Abstract)*
(online at: www.publish.csiro.au/ex/pdf/ASEG2018abP031)
(Review of Mesozoic of W Timor and comparisons to Australian NW Shelf, suggesting similar hydrocarbon plays)

Escher, E.F. (1948)- Summary geological report, C.U.P. Concession, Portuguese Timor. Unpublished report, 22 p.
(Brief report on hydrocarbon exploration surveys in 1947-1948 by Companhia Ultramarina de Petroleos (Overseas Petroleum Company= a Shell-Stanvac-BP consortium for Timor hydrocarbon exploration; company disbanded in 1949) in Portuguese Timor (see also paper by H.R. Grunau, 1953))

Estrella Resources (2024)- 27km of manganese host formation within Estrella's Lautém Project/ High-grade manganese reveals Estrella's Timor-Leste potential. Company brochures April 2024, p. 1-9. and 10p.
(online at: https://data-api.marketindex.com.au/api/v1/announcements/XASX:ESR:6A1202373/pdf/inline/27km-of-manganese-host-formation-within-esr-lautem-project? Etc.)
(Exploration of manganese deposits in northern part of Timor Leste found manganese deposits as 2-10cm thick manganese-rich (61%) bands in >100m thick Cretaceous deep marine Noni Formation in allochthonous Banda Terrane. Associated with apparent hydrothermal breccias suggesting exhalative deposits of direct precipitation of manganese onto sea floor (also with banded cherts and banded irons))

Ezzoubair, F. (2000)- Recherches sur les Tabules permiens de Timor et sur les affinities des Spongiomorphides du Trias d'Autriche: importances des donnees microstructurales, geochimiques et biochimiques. Ph.D. Thesis Universite Libre Bruxelles, Faculte Sciences, p. 1-346. *(Unpublished)*
('Research on the Permian tabulate corals of Timor and on the affinities of the spongiomorphs of the Triassic of Austria; importance of microstructural, geochemical and biochemical data')

Fainstein, R., J.D.C. do Rosario, H.C.Guterres, R.P. dos Reis & L.T. da Costa (2020)- Coastal and offshore provinces of Timor-Leste- Geophysics exploration and drilling. The Leading Edge 39, 8, p. 543-550.
(Brief review; not much new- JTvG)

Falloon, T.J., R.F. Berry, P. Robinson & A.J. Stolz (2006)- Whole-rock geochemistry of the Hili Manu peridotite, East Timor: implications for the origin of Timor ophiolites. Australian J. Earth Sciences 53, 4, p. 637-649.
(online at: www.researchgate.net/publication/251755695_Whole-rock_geochemistry_of_the_Hili_Manu Etc.)
(Geochemistry of Hili Manu peridotite on N coast E Timor similar to Oecussi peridotite of N coast of W Timor, and suggesting supra-subduction origin. Therefore more likely to be part of Banda upper plate, not Australian subcontinental lithosphere. This supports interpretation that Miocene collision between Banda Arc and Australian continental margin produced widespread 'Cordilleran'-style ophiolites on Timor)

Faria, M.J., D. Manuel, A. de Jesus Lira, J. Fernandes & E. McCartain (2025)- Geoheritage potential assessment of the Nino Konis Santana National Park geotourism area, Timor-Leste: A first step toward UNESCO Global Geopark status. Geoheritage 18, 8, p. *(in press)*
(Geoheritage assessment of Nino Konis Santana National Park geotourism area in Timor-Leste)

Fay, R.O. (1961)- *Deltoblastus*, a new Permian blastoid genus from Timor. Oklahoma Geology Notes (Oklahoma Geological Survey, Norman, OK) 21, 2, p. 36-40.
(online at: http://ogs.ou.edu/docs/geologynotes/GN-V21N2.pdf)
(New blastoid genus from Timor, Deltoblastus. Type species D. elongatus (initially described as Schizoblastus delta var. elongata by Wanner (1924). Holotype from Permian Amarassi Beds near Doeasnain, W Timor, and deposited in collections of Technische Hogeschool Delft, the Netherlands (now at Naturalis, Museum, Leiden?))

Fay, R.O. (1961)- The type species of *Pterotoblastus*, a Permian blastoid from Timor. Oklahoma Geology Notes (Oklahoma Geological Survey, Norman, OK) 21, 11, p. 298-300.
(online at: http://ogs.ou.edu/docs/geologynotes/GN-V21N11.pdf)
(Blastoid genus Pterotoblastus from Permian of Timor, with type species, P. gracilis Wanner 1924, from Basleo beds, W Timor. Topotype deposited in Museum Geologi, Bandung)

Fedorowski, J. (1986)- Permian rugose corals from Timor (remarks on Schouppe and Stacul's collections and publications from 1955 and 1959). Palaeontographica A 191, 4-6, p. 173-226.

Felix, J. (1887)- Untersuchungen uber fossile Holzer, III. Zeitschrift Deutschen Geologischen Gesellschaft, Berlin, 39, 3, p. 517-528.
(online at: https://www.biodiversitylibrary.org/item/141360#page/549/mode/1up)
('Research on fossil woods, III'. Incl. brief descriptions of silicified wood as float in Koinino River, Timor, collected by Martens and Schneider (p. 519-520; 'Araucarioxylon martensi n.sp.'; not figured). Age unknown (Wichmann 1892, p. 194 assumes Tertiary age; Roggeveen 1932 noted similarities with Triassic wood from Riau Archipelago, Sumatra) (case of misidentication or wrong location (Timor mainly marine)?; JTvG))

Felix, J. (1915)- Jungtertiare und quartare Anthozoen von Timor und Obi- I. In: J. Wanner (ed.) Palaeontologie von Timor 2, 2, Schweizerbart, Stuttgart, p. 1-45.
(online at: https://books.googleusercontent.com/books/content/)
('Late Tertiary and Quaternary anthozoans from Timor and Obi- part 1. Mainly taxonomic descriptions of corals collected by Wanner, Molengraaff 1909, 1911 expeditions)

Felix, J. (1920)- Jungtertiare und Quartare Anthozoen von Timor und Obi-II. In: J. Wanner (ed.) Palaeontologie von Timor 8, 13, Schweizerbart, Stuttgart, p. 1-40.
('Late Tertiary and Quaternary anthozoans from Timor and Obi- part 2'. Second part of descriptions of Pliocene-Pleistocene molluscs and corals from Timor and Obi)

Ferreira, V. (2011)- Cartografia e estrutura da regiao Este do anticlinal de Cribas. Implicacoes para a genese de hidrocarbonetos. M.Sc. Thesis, Evora University, Portugal, p. 1-94. *(in Portuguese; Unpublished)*
(online at: https://dspace.uevora.pt/rdpc/handle/10174/17418)
('Mapping and structure of the eastern area of the Cribas anticline; implications for hydrocarbon generation'. (Timor Leste. See also companion thesis by De Olivera, 2012)

Ferreira, V. (2011)- The Aitutu Formation and associated units at Soibada, Timor Leste: the potential source rocks for Timor Leste petroleum system. Honors Thesis University of Western Australia, Perth, p. *(Unpublished)*
(Stratigraphic succession of Triassic Aitutu Fm and associated units in Sahem River near Soibada, Timor Leste. Eight lithostratigraphic units, mainly basinal facies marls, radiolarian wackestone, bedded wackestone with chert nodules, etc. Ages mainly Late Triassic (Aitutu Fm), some E Jurassic (Wailuli Fm). Lowest unit is M Triassic (Late Anisian- E Carnian) deltaic quartz sst-sandy shale, and correlates to Babulu Fm)

Finch, J. (1994)- Late Triassic and Early Jurassic calcareous nannofossils from Timor. M.Sc. Thesis, University College, London, p. *(Unpublished)*
(Rose 1994: rel. poor Norian- Rhaetian nanno assemblages in Aitutu Fm, rel. rich ?Sinemurian-Pliensbachian-lower Toarcian nannos in Wai Luli Fm)

Flugel, E. (2002)- Triassic reef patterns. In: W. Kiessling et al. (eds.) Phanerozoic reef patterns, Soc. Sedimentary Geology (SEPM) Special Publ. 72, p. 391-463.
(p. 419-420: Timor Norian 'allochthonous' reefal limestones: corals mixture of W Tethys and 47% endemic taxa. Conclusion disputed by Martini et al. (2000), who argue that bulk of Timor Triassic macrofauna is 'Tethyan')

Forel, M.B., E. McCartain & D. Haig (2025)- Triassic ostracods from the southeastern Tethys: the Timor-Leste record. Alcheringa, p. 1-40. *(in press)*
(Triassic deep marine ostracods from Timor-Leste, which "accumulated in NE Gondwana basins along proto-Australian plate sector". Seventy-two species/ 22 genera. Ostracods in Triassic deposits indicative of outer neritic settings. Babulu Fm (Anisian-Norian) with taxa typical of bathyal settings, etc. Paleobiogeographical affinities suggest assemblages are part of the wider peri-Tethyan realm)

Frech, F. (1908)- Untere Trias in Timor und Obertrias der Molukken. Nachtrag zu Trias Asiens. In: Lethaea Geognostica, 2, Das Mesozoicum, p. 541-542.
('Lower Triassic of Timor and Upper Triassic of the Moluccas; appendix to the Triassic of Asia'. Brief review of records of Triassic fossils reported by Wanner (1907))

Furnish, W.M. & B.F. Glenister (1971)- The Lower Permian Somohole fauna of Timor. In: W.B. Saunders, The Somoholitidae: Mississippian to Permian Ammonoidea. J. Palaeontology 45, p. 100-118.
(Somohole Horizon of the Kekneno series, NW slope of Mount Somohole ~3 km SW of village at Fatu Bena, Mutis region, N West Timor is one of oldest Permian horizons, probably of Sakmarian age. With Neopronorites timorensis, Somoholites beluensis, Metalegoceras involutum, Juresanites somoholensis, Agathiceras, Waagenina dieneri, Propopanoceras boesei, Properrinites, etc. New species Somoholites deroeveri n.sp.)

Fyan, E.C. (1916)- Some young-Pliocene ostracods of Timor. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 18, 2, p. 1205-1216.
(online at: https://archive.org/details/proceedingsofsec182koni)
(First description of SE Asian Tertiary ostracodes: nine species from Pliocene clay along Mota Talau near Atambua, based on samples collected by Molengraaff Timor expedition of 1910-1912. Includes Paracypris zealandica, Nesidea molengraaffi, N. mulleri, Loxoconcha australis, L. alata, Cytheridea (now called Neocyprideis) timorensis n.sp.), C. spinulosa, etc.)

Gageonnet, R. & M. Lemoine (1957)- Note preliminaire sur la geologie du Timor portugues. Garcia de Orta, Lisbon, 5, 1, p. 153-163.
('Preliminary note on the geology of Portuguese Timor'. Descriptions of stratigraphies of 'Autochthonous' (Permian - Quaternary) and 'Nappe complex' (Permian- Eocene and metamorphics). Discussion of nappe structures. Multiple structural events: main one between Oligocene-M Miocene, lesser one in Pleistocene)

Gageonnet, R. & M. Lemoine (1957)- Sur la stratigraphie de l'autochtone au Timor Portugais. Comptes Rendus hebd. Academie Sciences Paris 244, p. 2168-2171.
('On the stratigraphy of the autochthonous of Portuguese Timor'. Deepest unit of E Timor called 'autochthonous'. Composed of Permian Cribas shales and thick Triassic- E Jurassic flysch, overlain by Eocene pelagics. Cretaceous appears to be absent. Unconformably overlain by weakly deformed Neogene Viqueque series marls, sands and conglomerates)

Gageonnet, R. & M. Lemoine (1957)- Composition et subdivisions du complexe charrie au Timor portugais. Comptes Rendus hebd. Academie Sciences Paris 244, p. 2246-2249.
('Composition and subdivisions of the nappe complex of Portuguese Timor'. Three units in overthrust complex above autochthonous series in Portuguese Timor: (1) lower (Permian Maubisse series shales, volcanics, pink crinoidal limestones; (2) intermediate (crystalline and volcanic rocks mainly in North) and (3) upper complex composed largely of late Cretaceous Fatu and Eocene Same Fm massive limestones (2-3= 'Banda Terrane'? JTvG)

Gageonnet, R. & M. Lemoine (1957)- Sur l'age et les modalites des phenomenes de charriage au Timor portugais. Comptes Rendus hebd. Academie Sciences Paris 244, 19, p. 2407-2410.
(Principal tectonic events of E Timor: major overthrusting before Middle Miocene, followed by formation of simple folds in Plio-Pleistocene and uplift. Displacement driven by gravity played an important role)

Gageonnet, R. & M. Lemoine (1958)- Contribution a la connaissance de la geologie de la province Portuguese de Timor. Junta de Investigacoes do Ultramar, Lisbon, p. 1-134.
('Contribution to the knowledge of the geology of Portuguese Timor'. Classic early work on E Timor)

Gageonnet, R., M. Lemoine & D. Trumpy (1959)- Problemes petrolifiers dans la province Portugaise de Timor. Revue Institut Francais Petrole 14, 4-5, p. 466-473.
('Petroleum problems in Portuguese Timor'. W Indonesia commercial hydrocarbon accumulations mainly Neogene age, thick and rel. little deformed. Timor numerous oil and gas shows tied to Permian- Mesozoic geosynclinal series, that underwent alpine nappe tectonics in Miocene, complicating the presence of reservoirs and commercial traps)

Gerth, H. (1909)- *Timorella permica* n.g., n.sp., eine neue Lithistide aus dem Perm von Timor. Centralblatt Mineralogie Geologie Palaontologie 1909, p. 695-700.
(online at: www.biodiversitylibrary.org/item/192781#page/717/mode/1up)
('Timorella permica, new genus, new species, a new lithistid from the Permian of Timor'. New sponge species from Permian crinoid limestone and shale, collected by Verbeek at Ajer Mati river near Kupang)

Gerth, H. (1915)- Die Heterastridien von Timor. Palaontologie von Timor, Schweizerbart, Stuttgart, 2, p. 63-69.
(online at: https://books.googleusercontent.com/books/content/)
('The Heterastrids from Timor'. Late Triassic small, globular, possibly pelagic colonial hydrozoans, named Heterastridium conglobatum, similar to those originally described from Halstatter Limestone in Austrian Alps. Over 1000 specimens collected by Wanner and Molengraaff expeditions, mainly from Bihati (near Baung, Amarassi), some from Nifoekoko near Niki Niki. Appear to be restricted to blocks of pelagic, deep water 'Halstatt' cephalopod facies with Norian ammonites. Some layers composed exclusively of heterastrids, covered with black iron-manganese coating)

Gerth, H. (1921)- Die Anthozoen der Dyas von Timor. Palaontologie von Timor, Schweizerbart, Stuttgart, 9, 16, p. 65-147.
('The corals from the Permian of Timor'. First and still principal monograph on Permian corals from Timor. 15 species of solitary rugose corals (Timorphyllum, Pterophyllum, Carcinophyllum, Verbeekiella, Amplexus, etc.) and 3 species of 'waagenophyllid' colonial rugose corals (Lonsdaleia, Michelinia, Favosites))

Gerth, H. (1922)- Der palaeontologische Character der Anthozoenfauna des Perms von Timor. In: G.A.F. Molengraaff (ed.) Nederlandsche Timor Expeditie 1910-1912, vol. III, Jaarboek Mijnwezen Nederlandsch Oost-Indie 49 (1920), Verhandelingen 3, p. 3-30.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB21:040191000:00001)
('The paleontological character of the Permian coral fauna of Timor'. Permian corals found across most of W and C Timor (coll. Molengraaff and Wanner), as well as Poruguese Timor (Coll. F. Weber). Dominated by solitary corals (Timorphyllum wanneri, Verbeekiella, Carcinophyllum from Artinskian- Roadian of Bitauni, Basleo). New colonial corals Lonsdaleia timorica n.sp. (= Ipciphyllum timoricum) from Fatu Oinino on road to Nenas and Favosites permica from Basleo)

Gerth, H. (1926)- Die Korallenfauna des Perm von Timor und die Permische Vereisung. Leidsche Geologische Mededelingen 2, 1, p. 7-14.
(online at: www.repository.naturalis.nl/document/549627)
('The coral fauna of the Permian of Timor and the Permian glaciation'. Timor Permian marine fauna rich in corals, crinoids and fusulinids and is typical warm water fauna. It is contemporaneous with glaciations in nearby Australia, suggesting these areas were farther apart in Permian time. With world map showing distribution of Permian floras and faunas)

Gerth, H. (1927)- Ein *Heterastridium* mit eigenartiger Oberflachen Skulptur aus dem Perm von Timor, *Heterastridium (Stolicskaria) rugosum* spec. nov. Beitrage zur Palaeontologie und Stratigraphie des Indischen Archipels 1, Leidsche Geologische Mededelingen 2, 3, p. 223-225.
(online at: https://repository.naturalis.nl/pub/505840/LGM1926002001010.pdf)
('A Heterastridium with unusual surface sculpture from the Permian of Timor'. New species of Triassic hydrozoan described as Heterastridium (Stoliczkaria) rugosum from Noil Boewan, presumably from Triassic limestones of Nifoekoko area)

Gerth, H. (1927)- Ueber einige Pliozan-Quartare Echiniden von Timor. Palaeontologie von Timor, Schweizerbart, Stuttgart, 15, 26, p. 181-184.
('On some Pliocene- Quaternary echinoids from Timor'. Rare echinoids in young raised coral reef limestones, incl. Cidaris, Pleurechinus, Pericosmus timorensis, Breynica sundaica)

Gerth, H. (1929)- Die Spongien aus dem Perm von Timor. In: Palaontologie von Timor, Schweizerbart, Stuttgart, 27, p. 1-36.
(('The sponges from the Permian of Timor'. At least 25 species of siliceous sponges in Permian, collected by Molengraaff, Wanner and Jonker Timor across W Timor, mainly Basleo near Niki-Niki and Nifoetassi near Sufa. Sponges not as abundant and diverse as some other fossil groups. 25 species identified, most of them new. Timorella, Hindia spp., Pemmatites timorensis, etc. Rather endemic assemblage of lithistids)

Gerth, H. (1929)- Die Spongien aus dem Perm von Timor. In: H.A. Brouwer (ed.) 2e Nederlandsche Timor-Expeditie onder leiding van Dr. H.G. Jonker+, vol. VI, Jaarboek Mijnwezen Nederlandsch-Indie 55 (1926), Verhandelingen 1, p. 89-132.
('The sponges from the Permian of Timor'. At least 25 species of siliceous sponges in Permian. 25 species, most of them new. Rather endemic assemblage of lithistids. Same paper as Gerth (1929) above)

Gerth, H. (1931)- Coelenterata. In: Onze palaeontologische kennis van Nederlandsch Oost Indie. Leidsche Geologische Mededelingen 5 (K. Martin volume), p. 120-151.
(online at: www.repository.naturalis.nl/document/549311)
('Our paleontological knowledge of the Netherlands Indies: Coelenterata'. Includes Timor corals)

Gerth, H. (1936)- The occurrence of isolated calicular plates of *Dinocrinus* in the Permo-Carboniferous of Australia and India and its stratigraphical significance. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 39, 7, p. 865-870.
(online at: http://https://dwc.knaw.nl/DL/publications/PU00016941.pdf)
(Crinoid Dinocrinus cornutu, described from E Permian of Timor by Wanner, probably junior synonym of Calceolispongia hindei Etheridge known from W Australia (not from India, but Netherlands Indies; JTvG))

Gerth, H. (1942)- Formenfulle und Lebensweise der Heterastridien von Timor. Palaeontologische Zeitschrift 23, p. 181-202.
('Shapes and mode of living of the Heterastrids of Timor'. On Late Triassic hydrozoan fossil Heterastridium conglobatum, also known from other Tethyan regions from Austrian Alps to Seram to New Zealand. Usually associated with Late riassic (Norian) marine fauna)

Gerth, H. (1944)- Eine neue Art der Spongiengattung *Mortieria* des belgischen Kohlenkalkes aus dem Perm von Timor. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 14 (Tesch volume), p. 199-203.
('A new species of the sponge genus Mortieria from the Belgian Carboniferous from the Permian of Timor'. Mortieria permica from Tai Wei near Basleo)

Gerth, H. (1950)- Die Ammonoiden des Perm von Timor und ihre Bedeutung fur die stratigraphische Gliederung der Perm-Formationen. Neues Jahrbuch Mineralogie Geologie Palaontologie, Abhandlungen B, 91, 2, p. 233-320.
('The ammonoids from the Permian of Timor and significance for zonation of Permian formations'. Key paper on Timor Permian ammonite zonation and correlations with Sumatra, China, Japan, Alps, etc. Five ammonoid zones in Permian, from old to young: Properrinites (Sakmarian), Perrinites (Artinskian), Waagenoceras (Sosio stage), Timorites (Basleo stage) and Cyclolobus (Chidru stage))

Gheyselinck, R. (1934)- Zur Systematik der Aulacoceraten. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 37, 3, p. 173-180.
(online at: https://dwc.knaw.nl/DL/publications/PU00016371.pdf)
('On the systematics of the aulacocerates'. Study of >3000 specimens of ribbed belemnite Aulacoceras from Triassic of W Timor (probably from Late Triassic 'Halstatter facies'-like blocks of highly condensed deep marine deposit, now in melange), collected by the Jonker 1916 Timor expedition. Timorese aulacocerates, originally described as Asteroconites savuticus (Boehm) 1907 and Aulacoceras timorense Wanner 1911, may be varieties of alpine species Aulacoceras sulcatum Von Hauer)

Gheyselinck, R.F.C.R. (1937)- Permian trilobites from Timor and Sicily. Doct. Thesis University of Amsterdam, Scheltema & Holkema, Amsterdam, p. 1-108. *(Unpublished)*
(Comprehensive study of (generally rare) trilobites from Permian of Timor. About 100 specimens, 7 species, mainly from Basleo. Most common species is Neoproetus indicus Tesch. Also Pseudophillipsia timorensis n.sp. Age of Basleo faunas believed to be late M Permian by Kobayashi & Hamada (1984). No locality maps or stratigraphic info)

Giaj-Via, P. & S. Poynter (2008)- Timor-Leste Field Trip 2008. ENI Timor Leste company report ETL-TL-EXP-RP002_00, Rev-0, Perth, p. 1- *(Unpublished)*.

Giani, L. (1971)- The geology of the Belu District of Indonesian Timor. Masters Thesis, Imperial College, University of London, p. 1-122.
(online at: https://spiral.imperial.ac.uk/handle/10044/1/35410)
(Reconnaissance study of easternmost district of Indonesian Timor. Stratigraphy-structure similar to adjacent TimorLeste: (1) highly deformed Autochthonous units (Permian Cribas Fm turbidites with plant material, Triassic Aitutu Fm radiolarian calcilutite with Halobia and thin bituminous shales (no benthic fauna) and younger? Babulu Mb siliciclastic flysch; possible Jurassic Wai Luli Fm); (2) three overthrust allochthonous units

(klippen of Maubisse Fm Permian crinoid limestones with thin chert layers and olivine pillow basalts, Aileu Fm metamorphosed Permian, Lolotoi quartz-mica schists). Emplacement of overthrust sheets during Ramelauean orogeny, dated as M Miocene in E Timor. Lolotoi Complex was emplaced before arrival of Maubisse Fm?; (3) Fatu Mondeo is E Miocene Cablac Limestone (Miogypsina, Spiroclypeus); (4) All deformed autochthonous and overthrust units overlain unconformably by Bobonaro olistostrome of exotic blocks in scaly (slickenside) clay matrix with Permian-Pliocene? foraminifera; (5) Olistostrome overlain by little deformed Late Miocene-Quaternary Viqueque Fm; (6) Quaternary coral reef terraces uplifted to 300m. With mud volcanoes, Oetfo gas seep and small Roti Mutin oil seep.)

Glasby, G.P. (1978)- Deep-sea manganese nodules in the stratigraphic record: evidence from DSDP cores. Marine Geology 28, p. 51-64.
(Core records of first 370 holes of DSDP Project shows manganese nodules relatively uncommon in stratigraphic column and >42% of nodules are from Pleistocene. Onset of high ocean bottom current velocities at ~3.5 Ma may have favored nodule growth through much of Pacific Ocean. Manganese nodules from pelagic red clay on Timor formed in Cretaceous when Antarctic circumpolar current was deflected N of Australia)

Glenister, B.F. & W.M. Furnish (1987)- New Permian representatives of ammonoid superfamilies Marathonitaceae and Cyclolobaceae. Journal of Paleontology 61, 5, p. 982-998.
(New species Eohyattoceras gerthi and Cardiella martodjojoi from late Early Permian (Roadian) of Basleo and Bitauni, Timor. Demarezites oyensi (Gerth, 1950 from Tae Wei, Basleo) and D. lidacensis (de Roever, 1940, from Lidak district), formerly assigned to Waagenoceras, ancestral to Waagenoceras-Cyclolobus lineage, redescribed from Roadian of Timor)

Glenister, B.F. & W.M. Furnish (1988)- Patterns in stratigraphic distribution of Popanocerataceae, Permian Ammonoids. Senckenbergiana Lethaea 69, 1-2, p. 43-71.
(With descriptions of Propopanoceras boesei (Smith) from Somohole and Epitauroceras soewarnoi n.sp. from Amarassi beds at Kuafeu, Baun area, Timor)

Glenister, B.F., W.M. Furnish & Z. Zhou (2004)- *Paedopronorites*, a new Upper Permian (Wuchiapingian) ammonoid from Indonesia (Timor). Journal of Paleontology 78, 5, p. 1014-1015.
(New Permian ammonoid from Amarassi Beds, Kuafeu (Koeafeoe), Baun area, Amarassi Province, W Timor. Associated with cyclolobid genera Timorites and Cyclolobus. No strat info)

Glenister, B.F., D.L. Windle & W.M. Furnish (1973)- Australasian Metalegoceratidae (Lower Permian Ammonoids). Journal of Paleontology 47, 6, p. 1031-1043.
(Taxonomy of Lower Permian Juresanites- Metalegoceras- Pseudoschistoceras ammonoid lineage, based on collections from W Australia, Timor and Oman. Names Paralegoceras sundaicum form. evoluta and form. involuta replaced by genera Metalegoceras and Pseudoschistoceras. Descriptions of Sakmarian Juresanites somoholense (Haniel) and J. hanieli (Smith) (both formerly Gastrioceras). Australian species M. clarkei Miller conspecific with senior Indonesian synonym, M. australe (Smith). Metalegoceratidae are distinctive element of Lower Permian 'Boreal' ammonoid realm)

Grady, A.E. (1975)- A reinvestigation of thrusting in Portuguese Timor. J. Geological Society of Australia 22, p. 223-228.
(Field relations from Maubisse region of Portuguese Timor fail to support hypothesis of S-ward overthrusting of Permian rocks or postulate that Maubisse Fm represents a mid-Tethys island group (This 'autochthonous' model has since been widely criticized in several papers; JTvG))

Grady, A.E. & R.F. Berry (1977)- Some Palaeozoic-Mesozoic stratigraphic-structural relationships in East Timor and their significance in the tectonics of Timor. J. Geological Society of Australia 24, p. 203-214.
('Autochthonous' model suggested for development of Timor, with essentially no allochthonous pre-Cenozoic material)

Grady, A.E. & R.F. Berry (1980)- The significance of blue amphibole in Timor. Institute for Australasian Geodynamics (Flinders University), Adelaide, Publication 80, 5, p.

Grunau, H.R. (1953)- Geologie von Portugiesisch Osttimor. Eine kurze Ubersicht. Eclogae Geologicae Helvetiae 46, 1, p. 29-37.
(online at: https://www.e-periodica.ch/digbib/view?pid=egh-001%3A1953%3A46%3A%3A37#37)
('Geology of Portuguese East Timor: a brief overview'. Two tectonic complexes in East Timor (1) essentially autochthonous unit of Permian, Triassic, Jurassic and Upper Cretaceous- Tertiary geosynclinal sediments, and (2) overthrust complex with crystalline schists, diabases and spilites, Permian crinoidal and massive limestones and Fatu limestones. Main period of nappe emplacement probably post-Aquitanian)

Grunau, H.R. (1956)- Zur Geologie von Portugiesisch Osttimor. Mitteilungen Naturforschenden Gesellschaft, Bern, N.F. 13, p. 11-18.
('On the geology of Portuguese East Timor'. Summary of presentation for Bern Nature Research Society, Switzerland)

Grunau, H.R. (1957)- Neue Daten zur Geologie von Portugesisch Osttimor. Eclogae Geologicae Helvetiae 50, p. 69-98.
(online at: https://www.e-periodica.ch/digbib/view?pid=egh-001%3A1957%3A50%3A%3A128#128)
('New data on the geology of Portuguese Timor'. Aspects of East Portuguese Timor geology based on observations of 1947-1948 oil company (Shell consortium) fieldwork with E.F. Escher, mainly in southern part. With 10 cross sections. 'Autochthonous' flysch-type Permian clastics similar to Kekneno series of W Timor. Ophiolites common in nappe complex, believed to be of Cretaceous age, similar to E Sulawesi ophiolites, usually associated with thin Permian crinoid/ fusulinid limestones, Triassic in multiple facies: flysch, radiolarian limestone and Fatu limestone with Lovcenipora and Misolia. Jurassic Chondrites marls and marls with Aucella malayomaorica. Upper Cretaceous limestones with Globotruncana. E Miocene Te limestones with Spiroclypeus, probably same time as main thrusting. Timor good example of mountain building by gravitational gliding)

Grunau, H.R. (1957)- Geologia da parte oriental do Timor Portugues. Garcia de Orto 5, 4, p. 727-737.
('Geology of the eastern part of Portuguese Timor'. Portuguese translation of Grunau 1953 paper)

Grundel, J. & H. Kozur (1975)- Psychrospharische Ostracoden aus dem Perm von Timor. Freiberger Forschungshefte C 304, p. 39-49.
(Psychrospheric ostracodes from the Permian of Timor'. Permian ostracodes in samples from Mutis area, W Timor, collected by W.P. de Roever in 1937, interpreted as deep marine Early Permian assemblages)

Gurich, G. (1893)- Uber ein Vorkommen von Lias und oberen Jura auf der Insel Rotti bei Timor in Ostindien und.... 70th Jahresbericht Schlesise Gesellschaft vaterlandische Kultur, II, Naturwissenschaftliche Abt., Breslau, p. 16-18.
('On an occurrence of Lias and Upper Jurassic on the island Roti near Timor in the East Indies..'. First? (brief) report of Jurassic fossils in Indonesia, from Roti Island near Timor: Lower Jurassic ammonites (Arieticeras, Lytoceras) and Upper Jurassic belemnites (Belemnites gerardi group). Collected by German physician Dr. C.F.A. Schneider from Surabaya and sent to Prof. Ferd. Roehmer in Germany for identification. No figures (see also Rothpletz 1892))

Hadimuljono, J.S., D. Yensusminar, A.B. Wicaksono & S. Suliantara (2016)- Rembesan migas di daerah Timor Barat. Lembaran Publikasi Minyak dan Gas Bumi (Lemigas) 50, 3, p. 1-8.
(online at: https://journal.lemigas.esdm.go.id/index.php/LPMGB/article/view/2)
('The oil and gas seepages in West Timor'. Many oil and gas seeps in W Timor, generally associated with mud volcanoes. Gas seeps in all mud volcanoes in W Timor; oil seeps only at mud volcanoes in S part of W Timor. Gas mainly methane (CH4) and minor ethane (C2H6) with high N2 content. Gas chromatography of oil seeps suggest oil probably originated from lacustrine or marine-transition environments)

Hadiwisastra, S. (1987)- Plio-Plistocen nannofosil biostratigrafi dari daerah Soe, Timor. Proc. 15th Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta 1986, p. 1-14.
('Plio-Pleistocene nannofossil biostratigraphy of the Soe area, Timor')

Haig, D.W. (2004)- Stratigraphic reconstruction of Timor Leste and correlation to the Bonaparte Basin. PESA Newsletter 73, p. *('Geology in Timor Symposium' Abstract)*
(Wai Luli Formation type area with clastics ranging in age from Late Permian- M Jurassic. Stratigraphic succession similar to Bonaparte Basin)

Haig, D.W. (2012)- Stratigraphic reconstruction of Timor Leste. In: P. Noguera (ed.) 1st Int. Congress of Geology of Timor-Leste, Dili 2012, p. 59-62. *(Extended Abstract)*
(online at: https://dspace.uevora.pt/rdpc/bitstream/10174/8197/1/1%C2%BA%20Congresso%20Internacional%20de%20Geologia%20de%20Timor.pdf)
(Three phases recognized in development of Late Neogene Timor orogen:(1) initial collision and emplacement of early nappes, creating loading and diapirism (within 9.8-5.5 Ma), (2) tectonic quiet interval (5.5-4.5 Ma), probably resulting from locking of subduction system, and (3) post 4.5 Ma uplift, unroofing and diapirism, probably due to subducting slab tear. Stratigraphic relationships suggest collision was between Banda Arc and ancient Timor Plateau- a continental terrace/plateau similar to present-day Exmouth Plateau)

Haig, D.W. (2012)- Palaeobathymetric gradients across Timor during 5.7-3.3 Ma (latest Miocene-Pliocene) and implications for collision uplift. Palaeogeogr. Palaeoclim. Palaeoecology 331-332, p. 50-59.
(Paleobathymetry analysis of oldest post-collision deposits in Timor, from distributions of planktonic and benthic foraminifera in chalk, marl and mudstone successions that accumulated during 5.7-3.3 Ma. Paleo water depths between 500-2500m, deepening from N to S, E and W)

Haig, D.W. (2018)- Key stratigraphic horizons for assembling a revised tectonostratigraphic framework for Timor-Leste. Proc. 4th IPG International Geosciences Conference on Timor-Leste, Dili 2018, p. 19-27.
(online at: http://ipg.tl/wp-content/uploads/2018/10/PROCEEDING-4th-Int.-Conference-2018.pdf)
(Useful listing of major rock associations on Timor and their biostratigraphic and other age control: (1) Synorogenic (latest Miocene- Holocene, between Australian continent and volcanic Banda Arc, accumulated as present-day island of Timor formed; (2) Timor- Scott Plateau (Late Jurassic- early Late Miocene); (3) East Gondwana Interior Rift (Late Carboniferous/Cribas- M Jurassic/ Wailuli; represent deposits of pre-collision Late Miocene Australian continental margin); (4) Overthrust Terrane (includes Gondwanan/island arc/ocean crustal fragments, emplaced in Late Miocene over NW Australian continental margin during collision. Age of oldest Bacau Gp uplifted limestone terrace within zone N22, ~E Pleistocene)

Haig, D.W. & A.N. Bandini (2013)- Middle Jurassic radiolaria from a siliceous argillite block in a structural melange zone near Viqueque, Timor Leste: paleogeographic implications. J. Asian Earth Sciences 75, p. 71-81.
(Large, thin-bedded, pelagic siliceous argillite block in Bobonaro melange at Viqueque, S Timor Leste, associated with blocks of pillow basalts, near contact with post-orogenic Viqueque basin deposits. Contains M Jurassic (late Bathonian- E Callovian) radiolarian assemblage of 55 species. Fauna little similarity to other Jurassic radiolarian assemblages known from Timor or from Roti, Sumatra, S Kalimantan and Sula. Interpreted as part of Noni Gp, originally described as lower part of Palelo Series in W Timor. Age close to that of continental breakup in area, suggesting deposition in newly rifted Indian Ocean (placed in newly distinguished 'Indian Ocean Megasequence'))

Haig, D.W. & M. Keep (2016)- Recent advances in reconstructing the pre-collision stratigraphy of Timor-Leste. Proc. 3rd International Geosciences Conference (IPG) on Earth Science & Sustainable Development, Dili 2016, p.
(Conference Abstract; see also Haig (2018))

Haig, D.W. & E. McCartain (2007)- Carbonate pelagites in the post-Gondwana succession (Cretaceous- Neogene) of East Timor. Australian J. Earth Sciences 54, 6, p. 875-897.
(online at: https://www.tandfonline.com/doi/pdf/10.1080/08120090701392739)

(Upper parts of Permian- M Jurassic 'Gondwana Megasequence'in Timor Leste structurally juxtaposed against Aptian- Late Miocene carbonate pelagites. Pelagites probably several 100m thick, bathyal, deposited unconformably above Gondwana succession after continental breakup. Cementation, stylolitisation and vein formation after early Late Miocene (after ~11-10 Ma). Deformed succession overlain by relatively undeformed Plio- Pleistocene Viqueque Megasequence (N18-N23). First distal turbidites were from 4.2- 3.4 Ma; proximal turbidite deposition from ~3.35 Ma, with clasts from emerging Timor island to N. M bathyal continental terrace setting continued from mid-Cretaceous- Paleogene to E Pliocene. Soft-sediment mixing in deformed pelagites and Bobonaro Melange under Viqueque Gp suggests Late Miocene (9.8-5.6 Ma) tectonic mobilisation of sedimentary units, with mud volcanoes erupting on seafloor)

Haig, D.W. & E. McCartain (2010)- Triassic organic-cemented siliceous agglutinated foraminifera from Timor-Leste: conservative development in shallow marine environments. J. Foraminiferal Research 40, 4, p. 366-392.
(49 species of agglutinated foraminifera in 11 facies associations in Triassic basinal deposits of Timor Leste. One genus and five species new. Fauna cosmopolitan composition. Coherent stratigraphic sections not preserved and stratigraphic reconstruction is based on correlations using conodonts, palynomorphs and other forams. Most samples Upper Triassic, some Lower Triassic. Facies associations range from those influenced by sediment from nearby carbonate banks to prodelta and delta-front associations)

Haig, D.W. & E. McCartain (2012)- Intraspecific variation in Triassic ophthalmidiid Foraminifera from Timor. Revue de Micropaleontologie 55, 2, p. 39-52.
(Four ophthalmidiid species from Triassic mudstones and wackestones. In Timor Leste, A. bandeiraensis, K. atsabensis and S. grunaui found with Carnian conodonts, at another locality K. atsabensis occurs with conodonts suggestive of M Triassic age)

Haig, D.W., E. McCartain, L. Barber & J. Backhouse (2007)- Triassic- Lower Jurassic foraminiferal indices for Bahaman-type carbonate-bank limestones, Cablac Mountain, East Timor. J. Foraminiferal Research 37, 3, p. 248-264.
(Peloidal- oolitic limestones on Cablac Mountain in E Timor contain Triassic or Lower Jurassic small foraminifera, not Lower Miocene as previously mapped. E Jurassic (Sinemurian-Pliensbachian) age indicated by Meandrovoluta asiagoensis, Everticyclammina praevirguliana and palynomorphs. Other limestones Late Triassic- Early Jurassic, based on Duotaxis metula. Basinal facies of nearby Wai Luli Valley indicate Late Triassic (Carnian) transported carbonate-bank foraminiferal assemblage. This suggests carbonate banks developed locally on topographic highs in seas that flooded interior-rift basins in this part of Gondwana and complex facies array of deep-water muds, deltaic sands, and carbonate shoals)

Haig, D.W., E.W. McCartain, M. Keep & L. Barber (2008)- Re-evaluation of the Cablac Limestone at its type area, East Timor: revision of the Miocene stratigraphy of Timor. J. Asian Earth Sciences 33, p. 366-378.
(Cablac Limestone supposedly a Lower Miocene shallow marine carbonate, but is of Late Triassic- E Jurassic age at Cablac Mountain type locality. Crush breccia at N flank Cablac Mountain formerly regarded as basal conglomerate of Cablac Lst reinterpreted as breccia along high angle fault between 'Asian' Banda Terrane and overthrust limestone)

Haig, D.W., E. McCartain, A.J. Mory, G. Borges, V.I. Davydov, M. Dixon, A. Ernst, S. Groflin, E. Hakansson, M. Keep, Z. Dos Santos, G.R. Shi & J. Soares (2014)- Postglacial Early Permian (late Sakmarian-early Artinskian) shallow-marine carbonate deposition along a 2000 km transect from Timor to West Australia. Palaeogeogr. Palaeoclim. Palaeoecology 409, p. 180-204. (*online at: www.researchgate.net/publication/262489172_Postglacial_Early_Permian_late_Sakmarian-_early_Art etc.)*
(Late Sakmarian- E Artinskian carbonate deposition widespread in marine intracratonic rift basins from Timor to N Perth Basin, spanning ~20° of paleolatitude (35-55°S). Type section of Maubisse Lst in Timor-Leste compared to sections in Canning Basin, S Carnarvon Basin (Callytharra Fm) and N Perth Basin (Fossil Cliff Mb). Carbonate units have no glacial influence, overlie glacially influenced strata in S. Limestone deposition under very shallow marine conditions, and similar grain composition, dominated by bryozoan and crinoidal debris. Tubiphytes, gastropod and bivalve shell debris, echinoid spines, solitary rugose corals and trilobite elements rare. Lack of tropical elements such as fusulinid foraminifera, colonial corals or dasycladacean algae

indicate temperate marine conditions with only small increase in temperature to N. Carbonate deposits represents warmer phase than preceding glacially influenced Asselian- E Sakmarian interval and subsequent cool phase of 'mid' Artinskian that is followed by significant warming during late Artinskian- E Kungurian)

Haig, D.W., A.J. Mory, E. McCartain, J. Backhouse, E. Hakansson, A. Ernst, R.S. Nicoll, G.R. Shi, J.C. Bevan, V.I. Davydov, A.W. Hunter, M. Keep et al. (2017)- Late Artinskian- Early Kungurian (Early Permian) warming and maximum marine flooding in the East Gondwana interior rift, Timor and Western Australia, and comparisons across East Gondwana. Palaeogeogr. Palaeoclim. Palaeoecology 468, p. 88-121. *(manuscript online at: https://discovery.ucl.ac.uk/id/eprint/1530886/3/Halliday_1-s2.0-S0031018216307994-main.pdf)*
(U Artinskian- Kungurian deposits in Timor-Leste and Canning, S Carnarvon and N Perth basins of W Australia formed between 35- 55°S paleolatitude in East Gondwana interior rift, a precursor to rift that 100 My later formed Indian Ocean in region. Timor lay near main axis of E Gondwana rift. Main depocenters developed by faulting initiated in latest Carboniferous. Cool conditions in early Late Artinskian (water T 0-4 °C), followed by rapid warming in late Artinskian and maximum marine flooding near Artinskian-Kungurian boundary. Carbonate mounds, with larger fusulines and algae developed in N part of rift; Tubiphytes, conodonts, and brachiopods with Tethyan affinities to migrate into marginal-rift basins. Bua-bai Lst (= 'upper Maubisse Gp) locally rich in Late Artinskian? fusulinid Praeskinnerella. Similar pattern of climate change in Carboniferous- E Permian between E Gondwana rift and Lhasa and Sibumasu terranes)

Haig, D.W., Z.K. Mossadegh, J.H. Parker & M. Keep (2019)- Middle Eocene neritic limestone in the type locality of the volcanic Barique Formation, Timor-Leste: microfacies, age and tectonostratigraphic affinities. J. Asian Earth Sciences: X, 1, 100003, p. 1-20.
(online at: https://www.sciencedirect.com/science/article/pii/S2590056018300033)
(Occurrences of M Eocene Alveolina-Nummulites- Discocyclina-Asterocyclina-Orbitolites limestones in mainly volcanic Barique Fm. Ages of limestone using planktonic and benthic foraminifers late M Eocene (~38-44 Ma). Similar Eocene limestone-volcanic association widespread in Timor, but not known along NW Shelf of Australia. Usually found in coherent areas of outcrop with Late Mesozoic Palelo Group and oceanic facies (radiolarites to carbonate pelagites), E Jurassic carbonate-bank deposits, etc. This is 'Overthrust Terrane Association', which originated away from Australian margin. Cretaceous- E Miocene units of OTA (incl. Barique Group) similar to coeval units in Sumba and considered fragments of fore-arc of Banda Arc (in W Timor generally called 'Banda Terrane'(Harris et al. 1998))

Haig, D.W., J. Nano, E.O. Fraga, M. Soares, I.S. Barros, E. McCartain & P. Baillie (2024)- Disjunct Lower Jurassic to Lowest Miocene stratigraphic units in the Matebian Overthrust Terrane, Timor-Leste, Northwestern margin of Australian Continent. J. Royal Society Western Australia. 107, p. 36-61.
(online at: https://rswa.scholasticahq.com/article/126413-disjunct-lower-jurassic-to-lowest-miocene-stratigraphic-units-in-the-matebian-overthrust-terrane-timor-leste-northwestern-margin-of-australian-conti)
(Matebian Overthrust Terrane in E Timor-Leste chaotic mix of nine Mesozoic-Paleogene rock types, originally deposited (1) shallow marine, oolitic E Jurassic Perdido Limestone (olistoliths?) and associated deepwater radiolarian-rich Sagadati argillite at N margin of E Gondwana; (2) Cenomanian-Turonian Tibalari planktonic foram pelagite off S Sundaland margin of SE Asia, probably near E Java-S Sulawesi; and (3) in Eocene- earliest Miocene orogenic belt along SE Sundaland margin. During Late Miocene, terrane rifted from Sundaland margin during Banda Sea opening, and collided with Timor/Scott Plateau,becoming incorporated in Timor-Seram orogenic belt along Australian continental margin. Barique Volcanics with M Eocene planktonic forams. Late Oligocene- earliest Miocene Booi/Cablac Limestone with conglomerates with many of the above rock types, Youngest and least deformed unit Atelari Mudstone with latest Oligocene planktonics and conglomerate beds with reworked Cretaceous dinoflagellates and Jurassic-Eocene lithologies)

Haig, D.W., S. Rigaud, E. McCartain, R. Martini, I.S. Barros, L. Brisbout, J. Soares & J. Nano (2021)- Upper Triassic carbonate-platform facies, Timor-Leste: foraminiferal indices and regional tectonostratigraphic association. Palaeogeogr. Palaeoclim. Palaeoecology 570, 110362, p. 1-22.
(Widespread Triassic shallow-water carbonate-platform facies in Timor-Leste (here named 'Bandeira Group'). Many of foraminiferal species also known from N Africa and Europe (Duostomina turboidea, etc.) and signify U

Carnian-Rhaetian ages. Slab-like platform architecture. Interpreted as part of the 'East Gondwana Interior Rift Association')

Haig, D.W., S. Rigaud, E. McCartain, R. Martini, I.S. Barros, L. Brisbout, J. Soares & J. Nano (2025)- Triassic massive limestones forming high peaks and mountain ranges in Timor: part 1: western Timor-Leste. J. Royal Society Western Australia, 108, p. 1-29.
(online at: https://rswa.scholasticahq.com/article/143801-triassic-massive-limestones-forming-high-peaks-and-mountain-ranges-in-timor-part-1-western-timor-leste)
(Partly overlap with Haig et al. (2021) on the same topic)

Haig, D.W., S. Rigaud, E. McCartain, J. Nano, I.S. Barros & R. Martini (2021)- Biostratigraphic indices for Lower Jurassic carbonate-platform deposits (Perdido Group), Overthrust Terrane Association, Timor-Leste. J. Asian Earth Sciences 215, 104797, p. 1-14.
(Lower Jurassic Perdido Group in Timor-Leste part of "Overthrust Terrane Association" and contains Bahamian-type facies shallow-water limestone that had been mixed up with Tertiary Cablac Limestone. Foraminiferal assemblages confirm Sinemurian-Pliensbachian age. With Biokovina sp., Bosniella, Endotriadella, Lituosepta recoarensis, Palaeocyclammina complanata, etc. No equivalent coeval facies known from Indonesia, Malaysia, Timor-Leste or NW Australia (closest comparable occurrences in W Thailand))

Haile, N.S., A.J. Barber & D.J. Carter (1979)- Mesozoic cherts on crystalline schists in Sulawesi and Timor. J. Geological Society, London, 136, p. 65-70.
(online at: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.820.2026&rep=rep1&type=pdf)
(Chert-bearing deep water Jurassic-Cretaceous, unconformable on metamorphics of continental origin in SW Sulawesi and Timor, suggesting Sulawesi and Timor probably part of continuous terrain during deposition of radiolarian cherts. Description of Noil Toko section of Miomaffo complex where Late Jurassic- E Cretaceous radiolarian cherts overlie Mutis-Miomaffo metamorphics)

Hamlet, B. (1928)- Permische Brachiopoden, Lamellibranchiaten und Gastropoden von Timor. In: H.A. Brouwer (ed.) 2e Nederlandsche Timor-Expeditie VI, Jaarboek Mijnwezen Nederlandsch-Indie 56 (1927), Verhandelingen 2, p. 1-115.
(Permian brachiopods and molluscs from W Timor, collected by the Molengraaff 1911 and H.G. Jonker 1915-1917 expeditions. Incl. Leptodus from Fatu Kuat. Little or no stratigraphy or locality information. Originally a doctorate thesis under Prof. F. Broili in Munich. Author B. Hamlet later became Beata Moos)

Haniel, C.A. (1915)- Ammoniten aus dem Perm der Insel Letti. Jaarboek Mijnwezen Nederlandsch Oost-Indie 43 (1914) Verhandelingen 1, p. 161-165.
('Ammonites from the Permian of Leti Island' (E of Timor). Brief descriptions of presumably Early Permian ammonites Paralegocereas sundaicum (= Metalegoceras), Agathiceras sundaicum n.sp. and Propinacoceras sp. from greywacke shale at S slope of 'small Woerlawan' Mountain, Leti. Similar to Bitauni fauna of W Timor)

Haniel, C.A. (1915)- Die Cephalopoden der Dyas von Timor. In: J. Wanner (ed.) Palaontologie von Timor, Schweizerbart, Stuttgart, 3, 6, p. 1-153.
('The cephalopods from the Dyas (= Permian) of Timor'. First and only monograph on Permian ammonites from 35 localities on W and E Timor, expanding on brief earlier papers by Beyrich (1865), Rothpletz (1892) and Boehm (1907). Incl. species of Agathiceras, Cyclolobus, Popanoceras, Paralegoceras, etc. New genera Timorites and Sundaites. New species incl. Sundaites levis. Also straight nautiloids Orthoceras spp.)

Hantoro, W.S. (1994)- Batugamping terumbu koral Kuarter terangkat di Timor. Proc. 23rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 192-207.
(online at: https://www.iagi.or.id/web/digital/62/18.pdf)
('Uplifted Quaternary reefal limestones of Timor'. Eight reef terraces at Kupang, uplifted to ~100m)

Hantoro, W.S., A. Sofian & Z. Abidin (1994)- Geologi dan sumberdaya air wilayah pesisir utara lintasan Liquica-Los Palos, Propinsi Timor Timur. Proc. hasil-hasil penelitian Puslitbang Geoteknologi-LIPI 1993/1994, 1, p. 464-488.
('Geology and water resources of the northern coastal area of Liquica- Los Palos, East Timor')

Harahap, B.H. (2003)- Melange and broken formation on the road from Baucau to Manatuto, Timor Leste. Buletin Geologi (ITB) 35, 1, p. 25-42.
(Melange and broken formation along Baucau- Manatuto road. Melange with scaly mudstone matrix and clasts of crinoidal limestone, pelagic limestone, oolitic limestone, radiolarian chert, sandstone, serpentinite, pillow lava and volcanic rock, fragments of manganese. Broken formation composed mainly of Triassic Aitutu Fm and Permian Maubisse and Atahoc Fms. Most clasts, except serpentinite and radiolarian chert same as broken formation units (also occur as more coherent, mappable units in Central Range of Timor Leste). Serpentinite, radiolarian chert and possibly some pillow lavas thought to be derived from Flores Sea Basin to N. Melange and broken formation may have formed during Australian continent- Banda Arc collision in Pliocene)

Harjanto, A. & C. Danisworo (2013)- Karakteristik mangan (Mn) di daerah Sipul dan sekitarnya, Kecamatan Niki-Niki, Kabupaten Soe, Propinsi Nusa Tenggara Timur. J. Ilmiah Magister Teknik Geologi (UPN) 6, 1, p. 1-14.
(online at: http://jurnal.upnyk.ac.id/index.php/mtg/article/view/250/212)
'(Characteristics of manganese (Mn) in Sipul and surrounding area, Niki-Niki, District Soe, West Timor'. Manganese in Late Cretaceous- Eocene Ofu Fm pelagic sediments N of Sipul. Mineralization of pyrolusite and psilomelane as 2-15 cm thin layers in calcilutite and chert series, with Mn content up to 52%. Manganese deposition probably related to hydrothermal processes)

Harloff, C.E.A. (1936)- Vondst van een Radiumhoudend uraniumerts in de Timorcollectie van den Dienst van den Mijnbouw. De Ingenieur in Nederlandsch-Indie (IV) 3, 4, p. IV.64- IV.70.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1936-04.pdf
('Discovery of a radium-bearing uranium ore in the Timor collection of the Mines Department'. Radioactive mineral in Bandung collection labeled from Timor, but not clear if this really came from Timor)

Harper, K. (2004)- Constraining the uplift history of the Banda arc. Geology in Timor 2004 Symposium abstract, PESA Newsletter 73, p. 32
(Apatite analysis from Aileu metamorphic complex suggest slow cooling between 16.4- 4.6 Ma, with no significant subsequent denudation)

Harris, R.A. (1989)- Processes of allochton emplacement with special reference to the Brooks Range ophiolite, Alaska and Timor. Ph.D. Thesis, University of London, p. 1-514. *(Unpublished)*

Harris, R.A. (1991)- Temporal distribution of strain in the active Banda orogen: a reconciliation of rival hypotheses. J. Southeast Asian Earth Sciences 6, 3-4, p. 373-386.
(online at: https://www.researchgate.net/publication/248552116_Temporal_distribution_of_strain_in_the_active_Banda_orogen_a_reconciliation_of_rival_hypotheses)
(On the Australian continental margin- Banda arc collision zone. Collision began in C Timor at end of Miocene. In W part of collision (Sumba- Savu Islands) most plate convergence occurs within 20-40 km of deformation front. This narrow zone of frontal accretion expands E-ward toward Savu where it is part of submarine accretionary pile >150 km wide. In W Timor accretionary wedge internally shortened and emergent)

Harris, R. (2006)- Rise and fall of the Eastern Great Indonesian Arc recorded by the assembly, dispersion and accretion of the Banda Terrane, Timor. Gondwana Research 10, 3-4, p. 207-231.
(online at: http://geology.byu.edu/Home/sites/default/files/2006-banda-terrane-gr.pdf)
(Banda Terrane is remnant of Jurassic-Eocene arc-trench system that formed E part of the 'Great Indonesian Arc'. Arc rifted apart during Eocene- Miocene supra-subduction zone spreading, which dispersed ridges of Banda Terrane embedded in young oceanic crust as far S as Sumba and Timor. In Timor, Banda Terrane high-level thrust sheets, detached from Banda Sea upper plate and were uplifted by collision with NW Australia margin.

Thrust sheets contain medium grade metamorphics overlain by Cretaceous- Miocene forearc deposits. Igneous zircons <162 Ma with clusters of ages at 83 Ma and 35 Ma. Ar/Ar plateau ages from metamorphics cluster at 32-38 Ma. Cooling curves show exhumation from ~550 °C to surface between 36-28 Ma; after this time no evidence of metamorphism. Banda Terrane rocks and events similar to E edge of Sunda Shelf and Banda Sea floor)

Harris, R. (2011)- The nature of the Banda Arc-continent collision in the Timor region. In: D. Brown & P.D. Ryan (eds.) Arc-continent collision, Frontiers in Earth Sciences 2, Springer Verlag, Heidelberg, p. 163-211.
(online at: http://geology.byu.edu/Home/sites/default/files/2011-nature-of-banda-a-c.pdf)
(Extensive review of oblique collision of Banda arc- Australian continent in Timor region. Significant factor in Banda arc continent collision is thermo-mechanical influence of old and cold lower plate)

Harris, R. (2012)- Free at last: new data helps Timor Leste redefine the processes of arc-continent collision. In: P. Noguera (ed.) 1st Int. Congress of Geology of Timor-Leste, Dili 2012, p. 63-66. *(Abstract)*
(online at: https://dspace.uevora.pt/rdpc/bitstream/10174/8197/1/1%C2%BA%20Congresso%20Internacional%20de%20Geologia%20de%20Timor.pdf)

Harris, R.A. & M.G. Audley-Charles (1987)- Taiwan and Timor neotectonics: a comparative review. Memoir of the Geological Society of China (Taiwan) 9, p. 45-61. *(online at: https://geology.byu.edu/0000017e-45ea-d474-a7ff-6fea6caa0001/1991-taiwan-and-timor-paper-pdf)*
(Taiwan and Timor both thrust belts formed by Pliocene- Recent convergence between passive continental margin and volcanic arc. Taiwan greater rate of uplift, thicker deforming sedimentary wedge and well-defined seismically active suture zone)

Harris, R.A., J.S. Kaiser, A.J. Hurford & A. Carter (2000)- Thermal history of Australian passive margin cover sequences accreted to Timor during Late Neogene arc-continent collision, Indonesia. J. Asian Earth Sciences 18, 1, p. 47-69.
(online at: http://geology.byu.edu/home/sites/default/files/2000-thermal-history-harris-et-al.pdf)
(Paleotemperature and apatite fission track analysis of Australian continental margin cover sequences accreted to active Banda arc-continent collision indicate little to no heating during late Neogene uplift and exhumation. Thrust stacking of rise, slope and shelf units produces inverted vertical profile of increasing apatite fission track age with depth. Lack of any long confined track lengths in apatite from all units requires rapid and recent exhumation of thrust stack, coincident with rapid phases of Plio-Pleistocene exhumation These data preclude pre-Late Miocene tectonic burial or pre-Pliocene exhumation of NW Australian continental margin)

Harris, R.A. & T. Long (2000)- The Timor ophiolite, Indonesia: model or myth? Geological Society of America (GSA), Special Paper 349, p. 321-330.
(online at: www.researchgate.net/publication/281527027_The_Timor_Ophiolite_Indonesia_Model_or_myth)
(Only parts of ophiolite sequence of Timor are small bodies of spinel lherzolite and volcanic rocks. Lherzolite mostly blocks in Bobonaro melange. E Timor lherzolite associated with Aileu metamorphic complex, with Mesozoic prograde metamorphism increasing toward lherzolite bodies via Barrovian zonation. Aileu complex and lherzolites similarly affected by Late Neogene collisional (retrograde) metamorphism. W Timor Atapupu and Nefomasi lherzolites indistinguishable from those of E Timor. Position of lherzolite indicates affinity to thrust sheets accreted from distal edge of Australian continental margin (lower plate) rather than forearc basement. Lherzolite and volcanics in Ocussi region different and may represent parts of young, SSZ ophiolite, emplaced less than few Myr after birth).

Harris, R.A., R.K. Sawyer & M.G. Audley-Charles (1998)- Collisional melange development: geologic associations of active melange-forming processes with melange facies in the western Banda orogen, Indonesia. Tectonics 17, 3, p. 458-479.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/97TC03083)
(Bobonaro melange facies include (1) broken formation, (2) matrix-rich mud injections, (3) mixed block-in-clay facies. Most important control is whether formed beneath or in front of upper plate Banda forearc Terrane. Kolbano Mts (Pliocene fold- thrust wedge of S Timor, structurally contiguous with Timor Trough deformation front) melange mostly broken formation and matrix-rich injections of mud from Jurassic- Cretaceous. Mud

diapirs rise from near decollement along fault conduits. Melange in hinterland of orogenic wedge dominantly block-in-clay facies with large blocks from roof thrust sheets of Banda Terrane and Maubisse Fm units. At base of thrust sheets is Sonnebait Disruption Zone (SDZ), the initial suture between Banda Terrane and Australian margin sequences in Late Miocene- E Pliocene. Thickest accumulations of block-in-clay melange at S edge of SDZ, near Central/ Viqueque basins. Extent of block dispersion and mixing in SDZ indicative of intense shear strains perhaps induced by oversupply of accretable material when suture zone clogged by underthrusting of Australian continental margin)

Harris, R.A., M.W. Vorkink, C. Prasetyadi, E. Zobell, N. Roosmawati & M. Apthorpe (2009)- Transition from subduction to arc-continent collision: geological and neotectonic evolution of Savu, Indonesia. Geosphere 5, p. 152-171.
(online at: https://pubs.geoscienceworld.org/gsa/geosphere/article/5/3/152/31231/Transition-from-subduction-to-arc-continent)
('Savu melange' product of Sunda/Banda arc- Australian continent collision. Blocks of Permian- Paleogene indurated sandstone, limestone and metamorphic and igneous rocks floating in muddy matrix, correlated with Bobonaro melange of Timor and associated with recent mud diapyrism. Previously unrecognized units of pillow basalt interlayered with Jurassic sediments. Savu 1 well TD at 1227m in Cretaceous clastics (=different from Scott Plateau, but similar to Sumba). Includes detailed geological map and cross sections of S-C Savu. Island emergence documented by uplifted coral terraces encrusting highest ridges to 338m elevation: U/Th ages of uplifted coral yields ages of 122 ka, indicating slow uplift rates of 0.2 mm/yr)

Harris, R.A. & S. Wu & T.R. Charlton (1992)- Comment and Reply on "Postcollisional extension in arc-continent collision zones, eastern Indonesia". Geology (GSA) 20, 1, p. 92-94.
(Discussion of Charlton 1991 paper on post-collisional isostatic rebound of Timor area)

Harsolumakso, A.H. (1993)- Etude lithostratigraphique et structurale le long du transect Wini-Kolbano a Timor Ouest (Indonesie). Doct. Thesis, University of Nice- Sophia-Antipolis, Valbonne, p. 1-256. *(Unpublished)*
('Lithostratigraphic and structural study along the Wini-Kolbano transect on West Timor'. Structure and stratigraphic studies across W Timor show two principal deformation phases: (1) pre-Miocene, probably corresponding to emplacement of allochthonous nappes and (2) intense thrusting phase at E-M Pliocene boundary)

Harsolumakso, A.H., B. Sapiie, A. Rudyawan, H. Tiranda, E. Reski & R. Fauziah (2019)- Understanding structural style of onshore Timor Basin from detailed fieldwork. Modern Applied Science 13, 4, p. 123-136.
(online at: http://www.ccsenet.org/journal/index.php/mas/article/view/0/38998)
(Timor characterized by development of complex imbricate thrust-fold-belt deformation involving sedimentary sequence from Australia continental margin. Thick-skinned and thin-skinned thrust faults both present in W Timor area divided by syn-orogenic basin. Change in decollement surface likely caused by inversion structures under thrust sheets. Inversion anticlinal structures likely to occur both onshore and offshore. Bobonaro Complex covers 60% of W Timor region, including Rote Island)

Harsolumakso, A.H. & M. Villeneuve (1993)- Structural section of Timor: lithostratigraphical and structural study from central part of West Timor. Proc. 22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 82. *(Abstract only)*
(Two main tectonic phases responsible for structuring of Timor: (1) pre-Miocene, corresponding to allochthonous nappes emplacement; (2) E-M Pliocene intensive thrusting)

Harsolumakso, A.H., M. Villeneuve, J.J. Cornee, P. De Wever, G. Tronchetti, J. Butterlin, G. Glacon & P. Saint-Marc (1995)- Stratigraphie des series para-autochtones du Sud de Timor occidental (Indonesie). Comptes Rendus Academie Sciences, Paris 320, IIa, p. 881-888.
(online at: https://www.researchgate.net/publication/303593754_Stratigraphy_of_para-autochtonous_and_autochtonous_formations_of_the_southern_part_of_Western_Timor_Indonesie)
('Stratigraphy of the para-autochthonous series in the South of West Timor'. New Late Triassic- Pleistocene reconstruction of stratigraphy of 'para-autochthonous' series of Kolbano area in SW Timor)

Hartmann, E. (1916)- Kurze Mitteilung uber Uberschiebungen auf Niederlandisch Timor. Private print, Batavia, p. 1-4. *(Unpublihed)*
('Brief communication on thrusts on Netherlands Timor'. With map and cross-sections of Ayer Mati- Soengei Kokilah area S of Kupang, showing 'autochthonous' Jurassic sediments, over which Permian limestones with serpentinite and diabase porphyrite and Triassic 'Halstatter' cephalopod limestone were thrusted from NE. All overlain by Late Tertiary)

Hartono, H.M.S., S. Tjokrosaputro, K. Suwitodirdjo & H.M.D. Rosidi (1978)- Some notes on the geologic map of Timor. In: S. Wiryosujono & A. Sudradjat (eds.) Proc. Regional Conference Geology and Mineral Resources of SE Asia (GEOSEA), Jakarta 1975, Indonesian Association Geologists (IAGI), p. 69-76.
(online at: https://www.iagi.or.id/web/digital/32/PIT-IAGI-1975-Paper-9.pdf)
(Two overthrust units recognized: (1) Oligocene overthrusting by allochthonous unit of ?Carboniferous Mutis metamorphic complex overlain by U Cretaceous Palelo Complex, Eocene Manamas(?) Fm volcanics/ limestones, unconformably overlain by Late Oligocene-E Miocene Noil Toko/Cablac Lst; (2) M Miocene overthrusting of Bobonaro (melange) complex and embedded Kiupukan Fm (with Maubisse Lst and volcanics). Authochthonous formations Permian- Triassic Kekneno (Aitutu) Halobia shale and Bisane (Cribas-Atahoc) flysch of Australian origin. Youngest formation Batuputih/Viqueque Fm up to 800m thick and late M Miocene- E Pleistocene age)

Hasan, K. (1984)- A study on heavy minerals from the Kekneno Area, West Timor, Indonesia. Certificate of Chelsea College, Chelsea College, University of London, p. *(Unpublished)*

Hasibuan, F. (1994)- Fauna Gondwana dari Formasi Maubisse, Timor Timur. Proc. 23rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 1, p. 104-111.
(online at: https://www.iagi.or.id/web/digital/62/9.pdf)
('Gondwana fauna from the Maubisse Formation, E Timor'. Occurrence of 'Gondwanan' cool-climate brachiopods (Globiella foordi) and bivalves (Atomodesma and Eurydesma) in E Permian red limestones-shales of Maubisse Fm in central part of Timor Leste, 75 km S of Dili. Linked to S Tethys, at N margin of Gondwana)

Hasibuan, F. (2007)- Penelitian biostratigrafi Mesozoikum Pulau Rote, Nusa Tenggara Timur. Jurnal Sumber Daya Geologi (JSDG) 17, 3, p. 126-144.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/285/256)
('Research on Mesozoic biostratigraphy of Rote Island, East Nusatenggara'. Distribution of Triassic, Jurassic and Cretaceous rocks on Roti broader than previously mapped. Paleozoic not exposed, but Permian ammonite Timorites possibly came up in mud volcano. Aitutu/ Kekneno Fm with Carnian- E Norian Halobia spp. (H. austriaca, H. styriaca, H. charlyana). Presence of Monotis salinaria in Norian Aitutu Fm. Jurassic Wailuli Fm with Perisphinctes, Belemnopsis moluccana, B. galoi, Irianites. Nakfunu Fm rich in radiolaria of Albian age)

Hasibuan, F. (2009)- Geological and paleontological investigation of Rote island, Indonesia. Acta Geologica Sinica 30, Supplement 1, p. 13. *(Abstract only)*
(Rote Island Permian not exposed, but ammonite Timorites in float indicates Permian, brought to surface by mud volcanoes. Well exposed fossiliferous Mesozoic. Carnian-Norian Aitutu Fm thin-bedded marl with Halobia and Monotis. Bathonian-Berriasian Wailuli Fm fine sandstones and sandy limestone with Perisphinctes timorense, Belemnopsis moluccana, B. galoi, B. stolleyi, etc. Cretaceous Nakfunu Fm calcilutite with chert interbeds and radiolarians such as Dictyomitra sp., indicating Albian age. Aitutu Fm probably overturned. Mesozoic overlain by Bobonaro Complex)

Hasibuan, F. (2012)- Rote Ndao: Paling Selatan, jangan dilupakan. Geomagz 2, 3, p. 26-31.
(online at: https://geologi.esdm.go.id/assets/media/content/content-geomagz-vol-2-no-3-tahun-2012-.pdf)
('Rote Ndao island: Southernmost, don't forget it'. Popular review of diverse geology of Rote/ Rotti island, related to that of nearby Timor. With intensely folded fossiliferous deep marine sediments of Permian, Triassic (Aitutu Fm with Halobia, Monotis), Jurassic (Wailuli Fm with belemnites) and Cretaceous (Nakfunu Fm with radiolaria) ages, mud volcanoes, etc. (see also Hasibuan, 2007))

Hayasaka, I. (1939)- On a *Fusulina*-limestone fragment found in the Niki-Niki region, SE Dutch Timor. Kwagaku (Science) 9, 3, p. 86-87.

Hayasaka, I. (1953)- *Hamletella*, a new Permian genus of brachiopoda, and a new species from the Kitakami Mountains, Japan. Transactions Proceedings Paleontological Society of Japan, N.S. 12, p. 89-95.
(online at: www.jstage.jst.go.jp/article/prpsj1951/1953/12/1953_12_89/_pdf)
(Hamletella n.gen. proposed for Permian brachiopod from Timor described as ?Streptorhynchus altus by Hamlet (1928))

Hayasaka, I. & S. Gan (1940)- A note on *Camarophoria 'purdoni'* from the Permian of Timor. J. Geological Society Japan 47, 558, p. 127-132.
(online at: www.jstage.jst.go.jp/article/prpsj1935/1940/17/1940_17_19/_pdf)
(Permian brachiopod Camarophoria 'purdoni' of Broili (1916; presumably from Basleo area) includes several species. New species proposed Camarophoria timorensis (now usually called Stenoscisma timorense and viewed as peri-Gondwanan, anti-tropical species; JTvG))

Hayasaka, I. & M. Hosono (1951)- A new Permian *Spirifer* from Timor. Short Papers Institute of Geology Paleontology, Tohoku University, Sendai, 3, p. 25-28.
(Short paper describing new Permian brachiopod species Spirifer basleoensis from Basleo, Timor)

Hayasaka, I. & K. Ishizaki (1939)- On the occurrence of Eocene foraminifera in the neighbourhood of Besleo, Timor. Mem. Faculty of Science Agriculture, Taihoku Imperial University, 22, 2, Geol. 15, p. 9-17.
(online at: https://dl.lib.ntu.edu.tw/files/original/383269/ntul-tj-0172_19390315_0009.pdf)
(Eocene limestone blocks found in Basleo area, Niki-Niki region, SW Timor, otherwise known mainly for its abundant Permian fossils and Cretaceous manganese-bearing beds with abundant shark teeth. Descriptions of alveolinids (Fasciolites timorensis (Verbeek), Fasciolites wichmanni (Rutten) and Nummulites cf. perforata)

Hehenwarter, E. (1951)- Erganzungen zur Tabulatenfauna des Perm von Timor und zur Stellung des Genus *Trachypsammia* Gerth. Palaeontographica, Supplement IV, Beitrage zur Geologie von Niederlandisch-Indien V, 2, p. 57-94.
('Observations on Timor Permian tabulate coral faunas and on the position of the genus Trachypsammia Gerth')

Helmers, H., J. Sopaheluwakan, F.F. Beunk & S. Tjokrosapoetro (1991)- Metasomatism in basal amphibolite of ophiolite complexes around the Banda Sea, exemplified by the Atapupu outcrops of North Timor, Indonesia. Proc. Silver Jubilee Symposium on the dynamics of subduction and its products, Yogyakarta-Karangsambung 1991, Research Development Centre Geotechnology, Indonesian Institute of Sciences (LIPI), Bandung, p. 302-314.

Helmers, H., J. Sopaheluwakan, S. Tjokrosapoetro & E. Surya Nila (1989)- High-grade metamorphism related to peridotite emplacement near Atapupu, Timor with reference to the Kaibobo peridotite on Seram, Indonesia. In: J.E. van Hinte et al. (eds.) Proc. Snellius II Symposium, Jakarta 1987, Netherlands J. of Sea Research 24, 2/3, p. 357-371.
(online at: https://www.academia.edu/55529734/HIGH_GRADE_METAMORPHISM_RELATED_TO_PERIDOTITE_EMPLACEMENT_NEAR_ATAPUPU_TIMOR_WITH_REFERENCE_TO_THE_KAIBOBO_PERIDOTITE_ON_SERAM_INDONESIA)
(Peridotites from Seram and Atapupu, Timor show cooling and deformation history starting at ~1050°C Metamorphic conditions in pelitic-mafic rocks below Atapupu peridotite >800°C at 6- 7 kbar. Prograde metamorphism nearly obliterated. Mylonitization accompanied metamorphic re-equilibration. Granitic to trondjemitic melt formed from metamorphites above 750°C. Displaced part of this melt is included in late granitic bodies cross-cutting peridotite. Axial directions of four successive folding phases at Atapupu consistent with N-S shortening during subduction. Folding and mylonitization are simultaneous.)

Henrici, H. (1934)- Foraminiferen aus dem Eozan und Altmiozan von Timor. In: J. Wanner (ed.) Beitrage zur Geologie von Niederlandisch-Indien, Palaeontographica Supplement IV, 1, p. 1-56.

(Read only online at: https://archive.org/details/palaeontographica-supplementbaende_1934_4_1/mode/2up)
('Foraminifera from the Eocene and Early Miocene of Timor'. Larger foraminifera of M Eocene (Nummulites, Fasciolites= Alveolina), Late Eocene (Nummulites, Pellatispira, Discocyclina) and Early Miocene age (Spiroclypeus, Miogypsina, Lepidocyclina (Nephrolepidina). HH studied at the University of Bonn under Prof. J. Wanner, from samples collected in West Timor by J. Wanner (1909, 1911) and G. Molengraaff (1910-1911), and in East Timor by BPM geologist F. Weber in 1909))

Heritsch, F. (1937)- Rugose Korallen aus dem Salt Range, aus Timor und aus Djoulfa, mit Bemerkungen uber die Stratigraphie des Perms. Sitzungsberichte Osterreichischen Akademie der Wissenschaften, Wien, Mathematisch- Naturwissenschaftliche Klasse, Abt. 1, 146, p. 1-16.
('Rugose corals from the Salt Range (Himalaya), from Timor and from Djoulfa, with remarks on the stratigraphy of the Permian'. Brief descriptions of some Permian rugose corals)

Hidayah, A.R., U.P. Wibowo, A. Purwoarminta, G.J.Price & S. Noerwidi (2021)- Palaeoenvironments and palaeontology of the Atambua Basin, West Timor, Indonesia. Quaternary International 603, p. 82-89.
(M Pleistocene vertebrate faunas (in particular dwarf elephant Stegodon and Geochelone) long known from Timor. Cause of extinction unknown. Document fossil Pleistocene fauna of Atambua basin iin NE part of W Timor in paleoenvironmental context. Vertebrate fossils restricted to fluvial sandstones of upper Noele Fm. Lithic artefacts recorded widely across basin, but no direct association extinct Pleistocene faunas. Pre-date the oldest modern humans on island)

Hinde, G.J. (1908)- Radiolaria from Triassic and other rocks of the Dutch East Indian Archipelago. In: R.D.M. Verbeek, Molukkenverslag. Geologische verkenningstochten in het oostelijke gedeelte van den Nederlandsch Oostindische Archipel. Jaarboek Mijnwezen Nederlandsch Oost-Indie 37 (1908), Wetenschappelijk Gedeelte, p. 694-736.
(Radiolaria from Timor, Savu, Ceram, Sulawesi, Buru and Mangoli in Verbeek's Moluccas report. Probably mainly of Late Triassic-Jurassic age. 83 species identified, including 74 new species. Richest assemblages from Triassic Halobia-Daonella-bearing cherty limestones from Roti, Savu and Timor (Cenosphaera, Dictyomitra, etc.). Fewer, but similar species in loose chert pebbles collected at Seram and E Sulawesi)

Hirschi, H. (1907)- Zur Geologie und Geographie von Portugiesisch Timor. Neues Jahrbuch Mineralogie Geologie Palaontologie, Beilage Band 24, 2, p. 460-474. *(online at: https://opac.geologie.ac.at/ais312/dokumente/Boehm_1907_Indo-Australisches%20Archipel_V.pdf)*
('On the geology and stratigraphy of Portuguese Timor'. First observations on geology and stratigraphy of Portuguese East Timor along two N-S traverses made in 1904 from a base in Manatutu, during investigation of oil potential for BPM. With two traverse maps (No geologic map, cross-sections))

Hirschi, H. (1933)- Eine geologische Expedition in Portugiesisch Timor; aus Tagebuchnotizen vor 29 Jahren. Mitteilungen Naturwissenschaftlichen Gesellschaft Thun, N.F. 13, p. 25-41.
('A geological expedition in Portuguese East Timor, from 29-year old diary notes'. Mainly travel notes on two traverses of Timor Leste in January- February 1904, during oil company reconnaissance. Very little on geology)

Hoffmann, R. & H. Keupp (2010)- The myth of the Triassic lytoceratid ammonite *Trachyphyllites* Arthaber, 1927, in reality an Early Jurassic *Analytoceras hermanni* Gumbel, 1861. Acta Geologica Polonica 60, 2, p. 219-229.
(online at: https://geojournals.pgi.gov.pl/agp/article/view/9830/8363)
(Trachyphyllites costatum Arthaber (1927) described from single specimen from limestone boulder in Tertiary melange in Bihati River, Timor and interpreted to be of Late Triassic (Norian) age. However, 'Hallstatt facies' limestones ranges in age from Triassic- E Jurassic (Hettangian). New collections from other erratic boulders in type locality confirmed observations of Tozer (1971) and Krystyn (1978) that age of original boulder is E Jurassic (Hettangian). 'Trachyphyllites costatum Arthaber' is junior synonym of Analytoceras hermanni (Gumbel, 1861))

Howell, D.G. (1989)- Tectonics of suspect terranes, mountain building and continental growth. Chapman and Hall, London, p. 1-232.
(Includes chapter 'Taiwan to Timor' (p. 159-167) on collisions of island arcs and continental margins)

Huang. C.C. (2022)- Age and geochemical constraints on igneous rocks from Dai island, Eastern Indonesia: Discovery of Oligocene island arc tholeiitic magmatism. Master Thesis, National Taiwan University, p.
((Lin et al. 2023:) Dai island (part of Banda Outer Arc E of Timor) tholeiitic arc rocks, dated at 32-25 Ma (= Oligocene= continuation of Banda Terrane volcanic arc?; JTvG)

Hulse, J. & J. Soares (2023)- Onshore oil and gas exploration resumes in Timor-Leste after a half-century. Proc. 2023 Southeast Asia Petroleum Exploration Society (SEAPEX) Conference, Singapore, p. 1-28. *(Abstract + Presentation) (see also Taylor et al., 2023)*
(New exploration activites in SW Timor Leste by Timor Resources since 2017, after Timor Oil Company ceased operations in 1972, when still under Portuguese jurisdiction. Drilling campaign started in late 2021, with Karau 1, Kumbili 1, Lafaek 1, Rusa 1 wells. New wells general stratigraphy: at surface (1) Plio-Pleistocene Viqueque Fm; underlain by (2) thick, extremely deformed Bobonaro tectonic melange (with Permian-Pliocene fragments and more coherent Triassic Aitutu and Babulu Fms blocks), underlain by (3) 'Banda Terrane' Lolotoi Metamorphics, overlain by Palelo volcanics, 'Noni Fm' (= Cretaceous radiolarian cherts?; JTvG) and (Eocene?) limestone, underlain by (4) 'sub-decollement' Triassic-Jurassic section. Oils marine algal-derived)

Hunter, D.C. (1993)- A stratigraphic and structural study of the Maubisse area, East Timor, Indonesia. Masters Thesis, West Virginia University, Morgantown, p. 1-214. *(Unpublished)*
(Geologic mapping around Maubisse village in E Timor. Two Permian and one Triassic formations identified: (1) Permian Maubisse Fm of volcaniclastics, limestones and pillow basalts, (2) Permian Cribas Fm, dominated by turbiditic clastics, and (3) Triassic Aitutu Fm, composed mostly of carbonates. Maubisse Fm has been thrust along unconformable contact between Cribas and Aitutu Fm resulting in zone of tectonic melange)

Hutubessy, S. (1998)- Analisis data gayaberat dan seismologi dalam upaya memahami proces gempabumi Dili, Timor Timur. Jurnal Geologi dan Sumberdaya Mineral (JGSM), 8, 82, p. 14-27.
('Gravity and seismological data analysis in an attempt to understand the process of the Dili earthquake, East Timor'. E Timor dominant strike-slip faults in N-S direction, secondary fault pattern in E-W direction)

Idrus, A., E.M. Ati & A. Harijoko (2012)- Preliminary study on the occurrence of mud-volcano-related sedimentary manganese layers at South Central Timor Regency, Timor Island, Indonesia. Proc. 41st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2012-M-16, p.
(Sedimentary manganese layers in S Central Timor 2-10 cm thick and interbedded with (Jurassic?) Cretaceous-Eocene deep sea sedimentary rocks of Ofu and Nakfunu Fms., incl. red-brown claystone, radiolarian chert, slate, marl and white-pink calcilutite. Rock formations underlain by Bobonaro Fm (?; JTvG). Significant manganese layers mostly found ~50- 1000m from margin of mud-volcanoes. Manganese layers strongly deformed. Ore mainly composed of pyrolusite (MnO2), groutite, feitknechtite, manganite and less hematite. Manganese minerals interpreted as alteration products of hydrothermal processes induced by mud-volcanoes)

Idrus, A., E.M. Ati, A. Harijoko & F.M. Meyer (2012)- Occurrences and characteristics of sedimentary-related manganese layers in Timor island, Indonesia. In: N.I. Basuki (ed.) Proc. Annual Conv. Indonesian Soc. Economic Geologists (MGEI). Malang 2012, Banda and Eastern Sunda arcs, p. 201-216.
(Similar to paper above on sedimentary manganese in folded bathyal Cretaceous sediments of Kolbano thrust belt, S Central Timor. Manganese nodules (mainly manganite MnO(OH) interpreted to be precipited on deep sea floor. Manganese layers are formed by Mn remobilization in seawater column, precipitated and deposited on deep sea floor. Probably influenced by 'hydrothermal process' of mud-volcanoes)

Idrus, A., E.M. Ati, A. Harijoko & F.M. Meyer (2013)- Characteristics and origin of sedimentary-related manganese layers in Timor Island, Indonesia. Jurnal Geologi Indonesia 8 4, p. 191-203.
(online at: http://ijog.bgl.esdm.go.id/index.php/IJOG/article/view/169/169)
(Manganese layers of 2-10 cm thick interbedded with highly deformed deep sea reddish claystone, radiolarian chert, slate, marl and white and pinkish calcilutite of (Jurassic) Nakfunu Fm in SW Timor. Stratigraphically overlain by Bobonaro Fm. Two types of manganese ores: mainly layers but also manganite nodules)

Ikegami, T. (1942)- Oil reserve in Portuguese Timor. J. Mining Institute of Japan 58, 685, p. 320-331. *(in Japanese)*
(online at: https://www.jstage.jst.go.jp/article/shigentosozai1885/58/685/58_685_320/_pdf/-char/en)

Imdahl, H. (1922)- Beitrage zur Petrographie von West-Timor. Centralblatt Mineralogie Geologie Palaontologie, p. 65-76.
(online at: www.biodiversitylibrary.org/item/203797#page/91/mode/1up)
('Contributions to the petrography of West Timor'. Petrographic descriptions of rocks collected by Wanner (1909, 1911) in W Timor. Igneous (diorite, gabbro, peridotite, lherzolite, serpentinite), volcanics (quartz keratophyr, andesite, diabase) and metamorphics (amphibolites, chlorite schist, mica schist and epidote schist). No figures)

Ishikawa, A., Y. Kaneko, A. Kadarusman & T. Ohta (2007)- Multiple generations of fore-arc mafic-ultramafic rocks in the Timor- Tanimbar ophiolite, Eastern Indonesia. In: M. Santosh & S. Maruyama (eds.) Island arcs past and present, Gondwana Research 11, 1-2, p. 200-217.
(online at: https://www.academia.edu/download/44965200/Multiple_generations_of_forearc_maficult20160421-24106-s5m4r2.pdf)
(Mafic-ultramafic rocks in Timor-Tanimbar region suggest uplift of fragments of mantle-crust by buoyant subduction of Australian continent. Peridotite masses in Timor (Mutis, Atapupu, Dili) mostly fertile (lherzolitic) in compositions. Overlying Ocussi volcanics resemble island-arc tholeiite, inconsistent with genetic relationship with Timor lherzolites. In eastern islands (Moa, Dai) ophiolitic rocks island-arc affinities. Petrological and geochemical variations best explained by combination of (1) temporal change of igneous activity possibly associated with development of forearc basin and (2) emplacement of spatially different forearc regions in each locality. Fertile lherzolite in forearc setting, high-Mg andesite magmatism, inverted metamorphic grade in associated metamorphics and formation of marginal basins may be linked to injection of high-T asthenospheric materials into mantle wedge)

Ishikawa, A., Y. Kaneko, T. Ohta & Y. Isozaki (2011)- Ophiolites in the non-volcanic Banda outer arc of East Indonesia. Journal of Geography (Chigaku Zasshi) 120, 1, p. 52-64.
(In Japanese; online at: www.jstage.jst.go.jp/article/jgeography/120/1/52/_pdf)
(Looks like summary of Ishikawa et al. 2007)

Jacobson, M.I. & K. Sani (1993)- Post-Convention fieldtrip 1993- West Timor, Nusa Tenggara Timur. Indonesian Petroleum Association (IPA), Fieldtrip guidebook, Jakarta, p. 1-95.

Jafar, S.A. (1975)- Calcareous nannoplankton from the Miocene of Rotti, Indonesia. Verhandelingen Koninklijke Nederlandse Akademie van Wetenschappen, Afd. Natuurkunde, Amsterdam, ser. 1, 28, p. 1-99.
(online at: https://dwc.knaw.nl/DL/publications/PU00010962.pdf)
(Calcareous nannoplankton from single chalk sample 168 from Bebalain, Roti, collected by Molengraaff 1910 and previously studied by Tan Sin Hok (1927) and Kamptner (1955). Seventy-four recognizable autochthonous species of calcareous nannoplankton belonging to 18 genera. Age of sample upper NN9, Discoaster hamatus zone (= early Late Miocene; ~10 Ma). Also common reworked E Cretaceous- E Miocene nannoplankton)

Jafar, S.A. (1975)- Some comments on the calcareous nannoplankton genus *Scyphosphaera* and the neotypes of *Scyphosphaera* from Rotti, Indonesia. Senckenbergiana Lethaea 56, p. 365-379.

Jansen, H. (1934)- Die Variationsstatistische Methode angewandt auf ein groszes Material von *Schizoblastus* aus dem Perm von Timor und einige neue Anomalien dieser Gattung. Verhandelingen Koninklijke Akademie van Wetenschappen, Amsterdam, 37, 10, p. 819-825.
('Variation statistics method applied to a large collection of Schizoblastus from the Permian of Timor and some new anomalies of this genus'. Permian blastoids from Basleo and Niipol, W Timor)

Jattiot, R., H. Bucher & A. Brayard (2020)- Smithian (Early Triassic) ammonoid faunas from Timor: taxonomy and biochronology. Palaeontographica, Abt. A, 317, p. 1-137.
(manuscript online at: https://hal.archives-ouvertes.fr/hal-02615367/document)

(Paleontological descriptions of several well-preserved and highly diverse Smithian (E Triassic) ammonoid faunas from exotic 'Cephalopod Limestone' blocks in Bobonaro melange at Lidak, Bihati (Baun) and Noe Tobe localities in W Timor (Kashmirites, Owenites and Anasibirites faunas). Material collected by Snyder and Veit, and now in University of Zurich. Similar material described earlier by Welter (1922) and Kummel (1968). Early Smithian ammonoids often coated in black ferromanganiferous minerals. One new genus and five new species. New Timor data confirm uniform biogeographical distribution of Smithian ammonoid faunas within Tethys)

Jattiot, R., H. Bucher, A. Brayard, C. Monnet, J.F. Jenks & M. Hautmann (2015)- Revision of the genus *Anasibirites* Mojsisovics (Ammonoidea): an iconic and cosmopolitan taxon of the late Smithian (Early Triassic) extinction. Papers in Palaeontology 2, 1, p. 155-188.
(online at: https://hal.archives-ouvertes.fr/hal-01282981/document)
(Ammonoid Anasibirites restricted to beginning of late Smithian (E Triassic), and characterized by unusual cosmopolitan distribution. Study based mainly on population variability study of new ammonite collection of ~900 Anasibirites specimens from cephalopod limestone blocks at Noe Tobe, N of Nikiniki, W Timor. Similar material described by Welter (1922). Of the ~60 Anasibirites species names described before, only two are deemed valid here: Anasiberites kingianus (Waagen, 1895) and A. multiformis Welter, 1922)

Jell, P.A. (1999)- A monasterid starfish from the Permian of Timor. Mem. Queensland Museum, Brisbane, 43, 1, p. 340.
(Brief first description of two arms of small Permian starfish from Noil Tonino I, SE of Basleo, from Macurda collection)

Johnston, C.R. (1981)- A review of Timor tectonics with implications for the development of the Banda Arc. In: A.J. Barber & S. Wiryosujono (eds.) The geology and tectonics of Eastern Indonesia, Proc. CCOP-IOC SEATAR Working Group Meeting, Bandung 1979, Geological Research Development Centre (GRDC), Bandung, Special Publ. 2, p. 199-216.
(Australia- Timor collision started ~3Ma, but almost all continental rocks in Timor formed part of Banda forearc. Jurassic and older continental rocks of Timor have N Australian affinity, but probably rifted off in Late Jurassic, collided with SE Asia subduction zone in Cretaceous and was reunited with Gondwanaland when Australian continent arrived at this subduction zone)

Johnston, C.R. & C.O. Bowin (1981)- Crustal reactions resulting from the mid-Pliocene to Recent continent island arc collision in the Timor region. BMR J. Australian Geology Geophysics 6, p. 223-243.
(online at: www.ga.gov.au/corporate_data/81078/Jou1981_v6_n3_p223.pdf)
(DSDP-262 data suggest continental edge of Australia first entered subduction zone in Timor region at ~3 Ma. With map of position of pre-collisional continental margin of Australia)

Jonker, H.J.W. (1873)- Rapport van het voorloopig onderzoek naar de aanwezigheid van kopererts op het eiland Timor. Jaarboek Mijnwezen Nederlandsch-Indie 1873, 1, p. 157-186.
('Report of the preliminary investigation of presence of copper ore on Timor Island'. Earlier reports on presence of copper minerals (malachite, lazurite) in N coastal area of Timor could partly be confirmed, but nowhere in commercially significant quantities. Areas investigated in regions of Harneno and Beboki dominated by serpentinitic rock, Fialarang and Niti copper-bearing claystones, etc.)

Jouannic, C., C.H. Hoang, W.S. Hantoro & R.M. Delimon (1988)- Uplift rate of coral reef terraces in the area of Kupang, West Timor; preliminary results. Palaeogeogr. Palaeoclim. Palaeoecology 68, p. 259-272.
(In Kupang area seven uplifted Quaternary coral reef terraces. Fifth step at +44m dated at 152,000 yrs, giving mean uplift rate of 0.3 mm/yr since last interglacial; faster uplift rates in other parts of Timor)

Juliansyah, M.N. & R.D. Putrohari (2014)- Identifying the amount of uplifting of Timor Island using pressure data in Banli-1 well, Bonaparte Basin, southern Banda Arc. Proc. 43rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, PIT IAGI 2014-060, p. 1-5.
(Banli-1 well drilled in 1993 in S edge of W Timor (not Bonaparte Basin). Overpressure interval indicates uplift event of Timor. Depth of Jurassic on Timor Island 2296' higher than on Ashmore Platform. Minimum amount of

uplift of Timor Island identified from difference between actual pressure data and hydrostatic pressure curve is ~1800', suggesting position of Timor Island prior to late uplift is already higher than Ashmore Platform of NW Australian margin)

Kadarusman, A., S. Maruyama, Y. Kaneko, T. Ota, A. Ishikawa, J. Sopaheluwakan & S. Omori (2010)- World's youngest blueschist belt from Leti Island in the non-volcanic Banda outer arc of Eastern Indonesia. Gondwana Research 18, 1, p. 189-204.
(online at: https://www.academia.edu/48818307/Worlds_youngest_blueschist_belt_from_Leti_Island_in_the_non_volcanic_Banda_outer_arc_of_Eastern_Indonesia)
(Timor-Tanimbar non-volcanic outer Banda Arc with world's youngest 'A'-type high-P metamorphic belt, outcropping with different stages of evolution. Advanced domal uplift in Timor, still in first stage of tectonic extrusion on Kisar, Leti, Moa, Sermata and Laibobar. Metamorphics on Leti tectonically juxtaposed against overlying ultramafic rocks and underlying unmetamorphosed continental shelf sediments, bound by normal and reverse faults, respectively. Leti metapelites and metabasite units progressive metamorphic zones; highest grades in structurally intermediate levels. Protoliths of Leti metamorphics originally Permo-Triassic. Sediments and igneous rocks at margin of advancing Australian continent entered subduction zone immediately prior to commencement of Banda Arc-Australia collision in Pliocene. Burial reached 30-35 km. Slab-breakoff at depth in collision zone facilitated rapid uplift by wedge extrusion and active erosion during exhumation)

Kadarusman, A., S. Maruyama, Y. Kaneko, T. Tsujimori, T. Ohta & J. Sopaheluwakan (1997)- On-going exhumation of blueschist belt in the Timor-Tanimbar Region, Eastern Indonesia. Abstracts, Japan Earth and Planetary Science Joint Meeting 1997, p.

Kamptner, E. (1955)- Fossile Coccolithineen-Skelettreste aus Insulinde; eine mikropalaeontologische Untersuchung. Verhandelingen Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, ser. 2, 50, 2, p. 1-105.
(online at: https://dwc.knaw.nl/DL/publications/PU00011530.pdf)
('Fossil coccolith skeletal remains from Indonesia: a micropaleontological investigation'. Study of coccolithophores from Jurassic-Cretaceous and Upper Tertiary marls of Timor and Roti, from same samples as studied by Tan Sin Hok 1927 and later also by Jafar 1975. Paleontological study without maps or stratigraphic context. Numerous new species)

Kaneko, Y., S. Maruyama, A. Kadarusman, T. Ota, M. Ishikawa, T. Tsujimori, A. Ishikawa & K. Okamoto (2007)- On-going orogeny in the outer-arc of the Timor-Tanimbar region, Eastern Indonesia. Gondwana Research 11, p. 218-223.
(online at: https://www.academia.edu/37513307/On_going_orogeny_in_the_outer_arc_of_Timor_Tanimbar_region_eastern_Indonesia)
(Timor-Tanimbar 'outer arc' one of youngest high P/T metamorphic belts in world. Deformation and metamorphic grade increase to center of 1 km thick crystalline belt. Metamorphics extruded as thin sheet between ophiolites and underlying shelf sediments. Central unit Barrovian overprint of high P/T metamorphics during wedge extrusion. Metamorphic grade pumpellyite-actinolite to amphibolite facies. Exhumation of metamorphics started in Late Miocene in W Timor, migrating/younging to E. Deep-seated high P/T metamorphic belt extruded into shallow levels, followed by doming. 'Mountain building' restricted to second stage. Quaternary uplift of ~1260m in Timor, decreasing toward Tanimbar.Quaternary uplift due to rebound of subducting continental crust after oceanic slab break-off. Tanimbar not yet affected by later doming)

Kanmera, K. & K. Nakazawa (1973)- Permian- Triassic relationship and faunal changes in the eastern Tethys. In: A. Logan & L.V. Hills (eds.) Permian-Triassic systems and their mutual boundary, Canadian Society of Petroleum Geologists, Memoir 2, p. 100-119.
(Description of stratigraphy and faunal sequences of U Permian- Lower Triassic from sections in Japan, S China and Indochina. Timor 'allochthonous' shallow marine Asinepe Limestone close affinities to Asian facies and faunas; Audley-Charles et al. 1979)

Karig, D.E., A.J. Barber, T.R. Charlton, S. Klemperer & D.M. Hussong (1987)- Nature and distribution of deformation across the Banda Arc-Australian collision zone at Timor. Geological Society of America (GSA) Bull. 98, 1, p. 18-32.
(Profiles near Timor show Banda Arc-Australia collision zone similar to typical oceanic subduction system. Present deformation most intense at foot of Timor Trough inner slope. Deformation front discontinuously advancing S as new thrust slices develop in subducting Australian margin strata. Present deformation negligible in Savu fore-arc basin, N of Timor. Back-arc thrusting N of volcanic arc, but convergence minor compared with Timor Trough deformation. Along-strike variations in Timor Trough- Savu Basin deformation may be related to variable degree of involvement of Australian continental margin along arc)

Kato, M., K. Takeuchi, A. Hendarsyah & D. Sundari (1999)- On the occurrence of the Permian brachiopod genus *Leptodus* in Timor. Geological Research Development Centre (GRDC), Bandung, Seri Paleontologi 9, p. 43-51.
(Brachiopod Leptodus probably from Permian Maubisse Fm, now embedded in Tertiary clay, indicates Timor was in Tethyan faunal realm (but Kato et al. also quote Leptodus occurrence in W Australia; JTvG). Timor Permian marine faunas closer affinity to SE Asian Permian faunas than to Australian Gondwana)

Kaye, S.J. (1989)- The structure of eastern Indonesia: an approach via gravity and other geophysical methods. Ph.D. Thesis, University College, University of London, p. 1-239.
(online at: www.bandaarcgeophysics.co.uk/Thesis/Thesis-kaye.pdf)
(Study of tectonics of Timor and Tanimbar-Kai regions incorporating gravity data. With discussions of obducted ophiolite terrains and comparisons to PNG and Taiwan. Assumes most of material on Timor belongs on NW Australian margin, and prior to collision Timor region was probably promontory or plateau composed of sedimentary and volcanic units)

Kaye, S.J. & J.S. Milsom (1988)- A new Bouguer anomaly map of Timor eastern Indonesia. University College London Gravity Research Group, p. 1-31. *(Unpublished)*

Keep, M., L. Barber & D. Haig (2009)- Deformation of the Cablac Mountain Range, East Timor: an overthrust stack derived from an Australian continental terrace. J. Asian Earth Sciences 35, 2, p. 150-166.
(Cablac Mountain Range in E Timor S-directed thrust stack of mainly Triassic- E Jurassic carbonates, in structural contact with underlying Lolotoi Fm metamorphics. Lolotoi Fm and overlying Gondwanan thrust stack structurally emplaced on M Eocene units to S. Cablac thrust stack bound to N by high-angle fault along which crush breccia with clasts from Gondwana Megasequence and Asian Banda Terrane. Previously Cablac Lst suggested to be massive E Miocene limestones in depositional contact with underlying units)

Keep, M., L. Beck & P. Bekkers (2005)- Complex modified thrust systems along the southern margin of East Timor. Australian Petroleum Production Exploration Association (APPEA) J. 2005, p. 297-310.
(Study of Plio-Pleistocene accretionary wedge along S coast of East Timor)

Keep, M. & D.W. Haig (2010)- Deformation and exhumation in Timor: distinct stages of a young orogeny. Tectonophysics 483, p. 93-111.
(E Timor data suggest major break between deformed pre-collisional strata and relatively undeformed overlying deposits in Late Miocene (9.8-5.5 Ma). Three distinct phases of orogenic development: Late Miocene initial collision and emplacement of early nappes creating loading and diapirism (9.8-5.5 Ma), tectonic quiet interval (5.5 Ma- 4.5 Ma), which may represent time of locking of subduction system, and post 4.5 Ma uplift, unroofing and further diapirism in response to isostatic rebound. First emergence of parts of Timor island above sea level ~3.1 Ma (mid-Pliocene)))

Keep, M. & D.W. Haig (2010)- Timor collision: deformation and tectonic implications. 20th Australian Geological Convention, Canberra 2010, Geological Society Australia, Abstracts 98, p. 205. *(Abstract only)*
(New biostratigraphic dating places collision between Australian Plate and Banda Arc at 10.9- 9.8Ma. Collision produced complex intercalation of thrust slices from Australian Plate and Banda Arc sides of plate boundary. Initial thrust emplacement between 9.8-5.5 Ma. Intercalation of Australian-derived material with material from

Banda Terrane complicated by over-folding of Banda Terrane thrust slices. Young high-angle strike-slip faults control much of present-day topographic expression of island)

Kenyon, C.S. (1974)- Stratigraphy and sedimentology of the Late Miocene to Quaternary deposits of Timor. Ph.D. Thesis, University of London, p. 1-291. *(Unpublished)*
(Stratigraphy of W Timor includes late M Miocene- Quaternary (N15-N23) Viqueque group sediments above Bobonaro olistostrome. Viqueque group subdivided into 6 formations, 26 members. Several phases of uplift and subsidence. Paleogeographies showing uplifted area to N, deep water sediment transport to South)

Kenyon, C.S. (1999)- The exploration of Timor. In: R.W. Murphy (ed.) The silver years- 25 years of SEAPEX, SE Asia Petroleum Exploration Society (SEAPEX), Singapore, p. 77-83.
(Personal history of Ph.D. fieldwork in Central Basin of West Timor in 1969-1970. Little or no geology)

Keupp, H. (2009)- Timor: Bonanza nicht nur fur Triasfossilien. Fossilien, 4/2009, p. 214-220.
(Well-illustrated report on 2008 fossil collecting trip to Baun area, SW Timor. Large erratic, generally reddish color Permian- Lower Jurassic limestone blocks in olistostrome in Late Tertiary marl-radiolarite-tuff succession. Triassic- Early Jurassic limestones open ocean facies, locally rich in ammonites and aulocerate belemnites, commonly coated by manganese layer. Also found 1-5 cm big globular hydrozoans Heterastridium conglobatum, of Norian age and possibly pelagic hydrozoan colony)

Kieslinger, A. (1924)- Die Nautiloideen der mittleren und oberen Trias von Timor. In: H.A. Brouwer (ed.) 2e Nederlandsche Timor-Expeditie onder leiding van Dr. H.G. Jonker+, vol. III, Jaarboek Mijnwezen Nederlandsch Oost-Indie 51 (1922), Verhandelingen, p. 51-145.
('The nautiloids from the Middle and Upper Triassic of Timor', by student of Carl Diener at University of Vienna. Mainly taxonomic descriptions of nautiloid ammonites collected by 1916 Jonker expedition. Fossils all from isolated blocks of 'Halstatter facies' condensed Triassic section. 14 newspecies. (other classic works on Triassic ammonites from Timor are by Welter 1914, 1915 and Diener 1922))

Koesmono, M (1975)- Rekonstruksi palinspastik dan evolusi geologi daerah Tubuh Bokon, Timor. Thesis, Geology Department, UNPAD Padjadjaran University, Bandung, p. 1-199. *(Unpublished)*
('Palinspastic reconstruction and geologic evolution of the Tubuh Bokon area, N Central Timor')

Koesnama & A.K. Permana (2015)- Sistem minyak dan gas di cekungan Timor, Nusa Tenggara. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 16, 1, p. 23-32.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/48/50)
('Petroleum system in the Timor Basin, Nusa Tenggara'. Brief review of Permian- Jurassic potential source and reservoir rocks of Timor)

Koevoets, M.J., A.S. Schulp & S.R. Troelstra (2014)- The age and provenance of the *Globidens timorensis* holotype. Berita Sedimentologi 30, p. 59-62.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/136)
(Three fossil marine reptile teeth from U Cretaceous of W Timor, originally described by Von Huene, are only known fossils of Mosasaurus-type reptiles in E Tethys region. However, there is some uncertainty about exact locality of origin of these fossils (see also Mulder & Jagt 2019, who viewed these as Truassic ichthyosaurians;JTvG)

Koker, E.M.J. (1924)- Anthozoa uit het Perm van het eiland Timor. I. Zaphrentidae, Pterophyllidae, Cystiphyllidae, Amphiastreidae. In: H.A. Brouwer (ed.) 2e Nederlandsche Timor-Expeditie onder leiding van Dr. H.G. Jonker+, vol. III, Jaarboek Mijnwezen Nederlandsch Oost-Indie 51 (1922), Verhandelingen, p. 1-50.
(Permian corals from Timor, collected by 1916 Jonker expedition, from Wesleo, Nefotassi, Bitauni, etc. Mostly from reddish tuffaceous marls of Wesleo region and associated with rich crinoid, blastoid and brachiopod faunas. Descriptions of probably deeper water solitary rugose assemblages of Zaphrentis spp., Amplexus, Polycoelia, Pterophyllum, Cystiphyllum, Prosmilia. Mixture of cosmopolitan and endemic species)

Koperberg, E.J. (1931)- Jungtertiare und Quartare Mollusken von Timor. In: H.A. Brouwer (ed.) 2e Nederlandsche Timor-Expeditie 1916 onder leiding van Dr. H.G. Jonker+, vol. VII, Jaarboek Mijnwezen Nederlandsch-Indie 59 (1930), Verhandelingen 1, p. 1-165.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB18:008240000:00003)
('Late Tertiary and Quaternary molluscs from Timor', collected in the post-collisional Central Basin of West Timor by the 1916 Timor expedition led by Prof. H.G. Jonker of the TH Delft. Faunas interpreted as Late Miocene- Pliocene in age. 150 species identified, many of them new. Little or no stratigraphy; localities information on pages 154-160)

Koperberg, E.J. (1931)- Jungtertiare und Quartare Mollusken von Timor. Doctoral Thesis, University of Amsterdam, p. 1-201.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB18:004487000:00009)
('Late Tertiary and Quaternary molluscs from Timor', Same as paper above. The 1916 Jonker mollusc collection from Timor was initially sent by H.A. Brouwer from Delft to Leiden for study by Prof. K. Martin. Instead, this project was started by Assistant Professor P.H. Kuenen during his early years in Leiden, but was sidetracked by his involvement with the Snellius Expedition. Continued by E. Koperberg in Leiden under supervision of H. Gerth in Leiden in later 1920s and completed in 1931, after H. Gerth had moved to become Professor of Paleontology in Amsterdam)

Kossovaya O.L. (2009)- Artinskian-Wordian antitropical rugose coral associations: a palaeogeographical approach. Palaeoworld 18, p. 136-151.
(Antitropical rugose corals distributed in temperate zones of Boreal and Perigondwanan realms. E-M Permian antitropical associations represented by 'Cyathaxonia fauna'. Roadian-Wordian in the Southern Hemisphere Perigondwanan temperate zone (Australia, Timor, SE Pamirs) predominance of Verbeekiella- Wannerophyllum assemblage. Timor Basleo Fm fauna with 'typical deep-water, peri-Gondwanan' Wannerophyllum, Verbeekiella, Timorphyllum, etc. Through time gradually replaced by Cathaysian faunas)

Kristan-Tollman, E. (1988)- I. Coccolithen aus den aelteren Allgauschichten (Alpiner Lias, Sinemur) von Timor, Indonesien. Geologisch-Palaontologische Mitteilungen Innsbruck 15, p. 71-83.
(online at: www2.uibk.ac.at/downloads/c715/gpm_15/15_071-083.pdf)
('Coccoliths from the Alpine Liassic, Sinemurian, from Timor'. First description of Early Jurassic (Sinemurian) nannofossils, from Aitutu Fm at SW edge of Soe town and Meto River, SW of Soe, W Timor. Rel. low diversity assemblage, dominated by Timorhabdus timorensis. Associated with common ostracode Ptychobairdia neokristanae)

Kristan-Tollman, E. (1988)- II. Coccolithen aus dem Pliensbach (aelteren Allgauschichten, Alpiner Lias) von Timor, Indonesian. Geologisch-Palaontologische Mitteilungen Innsbruck 15, p. 109-133.
(online at: www2.uibk.ac.at/downloads/c715/gpm_15/15_109-133.pdf)
('Coccoliths from the Alpine Liassic, Pliensbachian, from Timor'. Early Jurassic (Pliensbachian) nannofossils from Aitutu Fm at Meto River, SW of Soe, W Timor. Single sample with 20 species, dominated by Biscutum novum, Lotharingius haufforum and Discorhabdus ignotus)

Kristan-Tollmann, E. (1991)- Mikrocrinoiden aus der Obertrias der Tethys. Geologisch-Palaontologische Mitteilungen Innsbruck 17, p. 51-100.
(online at: www2.uibk.ac.at/downloads/c715/gpm_17/051_100_17.pdf)
('Microcrinoids from the Upper Triassic of the Tethys'. With descriptions of new taxa from Alpine Late Triassic of Eastern Alps (Austria), Taurus Mts (Turkey) and Norian 'Hallstatt Limestone' at Bihati near Baun, W Timor, incl. Leiocrinus krystini, L. gracilis, Bihaticrinus manipalus, etc.)

Kristan-Tollman, E., S. Barkham & B. Gruber (1987)- Potschenschichten, Zlambachmergel (Hallstatter, Obertrias) und Liasfleckenmergel in Zentraltimor, nebst ihren Faunenelementen. Austrian J. Earth Sciences (Mitteilungen Osterreichischen Geologischen Gesellschaft) 80, p. 229-285.
(online at: http://geologie.or.at/index.php/downloads2/category/7-archiv-mitteilungen)

('Potschen beds, Zlambach marl (Hallstatter, Upper Triassic) and Lias flecken-marl in Central Timor, along with their faunal elements' Upper Triassic (Norian- Rhaetian) to E Jurassic thin-bedded marls-limestones and faunas from deep marine 'Aitutu Fm', mainly along Meto River, SW part of W Timor, SW of Soe. Close faunal and lithological similarities with age-equivalent 'Hallstatt facies' rocks in E Alps (W Tethys), with no Pacific faunal elements. With descriptions of U Triassic and Liassic ostracod assemblages and Liassic calcareous nannofossils by Kristan-Tollman, and revision of U Triassic mollusc genera Halobia (H. rugosa, H. fascigera, H. radiata) and Monotis salinaria by B. Gruber)

Kriwet, J. & S. Klug (2011)- The Late Cretaceous deep-sea fish assemblage (Chondrichthyes, Actionopterygii) of the island of Timor, SE Asia. In: Beiträge zur Paläontologie 32, 82nd Jahrestagung der Paläontologischen Gesellschaft in Wien, Vienna 2011, Abstract Volume, p. 62-63. *(Poster Abstract)*
(online at: https://www.zobodat.at/pdf/Beitr-Palaeontologie_32_0001-0100.pdf)
(Late Cretaceous deep-sea red clays of W Timor along Noil Tobee river near Nikiniki contain abundant and diverse fossil fish teeth assemblage (De Beaufort 1920, Weiler 1932). Re-examination of material in London and Leiden confirm most earlier determinations. Diverse open marine and pelagic selachian fauna. Several species of enigmatic shark Ptychodus, characteristic for Late Cretaceous. Common teeth of lamniform sharks, Cretaceous enchodontids, Lophius, Carcharocles megalodon, tooth crowns of Mitsukurina lineata. Several tooth plates of Diodon. Fsh fauna of Noil Tobee mixture of fish assemblages of Late Cretaceous-Miocene age)

Krumbeck, L. (1921)- Die Brachiopoden, Lamellibranchiaten und Gastropoden der Trias von Timor. I. Stratigraphischer Teil. In: J. Wanner (ed.) Palaeontologie von Timor 10, 17, Schweizerbart, Stuttgart, 142p.
('Triassic brachiopods, bivalves and gastropods from Timor- part 1, Stratigraphic part'. Extensive overview of Triassic occurrences on Timor, Savu, Roti, etc., with distribution of ages and facies and comparisons to Triassic in other regions. Based on collections from 1911 Wanner and Molengraaff Timor expeditions. Five main facies: 1. Klippen/ Fatu coral reefal limestone, often oolitic; 2. Bituminous platy limestone and marls; 3. Brachiopod Limestone (rel. rare); 4. Cephalopod Limestone (condensed 'Halstatter facies'); 5. Halobia limestone and shales)

Krumbeck, L. (1922)- Zur Kenntnis des Juras der Insel Rotti. In: G.A.F. Molengraaff (ed.) Nederlandsche Timor Expeditie 1910-1912, vol. III, Jaarboek Mijnwezen Nederlandsch Oost-Indie 49 (1920), Verhandelingen 3, p. 107-220.
('On the knowledge of the Jurassic of Roti Island'. Descriptions of 44 species of Liassic ammonites from grey cephalopod nodule marls, but also some Middle Jurassic ammonites (Macrocephalites). Most species similar to Alpine- Mediterranean species, with, unlike Timor Permian-Triassic, few new species. Assemblages dominated by Dactylioceras spp. and Arietites spp., also Arnioceras, Lytoceras rotticum, Arietites wichmanni, Aegoceras subtaylori, etc. All Jurassic facies on Roti deep marine and of Tethyan affinity)

Krumbeck, L. (1923)- Zur Kenntnis des Juras der Insel Timor, sowie des Aucellen-Horizontes von Seran und Buru. In: J. Wanner (ed.) Palaeontologie von Timor 12, 20, Schweizerbart, Stuttgart, p. 1-120.
('On the knowledge of the Jurassic of Timor, as well as the Aucella horizon of Seram and Buru'. Jurassic of Timor mainly in brachiopod-bivalve facies, while in Roti dominated by ammonites. Jurassic of Timor four facies types: (1) Liassic red cephalopod limestones; (2) M Liassic 'Lithiotis fauna' of thick-shelled molluscs with Mediterranean affinities in 'Fatu Limestones' at Lelefoei Pass (Bonleo, Mutis Mts.) and Fatu Nimassi (where underlain by U Triassic limestone) and Fatu Kenapa: Lithiotis timorensis n.sp., with Pachymegalodus, Myophoria, etc. from brown-grey Mytilus limestone (= typical Tethyan; Geyer 1977, Hayami 1984, Krobicki & Golonka 2009); (3) Early Malm Aucella (= Malayomaorica) malayomarica at several localities on W and E Timor, often 'rock-forming' and aociated with Inoceramus cf. haasti (also known from Roti, Seram, Buru); (4) M Liassic dark grey bituminous platy limestone of Ramelau Mts, E Timor, with Rhynchonella, Spiriferina)

Krumbeck, L. (1924)- Die Brachiopoden, Lamellibranchiaten und Gastropoden der Trias von Timor II. Palaeontologischer Teil. In: J. Wanner (ed.) Palaeontologie von Timor 13, 22, Schweizerbart, Stuttgart, p. 1-275.
(Triassic brachiopods, bivalves and gastropods from Timor- part 2 of 2 (part 1 1921). Paleontological section)

Krystyn, L. & M. Siblik (1983)- *Austriellula robusta* n. sp. (Brachiopoda) from the Upper Carnian Hallstatt limestones of Timor (Indonesia). Osterreich. Akademie Wissenschaften, Schriftenreihe Erdwissenschaftlichen Kommissionen 5, p. 259-266.
(online at: https://opac.geologie.ac.at/ais312/dokumente/SchriftR_Erdw_Komm_5_259.pdf)
(New rhynchonellid brachiopod species from Carnian (U Triassic) red limestone block of Baun, Timor. From 'Halstatt facies' ammonite-rich limestone blocks in Tertiary olistostrome in SW Timor, collected in 1975)

Krystyn, L. & J. Wiedmann (1986)- Ein *Choristoceras* Vorlaeufer (Ceratitina, Ammonoidea), aus dem Nor von Timor. Neues Jahrbuch Geologie Palaontologie, Monatshefte 1986, 1, p. 27-37.
('A Choristoceras ancestor (Ceratitina, Ammonoidea) from the Norian of Timor'. Norian ammonites from 'Halstatt-facies' Norian cephalopod limestone of Timor)

Kuenen, Ph.H. (1942)- Obilatoe, Kisar and Siboetoe. Contributions to the geology of the East-Indies from the Snellius Expedition II. Geologie en Mijnbouw 4, 11-12, p. 81-90.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0M0tDX2Uxbnh3cEE/view)
(Geological observations from short visits to islands of Obilatu, Kisar and Sibutu with the 1929 Snellius Expedition. Kisar (NE of Timor) consists of crystalline schists (incl. amphibolite) with thin cover of elevated Quaternary coral reef terraces that are tilted to East)

Kummel, B. (1968)- Scythian ammonoids from Timor. Breviora, Museum Comparative Zoology, Harvard University, 283, p. 1-21.
(online at: www.biodiversitylibrary.org/page/4294222page/308/mode/1up)
(Description of Lower Triassic ammonites from J. Wanner, H.G. Jonker, etc. collections, all from isolated blocks from extremely condensed sections. Many specimens manganese-coated. Mainly addendum to Welter (1922) monograph. Incl. Owenites, Prosphingites)

Kutassy, E. (1930)- Triadische Fossilien vom Portugiesischen Timor. Foldtani Kozlony (Bulletin Hungarian Geological Society) 60, Budapest, p. 200-209.
(online at: http://epa.oszk.hu/01600/01635/00383/pdf/EPA01635_foldtani_kozlony_1930_60_01-12.pdf)
('Triassic fossils from Portuguese Timor'. Same paper as Kutassy 1931, below)

Kutassy, A. (1931)- Triadische Fossilien vom Portugiesischen Timor. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 9, p. 49-56.
(Triassic fossils from Von Loczy 1922 expedition in S part of Portuguese Timor near Suai. Mostly from folded deep-water marly limestones. With ammonites, belemnites (Aulacoceras striatus) and pelagic molluscs (Daonella indica, Halobia styriaca) (= most likely Upper Triassic (Carnian-Norian); JTvG)

Kwon, C.W., S.W. Kim, S.I. Park, J. Park, J.H. Oh, B.C. Kim, H.J. Koh & D.L. Cho (2014)- Sedimentological characteristics and new detrital zircon SHRIMP U-Pb ages of the Babulu Formation in the Fohorem area, Timor-Leste. Australian J. Earth Sciences 61, 6, p. 865-880. *(with supplementary data)*
(Zircon ages from Triassic Babulu Fm deep marine clastics in Fohorem area, Timor-Leste, Neoarchean- Triassic, with main age pulses Paleozoic- Triassic (329-256 Ma). Proterozoic major peak at 1878-1857 Ma, also at ~1560, 1750, 1830 Ma (results similar to Zobell 2007 data from Savu). Maximum depositional age indicated by youngest zircon age peak (~256-238 Ma) is post- early Late Triassic. Babulu Fm in Fohorem area initiated as submarine fan lobe and represents distal Gondwana Sequence of Australian margin. Zircon age for M Permian trachyandesite in Maubisse Fm (270 ± 3 Ma= E Guadalupian))

Lakeman, R. (1950)- On the crinoid nature of *Timorocidaris sphaeracantha* Wanner. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 53, 1, p. 100-108.
(Timorocidaris sphaeracantha one of most common fossils in Permian of Timor. Hemispherical fossil, here believed to be axillary primibranch of unknown poteriocrinoid, not an echinoid)

Lay, A., I. Graham, D. Cohen, J.M. Gonzalez-Jimenez, K. Privat, E. Belousova & S.J. Barnes, (2014)- Platinum Group Minerals in ophiolitic chromitites of Timor Leste. In: E.V. Anikina et al. (eds.) 12th Int. Platinum Symposium, Inst. Geology and Geochemistry UB RAS, Yekaterinburg, p. 179-180. *(Abstract)*
(online at: http://conf.uran.ru/12IPS/12%20IPS%20ABSTRACTS.pdf)
(Hili Manu peridotites in Manatuto District on N coast of Timor Leste, ~50km E of Dili with ultramafic rocks (serpentinised dunites, harzburgites and lherzolites associated with rare rodingites and gabbros) in two massifs, separated by amphibolite block. With chromitite bodies and Platinum-Group mineralisation. Preliminary PGM Re-Os ages from 0.05 Ga (Subao Highway) to 0.21 Ga (Kerogeol Hill))

Lay, A., I. Graham, D. Cohen, K. Privat, J.M. Gonzalez-Jimenez, E. Belousova & S.J. Barnes (2017)- Ophiolitic chromitites of Timor Leste: their composition, platinum group element geochemistry, mineralogy, and evolution. Canadian Mineralogist 55, 5, p. 875-908.
(Ultramafic rocks at Hili Manu, ~50 km E of Dili, two ultramafic massifs separated by amphibolite. Chromitite bodies at Hili Manu small lenses few m in size. Chromites both high-Cr and high-Al types. Platinum-group minerals (laurite, etc.) as inclusions and in fractures in chromite or serpentinite matrix. Peridotite geochemistry and chemistry of chrome-spinels suggest formation of Hili Manu peridotite in upper mantle in supra-subduction zone setting, Evolutionary trend for the Hili Manu peridotite from MORB through SSZ to arc setting supports interpretation that Hili Manu peridotite is fragment of young oceanic lithosphere from Banda Arc)

Lelono, E.B. (2016)- Palynology of the Permian freshwater deposit in West Timor. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 17, 4, p. 231-239.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/18/16)
(Permian Bisane Fm of W Timor dominated by calcareous sandstone with abundant marine crinoid fossils. Intercalation of non-calcareous dark shale-siltstone with papery structure, 5m thick, with Permian striate-bisaccate pollen, incl. Protohaploxypinus samoilovichii and other species (associated with Glossopteris flora), Striatopodocarpidites phaleratus, Pinuspollenites globosaccus, Lunatisporites pellucidus, etc. and lack marine dinoflagellates. Possibly syn-rift lacustrine deposit)

Lelono, E.B. (2017)- Pollen record of the Permian marine sediments from West Timor. Scientific Contributions Oil and Gas (SCOG), Lemigas, 40, 2, p. 75-84.
(online at: http://journal.lemigas.esdm.go.id/index.php/SCOG/issue/view/12
(Permian calcareous shale and sandstone at 50m thick Lilana river outcrop (Bisane Fm) with moderate pollen recovery (mostly consists of striate and non-striate bisaccates as well as trilete monosaccates). Permian age taxa Protohaploxypinus samoilovichi, Lunatisporites pellucidus, Falcisporites australis, Plicatipollenites malabarensis and Cannanoropollis janakii. Common marine dinoflagellates Dapsilidium langii and Veryhachim reductum and abundant crinoid macrofossils confirm shallow marine paleoenvironment. Common Tasmanites green algae in lower part of section suggest potential hydrocarbon source rock)

Lelono, E.B. (2019)- The Gondwanan green alga *Tasmanites* sp. in the Permian lacustrine deposits of West Timor. Indonesian J. on Geoscience (IJOG) 6, 3, p. 255-266.
(online at: http://ijog.bgl.esdm.go.id/index.php/IJOG/article/view/434/290)
(Permian lacustrine sediments of W Timor 5m thick non-calcareous black shale with papery structures and part of Bisane Fm. Rich but low diversity palynomorphs indicate non-marine environment. >80% of pollen assemblages green alga Tasmanites sp., also striate/ non-striate bisaccate pollen and trilete spores, indicating Permian age. Tasmanites believed to be source for tricyclic terpanes, a primary source of hydrocarbons)

Lelono, E.B., P. Bohemi, A. Bachtiar, P. Suandhi, B.H. Utomo, H. Ibadurrahman, M. Arifai, A. Yusliandi & Z. Lesmana (2016)- Paleozoic lacustrine sediment at West Timor and tectonic implication for Timor Island, new exploration concept of hydrocarbon. Proc. 40th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA16-642-G, p. 1-12.
(Discovery of 5m thick non-calcareous black shale with papery structure at Ajobaki Village, Fatunausus High, Kapan, Soe (in mud volcano?). Consisting of algae layered with sulphur content. With Late Permian(?) fresh water pollen species (incl. Permian Plicatipollenites malabarensis and P. janakii (=Cannanoropollis janakii?) and Triassic Protohaploxypinus samoilovichi and Falcisporites australis) and interpreted as lacustrine deposits.

High maturity (Ro>0.9), TOC up to 24% (NB: Possibly Triassic bituminous shale?: Falcisporites australis, Cannanoropollis janakii, P. samoilovichi may occur in Late Permian but primarily Triassic markers. Little info on geological context of sample; JTvG))

Lelono, E.B., D. Kurniadi, K.D. Anggritya & Saidah (2017)- Palynological review of the Permian lacustrine sediment in the West Timor. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, p. 1-6.
(online at: https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_Palynological-Review-Of-The-Permian.pdf)
(Palynology of new locality of 4m thick non-calcareous black 'paper shale' in central W Timor interpreted as Late Permian lacustrine deposit. High abundance but low diversity of palynomorphs. Tasmanites-green algae >80% of pollen assemblage; rest assemblage striate and non-striate bisaccate and trilete spore, characterising Permian age. Tasmanites blooms interpreted as lake supplied with meltwater from surrounding glaciers. Tasmanites algae potential hydrocarbon source (NB: Tasmanites commonly viewed as pelagic marine algae, common in higher latitudes? (e.g. Barentsz Sea M Triassic marine oil shales with Tasmanites blooms and common Daonella bivalves; Vigran et al. 2008; JTvG). No details on locality)

Lelono, E.B., L. Nugrahaningsih & D. Kurniadi (2016)- Permo-Triassic palynology of the West Timor. Scientific Contributions Oil and Gas (SCOG), Lemigas, Jakarta, 39, 1, p. 1-13.
(online at: http://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/529/297)
(Bisane Fm sandstones-shales in W Timor outcrops with mica and abundant crinoids and up to 5m thick non-calcareous dark shale-siltstone with papery structure and rich in sulfur. Permo-Triassic ages indicated by striate-bisaccate pollen, incl. Protohaploxypinus samoilovichii, P. fuscus, P. goraiensis (= from Glossopteris plants), Striatopodocarpidites phaleratus, Pinuspollenites globosaccus, Lunatisporites pellucidus, also non-striate Falcisporites australis, Samaropollenites speciosus, etc. Trilete-monosaccate spores of Plicatipollenites malabarensis and Cannanoropollis janakii in non-calcareous shale samples Permian or older age. Marine dinoflagellates in calcareous samples (incl. Dapsilidinium langii, Dingodinium jurassicum) suggest marine influence, and not present in non-calcareous samples. Possibly new petroleum system in Paleozoic of W Timor? (NB: dinoflagellates include latest Triassic-Jurassic species?; JTvG))

Lelono, E.B., L. Nugrahaningsih, D. Kurniadi, P.A. Suandhi & B.H. Utomo (2016)- Palynological investigation of the Permian sediment in the on-shore West Timor. Proc. 14th Regional Conference Geology and Mineral Resources of SE Asia (GEOSEA XIV) and 45th Annual Conv. Indonesian Association Geologists (IAGI) (GIC 2016), Bandung, p. 401-404.
(Abbreviated version of Lelono et al. 2016, above, on freshwater synrift facies in Permian Bisane Fm with 44 palynomorph species of Falcisporites superzone)

Lelono, E.B., D. Sunarjanto & A. Kholiq (2016)- Potensi hidrokarbon sedimen Pra-Tersier daerah Atambua, Timor Barat. Lembaran Publikasi Minyak dan Gas Bumi (Lemigas) 50, 2, p. 2-8.
(online at: https://journal.lemigas.esdm.go.id/index.php/LPMGB/article/view/715)
('Hydrocarbon potential of Pre-Tertiary sediments of the Atambua area, West Timor'. Atambua area with many hydrocarbon seeps. Permian shale of Bisane Fm and Triassic clay of Aitutu Fm considered to be source rocks, Permian and Jurassic sandstone potential reservoirs, Jurassic of Wailuli Fm clay potential seal)

Lemoine, M. (1959)- Un example de tectonique chaotique: Timor. Essai de co-ordination et d'interpretation. Revue Geographie Physique Geol. Dynamique 2, 4, p. 205-230.
('Timor, an example of chaotic tectonics'. Complex thrust tectonics on Timor not well understood. Thrusting mainly in Miocene, essentially completed by M or Late Miocene)

Lin, Y.C., S.L. Chung, S. Maruyama, A. Kadarusman & H.Y. Lee (2023)- The ephemeral history of Earth's youngest supra-subduction zone type ophiolite from Timor. Nature Communications Earth and Environment 4, 308, p. 1-9.
(online at: https://www.nature.com/articles/s43247-023-00973-5)
(Earth's youngest supra-subduction zone-type ophiolitic fragments are exposed along outer Banda Arc, from N Timor (Ocussi, Atapupu) to Moa island. Zircon U-Pb ages from dolerites, gabbros, spilites and plagiogranites

and geochemical data indicate short time span (~10- 8 Ma) for magmatic sequence with boninitic and tholeiitic arc compositions. Timor ophiolite interpreted as part of infant Banda arc-forearc complex, which formed with opening of N Banda Sea and subsequent arc collision with irregular Australian continental margin. These 'orogenic ophiolites' do not represent pre-existing oceanic crust, but result from upper-plate processes in early orogenesis and mark onset of collision zone magmatism)

Lisboa, J.V.V., T.P. Silva, D.P.S. de Oliveira & J.F. Carvalho (2020)- Mineralogical and geochemical characteristics of the Bobonaro melange of western East Timor: provenance implications. Comunicacoes Geologicas (Lisbon) 106, 1, p. 35-49.
(online at: https://www.lneg.pt/wp-content/uploads/2020/11/CG19-08-0212-VLisboa.pdf)
(*Bobonaro melange synorogenic deposit with wide variety of unsorted blocks in scaly clay matrix. Mineralogical and geochemical characterization of silt and clay matrix suggest dominant metasedimentary source and small intermediate- felsic contribution; mafic input is residual)*

Lockwood, W.L. (1975)- A geophysical assessment of the Outer Banda Arc with emphasis on gravity measurements in Eastern Timor. M.Sc. Thesis, Flinders University, Adelaide, p. 1-83. *(Unpublished)*

Lombard-Jourdan A. (2000)- L'or de Timor. In: L'horizon Nousantarien. Melanges en hommage a Denys Lombard, vol. IV, Archipel 60, p. 167-198.
(online at: www.persee.fr/docAsPDF/arch_0044-8613_2000_num_60_4_3587.pdf)
('The gold of Timor'. Historical review of records on gold occurrences on Timor, since Portuguese explorers of 1500s. Despite common reports by numerous explorers of presence of minor gold on Timor, and some minor indigenous production, gold was never exploited commercially on Timor)

Macurda, D.B. (1972)- The type species of the Permian blastoid *Calycoblastus*. Journal of Paleontology 46, 1, p. 94-98.
(On discovery of second specimen of large blastoid Calycoblastus tricavatus Wanner from Lower Permian of Baun-Amarasi near Kupang, W Timor)

Maekawa, T., S. Kiyokawa, H. Maeda, G. Tanaka, J.E.F. Costa & A.T. Freitas (2021)- First report of Early Permian Albaillellarian radiolarians from East Timor. Paleontological Research (Palaeontological Society of Japan) 25, 1, p. 32-40.
(online at: https://bioone.org/journals/paleontological-research/volume-25/issue-1/2020PR009/First-Report-of-Early-Permian-Albaillellarian-Radiolarians-from-East-Timor/10.2517/2020PR009.full)
(First report of age-diagnostic Permian radiolarians from E Timor: Pseudoalbaillella postscalprata and P. sakmarensis from calcareous nodule in Permian Atahoc Fm siliciclastics in N-C East Timor. Association indicates Sakmarian (early Cisuralian; Early Permian) age)

Major, J.R. (2011)- Evolution and emergence of the hinterland in the active Banda arc-continent collision: insights from the metamorphic rocks and coral terraces of Kisar, Indonesia. M.Sc. Thesis, Brigham Young University, Provo, Utah, p. 1-165.
(online at: http://scholarsarchive.byu.edu/cgi/viewcontent.cgi?article=3945&context=etd)
(Metamorphic rocks of Kisar island correlate with Aileu Metamorphic Complex of E Timor. Protoliths mostly psammitic with minor basaltic and felsic igneous material. Mafic meta-igneous rocks show rift affinities, likely related to rifting of Gondwana. Collision of N margin of Australia with Banda Arc in latest Miocene caused metamorphism of distal edge of continental margin rocks at depths of 25-30 km, followed by rapid uplift and exhumation. U-Pb analysis of detrital zircons show main populations of ~300 Ma and ~1850 Ma. Youngest grains are ~286/ 295 Ma in age (earliest Permian). Timing of metamorphism poorly constrained by previous studies; mica cooling age of 5.36 Ma reliable. Domal geometry expressed by pinnacle shape of island and by metamorphic foliations parallel to coastline, possibly caused by diapirism into hinge of active thrust anticline)

Major, J.R. & R. Harris (2009)- The tectonic evolution and regional significance of Kisar Island, Indonesia. Geological Society of America, Rocky Mountains Section, 61st Annual Meeting, May 2009, Paper 13-11. *(Abstract only)*

(Kisar Island, NE of Timor, emerges from small ridge in forearc suture zone 3 km deep. Consists of metamorphic rocks encircled by Quaternary uplifted coral terraces. Terraces gently warped and correlated to known sea-level highstands. Metamorphic rocks among youngest in world, range from phyllite to amphibolites)

Major, J.R., R.A. Harris, H. Chiang, C. Prasetyadi & C. Shen (2009)- Variation in deformational mechanisms in the Banda Arc: uplift and tectonic implications of Kisar, Indonesia. EOS Transactions AGU 90, 52, Fall Meeting Suppl., Abstract T33B-T1915. *(Abstract only)*

Major, J.R., R.A. Harris, H.W. Chiang, N. Cox, C.C. Shen, S.T. Nelson, C. Prasetyadi & A. Rianto (2013)- Quaternary hinterland evolution of the active Banda Arc: surface uplift and neotectonic deformation recorded by coral terraces at Kisar, Indonesia. J. Asian Earth Sciences 73, p. 149-161.
(Coral terrace ages yield surface uplift rate of ~0.5 m/ka for Kisar Island in hinterland of active Banda arc-continent collision. Based on this rate, Kisar first emerged from ocean as recently as ~450 ka. Uplifted terraces gently warped in E-W striking folds. Pinnacle shape of Kisar and protrusion of its metamorphic rocks through forearc basin sediments also suggest component of extrusion along shear zones or active doming)

Margolis, S.V., T.L. Ku, G.P. Glasby, C.D. Fein & M.G. Audley-Charles (1978)- Fossil manganese nodules from Timor: geochemical and radiochemical evidence for deep-sea origin. Chemical Geology 21, p. 185-198.
(online at: https://www.researchgate.net/publication/229412598_Fossil_manganese_nodules_from_Timor_Geochemical_and_radiochemical_evidence_for_deep-sea_origin)
(Cretaceous-age Mn nodules from exotic blocks in Miocene Bobonaro scaly clay 4.5 km ENE of Niki Niki are similar to nodules now found at ~3500-5000m in Pacific and Indian Oceans)

Mariotti, N. & J.S. Pignatti (1995)- *Claviatractites*, a new xiphoteuthidid cephalopod from the Upper Triassic of Timor. Palaeopelagos 5, p. 45-52. *(online at: www.academia.edu/19053217/Mariotti_N_and_Pignatti_J_1996_Claviatractites_a_new_xiphoteuthidid_cephalopod_from_the_Upper_Triassic_of_Timor_Palaeopelagos_5_1995_45_52_Roma_Publ_date_April_1996_)*
(New genus name Claviatractites proposed for belemnite originally described as Atractites claviger by Von Bulow (1915) from Late Triassic of Nefokoko, W Timor, because Atractites has ventral furrows, waist is narrower, etc.)

Marks, P. (1954)- Contributions to the geology of Timor. III. An occurrence of *Miogypsina (Miogypsinella) complanata* Schlumberger in the Lalan Asu area, Timor. Indonesian J. Natural Science (Majalah Ilmu Alam untuk Indonesia) 110, p. 78-80.
(Lalan Asu area polymict basal conglomerate above amphibolite, originally described by Tappenbeck 1939, contains latest Oligocene larger forams Miogypsinoides complanata (with >21 spiral chambers) and Spiroclypeus (= Letter zone Te4). Probably equivalent of Base Cablac Limestone in E Timor (called Aquitanian by Marks, but zone Te4 now considered to be Late Chattian = latest Oligocene; Van Gorsel et al., 2014))

Marks, P. (1961)- The succession of nappes in the western Miomaffo area of the island of Timor; a possible key to the structure of Timor. Proc. 9th Pacific Science Congress, Bangkok 1957, Geology and Geophysics 12, p. 306-310.
(Diagram of stratigraphies in W Miomaffo area, W Timor, depicting succession of overthrust sheets)

Martin, K. (1881)- Die versteinerungfuhrenden Sedimente Timors. Nach Sammlungen von Reinwardt, Macklot und Schneider. Sammlungen Geologischen Reichs-Museums Leiden 1, 1, p. 1-64.
(online at: www.repository.naturalis.nl/document/552422)
('The fossil-bearing sediments of Timor, from collections of Reinwardt, Macklot and Schneider'. Early description of Timor fossils, collected by C. Reinwardt in 1821, H. Macklot and S. Muller in 1823-1829 (Kupang area) and Dr. Fritz Schneider in 1863. Mainly solitary corals (Amplexus, Lophophyllum, Lithostrotion) and brachiopods (Spirifer, Spirigera) from Permian. Fossils now in Leiden Naturalis collections. With 3 plates)

Martin, K. (1882)- Die versteinerungfuhrenden Sedimente Timors. Nach Sammlungen von Reinwardt, Macklot und Schneider. Jaarboek Mijnwezen Nederlandsch Oost-Indie 11 (1882), Wetenschappelijk Gedeelte, p. 71-136.

('The fossil-bearing sediments of Timor, from collections of Reinwardt, Macklot and Schneider'. Same as Martin (1881) paper above)

Martin, K. (1890)- Notiz uber das Pliocaen von Timor. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (KNAG) (2), 7, p. 278-280.
('Note on the Pliocene of Timor'. Pliocene gastropods and bivalve molluscs from Fialarang, W Timor, collected by Prof. A. Wichmann and some by H. Jonker. No figures)

Martinez Duran, P., P. Baillie, E. Carrillo & G. Duval (2020)- Geological development of the Timor Orogen. In: J.A. Hammerstein et al. (eds.) Fold and thrust belts: structural style, evolution and exploration, Geological Society, London, Special Publ. 490, p. 329-349. *(manuscript online at: https://www.researchgate.net/publication/334715360_Geological_Development_of_the_Timor_Orogen)*
(Timor Orogen comprises Timor island, a narrow offshore area to N and wider offshore fold-thrust belt to S. Orogen formed by jamming and subsequent collision of Banda Sea subduction system by Australian Plate. Seismic interpretation of geological features on Australian continental crust include two regional NE–SW sinistral strike-slip faults, and prominent M Permian paleo-high (Timor Plateau). NE-trending strike-slip faults governed formation of W Timor and Cova-Lima sub-basins and contra structural style of Timor Orogen)

Martini, R.L., M. Zaninetti, J. Villeneuve, J.J. Cornee, L. Krystin, S. Cirilli, P. De Wever, P. Dumitrica & A. Harsolumakso (1999)- New sedimentological and biostratigraphic data on the Triassic of West Timor (Indonesia). 7th Congres Francais de Sedimentologie, Nancy 1999, 2p. *(Abstract only) (online at: www.researchgate.net/publication/311965160_New_sedimentological_and_Biostratigraphic_data_on_the_Triassic_of_West_Timor_Indonesia)*
(U Triassic Carnian- U Carnian/Rhaetian basinal carbonate series with radiolaria, ammonites and conodonts. 6 lithostratigraphic units: Units A-B Carnian with palynomorphs; Unit C Norian with Gliscopollis meyeriana and Granulatoperculatipollis rudis; Unit D with Norian dinocysts, Unit E with U Norian Monotis salinaria, radiolaria Livarella valida, etc.; Unit H of condensed limestone with ammonites and conodonts. In current state of knowledge, adherance of Allochthonous of Timor to Australian margin highly questionable)

Martini, R.L., M. Zaninetti, J. Villeneuve, J.J. Cornee, L. Krystin, S. Cirilli, P. de Wever, P. Dumitrica & A. Harsolumakso (2000)- Triassic pelagic deposits of Timor: palaeogeographic and sea-level implications. Palaeogeogr. Palaeoclim. Palaeoecology 160, p. 123-151.
(online at: https://www.researchgate.net/publication/223837336_Triassic_pelagic_deposits_of_Timor_Palaeogeographic_and_sea-level_implications)
(W Timor Triassic deposits in 'Parautochthonous Complex' and in Allochthonous Sonnebait series. Late Triassic at rear end of Kolbano thrust belt in W Timor shows deep water organic-rich Carnian shales overlain by Norian-Rhaetian radiolarian-bearing pelagic carbonates. Ammonites typical Tethyan, low paleolatitude. Carnian palynomorphs incl. rare Ovalipollis pseudoalatus. Triassic sedimentary evolution in Timor different from NW Australian margin, but similar to Banda Sea microcontinents like E Sulawesi, Buru, Seram. Data suggest Allochthonous complex, classically interpreted as tectonic melange of Banda Arc accretionary prism, is tectonically dismembered Triassic lithostratigraphic succession)

Maryanto, S. & A.K. Permana (2013)- Mikrofasies dan diagenesis batugamping berdasarkan data petrografi pada Formasi Nakfunu di daerah Timor Tengah Selatan. Jurnal Sumber Daya Geologi (JSDG) 23, 3, p. 143-157.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/87/81)
('Limestone microfacies and diagenesis based on petrographic data of the Nakfunu Formation in the area of South Central Timor'. Lower Cretaceous pelagic limestones from Kolbano foldbelt underwent cementation, replacement, silicification, recrystallization, dolomitization, compaction, fracturing and dissolution. Locally rich in radiolaria (also in Proc. HAGI-IAGI Convention 2017 (Malang))

Maryanto, S., A.K. Permana & J. Wahyudiono (2018)- Aspek petrografi batugamping di daerah Timor Tengah Selatan. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 19, 2, p. 83-97.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/396/340)

('Aspects of the petrography of limestones in the South Central Timor Area'. Petrography of limestones from N and E of Soe: Triassic Aitutu Fm (rich in phylloid algae (= Halobia-type bivalves?; HvG)), E Cretaceous Nakfunu Fm (rich in radiolaria), Late Cretaceous Menu Fm (with planktonic foraminifera) and Paleogene Ofu Fm (with benthic foraminifera and terrigenous material))

Masson, D., G.J. Milsom, A.J. Barber, N. Sikumbang & B. Dwiyanto (1991)- Recent tectonics around the island of Timor, eastern Indonesia. Marine and Petroleum Geology 8, 1, p. 35-49.
(online at: https://earthjay.com/earthquakes/20190624_indonesia/masson_etal_1991_banda_tectonics.pdf)
(Holocene deformation around Timor from GLORIA sidescan sonar system and single-channel seismic data)

McCartain, E. (2004)- A reconstructed stratigraphic succession for the Gondwana sequence of Timor-Leste, forming the type area of the Wailuli Formation. B.Sc. Thesis University of Western Australia, Perth, p. *(Unpublished)*
(Abstract in PESA Newsletter 73, 2004, p. 29. Wai Luli Fm type area clastics range in age from Late Permian-M Jurassic; paleoenvironments inner-outer neritic (commonly with turbidites= deeper marine? JTvG))

McCartain, E. (2014)- Stratigraphic studies on Timor-Leste. Reassessment of mechanisms that drove development of the Triassic succession, Timor-Leste: with a focus on the Babulu Group. Ph.D. thesis, University of Western Australia, Perth, p. 1-255. *(Unpublished) (online at: https://api.research-repository.uwa.edu.au/ws/portalfiles/portal/4461000/McCartain_Eujay_2014.pdf)*

McCartain, E., J. Backhouse, D. Haig, B. Balme & M. Keep (2006)- Gondwana-related Late Permian palynoflora, foraminifers and lithofacies from the Wailuli Valley, Timor Leste. Neues Jahrbuch Geologie Palaontologie, Abhandlungen 240, 1, p. 53-80.
(Palynomorphs from Cribas Fm turbidites from Wailuli Valley, E Timor, are latest Permian in age and of Gondwanan affinity. Diverse Dulhuntyispora assemblage with 6 species, incl. D. dulhuntyi, D. parvithola, etc., also Didecitrelites eriacanus, etc. Assemblage similar to Cape Hay Fm in Bonaparte Basin of NW Australia)

McCartain, E., M.J. Orchard, D. Mantle, D.W. Haig, A. Bertinelli, M. Chiari, F.S. Ferreira, Z. dos Santos, J. Backhouse et al. (2024)- Applying integrated Triassic biostratigraphy in Timor-Leste to unlock an under-sampled Gondwanan sector of the Tethys puzzle. J. Asian Earth Sciences 265, 106052, p. 1-29.
(online at: https://www.sciencedirect.com/science/article/pii/S1367912024000476)
(New integrated Triassic biostratigraphic microfossil database (conodonts, palynomorphs and radiolarians) for Timor-Leste, complimenting published foram data. Neogene collision of Banda Arc and Australia dismembered Triassic succession exposed in Timor-Leste into deformed, isolated and stratigraphically restricted outcrops. Strong similarities between Triassic endemic Australia NW Shelf palynomorph zonal scheme and Timor suggest it is applicable in Timor, despite overall more open marine setting. Provides paleobiogeographic support for deposition of Timor-Leste Triassic within SE Tethyan Gondwanan basin. Etc.)

Mei, S. & C.M. Henderson (2001)- Evolution of Permian conodont provincialism and its significance in global correlation and paleoclimate implication. Palaeogeogr. Palaeoclim. Palaeoecology 170, p. 237-260.
(Early Permian Gondwana Cool Water Province with Vjalovognathus in Canning, Carnarvon and W Timor. Permian conodont provincialism not distinct until Kungurian)

Meijer, H.J.M., S.K. Donovan & W. Renema (2009)- Major Dutch collections of Permian fossils from Timor amalgamated. Journal of Paleontology 83, 2, p. 313.
(Short note reporting that large collections of macrofossils from Permian, etc., of Timor, originally kept in Amsterdam, Delft and Leiden, are now combined in Naturalis Museum, Leiden, the Netherlands)

Milsom, J. & M.G. Audley-Charles (1986)- Post-collisional isostatic readjustment in the southern Banda Arc. In: M.P. Coward & C. Ries (eds.) Collision tectonics, Geological Society, London, Special Publ. 19, p. 353-364.
(Timor area considerable departures from isostatic equilibrium suggested by gravity. In some cases isostatic anomalies accords well with observed vertical movement. In other areas, such as N Timor and inner (volcanic) arc, uplift where gravity data suggest there should be subsidence. Possible explanation is contribution to high

gravity made by cold, dense subducted slab now sinking after rupture near continental margin. Ruptured sinking slab no longer exerts downward pull on overlying lithosphere, freed to rebound isostatically)

Milsom, J. & A. Richardson (1976)- Implications of the occurrence of large gravity gradients in N Timor. Geologie en Mijnbouw 55, p. 175-178.
(online at: https://drive.google.com/open?id=0B7j8bPm9Cse0b3hDbTV1SUpySGs)
(Steep gravity gradient along N coast of Timor suggests dense rocks rose close to surface. Analogies can be drawn with large anomalies associated with ophiolitic thrusts in New Guinea and New Caledonia, where high gravity anomalies caused by concealed roots of exposed ultramafic masses. Timor may be built up of series of thrust slices, resting ultimately on continental basement)

Minato, M. & M. Kato (1965)- Waagenophyllidae. J. Faculty Science Hokkaido University, Sapporo, ser. 4, 12, 3-4, p. 1-241.
(online at: http://eprints.lib.hokudai.ac.jp/dspace/handle/2115/35941)
(Monograph on taxonomy and geographic distributions of Permian waagenophyllid colonial and solitary corals, widely distributed in tropical Tethyan (Cathaysian) region. Lonsdaleia frechi Volz 1904 from Bukit Bessi, Padang Highlands, W Sumatra, recombined as Polythecalis frechi. Waagenophyllids from M Permian of Timor: Lonsdaleiastraea vinassai, L. molengraaffi, Ipciphyllum timoricum (first described by Gerth 1921))

Molengraaff, G.A.F. (1912)- De jongste bodembewegingen op het eiland Timor en hunne beteekenis voor de geologische geschiedenis van den O.I. Archipel. Verslagen Koninklijke Akademie van Wetenschappen, Amsterdam, Vergadering Wis- en Natuurkundige Afdeeling, Juni 1912, p.
(Dutch version of English language paper below)

Molengraaff, G.A.F. (1912)- On recent crustal movements on the Island of Timor and their bearing on geological history of the East Indian Archipelago. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam 15, p. 224-235.
(online at: https://dwc.knaw.nl/DL/publications/PU00012969.pdf)
(After post-Eocene main folding event on Timor, horsts and grabens formed, in which Mio-Pliocene Globigerina limestones were deposited. Plio-Pleistocene coral reefs on Timor now elevated up to 1283m above sea level, proving significant young uplift of Timor)

Molengraaff, G.A.F. (1913)- Overschuivingen en overschuivingsbladen op de eilanden Timor en Letti. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 30, p. 273-274.
('Thrusts and nappes on the islands of Timor and Leti'. Major post-Eocene and pre-Pliocene folding event on Timor. Ideas also presented at International Geological Congress, Toronto 1913 (Molengraaff, 1915))

Molengraaff, G.A.F. (1913)- Het eiland Timor. Natuurkundige Voordrachten 1912-1913, Maatschappij Diligentia, Van Stockum, The Hague, p. 23-32. *(online at: https://natuurwetenschappen-diligentia.nl//wp-content/uploads/2020/07/Diligentia_jaarboek_OR41.pdf*
('Timor Island'. Summary of a lecture at the Royal Society for Natural Sciences 'Diligentia' in The Hague)

Molengraaff, G.A.F. (1914)- De Fatoes van Timor. Verslagen Geologische Sectie, Geologisch Mijnbouwkundig Genootschap I, 1912, p. 117-119.
(The 'fatus' (limestone cliffs) of Timor. Summary of 1912 presentation for Dutch geological society on isolated limestone hills of W Timor, locally named fatus. Composed of different rock types, most commonly Triassic oolitic limestone, but also Permian crinoid limestone, serpentinite, Tertiary orbitoidal limestone or igneous rocks. Often rise from areas with different geology. One explanation may be intense folding of island, probably in 'young Miocene', with disharmonic response by more rigid and more thin-bedded, viscous rocks, followed by differential erosion. Major nappes may also be a factor)

Molengraaff, G.A.F. (1915)- Dekbladenbouw in den Timor archipel. Verslagen Geologische Sectie, Geologisch Mijnbouwkundig Genootschap 1, p. 140-141.

('Nappe structure in the Timor archipelago'. Brief, early report on Molengraaff- Brouwer theory on nappe tectonics as dominant structural style on Timor island)

Molengraaff, G.A.F. (1915)- L'expedition neerlandaise a Timor en 1910-1912. Archives Neerlandaise Sciences des Sciences Exactes et Naturelles, Ser. 3B (Sciences Naturelles), 2, p. 395-404.
(online at: https://www.delpher.nl/nl/tijdschriften/view?identifier=MMTEY01:179592002:00433)
('The Netherlands expedion to Timor in 1910-1912'. Summary in French of results of the Molengraaff/ De Marez Oyens expedition to Timor, Roti, Leti and other islands, to which Mijnwezen geologist H.A. Brouwer was seconded. Collected 12,000 rocks samples and 60 000 well-preserved fossils (including 1200 Permian crinoids and 8000 blastoids, Triassic Auloceratid and Jurassic caniculate belemnites, Permian- Jurassic brachiopods, etc. Permian-Mesozoic faunas many similarities and in open communication with Tethys geosyncline. Many Mesozoic sediments of Timor and Roti deep marine-abyssal/oceanic deposits with radiolaria. Late Triassic Heterastrid limestones very similar to Hallstatt limestones in Northern Calcareous Alps of Austria, as wells as parts of the Himalayas (Salt Range). Major thrusting, with nappe development, directed towards the Australian continent, probably in or before Late Miocene). Permian terranes look like exotic elements in upper 'Fatu Nappe', overlying a deeper 'Tethys Nappe'of deepwater Triassic-Cretaceous deposits)

Molengraaff, G. (1915-1922)- Nederlandsche Timor-Expeditie 1910-1912. Jaarboek Mijnwezen Nederlandsch Oost-Indie, volumes I-III, p. 1-732.
(Vol. I- 1915- Letti island (online at: https://archive.org/details/nederlandschetim00mole)
(Vol. II - 1918- Molengraaff-Brouwer papers (online at: https://archive.org/details/nederlandschetim02mole)
(Vol. III- 1922- Gerth- Brouwer- Krumbeck- Broili papers
(online at: https://archive.org/details/nederlandschetim03mole)
('Netherlands Timor Expedition 1910-1912'. Reprint collection of 3 volumes with papers previously published as volumes of the 'Jaarboek van het Mijnwezen' between 1915-1922, about geology and paleontology of islands Timor, Leti, Roti, Moa, etc. Significant contributions by Brouwer on geology of Leti, Roti, etc., and paleontological papers by Gerth, Haniel, Broili, Krumbeck, etc.)

Molengraaff, G.A.F. (with H.A. Brouwer) (1915)- De geologie van het eiland Letti, Geographische en geologische beschrijving. Nederlandsche Timor-Expeditie 1910-1912, Vol. I, Jaarboek Mijnwezen Nederlandsch Oost-Indie 43 (1914), Verhandelingen 1, p. 1-87.
(Text online at: http://openlibrary.org/books/OL24343736M/Nederlandsche_Timor-expeditie_1910-1912)
also online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB21:040192000:00022)
('Geographic and geological description of the island Letti'. Detailed description of geology of Leti, E of Timor, showing many similarities with Timor geology. Isoclinally folded, mainly N-dipping Permian clastic sediments with thin crinoid-fusulinid limestones become gradually more metamorphic to North (first documentation of post-Permian metamorphism in Indonesia). Overlain in North by ultrabasics and melange mixture of rock types, including reworked Upper Cretaceous pelagic limestone with Globotruncana aff. linneana in latest Oligocene-E Miocene limestone breccia. With studies of Permian brachiopods by Broili, Permian ammonites by Haniel and Permian fusulinid foraminifera by Schubert)

Molengraaff, G.A.F. (1915)- Over mangaanknollen in Mesozoische diepzee-afzettingen van Borneo, Timor en Rotti, hun beteekenis en hun wijze van ontstaan. Verslagen Koninklijke Akademie van Wetenschappen, Amsterdam, Wis- Natuurkundige Afdeeling, 23, p. 1058-1073.
('On manganese nodules in Mesozoic deep-sea deposits of Borneo, Timor and Roti, their significance and mode of formation'. Dutch version of Molengraaff 1916, below)

Molengraaff, G.A.F. (1916)- On the occurrence of nodules of manganese in Mesozoic deep-sea deposits from Borneo, Timor and Rotti, their significance and mode of formation. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam 18, p. 415-430.
(online at: https://dwc.knaw.nl/DL/publications/PU00012518.pdf)
(Manganese nodules in Triassic and Jurassic deposits of C-E Kalimantan, Timor and Roti, often associated with radiolaria, interpreted as abyssal oceanic deposits, 'deposited in deepest parts of Mesozoic Tethys geosyncline')

Molengraaff, G.A.F. (1917)- De Timorexpeditie en hare palaeontologische resultaten. Handelingen 16th Nederlandsch Natuur- Geneeskundig Congres, 's-Gravenhage 1917, p. 245-256.
(online read only at: http://babel.hathitrust.org/cgi/pt?id=uc1.b3093405;view=1up;seq=885)
('The Timor Expedition and its paleontological results'. Summarizing results of expeditions by Molengraaff and Wanner 1911-1912 and H.G. Jonker in 1915. Collected well-preserved, rich, mainly shallow marine Permian faunas, particularly rich in crinoids and blastoids, and also ammonites. Also thin Triassic and Jurassic deep sea deposits on Timor and Roti with manganese nodules and radiolarians, formed in very deep water, very far from landmasses. Upper Triassic faunas remarkably similar to rocks from Alps and Himalyas)

Molengraaff, G.A.F. (1920)- Mangaanknollen in Mesozoische diepzee-afzettingen van Nederlandsch Timor. Verslagen Koninklijke Akademie van Wetenschappen, Amsterdam, Wis- en Natuurkundige Afdeeling, 29, p. 677-692.
('Manganese nodules in Mesozoic deep-sea deposits of Dutch Timor, etc. Dutch version of Molengraaff (1921))

Molengraaff, G.A.F. (1921)- On manganese nodules in Mesozoic deep-sea deposits of Dutch Timor with a preliminary communication on fossils of Cretaceous age in those deposits by L.F. de Beaufort. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 23, 7, p. 997-1012.
(Online at: https://dwc.knaw.nl/DL/publications/PU00014760.pdf)
(Several meters of deep-marine red clays with manganese nodules sampled by H.G. Jonker in 1916 from Noil Tobee river, 4.5 km ENE of Niki-Niki. Red clays conformably overlie thin-bedded Late Triassic limestone with Halobia. Partly dissolved Elasmobranchii shark teeth similar to English Chalk species, suggesting Cretaceous age (not clear if contact is tectonic or represents Jurassic hiatus in condensed deep water series; JTvG))

Moniz, C.C., K. Kawamura, M. Elias, G.G. Aparício de Oliveira & A.E. Alves (2023)- Characteristics of detailed lithology and large-scale landslides of the Bobonaro Melange (Bobonaro scaly clay) at Balibo- Leolima area, West Timor-Leste. Timorese Academic J. Science and Technology 5, p. 118-124.
(online at: http://fect.untl.edu.tl/tajst_article-97-tp.html)
((E Pliocene?) Bobonaro melange in E Timor prone to landslide hazards. In Balibo- Leolima area in W Timor-Leste Bobonaro generally overlain by (Pleistocene) Baucau Limestone). Not much new)

Morgan, R.F. (2015)- Three new species of *Deltoblastus* Fay from the Permian of Timor. PLoS One 10, 6, e0127727, p. 1-9.
(online at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4465186/)
(Review of 15 species of blastoid genus Deltoblastus, with introduction of 3 new species, based on material from Basleo, etc. (now in Waco and London museum collections))

Morrison, E.C. (2025)- Structural analysis of the Aileu Metamorphic Complex and the Laclo Fault of Timor Leste, Banda arc-continent collision. M.Sc. Thesis, Department of Geological Sciences, Brigham Young University, Provo, Utah, USA, Theses and Dissertations 10862, p. 1-173.
(online at: https://scholarsarchive.byu.edu/etd/10862/)
(Structural analysis of intensely deformed Aileu Metamorphics along N coast of Timor Leste. Protoliths likely M-L Permian Maubisse Fm, metamorphosed in Late Miocene? (much younger metamorphism than Lolotoi Metamorphics of Banda Terrane). High grade parts of Aileu Complex bound to S by Laclo fault (instrumental in exhumation of Aileu Complex by normal faults with top-down-to-S oblique slip). At ~12-10 Ma thrusting of Banda forearc nappe (Banda Terrane) over Aileu/Maubisse plateau, ~10-5 Ma opening of S Banda Basin, exhumation of Aileu metamorphic rocks by Laclo fault, simultaneous with thrusting of Aileu/Maubisse nappe over Gondwana and Passive margin sequences. Etc.))

Muhammad, F., I.G.B.E. Sucipta & M.G Sagara (2017)- Origin and tectonic emplacement of mylonitized peridotite in Hili Manu Area, Timor Leste. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, p. 1-6.
(online at: https://www.researchgate.net/publication/368636978_Origin_and_Tectonic_Emplacement_of_Mylonitized_Peridotite_in_Hili_Manu_Area_Timor_Leste)

(Hili Manu oceanic peridotite body in N Timor Leste is spinel lherzolite peridotite with mylonitic structures. Geothermobarometry from exsolution lamellae of pyroxenes indicate peridotite formed at 1190°C and 8.5 kb (850 MPa). Rocks mylonitized at 964- 1092°C and 4.9-5.7 kb (490-570 MPa). Metamorphism of underlying Permian Aileu Fm increases toward base of peridotite (= metamorphic sole during peridotite emplacement))

Mulder, E. & J.W.M. Jagt (2019)- *Globidens(?) timorensis* E. Von Huene, 1935: not a durophagous mosasaur, but an enigmatic Triassic ichthyosaur. Neues Jahrbuch Geologie Palaontologie, Abhandlungen 293, 1, p. 107-116.
(Three isolated sauropsid tooth crowns described from Timor in 1935 by Erika von Huene, who tentatively attributed them to new species of Late Cretaceous mosasaurid Globidens(?) timorensis. However, these are not from Late Cretaceous mosasaurs, but from Triassic ichthyosaurian)

Mulhadiono & B. Simbolon (1988)- Preliminary account of the petroleum potential of Timor Island. Proc. 17th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 89-110.
(Overview of Timor geology, accepting Asian origin of Mutis-Palelo, Maubisse and N Coast thrust complexes. Main deformation phase between Late Eocene- earliest Miocene. 21 wells drilled in E Timor, Metai 1 and Taci with minor oil tests. Various source formations present, but reservoir quality may be poor)

Muller, S. (1844)- Bijdragen tot de kennis van Timor en enige andere naburige eilanden. In: Temminck, C.J. (ed.) Verhandelingen over de natuurlijke geschiedenis der Nederlandsche overzeesche bezittingen door de leden der Natuurkundige Commissie in Indie en andere schrijvers, 1, Land en Volkenkunde, Leiden, p. 129-320.
(online at: https://ia802907.us.archive.org/2/items/verhandelingeno00temm/verhandelingeno00temm.pdf)
('Contributions to the knowledge of Timor and some neighboring islands'. Early naturalist descriptions of West Papua from Muller's 1828-1830 Triton Expedition)

Munasri (1998)- Early Cretaceous radiolarian biostratigraphy of the Nakfunu Formation, the Kolbano area, West Timor, Indonesia. Ph.D. Thesis, University of Tsukuba, Japan, No. 1869, p. *(Unpublished)*
(Berriasian-Aptian cherts and mudstone from Kolbano area of SW Timor contain radiolarians from two different climates: (1) southern high latitudes and (2) low latitude/ tropics)

Munasri, T.R. Charlton, M. Guterres & D. Gandara (2024)- Late Jurassic and Early Cretaceous radiolarian age determinations from Timor-Leste. Berita Sedimentologi 50, p. 26-50.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/455/434)
(Radiolaria studied from two formations in Timor-Leste: (1) Late Jurassic (M Oxfordian- M Kimmeridgian) 'Tethyan' assemblage at base of Suai Loro-1 petroleum exploration well near Suai in SW corner of Timor-Leste (Timor Oil, 1971); (2) Early Cretaceous (late Valanginian-Hauterivian) radiolaria from outcrop of radiolarian cherts, sandstones and red shales in Caraulun river River, S of Samé in south-central Timor-Leste (assigned to Wai Bua Fm;, equivalent to Nakfunu Fm in West Timor))

Munasri & A.H. Harsolumakso (2020)- Late Cretaceous radiolarians from the Noni Formation, West Timor, Indonesia. Berita Sedimentologi 45, p. 5-18.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/426/401)
(Cenomanian-Turonian 'Tethyan' radiolarian fauna from chert sample of Noni Fm from Miomaffo District (generally viewed as part of allochthonous 'Banda Terrane' complex). Radiolarian faunas close resemblance to S Sulawesi and different from age-equivalent faunas in 'autochthonous' distal NW Australian margin deposits in southern foldbelt of West Timor (Kolbano accretionary complex) and Timor Leste (Viqueque), which contain common 'non-Tethyan', cooler water radiolaria)

Munasri & K. Sashida (1999)- Tethyan and non-Tethyan Early Cretaceous radiolarian fauna from West Timor, Indonesia. In: H. Darman & F.H. Sidi (eds.) Tectonics and sedimentation of Indonesia, FOSI-IAGI-ITB Regional Seminar to commemorate 50th anniversary of Van Bemmelen's Geology of Indonesia, Bandung 1999, p. 88-91.
(Radiolaria in E Cretaceous Nakfunu Fm of Kolbano accretionary complex of southern W Timor indicate trend of increasing number of Tethyan species, reflecting N-ward motion of N Australian continental slope: (1) Berriasian- E Valanginian mainly non-Tethyan taxa of Parvicingula, Crytocapsa, etc. (Circum-Antarctic cold-

water faunas?); (2-3) Late Valanginian- E Barremian both Tethyan and non-Tethyan taxa; (4) E Aptian Tethyan taxa only (Dictyomitra pseudoscalaris, Stichomitra spp., etc.))

Munasri & K. Sashida (2018)- Tethyan and non-Tethyan Early Cretaceous radiolarian faunas from West Timor, Indonesia: paleogeographic and tectonic significance. Earth Evolution Sciences (University of Tsukuba) 12, p. 3-12.
(online at: https://tsukuba.repo.nii.ac.jp/record/45848/files/EES_12-3.pdf)
(Abundant and well-preserved E Cretaceous radiolaria in calcilutites and shales of Nakfunu Fm, Kolbano area, southern W Timor, in accretionary complex. Radiolarian faunas similar to ODP Leg 123- Site 785 from Argo Abyssal Plain. Four assemblages of Berriasian- E Aptian age, with trend from non-Tethyan to Tethyan affinities in progressively younger strata. Frequent and random repetition of radiolarian assemblages reflect imbrication of beds. Faunas derived from southerm paleolatitude origin, influenced by Circum-Antarctic current)

Nahar, R.N.F.A., A.J. Widiatama, L.D. Santy, W.E.M. Puteri, A. Damanik, Z. Zulfiah & R. Kapid ((2021)- Biostratigrafi nanofosil gampingan dan lingkungan pengendapan Formasi Ofu selama Neogen. J. Science and Application Technology (JSAT) 5, 2, p. 348-352.
(online at: https://journal.itera.ac.id/index.php/jsat/article/view/383/187)
('Post-collisional' Ofu marls in SW Timor with nannofossils of zones NN10-NN11 (Tortonian-Messinian) (older and younger beds not well defined? JTvG)

Nano, J., D.W. Haig, E.O. Fraga, M. Soares, I.S. Barros, E. McCartain & P. Baillie (2024)- Debris-slides, olistoliths and turbidites: keys to understanding the tectonostratigraphic affinities of a terrane block in a young orogenic belt, Timor-Leste. J. Geological Society, London, 181, 1, jgs2023-079, p. 1-17.
(Matebian Range one of largest mountains in Timor Leste orogenic belt, previously mapped as Lower Miocene Cablac Limestone and regarded as allochthonous Banda Terrane. New analyses show disjunct stratigraphy, from Lower Jurassic- lowest Miocene. Reconstruction of changes in provenance through time, mainly from identifications of clasts in conglomerates, suggests terrane progression from N margin of Gondwana to southern Sundaland margin (Asia) and then back to NW margin of Australian continent. Substantial episodes of uplift, particularly during M Eocene and Late Oligocene. Youngest unit (Late Oligocene-earliest Miocene) deposited adjacent to rapidly rising S Sundaland, very different from that on coeval Australian margin)

Nakazawa, K. & Y. Bando (1968)- Lower and Middle Triassic ammonites from Portuguese Timor (Paleontological study of Portuguese Timor 4). Memoirs Faculty of Science, Kyoto University, Ser. 4, Geology and Mineralogy, 34, 2, p. 83-114.
(online at: https://repository.kulib.kyoto-u.ac.jp/dspace/bitstream/2433/186548/1/mfskugm%20034002_083.pdf)
(First report on E-M Triassic (U Scythian- Lw Anisian) ammonites from Timor Leste. from cephalopod limestones in 3 localities: (1) in N (W of Manatuto; area of mixed Triassic and Permian 'Fatu Limestones', SE of area of amphibolites/ serpentinite); (2) in S (N and SE of Pualaca= near Nogami 1963 Permian fusulinid locality; with M and Late Triassic 'Fatu limestones') and (3) in E (Tutuala; Late Triassic). Sixteen species incl. Dieneroceras dieneri, Anasibirites multiformis, Meekoceras spp., Procarnites, Leiophyllites timorensis, etc. With listings of associated conodonts)

Nguyen, N., B.G. Duffy, J. Shulmeister & M.C. Quigley (2012)- Rapid Pliocene uplift of Timor. Geology (GSA) 41, 2, p. 179-182.
(online at: https://www.researchgate.net/publication/244989087_Rapid_Pliocene_Uplift_of_Timor)
(Palynology of 34 samples of Pliocene turbidites-marls from type section of 200m thick Viqueque Fm of E Timor. From ~4.5- 3 Ma palynomorphs mainly from Australia and New Guinea (Casuarina, Eucalyptus, etc.), with increasing swamp and mangrove elements from emerging proto-Timor. After ~3.1 Ma pollen and charcoal track rapid uplift of Timor with progressive appearance of montane and dry, lee-side floristic elements. E-M Pliocene uplift rates of 0.5-0.6 mm/yr increased to 2-5 mm/yr in latest Pliocene)

Nicoll, R.S. (1999)- Triassic conodont faunas from Australia and Timor. In: H. Yin & J. Tong (eds.) Proc. Int. Conf. Pangea and the Paleozoic- Mesozoic transition, Wuhan 1999, China University Geoscience Press, p. 140-141. *(Abstract only)*

(Conodonts at various horizons in Timor Triassic similar to Australia NW shelf margin)

Nicoll, R.S. & C.B. Foster (1998)- Revised biostratigraphic (conodont-palynomorph) zonation of the Triassic of Western and northwestern Australia and Timor. In: P.G. & R.R. Purcell (eds.) The sedimentary basins of Western Australia 2. Proc. Petroleum Exploration Society Australia (PESA) Symposium, Perth, 2, p. 129-139.
(Studies of relationships between conodont faunas and spore-pollen and dinocyst palynofloras from W Australian margin and Timor have revised calibration of Australian Triassic palynomorph zones and stage terminology. Wombat-Timor Trough (newly defined) is axis of sedimentation on NW Shelf in Triassic)

Niermann, H.T. (1975)- Polycoeliidae aus dem Oberperm von Basleo auf Timor. Munstersche Forschungen Geologie und Palaontologie 37, p. 131-225.
('Polycoeliidae from the Upper Permian of Basleo on Timor'. Taxonomic revision of family of early Late Permian solitary rugose corals, based on 490 specimens collected by H. Ehrat in 1927, and building on Gerth (1921) and Koker (1924). 25 species (13 new), 10 new subspecies. No stratigraphy or locality information)

Nieuwenkamp, W.G.J. (1919)- Bezoek aan eenige slijkvulkanen op Kambang en Semaoe (West-Timor). Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 36, p. 488-492.
(online at: https://resolver.kb.nl/resolve?urn=MMUBA13:001665001:pdf)
('Visit to some active mud volcanoes on Kambang and Semau, West Timor'. Over 150m high composite mud volcanoes. Nothing on rock inclusions)

Niko, S., T. Nishida & K. Nakazawa (2000)- Orthoconic cephalopods from the Lower Permian Atahoc Formation in East Timor. Paleontological Research (Palaeontological Society of Japan) 4, 2, p. 83-88.
(online at: www.palaeo-soc-japan.jp/download/PR/PR4-2.pdf)
(Three species of orthoconic cephalopods described from Lower Permian Atahoc Fm in Cribas area, E Timor (Mooreoceras sp., Atahococeras timorense), signifying Late Paleozoic non-ammonoid cephalopod fauna at N margin of Gondwana near Sakmarian-Artinskian boundary)

Nogami, Y. (1963)- Fusulinids from Portuguese Timor (Palaeontological study of Portuguese Timor 1). Memoirs Faculty of Science, Kyoto University, Series Geology and Mineralogy, B30, 2, p. 59-68.
(online at: https://repository.kulib.kyoto-u.ac.jp/dspace/bitstream/2433/258257/1/mcsuk-b_30_2_59.pdf)
(Four E Permian fusulinid species from two localities in Timor Leste:(1) yellowish linestone with basaltic fragmens at SE foot of Fatu Auveon, 2km NW of Pualaca in C East Timor, with Schwagerina nakazawae n.sp., Codonofusiella weberi and Parafusulina; (2) white bedded Iimestone N of Hato-Builico in W part of E Timor with poor Triticites sp, indet. Samples collected by Nakazawa in 1961)

Nogami, Y. (1968)- Trias-Conodonten von Timor, Malaysien und Japan (Palaeontological study of Portuguese Timor 5). Memoirs Faculty of Science, Kyoto University, Series Geology and Mineralogy, 34, 2, p. 115-136.
(online at: https://repository.kulib.kyoto-u.ac.jp/dspace/bitstream/2433/186547/1/mfskugm%20034002_115.pdf)
('Triassic conodonts from Timor, Malaysia and Japan'. Seven conodont faunas recognized in Triassic of Malaysia, Timor and Japan. Conodonts from Timor from samples collected by Nakazawa of ammonoid-bearing limestone of Lacon River, Manatuto District, Timor Leste, mainly Middle Triassic age. Includes description of new species Gondolella timorensis (now assigned to Chiosella; JTvG), a worldwide marker species for Lower Anisian (base of M Triassic). Malaysian material from Kodiang Lst probably all Late Triassic in age (specimen of Pl. 8, fig. 8 assigned to late Carnian Epigondolella primitia by Mosher (1973))

Nurhidayati, A.U. & B.H. Utomo (2021)- Sedimentation in syn-rift set of Austalia continent series in east part of West-Timor, East Nusa Tenggara. Proc. International Conference Ocean and Earth Sciences, Jakarta 2020, IOP Conference Series: Earth and Environmental Science 789, 012046, p. 1-10.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/789/1/012046)
(Rifting in W Timor basin in Late Permian-Jurassic, and initial sediments deposited in terrestrial facies; deepening to deep marine during Triassic and Jurassic. Post-rift in Cretaceous-Miocene, with deep marine sediment (wishing it was that simple; JTvG))

Nutzel, A. (2007)- Cephalopoden (Ammoniten, Nautiliden und *Aulacoceras*) aus der Trias von Timor (Indonesien). Freunde Bayerischen Staatssammlungen Palaontologie Historische Geologie, Munchen, Jahresbericht 2006 und Mitteilungen 35, p. 32-34.
('Cephalopods (ammonites, nautilids and Aulacoceras) from the Triassic of Timor, Indonesia')

Nutzel, A., A. Kaim, H. Bucher, R. Veit, M. Hautmann, H. Hagdorn & R. Jattiot (2014)- Late Early Triassic benthic communities from Timor and their significance for the recovery from the end-Permian mass extinction event. Proc. Conf. GeoFrankfurt 2014, 1p. *(Abstract only) (online at: www.researchgate.net/publication/268801514_Late_Early_Triassic_benthic_communities_from_Timor_and_their_significance_for_the_recovery_from_the_end-Permian_mass_extinction_event)*
(Neogene melange near Baun, W Timor, known for blocks of Triassic cephalopod limestones, very rich in well-preserved ammonites. Most are Late Triassic age (Norian) some E Triassic (Smithian, Spathian). E Triassic benthic fauna dominated by diverse gastropods (15 species), incl. naticopsids and bellerophontoids)

Orchard, M.J. (1994)- Conodont biochronology around the Early-Middle Triassic boundary: new data from North America, Oman and Timor. Memoires de Geologie (Lausanne) 22, p. 105-114.
(online at: https://www.unil.ch/files/live/sites/iste/files/shared/X.Library/Memoirs%20of%20Geology/22%20-%20Guex%20(1994%20-%20entire%20volume).pdf)
(Includes discussion of Triassic conodonts in matrix around ammonites from 'Hallstatt-facies' limestone block of Timor, from which Tozer (1994) described ammonites. Common Chiosella timorensis and fewer Gladiogondolella tethydis, suggest E Anisian (M Triassic) age. Simillar to assemblages from Oman and Chios (Base C. timorensis (Nogami) appears to be reliable conodont marker for E-M Triassic boundary; JTvG))

Ormeling, F.J. (1957)- The Timor problem: a geographical interpretation of an underdeveloped island. Wolters, Groningen, 284p.
(General geographic study of Timor)

Osberger, R. (1954)- Contribution to the geology of Timor. IV. Notes on Plio-Pleistocene corals of Timor. Indonesian J. Natural Science (Majalah Ilmu Alam untuk Indonesia) 110, p. 80-82.
(On corals from uplifted Plio-Pleistocene reef terraces near Lalan Asu, collected by De Waard expedition. Material generally poorly preserved)

Ota, T. & Y. Kaneko (2010)- Blueschists, eclogites, and subduction zone tectonics: insights from a review of Late Miocene blueschists and eclogites, and related young high-pressure metamorphic rocks. Gondwana Research 18, 1, p. 167-188.
(Review of formation and exhumation of Late Miocene blueschist and eclogite belts, including Timor-Tanimbar blueschist belt and world's youngest coesite- bearing eclogite in PNG)

Pakuckas, C. & G. von Arthaber (1928)- Nachtrag zur Mittel- und Obertriadischen Fauna der Ammonoidea trachyostraca C. Dieners aus Timor. In: H.A. Brouwer (ed.) 2e Nederlandsche Timor-Expeditie VI, Jaarboek Mijnwezen Nederlandsch-Indie 56 (1927), Verhandelingen 2, p. 143-218.
(Addendum to Diener (1922) work on thousands of M- Late Triassic ammonites, by student and associate of C. Diener in Vienna. Ammonites collected from loose blocks in W Timor by the 1916 H.G. Jonker Timor expedition. Anisian- Carnian and probable Rhaetian assemblages, most of them similar to 'Halstatter Facies' of Mediterranean Province)

Panjaitan, S. & S. Hutubessy (1997)- Analisis tektonik berdasarkan paleomagnetik di daerah Timor-Timur. Jurnal Geologi dan Sumberdaya Mineral (JGSM), 7, 70, p. 19-27.
('Tectonic analysis of East Timor area based on paleomagnetic data'. Declination/ inclination results from 'allochthonous' and 'parautochthonous' outcrops mainly along traverse S of Dili rather variable: (1) Permian Aileu Fm 6°/-31° and 126°/48° (interpreted as deposited at latitude 29°N), (2) Late Permian Cribas Fm 150°/ 50 (deposited at 30.7°N), (3) Permian- Triassic Maubisse Fm 220°/44° (deposited at 25.7°N), (4) Late Triassic Aitutu Fm 295°/-54°(deposited at 34.5°S) and (5) Jurassic Wailuli Fm 18°/-22° (deposited at 11.4°S). In Late Triassic Timor was still close to Australian continent, in Jurassic already started to make move to N)

Panjaitan, S. & S. Hutubessy (2004)- Pembentukan formasi batuan di Pulau Timor ditinjau dari data paleomagnet dan gayaberat. Jurnal Sumber Daya Geologi (JSDG) 14, 1 (145), p. 55-68.
('Formation of Timor island rock formations as observed from magnetic and gravity data'. Contribution to Asian vs. Australian origin of Timor rock units: Permian Aileu Fm formed at paleolatitude 48° N, Cribas Fm at ~31° N, Maubisse Fm at 25° N, all far N of equator and at S edge of Asian continent. Plate moved S since Triassic to form thrust sheets in Timor Island. Triassic Aitutu Fm formed at ~34° S and Jurassic Wailuli Fm at ~11° S, both far S of equator and part of Australian continent. Collision between Allochthon and Para-Autochthon rocks seen on 150 mgal negative Bouguer anomaly, in which Australian continent plate with density of 3.0 gr/cm³ subducted and depressed under Banda Sea plate)

Park, S.I., H.J. Koh, S.W.Kim, Y.H. Kihm (2014)- The occurrence and origin of a syn-collisional melange in Timor. Economic and Environmental Geology (Korean Soc. Economic Environmental Geology). 47, 1, p. 1-15.
(online at: http://ocean.kisti.re.kr/downfile/volume/kseeg/JOHGB2/2014/v47n1/JOHGB2_2014_v47n1_1.pdf)
(In Korean, with English abstract. Bobonaro melange syn-collisional melanges formed during collision between Australian continental margin and Banda arc. In Suai area melange matrix of unmetamorphosed red-green clay with scaly texture, with allochthonous blocks. Melange classified into (1) diapiric; (2) tectonic; and (3) broken formation. Melange intruded all pre-collisional units including lower Australian margin unit (Gondwana megasequence) and Banda arc unit. Interpreted to be mainly formed as diapiric melange originated from Gondwana megasequence)

Park, S.I., S. Kwon & S.W. Kim (2014)- Evidence for the Jurassic arc volcanism of the Lolotoi complex, Timor: tectonic implications. J. Asian Earth Sciences 95, p. 254-265.
(SHRIMP U-Pb zircon ages from two andesitic metavolcanic rocks in Lolotoi complex, Timor Leste, yield permissible range of M Jurassic extrusion from 177-174 Ma (~late E Jurassic; Toarcian). Inherited grains age cluster of 242 ± 4 Ma (M Triassic) and oldest grain of 1848 Ma. Basaltic-andesitic metavolcanics products of prolonged oceanic crust and arc magmatism, respectively. Parts of Banda forearc basement are pieces of allochthonous oceanic basalts and Jurassic arc-related andesites accreted to Sundaland during closure of Mesotethys, and incorporated later into Great Indonesian Volcanic Arc system along SE margin of Sundaland (NB: suggests protoliths of Lolotoi Metamorphics younger than Permian-Triassic 'Gondwana sequence' of Timor; JTvG))

Partoyo, E., B. Hermanto & S. Bachri (1995)- Geological map of the Baucau Quadrangle, East Timor, 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(Geologic map of NE part of Timor Leste. 'Para-autochthonous' with E Permian Maubisse and Atahoc and Late Permian Cribas as oldest units, and 'Autochthonous' units. No 'Allochthonous'.)

Peloschek, H.P. (1956)- Contributions to the geology of Timor. XI. Reports on magnetic observations and radioactive measurements in lndonesian Timor. Majalah llmu Alam Indonesia (Indonesian J. Natural Science) 112, p. 175-186.

Penecke, K.A. (1908)- Uber eine neue Korallengattung aus der Permformation von Timor. Jaarboek Mijnwezen Nederlandsch Oost-Indie 37, Wetenschappelijk Gedeelte, p. 657-659.
('On a new coral genus from the Permian of Timor'. Description of new genus of solitary rugose coral collected by Verbeek: Verbeekia permica n.gen., n.sp. from Ayer Mati, Basleo area. (genus Verbeekia renamed Verbeekiella by Penecke (1908b). Re-ranked as subgenus of Dibunophyllum by Gerth (1922); JTvG)

Permana, A.K., A. Kusworo & A.H. Prastian (2014)- Characteristics of the Triassic source rocks of the Aitutu Formation in the (West) Timor Basin. Indonesian J. on Geoscience (IJOG) 1, 3, p. 165-174.
(online at: http://ijog.bgl.esdm.go.id/index.php/IJOG/article/view/198/184)
(Triassic marine fine-grained clastics and carbonates of W Timor considered to be most promising source rocks in basin. Geochemical and petrographic data from Aitutu Fm carbonate outcrops in Niki-Niki and other localities near Kolbano show TOC up to 9.2% and kerogen dominated by Type II with minor Type III. Organic matter

mainly oil and gas prone. Thermal maturity from Tmax, TAI and Vitrinite Reflectance shows immature- early mature stage. Biomarkers indicate mixed source facies of algal debris and higher plant terrestrial origin)

Permana, A.K., A. Kusworo & A.H. Prastian (2014)- Characteristics Triassic source rocks in the (West) Timor Basin. Proc. 43rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, PIT IAGI 2014-026, p. 1-6.
(Similar to Permana et al. 2014, above. Mainly study of two 22-27m thick outcrop sections of folded deeper marine limestones and shales of Triassic Aitutu Fm along Noil Fatu and Toeheum, Kolbano Area, SW Timor. With open marine bivalves Monotis salinaria (E Carnian-M Norian) and Halobia spp. Locally high TOC (up to 8.1%). Vitrinite reflectance of Noe Fatu section 0.67- 0.73% (early peak maturity for oil generation), Toeheum section 0.43- 0.57% (immature to early dry gas generation))

Permana, A.K. & A.H. Prastian (2013)- Fasies kipas bawah laut bawah laut pada batuan berumur Perem-Trias daerah Kekneno, Cekungan Timor. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 14, 4 (199), p. 3-18.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/74)
('Submarine fan facies of the Permian-Triassic rocks in the Kekneno area, Timor basin'. Sedimentological study of Permian-Triassic turbiditic clastics in Kekneno area, Nenas, NW Timor. Permian Atahoc- Cribas Fms in slope submarine fan facies. Cribas Fm >300m thick, feldspathic litharenites with polycrystalline quartz, plagioclase and volcanic rock fragments. Triassic Niof Fm greywacke (400m) and Babulu Fm also with various submarine fan facies)

Petroconsultants (1992)- Timor Island. Southeast Asia basin opportunities. Petroconsultants (Far East) Pte. Ltd. Singapore, Non-exclusive Report. *(Unpublished)*

Peyrot, D., M. Keep, J. Scibiorski, E. McCartain, P. Baillie, J. Soares, D.W. Haig & A.J. Mory (2019)- The Foura Sandstone type section (*Samaropollenites speciosus* Zone, Carnian- early Norian; early Late Triassic), Timor-Leste: preliminary correlation between Timor and the Bonaparte Basin. Australasian Exploration Geoscience Conference (ASEG) 2019, Perth, Extended Abstracts, p. 1-4. *(Extended Abstract)*
(online at: https://www.tandfonline.com/doi/pdf/10.1080/22020586.2019.12073150)
(Triassic Foura Sst (Babulu Group) in Timor-Leste of Carnian- E Norian age (Samaropollenites speciosus Zone). Sandstones of turbidite origin, rich in plant debris and volcanic lithic grains. Palynological material variable preservation, suggesting complex pre-burial history and long distance transport. Presence of prasinophytes suggests anoxic depositional settings. Same age as Carnian- E Norian sandstones in wells from Sahul Shoals and Ashmore Reef areas of Bonaparte Basin (but do not elaborate on similarities/ differences))

Peyrot, D., D.W. Haig, D. Mantle, P. Baillie, A. Mory, M. Keep, J. Soares, J. Scibiorski & J. Backhouse (2025)- Palynology from the Foura Sandstone type section, Timor-Leste, and Late Ladinian-Carnian (Middle–Upper Triassic) vegetation reconstruction from NW Australia. Review Palaeobotany Palynology 338, 105346, p.
(manuscript text online at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5131955)
(Rich palynoloflora assemblages of volcaniclastic turbiditic Foura Sandstone Member in Babulu Fm in Timor-Leste. Correlates with U Ladinian- Carnian upper Staurosaccites quadrifidus–?lower Samaropollenites speciosus spore-pollen zones of Australia. High diversity conifer pollen indicates 'Onslow' paleobiogeographic floral belt (= rel. warm Tethyan margin Triassic assemblage)).

Pires, J., E.A. Subroto & A.H.P. Kesumajana (2024)- Studi geokimia organik batuan sedimen berumur Trias di Cekungan Maliana, Timor-Leste: tinjauan awal kemungkinan sebagai batuan induk. Lembaran Publikasi Minyak dan Gas Bumi (LPMGB) Lemigas, 58, 1, p. 26-36.
(online at: https://journal.lemigas.esdm.go.id/index.php/LPMGB/article/view/1614)
('Organic geochemical studies of Triassic sedimentary rocks in the Maliana Basin, Timor-Leste: a preliminary review of possible source rocks'. Source rock geochemistry of 136 samples from Triassic Babulu and Aitutu Fms in Maliana Basin, Bobanaro area, Timor Leste. Generally high level of maturity (>440°C for Tmax and 0.8% Ro (in 'oil window'). Babulu Fm TOC 0.5- 5.5%, Aitutu Fm 0.5-12.3%. Effective source rocks)

Poynter, S., A. Goldberg & D. Hearty (2013)- Sedimentary and structural features of the Plio-Pleistocene Timor accretionary wedge. In: M. Keep & S.J. Moss (eds.) The sedimentary basins of Western Australia IV, Proc. Petroleum Exploration Society Australia (PESA) Symposium, Perth, p. 1-23.
(ENI seismic interpretation of accretionary wedge offshore and onshore SW Timor Leste, at N side of Timor Trough (with 1975 Woodside-Burmah Oil well Mola 1). Thrust stack overlain unconformably by deep marine to alluvial syn-orogenic sediments of Plio-Pleistocene Viqueque Gp (~5.5-Recent) in multiple mini-basins/ depocenters. Basal decollement can be traced for 50 km below accretionary wedge on seismic data, which probably is around Aptian near frontal wedge and steps down to Jurassic mudstone-rich and likely overpressured Wailuli Fm towards S Timor coast (also observed in Banli 1 well in W Timor, at base of highly imbricated Kolbano Group with thicker thrust sheets of Mesozoic and Permian units below.Etc.)

Praptisih (1996)- Facies batugamping terumbu koral Kuarter di daerah Kupang dan sekitarnya, Timor. Proc. 25th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 233-241.
('Quaternary coral reefal limestone facies in the Kupang area and surroundings, Timor')
(Facies of Quaternary coral reefal limestone in the area of Kupang and surroundings. See also Hantoro (1994))

Prasetyadi, C. (1995)- Structure and tectonic significance of the Aileu Formation, East Timor. Masters Thesis, West Virginia University, p. 1-144. *(Unpublished)*

Prasetyadi, C. & R.A. Harris (1996)- Structure and tectonic significance of the Aileu Formation, East Timor, Indonesia. Proc. 25th Annual Conv. Indonesian Association Geologists (IAGI), Bandung 1996, 3, p. 144-173.
(online at: https://geology.byu.edu/0000017e-45f2-d45c-affe-d5f2e3710000/1996-aileu-pras-harris-pdf)
Structural analysis of C Timor Aileu Fm, which is metamorphosed sandstone, shale, limestone and intrusives. In S transitional to unmetamorphosed Permian- Jurassic Maubisse Fm. Metamorphic grade increases from sub-greenschist in S to amphibolite along N coast. At least 3 deformation phases: (D1) Mesozoic?- extensional, (D2) tight folding, tied to arc-continent collision, (3) youngest: compressional stack cut down to N by normal faults along N coast of Timor)

Prastian, A.H., Y. Aribowo & A.K. Permana (2014)- Analisis fasies batuan Perm-Trias dan prospeksi batuan induk dan reservoir di cekungan Timor, Nusa Tenggara Timur. Proc. 43rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, PIT IAGI 2014-030, p. 1-17.
(online at: https://www.iagi.or.id/web/digital/6/2014_IAGI_Jakarta_Analisis-Fasies-Batuan.pdf)
('Facies analysis of Permian-Triassic rocks and prospecting of source rock and reservoir in the Timor basin, East Nusa Tenggara'. Permian and Triassic clastics in Kekneno- Nenas area mainly in deep marine fan facies. Kerogens of black shale of Niof Fm with high vitrinite (65-87%) and >95% gas-prone kerogens. Sandstones generally poor reservoir quality (porosity 2-6%))

Quigley, M. C., B. Duffy, J. Woodhead, J. Hellstrom, L. Moody, T. Horton, J. Soares & L. Fernandes (2011)- U/Pb dating of a terminal Pliocene coral from the Indonesian Seaway. Marine Geology 311-314, p. 57-62.
(Platygyra coral from exhumed syn-orogenic marine sediments on Timor (Late Pliocene turbiditic upper part of Viqueque Fm in Cuha River N of Viqueque) dated with U-Pb techniques as 2.66 ± 0.14 Ma. Age supported by 87Sr/86Sr chemostratigraphy and foraminiferal biostratigraphy. Onset of turbiditic deposition with Banda Terrane-derived detritus mark Timor's emergence from beneath waters of Indonesian Seaway is within planktonic foram zone N20, timed at ca. 3.35-2.66 Ma)

Ramos-Horta, J. & P. Vickers-Rich (2009)- O Mundo Perdido Timor-Leste. Monash University Science Center, Clayton, Melbourne, p. 1-32.
(online at: www.geosci.monash.edu.au/precsite/docs/educational/o-mundo-perdido-english.pdf)
('The Lost World of Timor-Leste'. Portuguese and English editions. Children's book on the geological history of Timor Leste)

Rau, J.L. (2002)- Mineral-hydrocarbon database and bibliography of the geology of East Timor. United Nations (UNESCAP), Bangkok, p. 1-284.
(online at: https://www.laohamutuk.org/OilWeb/RDTLdocs/ESCAP/Rau.pdf)

(Review of geology and mineral occurrences of Timor Leste, and 74-page bibliography on Timor and surrounding areas)

Reed, T.A., M.E.M. de Smet, B.H. Harahap & A. Sjapawi (1996)- Structural and depositional history of East Timor. Proc. 25th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 297-312.
(Summary of report of 1994 Mobil-GRDC fieldwork in E Timor. Propose mid-Eocene age for collision/ ophiolite obduction event of 'allochthonous' Banda terrane and Australian continent. Second pulse of thrusting and partial Australian Plate subduction latest Miocene- today)

Renz, C. (1906)- Uber Halobien und Daonellen aus Griechenland nebst asiatischen Vergleichsstucken. Neues Jahrbuch Mineralogie Geologie Palaontologie, 1906, 1, p. 27-40.
(online at: https://www.zobodat.at/pdf/Neues-Jb-Min-Geol-Palae_1906_0027-0040.pdf)
('On Halobia and Daonella from Greece, with comparison of Asian specimens'. Includes revisions of Rothpletz (1892, 1894) identifications of Triassic bivalves, and descriptions of Pseudomonotis and Daonella syriaca and D. cassiana from Roti (collected by Prof. A. Wichmann), and Daonella styriaca from Sumatra (collected by Volz 1899). Monotis salinaria of Rothpletz should be assigned to Pseudomonotis ochotica var. densistriata)

Renz, C. (1909)- Die Trias von Rotti und Timor im Ostindischen Archipel. Centralblatt Mineralogie Geologie Palaontologie, 1909, p. 355-361.
(online at: https://www.zobodat.at/pdf/Centralblatt-Mineral-Geol-Palaeont_1909_0355-0361.pdf)
('The Triassic of Roti and Timor in the East Indies archipelago'. U Triassic thin-bedded limestones on Roti island with common bivalve molluscs, incl. Monotis salinaria. Discussion on use of genus name Daonella vs. Halobia and Monotis. Halobia cassiana described by Rothpletz (1892) = Daonella styriaca. With illustrations of Daonella styriaca and D. wichmanni from Roti)

Retgers, J.W. (1895)- Mikroskopisch onderzoek van gesteenten uit Nederlandsch Oost-Indie, D.I. Gesteenten van Timor en onderhoorigheden. Jaarboek Mijnwezen Nederlandsch-Indie 1895, Wetenschappelijk Gedeelte, p. 139-148.
('Rocks from Timor and dependent areas'. Brief petrographic descriptions of rocks from Junilo District (serpentinite, andesite, diabase, gabbro, hornblende schist. Also similar rocks from other parts of W Timor. No locality maps, no plates)

Riding, R. & S. Barkham (1999)- Temperate water *Shamovella* from the Lower Permian of West Timor, Indonesia. Alcheringa 23, p. 21-29.
(Problematic sponge-like calcareous fossil generally called Tubiphytes is common in Permian- Triassic reefs. Here called Shamovella obscura and locally abundant in Late Sakmarian Hoeniti Mb of Maubisse Fm near Bisnain, eastern W Timor, associated with brachiopods of temperate water affinity)

Riedel, W.R. (1953)- Mesozoic and late Tertiary Radiolaria of Rotti. Journal of Paleontology 27, 6, p. 805-813.
(Re-examination of radiolarian fauna first described by Tan Sin Hok (1927) from calcareous sediments from Bebalain, Rotti (Rote) Island. Fauna was erroneously assigned a 'probably Pliocene 'age by Tan, but contains mostly Early Cretaceous taxa (Spongosaturnalis, Stylosphaera, Tricolocapsa, Stichomitra etc.) (NB: Cretaceous radiolaria species are not reworked: Cretaceous marls of Roti were erroneously lumped together by TSH with nearby Pliocene marls, which contain Pliocene- Pleistocene calcareous nannofossils; JTvG)

Ritsema, L. (1951)- Description de quelques Alveolines de Timor: resultat d'une elaboration de la methode des courbe d'indice de Reichel. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, B54, 2, p. 174-182.
('Description of some alveolinids from Timor'. Eocene Alveolina limestones, collected by F.P. van West in Miomaffo region, W Timor, in late 1930s. Five species identified)

Ritsema, A.R. (1956)- Gravity measurements on Timor Island. Indonesian J. Natural Science (Majalah Ilmu Alam untuk Indonesia) 112, 2, p. 171-174.

(Highest positive gravity anomalies in area of young volcanic rocks on N coast. Strip of small negative values in Central basin probably related to Nikiniki fault. Good correspondence of anomalies with geologic units)

Ritsema, A.R. (1956)- Two gravity profiles across Timor Island. Verhandelingen Kon. Nederlands Geologisch Mijnbouwkundig Genootschap, Geologische Serie 16 (Gedenkboek Brouwer), p. 380-385.
(Two N-S gravity profiles across W Timor: Kupang- Buan and Ocussi- Kolbano, Surveyed in 1954. All Bouguer anomalies of Timor island are positive, with highest values near N coast. Lowest and possibly negative Bouguer anomaly in narrow strip around Nikiniki and Central Depression)

Robba, E., S. Sartono, D. Violanti & E. Erba (1989)- Early Pleistocene gastropods from Timor (Indonesia). Memorie di Scienze Geologiche, Padova, 41, p. 61-113.
(Rich marine gastropod fauna (56 species) and foraminifera from E Pleistocene marl (Batuputih Fm) from Oe Sapi creek, Tinu, 1 km NE of Atambua town, W Timor, collected during 1954-1957 ITB expeditions. Lyellian percentage of living species 56%. Associated with rich marine foraminiferal fauna (85% planktonics, incl. Globorotalia tosaensis, but no G. truncatulinoides). Common Neogloboquadrina dutertrei and presence of Neogloboquadrina pachyderma suggesting upwelling of cold currents. Interpreted to be deposited in 150-250m of water, influenced by cold currents)

Rocha, A. Tavares & M. de Lourdes Ubaldo (1964)- Foraminiferos do Terciario Superior e do Quaternario da provincia Portuguesa de Timor. Memorias Junta de Investigacoes do Ultramar 51, Lisbon, p. 1-180.
('Foraminifera of the Late Tertiary and Quaternary of the Portuguese province of Timor'; in Portuguese)

Rocha, A. Tavares & M. de Lourdes Ubaldo (1964)- Contribuicao para o estudo foraminiferos do Terciario superior de Timor. Garcia de Orta: Revista da Junta de Investigacoes do Ultramar 12, 1, p. 153-158.
('Contribution to the study Late Tertiary foraminifera of Timor')

Romariz, C. (1962)- Notas sobre rochas sedimentares Portuguesas. V. Um cherte do 'complexo argiloso' de Timor. In: Estudos Oferecidos em homenagem ao Prof. J. Carrington da Costa, Junta Investigacoes do Ultramar, Lisbon, p. 287-290.
('Notes on Portuguese sedimentary rocks, V. On chert of the argillaceous complex of Timor')

Romariz, C. & J. de Azeredo Leme (1967)- Subsidios para a petrografia timorense. Calcarios de fato. Garcia de Orta: Revista da Junta de Investigacoes do Ultramar, Lisbon, 15, 1, p. 111-122.
('Contributions to Timor petrography: Fatu limestones')

Roniewicz, E. & G.D. Stanley (2009)- *Noriphyllia*, a new Tethyan Late Triassic coral genus (Scleractinia). Palaeontologische Zeitschrift 83, 4, p. 467-478.
(online at: www.researchgate.net/publication/225925693_Noriphyllia_a_new_Tethyan_Late_Triassic Etc.)
(Noriphyllia new genus of solitary coral, with two new E Norian and one Carnian species. Widely distributed in E Norian reef facies of Tethys region and present in Carnian of Timor. Noriphyllia monatutoensis n.sp. with type locality at Saututun, Manatuto, Timor Leste, in Carnian Babulu Fm limestone (exotic boulders?))

Roniewicz, E., G.D. Stanley, F. Da Costa Monteiro & J.A. Grant-Mackie (2005)- Late Triassic (Carnian) corals from Timor-Leste (East Timor): their identity, setting and biogeography. Alcheringa 26, 2, p. 287-303.
(online at: https://www.researchgate.net/profile/G-Stanley-Jr/publication/233345639_Late_Triassic_Carnian_corals_from_Timor-Leste_East_Timor_Their_identity_setting_ Etc.))
(Four coral taxa from Late Triassic limestone in Babulu Fm sst-shale sequence at Manatuto, E Timor N coast (incl. Paravolzei, Craspedophyllia, Margarosmilia confluens). Affinities to Carnian faunas from Italy. Previously, only Norian corals known from Timor Triassic. Carnian faunas help confirm paleogeographic affinities with W Tethys (NB: stratigraphically above Norian dinoflagellate Wanneria listeri (Da Costa Monteiro 2003 in Charlton et al. (2009), suggesting possible Norian age for these corals?; JTvG))

Roosmawati, N. (2005)- Long-term surface uplift history of the active Banda Arc-continent collision: depth and age analysis of foraminifera from Rote and Savu Islands, Indonesia. M Sc. Thesis, Brigham Young University, p. 1-120.
(online at: http://scholarsarchive.byu.edu/cgi/viewcontent.cgi?article=1558&context=etd.)
(Foraminifera documentation of Pliocene age and deep water facies of Batu Putih Fm marls on Rote and Savu)

Roosmawati, N. & R. Harris (2009)- Surface uplift history of the incipient Banda arc-continent collision: geology and synorogenic foraminifera of Rote and Savu Islands, Indonesia. Tectonophysics 479, p. 95-110.
(online at: www.academia.edu/13179907/Surface_uplift_history_of_the_incipient_Banda_arc_continent Etc.)
Synorogenic pelagic units of Rote and Savu show rapid uplift of Banda arc-continent collision in past 1.8 Myr. Synorogenic Batu Putih Fm unconformably over accreted units, aged N18- N22 (5.6- 1.0 Ma), deposited at depths of ~3000m and unconformably overlain by uplifted coral terraces. Highest coral terraces in Savu 300m above sea level; in Roti up to 200m. Collision of Australian margin with Banda Arc earlier in Timor, propagated W to Roti (initial stages of accretionary wedge emergence). Collision of Scott Plateau propagated SE from Sumba (2-3 Ma) to Savu (1.0- 0.5 Ma), then to Roti (0.2 Ma). Average uplift of Batu Putih Fm pelagics in past 2 Myr in Roti and Savu ~1.5 and 2.3 mm/yr. Rise of islands is clogging Indo-Pacific seaway)

Roosmawati, N., R.A. Harris, H. Nugroho et al. (2004)- Long-term surface uplift history of the active Banda arc-continent collision: depth and age analysis of foraminifera from Rote and Savu Islands, Indonesia. Abstract Geological Society of America (GSA) 2004 Denver Annual Meeting, Paper No. 152-15.
(Synorogenic deposits in W Roti outcrops are of Late Pliocene age (zone N21; 3.1-1.8 Ma) with paleowater depths deeper than 2500m. Banda arc-continent collision arrived in Roti after ~3 Ma, possibly later in Savu)

Rose, G. (1994)- Late Triassic and Early Jurassic radiolarians from Timor, Eastern Indonesia. Ph.D. Thesis, University of London, p. 1-384.
(online at: https://discovery.ucl.ac.uk/id/eprint/10080056/3/10080056_Rose_thesis.pdf)
Rich Upper Carnian- Rhaetian radiolarian faunas from Aitutu and Wai Luli Fms in River Meto sections, central W Timor. Additional material collected from presumed Triassic on Buton, Leti, Moa, Babar, but no radiolarians recovered. Timor Triassic radiolarian assemblages differ from European Tethys, Philippines and Japanese assemblages. E Jurassic assemblages closer to Japan than other areas. Apparent Late Rhaetian- E Sinemurian time gap at Triassic-Jurassic boundary (Carter 2007: Rhaetian radiolarian faunas from W Timor with some cosmopolitan taxa, but others have stronger affinities with those in Japan and Philippines)

Rosidi, H.M.D., S. Tjokosapoetro, S. Gafoer & K. Suwitodirdjo (1979)- Geologic map of the Kupang-Atambua Quadrangles, Timor, 1: 250,000. Geological Research Development Centre (GRDC), Bandung, p. 1-15.
(1:250,000 surface geology of westernmost Timor, and Roti and Savu islands; see also 2nd edition- 1996))

Rothpletz, A. (1891)- The Permian, Triassic and Jurassic formations in the East Indian Archipelago (Timor and Rotti). American Naturalist 25, p. 959-962.
(online at: https://www.jstor.org/stable/pdf/2451927.pdf)
(Early summary paper on 'new' Timor- Roti fossils, based on Wichmann collection. Timor Late Paleozoic fossils here regarded as Permian in age, not Carboniferous as previously thought (see also more extensive paper by Rothpletz (1892;and reprint of 1894))

Rothpletz, A. (1892)- Die Perm, Trias- und Jura-Formation auf Timor und Rotti im Indischen Archipel. Palaeontographica 39, 2-3, p. 57-106.
(online at: https://www.zobodat.at/pdf/Palaeontographica_39_0057-0106.pdf)
('The Permian, Triassic and Jurassic formation on Timor and Roti in the Indies Archipelago'. Descriptions of many new Permian- Jurassic macrofossils from Indonesia, mainly collected by Prof. A. Wichmann (Utrecht) in 1888-1889. Permian-Triassic material from mud Ayer Mati area, SE of Kupang, W Timor, includes Permian brachiopods (Spirifer spp., Productus spp., Spirigera, Lyttonia (=Leptodus), Rhynchonella), bivalve Atomodesma, coral Zaphrentis, ammonites Arcestes and Cyclolobus persulcatus and crinoids. From Roti some Permian fossils from mud volcano material. Also white-red thin-bedded limestones with 'alpine' U Triassic Monotis salinaria and Halobia spp. Also in mud volcano material: 'Tethyan' Early Jurassic ammonites Arietites

spp. and Stephanoceras (Coeloceras) and M Jurassic Belemnites gerardi (This paper first established the E-ward continuation of the classic Mesozoic facies of the Mediterranean-Himalaya Tethys Ocean belt of Suess and others into the Indonesian region; JTvG)

Rothpletz, A. (1894)- Die Perm, Trias- und Jura-Formation auf Timor und Rotti im Indischen Archipel. Jaarboek Mijnwezen Nederlandsch Oost-Indie 23 (1894), Wetenschappelijk Gedeelte, p. 5-98.
('The Permian, Triassic and Jurassic formation on Timor and Roti in the Indies Archipelago'. Reprint of Rothpletz (1892) Palaeontographica paper. Descriptions of many new Permian- Jurassic macrofossils from Indonesia)

Rutten, L.M.R. (1927)- Geologie van Timor. In: L.M.R. Rutten (1927) Voordrachten over de geologie van Nederlandsch Indie, Wolters, Groningen, p. 679-704.
(online at: https://resolver.kb.nl/resolve?urn=MMKB02:000119126:pdf)
(Review of geology of Timor in Rutten's classic lecture series book)

Sahudi, K. & R.N. Baik (1993)- Play concept of hydrocarbon exploration in East Timor. Proc. 22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung 1993, 2, p. 913-924.
(online at: https://www.iagi.or.id/web/digital/53/22nd-Volume-2-(6-9-Des-1993)-311-322.pdf)
(In Indonesian. Brief overview of E Timor hydrocarbon exploration and plays. Exploration in E Timor since 1908. By mid-1970's 21 wells drilled. Oil tested in Matai 1 (180 BOPD) and Cota Taci (1974, 200 BOPD). Two main plays: (1) pre-collision thrusted anticlines, with reservoirs in Permian- Jurassic rocks; (2) post-collision: Late Miocene Viqueque sandstones in rollover anticlines and downthrown blocks of listric faults)

Sampurno & B. Brahmantyo (1991)- Geologi batuan marmer Gunung Fatufutik, Kabupaten Manatuto, Propinsi Timor Timur. Proc. 20th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 591-604.
(online at: https://www.iagi.or.id/web/digital/49/20th-(10-12-Des-1991)-41.pdf)
('Geology of marble rocks at Fatu Futik Mountain, Manatuto District, Tmor Leste'. Mainly evaluation of quality and volumes of of marble deposit at Mt Futuputik, NE Timor Leste. Marble of ?Permian age (Aileu Fm), S-dipping, intercalated in other metasediments))

Sani, K., M.I. Jacobson & R. Sigit (1995)- The thin-skinned thrust structures of Timor. Proc. 24th Annual Conv. Indonesian Petroleum Association (IPA), p. 277-293.
(Amoseas fieldwork and Banli 1 well data. Kolbano foldbelt series of thrusts of Triassic-Tertiary Australian shelf sediment. Restorations suggest shortening of ~45 km (65%) mainly between 2.2- 1.6 Ma, after which main deformation jumped S to present-day Timor Trough. Total shortening, excluding shortening under Timor Trough, may be 208 km. Onset of collision probably ~3.7 Ma; subduction locked up ~1.6 Ma)

Santy, L.D. & A.J. Widiatama (2017)- Perbandingan provenance Formasi Babulu dan Formasi Oebaat Pulau Sabu, NTT. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, p. 1-5.
('Comparison of provenance of the Babulu and Oe Baat Formations of Savu Island, NTT'. Sandstone petrography of (1) Late Triassic Babulu Fm (quartz 21-54%, feldspar 3-18%, and mainly metamorphic rock fragments 1-28%; recycled orogen) and earliest Cretaceous Oe Baat Fm (quartz 72-99%, feldspar 1-4%, rock fragments 0-5%; craton interior))

Sapiie, B., H. Tiranda, A.H. Harsolumakso, E. Reski, M. Hadiana, D. Danil, C.I. Abdullah & A. Rudyawan (2017)- New insight of fold-thrust belt evolution as implication of hydrocarbon prospect in the West Timor Island, Indonesia. AAPG Annual Convention Exhibition, Houston 2017, 1p. *(Poster Presentation)*
(online at: https://www.researchgate.net/publication/333309038_POSTER_TIMOR-ACE_AAPG_Houston_2017_New_Insight_of_Fold-Thrust_Belt_Evolution_as_Implication_of_Hydro Etc.)

Sarmento, O., N. Boavida, A. Lira, C. Cardoso, A. Araujo, A. Freitas, E. Afonso & K. Martins (2023)- Microfacies analysis and depositional environment of complex limestone along Southeastern edge of Matebian Range, Baguia-Timor Leste. Timorese Academic J. Science and Technology 6, p. 225-236.
(online at: http://fect.untl.edu.tl/tajst_article-138-tp.html)

(Somewhat disjointed discussion of deep and shallow marine limestones of Triassic-Jurassic, Upper Cretaceous, Eocene and Miocene ages in outcrops of SE Matebian Range of Timor Leste. No locality details)

Sartono, S. (1964)- Cretaceous foraminiferal fauna from the Kekneno tectonic unit of Bokon area in Timor, Indonesia.Proc. 22nd International Geological Congress, New Delhi 1964, 8, Palaeontology and Stratigraphy, p. 407-416.

Sartono, S. (1975)- The age of Kekneno Formation in Timor, Indonesia. Geologi Indonesia 2, 2, p. 29-37.
(Limestone samples from Bokon area, E of Ocussi in NE part of W Timor, from banded limestones and cherty shales in upper Kekneno Fm (= tectonically lowest 'para-autochthonous' unit; mainly Permo-Triassic clastics), with middle-upper Cretaceous planktonic forams (Globotruncana appeninica, Gumbelina, Ventilabrella). No evidence of Jurassic sediments here)

Sartono, S. (1980)- The Ofu Series in West Timor (East Indonesia). Buletin Departemen Teknik Geologi Institut Teknologi Bandung (ITB) 1, p. 1-10.

Sartono, S. & T. Djubiantono (1982)- Pengembangan potensi airtanah cekungnan Kuarter Atambua, Timor Barat. Riset Institut Teknologi Bandung (ITB) 1981-1982, p.
('Potential development of groundwater in the Quaternary Atambua basin'. Recognized four main Pleistocene river terraces in Atambua area)

Sartono, S. & M. Koesmono (1975)- Recognition of the geological units in Timor; a bimodal approach. Geologi Indonesia 2, 3, p. 29-34.
(Proposal for another mixed lithostratigraphic- tectonic scheme for geologic units of Timor)

Sartono, S., B. Suprapto, K. Poncomoyono & I. Hendrobusono (1992)- Kerangka tektonostratigrafi Timor, Indonesia Timur. Proc. 21st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2, p. 547-563.
(online at: https://www.iagi.or.id/web/digital/50/21th-Vol-II-(7-10-Des-1992)-177-194.pdf)
('Tectonostratigraphic framework of Timor, East Indonesia'. Timor situated in accretionary zone. Tectonic melange wedges formed during Laramide (= End Cretaceous) tectonization. Olistostromes of late E Miocene form largest part of island (Bobanaro scaly clay in Timor Leste= Sonnebait tectonic unit in West Timor). Eocene-E Miocene gravity tectonics important; normal sedimentary units from Late Miocene- Quaternary. Comparison tables of formation names and tectonic units in E and W Timor)

Sashida, K. (2001)- Status of Paleozoic and Mesozoic radiolarian study in Thailand and Timor Island, Indonesia. In: A. Matsuoka (ed.) Paleoceanography of the Panthalassa-Tethys, Invitation to global field science topics in paleontology, Paleontological Society Japan, 2, p. 25-30.

Sashida, K., S. Adachi, K. Ueno, Y. Kamata & Munasri (1998)- Triassic radiolarian faunas from West Timor, Indonesia. Abstracts Interrad VIII Conference, Paris, Radiolaria 16, 1p. *(Abstract only)*
(Allochthonous blocks of Aitutu Fm fine-grained radiolarian limestone in Bobonaro melange. Four different localities and radiolarian faunas: (A) Late Anisian, (B) Carnian, (C) Norian and (D) Rhaetian. All are Tethyan-Panthalassa faunas and suggest rel. warm water conditions in Triassic)

Sashida, K., S. Adachi, K. Ueno & Munasri (1996)- Late Triassic radiolarians from Nefokoko, west Timor, Indonesia. In: H. Noda & K. Sashida (eds.) Professor H. Igo Commemorative volume on Geology and Paleontology of Japan and Southeast Asia, Gakujyutsu Tosho Insatsu, Tokyo, p. 225-234.
(Siliceous bedded limestone block ('Aitutu Fm') embedded in Bobonaro melange in NW part of W Timor with radiolarians and conodonts interpreted as Carnian in age)

Sashida, K., Y. Kamata, S. Adachi & Munasri (1999)- Middle Triassic radiolarians from West Timor, Indonesia. Journal of Paleontology 73, 5, p. 765-786.

(Block of probably allochthonous Aitutu Fm radiolarian calcilutite from Bobonaro melange 3 km W of Kefamenau contains abundant E Ladinian typical low-latitude Tethyan forms, similar to European Tethys. Aitutu Fm deposited in warm-water, oceanic environment, far from land area, in low latitude Tethyan realm)

Sashida, K. & Munasri (1999)- Tethyan and non-Tethyan Early Cretaceous radiolarian faunas from the Nakfuna Formation, Kolbano area, West Timor, palaeogeographic and tectonic implication. In: H. Darman & F.H. Sidi (eds.) Proc. Tectonics and sedimentation of Indonesia seminar, Bandung 1999, Indonesian Sedimentologists Forum (FOSI), Special Publ. (Abstracts volume), 1, p. 88-91.

Sashida, K., Munasri, S. Adachi & Y. Kamata (1999)- Middle Jurassic radiolarian fauna from Rotti Island, Indonesia. J. Asian Earth Sciences 17, 4, p. 561-572.
(Folded 'Wai Luli Fm' calcareous shale near Baa at NW coast of Roti with Late Bajocian- Early Bathonian low-latitude 'Tethyan' radiolarian assemblage of Tricolocapsa plicarum Zone. Believed to be deposited in deep ocean, far from land. In same areas also Late Triassic and Early Cretaceous thin-bedded limestones with radiolarians Assemblage of 15 species of 7 genera, dominated by Tricolocapsa spp., Stichocapsa spp., Archaeodictyomitra spp. and Cyrtocapsa. New species Tricolocapsa multispinosa and T. matsuokai)

Sashida, K., Munasri, S. Adachi & K. Ueno (1996)- Early Cretaceous radiolarian faunas from the Nunleo area in southwest Timor, Indonesia. In: B. Ratanasthien & S.L. Rieb (eds.) Proc. Int. Symposium on Geology and Environment, Chiang Mai, Thailand, p. 223. *(Abstract only)*
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/1996/)
(Well-preserved E Cretaceous radiolaria assemblages in abyssal calcilutite of Nunleo area of Kolbano Complex, SW Timor: (1) late Berriasian- Valanginian, with non-Tethyan genera Parvicingula, Eucyrtis, Eusyringium and Spongocapsula (similar to NE Indian Ocean faunas); (2) Hauterivian- Barremian Dibolachras tytthopora assemblage, with Tethyan and non-Tethyan species)

Sawyer, R.K., K. Sani & S. Brown (1993)- The stratigraphy and sedimentology of West Timor, Indonesia. Proc. 22nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 533-574.
(Amoseas W Timor fieldwork, stratigraphy overview. Three main packages in Permian-Neogene outcrops on West Timor: (1) E Permian- E Pliocene sediments deposited on Gondwana and Australian continental- oceanic crust (Kekneno and Kolbano Sequences), (2) Neogene syn- and post-orogenic sediments (Viqueque Sequence) and (3) Lower Cretaceous-Neogene volcanic arc and forearc basin sediments of Banda Terrane. Age of Oe Baat Fm glauconitic sandstone of Kekneno seriesof SW Timor revised to Tithonian- Berriasian (equivalent of Flamingo Gp of NW Shelf, Buya Fm of Sula, Woniwogi Fm of W Papua, etc.))

Schneider, C.F.A. (1863)- Bijdrage tot de geologische kennis van Timor. Natuurkundig Tijdschrift voor Nederlandsch-Indie 25, p. 87-107.
('Contribution to the geological knowledge of Timor'; in Dutch. One of first geological descriptions of Timor (Kupang area), by German physician Schneider. Young coral limestone terraces, oolitic limestones, manganese beds, dark clays green sandstone-marl with brachiopods (Spririfer, Orthis, Terebratula, etc.), believed to be of Jurassic age. Also near Bakoelnassi bright-colored marls and sandstones with Gervillea and Trigonia, crinoid limestones, Cretaceous chalk, basaltic diorite near Tabeno, etc. According to locals, skeleton of giant fish was found near Ikafoti (= Ichthyosaurus?; JTvG). No maps or figures)

Schneeberger, W.F. (1950)- Notes on the oil prospects of Portuguese Timor. Bureau of Mineral Resources (BMR), Record 1950/46, p. 1-6.
(online at: https://d28rz98at9flks.cloudfront.net/9461/Rec1950_046.pdf)
(Unpublished review report. Two main geologic unit (1) The Fatu Complex (overthust; crystalline schists, Permian red crinoidal limestones, Triassoc- Eocene limestones and Miocene limestone; of no interest for oil and gas) and (2) The autochthonous Series (thick, intensely folded Permian- Triassic- Jurassic geosynclinal series; all major oi1- and gas seepages occur in thin series; unconfomably overlain by U Cretaceous-Eocene with block clays with older rocks. Etc.), Numerous oil-gas seeps in S part of island, presumably sourced by Triassic-Jurassic source rocks. Complioated structure of' entire Pre-Pliocene might be a detrimental factor to the formation of pools of large size. "Establishing commercial production would be a difficult task")

Schoor, D.I.E., S.K. Donovan & G.D. Webster (2020)- Platycrinitid (Monobathrida) crinoid columnals from the Permian of Timor: Form, function, protection and intimate associations. Proc. Geologists Association, London, 131, 6, p. 667-678.
(online at: https://www.researchgate.net/publication/343208224_Platycrinitid_Monobathrida_crinoid_columnals_from_the_Permian_of_Timor_Form_function_protection_and_intimate_associations)
(Specialist discussion of Permian platycrinitid crinoids from Artinskian-Roadian of Basleo area, West Timor)

Schoor, D.I.E., S.K. Donovan & G.D. Webster (2020)- *Camptocrinus* Wachsmuth & Springer or *Neocamptocrinus* Willink? Distinctive crinoid columnals from the Permian of Timor. Alcheringa 44, 1, p. 56-63.
(online at: https://www.researchgate.net/publication/335811578_Camptocrinus_Wachsmuth_Springer_or_Neocamptocrinus_Willink_Distinctive_crinoid_columnals_from_the_Permian_of_Timor)
(Discussion of generic attribution of Camptocrinus indoaustralicus Wanner from Tethyan Permian of Timor (possibly belongs to Neocamptocrinus Willink, 1980))

Schubert, R. (1915)- Die Foraminiferen des jungeren Palaozoikums von Timor. Palaontologie von Timor, Schweizerbart, Stuttgart, 2, 3, p. 47-60.
(online at: https://opac.geologie.ac.at/ais312/dokumente/Wanner_1925_Timor_II.pdf)
('The foraminifera of the younger Paleozoic of Timor'. Classic, first paper on Timor Permian fusulinid and smaller foraminifera from many West and East Timor localities, collected by Wanner, Molengraaff and Weber expeditions, all in or around 1911 (no maps) (here thought to be of Late Carboniferous age, but placed in Early Permian by later workers). Four species of fusullinids described. With Fusulina wanneri n.sp, (Parafusulina wanneri is type species of Monodiexodina; JTvG), Fusulina granum avenae, Fusulina molengraaffi n.sp, (later Eoparafusulina molengraafi), Fusulina weberi n.sp. (later workers assigned to Palaeofusulina and Landschichtites), Geinitzina chapmani n.sp.etc.)

Schubert, R. (1915)- Uber Foraminiferengesteine der Insel Letti. Jaarboek Mijnwezen Nederlandsch Oost-Indie 43 (1914), Verhandelingen 1, p. 169-187.
(online at: https://www.marinespecies.org/foraminifera/aphia.php?p=sourceget&id=473511)
(('On the foraminifera-bearing rocks of the island of Leti'. Abundant, rel. large elongate Permian fusulinids in loose limestone blocks, described as Doliolina lepida var. lettensis (Thompson 1948: small fauna of verbeekinids described here from Leti is different from Timor fusulinid assemblages). Includes Upper Cretaceous Globotruncana linneana-rich limestone, probably reworked into E Miocene. E Miocene Lepidocyclina and Heterostegina (= Spiroclypeus; JTvG))

Setyowati, T.P., M.B. Wiranatanagara, Y.P. Nusantara & J.S. Hadimuljono (2022)- Source rock evaluation and oil to source rock correlation of Atambuamalaka area, West Timor. Proc. 46th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA22-G-219, p. 1-10.
(Late Triassic-Early Jurassic Aitutu Fm marine carbonaceous shales in outcrop out in Atambua-Betun area near W Timor - Timor Leste border show poor-good source rock potential. Mainly Type I/II kerogens. Biomarkers suggest estuarine to open marine environment. Maturity peak to late mature based on vitrinite reflectance (0.7-1.3 % Ro). Outcrop samples geochemically similar to oil seep in Wemasa Beach, W Timor)

Shaylendra, Y., Q. Adlan & A.H.P. Kesumajana (2017)- Petroleum system play failure on Triassic source rock in the West Timor onshore area: basin modeling and oil to source rock correlation. Proc. 41st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA17-253-G, p. 1-24.
(Lemigas study of Triassic Aitutu Fm rock samples from Kekneno area, W Timor. Modeling (using Charlton scenario) suggests Aitutu Fm source rock began to reach oil window in Late Triassic and reached gas window in M Jurassic. This source rock already expelled hydrocarbons for long time and likely not preserved in present day structures (N.B. This scenario is contradicted by rel. low vitrinite maturity values of 0.61- 0.94% Ro?; page 3; JTvG))

Shimizu, D. (1966)- Permian brachiopod fossils of Timor (Palaeontological study of Portuguese Timor, 3). Memoirs Faculty of Science, Kyoto University, Ser. B, Geology and Mineralogy, 32, 4, p. 401-427.

(online at: https://repository.kulib.kyoto-u.ac.jp/dspace/bitstream/2433/258739/1/mcsuk-b_32_4_401.pdf)
(17 brachiopod species from E Timor localities suggest Early Permian age. At some localities in part of autochthonous complex of reddish or purplish brown tuffaceous shale; in others associated with purplish tuffaceous, occasionally argillaceous limestones and shales (characterized as 'Bitauni fauna' by Waterhouse (1973)= Artinskian?; JTvG). With Stenoscisma "purdoni" in 'overthrust complex' at Hato Dame)

Sieverts, H. (1933)- *Jouannetia cumingi* (Sowerby) aus den Pliocan von Timor nebst Bemerkungen uber andere arten dieser Gattung. Beitrage zur Palaeontologie des Ostindischen Archipels 6, Neues Jahrbuch Mineralogie Geologie Palaontologie, Beilage Band 71, p. 267-307.
('Jouannetia cumingi from the Pliocene of Timor, with remarks on other species of this genus'. Detailed description of pholadid boring bivalve from Late Pliocene- Pleistocene raised coral reefs, now at 500-700m above sea level, in Basleo region of W Timor. This near-spherical shell species is known from Recent coral reefs of Indo-Pacific, drilling into coral bodies)

Simandjuntak, T.O., S. Aziz, Sukido & H. Samodra (1994)- Geological map of Indonesia, Kupang Sheet. 1: 1 million?, Geological Research and Development Centre, Bandung.

Simons, A.L. (1939)- Geological investigations in N.E. Netherlands Timor. Ph.D. Thesis University of Amsterdam, p. 1-110.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB21:038250000:00005)
(NE part of W Timor (S of Atapupu, W of Atambua) common serpentinites and associated amphibolite schists and undeformed Tertiary andesitic volcanics (incl. pillow lavas), overlain by Late Miocene and/or Pliocene 'Batu Putih' Globigerina marls with siliceous tuff interbeds near N coast. Permo-Triassic flysch, bathyal Mesozoic 'Sonnebait series' and massive Permian and Triassic 'Fatoe complex' limestones in S. Fig. 17 suggests serpentinites and diabase overlie Triassic Kekneno clastics, in turn overlain by Permo-Triassic Sonnebait and Fatoe limestones. Triassic sandstones rich in micas, tourmaline, zircon and garnet and derived from crystalline schists. Late Tertiary marly limestones with hornblende, augite, hyperstene, pointing to erosion of young volcanic deposits. Permian and Triassic in 3 different 'facies-tectonic associations'(thrust sheets?): Kekneno, Sonnebait and Fatoe. Folded pelagic Late Jurassic and Late Cretaceous sediments also present. Tectonic complexity and incomplete exposures prohibit stratigraphic colums or detailed cross-sections)

Simons, A.L. (1940)- Geological investigations in N.E. Netherlands Timor. In: H.A. Brouwer (ed.) Geological Expedition of the University of Amsterdam to the Lesser Sunda Islands 1937, 1, Noord Hollandsche Publ. Co., Amsterdam, p. 107-214.
(Same as Simons (1939), above)

Simamora, W.H. & M. Untung (1983)- Preliminary Bouguer anomaly gravity map of West Timor, 1:250,000. GRDC, Bandung.

Sinaga, S.H., R. Adiarsa, F. Al'ayubie, D. Aulia, I.A. Arindra, I.R. Sialagan & H. Tanjung (2011)- Geological observation of Soe, Kuanfatu, Kualin area and its implications for petroleum system of West Timor. Proc. 35th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 1-16.
(Outcrop observations on W Timor. Some samples analyzed for geochemistry. Highest TOC 0.75-1.0% in Triassic-Jurassic Aitutu and Wailuli Fms)

Siwindono, T., B. Manumayoso, D. Priambodo & R.P. Yudantoro (1997)- Mesozoic exploration target in East Timor, Indonesia. 15th World Petroleum Congress, Beijing 1997, p. *(Abstract only*
(Suai-Betano block in S part of Timor Leste. Permian- E Miocene generally in thrust structures, post-collision M Miocene-Pleistocene sediment deposited in suspended basin pond. Bobonaro Fm melange deposits in many areas of Suai-Betano block, with exotic blocks of Permian age. Some nappe structures present. Between 1914-1974 23 exploration wells drilled in Timor Basin. Cota Taci-1 tested 200 BO/D and Matal-1 180 BO/D from Bobonaro exotic blocks. Suailoro-1 oil show (also in Bobonaro exotic block?). Many oil seeps in Mesozoic reservoirs: Fatuberliu oil seep (Wailuli Fm sst) and Bemetane oil seep (Waibua Fm sst))

Smith, J.P. (1927)- Permian ammonoids of Timor. In: H.A. Brouwer (ed.) 2e Nederlandsche Timor-Expeditie 1916, IV, Jaarboek Mijnwezen Nederlandsch-Indie 55 (1926), Verhandelingen 1, p. 1-58.
(Ammonoid material from 1916 Jonker expedition to Timor. Timor has richest Permian ammonoid fauna in world, in both species and abundance. Especially rich in Cyclolobidae and Medlicottiidae and rel. poor in Ceratitoidea. Successive Permian age faunas: (1) E Permian Somohole (common Marathonites, Gastrioceras, Paralegoceras, Pronorites), Bitauni (Perrinites, Agathiceras sundaicum, Paralegoceras spp.) and Basleo (with Waagenoceras, increase in Haloritidae); (2) Late Permian? Amarassi/ Ajer Mati fauna (still with Cyclolobus). Latest Permian faunas not seen in Timor)

Soares, M. (2023)- Petroleum potential onshore of Timor-Leste based on the altimetry gravity data. Timorese Academic J. Science Technology (TAJST) 6, p. 165-175.
(online at: http://fect.untl.edu.tl/tajst_article-132-tp.html)
(Satellite gravity data interpretation to delineate sedimentary basins in Timor-Leste onshore. At least three major low anomaly areas identified along center of country. Hydrocarbon seepages mostly in area of lowest gravity anomaly)

Sopaheluwakan, J. (1990)- Ophiolite obduction in the Mutis complex, Timor, eastern Indonesia. An example of inverted, isobaric, medium-high pressure metamorphism. Ph.D. Thesis Free University, Amsterdam, VU University Press, p. 1-226.
(Mutis and Miomaffo metamorphic complexes have inverted metamorphic gradients and formed by obduction of hot, young ophiolite over oceanic rocks in Early Cretaceous. K-Ar age of 37 Ma corresponds to cooling below 300° C of terrane after mild reheating, up from depth of 5-6 km, suggestings major uplift in Late Eocene. This is then interpreted as Eocene collision onto Australian craton (possibly Sundaland margin event?; JTvG))

Sopaheluwakan, J. (1991)- The Mutis metamorphic complex of Timor: a new view on the origin and its regional consequences. Proc. 20th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 301-315.
(online at: https://www.iagi.or.id/web/digital/49/20th-(10-12-Des-1991)-20.pdf)
(Mutis and Miomaffo complexes metamorphics in W Timor formed from MOR Basalt and continent-derived greywacke. Structurally overlain by peridotite, with inverted metamorphic gradient (granulite near base of peridotite through amphibolite to greenschist- blueschist at base of sequence. Interpeted as metamorphic sole below ophiolite, formed during intra-oceanic thrusting. Crustal extension terminated Mutis Complex deformation. K-Ar age of ~37 Ma of mica in metapelite reflects Late Eocene cooling/uplift)

Sopaheluwakan, J., H. Helmers, S. Tjokrosapoetro & E. Surya Nila (1989)- Medium pressure metamorphism with inverted thermal gradient associated with ophiolite nappe emplacement in Timor. In: J.E. van Hinte et al. (eds.) Proc. Snellius II Symposium, Jakarta 1987, Netherlands J. of Sea Research 24, 2-3, p. 333-343.
(Mutis and Miomaffo Massifs metamorphosed pelitic and basic rocks associated with serpentinized peridotites. Decrease in metamorphic grades below and away from peridotites, with Mutis Massif slightly higher-grade metamorphism than Miomaffo. P-T-D plots of Mutis samples yield T gradient of 300 °C/·km in 1 km thick metamorphite below basal peridotite. Invertedly zoned metamorphites and other indications suggest Mutis and Miomaffo Massifs represent metamorphic aureoles below ophiolite slab)

Sorauf, J.E. (1978)- Original structure and composition of Permian rugose and Triassic scleractinian corals. Palaeontology 21, 2, p. 321-339.
(Study of Permian solitary coral structure based on exceptionally well-preserved material in Wanner collection from Guadalupian of Basleo 23 locality, SW Timor (Polycoelia angusta, Timorophyllum wanneri, Lophophyllidium spinosum))

Sorauf, J.E. (1983)- Primary biogenic structures and diagenetic history of *Timorophyllum wanneri*, Rugosa, Permian, Timor, Indonesia. Memoir Assoc. Australasian Palaeontologists (AAP) 1, Sydney, p. 275-288.

Sorauf, J.E. (1984)- Upper Permian corals from Timor and diagenesis. Palaeontogr. Americana 54, p. 294-302.
(Description of phraetic cements in well-preserved Permian rugosan fauna from Basleo, supposedly from blocks in 'Tertiary deep water wildflysch' (= 'Bobonaro melange')).

Sorauf, J.E. (2004)- Permian corals of Timor (Rugosa and Tabulate): history of collection and study. Alcheringa 28, 1, p. 157-183.
(History of collection and study of corals in Permian of Timor began in 1911 with Wanner, Molengraaff and Weber. Biostratigraphy of faunas uncertain, partly because of collection from tectonic melange sequence in Baun to Basleo region, and purchase of fossils from indigenous people. Permian corals from Timor need restudy from stratigraphic sequences in northern 'Fatu' belt of outcrops)

Sousa Torres, A. & J. Pires Soares (1952)- Quelques contributions geologiques sur le Timor portugais. Report 18th Session International Geological Congress, Great Britain, 1948, 13, p. 238-239.
('Some contributions to the geology of Portuguese Timor')

Spencer, C.J., R.A. Harris & J.R. Major (2016)- Provenance of Permian-Triassic Gondwana Sequence units accreted to the Banda Arc in the Timor region: constraints from zircon U-Pb and Hf isotopes. Gondwana Research 38, p. 28-39.
(online at: http://geology.byu.edu/Home/sites/default/files/2015_spencer_et_al_-_gr_-_timor_upbhf.pdf)
(Zircons from Permian-Triassic 'Gondwana sequence' of Timor yield age distribution peaks at 230-400 Ma and 1750-1900 Ma, similar to zircon age spectra from NE Australia and to terranes of N Tibet and Malaysia. 1750-1900 Ma zircon peak also very common in other terranes in SE Asia. Hf analysis of zircon from Aileu Complex in Timor and Kisar shows bimodal distribution at ~300 Ma, probably from bimodal magmatic event, and ties to presence of interbedded Permian mafic and felsic rocks. Similar rock types and isotopic signatures also in Permian-Triassic igneous units throughout Cimmerian continental block. Permian-Triassic of Timor region fill syn-rift intra-cratonic basins that successfully rifted in Jurassic to form NW margin of Australia. This margin first entered Sunda Trench in Timor region at ~7-8 Ma, causing Permo-Triassic rocks to accrete to edge of Asian Plate and emerge in young Banda collision zone)

Springer, F. (1918)- A new species of fossil *Pentacrinus* from the East Indies. In: Nederlandsche Timor-expeditie, II. Jaarboek Mijnwezen Nederlandsch Oost-Indie 45 (1916), Verhandelingen 1, p. 59-64.
(New crinoid species Pentacrinus rotiensis from Jurassic of Roti, collected by Brouwer in 1911 from grey shale-marl-limestone succession at Toempa Sili, NW of Bebalain)

Springer, F. (1926)- Unusual forms of fossil crinoids. Proc. United States National Museum 67, 5, p. 1-137.
(online at: https://repository.si.edu/handle/10088/15695)
(Includes discussions of Timor's diverse crinoid faunas with 189 named species by Wanner (1924). Many species abundant on Timor not known elsewhere. Most crinoid fossils broken up. Timor crinoids with remarkably reduced arms. Timorocrinus, most prominent crinoid of Timor with 11 species, now included in Familiy Poteriocrinidae)

Sprinkle, J. & J.A. Waters (2013)- New ridged, conical, fissiculate blastoid from the Permian of Timor. Journal of Paleontology 87, 6, p. 1071-1076.
(Recent collections in Permian of N slope of Sonmahole (Somohole) Mountain, 3.5 km NE of Manufui, NE part of W Timor, produced first new genus of blastoid described from Timor in 70 years. Corrugatoblastus savilli n.gen., n.sp, is ridged and furrowed, conical, fissiculate blastoid with unusual thecal morphology mimicking small, solitary, rugose coral. Placed in Family Codasteridae)

Standley, C.E. (2007)- Banda forearc metamorphic rocks accreted to the Australian continental margin: detailed analysis of the Lolotoi Complex of East Timor. M.Sc. Thesis, Brigham Young University, Utah, p. 1-137.
(online at: http://scholarsarchive.byu.edu/cgi/viewcontent.cgi?article=2303&context=etd)

Standley, C.E. & R.A. Harris (2006)- Banda forearc metamorphic rocks accreted to the Australian continental margin in Timor: detailed analysis of the Lolotoi Complex of East Timor. EOS Transactions AGU, 87, 52, Fall Meeting Suppl. *(Abstract only)*
(E Timor Lolotoi Complex part of group of thin metamorphic klippe, detached from Banda forearc and accreted to NW Australian margin during Late Miocene-Present arc-continent collision. Metamorphic protolith compositions similar to overlying unmetamorphosed tholeiitic basalt and andesite with oceanic arc affinities, and

turbidites conglomerates and limestone (=also same as underlying rock?; JTvG). Dominant structure low-angle folding/thrusting to SE. Metamorphic terrain in thrust contact with underlying Gondwana sequence rocks. Mostly unmetamorphosed volcanic and sedimentary cover units found locally in fault contact on edges of the klippen. Ar/Ar ages from amphibolite in W Timor yield ages of 34-39 Ma, interpreted as metamorphism age. Lolotoi Complex part of eastern Great Indonesian Arc, which collapsed in Eocene, incorporated into Banda Arc in Miocene, and accreted to Australian margin in Pliocene- Present)

Standley, C.E. & R.A. Harris (2009)- Tectonic evolution of forearc nappes of the active Banda arc-continent collision: origin, age, metamorphic history and structure of the Lolotoi Complex, East Timor. Tectonophysics 479, 1-2, p. 66-94.
(online at: http://geology.byu.edu/home/sites/default/files/2009-lolotoi-cmplx.pdf)
(Lolotoi metamorphic complex of E Timor part of Banda forearc, metamorphosed and exhumed in Eocene and accreted to NW Australian continental margin in Late Miocene-Present. Greenschist, graphitic phyllite, quartz-mica schist, amphibolite and pelitic schist-dominant metamorphics. Protoliths tholeiitic basalt and basaltic andesite with mixed MORB-oceanic arc affinities. Metapelite schist mostly metasedimentary units with volcanic arc provenance. Peak metamorphism at ~45.4 Ma indicated by Lu-Hf analyses of garnet. Detrital zircon U/Pb age spikes at 663, 120 and 87 Ma, typical of Great Indonesian Arc, distinct from Australian affinity units and indicating deposition and metamorphism after 87 Ma. Deformation phases: 1-4 pre-Oligocene, 5 and 6 related to latest Miocene- Pliocene nappe emplacement deformation. Lolotoi Complex in thrust contact with underlying Gondwana Sequence rocks. 'Asian' volcanic and sedimentary cover units mostly in normal fault contact with metamorphic rocks (core complex model?). Lolotoi Complex of Timor Leste correlative with Mutis Complex of W Timor, both part of Banda Terrane and dispersed fragments of E Great Indonesian Arc)

Stolley, E. (1929)- Uber Ostindische Jura-Belemniten. Palaontologie von Timor, Schweizerbart, Stuttgart, 16, 29, p. 91-213.
('On East Indies Jurassic belemnites'. Belemnites from Molengraaff, Jonker and Weber collections from Timor and Roti, with comparisons to belemnites from Misool, Sula Islands, Seram and Yamdena/ Tanimbar. Includes reports of Belemnopsis aucklandica from Timor (Ofu) and Roti (re-assigned to Belemnopsis uhligi-jonkeri group by Stevens, 1964; B. aucklandica from Yamdena, re-described as Belemnopsis stolleyi by Stevens, 1964)

Suardy, A., Mulhadiono & F. Hehuwat (1987)- Application of remote sensing for hydrocarbon exploration in Timor island, Indonesia. Proc. Asian Conference on Remote Sensing (ACRS 1987), Jakarta, 17, p. 1-15.

Sunarjanto, D. & M.B. Wismaya (1994)- Potensi sumberdaya mineral dan energi di Timor Timur. Proc. 23rd Annual Conv. Indonesian Association Geologists (IAGI), 2, Jakarta, p. 1118-1127.
(online at: https://www.iagi.or.id/web/digital/54/48.pdf)
(Potential for mining of minerals and energy in East Timor'. Brief review)

Suwitodirdjo, K. & S. Tjokrosapoetro (1975)- Geologic map of the Atambua Quadrangle, Timor, 1: 250,000. Geological Research Development Centre (GRDC), Bandung.
(See also second edition, 1996. Geologic map of eastern part of West Timor)

Swantry, N. (1989)- Geologi dan struktur geologi daerah Oeolo dan sekitarnya, Kecamatan Miomafo Barat, Kabupaten Timor Tengah Utara, NTT. Ph.D. Thesis, Institute of Technology Bandung (ITB), p. 1-253.
('Geology and geologic structure in the Oeolo and surrounding areas, W Miomafo, North central Timor')

Sy, E. (1958)- Die Gattung *Stromatoporidium* Vinassa de Regny aus der Obertrias der Insel Timor (Hydrozoa). Anzeiger Akademie Wissenschaften, Math.- Naturwissenschaftliche Klasse, October 1958, p. 163-168.
('The genus Stromatoporidium Vinassa de Regny from the Upper Triassic of Timor island (Hydrozoa)')

Tan Sin Hok (1926)- On a young Tertiary limestone on the isle of Rotti with coccoliths, calci and manganese peroxide spherulites. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 29, 8, p. 1095-1105.
(online at: https://dwc.knaw.nl/DL/publications/PU00015375.pdf)

(Early description of Late Tertiary calcareous nannofossils and radiolaria in pelagic limestone with radiolaria and small manganese nodules from S part of Roti island, collected by Brouwer (but radiolaria-manganese limstones probably Cretaceous; Riedel 1953))

Tappenbeck, D. (1939)- Geologie des Mollogebirges und einiger benachbarter Gebiete (Niederlandisch Timor). Ph.D. Thesis University of Amsterdam, p. 1-105.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:046881000:00001)
(also in: H.A. Brouwer (ed.) (1940) Geological Expedition of the University of Amsterdam; see below)
('Geology of the Mollo Mountains and some adjacent areas'. Good documentation and map of 'Banda terrane' stratigraphy in Mollo mountains area, based on 1937 fieldwork. Pre-Upper Cretaceous crystalline schists mainly in greenschist facies, intensely folded and brecciated in higher parts. Overlying Palelo series Cretaceous 'flysch' (with basal conglomerate with schist fragments andesitic volcanics; sandstones are greywackes with common volcanic detritus) and Eocene Nummulites limestones with Pellatispira. NW of Mollo Metamorphic Massif, Permian-Triassic Kekneno series in flysch facies, probably sourced from metamorphic terrane. In SE part of Mollo Mts isoclinally folded 'Sonnebait Series' of Mesozoic marine sediments in bathyal facies, incl. U Cretaceous Globotruncana limestone and marls. Also Triassic 'Fatu Limestones', etc.)

Tappenbeck, D. (1940)- Geologie des Mollogebirges und einiger benachbarter Gebiete (Niederlandisch Timor). In: H.A. Brouwer (ed.) Geological Expedition of the University of Amsterdam to the Lesser Sunda Islands 1940, 1, Noord Hollandsche Publ., Amsterdam, p. 1-105.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:046046000:00009)
(Published version of Tappenbeck (1939) thesis)

Tate, G. (2014)- Structural deformation, exhumation and uplift of the Timor fold-thrust belt. Ph.D. Thesis, Princeton University, p. 1-251.
(online at: http://dataspace.princeton.edu/jspui/handle/88435/dsp01bk128d120)
(Thermochronology and micropaleontology reveal extreme heterogeneity in uplift and exhumation across Timor fold-thrust belt. Before synorogenic basins experienced uplift from >1 km below sea level at 3.4-3.0 Ma, other areas a few 10's of km away were emergent and exhuming rapidly. Balanced cross-sections document at least 326-362 km of shortening of Timor since at least 7.3-7.8 Ma, and 215-229 km of buoyant Australian continental margin subducted below Banda forearc)

Tate, G., N. McQuarrie, R.R. Bakker, D.J.J.van Hinsbergen & R.A. Harris (2010)- Active arc-continent accretion in Timor-Leste: new structural mapping and quantification of continental subduction. AGU 2010 Fall Meeting, San Francisco, Abstract T51A1996T, 1p. *(Abstract only)*
(New mapping in Timor-Leste provided view of structural repetition of 'Australian' continental sedimentary units below overriding Banda Arc material. Transect Laclo-Barique exposes deep erosional level, showing 3 regional NNE-striking thrust faults with ~3 km spacing, repeating Aitutu-Cribas stratigraphy. Jurassic Wailuli shales and Bobonaro melange act as upper decollement between this duplex and Lolotoi metamorphic basement of Banda Arc. New balanced structural cross-section produces minimum shortening of 320km)

Tate, G.W., N. McQuarrie, D.J.J. Hinsbergen, R.R. Bakker, R. Harris & H. Jiang (2015)- Australia going down under: quantifying continental subduction during arc-continent accretion in Timor-Leste. Geosphere 11, 6, p. 1860-1883.
(online at: https://pubs.geoscienceworld.org/gsa/geosphere/article/11/6/1860/132312/Australia-going-down-under-Quantifying-continental
(Timor island is uplifted accretionary complex of collision of Banda arc with Australian continental margin. Duplexing of 2-km-thick Australian continental strata built majority of structural elevation of Timor orogen. Balanced cross sections suggest 326-362 km of shortening across Timor and 215-229 km of subduction of continental lithosphere below Banda forearc, showing considerable amounts of continental lithosphere can be subducted while accreting only thin section of uppermost crust. Continental subduction may have been favorable because of fast subduction rates and old age of oceanic crust at Australian margin)

Tate, G.W., N. McQuarrie, D.J.J. Hinsbergen, R.R. Bakker, R. Harris, S. Willett, P.W. Reiners, M.G. Fellin, M. Ganerod & J.W. Zachariasse (2014)- Resolving spatial heterogeneities in exhumation and surface uplift in Timor-Leste: constraints on deformation processes in young orogens. Tectonics 33, 6, p. 1089-1112.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/full/10.1002/2013TC003436)
(In Timor-Leste exhumed metamorphic rocks and piggyback deepwater synorogenic basins only 10's of km apart. Foraminifera in two deepwater synorogenic basins suggest basin uplift from depths of 1-2 km to 350-1000m between 3.35 and 1.88 Ma. Thermochronologic sampling in mountains between these basins: (1) reset age of ~7.13 Ma in Aileu high-grade belt suggests ~9-16 km of exhumation since that time; (2) zircon (U-Th)/He samples reset ages in Aileu Complex 4.4- 1.5 Ma, suggesting exhumation rates of 1-3 mm/yr with 2.7-7.8 km of exhumation since these ages; (3) Apatite (U-Th)/He ages in Gondwana Sequence 5.5- 1.4 Ma, suggesting 1-2 km of exhumation. Distinct increase in amount of exhumation in E Timor, from ~1-2 km in south to 3-6 km in North. Variability in surface uplift and exhumation possibly caused by ongoing subsurface duplexing driven by subduction and underplating of Australian continental crust)

Tate, G.W., N. McQuarrie, H. Tiranda, D.J.J. Hinsbergen, R. Harris, W.J. Zachariasse, M.G. Fellin, P.W. Reiners & S.D. Willet (2017)- Reconciling regional continuity with local variability in structure, uplift and exhumation of the Timor orogen. Gondwana Research 49, p. 364-386.
(online at: https://sites.pitt.edu/~nmcq/Tate_etal_2017.pdf)
(New constraints on history of uplift, exhumation and shortening of W Timor. Foreland thrust stack of Jurassic-Miocene Australian margin strata and hinterland antiformal stack of Permo-Triassic Australian continental units duplexed below Banda Arc lithosphere. Piggyback Central Basin with deepwater synorogenic deposition from 5.57-5.53 Ma, uplift from lower-m bathyal depths at 3.35-2.58 Ma, and uplift from m-u bathyal at 2.58-1.30 Ma. Hinterland Permo-Triassic with apatite (U-Th)/He ages of 0.33-2.76 Ma, apatite FT ages of 2.19-3.53 Ma. Youngest or most reset in center of antiformal stack. Minimum of 300km of shortening including 210km of Australian continental subduction below Banda forearc. Timor-Leste similar timing of collision, etc.)

Tatzreiter, F. (1980)- Neue trachyostrake Ammonoideen aus dem Nor (Alaun 2) der Tethys. Verhandlungen Geologischen Bundesanstalt Wien 1980, 2, p. 123-159.
(online at: www.geologie.ac.at/filestore/download/VH1980_123_A.pdf)
('New trachyostrake ammonoids from the Norian of the Tethys'. New Late Triassic (columbianus Zone) ammonites from exotic, pink blocks of 'Hallstatt Limestone' from Bihati River Baun, SE of Kupang, W Timor)

Tatzreiter, F. (1981)- Ammonitenfauna und Stratigraphie im hoheren Nor (Alaun, Trias) der Tethys aufgrund neuer Untersuchungen in Timor. Denkschrift Akademie Wissenschaften, Math.-Naturwissenschaftliche Klasse, 121, p. 1-142.
(online at: www.landesmuseum.at/pdf_frei_remote/DAKW_121_0001-0142.pdf)
('Ammonite fauna and stratigraphy of the upper Norian (Alaun, Triassic) of the Tethys, based on new investigations in Timor'. Revision of abundant Norian ammonoids from blocks of condensed, pelagic U Triassic limestone in Bobonaro olistostrome at Bihati River, Baun, SW Timor. Common genera Arcestes, Rhacophyllites, Cladiscites, etc. Columbianus zone 1m thick. M Norian fauna 90 species, 29 genera. Two subzones: Himavites hogarti (Alaun2) and Halorites macer (Alaun 3). Looks like typical 'Hallstatt facies' of European Alps; probably seamount deposit)

Tatzreiter, F.R. (1983)- Die trachyostraken Ammonoideen der *Himavatites columbianus*-zone (hoheres Mittelnor) von Timor (Indonesien). Doct. Thesis, University of Wien, p. *(Unpublished)*
('The trachyostrace ammonoids of the Himavites columbianus Zone (upper M Norian) from Timor, Indonesia')

Taylor, R., J. Hulse, A. Belo & J. Soares (2023)- Recent exploration in the Timor-Leste frontier. Proc. 4th Australasian Exploration Geoscience Conference (AEGC), Brisbane 2023, ID 194, p. 1-11.
(online at: https://zenodo.org/records/7980580)
(Recently acquired seismic, gravity and data from three new wells support concept that Lolotoi Metamorphic Complex is remnant of allochthonous thrust unit from N, whose base is a major decollement. The allochthon sits above a complex of overthrusted Australian continental margin blocks, including deeper decollement that pre-dates active accretionary wedge at base of Timor Trough)

Teixeira, C. (1952)- Notas sobra la geologia e la tectonica de Timor. Estudios Coloniais, Revista Escola Superior Colonial, Lisbon, 3, p. 85-154.
('Notes on the geology and tectonics of Timor'. On geology of Portuguese Timor; in Portuguese)

Tesch, P. (1916)- Jungtertiare und quartare Mollusken von Timor- I. In: J. Wanner (ed.) Palaeontologie von Timor 5, Abhandlungen 9, Schweizerbart, Stuttgart, p. 1-70.
('Late Tertiary and Quaternary molluscs from Timor- part 1'. Mainly taxonomic descriptions of molluscs collected by Wanner, Molengraaff 1909, 1911 expeditions. Faunas dominated by gastropods, 113 species, 17 new. With table listing localities; no map)

Tesch, P. (1920)- Jungtertiare und quartare Mollusken von Timor-II. In: J. Wanner (ed.) Palaeontologie von Timor 8, 14, p. 41-121.
(online at: https://babel.hathitrust.org/cgi/pt?id=njp.32101054599152&seq=11)
('Late Tertiary and Quaternary molluscs from Timor- part 2'. Continuation of above monograph, species 114-233. In stratigraphic conclusions samples grouped in 3 categories: Late Miocene?-Early Pliocene, Late Pliocene-Early Pleistocene and Pleistocene)

Tesch, P. (1923)- Trilobiten aus der Dyas von Timor und Letti. Palaeontologie von Timor 12, 21, p. 123-132.
(Trilobites from the Permian of Timor and Leti'. Philipsia sp. and Neoproetus indicus n.sp., collected by Wanner, Molengraaff, Jonker et al. Trilobites relatively rare and poorly preserved in Timor Permian)

Tharalson, D.B. (1984)- Revision of the Early Permian ammonoid family Perrinitidae. Journal of Paleontology. 58, 3, p. 804-833.
(Includes descriptions of Timor Permian perrinitid ammonoids. Species described by De Roever from Timor as Perrinites waageni was renamed Properrinites deroeveri by Gerth (1950) here called Properrinites cumminsi (U Sakmarian). Also description of Artinskian Paraperrinites subcumminsi (Haniel) (originally Cyclolobus subcumminsi) from Bitauni)

'T Hoen, C.W.A.P. & L.J.C. van Es (1926)- De opsporingen naar delfstoffen op het eiland Timor. Jaarboek Mijnwezen Nederlandsch-Indie 54 (1925), Verhandelingen 2, p. 1-80.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:046886000:00001)
(Multi-year mineral exploration project in W Timor since 1919. No economically viable mineral deposits identified, except some subeconomic copper associated with serpentinites, minor chromite in peridotites, gold near crystalline schists (Lalan Asu, Miomaffo) and manganese in deep marine pelagic sediments. Mud volcanoes, present across most of W Timor but most common in areas of Triassic flysch. Some cones up to 90m high and some with flammable gas seepage. Clasts in mud volcanoes include virtually all Timor formations, incl. Permian, Triassic, Jurassic and crystalline schists. Includes 1:250,000 geological overview map of W Timor by Van Es and petrographic descriptions by W.F. Gisolf. Swiss geologist F. Hunerwadel was also part of Timor field survey)

Thompson, M.L. (1949)- The Permian fusulinids of Timor. Journal of Paleontology 23, 2, p. 182-192.
(Fusulinid limestones collected by Brouwer expedition in 1937 in W Timor contain five species of fusulinids, incl. Schwagerina brouweri n. sp. All appear to indicate Early Permian, Leonardian or older age. Fusulinids of Timor not similar to widespread complex fusulinid faunas in other parts of E Hemisphere)

Thompson, S.J. (2011)- Geology and soils in Timor-Leste. p. 1-39. *(Unpublished)*
(online at: http://seedsoflifetimor.org/wp-content/uploads/2012/12/Geology-and-Soils-in-Timor-LesteA4.pdf)
(Review of geology of Timor Leste and associated soil types)

Tichy, G. (1979)- Gastropoden aus den Triassischen Hallstatterkalk-Blocken von West-Timor (Indonesien). Beitrage zur Palaontologie Osterreichs 6, p. 119-133.
(online at: https://www.zobodat.at/pdf/Beitr-Palaeontologie_6_0119-0133.pdf
('Triassic gastropods from the exotic Halstatt limestone blocks of Western Timor'. SW Timor Bihati River limestones with abundant ammonites and rare gastropods. Gastropods interpreted as deep water, of M-U Norian

and Carnian ages. Incl. Pleurotomaria, Epulotrochus strobiliformis, Naticopsis, Hologyra, Neritopsis, Natica klipsteini and Allocosmia. Species identical to Hallstatt Limestone in Northern Calcarous Alps of Austria)

Tjia, H.D. (1961)- *Anatomites brochiiformis* Welter var. *rotundata*. Proceedings Institut Teknologi Bandung (ITB) 1, 1, p. 5-23.
(online at: http://journals.itb.ac.id/index.php/jmfs/article/view/9820/3778)
(Brief description of Carnian ammonite from Triassic cephalopod limestone of Basleo, ~5km NE of Niki-Niki)

Tjokrosapoetro, S. (1978)- Holocene tectonics on Timor Island, Indonesia. Bull. Geological Survey Indonesia 4, 1, p. 49-63.
(Active Holocene tectonism. Uplift at W end of island 1 mm/yr, higher in central part. >15 active mud volcano fields mapped in West Timor, mainly associated with young Central Basin or Kolbano Complex accretionary prism. Some mud volcanoes produce saline water, others have flammable gas)

Tjokrosapoetro, S. (1983)- Late volcanic activity in Timor Island. Geological Research Development Centre (GRDC), Bandung, p. 1-10.

Tjokrosapoetro, S. (1993)- Indication of initial stage of volcanic activity on Timor. Bull. Marine Geological Institute 8, 2, p. 23-44.
(Hot sulphuric smoke near Ajobaki (2 km NW of Kapan, 30 km N of Soe) in January 1983 and fumaroles and sulphuric hot springs may suggest early stage of volcanic activity. Timor is part of non-volcanic Outer Banda Arc, with last volcanic activity of inner Banda Volcanic Arc in Late Miocene (5.9-6.2 Ma). Eight million years from now Timor will probably be active volcanic island, due to subduction N of Wetar since 3 Ma)

Tjokrosapoetro, S. & H.D. Tjia (1978)- Gejala-gejala tektonik Kwarter di Timor. Geologi Indonesia 5, 1, p. 11-26.
('Quaternary tectonic activity on Timor')

Tobing, S.L. (1989)- The geology of East Timor. M. Phil. Thesis, London University, p. 1-129. *(Unpublished)*
(Mainly revised geologic map of E Timor, based on photogeologic studies)

Toifur, A., Z.F. Kunadi, S. Alawiyah & I. Gunawan (2023)- The correlation of land survey and satellite gravity data. Study case: Timor Leste Area. Proc. 4th SE Asian Conference on Geophysics (SEACG 2022), Bandung, 2022, IOP Conference Series: Earth and Environmental Science 1227, 012007, p. 1-6.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1227/1/012007/pdf)
(Regional gravity anomaly map high compatibility with geological data)

Torre de Assuncao, C. (1956)- Notas da petrografia timorense. Garcia de Orta 4, 2, p. 265-278.
('Notes on the petrography of Timor'. In Portuguese)

Tozer, E.T. (1994)- Significance of Triassic stage boundaries defined in North America. In: J. Guex & A. Baud (eds.) Recent developments on Triassic stratigraphy. Memoires de Geologie (Lausanne) 22, p. 155-170.
(online at: https://www.unil.ch/files/live/sites/iste/files/shared/X.Library/Memoirs%20of%20Geology/22%20-%20Guex%20(1994%20-%20entire%20volume).pdf)
(Includes record and description of M Triassic (E Anisian) ammonites Keyserlingites angustecostatus, Paracrochordiceras welteri n.sp. and Leiophyllites from block of 'Hallstatt Limestone' facies in olistostrome on Timor (Fatoe Nefakoko near Soeli, collected by Molengraaff Timor Expedition 1911, now in Delft University collection) (first described by Welter 1915). Associated with conodonts Chiosella timorensis and Gladiogondolella tethydis (Orchard 1994))

Ueno, K. (2006)- The Permian antitropical fusulinoidean genus *Monodiexodina*: distribution, taxonomy, paleobiogeography and paleoecology. J. Asian Earth Sciences 26, p. 380-404. *(online at: https://www.academia.edu/15355494/The_Permian_antitropical_fusulinoidean_genus_Monodiexodina_Distribution_taxonomy_paleobiogeography_and_paleoecology)*

(Review of 'subtropical', late E Permian fusulinid genus Monodiexodina from 33 areas, incl. several Timor occurrences, all in middle part of Maubisse Fm. Type species of Monodiexodina is Schwagerina wanneri Schubert 1915 first described from Timor. Monodiexodina-bearing areas can be restored to either N or S middle latitudes, suggesting genus is paleobiogeographically anti-tropical taxon. Generally found in monotypic, crowded manner in sandy sediments with uni-directionally aligned shells. Long-ranging 'mid-Permian', Artinskian- E Midian (=Capitanian))

UN ESCAP (2003)- Geology and mineral resources of Timor-Leste. Atlas of Mineral Resources of the ESCAP region 17, United Nations, New York, p. 1-143.
(online at: https://repository.unescap.org/handle/20.500.12870/4789)
(General overview of East Timor geology and economic resources)

UN ESCAP (2003)- Geological map of Baucau, Dili and Kupang-Atambua quadrangles of Timor. Supplement to: Atlas of Mineral Resources of the ESCAP region 17, United Nations, New York.
(online at: https://repository.unescap.org/bitstream/handle/20.500.12870/4789/ESCAP-2003-MN-%20Geology-mineral-resources-Timor-Leste-map.pdf)
(Geological map of Timor Leste, a compilation of three geological maps (Baucau, Dili, Kupang-Atambua), published by Geological Research and Development Centre, Indonesia, in 1994-1996, during Indonesian annexation of 1975-1999)

Untung, M., Sudarwono & T. Padmawijaya (1991)- Gravity anomalies of Timor Island, Indonesia and the Australian continental margin. Proc. Annual Conv. Indonesian Association Geophysicists (HAGI), p.

Utoyo, H. & S. Permanadewi (1994)- Perbandingan pentarikhan K-Ar pada hornblende dan biotit dalam batuan malihan Formasi Aileu, Timor Timur. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 4, 32, p. 13-18.
(' Comparison of K-Ar dating results in hornblende and biotite from Aileu Fm metamorphic rocks, E Timor'. Radiometric dating of samples from Aileu Fm along coast E of Dili, E Timor. Age of peak metamorphism based on hornblende from amphibolite (3 samples) is 7.7 Ma. Age of biotite from biotite schist is 5.7 Ma, reflecting time of cooling)

Van Andel, T. (1948)- Some remarks on *Nummulites javanus* Verb. and *Nummulites perforatus* de Montf. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 51, 8, p. 1013-1023.
(online at: https://dwc.knaw.nl/DL/publications/PU00018566.pdf)
(Study of Nummulites perforatus from Mollo, W Timor, collected by Tappenbeck. Nummulites javanus (Verbeek) considered to be younger synonym of N. perforatus)

Van den Boogaard, M. (1987)- Lower Permian conodonts from western Timor (Indonesia). Proc. Koninklijke Nederlandse Akademie van Wetenschappen, ser B, 90, 1, p. 15-39.
(Lower Permian conodonts from samples collected by Jonker expedition near Bitauni in 1916 and SW Mutis region by De Roever in 1937. Important constituent of fauna is Vjalovognathus shindyensis)

Van Doorninck, N.H. (1940)- Over een rapport van een exploratie in Portugueesch Timor. Geologie en Mijnbouw 2, 7, p. 145-148.
(online at: https://www.delpher.nl/nl/tijdschriften/view?identifier=MMSHCL02:017136007:00001)
('On a report of an exploration in Portuguese Timor'. Discussion of Allied Mining Corporation (1937) report on the 1936 expedition across all of East Timor, led by Belgian entrepreneur S.F. Wittouck (and in which current author participated). No figures, maps. Widespread Permian and Triassic Fatu limestones (parts of 'Tethys nappe' of Molengraaff), overthrust over widespread chaotic Permian-Triassic (-Liassic?) flysch formations. Large area of schists around Dili)

Van Es, L.J.C. (1921)- Inlandsche koperertsontginningen op Timor. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 38, p. 808-810.
('Copper ore exploitation by natives on Timor'. Small occurrences of copper (native copper, cuprite) from red and grey shales and Cretaceous limestone in area of Noil Toko, several localities of Amanubang and in N Belu)

Van Eykeren, H. (1942)- *Microblastus* gen. nov. und einige andere neue permische Blastoideen von Timor. Neues Jahrbuch Mineralogie Geologie Palaontologie, Beilage-Band 86B, p. 282-298.
('Microblastus new genus and other new Permian blastoids from Timor'. In German. New species of blastoids from the Brouwer/ University of Amsterdam Timor collection)

Van Gorsel, J.T. (2012)- Ophiolite obduction on Leti Island, as described by Molengraaff and Brouwer (1915): implications for age and genesis of metamorphic complexes in the Outer Banda Arc, Eastern Indonesia. Berita Sedimentologi 24, p. 24-38.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/182/152)
(Descriptions of geology of Leti Island, NE of Timor by Molengraaff et al. (1915) suggest 'ophiolite obduction', (metamorphism of continental crustal material below ultrabasic mantle material in subduction zone). Folded E-M Permian sediments and basic volcanics in S of island gradually increase in metamorphic grade towards serpentinite massif in N. Serpentinite massif is overlain by Latest Oligocene shallow marine limestone with reworked serpentinite and metamorphics, suggesting metamorphism/ophiolite obduction on Leti island took place in post-Early Permian (therefore not Australian continental crust basement) but before latest Oligocene (i.e. too old to be connected with Late Neogene Banda arc- NW Australian continent collision). Metamorphic complexes on Timor and other islands of Outer Banda Arc may all have similar origin, possibly representing single, extensive Cretaceous-age collisional/ subduction zone, formed along Sundaland margin)

Van Marle, L.J. (1991)- Late Cenozoic palaeobathymetry and geohistory analysis of Central West Timor, Eastern Indonesia. Marine and Petroleum Geology 8, 1, p. 22-34.
(W Timor Central Basin with ~550m or more Mid-Pliocene- E Pleistocene deep marine clastics over E Pliocene pelagic calcilutites ('Batu Putih Fm'). E Pliocene paleo water depth probably ~2000m. Two uplift episodes: (1) 2.4- 1.6 Ma, corresponding to arrival of Australian continental slope in Timor subduction system; (2) Late Pleistocene- Recent larger uplift of 1500-2000m, reflecting arrival of Australian continental shelf at Outer Banda Arc thrust belt (and/or slab-breakoff?; JTvG))

Van Voorthuysen, J.H. (1940)- Geologische Untersuchungen im Distrikt Amfoan (Nordwest Timor). In: H.A. Brouwer (ed.) Geological Expedition of the University of Amsterdam to the Lesser Sunda Islands 1937, 2, Noord Hollandsche Publ. Co., Amsterdam, p. 345-367.
(online at: (online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:046047000:00009)
('Geological investigations in the Amfoan District, NW Timor'. Reports a.o. common dark grey Eocene limestone with Nummulites, unconformable on crystalline schists of Mosu and Nefoneu (incl. Eocene conglomerate with rounded schist and volcanic clasts), closely associated with widespread Eocene andesitic volcanics. Also blocks of Lower Miocene reefal limestone with Spiroclypeus and Miogypsina, always found in proximity to crystalline schists, and with clasts of schists and volcanics)

Van West, F.P. (1941)- Geological investigations in the Miomaffo Region, Netherlands Timor. Ph.D. Thesis University of Amsterdam, p. 1-130. *(also published in Brouwer (1941, below)*
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:046880000:00001)
(Miomaffo Massif of W Timor structurally complex area, with 3 tectonic units: (1) 'Schist-Palelo Complex' of amphibolite-dominated metamorphics associated with ultrabasic lherzolites, serpentinites, gabbros, etc., overlain by Cretaceous 'Lower Palelo' radiolarian cherts (recently dated as most likely Cenomanian by Munasri and Harsolumakso, 2020), U Cretaceous U Palelo greywackes-volcanoclastics with pebbles of schists and serpentinite, E-M Eocene Alveolina-Nummulites limestones associated with volcanics, Late Eocene Pellatispira limestones without volcanics, unconformably overlain by E Miocene limestones with Spiroclypeus and Miogypsina (with basal conglomerate with metamorphics, etc.), Globigerina limestone and increasing volcanic rocks upsection (Schist-'Palelo' stratigraphy similar to SE Kalimantan, SW Sulawesi, Sumba; JTvG); (2) 'Fatu Complex' U Triassic reefal-oolitic limestones, some rich in Norian brachiopod Misolia aspera (with conglomeratic beds with igneous rocks); (3) 'Sonnebait Series' Cretaceous pelagic Globotruncana limestones and radiolarian cherts. Young Tertiary Globigerina limestones and tuffs unconformable over all older formations. Large overhrusts formed in pre-Miocene time, with mountain-building forces peaking in Oligocene, but fault deformation continuing to recent time)

Van West, F.P. (1941)- Geological investigations in the Miomaffo Region, Netherlands Timor. In: H.A. Brouwer (ed.) Geological expedition of the University of Amsterdam to the Lesser Sunda Islands in the eastern part of the Netherlands East Indies 1937, III, p. 1-131.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:046048000:00280)
(Same as Van West (1941) above)

Vicente, V.A.S., P. Dinis, E. Garzanti, A. Resentini, M. Barbarano, M.C. Pinto & J. Pratas (2025)- Arc-continent collision as recorded in modern stream sand from Oecusse (Timor Island). Sedimentary Geology 481, 106852, p. 1-15.
(online at: https://www.sciencedirect.com/science/article/pii/S0037073825000478)
(Small territory of Oecusse in NW Timor complex geology with exposures of sedimentary, volcanic and metamorphic units associated with lower plate Australian continental margin, upper plate Banda Terrane Eocene (Barique Fm) and thick Late Miocene Manamas Fm island arc volcanics, etc., and synorogenic Bobonaro melange and younger sediments. Study of components of modern stream samples)

Vicente, V.A.S., J.A.M.S. Pratas, F.C. Lopes & R. Harris (2025)- Lithostratigraphy and structural setting of the Banda Terrane and Gondwana Sequence on the Northeast of Oecusse Enclave, Timor-Leste. Comunicacoes Geologicas (Lisbon) 112, Especial I, p. 407-410.
(online at: https://www.lneg.pt/wp-content/uploads/2025/04/81_Vicente-et-al.pdf)
(New geological map and review of tectonostratigraphic units in NE part of Timor Leste Oecussi enclave in NE part of W Timor (mainly Banda terranes of Asian affinity)

Vicente, V.A.S., J.A.M.S. Pratas, F.C.M. Santos, M.V.G. Silva, P.J.C. Favas & L.E.N. Conde (2021)- Geochemical anomalies from a survey of stream sediments in the Maquelab area (Oecusse, Timor-Leste) and their bearing on the identification of mafic-ultramafic chromite rich complex. Applied Geochemistry 126, 104868, p. 1-13.
(Stream sediments in NW Oecusse enclave, (Timor-Leste, but in W Timor island) with elevated Cr, Ni and Co indicating new ultramafic complex with dunites, peridotites and serpentinites, also metamorphic rocks, mainly calc-silicate, basalts and gabbros, named Maquelab Complex)

Vilanova, V., T. Ohtani, S. Kojima, K. Yatabe & E. Moniz (2024)- Geochemical characteristics of modern river-sand and its bearing on the mineral exploration in the Manufahi area, Timor-Leste. Geosciences (MDPI) 14, 12, p. 1-27.
(online at: https://www.mdpi.com/2076-3263/14/12/338)
(Geochemical mapping of river sands in Manufahi area of S Timor-Leste identified four areas with high potential for deposits and mineralization anomalies of Cr, Cu, Ni and Ba (+ Zn))

Villeneuve, M., H. Bellon, R. Martini, A. Harsolumakso & J.J. Cornee (2013)- West Timor: a key for the eastern Indonesian geodynamic evolution. Bull. Societe Geologique France 184, 6, p. 569-582. *(online at: www.researchgate.net/publication/261985620_West_Timor_A_key_for_the_eastern_Indonesian_geodynamic_evolution)*
(W Timor not simple accretionary prism, but five superimposed structural units. Present-day structure result of three main tectonic events in Late Oligocene, Late E Pliocene and Late Pliocene-E Pleistocene. Geodynamic evolution: (1) block detached from Gondwana (unit 2) and drifted to Asiatic margin until Late Oligocene when it collided with Asiatic active margin (unit 3); (2) New block formed by units 2 and 3 drifted S in Miocene- E Pliocene until collision with Australian margin in Late E Pliocene; (3) Australian and Timor blocks moved together to NNE in Late Pliocene until collision with Banda fore-arc (unit 4); (5) In Pleistocene Timor island capped by 'autochthon' (unit 5) and (5) Quaternary? N thrusting of Banda volcanic arc over S Banda basin. Timor key area for building this geodynamical scenario of Indonesia)

Villeneuve, M., J.J. Cornee, A. Harsolumakso, R. Martini & L. Zaninetti (2005)- Revision stratigraphique de l'Ile de Timor (Indonesie orientale). Eclogae Geologicae Helvetiae 98, 2, p. 297-310.
(online at: https://www.e-periodica.ch/digbib/view?pid=egh-001:2005:98316)

('Stratigraphic revision of Timor island'; in French. Many stratigraphic scales proposed for Timor due to tectonic complexity and facies variability. Timor comprises 6 units, linked to episodes of geological history. Evolution starts with Jurassic break-up of block from Gondwana (para-allochthonous unit), followed by Oligo-Miocene collision with Asian volcanic arc (allochthonous and sub-autochthonous units). By Late Miocene this assemblage of blocks separated from Asia during S Banda Sea opening (sub-autochthonous unit), then collided with N Australian margin in M Pliocene (Australian platform and Kolbano Group). Since then Timor Island part of Australian N margin)

Villeneuve, M., J.J. Cornee, R. Martini & L. Zaninetti (2004)- Nouvelle hypothese sur l'origine des formations geologiques de l'ile de Timor (Sud-Est Asiatique). Comptes Rendus Geoscience 336, 16, p. 1511-1520.
(online at: https://comptes-rendus.academie-sciences.fr/geoscience/item/10.1016/j.crte.2004.09.011.pdf)
(Stratigraphy/ tectonics suggest Timor and S Sulawesi part of same continental block. Main deformation on Timor and Sulawesi is Oligocene. Timor separated in Late Miocene during opening of S Banda Basin and became part of Late Miocene arc that collided with Australia at end of E Pliocene, 3.5 Ma)

Villeneuve, M., A.H. Harsolumakso, J.J. Cornee & H. Bellon (1999)- Structure of West Timor (East Indonesia) along a north-south cross section. Geologie Mediterraneenne 26, 3-4, p. 127-142.
(online at: https://www.persee.fr/doc/geolm_0397-2844_1999_num_26_3_1653)
(Structural transect of C part of W Timor suggests tow main tectonic events: (1) Oligocene thrusting of allochton units over Australian continental margin; (2) E Pliocene collision between Banda island arc and previous Timor forearc units, and responsible for present imbricated structures. Two extensional periods: Late Oligocene or earliest Miocena and Late Pliocene)

Vinassa de Regny, P. (1915)- Triadische Algen, Spongien, Anthozoen und Bryozoen aus Timor. Palaontologie von Timor, Schweizerbart, Stuttgart, 4, 8, p. 75-118.
(Late Triassic algae (Solenopora), sponges (Molengraaffia regularis, Steinmannia), corals (incl. species of Thecosmilia, Isastraea, Montlivaltia), pachyporidae (Lovcenipora), calcareous algae (Solenopora triasina = Parachaetes according to Flugel 1975), stromatoporidae (Stromatoporidium) and bryozoa, mainly from reefal 'Fatu Limestones' from westernmost Timor and Pualaca area, E Timor (Nine coral species in common with alpine Zlambachschichten; Diener 1916 (=Rhaetian; JTvG))

Vita-Finzi, C. & S. Hidayat (1991)- Holocene uplift in West Timor. J. Southeast Asian Earth Sciences 6, 3-4, p. 387-393.
(Holocene uplift rates <0.3mm/yr, i.e. much lower than Late Pliocene rates, suggesting rapid, but short-lived uplift of Timor in Late Pliocene)

Vital, V. (2011)- Mapping and structure of the mineral resources of the Districts of Dili and Manatuto. Implications for genesis and exploitation. Master's Thesis, University of Evora, Portugal, p. *(Unpublished)*

Von Arthaber, G. (1926)- Ammonoidea leiostraca aus der oberen Trias von Timor. In: H.A. Brouwer (ed.) 2e Nederlandsche Timor-Expeditie 1916 onder leiding van Dr. H.G. Jonker+, vol. V, Jaarboek Mijnwezen Nederlandsch-Indie 55 (1926), Verhandelingen 2, p. 1-173.
(online at: https://opac.geologie.ac.at/ais312/dokumente/Arthaber_1926_Ammonoidea%20Leiostraca.pdf)
('Leiostraca ammonites from the Upper Triassic of Timor'.110 species of Carnian- Norian ammonites described from Timor (66% endemic, 57 species in common with Mediterranean/ Tethys bioprovince). Mainly collected by Jonker 1916 2nd Timor expedition)

Von Bulow, E. (1915)- Orthoceren und Belemnitiden der Trias von Timor. In: J. Wanner (ed.) Palaontologie von Timor 4, 7, Schweizerbart, Stuttgart, p. 1-72.
('Orthocerids and belemnites from the Triassic of Timor'. Mainly on taxonomy of straight nautiloids (Orthoceras spp.) and belemnites (Carnian-Norian Aulacoceras, Atractites spp. and Dictyoconites spp.) from Molengraaff, Wanner 1909-1911 expeditions. Triassic belemnites known from Timor, Savu and Roti. Carnian-Norian belemnites in bright limestones, commonly with manganese coating)

Von Huene, F. (1931)- Ichthyosaurier von Seran und Timor. Neues Jahrbuch Mineralogie Geologie Palaontologie, Beilage Band 66, B, p. 211-214.
('Ichthyosaurs from Seram and Timor'. Triassic or Jurassic Ichthyosaurus vertebrae from Bula, E Seram, and Basleo, W Timor)

Von Huene, E. (1935)- Mosasaurier-Zahne von Timor. Zentralblatt Mineralogie Geologie Palaontologie, B, 10, p. 412-416.
('Mosasaurus teeth from Timor'. U Cretaceous Mosasaurus teeth Globidens? timorensis n.sp. from red clays above Triassic Halobia Limestone in Noil Tobe near Nikiniki (collected by Wanner) and Oe Batok II near Baoen (Baung, SW Timor (from Jonker 1916 Expedition collection Delft; not sure if correct; Oe Batok II is ~2m large block of Triassic cephalopod/ heterastrid limestone). Both from 'Niki Niki- Baung zone' of Wanner (1913). With Globidens? timorensis (these would be the only known Mosasaurus teeth from Indonesia, but Timor fossils more likely Triassic ichthyosaurian teeth; see E. Mulder & J. Jagt, 2019))

Von Huene, E. (1936)- Ichthyosaurierreste aus Timor. Zentralblatt Mineralogie Geologie Palaontologie 1935, B 8, p. 327-334.
('Ichthyosaur remains from Timor'. Description of ichthyosaur marine reptile remains from E-M Triassic of Noil Bunu, Basleo, W Timor, collected by Jonker Timor Expedition of 1916, named Mixosaurus sp. (possibly Cymbospondylus; Sander & Mazin 1993))

Von Koenigswald, G.H.R. (1967)- An Upper Eocene mammal of the family Anthracotheriidae from the island of Timor. Proc. Koninklijke Nederlandse Akademie van Wetenschappen B70, 5, p. 529-533.
(Description of Eocene Hippopotamus-like skull fragment and upper molar from W of Laharus, W Timor, named Anthracothema verhoeveni n. sp. Genus also known from Eocene of Birma, S China and W Borneo and is first indication of Eocene mammalian fauna in E Indonesia. (Belongs in genus Anthracotherium; Ducrocq 1996). It is of Asian affinity, suggesting proximity of this part of Timor to SE Asia/Sundaland in Eocene)

Von Schouppe, A. & P. Stacul (1955)- Die Genera *Verbeekiella* Penecke, *Timorphyllum* Gerth, *Wannerophyllum* n. gen., *Lophophyllidium* Grabau aus dem Perm von Timor. Palaeontographica, Supplement Band IV (Beitrage zur Geologie von Niederlandisch-Indien) 5, 3, p. 95-196. *(online at: https://dn720806.ca.archive.org/0/items/palaeontographica-supplementbaende_1955_4_3/palaeontographica-supplementbaende_1955_4_3.pdf)*
('The genera Verbeekiella Penecke, Timorphyllum Gerth, Wannerophyllum n. gen., Lophophyllidium Grabau from the Permian of Timor'.Descriptions of (late Middle and early Late?) Permian solitary corals, from 39 localities in Basleo area, E of Niki-Niki, and some from Amarassi, W Timor. The 12,000 specimens were collected by Ehrat in 1927, at direction of Prof. J. Wanner in Bonn. 17 species identified here, 10 new (Solitary rugosa assemblages like these now generally viewed as M Permian, 'anti-tropical', deeper water and cooler climate 'Cyathaxonia faunas' or 'Lytvolasma faunas' (Kossovaya, 2009); JTvG))

Von Schouppe, A. & P. Stacul (1959)- Saulchenlose Pterocorallia aus dem Perm von Indonesisch Timor (mit Ausnahme der Polycoelidae). Eine morphogenetische und taxonomische Untersuchung. Palaeontographica Supplement IV, Beitrage zur Geologie von Niederlandisch-Indien 5, 4, p. 197-359.
('Pillar-less Pterocorallia from the Permian of Indonesian Timor (with exception of of the Polycoelidae), A morphogenetic and taxonomic study'. Paleontological descriptions of Timor Permian solitary corals)

Wahyudiono, J., I. Safri, A. Sudradjat & H. Panggabean (2016)- Geokimi batuan gunungapi di Pulau Timor bagian Barat dan implikasi tektonikya. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 17, 4, p. 241-252.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/24/21)
('Geochemistry of the volcanic rocks of West Timor and its tectonic implications'. Geochemistry of basaltic rocks from Fatu River (interfinger with Permian Maubisse Fm limestone) suggests Oceanic Island Basalt. Oligo-Miocene metabasalt from Mutis Complex calk-alkaline, island arc volcanics. Metan River and Atauro Island (Banda Arc) subalkaline/ tholeitic volcanics)

Wang, H.C. (1947)- Notes on some Permian rugose corals from Timor. Geological Magazine 84, 6, p. 334-344.

(Description of Permian solitary corals from four W Timor localities (Soempek, Neoepantoekak, Toenioen Eno, Basleo) in collection of British Museum of Natural History (Lytvolasma, Amplexicarina, Timorphyllum, Lophophyllidium, Verbeekiella, etc.) Timor corals of excellent preservation. Mainly review of works of Gerth, Koker, Schindewolf)

Wanner, C. (1922)- Die Gastropoden und Lamellibranchiaten der Dyas von Timor. In: J. Wanner (ed.) Palaeontologie von Timor, Stuttgart, 11, 18, p. 1-82.
('The gastropods and bivalves from the Permian of Timor'. Description of Permian bivalve material collected by Wanner and Molengraaff in 1909-1911, mainly from Basleo area. High diversity faunas (61 gastropod, 25 bivalve species), but low abundance compared to other fossil groups. Timor richest in Capulids of all known Permian faunas. Includes presence of Atomodesma spp. from various localities (genus often regarded as cold-water 'Gondwanan'; JTvG))

Wanner, C. (1940)- Neue Permische Lamellibranchiaten von Timor. In: H.A. Brouwer (ed.) Geological Expedition of the University of Amsterdam to the Lesser Sunda Islands 1937, 2, Noord Hollandsche Publ. Co., Amsterdam, p. 369-395.
('New Permian bivalves from Timor'. Addendum to 1922 paper, based on new material collected by Ehrat during private survey in in 1927 and Brouwer/ De Roever 1937 expedition, mainly from Basleo area, W Timor. Incl. Atomodesma in flysch W of Kasleo in Kekneno area)

Wanner, C. (1942)- Neue Beitrage zur Gastropoden fauna des Perm von Timor. In: H.A. Brouwer (ed.) Geological Expedition of the University of Amsterdam to the Lesser Sunda Islands, etc., 1937, 4, Noord Hollandsche Publ. Co., Amsterdam, p. 137-203.
(Permian gastropods from Timor 70 species, one of richest in world. Almost all new species, only 3 species known from elsewhere (Pakistan, Sicily, China))

Wanner, J. (1907)- Triaspetrefakten der Molukken und des Timorarchipels. Neues Jahrbuch Mineralogie Geologie Palaontologie, Beilage Band 24, p. 159-220.
(online at: http://mmtk.ginras.ru/pdf/Wanner_1907_Tr_Timor_HI.pdf)
('Triassic fossils from the Moluccas and Timor Archipelago'. Late Triassic molluscs, corals, ammonites faunas from Misool, Seram and Timor-Roti-Savu (generally deeper water facies, but potentially similar 'alpine' character with mainly Halobia, Daonella, but also 'Pacific' mollusc Pseudomonotis ochotica). Timor/Roti/ Savu Triassic reminiscent of N Sumatra Upper Triassic described by Volz, 1899. First author to recognize Alpine/ Tethyan affinities of the Late Triassic bivalves and ammonites of Seram and Timor)

Wanner, J. (1910)- Uber eine merkwurdige Echinodermenform aus dem Perm von Timor. Zeitschrift Induktive Abstammungs Vererbungslehre 4, p. 123-142.
('On a remarkable echinoderm from the Permian of Timor'. Detailed description of anatomy of Permian blastoids Timorechinus spp. from E of Nikiniki and comparison to Schizoblastus permicus)

Wanner, J. (1911)- Triascephalopoden von Timor und Rotti. Neues Jahrbuch Mineralogie Geologie Palaontologie, Beilage Band 32, p. 177-196.
(online at: http://mmtk.ginras.ru/pdf/Wanner_1911_Tr_Timor_Rotti_ocr.pdf)
('Triassic cephalopods from Timor and Roti'. Early paper on Upper Triassic ammonites (Meekoceras indoaustralicum n.sp., M. timorensis n.sp., Flemingites timorensis n.sp., Cladiscites) and ribbed belemnite Aulacoceras (A. timorense n.sp.))

Wanner, J. (1912)- *Timorocrinus* nov. gen. aus dem Perm von Timor. Centralblatt Mineralogie Geol. Palaontologie 19, p. 599-605.
(online at: https://www.zobodat.at/pdf/Centralblatt-Mineral-Geol-Palaeont_1912_0599-0605.pdf)
('Timorocrinus new genus from the Permian of Timor'. New genus name for Timorechinus miriabilis from Molengraaff Timor collection. No locality information, presumably Basleo)

Wanner, J. (1913)- Geologie von West Timor. Geologische Rundschau 4, 2, p. 136-150.

(online at: https://www.zobodat.at/pdf/Geologische-Rundschau_4_0136-0150.pdf)
(First overview of geology and stratigraphy of western part of West Timor, based on fieldwork by Wanner with doctorate students Welter and Haniel in 1909 and 1911. Probably first paper to suggest large-scale, Alpine-type overthrusting as dominant tectonic style on Timor (Molengraaff 1912? Suggested the same)

Wanner, J. (ed.) (1914-1929)- Palaontologie von Timor. Schweizerbart Verlag, Stuttgart, 16 vols.
('Paleontology of Timor'. Series of beautifully illustrated paleontological monographs on Timor fossils by German paleontologists, published over 15 year period. Some issues still available from original publisher)

Wanner, J. (1916)- Die permischen Echinodermen von Timor I. In: J. Wanner (ed.) Palaontologie von Timor 6, 11, Schweizerbart, Stuttgart, p. 1-329.
('The Permian echinoderms from Timor-1'. Major monograph on crinoids of Timor, collected in 1909 and 1911. Total 123 species (105 new) of 44 genera (28 new))

Wanner, J. (1920)- Ueber armlose Krinoiden aus dem jungeren Palaeozoikum. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 5, 2, p. 21-36.
('On arm-less crinoids from the Late Paleozoic'. Among rich Permian crinoid assemblages of Timor are 'armless' forms like Indocrinus, Sundacrinus, Embryocrinus, Hypocrinus, etc. Also one-armed species Monobrachiocrinus granulatus n.sp., with reconstruction model)

Wanner, J. (1920)- Ueber einige palaeozoische Seeigelstacheln (*Timorocidaris* gen. nov. und *Bolboporites* Pander). Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 22, 7-8, p. 696-712.
(online at: https://dwc.knaw.nl/DL/publications/PU00012020.pdf)
('On some Paleozoic sea urchin spines (Timorocidaris gen. nov. and Bolboporites Pander)'. In German. Timorocidaris material from Permian of Basleo, Timor)

Wanner, J. (1923)- Die permischen Krinoiden von Timor. In: H.A. Brouwer (ed.) 2e Nederlandsche Timor-Expeditie 1916 onder leiding van Dr. H.G. Jonker+, vol. II, Jaarboek Mijnwezen Nederlandsch Oost-Indie 50 (1921), Verhandelingen 3, p. 1-348.
('The Permian crinoids of Timor'. Second of Wanner's major monographs on Timor crinoids. Number of species increased to 239 in 75 genera. Half of all crinoid species are poteriocrinids, with dominant genera Timorocrinus, Ceriocrinus, Paraburs acrinus, etc. Most Timor crinoids are from reddish marls and red brown tuffs and interbedded limestones (=Maubisse Fm), with richest occurrences in M Permian of Basleo area near Niki-Niki. Different assemblages in Amarassi region of SW Timor suggesting slightly younger age)

Wanner, J. (1924)- Die permischen Echinodermen von Timor-II. Palaeontologie von Timor 14, 23, p. 1-81.
('The Permian echinoderms of Timor- II'. Monograph of Permian blastoids)

Wanner, J. (1924)- Die permischen Blastoiden von Timor. In: H.A. Brouwer (ed.) 2e Nederlandsche Timor-Expeditie onder leiding van Dr. H.G. Jonker+, vol. III, Jaarboek Mijnwezen Nederlandsch Oost-Indie 51 (1922), Verhandelingen, p. 163-233.
('The Permian blastoids of Timor'. Timor Permian blastoid faunas richest in world, both in species and numbers, with many species unknown elsewhere. Many localities, probably representing different stages of Permian. Character of faunas more European (Tethys) than American (NB: taxonomy of blastoids revised by Breimer & Macurda (1972); JTvG))

Wanner, J. (1926)- Die marine Permfauna von Timor. Geologische Rundschau 17a, Sonderband (Steinmann Festschrift), p. 20-48.
('The marine Permian fauna of Timor'. Timor Permian faunas richest of all known marine Permian faunas (~600 species) and of Tethyan affinity. Crinoids (191 species) and blastoids (32 species) particularly common. Corals dominated by solitary taxa (Timorphyllum, Verbeekiella), with rel. rare colonial taxa (Lonsdaleia, Zaphrentis, Polycoelia, Amplexus, Pachypora). Ammonites (37 species, incl. Agathiceras, Paralegoceras, Popanoceras) and brachiopods (49 species, incl. Productus, Spirigera, Retzia, Chonetes, Camarophoria, Lyttonia) mostly genera already known from elsewhere. Gastropods 60 species, bivalves 20 species, incl. Atomodesma. Four species of

fusulinids, but no complicated types. Most of Permian faunas from red-brown crinoid limestones interbedded with diabase volcanic. No signs of Permian glaciations in faunas or sediments)

Wanner, J. (1929)- Neue Beitrage zur Kenntnis der Permischen Echinodermen von Timor. I. *Allagecrinus*, II. *Hypocrinites*. Dienst Mijnbouw Nederlandsch-Indie, Wetenschappelijke Mededeelingen 11, p. 1-116.
('New contributions to the knowledge of Permian echinoderms from Timor, I. Allagecrinus and II. Hypocrinites'. New crinoid species, mainly based on material from Basleo. First of long series; all in German)

Wanner, J. (1930)- Neue Beitrage zur Kenntnis der Permischen Echinodermen von Timor, III. Hypocrininae, *Paracatillocrinus* und *Allagecrinus*. Dienst Mijnbouw Nederlandsch-Indie, Wetenschappelijke Mededeelingen 13, p. 1-31.
('New contributions to the knowledge of Permian echinoderms of Timor 3- Hypocrininae, Paracatillocrinus and Allagecrinus'. New crinoid species from Ehrat 1927 collection from Basleo and Niki-Niki)

Wanner, J. (1930)- Neue Beitrage zur Kenntnis der Permischen Echinodermen Von Timor, IV. Flexibilia. Dienst Mijnbouw Nederlandsch-Indie, Bandung, Wetenschappelijke Mededeelingen 14, p. 1-61.
('New contributions to the knowledge of Permian echinoderms of Timor 4- Flexibilia'. New 'flexibilia'-group crinoid descriptions and species. In German)

Wanner, J. (1931)- Das Alter der permischen Basleo-Schichten von Timor. Zentralblatt Mineralogie Geologie Palaontologie, B, p. 539-549.
('The age of the Permian Basleo beds of Timor'. Basleo beds believed to be Upper Permian (later authors more commonly view Basleo fauna as ~Mid Permian; JTvG). With map of fossil localities)

Wanner, J. (1931)- Neue Beitrage zur Kenntnis der permischen Echinodermen von Timor, V. Poteriocrinidae, Pt. 1, VI. Blastoidea. Dienst Mijnbouw Nederlandsch-Indie, Wetenschappelijke Mededeelingen 16, p. 1-77.
('New contributions to the knowledge of Permian echinoderms of Timor 5- Poteriocrinidae part 1')

Wanner, J. (1931)- Neue Beitrage zur Kenntnis der Permischen Echinodermen von Timor. VII. Die Anomalien der Schizoblasten. Dienst Mijnbouw Nederlandsch-Indie, Wetenschappelijke Mededeelingen 20, p. 5-37.
('New contributions to the knowledge of the Permian echinoderms of Timor- VII. The anomalies of the Schizoblasts')

Wanner, J. (1932)- Zur Kenntnis der permischen Ammonoideen-fauna von Timor. Beitrage Palaeontologie des Ostindischen Archipels III, Neues Jahrbuch Mineralogie Geologie Palaontologie, Beilage Band 67, B, p. 257-278.
('On the knowledge of the Permian ammonoid fauna from Timor. Descriptions of Permian ammonites from Basleo, W Timor, collected by Ehrat, Molengraaff, etc. No stratigraphy, biogeography)

Wanner, J. (1932)- Anisische Monophylliten von Timor. Beitrage Palaeontologie des ostindischen Archipels IV, Neues Jahrbuch Mineralogie Geologie Palaontologie, Beilage Band 67, B, p. 279-286.
('Anisian Monophyllites from Timor'. New species of M Triassic ammonite Monophyllites from Oe Masih, Basleo area, from Ehrat 1927 Wanner-funded collection trip)

Wanner, J. (1937)- Neue Beitrage zur Kenntniss der permischen Echinodermen von Timor VIII- XIII. Palaeontographica, Supplement IV, Beitrage zur Geologie von Niederlandisch-Indien IV, 2, p. 57-212.
('New contributions to the knowledge of Permian echinoderms of Timor 8-13'. Systematic descriptions of 19 new genera and 43 new species of crinoids)

Wanner, J. (1940)- Neue Beitrage zur Kenntnis der permischen Echinodermen von Timor XIV. Poteriocrinidae, 3 Teil. Palaeontographica, Supplement 4, Beitrage zur Geologie von Niederlandisch-Indien IV, 3, p. 213-242.
(*'New contributions to the knowledge of Permian echinoderms of Timor 14'. More systematic descriptions of new species of crinoids)*

Wanner, J. (1940)- Neue Blastoideen aus dem Perm von Timor, mit einem Beitrag zur Systematik der Blastoiden. In: H.A. Brouwer (ed.) Geological Expedition of the University of Amsterdam to the Lesser Sunda Islands, vol. 1, Noord Hollandsche Publ. Co., Amsterdam, p. 215-277.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:046046000:00009)
('New blastoids from the Permian of Timor, with a contribution to the systematics of the blastoids'. New Permian blastoid species, mainly from De Marez Oyens and Brouwer 1937 collections from Basleo, W Timor. Basleo area contains commeon microblastoids and microcrinoids. Of the 13 Permian blastoid genera known from Timor only two or three (Schizoblastus, Orbitremites) also occur outside Timor (But: Timoroblastus and Deltoblastus also in North Oman; Webster 2007; JTvG)

Wanner, J. (1940)- Neue Permische Lamellibranchiaten von Timor. In: H.A. Brouwer (ed.) Geological Expedition of the University of Amsterdam to the Lesser Sunda Islands, etc., 1937, 2, Noord Hollandsche Publ. Co., Amsterdam, p. 370-395.
(online at: www.delpher.nl/nl/boeken/ Etc.) (https://resolver.kb.nl/resolve?urn=MMKB31:046047000:pdf)
(Permian bivalves collected by Ehrat in 1927 and Brouwer1937 expedition. Most from Basleo area, and are species of Atomodesma, already known from earlier Timor papers)

Wanner, J. (1941)- Neue Beitrage zur Kenntnis der permischen Echinodermen von Timor XV. Echinoidea. Palaeontographica, Supplement 4, Beitrage zur Geologie von Niederlandisch-Indien IV, 5, p. 295-314.
('New contributions to the knowledge of the Permian echinoderms of Timor 15- echinoids')

Wanner, J. (1941)- Neue Beitrage zur Kenntnis der permischen Echinodermen von Timor XVI. Poteriocrinidae 4 Teil. Palaeontographica, Supplement 4, Beitrage zur Geologie von Niederlandisch-Indien V, 1, p. 297-314.
('New contributions to the knowledge of the Permian echinoderms of Timor 16- Poteriocrinidae part 4')

Wanner, J. (1942)- Beitrage zur Palaontologie des Ostindischen Archipels XIX, Die Crinoidengattung *Paradoxocrinus* aus dem Perm von Timor. Zentralblatt Mineralogie Geologie Palaontologie, B, 7, p. 201-214.
('Contributions to the paleontology of the East Indies Archipelago 19- The crinoid genus Paradoxocrinus from the Permian of Timor'. In German)

Wanner, J. (1951)- Uber die Crinoidengattung *Timorocidaris*. Neues Jahrbuch Geologie Palaontologie, Monatshefte 1950, 12, p. 360-370.
('On the crinoid genus Timorocidaris')

Wanner, J. (with F. Weber) (1956)- Zur Stratigraphie vom Portuguesisch Timor. Zeitschrift Deutsche Geol. Gesellschaft 108, p. 109-140.
('On the stratigraphy of Portuguese Timor'. Comprehensive discussion of Permian and Triassic facies in 'pseudoautochthonous'(flysch facies) and in nappe complexes (limestones, basic volcanics) of Timor Leste. Jurassic marine marls and limestones (with Buchia malayomaorica in nappe complex?).)

Wanner, J. & H. Sieverts (1935)- Zur Kenntnis der permischen Brachiopoden von Timor. 1. Lyttoniidae und ihre biologische und stammesgeschichtliche Bedeutung. Beitrage Palaeontologie des ostindischen Archipels 12, Neues Jahrbuch Mineralogie Geologie Palaontologie, Beilage Band 74, B, p. 201-281.
('On the knowledge of the Permian brachiopods of Timor: 1. Lyttoniidae and their biological and evolutionary significance'. Descriptions of Lyttoniidae (incl. Leptodus, Oldhaminella, Poikilosakos) from Permian of Timor (mainly Basleo), and reconstruction of lifestyle (mostly attached to other fossils, like crinoid stems, etc.). With Lyttonia catenata n.sp., Paralyttonia transiens n.gen., n.sp., P. permica n.sp, Paralyttonia girtyi, etc.))

Ware, P. & L.O. Ichram (1997)- The role of mud volcanoes in petroleum systems: examples from Timor, the South Caspian and the Caribbean. In: J.V.C. Howes & R.A. Noble (eds.) Proc. Int. Conference Petroleum Systems of SE Asia and Australasia, Indonesian Petroleum Association (IPA), Jakarta, p. 955-970.
(Main mud volcano fields on Timor-Roti associated with Bobonaro Complex which consists of matrix of extruded scaly clays derived from Kekneno Series. Mud volcanoes common in front of thrust zones)

Warwick, D.J. (1970)- The Mesozoic geology of the area between the Ira Bere and Namalutun Rivers, Portuguese Timor. Timor Oil Ltd. Report, p. 1-11.
(Brief report on S coast of East Timor mapping; some photos, but no maps in report ?)

Wasson, R.J., A.L. Amaral, J. Rouwenhorst, K. Fifield, N. Chauhan, T. Pietsch, D.M. Alongi, F. Tirendi & A.K. Singhvi (2024)- Timor-Leste: preliminary assessment of a rapidly eroding landscape in the Coral Triangle. Marine and Freshwater Research 75, MF24156, p. 1-16.
(online at: https://www.publish.csiro.au/mf/MF24156)
(Reduction in vegetation cover for agriculture and timber cutting in Timor Leste increased sediment yield up to 120x, mainly by landsliding. Large amount of sediment moved to delta and offshore from river-channel change)

Waters, J.A. (1990)- The palaeobiogeography of the Blastoidea (Echinodermata). In: W.S. McKerrrow & C.R. Scotese (eds.) Palaeozoic palaeogeography and biogeography, Geological Society, London, Memoir 12, p. 339-352.
(Permian blastoids widespread, but most diverse in SE Asia (Timor) and Australia. Timor faunas Sakmarian-Asselian and Kazanian, and most diverse and abundant. Paleoecology and stratigraphy poorly understood. Some common species between Timor and Australia, but others conspicuously absent: Angioblastus, Deltoblastus not in Australia; Australoblastus not in Timor. Reasons for local endemism unclear. Kazanian Timor fauna is last successful blastoid community before going extinct)

Webster, G.D. (1998)- Distortion in the stratigraphy and biostratigraphy of Timor; a historical review with an analysis of the crinoid and blastoid faunas. In: G.R. Shi, N.W. Archbold & M. Grover (eds.) Strzelecki Int. Symposium Permian of Eastern Tethys: biostratigraphy, palaeogeography and resources. Proc. Royal Society of Victoria 110, 1-2, p. 45-72.
(Rich Permian Timor fossils poorly constrained stratigraphically. Two-thirds of Timor crinoid and blastoid genera unknown outside Timor)

Webster, G.D. (1998)- Palaeobiogeography of Tethys Permian crinoids. In: G.R. Shi, N.W. Archbold & M. Grover (eds.) Strzelecki Int. Symposium on Permian of Eastern Tethys: biostratigraphy, palaeogeography and resources, Proc. Royal Society of Victoria 110, 1-2, p. 289-308.
(No Permian crinoid fauna in world as diverse and abundant as Timor. Five horizons between Sakmarian-Wuchiapingian. Australian faunas generally considered as cooler water faunas, >35°S. Timor warm-water shelf. In Artinskian greater similarity beween W Australia and Timor than between W and E Australia)

Webster, G.D. (2012)- A canted-cup Permian crinoid *Exotikocrinus* n. gen. (Crinoidea, Dichocrinidae) from Timor with comments on canted or inclined radial summits. Palaeoworld 21, p. 64-68.
(New canted-cup crinoid from W Timor described as Exotikocrinus dochmos n.gen. and n.sp.)

Webster, G.D. & S.K. Donovan (2012)- Revision of two species of ?*Ulocrinus* and a new pelecocrinid crinoid from West Timor. Palaeoworld 21, 2, p. 108-115.
(Two cladid crinoid species of ?Ulocrinus described by Wanner (1924, 1937) reinterpreted as cladid crinoid and renamed as Katerocrinus indicus n. gen., n. comb. and Dochmocrinus conoideus n. gen., n. comb.)

Webster, G.D. & S.K. Donovan (2012)- Before the extinction- Permian platyceratid gastropods attached to platycrinitid crinoids and an abnormal four-rayed *Platycrinites* s.s. *wachsmuthi* (Wanner) from West Timor. Palaeoworld 21, 3-4, p. 153-159.
(Examples of parasitic gastropods attached to Permian platycrinitid camerate crinoids from W Timor (not sure what it has to do with extinction))

Webster, G.D. & S.K. Donovan (2015)- Review and revision of the West Timor Permian *Graphiocrinus* species of Johannes Wanner. Palaeoworld 24, p. 497-522. *(online at: https://www.researchgate.net/publication/284104590_Review_and_revision_of_the_West_Timor_Permian_Graphiocrinus_species_of_Johannes_Wanner)*

(26 species of crinoid Graphiocrinus described from Permian of Timor by Wanner (1916-1949), but 12 belong to other genera, many others considered indeterminate members of several families. New taxa introduced)

Wei, X., X. Luan, F. Meng, Y. Lu, H. He, J. Qiao, J. Yin, Y. Wang & Y. Xue (2023)- Deformation feature and tectonic model of the Timor Trough: new interpretation of the evolution and mechanism of Banda arc-continent collision. Tectonophysics 862, 5, 229958, p. 1-15.
(Tectonic model of arc-continent collision and plate coupling in area of Timor/Timor Trough. CNPC 2005 2D seismic and other data suggest subsidence of Timor Trough and uplift of Timor Island began at ~3.3 Ma. Arc-continent collision two phases (1) earliest phase uplifted and closed forearc basin since ~6 Ma, and (2) second phase of regional deformations at ~3.3 Ma represented by development of backarc thrust, cessation of volcanism, uplift of Banda arc and subsidence of Timor Trough. Deformation of Timor Trough region shows as flexing of elastic plate. Tearing oceanic crust provides window for development of backarc thrust to SE (authors focused on Timor Trough and ignore significance of exotic terranes on Timor island; JTvG)

Weiler, W. (1932)- Uber Fischreste aus der Kreide von Timor. Neues Jahrbuch Mineralogie Geologie Palaontologie, Beilage Band B, 67, p. 287-304.
('On fish remains from the Cretaceous of Timor'. Shark teeth, believed to be of Late Cretaceous age, from red clays above Triassic Halobia Limestone in Noil Tobee, collected by H. Ehrat. Incl. Strophodus, Lamna, Scapanorhynchus raphiodon, Odontapsis constrictus, etc. Branson (1937) suggested possible Permian elements?)

Wells, N. (2005)- Redefining the Lolotoi Formation, Timor-Leste. PESA News, 12/2004, p. 36 *(Abstract only; Geology in Timor Symposium)*
(Greenschist-epidote facies metamorphism in E Timor Lolotoi Fm. Mafic precursor basalts oceanic crust? Three stages of ductile deformation and three types of brittle deformation. Fault trends 100º, 050º and N-S. Basal contact of Lolotoi Fm is >100m fault gouge with underlying Eocene units. Ductile shear zone separates Lolotoi Fm from overlying Cablac Fm. Lolotoi Fm significantly deformed prior to juxtaposition with Cablac Fm. Slivers of Lolotoi Fm involved in ductile shear zone and intercalated with base Cablac Fm suggest these two units were structurally juxtaposed. Lolotoi Fm and Aileu Fm metamorphics not related, but Mutis Complex of West Timor broadly similar to Lolotoi metamorphics in East)

Welter, O.A. (1914)- Die Obertriadischen Ammoniten und Nautiliden von Timor. In: J. Wanner (ed.) Palaeontologie von Timor, Schweizerbart, Stuttgart, 1, 1, p. 1-258.
(online at: http://mmtk.ginras.ru/pdf/welter1914_t3_timor.pdf)
('The Upper Triasic ammonites and nautiloids from Timor'. Monograph of ammonites collected by Molengraaff 1910-1912, Wanner 1911 and Weber 1911 W Timor expeditions. Rich assemblages with 205 Carnian-Norian species, mainly from blocks of 'Halstatter Facies' red limestone (~2m thick fossil accumulation without terrigenous sediment) from S half of W Timor. Incl. Sirenites malayicus n.sp. Some ammonites with black manganese staining. Remarkable similarities to Mediterranean and Himalayan ammonites. In N of Timor age-equivalent Norian 'Fatu' coral limestones (Both these U Triassic carbonate facies considered part of 'allochthonous' nappe complex by Wanner 1956 and others; JTvG))

Welter, O.A. (1915)- Die Ammoniten und Nautiliden der Ladinischen und Anisischen Trias von Timor. In: J. Wanner (ed.) Palaontologie von Timor 5, 10, Schweizerbart, Stuttgart, p. 71-136.
('The ammonites and nautiloids from the Ladinian and Anisian Triassic of Timor'. Rich assemblage of Middle Triassic ammonites (>27 genera) from blocks of thin, reddish, bathyal Triassic cephalopod limestones called 'Halstatt Facies' from various Timor localities, collected by Wanner and Molengraaff 1909-1911 expeditions. Associated with white tuffs and ammonites commonly with black iron-manganese coating. Ammonite assemblages more 'Alpine' than 'Asian' in character)

Welter, O.A. (1922)- Die Ammoniten der unteren Trias von Timor. In: J. Wanner (ed.) Palaeontologie von Timor 11, 19, Schweizerbart, Stuttgart, p. 83-154.
('The ammonites from the Lower Triassic of Timor'. Monograph on high-diversity (26 genera, 71 species) Lower Triassic ammonites from various Timor localities, collected by Wanner and Molengraaff 1909-1911 expeditions.

Oldest horizon is yellow Meekoceras limestone from Kapan and Nifoekoko near Niki-Niki (overlying dark red Permian limestone). Other blocks are limestones with Owenites egrediens from Bihati, Anasiberites multiformis from Noil Saban and Ophiceras crassecostatum from Fatu Toekoenenu. All blocks of condensed 'Hallstatt facies' with tuffs and black manganese coating. Many similarities with Himalayan-Mediterranean Triassic faunas. No locality maps)

Welter, O.A. (1922)- Nachtrag zu den obertriadischen Ammoniten von Timor. In: J. Wanner (ed.) Palaeontologie von Timor 11, 19, Schweizerbart, Stuttgart, p. 155-159.
('Supplement to the Upper Triassic ammonites from Timor'. Descriptions of 4 additional Early Triassic ammonoid species. Genus Amarassites first described from Timor now also found in Alps. Timor 'Bihati C' fauna has more Mediterranean than Asian elements)

Wensink, H. & S. Hartosukohardjo (1990)- The paleomagnetism of Late Permian- Early Triassic and Late Triassic deposits on Timor: an Australian origin? Geophysical J. International 101, p. 315-328.
(Paleomagnetic work on non-recrystallized Permian Maubisse Fm red limestones from Kelamenanu and Suanae suggest paleolatitude of ~39° (averages of two localities 37.7° and 43.2°) and 55° clockwise rotation. Late Triassic Aitutu radiolarian calcilutites from Maubesi River and Sabau with Halobia and quartz arenites: paleolatitude ~33° and clockwise rotation of 25°. Results suggest presence of displaced terrane of Australian origin on Timor island)

Wensink, H. & S. Hartosukohardjo (1990)- Paleomagnetism of younger volcanics from Western Timor, Indonesia. Earth Planetary Science Letters 100, 1-3, p. 94-107.
(Eocene Metan volcanics in Mutis Massif, W Timor (= allochthonous Banda Terrane), formed at ~17°N, possibly on continental fragment that broke away from Gondwana in Mesozoic, shifted to SE Asia, broke away in Eocene and collided with Australia at ~3 Ma. Late Miocene obducted Manamas Fm of NW coast (=Oecussi volcanics?) pillow lavas/ arc volcanics suggest 8° paleolatitude and 45° CCW rotation of Timor in last 3 My)

Wensink, H., S. Hartosukohardjo & K. Kool (1987)- Paleomagnetism of the Nakfunu Formation of Early Cretaceous age, western Timor, Indonesia. Geologie en Mijnbouw 66, 2, p. 89-99.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0V3liNFNEeW9NdDg/view)
(Early Cretaceous (Albian?) Nakfunu Fm bathyal red clays in S Central Timor Kolbano accretionary prism probable paleolatitude of ~19-21°, probably in S Hemisphere. Today at 10°S, suggesting original site of deposition of Nakfunu sediments were 10° S of present position on Timor and sediments moved ~1200 km N since deposition in an oceanic environment. but Australian NW Shelf was closer to 30-40° S at that time, so probably formed well N of Australian Shelf)

Wichmann, A. (1882)- Gesteine von Timor nach Sammlungen von Macklot, Reinwardt und Schneider. Sammlungen Geologischen Reichs-Museums Leiden, Ser. 1, 2, E.J. Brill, Leiden, p. 1-172.
(online at: www.repository.naturalis.nl/document/552382)
(Also reprinted in three parts in Jaarboek Mijnwezen 1882, Wetenschappelijk Gedeelte, p. 181-252, 1884, Wetenschappelijk Gedeelte, p. 231-284 and 1887, Wetenschappelijk Gedeelte, p. 46-93)
('Rocks from Timor and some adjacent islands' Descriptions of rocks collected by Macklot, Reinward and Schneider)

Wichmann, A. (1884)- Gesteine von Timor nach Sammlungen von Macklot, Reinwardt und Schneider, Vervolg (1). Jaarboek Mijnwezen Nederlandsch-Indie 13, Wetenschappelijk Gedeelte, Batavia, p. 231-284.
(without maps) *(online at: https://ia600704.us.archive.org/0/items/jaarboekvanhetm04gebigoog/jaarboekvanhetm04gebigoog.pdf)*
('Rocks from Timor from the collections of Macklot, Reinward and Schneider'. 2. Rocks from Oicussi and Sutrana, along N coast (metamorphic rocks), 3. Ptitti area (foyaite, diabase, andesite, schists,:Globigerina limestone), 4. Amarassi area (serpentinite, chert, basalt conglomerate, sandstone, foraminifera clay))

Wichmann, A. (1887)- Gesteine von Pulu Samauw und Pulu Kambing. Sammlungen Geologischen Reichs-Museums Leiden, Ser. 1, 2, E.J. Brill, Leiden, p. 173-182.

(also in Jaarboek van het Mijnwezen 1887, Wetenschappelijk Gedeelte, p. 94-103)
(online at: www.repository.naturalis.nl/document/552401)
('Rocks from Samauw and Kambing Islands'. Small islands W of Kupang, W Timor. Pulau Kambing hill composed of sandstone and mud volcano Samauw also with sandstones, Tertiary limestones and also small mud volcanoes. No maps, figures)

Wichmann, A. (1887)- Gesteine von der Insel Kisser. Sammlungen Geologischen Reichs-Museums Leiden, Ser. 1, 2, E.J. Brill, Leiden, p. 183-208.
(online at: www.repository.naturalis.nl/document/552441)
('Rocks from Kisar Island'. Petrographic descriptions of rocks from Kisar NE of Timor, sampled by Reinwardt in 1821, Kisar island has core of metamorphic rocks (phyllite, mica schist, amphibolite), surrounded by uplifted Quaternary limestone terraces)

Wichmann, A. (1887)- Gesteine von der Insel Kisser. Jaarboek Mijnwezen Nederlandsch Oost-Indie 1887, Wetenschappelijk Gedeelte 3, p. 104-128.
('Rocks from Kisar Island', NE of Timor. Same as paper above)

Wichmann, A. (1892)- Bericht uber eine im Jahre 1888-89 im Auftrag der Niederlandischen Geographischen Gesellschaft ausgefuhrte Reise nach dem Indischen Archipel, part 4, Timor. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap ser. 2, 9, p. 161-221.
(online at: https://www.delpher.nl/nl/tijdschriften/view identifier=MMUBA13:001625001:00163)
(Part 3 of Wichmann geographic narrative of 1888-1889 trip for KNAG (Royal Netherlands Geographic Society) to Timor. Mainly geographic descriptions, with some of earliest observations on Timor geology. First significant collection of Permian- Jurassic fossils from E Indonesia (Timor, Roti), described by A. Rothpletz 1891, 1892. Also report of crystalline schists from Lakan, which Wichmann believed to be part of belt of metamorphic rocks that continues to islands of Kisar, Leti, Babar, etc. to Buru (p. 217))

Wichmann, A. (1892)- Bericht uber eine im Jahre 1888-89 im Auftrag der Niederlandischen Geographischen Gesellschaft ausgefuhrte Reise nach dem Indischen Archipel, part 5. Rotti. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap, ser. 2, 9, p. 222-276.
(online at: https://www.delpher.nl/nl/tijdschriften/view identifier=MMUBA13:001625001:00163)
(Final part of Wichmann geographic narrative of 1888-1889 trip for KNAG (Royal Netherlands Geographic Society), covering islands Roti, Kambing and Samau)

Wichmann, A. (1892)- Die Insel Rotti. Petermanns Geographische Mitteilungen 38, p. 97-103.
(online at: https://zs.thulb.uni-jena.de/receive/jportal_jpvolume_00146676)
('The island Rotti'. Early geographic and geological observations of Roti island, SW of Timor. Geologically Roti is relatively simple, and mainly a clump of Triassic, covered by Neogene foraminifera marl. Triassic sandstones overlain by Upper Triassic limestone with 'alpine' Monotis salinaria, Halobia spp. (described by Rothpletz 1891). Mud volcanoes on Landu Peninsula in NE Roti with sedimentary rock clasts and Permian, Triassic and E-M Jurassic macrossils (Arietites, Harpoceras, Belemnites gerardi))

Wichmann, A. (1892)- Over het voorkomen van Alpine Trias op Timor (volgens fossielen verzameld door H.F.C. ten Kate). Natuurkundig Tijdschrift voor Nederlandsch-Indie 51, p. 446-447.
('On the occurrence of Alpine Triassic on Timor (according to fossils collected by H.F.C. ten Kate)'. Brief note on discovery of Triassic Halobia mollusc limestone from Timor, in float from Halemea River or Mota Muruk, Fialarang, SSE of Atapupu, collected by Ten Kate. With abundant thin Monotis salinaria, a characteristic species of Norian stage in Alpine Triassic (= Tethys Ocean) (= first record of Triassic sediments in Indonesia?))

Widiatama, A.J., H.C. Natalia, R. Ikhram, L.D. Santy, J. Wahyudiono, L.R.S. Wiguna & S. Faranabila (2021)- Various sources of rare earth element enrichment at Manamas volcanic rock, Timor Island. In: Int. Seminar on Mineral and Coal Technology, Bandung 2021, IOP Conference Series: Earth and Environmental Science 882, 012044, p. 1-9.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/882/1/012044/pdf)

(Late Miocene-Pliocene Manamas Fm volcanic rocks exposed in Bihati River, Baun, SW Timor two types of basalts: alkaline (OIB pattern) and sub alkaline (N-MORB patterns). Thorium and uranium enrichment due to contamination of sediment or continental crust or directly from asthenosphere due to magma upwelling. Two distinctive patterns interpreted due to slab tear beneath Timor during Australia oceanic plate subduction and recycled oceanic crust beneath Banda Arc)

Widiatama, A.J. & L.D. Santy (2023)- Karakteristik Formasi Menu di Pulau Rote. J. Geosains dan Teknologi (UNDIP) 6, 1, p. 27-37.
(online at; https://ejournal2.undip.ac.id/index.php/jgt/article/view/17759)
('Characteristics of the Munu Formation on Rote Island'. Cretaceous Menu Fm is bathyal pelagic limestone (equivalent of part of Kolbano series in SW Timor). With radiolaria, bivalvia, calcareous nannofossils, spiculite and foraminifera. LowerMenu Fm earliest Cretaceous (Berriasian-Valanginian) age based on appearance of Cyclagelosphaera brezae. Middle Menu Fm grayish white marl with chert nodules, grading into into red limestone. Upper Menu Fm Albian or younger (presence of Cyclagelosphaera reinhardtii))

Widiatama, A.J., L.D. Santy, H.C. Natalia, J. Wahyudiono & R. Ikhram (2021)- Karakteristik geokimia basal alkali Formasi Manamas di Sungai Bihati, Baun, Pulau Timor. Eksplorium 42, 1, p. 1-12.
(online at: https://ejournal.brin.go.id/eksplorium/article/view/8075/6189)
('Geochemical characteristics of alkaline basalt Manamas Formation in the Bihati River, Baun, Timor Island'. Manamas Fm basalt from SW Timor of alkaline affinity with enrichment pattern of Rare Earth elements identical to Ocean Island Basalt (OIB) (N.B. No discussion of age of basalts. Type Manamas Fm is Late Miocene-Pliocene basalt pile near N coast of Timor;but basalts at Bihati River in SW Timor more likely Permian Maubisse Fm?-JTvG)

Widiatama, A.J., L.D. Santy, J. Wahyudiono, S. Widyastuti & L.F. Rahmatillah (2021)- Karakteristik geokimia basalt busur gunungapi tholeitik Formasi Manamas di Sungai Metan, Baun, Timor. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 21, 3, p. 149-156.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/449)
('Geochemical characteristics of the tholeitic volcanic arc basalt of the Manamas Formation in the Metan River, Baun, Timor'. Geochemistry of pillow basalts in SW Timor, formed in tholeitic volcanic arc (not clear if age is Neogene or Permian?; JTvG))

Widiatama, A.J., L.D. Santy, R.N.F.A. Nahar, Zulfiah, W.E.M. Puteri, A. Damanik & R. Kapid (2021)- Calcareous nanofossil of Post-Gondwana sequence in Southern Banda Arc, Indonesia. J. Geoscience Engineering Environment Technology (JGEET) 6, 2, p. 86-93.
(online at: https://journal.uir.ac.id/index.php/JGEET/article/view/6287/3294)
(Cretaceous-Neogene calcareous nannofossils in Kolbano and Viqueque sequences of Timor (Miocene), Rote (E Cretaceous) and Savu (M Eocene))

Wijanarko, E., I. Arisbaya, P. Sumintadireja, Warsa & H. Grandis (2022)- Basin study in Atambua, West Timor, Indonesia from gravity data. J. Mathematical Fundamental Sciences (ITB) 54, 1, p. 138-150.
(online at: https://journals.itb.ac.id/index.php/jmfs/article/view/17701/5943)
(Bouguer gravity survey shows two main Neogene basins along SW-NE trend: Central Basin and Atambua Basin. A proposed model (alternative models possible?; JTvG) shows Bobonaro melanges and Neogene Viqueque sequences dominate and overlie 'syn-rift' (Permian-Jurassic Kekneno sequences) and post-rift (Kolbano) with varying lithology. Underlying basement may be protruding pre-Permian Australian crust)

Wijanarko, E., I. Arisbaya, P. Sumintadireja, Warsa & H. Grandis (2022)- Magnetotellurics study of Atambua area, West Timor, Indonesia. Vietnam J. Earth Sciences 45, 1, p. 67-81.
(online at: https://vjs.ac.vn/index.php/jse/article/view/17581/2543254827)
(Results of magnetotelluric survey in central parts of W Timor))

Winkler Prins, C.F. (2008)- Some spiriferid brachiopods from the Permian of Timor (Indonesia). In: G.R. Shi et al. (eds.) A memorial issue in honour of Professor Neil W. Archbold, Proc. Royal Society of Victoria 120, 1, p. 389-400.
(online at: http://repository.naturalis.nl/document/544734)
(Revision of Permian neospiriferine and spiriferidine brachiopods from Timor in Naturalis-Leiden collections, Spirifer (Crassispirifer) timorensis Martin 1881 and Crassispirifer broilii Waterhouse 2004. New species Latispirifer archboldorum (ex-Spirifer fasciger) from near Niki-Niki. New genus Archboldiella based on aberrant species Spirifer basleoensis Hayasaka & Hosono 1951)

Wittouck, S.F. (1937)- Exploration of Portuguese Timor. Report of Allied Mining Corporation to Asia Investment Company, Ltd., Asia Investment Company, Ltd., Kolff & Co., Batavia, p. 1-107.
(online at: https://nla.gov.au/nla.obj-51222414)
(Monograph on geography, geology, minerals and oil and agricultural prospects of East Timor, by Belgian entrepreneur Dr. Ir. Serge F. Wittouck (1903-1940), President of Allied Mining Co. of Manila. Report presumably printed for shareholders. Large-scale expedition in 1936, with 7 field parties with three geologists (incl. Dutch Ir. N.H. van Doorninck), three mining engineers and a group of Philippino surveyors and assayors. With 22 full-page maps and sketch-maps and two 1:250,000 scale maps of topography and geology. Fatu limestone cliffs are oolitic-coral limestones, Late Triassic and Early Jurassic in age, blocks lying in all directions, often brecciated at base. Chromite in serpentinites in Manu Hill district, gold in Manufai District, copper, manganese in Mesozoic shales, oil seeps along S coast in Aliambata, Suete, Pualaca, etc.)

Wittouck, S.F. (1938)- Exploration of Portuguese Timor. The Geographical Journal 92, 4, p. 343-350.
(Mainly geographic summary of Timor Leste, compiled during 1936-1937 survey by team of Belgian financier/ promotor/ engineer and Philippines gold mine owner Serge F. Wittouck. Oil and gas seeps in S coast area in Aliambata, Iriamo, Suete and Suai districts)

Xavier-Conceicao, F.A. (2022)- Geophysical characterization and modelling of metamorphic and sedimentary units in East Timor: insight into tectonic, basin evolution, and implications to hydrocarbon and ore minerals. Masters Earth Science thesis, The University of Auckland, New Zealand, p. 1-183.
(online at: https://researchspace.auckland.ac.nz/handle/2292/61692)
(Interpretation of recently acquired aeromagnetic, radiometric, and aerogravity data to explore distribution and structure of metamorphic and sedimentary units in East Timor. Bebe-Susu Metamorphic Complex is association of Banda and Gondwana blocks emplaced onto Australian Continental Margin during arc-continent collision. Aileu Metamorphic Complex is association of Banda and Gondwana blocks, including metasediments of underthrust Gondwana Megasequence that propagated into forearc in N before backthrusted onto Australian Continental Margin. Both metamorphic complexes can be geophysically distinguished from underlying Gondwana sedimentary rocks and Passive Margin sedimentary rocks.(Overthrust Terrane Association composed of (1) Gondwana blocks (Sula spur block of pre-Permian metamorphic rock and overlying Maubisse Fm, and Argo block of pre-Permian metamorphic rock) and (2) Banda blocks (Bebe-Susu Massif). Etc.).

Xavier-Conceicao, F.A., M. da Costa, J. de Sousa, J. Eccles, L. Strachan & B. Duffy (2023)- Integrated geological and geophysical interpretation of the complex Timor Orogen: Insights into the tectonic and basin evolution. Third Int. Meeting for Applied Geoscience and Energy (IMAGE 23), SEG-AAPG, Houston, OnePetro, p. 816-820.
(Geological and geophysical integration study of central part of onshore Timor-Leste favors overthrust model, where upper plate is interpreted as terrane association between Asian and Australian rock affinities, while lower plate is the Australian Continental Margin. Complex geology resulted from pre-Cenozoic and Cenozoic tectonic developments, and Miocene/Pliocene collision between Banda Arc and Australian plate. This interpretation now proven with recent Lafaek-1 well in onshore Timor-Leste,which penetrated hydrocarbon bearing sedimentary rocks beneath metamorphic complex)

Yabumoto, Y. & P.M. Brito (2016)- A new Triassic coelacanth, *Whiteia oishii* (Sarcopterygii, Actinistia) from West Timor, Indonesia. Paleontological Research (Palaeontological Society of Japan) 20, 3, p. 233-246.
(New species of small coelacanth fish, Whiteia oishii, from marine (Late?)Triassic beds in W Timor. Type locality not exactly known, probably in area of Noe Bihati in SW. Differs from other species of Whiteia by presence of 5-

10 long ridges on scales, 9 rays on first dorsal fin, etc. First coelacanth occurrence from SE Asia. Most other known Whitea coelacanth fossils in world from Early Triassic, along coasts of Pangea)

Yamagiwa, N. (1963)- Some Triassic corals from Portuguese Timor (Palaeontological study of Portuguese Timor, I). Memoirs Osaka University, Liberal Arts Education, B (Natural Science) 12, p. 83-87.
(Short paper on U Triassic corals collected in 1961 from Fatu Laculequi near Pualaca in C Timor Leste)

Yang, X.Z., Y. Zeng, J.A. Liu, G.G. Chen & C. Liu (2014)- An analysis of metal mineral resource potential and mining investment. Environment in East Timor. Geological Bulletin of China 33, p. 334-341. *(in Chinese, with English summary)*
(online at: http://en.cgsjournals.com/zgdzdcqkw-data/dztb/2014/2-3/PDF/2014020319.pdf)
(Metallogenic geological condition of East Timor fairly favorable, with many types of mineral resources. Chromite mineralization in Manatuto, Manufahia and Baucau provinces, hosted in ultramafic rocks (Hili Manu district podiform chromites with Cr2O3 grade 36- 51%). Manganese mineralization in marine strata mainly in Baucau, Viqueque and Manatuto provinces. Copper mineralization in Baucau, Viqueque, Covalima, Manufahi, Manatuto and Lautem province, hosted in ophiolite suite. Also prospects of gold placers. Etc.

Yensusnimar, D., J. Setyoko & L. Ginting (2017)- Biomarker characterization of mud volcano seepage (oil seep) and sediment samples from Atambua Field. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 2p. *(Extended Abstract)* *(online at: https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_Biomarker-Characterization-of-Mud-Volcano.pdf)*
(Lemigas paper on biomarker compositions of oils from Masin Lulik mud volcano seep and surface sediments from Atambua area, onshore Timor, With signatures of marine source facies (Pr/Ph 1.30- 1.83, absence of land plant biomarker signatures such as bicadinanes and oleananes). Low thermal maturity of oils (early mature) and surface sediments (immature). No data on sample locations or ages of rocks (also, there is no Atambua oil field))

Zobell, E.A. (2007)- Origin and tectonic evolution of Gondwana sequence units accreted to the Banda Arc: a structural transect through Central East Timor. M.Sc. Thesis Brigham Young University, p. 1-83. *(Unpublished)*
(online at: http://scholarsarchive.byu.edu/cgi/viewcontent.cgi?article=1897&context=etd)
(Petrographic analyses of Permian- Jurassic 'Gondwanan sequence' in E Timor. Detrital zircons from 'Asian' Banda unit as young as 80 Ma. Zircons from Triassic 'Gondwana sequence' no younger than ~234 Ma and with peak ages at 301 Ma and 1873 Ma, also some Archean ages. QFL ratios of Triassic greywacke of Timor suggest proximal, syn-rift, intracratonic or recycled orogen source, from NE. Mount Isa region to E has most similar peak U/Pb zircon ages, but extension of this terrane to W, which would have rifted away during Jurassic breakup, is required to account for immaturity of sandstones)

Zobell, E.A. (2007)- New insights into the stratigraphic and structural evolution of the active Banda orogen. GSA Rocky Mountain Section, 59th Annual Meeting 2007, p. *(Abstract only)*
(Banda arc-continent collision comprised of Australian passive margin cover sequences and portions of uplifted Banda forearc. Uplifted Banda forearc units indicate Asian affinity with maximum age of 80 Ma. Detrital zircons from sandstones of Australian continental margin sequences have peak ages at 237-353 Ma and 1788-1895 Ma. Provenance analysis of Triassic Australian-affinity greywacke consistent with proximal syn-rift intracratonic or recycled orogen source, probably from N. Structural measurements indicate N-NW to S-SE vergence direction and 30-40% shortening. Banda forearc is 200 km wide N of Savu, and completely over ridden by retro-wedge thrusting north of E Timor. Structural models constructed to test different geometries)

VII.5. Timor Sea (Timor Trough), Indonesian Sahul Platform

Akutsu, T. (2009)- Abadi gas field, Masela PSC block, West Arafura Sea, Indonesia. SEAPEX Exploration Conference, Singapore 2009, p.

Ambrose, G.J. (2004)- The ongoing search for oil in the Timor Sea, Australia. In: G.K. Ellis et al. (eds.) Timor Sea Symposium Darwin 2003, Northern Territory Geological Survey, p. 3-22.

Aswan, A., Y. Zaim, K. Kihara & K. Hadianto (2012)- Depositional facies of Plover Formation in the Abadi Field, Eastern Indonesia based on core sedimentology. AAPG Int. Conv. Exhib., Singapore 2012, Search and Discovery Art 50729, p. 1-6. *(Extended Abstract)*
(online at: www.searchanddiscovery.com/documents/2012/50729aswan/ndx_aswan.pdf)
(Summary of poster on core sedimentology study of M Jurassic Plover Fm gas reservoirs of Abadi Field. Cores quartzoze sandstone, siltstones, and claystones, generally rich in ichnofossils. Estuarine- shoreface facies)

Audley-Charles, M.G. (1966)- The age of the Timor Trough. Deep Sea Research 13, 4, p. 761-763.
(Timor Trough persisted as deep water zone between Timor and Australia since Lower Eocene)

Baillie, P.W., G. Duval & C. Milne (2013)- Geological development of the western end of the Timor Trough. Proc. SE Asia Petroleum Exploration Society (SEAPEX) Conference, Singapore 2013, p. 1-46.
(Abstract + Presentation) (online at: www.seapex.org/im_images/pdf/Simon/11%20Peter%20Baillie%20Timor%20Trough%20SEC2013.pdf)
(Examples of regional seismic lines over W Timor Trough, here interpreted as foredeep produced by loading following arrival of Banda Arc and is topographic expression of down-flexed/ thrust-loaded Australian margin, not subduction trench. 'Accretionary prism' of S Timor/ N Timor Trough explained as gravitational collapse)

Baillie, P.W., T.H. Fraser, R. Hall & K. Myers (2004)- Geological development of eastern Indonesia and the northern Australia collision zone: a review. In: G.K. Ellis et al. (eds.) Timor Sea Symposium, Darwin 2003, Northern Territory Geological Survey, p. 539-550.
(online at: https://www.academia.edu/27527223/Geological_development_of_Eastern_Indonesia_and_the_northern_Australia_collision_zone_a_review)
(N margin Australia divergent margin over most of time. Continental fragments separated in E. Devonian (opening of Paleo-Tethys), late E Permian (opening of Meso-Tethys) and Late Triassic- Late Jurassic (opening of Ceno-Tethys ocean). Passive margin, facing open ocean since end-Jurassic. Late Triassic Carnian-Norian succession of NW Shelf was deposited following regionally extensive period of tectonism, erosion and uplift along edges of craton (Fitzroy Movement), related either to breakup events along Gondwanan margin or to docking of continental blocks along New Guinea subduction margin)

Baillie, P. & C. Milne (2014)- New insights into prospectivity and tectonic evolution of the Banda Arc: evidence from broadband seismic data. Proc. 38th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA14-G-100, p. 1-5.
(On new seismic data from Timor Trough, S of Timor island. Timor Trough is merely a recently downflexed Australian continental margin)

Barber, P.M., P.A. Carter, T.H. Fraser, P. Baillie & K. Myers (2003)- Palaeozoic and Mesozoic petroleum systems in the Timor and Arafura seas, Eastern Indonesia. Proc. 29th Annual Conv. Indonesian Petroleum Association (IPA), p. 485-500.
(On hydrocarbon prospectivity in Paleozoic- Mesozoic S of Babar- Tanimbar. New seismic links Australian gas discoveries of Sunrise and Evans Shoal with Abadi accumulation and open acreage in Indonesian waters. Malita and Calder Grabens charge kitchens from mature E-M Jurassic Plover Fm source rocks. Paleozoic Basins could contain mature oil-prone source rocks of Cambrian, Devonian and Carboniferous age)

Barber, P.M., P.A. Carter, T.H. Fraser, P. Baillie & K. Myers (2004)- Under-explored Palaeozoic and Mesozoic petroleum systems of the Timor and Arafura Seas, northern Australian continental margin. In: G.K. Ellis et al. (eds.) Timor Sea Symposium, Darwin 2003, Northern Territory Geological Survey, p. 143-154.

(Similar to Barber et al. (2003), above)

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(Chuditch-1 drilled by Shell (1998) in 64m water on Bonaparte Shelf, NW Australalia, but now in 'Timor Gap' license area. Discovered gas in Jurassic Plover sandstone reservoirs. Current remapping/ reappraisal by SundaGas/ Baron Oil)

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(Abstract + Presentation)
(N Bonaparte Basin (Australia- Timor Leste- Indonesia) estimated to hold 30 TCF gas in M Jurassic Plover Fm sandstones)

Castillo, D.A., D.J. Bishop & M. de Ruig (2001)- Fault seal integrity in the Timor area: prediction of trap failure using well-constrained stress tensors and fault surfaces interpreted from 3D seismic. Proc. 28th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 261-288.
(In Laminaria High and Nancar Trough areas many hydrocarbon traps underfilled or breached. Ability of fault to behave as seal controlled in part by the principal stress directions and magnitudes and fault geometry. Regional stress analysis indicates non-uniform strike-slip stress regime, with orientation of maximum principal horizontal stress (SHmax) varying from N-S compression in N to NE-SW farther S)

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(Hourglass structure is older horst block with superimposed younger graben. Bounding faults of horst and graben blocks separate conjugate fault systems formed by two episodes of extension: (1) Late Jurassic- Early Cretaceous and (2) M Miocene- Pliocene)

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(online at: https://www.frontiersin.org/journals/earth-science/articles/10.3389/feart.2021.640928/full)

(Western Outer Banda arc accommodates part of oblique Australian margin collision with Eurasia along Timor Trough. Yet, recent seismicity along Timor Trough extremely low. Multibeam bathymetry and 2D seismic along Timor Trough reveal active faults)

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(Late Miocene-to-Recent collision of NW Australian shelf with Banda Island Arc results in downward flexing of Australian lithosphere toward arc. Vertical extent of normal faulting on shelf from SW of Timor to S of Tanimbar indicates collision began W of Timor in Late Miocene, progressed E during Pliocene, and continues eastward. Normal faults W of 124.5°E terminate vertically in Miocene section. Normal faults from 124.5°E to 125.5 °E terminate at Miocene-Pliocene boundary. from 125.5°E to 128°E, faults terminate in E Pliocene, from 128°E to 131°E terminate at or near sea floor)

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(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/183)
(Examples of seismic lines across Timor-Tanimbar Trough, showing subducting Australian Plate and Banda forearc accretionary wedge complexes)

Duffy, B. & M. Sandiford (2017)- Geology and geomorphology of the Timor Trough and relevance to Timor-Leste's maritime boundary. Submission to the Conciliation Commission of the U.N. Permanent Court of Arbitration, p. 1-29. *(online at: http://www.faultrock.nz/uploads/4/4/8/3/44833089/duffy_sandiford_2017_geology_and_geomorphology_of_the_timor_trough_and_relevance_to_timor-leste_maritime_boundary.pdf)*
(Review of geology of the Timor Trough. Timor Trough S of Savu does not mark the trace of subduction zone; trace of old subduction zone presently buried under rapidly developing fold-thrust belt. Timor Trough not shelf edge, but down-warp of continental shelf, resulting from loading of Timor fold thrust belt. Best explained as foredeep located within Australian continent, rather than continuation of active subduction zone along plate boundary that defines N limit of Australian Plate)

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(Oil-filled fluid inclusions at quartz overgrowth/ detrital quartz boundaries and in fractures cutting quartz grains used as evidence of paleo-oil columns in Triassic- Late Jurassic. Other indications of paleo-oil include sample fluorescence, elevated resistivity and reservoir diagenesis. Structures in Timor Sea have undergone more than one phase of oil entrapment and leakage, with each oil phase potentially from different oil source)

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(Seismic techniques in Babar Selaru PSC block SW of Yamdena (Tanimbar))

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(Early seismic lines across TimorTrough. Good image of DSDP Site 262 well location in deepest part)

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(online at: www.searchanddiscovery.com/abstracts/pdf/2002/hedberg_australia/images/ndx_gartrell.pdf)
(Fault reactivation related to late Tertiary collision of Australian continent with Banda Arc responsible for common occurrence of breached hydrocarbon traps in Timor Sea. Two stages of collision at Timor: (1) Late Miocene (8 Ma) when transitional Australian continental crust reached subduction system; (2) true continental crust entered subduction system in M Pliocene, and Timor Trough evolved as foredeep basin in response to imbricate thrust loading on Australian margin)

George, S.C., P.F. Greenwood, G.A. Logan, R.A. Quezada, L.S.K. Pang, M. Lisk et al. (1997)- Comparison of palaeo oil charges with currently reservoired hydrocarbons using molecular and isotopic analyses of oil-bearing fluid inclusions: Jabiru oil field, Timor Sea. Australian Petroleum Production Exploration Association (APPEA) J. 37, p. 490-504.

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(Oil inclusions in Bayu 1 Jurassic sandstones suggest paleo-oil column of at least 20m below 46-53m paleo-gas cap (currently 155m gas column). FI oil from marine-influenced, less clay-rich source rock. FI oil maturity mid-oil window (Ro ~0.75%), condensate higher maturity (~0.9%). Compositions and maturity data consistent with early expulsion from marine organic matter in Echuca Shoals Fm, followed by expulsion of condensate from more terrestrial Elang/ Plover Fms)

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(online at: https://www.academia.edu/10449659/Fluid_inclusion_evidence_for_an_early_marine_sourced_oil_charge_prior_to_gas_condensate_migration_Bayu_1_Timor_Sea_Australia)
(Oil-bearing fluid inclusions in gas-bearing Jurassic reservoir sandstones from Bayu-1 (N Bonaparte Basin, Timor Sea) suggest Bayu gas-condensate field originally had paleo-oil column beneath thick paleo-gas cap)

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(online at: https://www.cgg.com/sites/default/files/2020-11/cggv_0000022574.pdf)
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(Neogene collision between Australian, Eurasia and Pacific plates coeval with growth of depocenters in Timor Sea. Distortion of pre-tectonic (Aptian- Oligo-Miocene) sequences indicates Timor Trough subsidence coupled to uplift of outboard highs, amplifying basement topography and no structural inversion. At shallow levels, normal faulting accommodated flexure. Shortening of NW Shelf accommodated oblique convergence between

Australia and Banda arc and transcurrent component of this deformation was partitioned outboard. No details on timing)

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(online at: https://www.jstage.jst.go.jp/article/japt/75/2/75_2_148/_pdf/-char/en)
(Abadi large gas field in Jurassic sandstone reservoir in remote frontier area of Arafura Sea in E Indonesia. Discovered by INPEX Corporation in 2000, in 400-800m water depth and >100km from nearest island, with Timor Trough in-between)

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(online at: https://www.researchgate.net/publication/259081666_Neogene_tectonic_and_structural_evolution_of_the_Timor_Sea_region_NW_Australia)
(Neogene deformation in Timor Sea flexure-dominated in NE, transtension-dominated to SW. Cretaceous and Upper Jurassic ductile shales and claystones cause detachment of basement from Neogene. Two major and one minor Neogene structural reactivation events: Earliest Miocene (25-23 Ma; rel. minor; = New Guinea collision?), Late Miocene (11- 5.5 Ma; related to Sumba collision/ uplift or New Guinea collision/ folding; 8 Ma seems widespread Indo-Australian event) and late E Pliocene (~3 Ma- present-day; =Timor collision). Late Miocene event widespread, with synchronous deformation through Indo-Australian plate. Dominantly right-lateral transpression in Browse, left-lateral transtension in Timor Sea)

Kihara, K., R. Feraldo, K. Chalik, T. Naito & N. Morita (2012)- Paleozoic to Mesozoic tectonostratigraphy of the Abadi gas field, Eastern Indonesia. Proc. 36th Annual Conv. Indonesian Petroleum Association IPA, Jakarta, IPA12-G-057, p. 1-12.
(Abadi area of Timor Sea tectonostratigraphic elements oriented NNW-SSE in Paleozoic, NNE-SSW in Upper Triassic- Jurassic and NE-SW in Upper Jurassic-Cretaceous. Main sediment supply in Triassic-Jurassic from N of Abadi field, with major turnover of direction E Cretaceous due to continental breakup. U Triassic- Jurassic syn-rift sequences in rift basins with NE-SW trend (Malita Graben to SW) or NNE-SSW trend (Calder Graben))

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(online at: www.jstage.jst.go.jp/article/japt/72/1/72_1_65/_pdf)
(In Japanese, with English summary. Coastal to shallow-water Plover Fm sandstone in Abadi gas-field reservoir now in deep water. Plover Fm M Jurassic (partly lowermost U Jurassic), subdivided into upper and lower sandstones by Bathonian MFS. Upper unit main reservoir. Plover Fm two remarkable, rapid deepening events in Late Cretaceous (thick, muddy deltaic succession) and Pleistocene (deepening of Timor Trough))

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(Biogenic and thermogenic gas in seafloor cores from accretionary prism thrust belt in Timor Trough, from SE of Timor to SW of Tanimbar)

Londono, J. & J.M. Lorenzo (2004)- Geodynamics of continental plate collision during late Tertiary foreland basin evolution in the Timor Sea: constraints from foreland sequences, elastic flexure and normal faulting. Tectonophysics 392, p. 37-54.
(Modeling of flexure of Australian NW margin as result of Timor collision. Late Tertiary (~6.5-1.6 Ma) foreland basin subsidence of Australian lithosphere propagates from SW to NE in Timor Sea, as consequence of oblique collision between Eurasian and Australian plates. Normal faulting related to bending implies some inelastic yielding. Flexural models indicate at least 570 km of Australian plate was flexed, primarily by tectonic loading of Timor Island and at least 100 km of plate subducted. Modeled forebulge uplift ~300m between ~200-400 km away from Timor Trough trench)

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(Four new late Callovian- earliest Oxfordian dinocyst species from Bayu Undan and Challis fields, NW Shelf)

Mantle, D. (2006)- Palynology, sequence stratigraphy and palaeoenvironments of Middle to Late Jurassic strata, Bayu-Undan Field, Timor Sea region. Ph.D. Thesis, University of Queensland, p. 1-210. *(Unpublished)*
(Palynoly of U Plover, Elang, and lower Frigate Fms in Bayu-Undan Field, Timor Sea. Palynostratigraphic sequence previously assessed as latest Bathonian- E Oxfordian. Dinoflagellate acme events coincident with marine flooding surfaces and enable precise correlation across field. Elang Fm three third order sequences)

Mantle, D.J. (2009)- Palynology, sequence stratigraphy, and palaeoenvironments of Middle to Upper Jurassic strata, Bayu-Undan Field, Timor Sea region, Part One. Palaeontographica B280, 1-3, p. 1-86.
(Palynology of latest Bathonian- E Oxfordian uppermost Plover, Elang and Lower Frigate Fms in Bayu-Undan field. 96 spore-pollen and 32 dinoflagellate (Microdinium-Voodooia) species)

Mantle, D.J. (2009)- Palynology, sequence stratigraphy, and palaeoenvironments of Middle to Upper Jurassic strata, Bayu-Undan Field, Timor Sea region, Part Two. Palaeontographica B280, 4-6, p. 87-212.
(Continuation of Mantle 2009 above. Descriptions of 55 dinoflagellate species (Rigaudella to Woodinia), 17 acritarch, and prasinophyte phycomata taxonomy, Jurassic biostratigraphy, sequence stratigraphy, and paleoenvironments. Elang Fm three 3rd-order sequences. Systems tracts with distinctive palynomorph or palynodebris assemblages. Microphytoplankton diversity increases through transgressive systems tracts to peak diversity at maximum flooding surface. Ternia balmei, Meiourogonyaulax group, Ctenidodinium group and Rigaudella group represent approximate gradation from very nearshore to offshore environments or possibly an increase in salinities from euryhaline to stenohaline conditions)

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(online at: https://d28rz98at9flks.cloudfront.net/70371/Australian_Biozonation_Chart_2010_Part1.pdf)
(Large chart with Ediacaran- Recent time scale and biozonations of Australia)

Mantle, D.J. & J.B. Riding (2012)- Palynology of the Middle Jurassic (Bajocian-Bathonian) *Wanaea verrucosa* dinoflagellate cyst zone of the North West Shelf of Australia. Review Palaeobotany Palynology 180, p. 41-78.
(Marine and terrestrial palynomorphs from M Jurassic Wanaea verrucosa dinoflagellate cyst zone in Perseus-3A, Sunrise-2 and Sunset W1 wells in N Carnarvon and Bonaparte basins. Three subzones. Late Bajocian- E Bathonian age (slightly older than previous Helby and Partridge age calibrations). Associated spore-pollen assemblages transitional from upper Dictyotosporites complex to lower Contignisporites cooksoniae zones)

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(Quartz overgrowths main cause for porosity and permeability reduction of M Jurassic Plover Fm sandstones in Abadi Field. Best porosities 15-20%)

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(Rock physics of Abadi 2000 gas discovery in M Jurassic Plover Sst. Seven wells by 2008)

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(Seismic inversion work on 2000 Abadi gas discovery. Deltaic to shallow marine Plover Fm sandstone primary reservoir. Seismic inversion provides high resolution lithological contrasts that correspond to stratigraphic boundaries. Reserve estimates and uncertainty repeatedly updated)

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(Late Pliocene- Holocene calcareous pelagic sediments of Site 262, S of SW Timor, 442m thick and rel. rich in organic matter (up to 1.5% TOC) of mixed marine- continental origin. Progressive uphole increase of TOC and of terrigenous vascular plant material. Biogenic methane probably present as solid methane hydrate)

McLennan, J.M., J.S. Rasidi, R.L. Holmes & G.C. Smith (1990)- The geology and petroleum potential of the western Arafura Sea. Australian Petroleum Exploration Assoc. (APEA) Journal 30, 1, p. 91-196.
(N Bonaparte basin and Arafura- Money Shoals basins)

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(Includes early Gulf Oil seismic profiles across Timor Sea showing frontal thrusting/ scraping off of sediment cover and piled on smaller surface to form S Timor- Tanimbar accretionary prism. Etc.)

Nagura, H., I. Suzuki, T. Teromato, Y. Hayashi, T. Yoshida, H.M. Bandjarnahor, K. Kihara, T. Swiecicki & R. Bird (2003)- The Abadi gas field. Proc. 29th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 451-466.
(Gas field in Jurassic 'Plover Fm' sandstone reservoirs in Indonesian part of Timor Sea)

Nugrahanto, K., I. Yulianto, N.A. Manaf, I.R. Siallagan & R. Fauziah (2023)- Middle Jurassic sub thrust: the under-explored oil play in the offshore West Timor, Nusa Tenggara Timur, Indonesia. Proc. 47th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA23-G-66, p. 1-22.
(On hydrocarbon prospectivity of M Jurassic 'Plover Fm' sub-thrust play in Timor Trough (Bena Deep, Kolbano Deep), S of West Timor)

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(latest Miocene- E Pliocene (~5.5 Ma) collision of Australian and Eurasian plates resulted in proto-foreland development and structural reactivation in Timor Sea. Flexural extension caused by down-warping of Australian plate into developing Timor Trough, resulted in dilatation of major Jurassic and older extensional faults and formation of shallow Mio-Pliocene fault arrays. Dilatation allowed hot, highly saline brines from deep Paleozoic evaporites to migrate up reactivated faults, causing local Late Tertiary heating spikes, isotopically light carbonate cementation and hydrocarbon leakage from traps)

Ohara, M., K. Nakamura & Y. Sasaki (2015)- The structural evolution of Babar- Selaru region in the southern Banda outer arc, Eastern Indonesia. Proc. 39th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA15-G-180, p. 1-17.
(Review of Outer Banda Arc area from E Timor to Tanimbar Island, surrounding Inpex Babar Selaru PSC in Timor-Tanimbar Trough, N of Abadi Field. Part of N margin Australian continent and affected by: (1) Jurassic-E Cretaceous N-S extension, with opening of Tethys Ocean; overlain by Cretaceous- Paleogene deposits of thermal subsidence phase; (2) deepening of Timor Trough and thrusting in Pliocene, characterized by onlapping sequence onto Top Late Miocene horizon; (3) Today thrusts common in N and N-dipping normal faults dominant in S of Trough)

Ohara, M., L.A. Perdana, A. Saputra, M. Fujimoto & B. Sapiie (2016)- Neogene to Quaternary structural evolution in the offshore Tanimbar region in the southern Banda Outer Arc: implications for petroleum system in Eastern Indonesia. Proc. 40th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA16-545-G, p. 1-15.
(Tectono-stratigraphic framework for Babar Selaru and Masela blocks in Timor-Tanimbar Trough/ N Bonaparte Basin. Normal fault-dominated domain in S formed by extension on Australian continental margin, and S-vergent Pliocene-Recent thin-skinned fold-thrust belt in N (= accretionary prism of Outer Banda Arc))

Ohara, M., L.A. Perdana, A. Saputra, A. Himsari & M. Fujimoto (2016)- Neogene hydrocarbon prospectivity of the frontier offshore Tanimbar region in the southern Banda Arc, Eastern Indonesia. Proc. 40th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA16-544-G, p. 1-16.
(online at: https://www.researchgate.net/publication/309463150_Neogene_Hydrocarbon_Prospectivity_of_the_Frontier_Offshore_Tanimbar_Region_in_the_Southern_Banda_Outer_Arc_Eastern_Indonesia)
(On hydrocarbon prospectivity in accretionary prism thrust structures in Timor Sea S of Babar)

Perdana, L.A., A. Fatwa, M. Ohara, A. Saputra & M. Fujimoto (2016)- 3D seismic geomorphology interpretation of Cenozoic carbonate succession in offshore Tanimbar region, Eastern Indonesia. Proc. 40th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA16-547-G, p. 1-20.
(online at: https://www.researchgate.net/publication/304160906_3D_Seismic_Geomorphology_Interpretation_of_Cenozoic_Carbonate_Succession_in_Offshore_Tanimbar_Region_Eastern_Indonesia)
(Offshore SW Tanimbar region of S Banda Outer Arc with prograding Australian passive margin sequences. Paleo-depositional environment in Babar Selaru Block SW of Yamdena interpreted from 3D seismic data as basinal- slope facies during Paleocene- Eocene, shallowing to shelf environment in Oligocene- Miocene. Possible Late Miocene reefal facies also in frontal thrust of Banda Outer Arc)

Perdana, L.A., A. Himsari & A. Saputra (2023)- Characteristic of incised valley deposit in the Abadi Field: A study of sedimentological feature from the conventional core. Proc. 47th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA23-G-03, p. 1-8.
(Incised valley deposit in M Jurassic (Bathonian) U Plover Fm delta system)

Perdana, L.A. & M. Ohara (2017)- Oligo-Miocene carbonate depositional model in the offshore Tanimbar region as a key to unlock Oligo-Miocene paleogeography map in the Eastern Indonesia. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, p. 1-7. *(online at: https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_Oligo-Miocene-Carbonate-Depositional-Model.pdf)*
(Probable Miocene pinnacle reef on INPEX 3D seismic of Babar Selaru Block, Timor Sea off SW Tanimbar)

PT Robertson Utama Indonesia (1998)- Timor Sea: Mesozoic source rock distribution and palaeoenvironments. Multiclient study, p. *(Unpublished)*

Robinson, P. (2012)- Exploration opportunities in the Timor Sea region. Petroleum Exploration Society Australia (PESA) News 116, p. 67-72.
(Review of N Bonaparte Basin, Australian Timor Sea, hydrocarbon province. Large gas-condensate fields at Bayu-Undan and Sunrise-Sunset-Loxton Shoals-Troubadour complex; oil pools at Laminaria, Corallina, Elang-Kakatua- Kakatua North, Buffalo and Kitan fields. Three petroleum systems: Carboniferous, Permian and Mesozoic)

Rogl, F. (1974)- The evolution of the *Globorotalia truncatulinoides* and *Globorotalia crassaformis* group in the Pliocene and Pleistocene of the Timor Trough, DSDP Leg 27, Site 262. In: J.J. Veevers et al. (eds.) Initial Reports Deep Sea Drilling Project (DSDP) 27, p. 769-771.
(online at: www.deepseadrilling.org/27/volume/dsdp27_37.pdf)
(Documentation of evolution of planktonic foraminifera in DSDP Site 262. Globorotalia tosaensis evolved in E-M Pliocene from G. crassaformis. Branching off from Globorotalia tosaensis tenuitheca, Globorotalia truncatulinoides develops at Pliocene-Pleistocene boundary)

Saqab, M.M. & J. Bourget (2015)- Structural style in a young flexure-induced oblique extensional system, north-western Bonaparte Basin, Australia. J. Structural Geology 77, p. 239-259.
(Neogene-Recent flexure-induced extension in NW Bonaparte Basin/ Timor Trough superimposed obliquely over Mesozoic rift structures. Distribution of new extensional en-echelon faults partly controlled by pre-existing Mesozoic structures)

Saqab, M.M. & J. Bourget (2016)- Seismic geomorphology and evolution of early-mid Miocene isolated carbonate build-ups in the Timor Sea, North West Shelf of Australia. Marine Geology 379, p. 224-245.
(Seismic data show ~60 isolated carbonate build-ups of E-M Miocene age over wide area of NE Bonaparte Basin. Individual build-ups ~100m thick with average diameter of 3 km. Typical stratigraphic architecture: (1) M Burdigalian initiation (Tf1/CN2), (2) late Burdigalian lateral expansion (CN3), and (3) Langhian (Tf2/CN4) backstepping and drowning. Followed by (3) sub-aerial exposure during major Serravallian sea-level fall. Only small patch reefs developed afterwards during Late Miocene. Observed growth phases correlate with global sea-level fluctuations and major changes in global climate/ oceanography; role of local tectonics minimal)

Saqab, M.M., J. Bourget, J. Trotter & M. Keep (2017)- New constraints on the timing of flexural deformation along the northern Australian margin: implications for arc-continent collision and the development of the Timor Trough. Tectonophysics 696-697, p. 14-36.
(Numerous extensional faults in passive margin strata of N Bonaparte Basin, related to lithospheric flexure of descending Australian Plate in convergent setting, coincident with creation of Timor Trough as foreland basin and Cartier Trough. Onset of extensional deformation in latest Miocene (~6 Ma), coincident with onset of arc-continent collision in Timor Sea and development of Timor Trough. Second episode of increased tectonic activity around Pliocene- Quaternary boundary (~3 Ma), continuing intermittently to today)

Seggie, R.J., R.B. Ainsworth, P. Arditto, F. Burns, D.A. Johnson, J.P.M. Koninx, P.M. Stephenson & J. Thompson (2000)- Capturing depositional uncertainty: Sunrise-Troubadour giant gas-condensate fields. Proc. SPE Asia Pacific Oil and Gas Conference, Integrated modelling for asset management, Yokohama 2000, SPE 59406, p. 1-10.
(Three interpretations of possible depositional models of M Jurassic Plover Fm sandstone gas reservoirs)

Seggie, R.J., R.B. Ainsworth, D.A. Johnson, J.P.M. Koninx et al. (2000)- Awakening of a sleeping giant: Sunrise-Troubadour gas-condensate field. Australian Petroleum Production Exploration Association (APPEA) J. 2000, p. 417-434.
(Large gas field in Jurassic sandstones in ZOCA, Timor Leste- Australia joint operating zone)

Seggie, R.J., R.B. Ainsworth, D.A. Johnson, J.P.M. Koninx, N. Marshall, A. Murray et al. (2003)- The Sunrise-Troubadour gas-condensate fields, Timor Sea, Australasia. In: M.T. Halbouty (ed.) Giant oil and gas fields of the decade 1990-1999, American Assoc. Petroleum Geol. (AAPG), Memoir 78, p. 189-209.
(Sunrise/Troubadour Field (1974) with 8-20 Tcf of gas in 80m M Jurassic sandstones in fault-bounded structural closure with 180m of relief. Sandstones VF-C quartz arenites- sublitharenites, in brackish- open marine shales. Upward increase in marine influence. Two main reservoirs forced regressive delta-front to shoreface sheet sand complex and incised valley system. Faulting mostly Pleistocene, producing closure and recent entrapment. Mature (1.3-1.4% Vr) M Jurassic marine source. Pressure analysis indicates tilted contact and dynamic aquifer)

Sekiguchi, W., K. Matsui, T. Juhatta & D. Rahmalia (2011)- Seismic attributes correlated with drilling difficulties in Tertiary carbonate, Abadi Field, Eastern Indonesia. Proc. 35th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA11-G-186, p. 1-16.

Setyowati, T.P., M.B. Wiranatanagara, Y.P. Nusantara, A. Andaru & J.S. Hadimuljono (2022)- 2D Basin modeling of the Carnian and Ladinian source rock of West Timor Basin. Proc. 46th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA22-G-220, p. 1-14.
(Lemigas modeling of Triassic source rock in offshore S Timor basin. Ro profile in Belalang-1 well suggests Ladinian shale has maturity level of 0.8-1.5% Ro (peak mature to post mature). Hydrocarbon migration from Ladinian shale source rock began at 174 Ma ((E Jurassic))

Shuster, M.W., S. Eaton, L.L. Wakefield & H.J. Kloosterman (1998)- Neogene tectonics, Greater Timor Sea, offshore Australia: implications for trap risk. Australian Petroleum Prod. Exploration Assoc. (APPEA) J. 38, p. 351-378.
(Tectonic model invoking wrench-related deformation and strike-slip reactivation of structures in Greater Timor Sea from Neogene- Present, associated with convergence between Australian and SE Asian plates)

Sitompul, N., S. Wijanto & J. Purnomo (1993)- Tectonic evolution of frontier Indonesian Timor Sea. Proc. 22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 92-102.
(online at: https://www.iagi.or.id/web/digital/61/13.pdf)
(Early Pertamina review of Indonesian Timor Sea (= geologically part of NW Australian continental margin))

Sjahbuddin, E. & B. Puspoputro (1993)- Hydrocarbon source rock potential in the Timor Gap zone of cooperation and surrounding area. Proc. 22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 759-769.
(online at: https://www.iagi.or.id/web/digital/53/22nd-Volume-2-(6-9-Des-1993)-153-163.pdf)
(E Jurassic- E Cretaceous considered major hydrocarbon source in Timor Sea. Peak oil generation between ~2000 and 6000m)

Smith, G.C., L.A. Tilbury, A. Chatfield, P. Senycia & N. Thompson (1996)- Laminaria- a new Timor Sea discovery. Australian Petroleum Production Exploration Association (APPEA) J. 36, p. 12-28.

Soeryowibowo, M., Y. Kambu, T. Ramli, H. Mersil & N. Isnania (2023)- Paleocene basin-floor fan play near Abadi Field, a new exploration play in the Arafura Sea, Indonesia. Proc. 47th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA23-G-69, p. 1-17.
(Untested Paleocene basin-floor fan play in Arafura area S of Yamdena islands, in Sindoro Embayment low area between Abadi High and Barakan High. Overall size of fan is ~60 x 170 km wide and 200-700 msec thick (analogous to Paleocene basin floor fan in Wiriagar Deep Field in Bintuni Basin?)

Surjono, S.S. & I. Arifianto (2016)- Petrophysics analysis for reservoir characterization of Upper Plover Formation in the Field "A", Bonaparte Basin, offshore Timor, Maluku, Indonesia. J. Applied Geology (UGM) 1, 1, p. 43-52.
(online at: https://journal.ugm.ac.id/jag/article/view/26959/16601)
(Upper Plover Fm in Abadi Field not produced due to reservoir issues. Seven parasequences, in transgressive systems in coastal environments with coarsening upward patterns during M-L Jurassic. Porosity 1-19%, permeability 0.01- 1300 mD)

Surjono, S.S., M.R. Asy'ari & A. Gunawan (2019)- Petroleum play potential in the thrust and fold belt zone of the offshore Timor-Tanimbar, Eastern Indonesia. In: F. Rossetti et al. (eds.) The structural geology contribution to the Africa-Eurasia geology, etc., First Conf. Arabian Journal of Geosciences (CAJG-1, 2018), Tunisia, Springer Advances in Science, Technology & Innovation, p. 145-148. *(online at: www.researchgate.net/publication/330003884_Petroleum_Play_Potential_in_the_Thrust_and_Fold_Belt_Zone_of_the_Offshore_Timor-Tanimbar_Eastern_Indonesia_IEREK_Interdisciplinary_Series_for_Sust Etc.)*
(TGS-NOPEC summary of petroleum play in area of Timor-Tanimbar Trough and accretionary prism of Outer Banda Arc along its N margin. Thermogenic oil and gas seepages found in seabed coring in study area)

Surjono, S.S., R. Hidayat & N. Wagimin (2018)- Triassic petroleum system as an alternative exploration concept in offshore western Timor Indonesia. J. Petroleum Exploration Production Technology 8, p. 703-711.
(online at: https://link.springer.com/content/pdf/10.1007/s13202-017-0421-4.pdf)
(In NW Bonaparte Basin, off W Timor discovery of Abadi gas feld, but classic Jurassic petroleum play did not develop due to severe erosion during Valanginian event. Likely Triassic petroleum system in area, with Scythian Mt Goodwin shales as gas-prone source rock and potential reservoir rocks in Anisian Pollard and Ladinian-Carnian Challis sandstones)

Takayama K., K. Kihara & T. Zushi (2009)- Integrated geological modeling and volumetric uncertainty evaluation for the Abadi gas field. Proc. 33rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA09-G-156, p. 1-10.
(3D geological model of Jurassic Upper Plover Fm in Abadi Field)

Toha, B., S.S. Surjono & S. Winardi (2013)- Tectonic collision as important factor controlling hydrocarbon generation in Eastern Indonesia basins: Case study in Timor-Tanimbar Trough. Proc. 30th IAS Meeting of Sedimentology, Manchester 2013 *(Abstract + Presentation, 72 p.)*
(online at: https://www.researchgate.net/publication/370496584_Tectonic_Collision_as_important_factor_controlling_hydrocarbon_generation_in_Eastern_Indonesia_Basins_Case_study_in_Timor-Tanimbar_Trough)
(Review of E Indonesia petroleum systems, Mesozoic play around Abadi field, thermal modeling, etc. No new data)

Tripathi, A., W.B. Jones & R. Rajagopal (2012)- Insights into the petroleum potential of the Australian North West Shelf and Arafura Sea revealed by regional 2D seismic data. Proc. International Petroleum Technical Conference (IPTC), Bangkok 2012, IPTC 15302, p. 1-10.
(Examples of new 2D seismic across Exmouth Plateau, Timor Trough, Seram accretionary prism, etc.)

Van Andel, T.H. & J.J. Veevers (1967)- Morphology and sediments of the Timor Sea. Bureau Mineral Resources Geology Geophysics (BMR), Bull. 83, p. 1-173.
(online at: www.ga.gov.au/corporate_data/163/Bull_083.pdf)
(Timor Sea region covers Sahul Shelf and Timor Trough (max. depth 1750 fathoms) between 123-130°E. Bottoms and slopes of Timor Trough covered with silty clay with planktonic foraminifera; below 1000 fathoms (1830m) rich

in radiolaria. During last glacial maximum Sahul Shelf shoreline was at 60-70 fathoms (~110-130m) near shelf edge. Most of shelf was exposed and abundant calcareous concretions formed by soil processes)

Veevers, J.J. (1971)- Shallow stratigraphy and structure of the Australian continental margin beneath the Timor Sea. Marine Geology 11, p. 207-249.
(Shallow seismic sections of outer shelf and upper slope of Timor Sea, tied to stratigraphic section in Ashmore Reef 1 Well. Main feature is Late Miocene- E Pliocene unconformity, probably extending through series of young down-faulted blocks into Timor Trough. Following uplift, erosion, and downfaulting of Timor Trough in Late Miocene carbonates built out over subsiding shelf edge and uppermost slope to maximum thickness of 2000', and coral reefs developed on structural hinges and anticlines. Upper slope subsided at least 2400' since Miocene)

Veevers, J.J. (1974)- Sedimentary sequences of the Timor Trough, Timor and the Sahul Shelf. Initial Reports Deep Sea Drilling Project (DSDP) 27, p. 567-568.
(online at: http://deepseadrilling.org/27/volume/dsdp27_28.pdf)

Veevers, J.J., D.A. Falvey & S. Robins (1978)- Timor Trough and Australia: facies show topographic wave migrated 80 km during the past 3 M.y. Tectonophysics 45, p. 217-227.
(Incl. results of DSDP Hole 262 in Timor Sea, where >2.4 Ma (Pliocene) shallow marine sediments are overlain by deeper marine nannofossil oozes and clays)

Warris, B.J. (1973)- Plate tectonics and the evolution of the Timor Sea. Australian Petroleum Exploration Assoc. (APPEA) J. 13, 1, p. 13-18.
(Timor uplifted as Tertiary melange of Australian sediments behind N-dipping subduction zone along Timor Trough. Timor Sea remained relatively stable and was site of carbonate shelf sedimentation)

Wheller, D., G.K. Ellis, Y. Suhardiman, R. Yokote, D. Selvaggi, J. Derrij & G. Maniscalco (2013)- Discovery to development; a subsurface case history of the Kitan oil field, Timor Sea. In: M. Keep & S.J. Moss (eds.) The sedimentary basins of Western Australia IV, Proc. Petroleum Exploration Society Australia (PESA) Symposium, Perth, p.
(Kitan oil field 2008 discovery in N Bonaparte Basin in Joint Timor Leste- Australia Petroleum Development Area. Structure Jurassic E-W trending tilted fault block, reservoir M Jurassic shallow marine sandstone of Laminaria Fm)

Wu, L. (2016)- Foreland flexural extension and saltdiapir reactivation in oblique extensional systems. Ph.D. Thesis Colorado School of Mines, Golden, p. 1-157.
(online at: https://dspace.library.colostate.edu..)
(Study of Late Miocene- Present flexural normal faulting in NW Shelf- Timor Trough foreland basin. Also reactivation of Swan salt diapir in Vulcan basin in oblique extensional system)

Yokoyama, Y., A. Purcell, K. Lambeck & P. Johnston (2001)- Shore-line reconstruction around Australia during the Last Glacial Maximum and Late Glacial Stage. Quaternary International 83-85, p. 9-18.
(Australian continental shelf largely exposed during Last Glacial Maximum)

Young, I.F., P. Wolter, M.J. Raymondi, D.M. Mayo & S. Quam (2001)- Seismic reprocessing contributes to development success at the Elang Field, Northern Bonaparte Basin. Proc.ASEG 15th Geophysical Conference and Exhibition, Brisbane 2001, Extended Abstracts, p. 1-7.
(online at: https://www.tandfonline.com/doi/pdf/10.1071/ASEG2001ab152)
(Elang oil field (1994) was first oil discovery in in Timor Gap Zone of Cooperation (ZOCA), 480 km NW of Darwin. Oil reservoired in M-L Jurassic Elang and Plover Fm marine and fluvial-deltaic sands, which subcrop below Tithonian Unconformity. With detailed structure maps and cross-sections of field)

Young, I.F., T.M. Schmedje & W.F. Muir (1995)- The Elang oil discovery bridges the gap in the Eastern Timor Sea (Timor Gap zone of cooperation). Proc. 24th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 47-69.

(Elang-1 1994 oil discovery in Timor Gap Zone of Cooperation established new oil province in E Timor Sea. Tested 5800 BOPD from marine Late Jurassic Montara sandstones. On Elang Trend, a prominent structural high established during continental breakup in Late Jurassic)

Young, I.F., T.M. Schmedje & W.F. Muir (1995)- The Elang oil discovery establishes a new oil province in Eastern Timor Sea (Timor Gap ZOCA). Australian Petroleum Exploration Assoc. (APEA) Journal 35, 1, p. 44-64.
(Same paper as above. (Elang-1 1994 oil discovery in Timor Gap Zone of Cooperation (ZOCA) established new oil province in eastern Timor Sea. Well flowed 5,800 BOPD of light oil (56° API) from marine sandstone of Late Jurassic Montara beds. On Elang Trend, a structural high N of Flamingo High, established during Late Jurassic continental break-up)

Zaklinskaya, E.D. (1978)- Palynological information from Late Pliocene-Pleistocene deposits recovered by deep-sea drilling in the region of the island of Timor. Review Palaeobotany Palynology 26, p. 227-241.
(Late Pliocene-Pleistocene cores of pelagic oozes from DSDP Site 262, Timor Trough, 75 km S of W Timor island, with palynomorphs of 52 genera of higher land plants. Three-fold change in palynoflora composition: (1) Late Pliocene tropical flora of mixed Indian-Malayan type; (2) M Pleistocene Phase IV with rel. common Pinaceae (Pinus, Picea, Abies), not characteristic of tropical flora and may be evidence of cooler climatological conditions; (3) Late Pleistocene phase V flora similar to recent flora of Timor)

Zushi, T., S. Takano & I. Suzuki (2009)- Reservoir architecture of the Abadi Field. Proc. 33rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA09-G-027, p. 1-12.
(Abadi field 2000 gas discovery with >200m column in M Jurassic Plover Fm sandstone, unconformably overlain by Valanginian- Hauterivian marine claystone ('breakup unconformity'?). Reservoir facies mainly coarsening-upward sand packages. Progradation direction W to E)

VIII. INDONESIAN PAPUA + PAPUA NEW GUINEA (Western + Eastern New Guinea)

VIII.1. New Guinea General and Indonesian) Papua (West half of New Guinea main island)

Adhitama, R., R. Hall & L. White (2016)- Structural styles of Adi Basin and the implications of Tarera- Aiduna Fault. Proc. 14th Regional Conference Geology and Mineral Resources of SE Asia (GEOSEA XIV) and 45th Annual Conv. Indonesian Association Geologists (IAGI) (GIC 2016), Bandung, p. 383-392.
(Adi Basin narrow, young, deep water (1-3.5km) offshore basin E of Seram accretionary complex, N of Kai Island and Aru basin and SW of Lengguru foldbelt. Basin formation started in Late Miocene (after deposition of New Guinea Limestone; no wells?) and still active today. Adi-Aru Basin structures dominated by normal faults with NNE-SSW strike direction. Multiple episodes of subsidence, marked by unconformities in syn-extension units. Basin development influenced by sinistral movement of Tarera-Aiduna Fault, visible at N side of basin showing normal fault offset. Subsidence driven by slab pull of Australian subducting plate)

Adhitama R., R. Hall & L.T. White (2017)- Extension in the Kumawa block, West Papua, Indonesia. Proc. 41st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA17-125-G, p. 1-16. *(online at: www.researchgate.net/publication/317161370_Extension_in_the_Kumawa_Block_West_Papua_Indonesia)*
(Kumawa and Aru basins part of narrow N-S trending extensional system in Aru Trough, E of Kai Besar island-Kai Arch and E of Seram accretionary prism. Basin formation started in Late Miocene, with several periods of subsidence, marked by unconformities within syn-extension units. Tarera-Aiduna fault zone dies out to W, S of Lengguru fold belt)

Adisaputra, Mimin K. (2000)- Umur batugamping Waripi dan Yawee di Wamena dan Formasi Faumai dan Ainod di Timika, Papua, berdasarkan foraminifera besar. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 10, 108, p. 16-27.
('Age of the Waripi and Yawee limestone in Wamena and the Faumai and Ainod Formations in Timika, Papua, based on larger foraminifera'. New Guinea limestone in Wamena area include Late Eocene (Tb) with Nummulites djokdjakartae, E Oligocene (Tcd) with Nummulites fichteli, Late Oligocene (Te1-4) with Heterostegina borneensis, Spiroclypeus and Lepidocyclina (Eulepidina), E Miocene (Te5) with Miogypsinoides dehaarti and E-M Miocene (Te/Tf1) with Miogypsina thecidaeformis, Lep. (N) sumatrensis. Sample from Ainod Hit Road N near Tembagapura with Late Oligocene (Te 1-4) with Miogypsinoides bantamensis, Spiroclypeus)

Ajam, S.O., L.A. Henzell, J. Wang, A. Syarif & H. Soedirja (1982)- Well-site log evaluation of the Miocene carbonates in Salawati Basin. Proc. 11th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 357-378.
(Mainly log analysis methodology)

Akhmad, F. (2002)- Stratigraphy and structural analysis in the Gunung Bijih (Ertsberg) mining district, Irian Jaya. Proc. 28th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 335-343.
(Analysis of fractures suggests NE-SW shortening, NW-SE extension in Ertsberg District, W Papua)

Alam, S. & D.J. Setiadi (2019)- Tertiary sequence stratigraphy of Bird Head Area, Eastern Indonesia. Indonesian J. on Geoscience (IJOG) 6, 3, p. 267-278.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/371/291)
(Sequence stratigraphy interpretation of Eocene-Pliocene stratigraphy of Birds Head, based on wells and seismic data)

Allen, J.M., G.J. Artmont & K. Palmer (1995)- Application of alluvial gold mineralogy to exploration of the Central Ranges, Irian Jaya, Indonesia. Proc. PACRIM '95 Conference, Auckland, Australasian Institute of Mining and Metallurgy (AusIMM), Carlton/Melbourne, 9/95, p. 7-12.
(Alluvial gold ideal exploration tracer to bedrock source and mineralisation style. Mineralogy of gold in ophiolite, skarn, porphyry, mesothermal vein and possible VHMS environments is characterised from alluvial and bedrock samples, and use of gold mineralogy in prospecting is demonstrated)

Allison, I. (1975)- Morphology and dynamics of the tropical glaciers of Irian Jaya. Zeitschrift Gletscherkunde Glazialgeologie 10, 1-2, p. 129-152.

Allison, I. & P. Kruss (1977)- Estimation of Recent climate change in Irian Jaya by numerical modeling of its tropical glaciers. Arctic and Alpine Research 9, 1, p. 49-60.
(On climatic change from retreat of tropical Carstensz Glacier and Meren Glacier in W Papua Central Range)

Allison, I. & J.A. Peterson (1976)- Ice areas on Mt. Jaya: their extent and recent history. In: G.S. Hope et al. (eds.) The Equatorial glaciers of New Guinea. Results of the 1971-1973 Australian Universities Expedition to Irian Jaya: survey, glaciology, meteorology biology and paleoenvironments, Balkema, Rotterdam, p. 27-38.
(online at: http://papuaweb.org/dlib/bk/hope1976/03.pdf)
(Area covered by perennial ice and snow in Carstenz (Puncak Jaya) area 6.9 km^2 at end 1972)

Allison, I. & J.A. Peterson (1989)- Glaciers of Irian Jaya, Indonesia. In: Glaciers of Irian Jaya, Indonesia, and New Zealand, U.S. Geological Survey (USGS) Professional Paper 1386-H, p. 1-48.
(online at: http://pubs.usgs.gov/pp/p1386h/indonesia/indonesia.html)

Alviyanda, G.M.L. Junursyah & R. Saragih (2019)- Reservoir potential of Neogene rocks in The Biak Island and its surrounding areas. Berita Sedimentologi 42, p. 33-41.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/74/45

Alviyanda, G.M.L. Junursyah & P. Sumintadireja (2020)- Stratigraphic model of East Biak based on magnetotelluric data. J. Mathematical Fundamental Sciences (ITB) 52, 2, p. 232-249.
(online at: https://journals.itb.ac.id/index.php/jmfs/article/view/10277/4892)

Amiruddin (1998)- Proterozoic- Cenozoic lithology sequence of the Central Range, Irian Jaya. Jurnal Geologi dan Sumberdaya Mineral (JGSM), 8, 79, p. 10-24.
(Review of Precambrian- Cenozoic stratigraphy of Australian continental margin exposed in Central Range of W Papua (most complete in Indonesian region). Precambrian Karim Fm of >2500m of low-metamorphic mudstones with dolerites and diorite (K-Ar ages ~820-1160 Ma). Neoproterozoic Nerenip/ Awitagoh Fm low metamorphic fine clastics, marbles and pillow basalts, possibly marine rift section, with Langda diorite dated as 847 Ma. E Paleozoic includes Kora Fm clastics with Ordovician graptolites (Nemagraptus gracilis zone) and Silurian- Devonian Modio Dolomite with Frasnian and older corals. Unconformably overlain by Permian Aiduna Fm deltaic-marine clastics with thin calcarenites and high-rank coal. Tipuma Fm commonly assigned to Triassic but palynomorphs only show Late Permian and M Jurassic ages. M Jurassic Mapanduma and Kopai Fms deep marine M Jurassic shales- sandstones. Etc. Eilanden Metamorphics in E believed to be of Permo-Triassic age. Late magmatism/volcanism (7.1- 2.6 Ma), geochemically more shoshonitic than calk-alkaline)

Amiruddin (1998)- Geologi dan geokimia kerabat granit Anggi Permo-Trias di Blok Kemum, Kepala Burung, Irian Jaya. Jurnal Geologi dan Sumberdaya Mineral (JGSM), 8, 83, p. 11-24.
('Geology and geochemistry of the Permo-Triassic Anggi granite in the Kemum Block, Birds Head, Irian Jaya'. Permian- Triassic Anggi Granite along NE/ E margin of exposed Kemum Block. Associated with Kemum Fm metamorphosed Silurian-Devonian sediments (age metamorphism ~222-258 Ma), with contact aureole several 100m to 2 km wide. Mainly S-type granite, peraluminous adamellite, probably from partial melting of pelitic sediments. Also some quartz diorite. Associated with tin/ cassiterite mineralization (see also Amiruddin 2000))

Amiruddin (1999)- Characteristics of allochronous and autochronous suites with relation to the possibility of tin mineralization in Birds Head Region, Irian Jaya. In: I. Busono & H. Alam (eds.) Developments in Indonesian tectonics and structural geology, Proc. 28th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 1, p. 121-130.
(online at: https://www.iagi.or.id/web/digital/63/12.pdf)

(Two (Permian-) Triassic granite suites in Birds Head: Netoni Suite (I-type; allochthonous Tamrau Block, 225-245 Ma, post-tectonic?)) and Anggi Suite (S-type; autochthonous Kemum Block, 225-295 Ma, collision-volcanic arc?. Sn-W bearing pegmatitic float in Kemum Block points to presence of tin granite))

Amri, C., B.H. Harahap, P.E. Pieters & G.M. Bladon (1990)- Geology of the Sorong Sheet area, Irian Jaya. 1:250,000. Explanatory Notes. Geological Research Development Centre (GRDC), 70p.
(Explanatory notes with map sheet of western Birds Head/ Salawati-Batanta Islands region)

Amri, C., P. Sanyoto, B. Hamonangan, S. Supriatna, W. Simanjuntak & P.E. Pieters (1990)- Geological map of the Sorong Sheet, Irian Jaya, 2814, 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(Geologic map of westernmost part of Birds Head and Salawati, Batanta, Kofiau and Gag islands. With Kofiau-Batanta islands Late Eocene- E Miocene island arc volcanics and Sorong Fault tectonic melange zone in N. In S Salawati Late Miocene- Pliocene foreland basin with oil fields. Gag SW of Waigeo composed of ?Late Jurassic-Cretaceous? Gag ophiolite)

Ananda, D., Jamaluddin, W. Utomo, J. Wiyono, B.M. Ulfah, Amiruddin, N. Manik & A. Suprayitno (2025)- Source rock evaluation in the "Idea" Field, Bintuni Basin, West Papua: A geochemical approach. Jurnal Geocelebes 9. 1. p. 87-99.
(online at: https://journal.unhas.ac.id/index.php/geocelebes/article/view/43566/12785)
(Geochemical assessment of rock samples from four formations in unspecified well/field (probably at or near Wiriagar) indicates that Permian Ainim Fm exhibits highest source rock potential. Mostly Type III kerogen, suggesting significant portion of organic matteris gas-prone)

Anjani, L.P., S. Mardani, K. Ismail, A. Kurniasih & Y. Aribowo (2017)- Depositional facies analysis of Steenkool Formation with measured stratigraphy method Bintuni-Manimeri Lines, Bintuni Basin of West Papua. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, p. 1-12. *(in Indonesian)*
(online at: https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_Depositional-Facies-Analysis.pdf)
(Sedimentological field study of Late Miocene- Pliocene Steenkool Fm in onshore NE Bintuni Basin. Depisted in intertidal system/ tidal flat)

Anonymous (1916)- De uitkomsten der verrichtingen van de militaire exploratie in Nederlandsch Nieuw Guinea (voorlopige uitgave). Mededeelingen Bureau Bestuurszaken Buitenbezittingen, Encyclopaedisch Bureau, Batavia, XI, p. 1-35.
(online at: https://www.delpher.nl/nl/boeken/view identifier=MMKB24:079135000:00009)
('The results obtained from military exploration work in Netherlands New Guinea (preliminary edition). Summary of geological observations during multiple expeditions by Netherlands New Guinea military across western New Guinea in 1907-1915. No maps/figures)

Anonymous (1920)- Verslag van de militaire exploratie van Nederlandsch Nieuw Guinee 1907-1915. Departement van Oorlog in Nederlandsch-Indie, Landsdrukkerij, Weltevreden, p. 1-440.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB02A:000030818:00032)
('Report of the military exploration of Netherlands New Guinea 1907-1915'. Book summarizing general reconnaissance and topographic mapping expeditions by Netherlands Indies military detachments into various parts of the then unexplored territories of W Papua (these expeditions were of general reconnaissance nature and had no goals of occupying any parts of New Guinea). Including summary observations on geology from published and unpublished reports by Van Gelder, Feuilletau de Bruijn, Hubrecht and Heldring)

Anshori, R. (2018)- Chemostratigraphy of the Permian sediments in Bintuni area, Papua Barat Province. Proc. 42nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA18-77-G, p. 1-17.
(Permian sediments penetrated by several wells in Bintuni area mainly non-marine and deltaic facies, with gas in Vorwata-1 and Mogoi Deep-1 wells. Chemo-stratigraphy aids in stratigraphic correlation. Sediments likely sourced from acid-intermediate provenance)

Anshori, R., E.V. Yudhanto, D. Pasaribu, M.S. Wulansari, S.F. Konyorah & R. Mardani (2010)- Tertiary petroleum system elements overview in the Onin Peninsula, Papua. Proc. 34th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA10-G-036, p. 1-11.
(Outcrop traverse of Onin Peninsula. Two types of E Oligocene- M Miocene limestone: (1) well-bedded argillaceous globigerinid limestones and thin marls (Onin Lst) in S and (2) karst limestone (Ogar Lst) in N. Thickness of exposed Oligocene shale >5m in center and N, but poor source rock)

Aquantino, S., A. Muhartanto & T. Purwanto (2014)- Analisis fasies batugamping pada Formasi Kais berdasarkan data core, well log dan seismik pada lapangan KTR, Blok Walio, Papua Barat. MINDAGI (Trisakti University) 7, 1, p. 45-56.
('Limestone facies analysis of the Kais Formation based on core, well log and seismic data of KTR field, Walio Block, W Papua'. Study of Miocene carbonate buildup of oil field in Salawai Basin. 59 wells, 5 growth phases)

Archbold, N.W. (1981)- Permian brachiopods from western Irian Jaya, Indonesia. Geological Research Development Centre (GRDC), Bandung, Seri Paleontologi 2, p. 1-25.
(Early Permian (Latest Artinskian- early Kungurian) brachiopods in Aifat Fm in Taminabuam area, Birds Head. Assemblage 'remarkably similar to age-equivalent faunas in Ratburi Lst of (Peninsular) Thailand), suggesting geographic proximity of (Peninsular) Thailand and West Papua')

Archbold, N.W. (1981)- *Quinquenella magnifica* sp. nov. (Chonetidina, Brachiopoda) from the Permian of Irian Jaya, Indonesia: a study of the ontogeny of a chonetid brachiopod. Geological Research Development Centre (GRDC), Bandung, Seri Paleontologi 2, p. 2, 27-34.

Archbold, N.W. (1981)- New Permian trilobite from Irian Jaya, Indonesia. Geological Research Development Centre (GRDC), Bandung, Seri Paleontologi 2, p. 35-41.
(New species of Early Permian trilobite)

Archbold, N.W. (1991)- Late Paleozoic brachiopod faunas from Irian Jaya, Indonesia. In: D.I. McKinnon, D.E. Lee & J.D. Campbell (eds.) Brachiopods through time. Proc. Second Int. Brachiopod Congress, Dunedin 1990, Balkema, Rotterdam, p. 347-353.
(M Carboniferous- Permian brachiopods from Aifam- Aifat Formations of Birds Head)

Archbold, N.W. (1991)- Early Permian brachiopoda from Irian Jaya. BMR J. Australian Geology Geophysics 12, p. 287-296.
(online at: https://d28rz98at9flks.cloudfront.net/81296/Jou1991_v12_n4_p287.pdf)
(New E Permian (E Artinskian) brachiopod fauna from Aiduna Fm, from float boulder in upper Mapia River, S flank of Charles Louis Mountains, SW West Papua. New species of Neochonetes, Chonetinella, Aulostege, etc. Significant biogeographic links with E Permian faunas of W Australia and Peninsular Thailand)

Archbold, N.W., C.J. Pigram, N. Ratman & S. Hakim (1982)- Indonesian Permian brachiopod fauna and Gondwana-South-East Asia relationships. Nature 296, p. 556-558.
(First description of late E Permian articulate brachiopods in Birds Head. Assemblage similar to Peninsular Thailand Rat Buri Limestone, suggesting geographical proximity of Thailand and Irian Jaya in E Permian)

Archbold, R., A.L. Rand & L.J. Brass (1942)- Results of the Archbold Expeditions No. 41. Summary of the 1938/1939 New Guinea expedition. Bull. American Museum Natural History 79, 3, p. 197-288.
(Report on geographic-biological expedition to Central Range of West Papua. First westerners to visit Baliem valley. Little or no geology)

Ardi, R.D.W, N. Novandaru, Istiana, Alviyanda, R.Kapid, G.M.L. Junursyah & R.Y. Saragih (2019)- Middle Miocene biostratigraphy and paleo-oceanography of Supiori Island, Papua, based on calcareous nannofossil assemblages. Bulletin of Geology (ITB) 3, 3, p. 426-441.
(online at: https://buletingeologi.com/index.php/buletin-geologi/issue/view/9/P4)

(M Miocene calcareous nannofossils from three deep marine sections on Supiori Island, W of Biak, Schouten Islands. Thermocline/nutricline depth analysis using Discoaster abundance and size of Reticulofenestra and Coccolithus, indicate sea surface condition changes from oligotrophic (NN5-NN7) to eutrophic (early NN8) to oligotrophic (late NN8-NN9). Paleosalinity shift from normal saline (NN7) to hyposaline (NN8-NN9). Changes likely related to closing of Indonesian Seaway due to regional uplift)

Argakoesoemah, R.M.I. (2017)- Foldbelt exploration play in East Papua, Indonesia. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, p. 1-6.
(online at: https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_Foldbelt-Exploration-Play.pdf)
(Brief review of under-explored fold-and-thrust belt of West Papua. Proven hydrocarbon system in foldbelt, but, unlike in adjacent PNG, no commercial discoveries to date)

Argakoesoemah, R.M.I. (2018)- Paleogeography of Early Cretaceous Woniwogi and Toro sandstones, and Late Jurassic Kopai sandstone in Papua region (Indonesia) and Papua New Guinea. Proc. 42nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA18-257-G, p. 1-23.
(online at: www.researchgate.net/publication/325119036_PALAEOGEOGRAPHY_OF_EARLY_CRET Etc.)
(Review of E Cretaceous Woniwogi and Toro Sst and Late Jurassic Kopai Sst as crucial hydrocarbon reservoir targets. All are products of regression pulses during E Triassic- Late Cretaceous overall transgression. Valanginian Woniwogi (Alene) Sst well-developed in Birds Body and extends E into PNG. Berriasian Toro Sst only present in Digul region and PNG. Sediment provenance from Kemum and Arafura landmasses)

Argakoesoemah, R.M.I. & J.D.E. Hughes (2017)- A review of Mesozoic exploration plays in the southern part of onshore East Papua. In: SKK Migas, Petroleum systems of the Eastern Indonesia region- Guidance for hydrocarbon exploration in Eastern Indonesia, SKK Migas Memoir 1, Jakarta, p. 427-474. *(online at: https://www.pttep-indonesia.co.id/upload/files/publication/East_Papua_Exploration_Play_LOWRES.pdf)*
(Review of Mesozoic hydrocarbon plays in Central Range foldbelt and foreland of eastern West Papua and Papua New Guinea. No commercial oil in Indonesian part of main New Guinea island, but oil shows in Cross Catalina 1 and oil-gas in Kau 2 foreland basin wells prove working Mesozoic petroleum system)

Arifin, A.S., A. Fakhri, R.P. Putra, Soffan M.H. & N. Hayati (2017)- The important of new petroleum system developing in mature basin: a preliminary study of Pre Tertiary petroleum system in Salawati Basin. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, p. 1-4.
(online at: https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_The-Important-of-New-Petroleum.pdf)
(Kawista 1 well (2013) in W Salawati basin tested oil in Eocene Faumai Lst, different from oils in shallower horizons: very low in oleanane, and probably derived from Pre-Tertiary source (e.g. Fusulina-bearing Permian in Orba 1, Jurassic- Cretaceous in Sele 39 and Klamogun 1)

Aswan, N.I. Basuki & Thaw Zin Oo (2017)- Jurassic and Paleocene ichnofossil study of core camples from Bintuni Basin- Eastern Indonesia- comparison between shallow and deep marine ichnofossil associations. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, p. 1-4.
(online at: https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_Jurassic-and-Paleocene_compressed.pdf)
(Study of ichnofossils in neritic Jurassic and deep marine Paleocene reservoir sandstones of unnamed oil exploration wells in Bintuni basin, West Papua)

Aswan, A. Rudyawan & T. Zin Oo (2018)- Ichnofossils study of Paleocene sediment source rock cores from Bintuni basin, West Papua, Eastern Indonesia. Proc. 1st Int. Conf. Maritime Sciences and Advanced Technology, Denpasar 2017, IOP Conference Series: Earth and Environmental Science 162, 012034, p. 1-8.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/162/1/012034/pdf)
(Ichnofossils from Paleocene Waripi- Daram Fms in two Bintuni Basin BP wells: 18 ichnogenera. Ichnofossil associations suggest at least three deepening-shallowing cycles, with inner-middle neritic intervals characterized by Ophiomorpha and Chondrites, while outer neritic- upper bathyal facies contain Zoophycos, Helminthoida, Nereites, Spirophyton and abundant of Phycosiphon)

Atmawinata, S., A.S. Hakim & P.E. Pieters (1989)- Geological map of the Ransiki Sheet Area, Irian Jaya, 1:250,000 Scale. Geological Research Development Centre (GRDC), Bandung.
(Geologic map of E part of Birds Head. Most of sheet Kemum Paleozoic continental terrane with E Triassic Anggi granite intrusive. Kemum Block bordered in NE by Arfak Volcanics, separated by Ransiki Fault. In SE corner NE termination of Lengguru foldbelt and Bintuni Basin)

Atmawinata, S. & N. Ratman (1982)- Struktur geologi Pulau Yapen dan hubunganya dengan Lajur sesar Sorong. Proc. 11th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 1-6.
(online at: https://www.iagi.or.id/web/digital/35/PIT-IAGI-1982-Paper-1.pdf)
('Geological structure of Yapen Island and its relation with the Sorong fault'. Yapen island qith Yapen strike-slip fault zone, which probably links to Sorong Fault Zone in Birds Head))

Atmawinata, S., N. Ratman & P.E. Pieters (1989)- Geological map of the Yapen Sheet Area, Irian Jaya, Geological map, 1:250,000 scale, Quadrangles 3114 and 3214, Geological Research Development Centre (GRDC), Bandung. *(Map and Explanatory notes, 33p)*
(Yapen Island outcrops dominated by Late Eocene- E Miocene Yapen Fm arc volcanics, underlain by basic ?Cretaceous-Paleocene? basic volcanics, and overlain by E-M Miocene Wurui Limestone. Young WNW-ESE fault systems; Jobi Fault system in NE with ophiolitic breccia with serpentinite, gabbro, basalt)

Atmoko, P.W., S. Chandrahayat & R. Avianto (2014)- Identification of geological structures and its implication for hydrocarbon opportunities in Semai III Block, West Papua. Proc. 43rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, PIT IAGI 2014-005, p. 1-10.
(online at: https://www.iagi.or.id/web/digital/6/2014_IAGI_Jakarta_Identification-Of-Geological.pdf)
(Semai III offshore block between Onin Island in NE and Seram Trough in SW. 2D seismic shows NW-SE trending anticline and thrust fault resulting from sinistral strike-slip system of Sorong Fault Zone. Crest of anticline in Semai III blocks higher than surrounding blocks in offshore Semai area)

Audley-Charles, M.G. (1991)- Tectonics of the New Guinea Area. Annual Review Earth Planetary Sciences 19, p. 17-41.
(Review of New Guinea tectonic/ geology. With little or no new data)

Audretsch, F.C. d', R.B. Kluiving & W. Oudemans (1965)- Economic geological investigation of the N.E. Vogelkop (New Guinea). Verhandelingen Kon. Nederlands Geologisch Mijnbouwkundig Genootschap, Geologische Serie 23, p. 1-151.
(NE Birds Head geological survey. Arfak Mountains with Oligocene- E Miocene Auwewa Fm volcanics)

Axelrod, D.I. & P.H. Raven (1982)- Paleobiogeography and origin of the New Guinea flora. In: J.L. Gressitt (ed.) Biogeography and ecology of New Guinea, Junk, The Hague, p. 919-941.

Babault, J., M. Viaplana-Muzas, X. Legrand, J. Van den Driessche, M. Gonzalez-Quijanoe & S.M. Mudd (2018)- Source-to-sink constraints on tectonic and sedimentary evolution of the western Central Range and Cenderawasih Bay (Indonesia). J. Asian Earth Sciences 156, p. 265-287.
(manuscript online at: https://hal-insu.archives-ouvertes.fr/insu-01713153/file/Babault-2018.pdf)
(Cenderawasih Bay contains >8 km thick series of undated sediments. Suggest sediments started to accumulate in Cenderawasih Bay and onshore Waipoga Basin in Late Miocene since inception of growth of Central Range (12 Ma), resulting in up to 12.2 km sediment accumulation. Basin fill probably mainly siliciclastics from Rouffaer Metamorphic Belt and equivalent in Weyland Overthrust, with minor contributions from ophiolites, volcanic arc rocks and diorites. Local transtensional tectonics may explain unusually high rates of sedimentation in overall sinistral oblique convergence setting)

Bachri, S. (2014)- Kontrol tektonik dan struktur geologi terhadap keterdapatan hidrokarbon di daerah Papua. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 15, 3, p. 133-141.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/53/55)
('Tectonic and structural geological geological controls on the occurrence of hydrocarbon in the Papua region')

Bachri, S. & Surono (2002)- Identification of the active Rombebai fault zone, Papua (Irian Jaya) and its sedimentological aspects. Bull. Geological Research Development Centre 22, p. 41-48.
(Left-lateral Rombebai Fault zone is onshore continuation of E-W trending Yapen fault zone)

Bachri, S., Surono & S.S. Bawono (1997)- A Pliocene deltaic- tidal flat succession of the Kurudu Formation in Irian Jaya, Eastern Indonesia. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 7, 68, p. 11-20.
(Outcrop study of Pliocene Kurudu Fm sands-shales at S coast of Kurudu Island near Yapen, off NW New Guinea mainland coast. Kurudu Fm unconformably overlies ?Miocene Jobi Ophiolite Breccia, Miocene Wurui Lst and Late Eocene- E Miocene Yapen Volcanics. Provenance 'Recycled Orogen', probably from Yapen Volcanics and Mesozoic- E Tertiary Rosburi Schist)

Baharuddin (2007)- Ciri petrologi dan geokimia batuan gunungapi Yapen, Papua. Jurnal Sumber Daya Geologi (JSDG) 17, Special Issue (163), p. 3-10.
('Petrology and geochemistry of volcanic rocks of Yapen, Papua'. Volcanic rocks exposed on Yapen mainly basalt-andesites of Tertiary Arfak Volcanic complex. Geochemistry of island arc type, inferred to be related to subduction of Pacific Plate beneath Papua continental crust)

Bailey, S.W., J.F. Banfield, W.W. Barker & G. Katchan (1995)- Dozyite, a 1:1 regular interstratification of serpentine and chlorite. American Mineralogist 80, p. 65-77.
(Dozyite new mineral involving interstratification of serpentine and chlorite units. Occurs as colorless crystals in altered skarn adjacent to Ertsberg East copper-gold mine in W Papua. Named after J.J. Dozy, Dutch Shell geologist who discovered and named Ertsberg ore province in 1936)

Baillie, P.W., J. Decker, P. Gilleran, T. Johnstone, D.L. Orange & P.A. Teas (2025)- Hydrocarbon generation and seepage in an emerging fold-and-thrust belt, Cenderawasih Bay, Indonesia. Berita Sedimentologi 51, 1, p. 1-18.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/465/447)
(Cenderwashih Bay in West Papua with seafloor hydrocarbon seepage, suggesting an active petroleum system within emerging fold-and-thrust belt)

Bailly, V., M. Pubellier & J.C. Ringenbach (2008)- Structure of the Lengguru fold-and-thrust belt, New Guinea island: consequence of rapid kinematic changes. Abstracts 33rd International Geological Congress, Oslo 2008 *(Abstract)*
(Main structures of Lengguru Foldbelt controlled by Late Miocene- E Pliocene NE-SW compression against ophiolitic or arc backstop. Thin-skinned thrusting of Mesozoic and Tertiary sediments over previously structured basement followed by thick-skinned thrusting. Late Pliocene-Quaternary deformation (still active) is extensional with exhumation of Wandamen Metamorphic Complex in internal zone and NE-SW collapses along high-angle normal faults (Triton Bay) cross-cutting folds in external zone. Structuring of LFTB over short time; NE-SW compression in Late Miocene-E Pliocene and Late Pliocene-Quaternary extension in whole range)

Bailly, V., M. Pubellier, J.C. Ringenbach, J. de Sigoyer & F. Sapin (2009)- Deformation zone 'jumps' in a young convergent setting; the Lengguru fold-and-thrust belt, New Guinea Island. Lithos 113, p. 306-317.
(online at: http://www.geologie.ens.fr/spiplabocnrs/IMG/pdf/Bailly_et_al-_2009.pdf)
(Lengguru foldbelt young orogen. Shortening ceased recently and now under extension. Two superimposed prisms of stacked Mesozoic marine sediments of Australian margin against crustal buttress, formed after 11 Ma. Internal part of Lengguru fold belt active E-W extension, coeval with transition from compressive to transtensional regime in C Range, and onset of Tarera-Aiduna and Paniai left-lateral faults. Late Miocene NE-SW compression linked to subduction. Evolution of belt reflects rapid changes in accommodation of oblique shortening, with isolated orogenic wedge of Lengguru fold-and-thrust belt left to collapse. At lithospheric scale, deformation remains rooted at suture zone, but at surface shortening spread over large area in short time span prior to being transferred to other plate boundary)

Bailly, V., J. de Sigoyer, M. Pubellier & J.C. Ringenbach (2011)- The Bird's Neck: new data, new interpretation. Proc. 35th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA11-G-229, p. 1-7.

(Lengguru foldbelt formed by Late Miocene- E Pliocene NE-SW compression linked to subduction, followed by Late Pliocene- Quaternary extension in whole range and exhumation of high pressure metamorphic rocks. Last stage linked to deformation zone jump to S onto Seram wedge. Wandamen Peninsula metamorphics new high P and T estimates (S1 high P schistosity ~12 kbar, 600°C, followed by S2 N-S stretching at 6-8 kbar, 680-730°C). Zircon metamorphic rims in samples characterized by high P paragenesis ages of ~8-7 Ma, zircon ages from more retrogressed samples ~5- 6 Ma. Zircon cores ages of 388±27 Ma, 636±32, 736±30 Ma and 1484±49 Ma)

Baker, G. (1955)- Basement complex in the Cycloop Ranges-Sentani Lake region of Dutch New Guinea. Part 1. Distribution, nature and chemical composition. Nova Guinea 6, 2, p. 307-328.
(Cyclops Ranges of N New Guinea metamorphic rocks with dominant amphibole minerals actinolite-glaucophane. With serpentinites (derived from harzburgite and dunite), gabbro, tholeiitic dolerite)

Baker, G. (1956)- Basement complex in the Cycloop Ranges-Sentani Lake region of Dutch New Guinea. Part II: Opaque minerals in the basement complex rocks. Nova Guinea 7, 1, p. 15-31.

Baker, G. (1956)- Basement complex in the Cycloop Ranges-Sentani Lake region of Dutch New Guinea. Part III: Comparisons, suggested origin and formational history of the basement complex rocks. Nova Guinea 7, 1, p. 31-39.

Baker, T.A. (2022)- Structural Analysis of the Lengguru Fold and Thrust Belt, Irian Jaya, Indonesia. B.Sc. (Honours) Thesis, University of Wollongong, p. 1-67.
(online at: https://ro.uow.edu.au/articles/thesis/Structural_Analysis_of_the_Lengguru_Fold_and_Thrust_Belt_Irian_Jaya_Indonesia/27670245?file=50393976)
(Lengguru fold-thrust Belt in W Irian Jaya has undergone several deformation events over past 5 Ma, due to crustal movement between Australian, Caroline and Pacific tectonic plates. With series of cross-sections depicting minimum amount of shortening (only 1-3% ?; seems low; JYvG). Not much new)

Baldwin, S.L., P.G. Fitzgerald & L.E. Webb (2012)- Tectonics of the New Guinea Region. Annual Review Earth Planetary Sciences 40, p. 495-520.
(online at: http://www.uvm.edu/~lewebb/papers/Baldwin%20et%20al%202012%20New%20Guinea.pdf)
(New Guinea region evolved in obliquely converging Australian-Pacific plate boundary zone, with microplate formation and rotation, lithospheric rupture to form ocean basins, arc-continent collision, subduction polarity reversal, collisional orogenesis, ophiolite obduction and exhumation of high-pressure metamorphic rocks)

Baline, L.M. (2007)- Hydrothermal fluids and Cu-Au mineralization of the Deep Grasberg porphyry deposit, Papua, Indonesia. Master's Thesis University of Texas, Austin, p. 1-269. *(Unpublished)*
(online at: https://repositories.lib.utexas.edu/handle/2152/40282)
(Deep Grasberg is deepest explored part of Grasberg Igneous Complex (GIC) at elevations between 2450-3050m (>1100m below pre-mining surface). Copper-gold deposit hosted by three quartz-monzonite to diorite units, emplaced at ~3 Ma)

Bar, C.B., H.J. Cortel & A.E. Escher (1961)- Geological results of the Star Mountains (Sterrengebergte) expedition (Central Range, Netherlands New Guinea). Nova Guinea (Geology) 4, p. 39-99.
(Central Range characterized by block faulting rather than folding, is bordered to N by intensely folded metamorphic complex and to S by relatively stable zone. Basic igneous intrusive and extrusive rocks overlain by hard, silicified fine-grained probably lower Paleozoic clastics, Mesozoic Bon and Kembelangan Fms and thick Upper Tertiary deposits)

Bar, C.B. & K.A. Rijsterborgh (1958)- Geological survey of the East Digoel hinterland. Nederlands Nieuw Guinea Petroleum Maatschappij (NNGPM), Geological Report 441, p. . *(Unpublished)*

Bartstra, G.J. (ed.) (1998)- Bird's Head approaches. Modern Quaternary Research in Southeast Asia 15, Balkema, Rotterdam, p. 1-258.
(online at: https://www.papuaerfgoed.org/sites/default/files/collectie/files/2006-05/Bartstra_1998_Birds.pdf)

(1997 Symposium volume with geologic overviews of Birds Head by Dam & Wong, etc., followed by archeology papers)

Beets, C. (1986)- Neogene Mollusca from the Vogelkop (Bird's Head Peninsula), West Irian, New Guinea. Scripta Geologica 82, p. 101-134.
(online at: https://repository.naturalis.nl/pub/317460)
(Description of molluscs collected by BPM in Klasaman Fm of West Birds Head in 1930. Subsequently dated as 'Late Miocene- Plio-Pleistocene' on basis of foraminifera by NNGPM. 35 species identified. Age determination difficult. Some species belong to genera whose living species are restricted to Australian waters)

Belford, D.J. (1974)- Foraminifera from the Ilaga valley, Nassau Range, Irian Jaya. Bureau Mineral Resources Geology Geophysics (BMR), Bull. 150, p. 1-26.
(online at: www.ga.gov.au/corporate_data/116/Bull_150.pdf)
(Foraminifera from samples collected by D.B. Dow during his hike through the Ilaga Valley towards the Carstensz peaks, include Late Eocene (Discocyclina, Nummulites, Lacazinella, etc.) and Late Oligocene and E-M Miocene larger forams from Carstensz limestone and Late Oligocene N3 planktonics from marly interbeds)

Belford, D.J. (1989)- Early Eocene planktonic foraminifera, Irian Jaya. Geological Research Development Centre (GRDC), Bandung, Seri Paleontologi 5, p. 22-49.
(Description of rich Early Eocene zone P9 planktonic foram fauna from deep water calcareous siltstones in Lengguru foldbelt, Birds Neck, W Papua)

Bemelmans, J.L.H. (1955)- Verslag van een geologisch onderzoek in de oostelijke Vogelkop, Nieuw Guinea- Slotrapport. IIe Technische Hogeschool Expeditie 1953, Delft, Technische Hogeschool Geologisch Laboratorium Rapport 10, p. 1-39.
('Report on a geological investigation of the eastern Birds Head- Final report of 2nd geologic expedition of Delft Technical University')

Bemelmans J.L.H. (1956)- Uebersicht der Ergebnisse der II geologischen Expedition der Technischen Hochschule nach Niederlandisch Neu Guinea in 1953. Nova Guinea, n.s., 7, 2, p. 147-152.
('Overview of the results of the 2nd geologic expedition of Delft Technical University to Netherlands New Guinea in 1953'. Investigated economically unimportant Plio-Pleistocene lignite bed S of Sorong and possible ore deposits in granite contact zones of Anggi lake and Ransiki regions. Evidence of pegmatitic- pneumatolytic processes, but no economically significant ore deposits found)

Bensaman, B., R. Al Furqan, M.F. Rosana & E.T. Yuningsih (2015)- Hydrothermal alteration and mineralization characteristics of Gajah Tidur Prospect, Ertsberg Mining District, Papua, Indonesia. In: ICG 2015, 2nd Int. Conf. and 1st Joint Conf. Faculty of Geology Universitas Padjaran and University of Malaysia Sabah, p. 17-25.
(online at: http://seminar.ftgeologi.unpad.ac.id/wp-content/uploads/2016/02/Hydrothermal-Alteration-and-Mineralization-Characteristics-of-Gajah-Tidur-Prospect-Ertsberg-Mining-District-Papua-Indonesia.pdf)
(Gajah Tidur prospect deepest explored part of Grasberg Igneous Complex at 1600- 3000m elevation, almost 2.5 km below pre-mining surface. Bottom of Grasberg Cu-Au porphyry ore body at ~2750m elevation)

Bensaman, B., M.F. Rosana & E.T. Yuningsih (2024)- High sulphidation mineralization and advanced argillic alteration within concealed Gajah Tidur porphyry, Grasberg District, Papua. Indonesian J. on Geoscience (IJOG) 11, 1, p. 15-33.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/988/443)
(Gajah Tidur is a 3.4 Ma deep, Cu-Mo porphyry prospect in Gajah Tidur monzodiorite in Grasberg Igneous Complex, West Papua. Older than main Grasberg Cu-Au mineralization)

Benz, H.M., M. Herman, A.C. Tarr, G.P. Hayes, K.P. Furlong, A. Villasenor, R.L. Dart & S. Rhea (2013)- Seismicity of the Earth 1900-2012, New Guinea and vicinity. U.S. Geological Survey (USGS) Open File Report 2010-1083-H, 1p.
(online at: http://pubs.usgs.gov/of/2010/1083/h/)

(Earthquake distributions from Sulawesi/Sumba in W to New Hebrides Trench in E)

Bernadi, B., A. Reksahutama, I.G.A.N.Intan, Sarah, D.K. Duha, E.S. Silalahi & D. Miraza (2018)- Revitalization of Walio mature oil fields by identifying untapped oil in low quality reservoirs. Proc. 42nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA18-158-E, p. 1-28.
(Walio oil field 1973 discovery in Salawati Basin, mainly producing from Miocene-Kais reefal limestone. Producing since 1975 from >300 wells, with oil production peak at 57,800 BOPD in 1977-1978. Current oil production ~2200 BOPD with >99% water-cut. Oil API 33.1°. Strong aquifer support contributed to rel. high reservoir recovery factor (~44%). Poor-quality reservoir intervals may still be untapped))

Bertoni, C. & J.A. García (2012)- Interplay between submarine depositional processes and recent tectonics in the Biak Basin, Western Papua, Eastern Indonesia. Berita Sedimentologi 23, p. 42-46.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/192/162)
(Bathymetry and seismic data suggest offshore Biak Basin, between Biak and Yapen Islands, is transtensional pull-apart basin. Deposition along basin margins is strongly influenced by young, active faulting)

Biantoro, E. & A. Luthfi (1999)- The pre-collision basin configuration in Bintuni area, Irian Jaya: an alternative idea of hydrocarbon potential in Pre-Tertiary sediments. In: I. Busono & H. Alam (eds.) Developments in Indonesian tectonics and structural geology, Proc. 28th Annual Conv. Indonesian AssociationGeol. (IAGI), Jakarta, 1, p. 17-32.
(online at: https://www.iagi.or.id/web/digital/63/2.pdf)
(Bintuni Basin three tectonic phases: Permo-Triassic pre-rift, Jurassic- E Tertiary synrift (NW-SE half-grabens and re-activated folds) and Tertiary syntectonic phase. Latest tectonic phase Plio-Pleistocene (Sorong Fault Zone, Lengguru foldbelt))

Bijlmer, H.J.T. (1938)- De Mimika-expeditie 1935-1936 naar Centraal Nieuw Guinea. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2), 54, p. 240-260.
(Summary of (mostly anthropologica- ethnographicl) Mimika Expedition to W part Central Range of West Papua)

Biq, C.C. (1978)- Taiwan vis-a-vis New Guinea: a comparison of their continent-arc collisions. Acta Oceanographica Taiwanica 8, p. 22-42.
(online at: tao.wordpedia.com/pdf_down.aspx?filename=JO00001053_8_22-42)
Taiwan and New Guinea collisional belts represent comparable continental platform- foldbelt- arc (ocean) successions. Sutures on both islands are zone of ophiolitic melange)

Birt, C., B. Boyd & A. Nugraha (2015)- Evolution and karstification of the Eocene-Miocene carbonates overlying the Tangguh gas fields in Western Papua- observations from 3D seismic and impact on drilling operations. Proc. 39th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA15-G-302, p. 1-17.
(Tangguh structures NW-SE trending anticlines formed in Late Eocene- Oligocene due to collision between Australian and Pacific plates, modified by Late Miocene-Pliocene transpression, when Lengguru Foldbelt and Bintuni foreland basin developed. Eocene-Miocene Faumai and Kais karsted carbonates overlie Jurassic-reservoired gas fields of Tangguh area and present significant drilling challenges. E-M Eocene Faumai Fm with angular unconformity below E-M Miocene Base Kais (missing time-gap ~14 Myrs) (not recognized as significant time-gap elsewhere in 'Birds Body' of Papua?)

Birt, C., S. Dee, S. Wospakrik & M. Fitriannur (2017)- Estimating the amount of lateral movement on re-activated strike slip faults at the Tangguh gas fields- implications for reservoir mapping and structural compartmentalization. Proc. 41st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA17-389-G, p. 1-24.
(Bintuni Bay area with Tangguh gas fields with 3-way and 4-way closures formed by late strike-slip movement. Long tectonic history: (1) Permian extension generated NW-SE grabens; (2) Inversions in Late Triassic, causing truncations at Base Jurassic unconformity and onlapping E-M Jurassic, thickening to S and E; (3) ?M-L Eocene-Oligocene ENE-WSW left-lateral strike-slip faults, with ~2 km or more displacement, and truncation at Base Oligocene unconformity (base Kais carbonate); (4) Late Miocene- E Pliocene tilting due to flexural loading of

Lengguru FB, and (5) Late Pliocene-Pleistocene left-lateral strike slip after Lengguru FB lockup, with several 100m of displacement)

Birt, C., D. Priyambodo, S. Wolfarth, J. Stone & T. Manning (2020)- The value of high-density blended OBN seismic for drilling and reservoir description at the Tangguh gas fields, Eastern Indonesia: The Leading Edge 39, 8, p. 574-582.

Bladon, G.M. (1988)- Catalogue, appraisal and significance of K-Ar isotopic ages determined for igneous and metamorphic rocks in Irian Jaya. Geological Research Development Centre (GRDC), Preliminary Geological Report, p. *(Unpublished)*
(2.2-2.9 Ma igneous intrusions in Birds Head, Enarotali, Waghete, etc., areas (Pigram & Sukanto 1989). Netoni granite in N Birds Head hornblende K-Ar ages between 241-208 Ma (M-L Triassic),but younger age results from biotite and plagioclase. Anggi Granite 243-225 Ma, Wariki Granodiorite (258-226 Ma, etc.)

Boehm, G. (1913)- Unteres Callovien und Coronaten-Schichten zwischen MacCluer Golf und Geelvink-Bai. Nova Guinea- Resultats des expeditions scientifiques a la Nouvelle Guinee en 1903, 6, Geologie, 1, Brill, Leiden, p. 1-20. *(online at: https://ia800301.us.archive.org/10/items/novaguinearsulta61913nede/novaguinearsulta61913nede.pdf)*
('Lower Callovian and Coronatus beds between MacCluer Gulf (Bintuni Bay) and Geelvink (=Cenderawasih) Bay' Middle Jurassic (Bajocian- Lower Callovian) ammonites collected from Upper Aramasa River, S of Bintuni Bay, and by Wichmann from Mamapiri and Papararo rivers in Wendesi area on W side Cenderawasih Bay. Most common species Macrocephalites keeuwensis and Phylloceras mamapiricum (Looks like typical Gondwanan Neotethys margin assemblage, similar to Tethyan Himalayas; JTvG))

Boro, H. & B. Sapiie (2003)- Structural geology of Ertsberg intrusion and its relationship to Papua foldbelt in the Guning Bijih mining district, Papua. Proc. 29th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 1-12.
(Two deformation events around Ertsberg mine: (1) Mio-Pliocene NW trending foldbelt, (2) Pliocene left-lateral strike-slip deformation, with emplacement of Ertsberg Intrusion)

Boureau, E. & W.J. Jongmans (1955)- *Novoguineoxylon lacunosum* n.gen., n.sp., bois fossile de cycadophyte de la Nouvelle-Guinee hollandaise. Revue Generale Botanique 62, p. 720-734.
('Novoguineoxylon lacunosum n.gen., n.sp., new cycadophyte fossil wood from Netherlands New Guinea'. New wood species of supposedly Jurasssic age, collected by NNGPM geologists from fluvial 'Jass Fm' in Kamundan River area of central Birds Head (wood reportedly similar to Australoxylon mondii described from U Permian of East Antarctica; Permian age more likely according to Bamford & Philippe 2001))

Brash, R.W., L.F. Henage, B.H. Harahap, D.T. Moffat & R.W. Tauer (1991)- Stratigraphy and depositional history of the New Guinea limestone group, Lengguru, Irian Jaya. Proc. 20th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 67-84.
(Mobil field program in Lengguru Foldbelt. Extensive Paleocene- early Late Miocene carbonate platform, 1000-1600m thick. 6-7 zones distinguished. Middle-Late Eocene limestone in backreef facies with Lacazinella wichmanni. In most places Early Oligocene unconformable over M Eocene. After Rupelian erosion (with reworked Eocene clasts) carbonate deposition resumed by latest E Oligocene with deposition of Sirga Fm with Nummulites fichteli and Lepidocyclina (Eulepidina) (zone Td))

Broili, F. (1924)- Zur Geologie des Vogelkop (N.W. Neu-Guinea). Dienst Mijnbouw Nederlandsch Oost-Indie, Wetenschappelijke Mededeelingen 1, p. 1-15.
('On the geology of the Birds Head (NW New Guinea)'. Early paper on Birds Head geology, recognizing Permo-Carboniferous with brachiopods (Chonetes, Martinia) and solitary coral (Amplexus coralloides) from Kamoendan River area, Late Jurassic (Oxfordian) with belemnites (Belemnites gerardi) and molluscs (Inoceramis galoi, Posidonomya) from Itegere River, NE Birds Head, etc. Good cross-section)

Brouwer, H.A. (1924)- Bijdrage tot de geologie der Radja Ampat eilanden-groep (Waigeoe, Salawati, etc.). Jaarboek Mijnwezen Nederlandsch Oost-Indie, Verhandelingen 52 (1923), p. 63-136.
('Contribution to the geology of the Raja Ampat islands'. Early paper on geology of Waigeo, N Salawati, Pulau Snapan, Batang Pale and Jen islands)

Budirumantoyi, P. Silalahi, F. Meiriyanto, B. Antoro, W.Sunyoto, L. Soebari, G. de Jong et al. (2015)- Deep Mill Level Zone (DMLZ) of East Ertsberg Skarn System (EESS), Papua; Geology factors of disking core in DMLZ Mine. Proc.. TPT XXIV dan Kongres IX PERHAPI, Jakarta 2015, p. 90-98.
(East Ertsberg Skarn System is sub-vertical zone of Cu-Au mineralization hosted in both diorite (vein-style mineralization) and skarn (disseminated and vein style mineralization). Deep Mill Level Zone mineralization hosted and enclosed by Main Ertsberg Intrusion which barren on all sides and above DMLZ)

Bulman, O.M.B. (1964)- Lower Palaeozoic plankton. Quarterly J. Geological Society of London, 120, p. 455-476.
(General review of graptolites, with mention of Late Silurian Monograptus turriculatus from Kemum Fm of North Central Birds Head, collected by NNGPM geologists)

Casarta, L.J., J.P. Salo, S. Tisnawidjaja & S.T. Sampurno (2004)- Wiriagar Deep: the frontier discovery that triggered Tangguh LNG. In: R.A. Noble et al. (eds.) Proc. Deepwater and Frontier Exploration in Asia & Australia Symposium, Jakarta, Indonesian Petroleum Association (IPA), p. 137-157.
(Wiriagar Deep-1 first commercial pre-Tertiary gas discovery in Indonesia (1994). Five subsequent gas discoveries combined in Tangguh LNG Project, with reserve potential of 24 TCF. Two main M Jurassic reservoir horizons, sourced from Late Permian coals. Unconformity between Late Permian and Jurassic, with Triassic sediments generally absent or thin redbeds. Jurassic sands shallow marine in transgressive systems tract, onlapping 'Permo-Triassic Rift Unconformity' in N direction. Cretaceous uplift, Late Cretaceous subsidence, Oligocene early compression, Miocene NW-SE trending anticline formation. Late Miocene-Pleistocene Bintuni Basin foreland creation lead to maturation)

Challinor, A.B. (1989)- Early Cretaceous belemnites from the central Bird's Head, Irian Jaya, Indonesia. Publ. Geological Research Development Centre (GRDC), Bandung, Seri Paleontologi 5, p. 1-21.
(Description of E Cretaceous belemnites from central Birds Head collected by S.K. Skwarko from Jass Fm calcareous mudstone and sandstone. Assigned Hauterivian age)

Charlton, T.R. (1991)- Evolution of the Sorong Fault Zone, Northeast Indonesia. American Assoc. Petroleum Geol. (AAPG) Bull. 75, 3, p. 75. *(Abstract)*
(Sorong FZ zone of left-lateral shear at triple junction of three plates, with fragments of New Guinea margin detached and translated W until collision with E margin of Eurasia in Sulawesi. Recent investigations suggest less mobilist interpretation. Closest inter-island geological correlations are between geographically closest islands (e.g. Banggai-Sula-S Obi; N Obi-Bacan; W Halmahera-E Halmahera-Waigeo; Misool-Buru-Seram), favoring more conservative reconstructions. Although arc-continent collision started in New Guinea in M Oligocene and slightly later in Sulawesi, SFZ did not develop before Late Miocene)

Charlton, T.R. (1996)- Correlation of the Salawati and Tomori basins, eastern Indonesia: a constraint on left-lateral displacements of the Sorong fault zone. In: R. Hall & D. Blundell (eds.) Tectonic evolution of Southeast Asia, Geological Society, London, Special Publ. 106, p. 465-481.
(online at: https://www.researchgate.net/publication/240675098_Correlation_of_the_Salawati_and_Tomori_Basins_eastern_Indonesia_A_constraint_on_left-lateral_displacements_of_the_Sorong_fault_zone)
(Birds Head Salawati Basin and E Sulawesi Tomori Basin similar Mesozoic-Tertiary stratigraphies and may have formed one single basin prior to the development of the Sorong Fault Zone)

Charlton, T.R. (1998)- Yapen island: a right-lateral paradox in the left-lateral 'North New Guinea megashear': implications for the biogeography and geological development of the Bird's Head, Irian Jaya. In: J. Miedema et al. (eds.) Perspectives on the Bird's Head of Irian Jaya, Indonesia, Editions Rodopi, Amsterdam, p. 783-796.

(online at: www.researchgate.net/publication/299369124_Yapen_Island_a_right-lateral_paradox_in_the_left-lateral_'North_New_Guinea_Megashear'_Implications_for_the_biogeography_and_geological_development_of_the_Bird's_Head_Irian_Jaya)
(Early movement along Yapen Fault Zone (M-L Miocene- E Pliocene); left lateral, since later E Pliocene. Proposes Pliocene anticlockwise rotation of Birds head as mechanism for opening of Cenderawasih Bay)

Charlton, T.R. (2000)- Late Cretaceous evolution of the Bird's Head, Irian Jaya: a failed rift ? AAPG International Conference, Bali 2000 *(Abstract)*
(Late Cretaceous Jass Megasequence bathyal succession with local volcanics varies in thickness and developed above Intra-Cretaceous unconformity. Sediments above unconformity onlap onto structural high near Kalitami-1, C Bintuni Basin. Late Cretaceous Birds Head was site of N-S extension, probably related to separation of continental terrane from N of E Irian Jaya/PNG. Extension started in ~Turonian and continental margin terrane separated from Greater Australia in Maastrichtian. By end-Cretaceous C and S Bird's Head formed subsiding block-faulted terrane, with emergent Kemum block high to N. Oligocene initiation of arc-continent collision produced structures in Mesozoic section and structural ridges on which Miocene Kais reefs nucleated)

Charlton, T.R. (2010)- The Pliocene-Recent anticlockwise rotation of the Bird's Head, the opening of the Aru Trough- Cendrawasih Bay sphenochasm, and the closure of the Banda double arc. Proc. 34th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta 2010, IPA10-G-008, p. 1-18.

Chevallier, B. & M.L. Bordenave (1986)- Contribution of geochemistry to the exploration in the Bintuni Basin. Proc. 15th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 439-460.
(Late Tertiary clastics and carbonates in Bintnui Basin marginal source potential and mostly immature. Oils from Wasian, Mogoi, Wiriagar thermally mature. Mogoi and Wasian oils may be sourced by Permian Aifat Fm, Wiriagar oil from M Jurassic)

Chiaradia, M. (2020)- Gold endowments of porphyry deposits controlled by precipitation efficiency. Nature Communications 11, 248, p. 1-10.
(online at: www.nature.com/articles/s41467-019-14113-1.pdf)
(Cu-richest (Au-poor) porphyries related to Andean-type subduction and typical calc-alkaline magmatism; Au-richest porphyries associated with high-K calcalkaline to alkaline magmatism in late to post-subduction or post-collision and extensional settings, and subordinately with calc-alkaline magmatism. Ok Tedi and Grasberg Cu-Au deposits in New Guinea associated with lower Sr/Y, high-K calc-alkaline to alkaline magmas in complex late subduction, post-subduction and post-collision or extensional back-arc settings)

Cloos, M. (1997)- Anatomy of a mine: the discovery and development of Grasberg. Geotimes Jan. 1997, p. 16-20.

Cloos, M. (1997)- Geology and the Grasberg: a model for joint industry and academic research. Geotimes, Sept. 1997, p. 19-22.
(Report on scientic collaboration between PT Freeport Indonesia and University of Texas)

Cloos, M. (2008)- Grasberg porphyry copper-gold deposit, Papua, Indonesia- structural setting and hydrothermal system. In: The Pacific Rim: mineral endowment, discoveries and exploration frontiers, Proc.AusIMM PACRIM Congress 2008, Gold Coast, p. 3-6. *(Abstract only)*

Cloos, M. (2013)- Origin of the giant Cu-Au ore bodies of the Ertsberg District in Papua, Indonesia: collisional delamination, a bubbling magma chamber, and throttling cupolas. In: N.I. Basuki (ed.) Proc. Papua and Maluku Mineral Resources, Indonesian Soc. Economic Geologists (MGEI) Annual Convention, Kuta, Bali, p. 151-158.

Cloos, M. & T.B. Housh (2008)- Collisional delamination in New Guinea: implications for porphyry-type Cu-Au ore formation. In: J.E. Spencer & S.R. Titley (eds.) Ores and orogenesis: Circum-Pacific tectonics, geologic evolution and ore deposits, Arizona Geological Society Digest 22, p. 235-244.

Cloos, M. & B. Sapiie (2013)- Porphyry copper deposits: strike-slip faulting and throttling cupolas. International Geology Review 55, 1, p. 43-65.
(Continuation of Sapiie & Cloos (2013) paper of Grasberg C-Au deposit in Central Range of W Papua. Porphyry copper ore deposits form where strike-slip movements are concurrent with early stages of deep-seated bubbling (6 km) along walls of rapidly cooling stock of magma. Supergiant deposits form where bubbling front extends into top of parent batholith)

Cloos, M., B. Sapiie, A. Quarles van Ufford, R.J. Weiland, P.Q. Warren & T.P. McMahon (2005)- Collisional delamination in New Guinea: the geotectonics of subducting slab breakoff. Geological Society of America (GSA), Special Paper 400, p. 1-51.
(Central Range began to form when Australian passive margin entered N-dipping subduction zone in M Miocene, 15-12 Ma. Jamming of subduction zone at ~8 Ma initiated thick-skinned deformation (Mapenduma anticline basement-involved block). Magma generation between 7.5-3 Ma. Contractional deformation in W Highlands ends at ~4 Ma. Rupturing of subducting lithosphere caused short-lived magmatic event and up to 2.5 km of vertical uplift, starting at ~8 Ma and propagating from W to E at ~150 km/ My)

Cockcroft, P.J., D.A. Gamber & H.M. Hermawan (1984)- Fracture detection in the Salawati basin of Irian Jaya, Proc. 13th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 125-151.
(Wireline logging responses in fractured carbonate reservoirs of Salawati Basin)

Colijn, A.H. (1939)- Naar de eeuwige sneeuw van tropisch Nederland. Scheltens & Giltay, Amsterdam, p. 1-286.
('To the eternal snow of tropical Netherlands'. Popular travel book on first succesful expedition to climb the snow-capped Carstensz peaks in Nieuw Guinea, by NNGM personnel, including geologist J.J. Dozy, who accidentally discovering world-class Ertsberg porphyry copper deposit en route to the top)

Collier, B., N. Sabirin; S. Sirait, F.B. Widodo et al. (eds.) (2011)- Tembagapura: the mining community, the uniqueness, and the natural beauty of our surroundings. PT Freeport Indonesia, p.
(General audience book)

Collins, J.L. & M.K. Qureshi (1977)- Reef exploration in the Bintuni Basin and Bomberai Trough. Proc. 6th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 43-67.
(Bintuni Basin over 22,000' of Tertiary marine carbonates and shales. In SUN contract blocks E Tertiary broad carbonate platform over most of Bomberai Peninsula. Basinal pelagic limestones E of platform. End Oligocene downwarp of platform margin resulted in W-ward migration of basin and transgression by Klasafet shales and marls. Further subsidence in Plio-Pleistocene time, with deposition of thick shallow marine clastics. Portion of platform likely area for pinnacle reefs development)

Courteney, S., P. Cockcroft, R.S.K. Phoa & A.W.R. Wight (1989)- Indonesia-Oil and Gas Fields Atlas, VI, Eastern Indonesia. Pertamina, p.

Coutts, B P., H. Susanto, N. Belluz, D. Flint & A.C. Edwards (1999)- Geology of the Deep Ore Zone, Ertsberg East Skarn System (EESS), Irian Jaya. Proc. 28th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 2, p. 181-202.
(In Indonesian. Similar to Coutts et al. (1999) below)

Coutts, B P., H. Susanto, N. Belluz, D. Flint & A.C. Edwards (1999)- Geology of the Deep Ore Zone, Ertsberg East Skarn System, Irian Jaya. In: G. Weber (ed.) Proc. PACRIM '99 Congress, Bali 1999, Australasian Institute of Mining and Metallurgy (AusIMM), Melbourne, p. 539-547.
(Deep Ore Zone in Tertiary Waripi and Faumai Fms carbonates in lower portion of Ertsberg East Skarn System. Ertsberg Mining District underlain by folded Jurassic-Tertiary siliclastic-carbonate formations. Intrusion of igneous bodies post-dates folding and faulting. Formation of skarn system by contact metamorphism during intrusion of Ertsberg Diorite)

Crespin, I. (1961)- Foraminiferal rocks from the Nassau Range, Netherlands New Guinea. Bureau Mineral Resources (BMR), Record 1961/104, p. 1-5.
(online at: www.ga.gov.au/corporate_data/10831/Rec1961_104.pdf)
(Micropaleontology of rocks collected by D. Dow in W Papua Central Range. Localities of Eocene limestone with larger forams (Lacazinella, Nummulites, Asterocyclina, etc.). Meleri River sample near Tiom E Miocene limestone with reworked ('Asian-Pacific') Eocene Pellatispira-Biplanispira. Marls from Ilaga valley with E Miocene planktonic forams)

Crick, R.E. & A.I. Quarles van Ufford (1995)- Late Ordovician (Caradoc-Ashgill) ellesmerocerid *Bactroceras latisiphonatum* of Irian Jaya and Australia. Alcheringa 19, 3, p. 235-241.
(Ordovician nautiloid originally described as Irianoceras antiquum Kobayashi 1971 from Irian Jaya is synonym of Bactroceras latisiphonatum Glenister, described from Late Ordovician of SE Australia. New material extends geographic range and documents presence of U Caradoc- Lower Ashgill strata in W Papua. (Fossils in nodules, purchased in Karubaga in N part of Central Range; locality unknown; appear to be found near Jurassic-Cretaceous outcrops where no E Paleozoic rocks are known; see also Van Gorsel 2014))

Croockewit, H.J.H. (1862)- Oppervlakkige geognostische schets der bezochte punten op de Zuid-West en Noordkusten van Nieuw Guinea. Tijdschrift Taal Land en Volkenkunde Nederlandsch Indie 1862, Bijlage M, p. 109-116.
(online at: https://www.delpher.nl/nl/tijdschriften/view?coll=dts&identifier=dts:59203:mpeg21:0144)
('Preliminary geognostic sketch of localities visited on the SW and N coasts of New Guinea'. Early geological observations of coastal localies of New Guinea visited during the 1858 Etna Expedition)

Dam, R.A.C. (1998)- Cenozoic geological development and environmental settings of the Bird's Head of Irian Jaya. In: J. Miedema et al. (eds.) Perspectives on the Bird's Head of Irian Jaya, Indonesia. Proc. Conference, Leiden 1997, Editions Rodopi, Amsterdam, p. 757-781.
(Mainly literature review of Birds Head geological history, contrasting reconstructions of Hall 1996 and Pigram et al. 1985/ Struckmeyer et al. 1993)

Dam, M.A.C. & T.E. Wong (1998)- The environmental and geologic setting of the Bird's Head, Irian Jaya. In: G.J. Bartstra (ed.) Bird's Head approaches; Irian Jaya studies; a programme for interdisciplinary research, Modern Quaternary Research in Southeast Asia 15, Balkema, Rotterdam, p. 1-28.
(online at: https://www.papuaerfgoed.org/sites/default/files/collectie/files/2006-05/Bartstra_1998_Birds.pdf)
(Brief review of Quaternary geography and environmental setting and geology of Birds Head peninsula)

Davies, H.L. (2009)- New Guinea, Geology. In: R.G. Gillespie & D.A. Clague (eds.) The Encyclopedia of islands, University of California Press, Berkeley, p. 659-665.
(Brief review of geology and tectonic evolution of New Guinea island)

Davies, H.L. (2010)- Shallow-dipping subduction beneath New Guinea and the geologic setting of the Grasberg, Ok Tedi, Frieda River and Porgera mineral deposits. In: 20th Australian Geological Convention, Canberra 2010, Geological Society Australia, Abstracts 98, p. 249. *(Abstract only)*
(Late Cenozoic igneous activity in C Range of New Guinea associated with large copper-gold deposits at Grasberg, Ok Tedi, Frieda River, Porgera, etc. May be related to S-ward shallow-dipping subduction of oceanic lithosphere from plate boundary at New Guinea Trench. Slab interpreted from tomography by Tregoning and Gorbatov (2004). S-ward progress of slab beneath island would explain S-ward migration of igneous activity through Late Cenozoic and transfer of stress from N to S front of Papuan Fold Belt)

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(online at: www.episodes.co.in/contents/2012/march/p87-102.pdf)
(Elegant overview of West Papua and Papua New Guinea geology. Fold and thrust belt marks outer limit of Australian craton. To N, E and W is aggregation of continental and oceanic volcanic arc terranes that accreted since Late Cretaceous, driven by oblique convergence between Pacific and Indo-Australian plates and include

two great ophiolites. Plate boundary is complex system of microplates. In E opening of Woodlark Basin causes extension of continental crust and exhumation of Pliocene eclogite. Similar extensional structures and exhumation of Pliocene eclogite in W New Guinea Wandamen Peninsula. Flat and shallow oblique subduction at New Guinea Trench caused deformation of Plio-Quaternary sediments in Mamberamo Basin, deformation and Pliocene igneous activity in Central Range, and SW motion of Bird's Head)

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(Brief overview of the major tectonic elements, geological history and mineral resources of New Guinea)

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(Cicadas (insects) species distribution explained as result of plate tectonic evolution of E Indonesia/ New Guinea)

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(online at: https://www.stichtingblauwelijn.nl/assets/files/1940-09.pdf)
('Brief report on the activities of the Third expedition of the NV Netherlands New Guinea Mining company in 1938-1939'. Minerals exploration expedition in Upper Digul, Birim, Moejoe Rivers areas in W Papua, S of Central Range between ~140-141°E near PNG border and in Keerom-Bewani area around Lake Sentani NE West Papua. 'Mijnbouw Maatschappij Nederlandsch Nieuw-Guinea' was consortium lead by Billiton. Locally traces of gold in river alluvium. Not much geology detail. Rock samples described in Van Bemmelen (1940), also comments by Terpstra (1941))

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(Ertsberg Mining District with at least six major prophyry intrusions identified (Grasberg, Karume, Lembah Tembaga, Ertsberg, Kay, Wanagon), plus new discovery of hidden porphyry Gajah Tidur. Igneous activities in short time span (3.4- 2.7 Ma zircon ages))

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(online at: https://www.iagi.or.id/web/digital/26/2009_IAGI_Semarang_Geological-Review-of-Broken.pdf)
('Broken Limestone' zones of fractures and karst in mineralized Oligo-Miocene Kais Limestone in NE and SW areas of Grasberg mine, trending parallel to regional NW-SE faults. Kais Fm surrounding Grasberg cut by steep dipping regional NW-SE trending faults (also in 38th IAGI Convention. Semarang 2009, 16p.))

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(Geological reconnaissance and gravity survey along Idenburg River by NNGPM geologists)

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(Poster Abstract. Boulders of fresh eclogites and large garnets in schist in Wandamen Peninsula, in zone of oblique Pacific- Australian plates convergence. E-W metamorphic gradient from unmetamorphosed Lengguru sedimentary prism to metamorphic Wandamen Peninsula. Peninsula may represent inner part of Lengguru belt and may be continuation of inner part of C Range of Papua farther East. Eclogite occurs as lenses in metasedimentary rocks. Sediments look like Cenozoic of internal zone of Lengguru FTB. Migmatites and leucogranite cross cut eclogite, indicating later HT event. Miocene pebbles in conglomerate overlying E flank of Wandamen massif without metamorphic/ magmatic pebbles, suggesting eclogite exhumation after Miocene)

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(online at: https://www.academia.edu/72897074/Eclogite_in_West_Papua_Wandamen_Peninsula_petrological_and_geochemical_characterization_geodynamical_implications)
(Similar to abstracts above and below. Lengguru accretionary wedge built between 11 and 2 Ma. Boulders of fresh eclogites in the internal part of Lengguru wedge (Wandamen peninsula, embedded in metasediments similar to Mesozoic and Cenozoic sediments of Australian margin.Exhumation of eclogite after Miocene. Etc.)

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(online at: https://www.researchgate.net/publication/268485742_Very_young_and_fast_exhumation_between_8_and_5_Ma_for_the_high_pressure_metasediments_of_Lengguru_prism_W-Papua)
(High-pressure metasediments with retrogressed eclogites and migmatites in internal part of Lengguru foldbelt (Wandamen Peninsula). Lengguru prism built between 11-2 Ma. Metasediments from N Wandamen show high-P metamorphism, followed by second stage related to N-S stretching. Zircons from metagreywackes show metamorphic rims around inherited cores. Rims sugggest high P event ages of ~8-7 Ma, associated with subduction, followed by exhumation associated with migmatisation only 1-2 Ma after burial (fastest exhumation ever documented for high P rocks))

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(online at: http://jurnal.unpad.ac.id/bsc/article/view/8150/3723)
('Lateritic nickel in the Tanah Merah, Tablasufa and Ormo regions, Jayapura Regency, Papua Province'. Up to 6% nickel (associated with Fe, Co and Cr) in laterites on weathered ultramafic rocks around Jayapura. Pretertiary ultramafic and metamorphic rocks of uplifted and exposed since E Miocene- present tectonics)

Divina, A.R., A. Mutika & D.S. Pasaribu (2023)- Geochemical analysis and structure reconstruction based on 1D modeling in Bintuni Basin, West Papua. Proc. 47th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA23-SG-25, p. 1-17.

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('Distribution of larger foraminifera limestones in the Wamena area, Irian Jaya'. Eocene- Miocene New Guinea Limestone in Wamena area ~240m thick. Basal part with Eocene Nummulites, Discocyclina and Pellatispira. Oligo-Miocene part with Lepidocyclina, Miogypsina, Spiroclypeus, etc. No plates)

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(online at: https://www.iagi.or.id/web/digital/53/22nd-Volume-2-(6-9-Des-1993)-304-310.pdf)
(Ertsberg East skarn mineralization in Eocene-Oligocene limestone, associated with Pliocene (3.1 Ma) biotite-hornblende diorite. Orebody continuous for ~1.5 km from surface (~4100-2890m))

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(online at: https://www.iagi.or.id/web/digital/47/19th-(11-13-Des-1990)-Book-I-127-143.pdf)
(Traditional Salawati Basin play is Miocene Kais Fm carbonate, but additional detrital limestone play in overlying Pliocene Klasafet Fm and buildups in Late Pliocene Klasaman Fm. Terumbu 1 well, in NW Salawati basin 1.8 km W of Klalin 1, tested 17.5 MMCFD of biogenic gas in 758' thick coralline Pliocene buildup)

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(1981 oil discovery in Upper Miocene Kais Limestone. Trap combination of structural, stratigraphic and diagenetic processes. Reefs probably developed on local highs, produced by Late Oligocene folding. Subsequent E-W directed compression in Pliocene created structural trap. Most likely source of oil is Jurassic Kembelangan Fm, although more than one source suggested by fluid inclusions and geochemical analysis)

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('Brief descriptions of float from Digul river, collected by mining engineer O.G. Heldring': granite, syenite, diorite, gabbro, andesite)

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('Brief descriptions of float from the Eilanden river, collected by mining engineer O.G. Heldring'. Description of rock types in Eilanden River, S of Central Range, incl. diorite, diabase, etc.)

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('Brief descriptions of float from Setakwa river, collected by mining engineer O.G. Heldring': diorites)

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('On some foraminifera from the eastern Moluccas and from New Guinea'. Brief description of Eocene larger forams in samples collected by Brouwer in Halmahera (Nummulites, Discocyclina, Alveolina), Roti (large Nummulites, Discocyclina), Seram (E Miocene Lepidocyclina in breccia with reworked angular clasts of Upper Cretaceous pelagic limestone), New Guinea, Kai Besar (rounded fragments of Eocene Lacazina in quartz sandstone, etc. No location info)

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(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0UTVnaWlrNVh3LVk/view)
(1961 reconnaissance of N side of W Papua Nassau Range (NE of Carstenz Peak/ Puncak Jaya) found clean quartz sandstone of probable Mesozoic age below U Eocene- E Miocene Tertiary Carstensz Limestone.

Sedimentation punctuated, probably in Lower Miocene, by andesitic volcanism. Well-preserved erosion features and moraine deposits due to extensive late Pleistocene glaciation above ~12,000'. Tertiary rocks generally only gently folded. Present-day erosion almost entirely due to dissolution of limestone. Long, slightly curved, faults of considerable vertical displacement show many feature characteristic of transcurrent faults)

Dow, D.B. & B. Hamonangan (1981)- Preliminary geological map of the Enarotali quadrangle, Irian Jaya, 1:250,000. Geological Research Development Centre (GRDC), Bandung.
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Dow, D.B., B. Harahap & S. Hakim (1990)- Geology of the Enarotali Sheet area, Irian Jaya, 1:250,000 (Quad. 3112). Geological Research Development Centre (GRDC), Indonesia, Bandung, p. 1-57.
(see also Harahap et al. 1990)

Dow, D.B. & U. Hartono (1982)- The nature of the crust underlying Cendrawasih (Cendrawasih) Bay, Irian Jaya. Proc. 11th Annual Conv. Indonesian Petroleum Association (IPA), p. 203-210. (also in Bull. Geological Research Development Centre 6, p. 30-36.
(Much of Cenderawasih Bay is oceanic crust and Pacific Plate island arc volcanics. SW margin Wandamen zone Paleozoic crystalline basement, rocks of continental affinity extending on islands over 50 km into bay. Hydrocarbon potential in bay limited to Neogene sediments which may include thick carbonates. Clastics likely mostly poorly sorted, immature sediments with limited oil source potential)

Dow, D.B. & U. Hartono (1984)- The mechanism of Pleistocene plate convergence along Northeastern Irian Jaya. Proc. 13th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 145-150.
(Main structures along N edge Irian Jaya are probably of M Pleistocene age, resulting from SW directed relative convergence of Pacific and Australian plates)

Dow, D.B., G.P. Robinson, U. Hartono & N. Ratman (1986)- Geological map of Irian Jaya, 1:1,000,000 scale, Geological Research Development Centre (GRDC), Bandung.

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(Overview of Irian Jaya geology. See also published version in 2005)

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(Printed publication of 1988 GRDC 'preliminary report')

Dow, D.B., G.P. Robinson & N. Ratman (1985)- Large-scale overthrusting during the Pliocene in western Irian Jaya. Bull. Geological Research Development Centre (GRDC) 11, p. 29-41.
(Main structural elements of W Irian Jaya formed in Pliocene. K-Ar cooling ages of Wandamen Metamorphics 6.9 and 5.0 Ma. Stratigraphic similarities suggest Birds Head was probably not far removed from Irian Jaya-Australian continent during most of Tertiary. Cenderawasih Bay probably underlain by E Tertiary island arc volcanics originating on Pacific Plate. Weyland Range of Derewo metamorphics, ophiolite and large M Miocene Utawa Diorite intrusion S-directed thrust with 25 km S-ward displacement and 4-5 km of uplift)

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(Lengguru foldbelt is slab of folded platform sediments at N margin Australian continent and was thrust SW ward, rotated 30-35°, and dragged along transcurrent faults to S)

Dow, D.B. & R. Sukamto (1984)- Western Irian Jaya: the end-product of oblique plate convergence in the Late Tertiary. Tectonophysics 106, 1-2, p. 109-139.

(Late Miocene- Recent tectonic history of Birds Head- Cenderawasih Bay- W Papua area. Birds Head assumed to have been in approximately same relative position since Late Paleozoic. Late Miocene collision of Australia-New Guinea with Pacific arc caused clockwise rotation. Cenderawasih Bay underlain by Pacific domain crust)

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(online at: www.episodes.co.in/www/backissues/74/ARTICLES--3.pdf)
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Dow, D.B. & R. Sukamto (1984)- Western Irian Jaya: the end-product of oblique plate convergence in the Late Tertiary-Reply. Tectonophysics 121, 2-4, p. 348-350.
(Reply to critique by Pigram (1986) Discussion of Dow & Sukamto (1984) paper, who argued that Birds Head and W Irian Jaya are separate crustal fragments. D&S doubt this as lithologies of Late Paleozoic- mid-Tertiary shelfal sediments in both areas is almost identcal)

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(Brief description of geology and topography of area traversed during first successful ascent of the previously unexplored Carstensz Peak (Puncak Jaya) by Colijn mountaineering expedition. First report of Ertsberg copper deposit)

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(online at: www.repository.naturalis.nl/document/549782 (text) and at:
www.repository.naturalis.nl/document/549783 (plates)
(Geology along traverse from Timika to Carstensz Peak (Puncak Jaya), W Papua, by NNGPM geologist. Paleozoic- Miocene rocks, generally dipping to N. Oldest rocks Simpang series slates.U Paleozoic sandstones with brachiopods Spirifer and Chonetes cf. variolata. Alpine zone of Carstensz Mts entirely composed of folded Eocene (with Fasciolites, Spiroclypeus) to Miocene (with Lepidocyclina, Miogypsinoides, etc.) limestones. Also discovery of Ertsberg world-class porphyry copper-gold deposit. With chapter by Erdman on fossil molluscs)

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(online at: www.angewandte-geologie.ch/Dokumente/Archiv/Vol71/7_1Dozy-Erz.pdf)
('From the highest peak to the deepest valley: discovery and development of the copper ore deposits of Irian Jaya'. Large gold-bearing copper-ore deposits of W Papua discovered (by Dozy) during mountaineering expedition to Carstensz-mountains (4884 m) in late 1936. Exploitation of Ertsberg deposit at altitude of 3700m began in 1973, followed by Grasberg at >4000m in 1988. Ore bodies are metasomatic replacement deposits related to magmatic intrusions, pipes and skarn in Tertiary limestones)

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('Preliminary report on the results of the geological-mining expedition of Delft Technical University in 1953')

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(Summary of results of 1990-1991 Esso- Pertamina Joint study fieldwork in Central Range of West Papua)

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(SW New Guinea extensive tidal deltas on low gradient equatorial coastline. Palynology of cores in Ajkwa and Tipoeka estuaries showed mangroves at levels well below present tidal range, with tectonic subsidence in recent period, with Late Holocene relative sea-level rise of 0.67 mm/year)

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(Vorwata giant gas field in Bintuni Bay in M Jurassic sands, with 15 wells drilled from 2 offshore platforms. Overburden complex and includes thick, karstified carbonate of Kais and Faumai Fms. At Vorwata field angular unconformity between folded Eocene carbonates overlain by gently dipping platform carbonates of Kais Fm. Lost-circulation almost always at one of significant sequence boundaries in Faumai unit, although partial losses often start in Oligocene Unconformity or within overlying Kais platform carbonates. New reprocessing better imaging of karst features)

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(online at: https://www.iagi.or.id/web/digital/48/19th-(11-13-Des-1990)-Book-II-79-92.pdf)
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ERI (Earth Resources Institute) (1990)- Geological data from NE Warim, Irian Jaya, Indonesia: results of the 1989/90 fieldwork program. CONOCO, 129p.

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(Summary of survey work in N New Guinea Cyclops Mountains by Delft Technical University in 1952. Mainly evaluation of residual Ni-cobalt ores in laterite cover developed on harzburgite of Cyclops mountains)

Fachri, M., B. Sapiie, W. Sunyoto, S. Widodo, Yudihanri & W. Margotomo (2005)- Analogue fractured reservoir characterization in Grasberg Igneous Complex (GIC) and New Guinea Limestone Group, Papua. Proc. 30th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 543-558.
(Study of fractures in limestone and igneous rocks exposed in Grasberg open pit. Numerous shear fractures, interpreted as a result of a left-lateral Riedel shear system trending ~N60°W)

Fakhruddin, R. (2021)- Fluvial-tidal to fluvial-lacustrine sedimentation of the Middle Miocene to Pleistocene Mapia Formation, Dogiyai, Papua (Indonesia). Sains Malaysiana 50, 7, p. 1885-1899.
(online at: http://journalarticle.ukm.my/17551/1/5.pdf)
(M Miocene-Pleistocene Mapia Fm at Dogiyai, exposed at the road cuts along road from Mapia to Modio and Mapia to Moanemani, S of Lengguru foldbelt. M Miocene- E Pliocene lower Mapia Fm synorogenic clastics deposited at onset of Central Range orogeny. Upper Mapia Fm deposited in piggyback basin at major uplift event. Previously, section mapped as Permian Aiduna Fm (Enarotali and Waghete sheets))

Fakhruddin, R., T. Ramli & D. Fadli Badaruddin (2018)- Stratigrafi sikuen batuan sedimen Jura-Kapur, Papua. Lembaran Publikasi Minyak dan Gas Bumi, Lemigas, 52, 3, p. 119-130.
(online at: https://journal.lemigas.esdm.go.id/index.php/LPMGB/article/view/722)

('Jurassic-Cretaceous sequence stratigraphy of Papua'. Three main sequences in Kembelangan Gp outcrops in Tembagapura-Grasberg section and Wamena areas in Central Range of Papua (not PNG), and Koba- Barakan wells)

Fakhruddin, R., T. Ramli, D. Fadli & D. Kurniadi (2021)- Facies analysis and palynology of upper Miocene to Pliocene sediments exposed at Timika-Tembagapura section, Papua, Indonesia. Australian J. Earth Sciences 68, 2, p. 213-228.
(Sedimentological and palynological analysis of outcrops at KM 73- KM 92 of Timika -Tembagapura road. Unit (previously regarded as Late Proterozoic-Permian in age). New palynological data suggest Late Miocene-Pliocene age, based on Nothofagus brassii pollen, Stenochlaena milnei spores (Stenochlaenidites papuanus), Dacrycarpites australiensis pollen, without Proteacidites spp. pollen. Autochthonous palynomorphs dominated by freshwater algae; allochthonous pollen derived from lowland rain forest, lower and upper montane forest, swamp forest and scrub/grassland. Fluvial-lacustrine depositional environment, possibly in piggyback basin, deposited during Central Range orogeny)

Fakhruddin, R., T. Ramli & H.M. Saleh (2018)- Well and outcrop correlation in the Eastern part of the Akimeugah Formation, Papua: Mesozoic play potential. Scientific Contributions Oil and Gas (SCOG), Lemigas, 41, 2, p. 75-87.
(online at: http://journal.lemigas.esdm.go.id/index.php/SCOG/article/viewFile/336/196)
(Mesozoic in outcrops at Wamena and surrounding areas correlated to onshore wells in E part of Akimeugah Basin, Papua)

Fakhruddin, R., E. Sunardi, B.G. Adhiperdana, M.H.H. Zajuli, T. Ramli, H.M. Saleh et al. (2023)- Late Miocene to Pliocene delta-lacustrine to incised-valley fills sedimentation of the Ransiki Area, Bird's Head Papua, Indonesia: the sedimentary record of Lengguru fold and thrust belt wedge-top depozone. J. Asian Earth Sciences 242, 105497, p. 1-26.
(Sedimentology of Late Miocene-Pliocene syn-tectonic Mawi Fm in N of Lengguru foldbelt), during simultaneous orogeny of Lengguru FTB and Papua Fold-Thrust Belts in the latest Miocene (NN11 zone or N1-lower N18 zones, 8.3-5.6 Ma)

Farahbakhsh, E., S. Zahirovic, B. McInnes, S. Polanco, F. Kohlmann, M. Seton & R.D. Muller (2025)- Machine learning-based spatio-temporal prospectivity modeling of porphyry systems in the New Guinea and Solomon islands region. Tectonics 44, e2024Tc008362, p. 1-24.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2024TC008362)
(M Miocene- Pleistocene intrusion-related porphyry copper-gold deposits in New Guinea and Solomon Islands here used to develop model for porphyry copper mineralization in area. Key findings include importance of obliquity angle of subduction, which affects strain partitioning,seafloor spreading rates, etc. Angles of 10 and 50° favored for mineralization. Rapid plate convergence potentially enhances mineralization prospect. Etc.)

Fearne, M.C. (1985)- Exploration drilling in the Mamberamo Region of Irian Jaya: an operations review. Proc. 14th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 582-603.

Felix, J. (1912)- Uber eine pliocane Korallenfauna aus Hollandisch Neu-Guinea. Berichte Verhandlungen Koniglichen Sachsischen Gesellschaft der Wissenschaften, Mathematisch-Physische Klasse, Leipzig, 64, 6, p. 429-445.
(online at: https://babel.hathitrust.org/cgi/pt?id=njp. 32101078345475;view=1up;seq=469)
('On a Pliocene coral fauna from Netherlands New Guinea'. Material from Mamberamo River/Van Rees Mountains, North New Guinea. Additional coral species from this area described in Felix (1921, p. 60-61) paper on Borneo corals)

Feuilletau de Bruyn, W.K.H. (1921)- De Schouten- en Padaido eilanden. Mededeelingen Encyclopaedisch Bureau, Batavia, 21, p. 1-193.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB02A:000030687:00219)

(Geographic- ethnographic description of Schouten and Paidaido islands, N of West Papua, with some geologic observations and preliminary geologic map. Much young coral limestone, also serpentinite in SE Biak and slate with quartz veins, unconformably overlain by sandstones on Supiori. Coral limestone on Supiori 100m above sea level, in Biak up to 600m above s.l.)

Feuilletau de Bruyn, W.K.H. (1921)- Contribution a la geologie de la Nouvelle Guinee. Dissertation, Universite de Lausanne, Bull. Laboratoires de Geologie Geographie Physique Mineralogie Paleontologie Universite de Lausanne 30, p. 1-172.
(Early work on New Guinea geology as part of 'Military Exploration of New Guinea' expeditions. Descriptions of N New Guinea (Mamberamo area), S New Guinea and Schouten and Padaido Islands. Identified Late Devonian brachiopods, etc., from Noordwest River float)

Feuilletau de Bruyn, W.K.H. (1922)- Bijdragen tot de geologie van Nieuw Guinea. Handelingen 2e Nederlandsch-Indisch Natuurwetenschappelijk Congres, Bandung 1922, p. 162-169.
('Contributions to the geology of New Guinea'. No figures)

Feuilletau de Bruyn, W.K.H. (1936)- Komen er in het Arfak Gebergte vulkanen voor? Tijdschrift Nieuw Guinea 1, p. 1-6.
('Are there volcanoes in the Arfak Mountains?' On possible presence of active volcanoes in NE Birds Head. Rejected by Tjia (1980) and others)

Fink, D., M. Prentice & J. Peterson (2003)- The last glacial maximum and deglaciation events based on Be-10 and Al-26 exposure ages from the Mt. Trikora region, Irian Jaya, Indonesia. In: 16th INQUA Congress, Shaping the Earth; a Quaternary perspective, Reno, USA, p. 231.
(Paired 10Be and 26Al exposure ages from high altitude Mt. Trikora (~3500m). Five major moraine systems in lower valley section sampled. Last Glacial Maximum in Irian Jaya started at least 21.5 ka ago, reaching peak at ~18 ka. Inner moraine system formed at 15.2 ± 1.2 ka during last deglaciation and represents youngest glacial feature here)

Firdaus, Y., A. Albab, Subarsyah, D. Kusnida, R. Rahardiawan, I. Setiadi, S.R. Zulivandama et al. (2021)- Acoustic and geochemical evidences of shallow gas distribution offshore Waropen Basin, Papua, Indonesia. Bull. Geological Society Malaysia 71, p. 113-123.
(online at: https://gsm.org.my/wp-content/uploads/gsm_file_2/702001-101894-PDF.pdf)
(Acoustic evidences of gas accumulations (incl. pockmarks) near seafloor of Waropen Trough. Gas in sediment cores methane of biogenic origin)

Flint, D.E. (1972)- Geology of the Ertsberg copper deposit, Irian Barat, Indonesia. Bull. of National Institute Geology and Mining (NIGM), Bandung 4, 1, p. 23-28.
(Ertsberg copper deposit is black hill at E side of Aghawagon River valley at 3460m elevation in W Papua Central Range (remnant of glacial erosion). First discovered by Dozy in 1936 on mountain climbing expedition. Revisited in 1960 by Freeport party, followed by 1967-1968 drilling campaign. Paleozoic-Mesozoic rel. simple structure, dipping 20-50° N. Exposed ore body 140m above valley floor, extends down 360m)

Fortey, R.A. & L.R.M. Cocks (1986)- Marginal faunal belts and their structural implications, with examples from the Lower Palaeozoic. J. Geological Society, London, 143, p. 151-160.
(New record of Ordovician (Llanvirn) graptolites in shale from Heluk River, E Irian Jaya (4°25'S, 139°17'E). Assigned to isograptid biofacies and taken as evidence of Ordovician ocean margin here. Also record of early Ordovician graptolites from center of N Borneo?)

Francois, C., J. de Sigoyer, M. Pubellier, V. Bailly, A. Cocherie & J.C. Ringenbach (2016)- Short-lived subduction and exhumation in Western Papua (Wandamen peninsula): co-existence of HP and HT metamorphic rocks in a young geodynamic setting. Lithos 266-267, B11, p. 44-63.
(online at: https://www.academia.edu/93221312/Short_lived_subduction_and_exhumation_in_Western_Papua_Wandamen_peninsula_Co_existence_of_HP_and_HT_metamorphic_rocks_in_a_young_geodynamic_setting)

(Lengguru fold-thrust wedge of W Papua younger than 10Ma and result of oblique and fast subduction of Birds Head under Melanesian Arc. High P rocks in core of wedge in Wandamen Peninsula, with metabasic eclogites and amphibolites observed as sheared 'knockers' in Mesozoic metasediments. Metasediments HP (~13-17 kbar; burial depth ~32-44 km); metabasic rocks peak pressure 17-23 kbar and 700-800 °C (burial depth 43-66 km?). U-Pb dating of zircons shows some magmatic cores with ages >300 Ma (= Australian craton margin volcanic arc). Most zircons metamorphic origin and Late Miocene age (5.6- 8.1± 1.1 Ma). N- S normal faults cross cut limb of anticline associated with present-day E-W extension. Young metamorphic ages suggest rapid subduction and exhumation event)

Franssen Herderschee, A. (1911)- De wetenschappelijke uitkomsten der Mamberamo-expeditie 1909-'10. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 28, p. 448-461.
(online at: https://resolver.kb.nl/resolve?urn=MMUBA13:001655001:pdf)
('The scientific results of the 1910-1911 Mamberamo expedition')

Fraser, T.H. (2015)- A hydrocarbon exploration history of Papua. Proc. SE Asia Petroleum Exploration Society (SEAPEX) Conference, Singapore 2015, 4.2, p. 1-16.
(online at: https://www.academia.edu/16054953/Hydrocarbon_exploration_history_of_Papua_Indonesia_)
(History of geological and hydrocarbon exploration in W Papua, PNG and Seram. In W Papua two main and two minor plays: Permian gas (Mogoi Deep; non-commercial), M Jurassic sandstones gas (Vorwata), Miocene Kais Fm reefal limestones (Jaya, Kasim, Walio) and Plio-Pleistocene gas (Niengo))

Fraser, T. (2016)- Risk and (possible) reward in West Papua: a tale of two PSC's. In: 2016 Technical Symposium Where from, where to, Indonesian Petroleum Association (IPA), Jakarta, p.

Fraser, T.H., J. Bon & L. Samuel (1993)- A new dynamic Mesozoic stratigraphy for the West Irian micro-continent, Indonesia, and its implications. Proc. 22nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 707-761.
(online at: https://www.researchgate.net/publication/323698504_A_new_dynamic_Mesozoic_stratigraphy_for_the_West_Irian_micro-continent_Indonesia_and_its_implication)
(Thorough overview of Mesozoic stratigraphy on and around Birds Head- Bintuni Bay, W Papua. Jurassic- basal Cretaceous subdivided into three 'polysequences', separated by stratigaphic breaks: Inanwatan (Toarcian-Bajocian), Roabiba (Callovian- E Kimmeridgean) and Sebyar (mid-Tithonian- E Valanginian). Cretaceous Jass sequence mainly Coniacian and younger; E -M Cretaceous rocks probably deposited, but eroded probably in Aptian or Albian (or later?))

Friehauf, K.C., S.R. Titley & S.L. Gibbins (2005)- Porphyry-style mineralisation in the Ertsberg Diorite, Gunung Bijih (Ertsberg/Grasberg) District, West Papua, Indonesia. In: T.M. Porter (Ed.) Super porphyry copper and gold deposits- a global perspective, PGC Publishing, Adelaide, 2, p. 357-366.
(Newly-recognised porphyry-style mineralisation within Ertsberg intrusion different from porphyry mineralisation at Grasberg porphyry Cu-Au deposit. Stockwork mineralisation in Ertsberg occurs near East Ertsberg Skarn System close to N margin of the intrusion. Stockwork mineralisation in diorite)

Froidevaux, C.M. (1977)- Tertiary tectonic history of the Salawati area, Irian Jaya, Indonesia. Proc. 6th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 199-220.
(Same paper as Froideveax 1978, below)

Froidevaux, C.M. (1978)- Tertiary tectonic history of Salawati area, Irian Jaya, Indonesia. American Assoc. Petroleum Geol. (AAPG) Bull. 62, p. 1127-1150.
(Salawati Island was attached to Irian Jaya during Miocene-E Pliocene reef development, and separated in M Pliocene- Pleistocene, by opening of Sele Strait rift zone, after creation of left-lateral Sorong fault zone. Island moved 17.5 km SW after ~13° CCW rotation. Motion triggered during widespread magmatic intrusion of Sorong fault zone, when basalt infiltrated right-lateral fault system in Sele Strait area. Rifting along three parallel left-lateral strike-slip faults, later site of down-to-NW normal faulting, accommodating subsidence from Pliocene-Pleistocene load from northern basaltic mountains. If Salawati is placed in former Irian Jaya frame, and N

compartment of left-lateral Sorong fault zone moved back E, Miocene landscape appears characterized by widespread carbonate development with reefs thriving at edge of early New Guinea landmass facing open sea on W. Original distribution of reefs different from present)

Froidevaux, C.M. (1980)- Radar, an optimum remote sensing tool for detailed plate tectonic analysis and its application to hydrocarbon exploration (an example in Irian Jaya, Indonesia). In: Radar geology; an assessment report of the Radar geology workshop, Jet Propulsion Lab. (JPL), Pasadena, Publ., p. 457-501.
(Geometric, geomorphic, and structural information derived from radar imagery and combined with geologic and geophysical evidences strongly indicates that Salawati Island was attached to Irian Jaya mainland at time of Miocene-lower Pliocene reef development, and that it was separated in M Pliocene- Pleistocene time, opening Sele Strait rift zone. Island moved 17.5 km SW after initial 13° CCW rotation. Rift zone is subsequent to creation of left lateral Sorong fault zone)

Fugro (2007)- Offshore Semai hydrocarbon prospectivity study. Multi-client study, 6 vols. *(Unpublished)*
(Petroleum evaluation study of SW Bintuni Basin between onshore Bintuni/Onin and Seram thrust belt)

Furqan, R. Al, Y. Watanabe, A. Arribas, C. Leys, T. Echigo, R.A. Putri & R.Sevirajati (2022)- Chemical and short-wave infrared characteristics of white mica associated with the Gajah Tidur porphyry copper system at the deep Grasberg Cu-Au-(Mo) deposit, Indonesia. Resource Geology 72, 1, 12296, p.
(Grasberg Cu-Au-(Mo) deposit comprises shallower Main Grasberg porphyry Cu-Au and deeper Gajah Tidur porphyry Cu-Mo-(Au) systems. GT porphyry preserves various types of white mica whose geochemical variations provide insights into white mica-dominated alteration of porphyry systems)

Gafoer, S. & T. Budhistrisna (1995)- Geological map of the Sarmi and Bufareh sheets, Irian Jaya, 3313-3314, 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(Geologic map of central West Papua, N of Central Range and Meervlakte. Part of the 'Pacific Oceanic Domain', with common folding-thrusting as young as Pliocene. Incl. Gauttier Mts, cored by Eocene?- E Miocene Auwewa Fm volcanics, associated with Eocene-Oligocene Biri Fm limestones, shales and pillow basalts and Late Oligocene- E Miocene Darante Fm reefal limestones interbedded with volcanics. Overlain by folded M-L Miocene Makats Fm flysch-type clastics with ultramafic detritus, Mamberamo Gp clastics and widespread Quaternary? chaotic, sheared rock. Locally common mud volcanoes. Oil seep at Teer River in NE)

Gandler, L.M. (2006)- Calc-silicate alteration and Cu-Au mineralization of the Deep MLZ skarn, Ertsberg District, Papua, Indonesia: M.S. Thesis, University of Texas at Austin, p. 1-273. *(Unpublished)*

Gandler, L.M. & J.R. Kyle (2008)- Stratigraphic controls of calc-silicate alteration and copper-gold mineralization of the Deep Mill Level Zone skarn, Ertsberg District, Papua, Indonesia. Proc. The Pacific Rim: mineral endowment, discoveries and exploration frontiers, AusIMM PACRIM 2008 Conference, Gold Coast, p. 313-317.
(Deep Mill Level Zone (DMLZ) skarn Cu-Au deposit is deepest explored part of giant Ertsberg East Skarn System, that extends from surface at 4200m elevation to DMLZ at 2900-2600m. DMLZ hosted in U Cretaceous -Lower Tertiary Waripi Fm siliciclastic-carbonates adjacent to 3-Ma Ertsberg pluton. DMLZ Cu-Au concentrations controlled at local scale by host lithology, with structural features providing pathways of mineralizing fluids)

Garwin, S. (2013)- The tectonic and geological framework of New Guinea and the relationships to gold copper metallogeny. Proc. Papua & Maluku Resources, Indonesian Soc. Economic Geologists (MGEI) Annual Convention, Bali, p. 125-138.

Garwin, S. (2015)- The tectonics, geology and gold-copper metallogeny of New Guinea. Proc. PACRIM 2015 Congress, Hongkong, Australasian Institute of Mining and Metallurgy (AusIMM), Melbourne, Publ. Series 2/2015, p. 151-164.
(Since Eocene, New Guinea tectonics driven largely by SW-directed collision of accreted arc terranes with N margin of Australian Craton, and subsequent W-directed transport of these exotic terranes by left-lateral strike-slip fault systems. Two major magmatic belts, both with world-class Cu-Au mineralisation: (1) M-L Miocene

Maramuni arc (Frieda River, Nena, Wafi-Golpu, etc. deposits), tied to subduction of Solomon Sea plate beneath NE New Guinea; (2) Medial New Guinea magmatic belt (Grasberg, Ok Tedi, Porgera porphyry and epithermal deposits) localised by dilational zones formed at intersections of NE-trending reactivated basement faults and N-dipping reverse faults related to S-ward progression of Papuan fold belt in Late Miocene- Pleistocene. These deposits probably formed during short mantle-derived magmatic episodes in zones of regional isostatic uplift, attributed to delamination of lithospheric mantle beneath New Guinea)

Gautama, A.B. (1982)- Geologi daerah Carstensz Pyramide- Platen Spitz, Pegunungan Jayawijaya, Irian Jaya. Proc. 11th Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 31-54.
(Geology of the Carstensz peaks region (+4884m) near Freeport copper mine, Central Range of West Papua. Outcrops from U Cretaceous- Recent. Paleocene-Oligocene Faumai Lst >2000m thick, with Lacazinella, Alveolina, etc. in lower part. Kais Lst Oligocene- E Miocene. Plio-Pleistocene Birim Fm volcanics)

Gealey, W.K. (1980)- Ophiolite obduction mechanism. In: A. Panayiotou (ed.) Ophiolites, Proc. Int. Ophiolite Symposium, Cyprus 1979, Geological Survey Department Cyprus, Nicosia, p. 228-243.
(Good discussion of ophiolite obduction model. Includes discussion of New Guinea main ophiolite belt along N margin of Central Range of W Papua and PNG and continuing into New Caledonia, where 'ophiolite obduction' is result of Oligocene collision between N Australian passive continental margin and Auwewa volcanic arc. K-Ar ages on gabbros in E New Guinea 147 and 150 Ma (latest Jurassic)

Gerth, H. (1927)- Ein neues Vorkommen der bathyalen Cephalopoden Fazies des mittleren Jura in Niederlandisch Neu Guinea. Beitrage zur Palaeontologie und Stratigraphie des Indischen Archipels 2, Leidsche Geologische Mededelingen 2, 3, p. 225-228.
(online at: https://repository.naturalis.nl/pub/505840/LGM1926002001010.pdf)
('A new occurrence of the bathyal cephalopod facies of the Middle Jurassic in Netherlands New Guinea'. Small collection of M Jurassic ammonites supposedly from Birds Head (but unlikely from there?; Visser and Hermes 1962, p. 54), donated to Leiden Museum by government official from Fakfak. Reportedly from Wairor River and its Weriangki tributary, presumably near Fak Fak. Ammonites in geodes from hard black limestone, similar to those from Cenderawasih Bay and Sula islands. From Werianki River: Macrocephalites keeuwensis, Sphaeroceras cf. bullatum and Peltoceras, probably Callovian age. From Wairori River two Stephanoceras species, probably Bajocian age)

Gerth, H. (1927)- Eine *Favosites* Kolonie aus dem Palaozoikum von Neu-Guinea. Beitrage zur Palaeontologie und Stratigraphie des Indischen Archipels 3, Leidsche Geologische Mededelingen 2, 3, p. 228-229.
(online at: https://repository.naturalis.nl/pub/505840/LGM1926002001010.pdf)
('A Favosites colony from the Paleozoic of New Guinea'. Brief report on discovery of Paleozoic tabulate coral in dark limestone float in Noord River, S of Central Range, W Papua. Age range of genus is Silurian-Permian (but in Australia most common in U Silurian- M Devonian; JTvG))

Gerth, H. (1965)- Ammoniten des mittleren und oberen Jura und der altesten Kreide von Nordabhang des Schneegebirges in Neu Guinea. Neues Jahrbuch Geologie Palaontologie, Abhandlungen 121, 2, p. 209-218.
('Middle and Upper Jurassic and lowermost Cretaceous ammonites from the North flank of the Snow Mountains in New Guinea'. Callovian- Berriasian ammonites collected by Faber from two 'Kembelangan Fm' localities, Lambek in W and Amarai 100 km to East. Callovian Macrocephalites keeuwensis, Oxfordian Mayites, Perisphinctes and Inoceramus galoi, etc. similar to Sula Islands ammonites. Berriasian with Blanfordiceras, incl. B. novaguiense n.sp., Berriasella (= typical M-L Jurassic marine macrofossil assemblage of S margin of Neotethys from Tethyan Himalayas to New Guinea; JTvG))

Getty, T.A. (1967)- Jurassic and Cretaceous ammonites from the Kemaboe Valley, West Irian (West New Guinea). Masters Thesis, McMaster University, Hamilton, p. 1-111.
(online at: https://macsphere.mcmaster.ca/handle/11375/17830)
(Ammonites from Kembelangan Fm black calcareous mudstones, collected by C. Le Roux in 1939-1940 near Kemabu, NE of Paniai Lakes, NW Central Range of W Papua, and deposited in the Rijksmuseum van Geologie en Mineralogie in Leiden. Fauna from M Jurassic sowerbyi Zone to U Valanginian. Ammonites most closely

related to faunas of Pacific Realm and Ethiopian province of Tethyan Realm. Half of material is new genus Sulaites (E Jurassic?); also M Jurassic Fontannesia, Bullatimorphites and Macrocephalites, Late Jurassic Himalayites and Blanfordiceras and Valanginian Olcostephanus)

Gheyselinck, R.F.C.R. (1953)- Petroleum. In: W.C. Klein (ed.) Nieuw Guinea: de ontwikkeling op economisch, sociaal en cultureel gebied in Nederlands en Australisch Nieuw Guinea, I, Staatsdrukkerij (Dutch Govt. Printing Office), The Hague p. 311-350.
(Overview of pre-1949 Netherlands New Guinea petroleum activities. Oil exploration since 1905 by BPM (Hirschi fieldwork) and after 1935 by NNGM consortium (BPM 40%/ Stanvac 40%/ Caltex 20%). First discovery Klamono field in W Birds Head, in shallow hole drilled in 1936 near surface oil seep, followed by Mogoi and Wasian in 1939-1940 in SE Birds Head. All discoveries to date in Miocene 'Klasafet Limestone' reefs. First systematic use of gravity surveys and aerial photo geology in oil exploration?)

Gibbins, S.L. (2006)- The magmatic and hydrothermal evolution of the Ertsberg intrusion in the Gunung Bijih (Ertsberg) mining district, West Papua, Indonesia. Ph.D. Thesis University of Arizona, Tucson, p. 1-384.
(online at: http://arizona.openrepository.com/arizona/handle/10150/195874)
(Ertsberg complex in W Papua intrusion- and carbonate-hosted mineralization associated with 3.28-2.97± 0.54 Ma multi-phase intrusive complex)

Gibbins, S., S. Titley & K. Friehauf (2003)- Age, origin, petrology and petrography of the Ertsberg Diorite, West Papua, Indonesia. Geological Society of America (GSA), 2003 Annual Meeting, Boulder, Abstracts with Programs 35, 6, p. 400. *(Abstract only)*
(Ertsberg Diorite hosts several major copper-gold-bearing skarns in sediments along margins and in roof pendants. U-Pb dates on zircons indicate crystallization age of ~3 Ma. Biotite-clinopyroxene assemblage suggests depths <2 km, similar to formation of adjacent Grasberg. Mineralization at Ertsberg soon after crystallization of main igneous body)

Gibson-Robinson, C., N.M. Henry, S.J. Thomson & H.T. Raharjo (1990)- Kasim and Walio Fields-Indonesia Salawati Basin, Irian Jaya. In: E.A. Beaumont & N.H. Foster (eds.) American Assoc. Petroleum Geol. (AAPG), Treatise of Petroleum Geology, Stratigraphic traps I, Atlas of Oil and Gas Fields, p. 257-295.
(Walio and Kasim, discovered in 1973 are two largest fields in Salawati Basin. Main production from Late Miocene Kais Fm reefal limestones, minor production from 'U' and 'Textularia 2' limestones above Kais Fm)

Gibson-Robinson, C. & H. Soedirdja (1986)- Transgressive development of Miocene reefs, Salawati Basin, Irian Jaya. Proc. 15th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 377-403.
(Salawati Basin Miocene reefs grew on extensive carbonate platform during transgressive episodes in Miocene. Three main stages of transgressive reef growth, followed by regressive phases of termination)

Giddings, J.W., W. Sunata & C.J. Pigram (1993)- Reinterpretation of paleomagnetic results from the Bird's Head, Irian Jaya: new constraints on the drift history of the Kemum terrane. Exploration Geophysics 24, p. 283-290.
(Paleomag sampling of Permian- Tertiary sediments in central Birds Head of W Papua supports derivation of Kemum terrane from East, from NE Australian margin near ~150° E. Large-scale Neogene clockwise rotation can be ruled out. Sometime between Late Triassic? and Eocene 55° CCW rotation (most likely latest Cretaceous-E Tertiary rifting from Australia N margin). After Eocene, Kemum Terrane rafted W-ward. Amalgamation of Kemum and Misool terranes took place in latest Oligocene; then amalgamated with Australian craton in M Miocene, causing composite terrane to rotate 10° CCW)

Giddings, J.W., W. Sunata & C.J. Pigram (1993)- Palaeomagnetic results from the Bird's Head, Irian Jaya: a new look at old data. In: C. Klootwijk (comp.) Paleomagnetism in Australasia, Seminar Abstracts, Australian Geological Survey Organisation (AGSO) Record 1993/20, p. 76-79.
(online at: www.ga.gov.au/corporate_data/14623/Rec1993_020.pdf)
(Extended Abstract. see also Giddings et al. 1993 above)

Ginting, C.S.P. & S.F. Baok (2008)- Hydrocarbon exploration trend at Akimeugah Basin Papua based on structural and tectonostratigraphic control. Proc. 37th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 463-475.
(online at: https://www.iagi.or.id/web/digital/14/2008_IAGI_Bandung_Hydrocarbon-Exploration-Trend.pdf)
(Summary of Tertiary Akimeugah foreland basin S of W Papua Central Range. No new data)

Gisolf, W.F. (1923)- On the rocks of Doorman top in Central New Guinea. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 24, p. 191-198.
(online at: https://dwc.knaw.nl/DL/publications/PU00014930.pdf)
(Petrographic description and chemical analysis of rocks from Doorman peak, W Papua Central Range, collected by P.F. Hubrecht during the Central New Guineaa/ Mamberamo expedition in 1920 or 1921: dark green peridotite, rich in magnetite, olivine, but without pyroxene or serpentine)

Gisolf, W.F. (1923)- Over het gesteente van den Doormantop in Centraal Nieuw Guinea. Verslagen Koninklijke Akademie van Wetenschappen, Amsterdam, Afd. Natuurkunde, 32, p. 160-167.
('On the rocks of the Doorman peak in central New Guinea'. Dutch version of paper above)

Gisolf, W.F. (1924)- Microscopisch onderzoek van gesteenten van Noord-Nieuw-Guinea. Jaarboek Mijnwezen Nederlandsch Oost-Indie 50 (1921), Verhandelingen 1, p. 133-161.
('Microscopic investigations of rocks from North New Guinea'. Descriptions of igneous and metamorphic rocks collected by Zwierzycki in Cyclops Mountains, etc.)

Glenister, B.F., L.M. Glenister & S.K. Skwarko (1983)- Lower Permian cephalopods from western Irian Jaya, Indonesia. Geological Research Development Centre (GRDC), Bandung, Seri Paleontologi 4, p. 74-85.
(Late Early Permian (Artinskian) cephalopods from Aifam B (Aifat) Fm mudstones in Aifam River, Tamiabuan sheet, Birds Head, associated with rich brachiopod fauna described by Archbold (1982). Incl. ?Gzheloceras and Pseudoschistoceras irianense n.sp. from Aifat Fm (also known from Timor?))

Gochioco, L.M., I.R. Novianti & R.V. Pascual (2002)- Resolving fault shadow problems in Irian Jaya (Indonesia) using prestack depth migration. The Leading Edge 21, 9, p. 911-912.
(Geophysics paper with little or no geology)

Goenadi, R.M., U. Pamuntjak & N. Surdhana (1977)- Geology and mining of the Gunung Bijih ore, Irian Jaya, Indonesia. In: A. Prijono et al. (eds.) Proc. First Indonesian mining symposium; the Indonesian mining industry, its present and future, Indonesian Mining Association, Jakarta, p. 288-312.

Gold, D.P. (2018)- The effect of meteoric phreatic diagenesis and spring sapping on the formation of submarine collapse structures in the Biak Basin, Eastern Indonesia. Berita Sedimentologi 41, p. 23-37.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/80)
(Neogene carbonate units that extend offshore into Biak Basin SW of Biak and Supiori islands, with pockmarks, headless canyons and semi-circular collapse structures, identified in multibeam bathymetric imagery)

Gold, D.P., F. Baillard, R. Rathore, Z. Zhang & S. Arbi (2021)- An integrated biostratigraphic, seismic reservoir characterization and numerical stratigraphic forward modelling approach to imaging drowned carbonate platforms: a case study from eastern Indonesia. In: J. Hendry et al. (eds.) Seismic characterization of carbonate platforms and reservoirs. Geological Society, London, Special Publ. 509, p. 205-226.
(manuscript online at: https://www.researchgate.net/publication/345767459_An_integrated_biostrat Etc.)
(New Guinea Limestone Group deposited across much of New Guinea. Platform drowned from M-L Miocene. Offshore Aru Basin reveals drowning succession, ~600 m thick; drowning event lasted around 4 Ma)

Gold, D.P., P. Burgess & M. Boudagher-Fadel (2017)- Carbonate drowning successions of the Bird's Head, Indonesia. Facies 63, 25, p. 1-23.
(online at: https://link.springer.com/content/pdf/10.1007%2Fs10347-017-0506-z.pdf)

(Anggrisi River section in E Birds Head of W Papua shows E Miocene (Te) Kais Lst platform carbonates overlain by ~20m thick heterolithic Burdigalian- Serravallian drowning sequence of progressively upward-deepening marine units. Uppermost brown packstone bed with Katacycloclypeus annulatus and Miogypsina antillea. Drowning sequence overlain by Tortonian Klasafet/ Klamogun marine clastics. Cause of platform drowning attributed to reduction in rates of carbonate accumulation due to excess nutrients. Duration of drowning event across Birds Head region ~9.5 My (18.0- 8.6 Ma))

Gold, D.P., M. Casas-Gallego, R. Holm, M. Webb & L.T. White (2020)- New tectonic reconstructions of New Guinea derived from biostratigraphy and geochronology. Proc. Digital Technical Conference 2020, Indonesian Petroleum Association (IPA), IPA20-G-61, p. 1-26.
(online at: www.researchgate.net/publication/344319465_New_tectonic_reconstructions_of_New_Gu Etc.))

Gold, D., R. Hall, P. Burgess & L. White (2014)- The Biak Basin and its setting in the Bird's Head region of West Papua. Proc. 38th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA14-G-298, p. 1-13.
(Seismic and multibeam data across Sorong Fault Zone E of Birds Head. Drowning of Kais Limestone platform in Biak Basin may be linked to initiation of strike-slip movements on Fault Zone and parts of Biak Basin sequences may be deposits of Mamberamo River delta now displaced W)

Gold, D., R. Hall & P. Burgess (2014)- Neogene structural history of Biak and the Biak Basin, Eastern Indonesia. American Geophysical Union (AGU), Fall Meeting, San Francisco, T53C-4705, 1p. *(Poster Abstract)*
(Biak Basin between Biak and Yapen underlain by Paleogene intra-oceanic island arc basement. Structural history three stages: (1) E Miocene compression, tied to collision of arc with N edge of Australian continental margin, with E Miocene carbonate deposition following collision; (2) M-L Miocene rifting and (3) Pliocene-Pleistocene strike-slip, tied to initiation of major regional faults that accommodated convergence between Pacific and Australian plates and uplifted Miocene carbonates as pop-up structures)

Gold, D.P., L. White, I. Gunawan & M. Boudagher-Fadel (201x)- Palaeogeographic reconstructions of western New Guinea from biostratigraphic data. Manuscript, 76 p. *(Unpublished?)*
(online at: https://discovery.ucl.ac.uk/id/eprint/10094894/1/Gold-etal-New-Guinea-Forams-v3.pdf)
(Early version of Gold et al. 2017, below? With paleogeographic maps and good plates of Cenozoic (larger) foraminifera in thin sections)

Gold, D.P., L. White, I. Gunawan & M. Boudagher-Fadel (2017)- Relative sea-level change in western New Guinea recorded by regional biostratigraphic data. Marine and Petroleum Geology 86, p. 1133-1158.
(manuscript online at: https://discovery.ucl.ac.uk/id/eprint/10048895/1/Boudagher-Fadel_Gold-et-al-New-Guinea-Sea-Level.pdf)
(Paleogeography of W New Guinea from Carboniferous- Present. Biostratigraphic data suggests two major transgressive-regressive cycles in regional relative sea-level, with highest sea levels in Late Cretaceous and Late Miocene and terrestrial deposition prevalent in Late Paleozoic and E Mesozoic. Sea levels dropped between Late Cretaceous and Paleogene, with widespread shallow water carbonate platform development in the M-L Eocene. Minor transgressive event in Oligocene. E Miocene collision marked by regional unconformity. Carbonate drowning event in M Miocene, etc.)

Gouwentak, C.J. (1939)- De exploratie naar goud in Nederlands Zuidwest Nieuw Guinea. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 56, 2, p. 220-235.
('The exploration for gold in Netherlands SW New Guinea'. Travel account of 1937 expedition up Lorentz/ Noordoost/ Van der Sande Rivers area S of Central Range by 'Mijnbouwmaatschappij Nederlandsch Nieuw Guinea' expedition. Limited geology info: occasional outcrops of marine sediment, further upstream Eocene-Miocene Nummulites- Lepidocyclina limestones, coal and older rocks. One flammable gas seep along Noordoost River. Frequent earthquakes. Very little or no traces of gold in surveyed area)

Gow, P.A & J.L. Walshe (2005)- The role of preexisting geologic architecture in the formation of giant porphyry-related Cu ± Au deposits: examples from New Guinea and Chile. Economic Geology 100, 5, p. 819-833.

(Development of giant porphyry copper/ gold deposits in New Guinea and Chile during Tertiary magmatic events that overprinted earlier extensional tectonic settings. During collision deeply detached listric faults inverted and focused uplift, exhumation and fluid flow. Steep transverse faults activated to form wrench systems, pathways for magma or fluid. Ore deposits commonly in hanging wall of thrusts. Competent flat-lying packages formed plates, like Darai/Mendi Limestone or equivalents in New Guinea, overlying folded, weaker units underneath. These plates appear impeded magma ascent and formed cap)

Graham, S., N. Pearson, S. Jackson, W.Griffin & S.Y. O'Reilly (2004)- Tracing Cu and Fe from source to porphyry; in situ determination of Cu and Fe isotope ratios in sulfides from the Grasberg Cu-Au deposit. Chemical Geology 207, 3-4, p. 147-169.
(Cu and Fe isotope variations occur within Grasberg porphyry and skarn sulfides, showing isotopes can be important tool for interpretation of hydrothermal processes)

Granath, J.W. & R.M.I. Argakoesoemah (1989)- Variations in structural style along the eastern Central Range thrust belt, Irian Jaya. Proc. 18th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 79-89.
(Warim block in E part of West Papua Central Ranges part of S-vergent thin-skinned fold and thrust belt. East of 140°E thick-skinned structures, which persist into PNG. Structures in thin-skinned part of belt appear to be in process of overprinting by major strike-slip zone)

Granath, J.W. & S.A. Hermeston (1993)- Relationship of the Toro formation and the Alene Sands of Papua New Guinea to the Woniwogi Formation of Irian Jaya. In: G.J. & Z. Carman (eds.) Petroleum exploration and development in Papua New Guinea, Proc. 2nd PNG Petroleum Convention, Port Moresby, p. 201-206.
(Central Irian Jaya unconformity between M Jurassic Kopai clastics and Late Valanginian. Woniwogi sst mainly of Hauterivian- E Barremian age, and equivalent of PNG Alene sst of PNG, not Berriasian- Valanginian Toro sst)

Granath, J.W., T.O. Simanjuntak & M.S. Gage (1992)- Cretaceous stratigraphy of Eastern Irian Jaya. Abstracts AAPG International Conference Sydney 1992, American Assoc. Petroleum Geol. (AAPG) Bull. 76, 7, p. 1103.
(Abstract only)
(C Irian Jaya U. Valanginian-Lw Hauterivian Woniwogi sst transgressive over M Jurassic clastics, with more complete Jurassic- Lw Cretaceous section in E Irian Jaya. Coniacian- Campanian Ekmai sst marks abrupt downward shift in relative sea level, followed by transgression. Angular unconformity in Maastrichtian-Paleocene Waripi Fm suggest Late Cretaceous tectonics overprinting passive margin subsidence)

Granath, J.W., K.A. Soofi & J.B. Mercer (1991)- Applications of SAR in structural modeling of the Central Ranges thrust belt, Irian Jaya, Indonesia. In: R.H. Rogers (ed.) Proc. 8th Conf. Geologic remote sensing; exploration, engineering and environment, Denver, p. 105-116.

Gregory, C.H. (2004)- Subsurface meso-scale structural geology and petrology near Big Gossan ore body, Ertsberg (Gunung Bijih) mining district, Irian Jaya, Indonesia. M.Sc. Thesis University of Texas, Austin, p. 1-213. *(Unpublished)*

Gunawan, I. (2013)- Mesozoic and Cenozoic siliciclastic sedimentary rocks of the Bird's Head of New Guinea, Indonesia, Ph.D. Thesis, Royal Holloway, University of London, p. *(Unpublished)*
(Bird's Head area of West Papua/ New Guinea is underlain by Australian continental crust and has a relatively complete Paleozoic-Recent stratigraphic record. Etc.)

Gunawan, I., R. Hall, C. Augustsson & R. Armstrong (2014)- Quartz from the Tipuma Formation, West Papua: new insights from geochronology and cathodoluminescence studies. Proc. 38th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA14-G-303, p. 1-14.
(online at: http://searg.rhul.ac.uk/pubs/gunawan_etal_2014%20Tipuma%20quartz%20West%20Papua.pdf)
(Triassic or Jurassic-age Tipuma Fm sandstones of E Birds Head with common quartz of volcanic and low-grade metamorphic origin. Zircons mainly Permo-Triassic age (205-275 Ma; peak ~230-250 Ma). Also Proterozoic populations of ~975 Ma, 1.4-1.6 Ga and 1.8-2.0 Ga; few Archean grains (2.8-3.2 Ga). Two main sources: (1)

volcanoes at active N New Guinea margin, N of Tasman Line, and (2) Precambrian basement of N Australia (or nearby Kemum Terrane provenance?; JTvG). Detrital zircon ages in 'Tipuma Fm' sample from Birds Body (Tembagapura area) differ from Birds Head: absence of Late Permian-Triassic, but with common Permian-Devonian grains (292-412 Ma) and few Silurian- Ordovician grains, suggesting sample is either older (E Permian?), or was deposited further from Permo-Triassic N Andean type volcanic arc)

Gunawan, I., R. Hall & M.A. Cottam (2011)- Age, character and provenance of the clastic Tipuma Formation, West Papua, Indonesia: new insights from detrital zircon dating. In: Conference on Sediment provenance studies in hydrocarbon exploration & production, Geological Society, London, 2011, p. 30 *(Abstract only)*
(Tipuma Fm of Birds Head poorly dated fluvial deposits between Permian- Cretaceous, 90-150m thick. Detrital zircon age populations from Lower Mb Triassic, Permian and Carboniferous and Proterozoic peaks. Ages in Middle Mb mainly Triassic-Carboniferous with few Ordovician grains. Upper Mb has important M Triassic and Late Permian populations, also Carboniferous, Devonian, Silurian and Ordovician. Maximum depositional ages for Tipuma Fm Late Triassic (Lower Mb ~214 Ma, Middle Mb 229 Ma, Upper Mb 205 Ma). No strong evidence for rifting event. Common Late Triassic subhedral zircons in Upper and Lower Members suggest volcanic activity in Birds Head)

Gunawan, I., R. Hall & B. Sapiie (2014)- Triassic reservoir characteristics of the Bird's Head, New Guinea, Indonesia: new insight from provenance study. International Petroleum Technical Conference (IPTC), Kuala Lumpur, IPTC-18069-MS, p. 1-9.
(Triassic- Jurassic Tipuma Fm sandstones and conglomerates sourced from acid volcanic, metamorphic and recycled sedimentary rocks to N and from N Australian Craton. Quartz provenance dominated by low-T metamorphics and volcanics with little plutonic origin. Youngest zircon ages indicate deposition in Triassic. Recycled zircon populations Permo-Triassic (205-275 Ma) and Proterozoic (~975 Ma, 1.4-1.6 Ga and 1.8-2.0 Ga) populations), with few grains of Archean age (2.8-3.2 Ga). Tipuma Fm probably not deposited in simple continental setting. Decline of volcanic quartz and increase in Carboniferous-Proterozoic zircons in Middle Member indicate reduced sediment from volcanic arc and increased contribution from N Australia)

Gunawan, I., R. Hall & B. Sapiie (2015)- Late Neogene history of the Bird's Head area, West Papua, Indonesia: an insight from detrital zircon. AAPG/SEG Int. Conf. & Exh., Melbourne 2015, Search and Discovery Article 51245, p. 1-44. *(Abstract + Presentation)*
(online at: https://www.searchanddiscovery.com/documents/2016/51245gunawan/ndx_gunawan.pdf)
(Detrital zircon age groups in M Miocene clastic Klasafet, E Pliocene Steenkool/ Klasaman Fms and Pleistocene fluvial quartz-rich Konjah Fm (formerly mapped as Sirga Sst?): Pliocene (~3 -5 Ma; only in Konjah Fm), Miocene (~12-20 Ma; from Lembai diorite?), and Permian-Triassic (~205-275 Ma) and Proterozoic (~0.9-1.2 Ga, ~1.4-1.6 Ga, ~1.8-2.0 Ga). Increase in Precambrian zircons from M Miocene-Lower Pliocene, probably reflecting unroofing of NE Birds Head (Kemum High). Second phase of acid igneous activity in Pliocene reflected by E-M Pliocene zircons in Konjah Fm and may derive from nearby dacite intrusions (~3.5 Ma). M Pliocene unconformity in Bird's Head, continuing offshore, probably related to Sorong Fault and predating Seram Trough development)

Gunawan, I., R. Hall & I. Sevastjanova (2012)- Age, character and provenance of the Tipuma Formation, West Papua: new insights from detrital zircon dating. Proc. 36th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA12-G-027, p. 1-14.
(online at: http://searg.rhul.ac.uk/pubs/gunawan_etal_2012%20Tipuma%20New%20Guinea.pdf)
(U-Pb ages of detrital zircons from 11 Tipuma Fm sandstone samples show Permo-Triassic (234-280 Ma), Mesoproterozoic (1.4-1.6 Ga) and Paleoproterozoic (1.8-2.3 Ga) age peaks. Maximum age of deposition of Tipuma Fm Late Triassic (~202 Ma). Tipuma Fm immature lithic sandstone; lithic fragments mainly sedimentary and metamorphic rocks. Fresh volcanic quartz and zircon suggest acid igneous activity in Birds Head during deposition in M-L Triassic)

Haberle, S.G., G.S. Hope & Y. DeFretes (1991)- Environmental change in the Baliem Valley, montane Irian Jaya, Republic of Indonesia. J. of Biogeography 18, 1, p. 25-40.

(Floor of Baliem Valley in W Papua Central Range at 1420 m altitude. Initial date for burning and slope degradation is 26,000 yr BP, based on charcoal in slope wash. Kelela swamp infilled meander which commenced building organic sediments about 7000 yr BP. Pollen and magnetic analyses show high level of human disturbance from that time. Casuarina widely grown after 2900 yr BP)

Hadipandoyo, S., Mujito & T. Wibowo (1996)- Hydrocarbon resource assessment of carbonate and coarse clastic sediment plays, Cenderawasih Bay area, Irian Jaya, Indonesia. In: S.Y. Kim et al. (eds.) Proc. 32nd Annual Session Coord. Comm. Coastal Offshore Geoscience Program. E and SE Asia (CCOP), Tsukuba 1995, p. 69-78.
(Cenderawasih Bay area belongs to W part of Waipoga- Waropen- Mamberano basin, N New Guinea. Assumed to be underlain by Pre-Tertiary volcanics and metamorphics, part of Pacific Plate. Tertiary clastic middle wedge play and carbonate basal wedge plays present. Oil potential as high as 126 M Tons, expected value 43 MTons (risked values 52 and 8.4 MTons resp.). Total gas potential 1,060 Gm3, expected value 505 Gm3)

Hakim, A.S., Baharuddin & E. Susanto (1995)- Geological map of the Gunung Doom Quadrangle, Irian Jaya, 3213, 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(Geologic map of Rouffaer Mts in NW part of West Papua. E-W trending young anticlines, mainly cored by M-L Miocene Makats Fm, overlain by Late Miocene- Pleistocene clastics. Oldest formation is ~Oligocene Auwewa Volcanics, in SW corner of map only)

Hakim, A.S. & B.H. Harahap (1993)- Geologi Lembar Waren (Pulau Ratewa). Geological Research Development Centre (GRDC), Bandung, Special Publ. 14, p. 42-53.
('Geology of the Lembar Sheet (Ratewa Island')

Hakim, A.S. & B.H. Harahap (1994)- Geological Map of the Waren Quadrangle Irian Jaya, 3113, 1:250,000 Scale. Geological Research Development Centre (GRDC), Bandung.
(Map sheet at E side of Cenderawasih Bay. Mainly Pliocene and younger rocks. Offshore Moor Island with Eocene Moor Limestone with Pellatispira and Nummulites. Small outcrop of (Late) Oligocene marine sandstone-limestone at G. Sanoringga near W coast (odd?))

Hakim, A.S., Harahap, B.H. & N. Ratman (2003)- Neotektonik Papua (Irian Jaya). In: Pros. Forum Penelitian dan Pengembangan Energi dan Sumberdaya Mineral, Badan Litbang Energi Sumberdaya Mineral, p. 500-517.
('Neotectonics of Papua (Irian Jaya)')

Hall, R. (2001)- Extension during Late Neogene collision in East Indonesia and New Guinea. J. Virtual Explorer 4, p. 17-24.

Hall, R., J. Ali, C. Anderson, S. Baker et al. (1992)- The Sorong Fault Zone. Processes and rates of terrane amalgamation. University of London SE Asia Research Group, Report 111, 211p. *(Unpublished)*
(Stratigraphy, paleomagnetism, volcanism, etc. of Halmahera, Obi, Sula, Waigeo, etc. Regional unconformity at 45 Ma-Mid Eocene. Collision of Philippine Sea arc and Australian continent at ~25 Ma ends volcanism and starts strike slip zone)

Hammarstrom, J.M., B.T. Setiabudi, D.N. Sunuhadi, G.R. Robinson, C.L. Dicken, S. Ludington, A.A. Bookstrom & M.L. Zientek (2013)- Porphyry copper assessment for Tract 142pCu7205, Moon-Utawa-Ular Merah Areas-Indonesia. In: J.M. Hammarstrom et al., Porphyry copper assessment of Southeast Asia and Melanesia, U.S. Geological Survey, Scientific Investigations Report 2010-5090-D, Appendix L, p. 186-196.
(online at: https://pubs.usgs.gov/sir/2010/5090/d/sir2010-5090d_text.pdf)
(Assessment of porphyry copper deposits in M Miocene Moon Arc along N margin of Birds Head and coeval rocks in Utawa Arc (SE Birds Neck) and Ular Merah areas N of western Central Range (age-equivalent to Maramuni Arc in Mobile Belt of PNG). May have formed in N-facing arc along passive continental margin prior S-directed thrusting in Late Miocene (Melanesian orogeny). Ular Merah area centered on late E Miocene (17.4-16.6 Ma) porphyry system that intruded allochthonous Central Ophiolite Belt. No known deposits)

Hammarstrom, J.M., B.T. Setiabudi, D.N. Sunuhadi, G.R. Robinson, C.L. Dicken, S. Ludington, A.A. Bookstrom & M.L. Zientek (2013)- Porphyry copper assessment for Tract 142pCu7203, Western Medial New Guinea Magmatic Belt- Indonesia. In: J.M. Hammarstrom et al., Porphyry copper assessment of Southeast Asia and Melanesia, U.S. Geological Survey, Scientific Investigations Report 2010-5090-D, Appendix M, p. 197-211.
(online at: https://pubs.usgs.gov/sir/2010/5090/d/sir2010-5090d_text.pdf)
(Assessment of porphyry copper deposits in Central Highlands of West Papua. Tract represents western part (W of Tasman Line) of 1800km long Medial New Guinea magmatic belt, an, E-W belt of discontinuous exposures of late Miocene- Pliocene igneous rocks in foldbelt of central New Guinea Island (incl. Central Birds Head) ('post-Maramuni Arc', more alkaline magmatism). No well-defined subduction zone associated with belt, although seismic tomography suggests existence of old subduction slabs in mantle under New Guinea. Includes Grasberg supergiant porphyry copper-gold deposit (~3 Ma))

Hammarstrom, J.M., B.T. Setiabudi, D.N. Sunuhadi, G.R. Robinson, C.L. Dicken, S. Ludington, A.A. Bookstrom & M.L. Zientek (2013)- Porphyry copper assessment for Tract 142pCu7204, Rotanburg-Taritatua Area-Indonesia. In: J.M. Hammarstrom et al., Porphyry copper assessment of Southeast Asia and Melanesia, U.S. Geological Survey, Scientific Investigations Report 2010-5090-D, Appendix N, p. 212-218.
(online at: https://pubs.usgs.gov/sir/2010/5090/d/sir2010-5090d_text.pdf)
(Assessment of porphyry copper deposits in poorly-known Late Miocene to Pliocene-Pleistocene intrusive rocks N of Central Range. No mines, prospects, or known copper or gold occurrences in this segment)

Hammarstrom, J.M., B.T. Setiabudi, D.N. Sunuhadi, G.R. Robinson, C.L. Dicken, S. Ludington, A.A. Bookstrom & M.L. Zientek (2013)- Porphyry copper assessment for Tract 142pCu7208, Inner Melanesian arc terranes I-Indonesia. In: J.M. Hammarstrom et al., Porphyry copper assessment of Southeast Asia and Melanesia, U.S. Geological Survey, Scientific Investigations Report 2010-5090-D, Appendix R, p. 261-267.
(online at: https://pubs.usgs.gov/sir/2010/5090/d/sir2010-5090d_text.pdf)
(Assessment of porphyry copper deposits in 1000 km-long Inner Melanesian Arc, a calc-alkaline arc that developed in Eocene- E Oligocene from SW-ward subduction of Pacific Plate. Corresponds with Melanesian Arc terrane of Cloos et al. (2005). In Indonesia in Birds Head/ N Coastal Irian Jaya Arc (incl. Waigeo, Yapen, Cycloops Mts?). Age-equivalent to accreted terranes in Adelbert-Finisterre area of PNG and New Britain Island. No known porphyry copper deposits or prospects)

Hampton, O.W. (1997)- Rock quarries and the manufacture, trade, and uses of stone tools and symbolic stones in the Central Highlands of Irian Jaya, Indonesia: ethnoarchaeological perspectives. Ph.D. Thesis Texas A & M University, College Station, p. 1-887. *(Unpublished)*
(online at: http://anthropology.tamu.edu/papers/Hampton-PhD1997.pdf)
(Mainly anthropological study of stone tool usage in highlands of W Papua. Stone tools from 4 main quarry areas. In West: two quarry areas in metamorphics-ophiolite belt along N side of Central Range, Yeineri (glaucophane schist, epidote amphibolite, epidote chlorite schist) and Tagime (meta-argillite). In East: Sela and Langda (lighter colored basalts-andesites and meta-basalts))

Hanafi, B.R. & B. Priadi (2010)- Indikasi keberadaan endapan melange di wilayah Kotaraja dan sekitarnya, Kota Jayapura, Papua. Proc. 39th Annual Conv. Indonesian Association Geologists (IAGI), Lombok, PIT-IAGI-2010-036, p. 1-4.
(online at: https://www.iagi.or.id/web/digital/12/2010_IAGI_Lombok_Indikasi-Pemberdayaan-Endapan.pdf)
('Indications for the occurrence of melange deposits in the Kotajaya district, Jayapura, Papua'. Outcrops of chaotic, sheared rocks with fragments of peridotite, gabro, sandstone, limestone, schist, gneiss, quartzite, ranging in size from 2cm- 15m or more, floating in greenish grey scaly clay matrix. Related to Late-Miocene (subduction) tectonic activity)

Handoyo, B.C. Ronlei, A.S. Sigalingging, P. Avseth, E. Triyana, O. Akin, P. Young, J. Alcalde & R. Carbonell (2024)- Characterization of carbonate reservoir potential in Salawati Basin, West Papua: Analysis of seismic Direct Hydrocarbon Indicator (DHI), seismic attributes, and seismic spectrum decomposition. Indonesian J. on Geoscience 11, 2, p. 173-188.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/1039/468)

(Interpretation of Miocene Kais Fm carbonate reservoir potential from a single TGS 2008 seismic line over anticlinal structure offshore S Salawat Basin)

Handyarso, A. & T. Padmawidjaja (2017)- Struktur geologi bawah permukaan Cekungan Bintuni berdasarkan data gaya berat. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 18, 2, p. 53-65.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/125/284)
('Subsurface geological structures of the Bintuni Basin based on gravity data analysis'. Identification of NW-SE trending folds onshore southern Birds Head)

Handyarso, A. & H.M. Saleh (2017)- Strike-slip fault identification beneath of the Wiriagar oil field. Scientific Contributions Oil and Gas (SCOG), Lemigas, 40, 3, p. 133-144.
(online at: http://journal.lemigas.esdm.go.id/ojs/index.php/SCOG/article/view/51/pdf)
(Gravity, seismic and well data indicate SW-NE trending left-lateral strike-slip fault under Wiriagar anticline, Birds Head, West Papua)

Hanzawa, S. (1947)- Note on *Lacazina wichmanni* Schlumberger from New Guinea. In: Recent progress of natural sciences in Japan, Nihon Shizen Kagaku Shuho (Japanese J. Geology and Geography) 20, 2-4, p. 1-4.
(Descriptions of Eocene larger foram Lacazina wichmanni from subsurface limestone of Birds Head region, New Guinea (species re-assigned to genus Lacazinella by Crespin (1962), as Lacazina is an unrelated Cretaceous genus; JTvG))

Harahap, B.H. (1996)- New age results from the Tertiary succession of the Yera anticline, south Central Range of Irian Jaya. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 6, 63, p. 2-9.
(Yera Anticline in Waghete map sheet in SW part of W Papua Central Range contains ~2500m of folded Pre-Permian- Cretaceous clastic sediments, overlain by Tertiary New Guinea Limestone. Permian Aiduna Fm (~1300m) sandstones-shales with up to 40cm thick coals with common palynomorphs incl. Protohaploxypinus limpidus, P. amplus, Cordaitina, etc. ?Triassic Tipuma Fm (280m) reddish mudstones-sandstones barren of fossils. No fossil evidence for Triassic or Jurassic ages. Kembelangan Gp entirely of Cretaceous age: (1) Kopai Fm (90m) glauconitic quartz sst with Late Berriasian- Barremian palynomorphs (Muderongia spp., etc.), (2) M-L Barremian Woniwogi Sst (60m) 'orthoquartzite' with Ovodinium cinctum, Muderongia mcwhaei, M. australis, etc. (= E Aptian?), (3) Late Aptian- E Albian Pinya Fm (565m) with Muderongia tetracantha, Dingodinium cerviculum and (4) Santonian- Maastrichtian Ekmai Fm (380m) glauconitic sst)

Harahap, B.H. (1997)- The metamorphic complex of the Central Range of Irian Jaya, with special reference to Enarotali Quadrangle. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 7, 67, p. 16-25.
(Derewo metamorphic complex of Central Range of W Papua located between deformed Australian margin platform sediments in S and ultramafic Irian Jaya ophiolite in N. Metamorphics mainly low T and low P black slate, phyllite and schist, with some metavolcanic intercalations and quartzite. Metamorphic increases gradually from S to N. Original rocks Mesozoic and possibly also E Tertiary-age fine marine slope deposits. Complex isoclinally folded structures suggest at least two phases of deformation. Initial metamorphism during Pacific Plate obduction, probably in Oligocene (in PNG Late Eocene foraminifera in slightly metamorphosed rocks, Late Oligocene- E Miocene forms in unmetamorphosed rocks; Dow, 1977). In M Miocene local intrusions by Utawa diorite, then deformed by Late Miocene- Pleistocene Melanesian orogeny)

Harahap, B.H. (1997)- Central Range of East Irian Jaya: review of gold exploration. Bull. Geological Research Development Centre (GRDC) 21, p. 63-77.
(Gold mineralization associated with Plio-Pleistocene calc-alkaline and alkaline intrusives and volcanics. At least 25 intrusive bodies identified in Central Range of E Irian Jaya)

Harahap, B.H. (1997)- Konstruksi penampang kesetimbangan antiklin umar Irian Jaya Barat. GRDC Geosurvey Newsletter 17, p. 16-19.
('Construction of balanced cross-sections of the Umar anticline, W Irian Jaya')

Harahap, B.H. (2009)- Tectonostratigraphy of the Phanerozoic continental province succession in Southern

Papua, Eastern Indonesia. Proc. 11th Regional Congress Geology Mineral Energy Resources of SE Asia (GEOSEA 2009), Kuala Lumpur, p. 55-56. *(Abstract)*
(online at: www.gsm.org.my/products/702001-101669-PDF.pdf)

Harahap, B.H. (2010)- Tectonostratigraphy of the Phanerozoic continental province succession in Southern Papua, Eastern Indonesia. Meeting IGCP Project 507, Paleoclimates in Asia during the Cretaceous, Yogyakarta 2010, p. 67-71. *(Abstract only)*
(online at: http://igcp507.grdc.esdm.go.id/abstracts/74-..)

Harahap, B.H. (2012)- Tectonostratigraphy of the southern part of Papua and Arafura Sea, Eastern Indonesia. Jurnal Geologi Indonesia 7, 3, p. 167-187.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/download/145/145)
(Review of Paleozoic- Cenozoic stratigraphy of S Papua, tied to tectonic events)

Harahap, B.H., A.S. Hakim & D.B. Dow (1990)- Geological map of the Enarotali sheet, Irian Jaya,1:250,000 (Quad. 3112). Geological Research Development Centre (GRDC), Bandung.
(Map of west part of Central Range and area to North. Complex geology with three domains: (1) New Guinea Platform in SE, with folded Triassic- Miocene; (2) Oceanic Realm in N, with ultramafic rocks and amphibolite, overlain by Eocene- E Miocene Auwewa Gp basaltic-andesitic arc volcanics with E Oligocene Nanamajiro Nummulites Limestone, Late Miocene Nabire Volcanics; (3) 'Transitional zone' of Oligocene? Derewo Metamorphics intruded by ~100km long M Miocene Utawa Diorite, etc.)

Harahap, B.H., A.S. Hakim & U. Hartono (1998)- Upper Paleozoic- Lower Mesozoic magmatic intrusions in Western Irian Jaya. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 8, 87, p. 2-14.
(Suite of granitoids in N and NE Birds Head and E side of 'Birds Neck', fringing Kemum Block and intruded into folded Silurian-Devonian Kemum Gp 'flysch' and metasediments. K-Ar dating suggests two age groups: (1) E Carboniferous (Melaiurna; 324, 328 Ma) and (2) Permian- Triassic (Kwatisore-197 Ma, Maransabadi- 231, 278 Ma, Netoni -158-241 Ma, Anggi-227-295 Ma, Wariki- 226-258 Ma and Warjori- 294, 295 Ma). Possibly related to Permian- Triassic granitoids in PNG (Kubor granite/ 224 Ma, Kimil diorite). Group 2 of potassic affinity, rel. high Nb, etc., not typical calk-alkaline, but more likely tied to extensional periods along N part of Australian-New Guinea Gondwana margin?)

Harahap, B.H. & Y. Noya (1995)- Geological map of the Rotanburg (Idenburg Barat), Irian Jaya (Quad 3312). Geological Research Development Centre (GRDC), Bandung.
(Geologic map of central part of West Papua: N part of Central Range and 'Meervlakte' of Idenburg River. Central Range mainly folded Jurassic- Cretaceous continental margin deposits, along N side overthrust by isoclinally folded Derewo Metamorphics with glaucophane schist and ultramafic rocks, overlain by Auwewe volcanics. Pliocene Timepa granodiorite Intrusives (~3-5 Ma) possibly genetically associated with Ilaga volcanics and Ertsberg- Grasberg Intrusives in Central Range and suggestive of Pliocene S-directed subduction episode)

Harahap, B.H. & H. Panggabean (2003)- Potensi hidrokarbon dengan acuan khusus terhadap singkapan batuan di daerah Aiduna dan Taporomay, Kabupaten Mimika, Papua. In: Pros. Forum Penelitian dan Pengembangan Energi dan Sumberdaya Mineral, Badan Litbang Energi dan Sumberdaya Mineral, p. 358-376.
('Hydrocarbon potential with special reference to rocks in the Aiduna and Tapomay areas, Timika, Papua')

Harahap, B.H. & U. Sukanta (1996)- Tectonostratigraphy of the Mesozoic- Cenozoic Pacific Province succession in northeastern Irian Jaya, Eastern Indonesia. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 6, 57, p. 17-31.
(NE Irian Jaya part of N New Guinea Mobile Belt, part of Pacific Province. Basement Jurassic ophiolites, associated with glaucophane-bearing metamorphics, obducted in Oligocene and exposed in Irian Ophiolite Belt, Cyclops Mts and Sorong-Yapen Fault Zone. Overlain by >10,000m of Cenozoic volcanic and non-volcanic sediments. Paleocene- Oligocene- E Miocene Auwewa Gp volcanics with pillow lavas, tuffs and limestone lenses, >4000m thick (island arc deposits above N dipping subduction zone; equivalent of Bliri Volcanics in PNG). Around paleo-highs up to 850m of U Oligocene- M Miocene Darante Fm reefal limestones, with impressive reef

outcrops in Gauttier Mts. Unconformably overlain by ~1850m thick Makats Fm of late E Miocene- early Late Miocene flysch-type clastics, with limestone lenses and conglomerates with reworked Cretaceous claystone clasts. Overlain by >5000m of Late Miocene-Pleistocene Mamberamo Fm flysch)

Harahap, B.H. & U. Sukanta (1996)- Tectonostratigraphy of the Mesozoic- Cenozoic Pacific province succession in northeastern Irian Jaya, Eastern Indonesia. In: Sampurno et al. (eds.) Pros. Seminar Nasional Geoteknologi III, LIPI, Bandung, p. 518-538.
(Same paper as Harahap & Sukanta (1996))

Harahap, B.H., U. Sukanta & E. Rusmana (1994)- Structure of West Irian Jaya identified from Landsat imagery. Bull. Geological Research Development Centre (GRDC) 17, p. 13-21.

Harahap, B.H., J.B. Supandjono, Sukido, U. Margono & Y. Noya (1996)- Geology of the Rotanburg region. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 6, 55, p. 17-28.
(In Rotanburg map sheet of NE part of West Papua, N of Wamena area, Central Range. Three belt, from S to N: (1) 'Irian Jaya Platform' (= Central Range foldbelt): M Jurassic- Miocene sediments deformed in Late Miocene-Pliocene; (2) E-W trending belt of low-grade Oligocene? Derewo metamorphics thrust S-ward, probably continental slope sediments (in PNG with E Miocene cooling ages); (3) Ophiolite belt/ ultramafic complex, representing obduction zone. Metamorphic and ultramafic belts intruded by 8 stocks of Pliocene Timepa monzonite dioritic batholiths (probably subduction-related volcanic arc, similar to Ilaga Volcanics of Dow et al. 1986). ~500m thick Awewa Fm island arc volcanics on ultramafic rocks on N slope (= Pacific Plate). Also on N slope Miocene flysch-type deposits of Makats Fm)

Harahap, M.G.M. & E.D. Novitasari (2022)- Geomorfologi dan karakteristik nikel laterit di Desa Baingkete, Distrik Makbon, Kabupaten Sorong, Provinsi Papua Barat. INTAN Jurnal Penelitian Tambang 5, 2, p. 27-34.
(online at: https://jurnal-intan.ac.id/index.php/intan/article/view/147/93)
('Geomorphology and characteristics of nickel laterite in Baingkete Village, Makbon District, Sorong Regency, West Papua Province'. Nickel laterite deposits in Baingkete Village on weathered, obducted ultrabasic igneous rock in Sorong Fault Zone. Laterite profiles of limonite, saprolite and bedrock zones)

Hardjono, T.S. Asikin & J. Purnomo (1998)- Heat flow estimation from seismic reflection anomalies in a frontier area of the Sebakor Sea, Irian Jaya, Indonesia. In: J.L. Rau (ed.) Proc. 33rd Session Co-ord. Comm. Coastal Offshore Geoscience Programmes E and SE Asia (CCOP), Shanghai 1996, 2, p. 56-83.
(Bottom-simulating seismic reflector in deep water between Seram and Onin Peninsula related to presence of gas hydrate. Sub-seafloor depth of hydrate (300-600m in water depth 1100-1600m) used to estimate heat flow in frontier area without well data. Calculated heat flow values 0.83-1.43 ucal/cm2/sec (average 1.14); average geothermal gradient 3.9°C/ 100m)

Haris, A., I.B. Siburian & A. Riyanto (2017)- Facies modeling of Kais Formation limestone: A case study of Kafor field, West Papua, Indonesia. Int. J. of Geomate (Japan) 13, 40, p. 160-166.
(online at: https://geomatejournal.com/geomate/article/view/1387/1323)
(Facies modeling of M Miocene Kais Fm limestone reservoir in Kafor field (NNGPM, 1939), in Bintuni Basin, Birds Head, W Papua. Five carbonate facies: shelf, front reef, inter reef, back reef, and reef core. Associated facies interpreted as reefal platform carbonate. Reservoir quality in U and M Kais controlled by compaction and fracture porosity; Lower Kais controlled by dolomitization and dissolution)

Haris, A., G.S. Pradana & A. Riyanto (2017)- Delineating gas bearing reservoir by using spectral decomposition attribute: a case study of the Steenkool formation, Bintuni Basin. Proc. 2nd International Symposium Current Progress in Mathematics and Sciences, Depok 2016, AIP Conference 1862, 030163, p. 1-4. *(online at: https://pubs.aip.org/aip/acp/article/1862/1/030163/649903/Delineating-gas-bearing-reservoir-by-using)*

Harrington, L., S. Zahirovic, N. Flament & D. Muller (2017)- The role of deep Earth dynamics in driving the flooding and emergence of New Guinea since the Jurassic. Earth Planetary Science Letters 479, p. 273-283.

(manuscript online at: https://ses.library.usyd.edu.au/bitstream/2123/20875/2/Harrington _etal_PapueNewGuinna_dynamic_topography_since_Jurassic_EPSL_preprint.pdf)
(In New Guinea area periods of flooding and emergence since Jurassic inconsistent with magnitudes of global sea level changes, and suggest long-wavelength dynamic topography changes driven by subduction-driven mantle flow. Subduction at E Gondwana margin locally enhanced high eustatic sea levels from E Cretaceous (~145 Ma) to generate long-term regional flooding. Miocene dynamic subsidence associated with subduction of Maramuni Arc caused long-term inundation of New Guinea during period of global sea level fall)

Harrison, J.S. (1999)- Hydrothermal alteration and fluid evolution of the Grasberg porphyry Cu-Au deposit, Irian Jaya, Indonesia. M.Sc. Thesis, University of Texas at Austin, p. 1-205.
(online at: https://repositories.lib.utexas.edu/handle/2152/34176?show=full)
(Grasberg Au-rich porphyry copper at crest of Irian Jaya Central Range, hosted in 3 Ma old nested monzonite-monzodiorite intrusions. Three groups of prophyritic intrusions: Dalam, Main Grasberg and Kali. Multiple types of alteration and vein formation at margins of intrusions)

Hartiningsih, E., Syafrizal, I.G.B.E. Sucipta & S. Notosiswoyo (2022)- Multistage gold mineralization at the Wanagon gold prospect, Ertsberg District, Mimika Regency, Papua Province, Indonesia. Indonesian J. on Geoscience (IJOG) 9, 3, p. 279-290.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/771/372)
(Wanagon Gold prospect 3 km NWof Grasberg in Mesozoic- Cenozoic sedimentary rocks intruded by Wanagon monzodiorite-diorite -andesite dike. Three types of gold-bearing pyrite; only massive pyrite contains visible gold-bearing minerals such as native gold, electrum, and gold-telluride minerals. Deposit is distal gold skarn)

Hartono, O. Verdiansyah & I.M. Surata (2011)- Porphyry and skarn copper-gold discovery in Pegunungan Bintang, Papua. Proc. 36th HAGI and 40th IAGI Annual Conv., Makassar, JCM2011-023, p. 1-16.
(On a 2009 copper-gold discovery in Star mountains, Central Range near PNG border. In Indonesian)

Hartono, U., C. Amri & P.E. Pieters (1989)- Geological map of the Mar sheet, Irian Jaya, 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(Geologic map of N part of Birds Head. Two main domains, separated by E-W trending Sorong Fault. In S Paleozoic Kemum terrane with folded Silurian- Devonian turbiditic metasediments (Permian absent here), overlain by ?Triassic Tipuma Fm, Late Oligocene Sirga Fm and Miocene Kais Lst N of Sorong FZ melange is Tamrau Block with Tamrau Fm Jurassic- Cretaceous metasediments, overlain by Miocene Koor Fm limestone and M Miocene Moon Volcanics. Farther N Tosem Mts with Late Eocene- E Miocene Mandi volcanics (= part of 'Auwewa Arc?))

Hartono, U., U. Sukanta & N. Ratman (1989)- Pre- and post-Late Tertiary collision magmatic activity in Irian Jaya, Indonesia. In: B. Situmorang (ed.) Proc. 6th Regional Conference Geology mineral hydrocarbon resources of SE Asia (GEOSEA VI), Jakarta 1987, IAGI, p. 61-71.
(online at: https://www.iagi.or.id/web/digital/45/PIT-IAGI-1987-Paper-5.pdf)
(Eo/Oligocene- E Miocene island arc volcanics associated with Pacific Plate (result of N-ward subduction of Australian Plate) found in Birds Head, N coast of Birds body, small outcrops in Gauttier Mts and N flank Central Range. M Miocene and Plio-Pleistocene volcanics and intrusives in Birds Head, Neck and Central Range may be associated with M-L Miocene S-ward subduction)

Haryati, E., K. Dahlan, S.Y.Y. Mantiri & B. Singir (2021)- Profil dan karakteristik mineral nikel laterit di daerah Angkasapura, Kota Jayapura, Papua, Indonesia. Jurnal Fisika 11, 2, p. 95-104.
(online at: https://journal.unnes.ac.id/nju/index.php/jf/article/view/33067/12553)
('Profile and characteristics of laterite nickel minerals in the Angkasapura Area, Jayapura City, Papua, Indonesia'. Geoelectric resistivity survey in Angkasapura area in Cycloop mountains area. Percentages of nickel in nickel laterite samples: 1.3% in the red limonite layer, 1.4% in yellow limonite layer and 15.3% in saprock layer. Shows that nickel laterite in area has potential as source of nickel mining)

Heads, M. (2001)- Birds of paradise, biogeography and ecology in New Guinea: a review. J. of Biogeography 28, 5, p. 893-925.
(Biogeographic distributions of birds of paradise and other biota compatible with New Guinea accreted terrane tectonic model of Pigram & Davies (1987), including massive lateral strike-slip movement)

Heads, M. (2002)- Regional patterns of biodiversity in New Guinea animals. J. of Biogeography 29, 2, p. 285-294.
(Distribution of 622 modern animal species analysed. Centres of diversity in various groups of animals related to three main geological regions: Australian craton, accreted terranes and Cenozoic volcanic arcs)

Hefton, K.K., G.D. MacDonald, L.C. Arnold, A.L. Schappert & A. Ona (1995)- Copper-gold deposits of the Ertsberg (Gunung Bijih) Mining District, Irian Jaya. In: D. Mayes & P.J. Pollard (eds.) Geology and copper-gold deposits of the Ertsberg (Gunung Bijih) Mining District, Irian Jaya, Indonesia, 17th Int. Geochem. Expl. Symposium, James Cook University, Townsville, EGRU Contr. 53, p. 1-43.
(Overview of Freeport copper-gold mining project in W Papua. World's highest grade porphyry Cu-Au deposit, associated with Pliocene diorite intrusions)

Heim, A. (1953)- Geological observations in the Wisselmeer region. Eclogae Geologicae Helvetiae 46, p. 23-27.
(online at: https://www.e-periodica.ch/digbib/view?lang=en&pid=egh-001%3A1953%3A46%3A%3A31)
(Geological observations along traverse from Uta on S coast to Enarotali on Paniai Lake. Common Eocene limestones. Eroded anticlinal structures with Paleocene and Eocene outcrops Thick Eocene limestones with Lacazinella and other large forams. Above end-Eocene discontinuity abundant Upper Oligocene larger forams. Also Paleocene and U Tertiary marls and sandstones)

Heldring, O.G. (1912)- De Zuidkust van Nieuw-Guinea. Jaarboek Mijnwezen Nederlandsch Oost-Indie 38 (1909), p. 83-203.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB21:036305000:00005)
('The South coast of New Guinea'. Early, mostly geographic reconnaissance survey of S coast of W Papua, as part of the Military Exploration program)

Heldring, O.G. (1913)- Verslag over Zuid Nieuw-Guinea. Jaarboek Mijnwezen Nederlandsch Oost-Indie 40 (1911), Verhandelingen, p. 40-207.
(Report on geological observations during the 1909-1910 'Military Expedition' along S New Guinea rivers Digul, Eilanden, Setakwa, etc. Did not reach Central Range and stayed mostly in Tertiary and younger sediments. Most observations of rocks based on loose material in river banks: Eocene limestones, igneous rocks, etc. Fossils from expedition described by K. Martin)

Helmcke, D., K.W. Barthel & A. von Hillebrandt (1978)- Uber Jura und Unterkreide aus dem Zentralgebirge Irian Jayas (Indonesian). Neues Jahrbuch Geologie Palaontologie, Monatshefte 1978-11, p. 674-684.
('On Jurassic and Lower Cretaceous from the Central Range of Irian Jaya'. Late Jurassic- E Cretaceous ammonites mainly as loose float from dark shaly beds in N part Irian Jaya foldbelt. Ages mainly Oxfordian (Perisphinctes, Epimayaites), also Bajocian, Callovian, Tithonian and Early Cretaceous (incl. Blanfordiceras wallichi, Kilianella, Berriasella). U Jurassic ammonite faunas similar to Himalayan faunas of Spiti, Nepal)

Henage, L. (1993)- Mesozoic and Tertiary tectonics of Irian Jaya: evidence for non-rotation of Kepala Burung. Proc. 22nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 763-792.
(Rather unique interpretation of New Guinea tectonics)

Hendarjo, K.S. & R.E. Netherwood (1986)- Palaeoenvironmental and diagenetic history of Kais Formation, K.B.S.A., Irian Jaya. Proc. 15th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 423-438.

Hendro H.N., D, Andi K., B.D.H. Sasmita, Suwondo, Sapto H.W., A. Bachtiar, W. Utomo, Fatchur Z., N. Witasta & Y. Wijaya (2016)- Facies model of Upper Kais Member; a case study of the Miocene carbonates reservoir in

Bintuni Basin, West Papua. Proc. 40th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA16-644-G, p. 1-13.
(U Miocene Upper Kais Lst reservoir study in area of Mogoi-Wasian fields, Bintuni Basin. Fields carbonate buildups on Oligocene NW-SE trending anticlines, initially discovered in 1939-1941. Kais Lst subdivided into (1) lower Kais-Porous (~80m), (2) middle Wasian Lst (~45m) and Sekau Shale and (3) upper Mogoi Lst (70m). Main units subdivided into sequences. Porosity-permeability controlled by matrix porosity and fractures)

Henley, R.W., F.J. Brink, P.L. King, C. Leys, J. Ganguly, T. Mernagh, J. Middleton, C.J. Renggli, M. Sieber et al. (2017)- High temperature gas-solid reactions in calc-silicate Cu-Au skarn formation; Ertsberg, Papua Province, Indonesia. Contributions to Mineralogy and Petrology 172, 11-12, 106, p. 1-19.
(online at: www.researchgate.net/profile/Jibamitra-Ganguly/publication/321227494_High_temperatur Etc.)
(On 2.7-3.0 Ma Ertsberg East Skarn system, adjacent to Grasberg diorite intrusion and 2.5 km from giant 3.3 Ma Grasberg porphyry copper deposit. Formed through flux of magma-derived fluid through carbonate rock sequences at T>600° C and P<50 MPa (~2 km depth?))

Henley, R.W., T. Mernagh, C. Leys, U. Troitzsch, J. Bevitt, F. Brink, J. Gardner et al. (2022)- Potassium silicate alteration in porphyry copper-gold deposits: a case study at the giant maar-diatreme hosted Grasberg deposit, Indonesia. J. Volcanology Geothermal Research 432, 107710, p. 1-25.
(Giant 3.2 Ma Grasberg Cu-Au deposit formed within volcanic maar-diatreme complex, following resurgence in Pliocene magmatism. Deposit occurs from a few 100m depth to 1.7 km below paleosurface which is partially preserved as section of maar tuffs. Discussion of potassium silicate alteration)

Henry, C. & S. Das (2002)- The Mw 8.2, 17 February 1996 Biak, Indonesia, earthquake: Rupture history, aftershocks, and fault plane properties. J. Gepophysical Research: Solid Earth 107, B11, 2312, p. ESE 11-1-ESE 11-16.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2001JB000796)
(Rupture history of large Biak 1996 earthquake(largest thrust earthquake since 1977), occurring on shallow dipping thrust fault (strike 109°, dip 9°) probably S-dipping (New Guinea Trench). Rupture propagated bilaterally on fault extending 180 km W and 50 km E of hypocenter (see also Pandadaran et al., 2024))

Herdiyanti, E.N.A., A. Moris, A. Fakhri, R.P. Putra & I. Oktafirman (2015)- Evaluation of underexplored *Textularia* layer in the Salawati Basin, Eastern Indonesia. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI, Balikpapan, JCB2015-348, p. 1-3.
(online at: https://www.iagi.or.id/web/digital/3/2015_IAGI_Balikpapan_Evaluation-of-Underexplored.pdf)
(Thin (5-10m) limestone bed in clastic U Miocene Klasafet Fm, formerly called Textularia II marker bed, is secondary oil producer in Walio area of Salawati Basin. Also proven oil in Kasuari, Payao, etc. Greatest thickness in S. Potential underexplored hydrocarbon play)

Hermes, J.J. (1968)- The Papuan geosyncline and the concept of geosynclines. Geologie en Mijnbouw 47, 2, p. 81-97.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0Rmd5ay1rcmhNR3c/view)
('Pre-plate tectonics' review of geologic history of W Papua, in 'Papuan geosyncline' is described in terms like miogeosyncline and eugeosyncline. Deformed by collision between Asian and Australian continent, during which segment of the Papuan geosyncline was torn loose, bent and broken, leading to present sinuous shape of W part of New Guinea island. Sorong fault zone recognized as major up- to-10km- wide, left-lateral fault zone with gigantic tectonic breccias)

Hermes, J.J. (1974)- West Irian. In: A.M. Spencer (ed.) Mesozoic-Cainozoic orogenic belts. Geological Society, London, Special Paper 4, p. 475-490.
(Overview of W New Guinea geology/ stratigraphy, using geosynclinal terminology. Age of metamorphism in N Central Range most likely Late Oligocene. Also Late Oligocene 'Sirga phase' of deformation. Deformation in Mamberamo basin is Pleistocene)

Hermes, J.J. (1982)- On the alleged rotation of the island of New Guinea. Pacific Geology 16, p. 53-57.

(No major rotations between New Guinea and Australia, but good evidence for transcurrent movement between North New Guinea and Central New Guinea provinces. M Miocene Makats Fm in N New Guinea has detritus from apparently metamorphosed and uplifted Central Range)

Hermes, J.J. & F.C. Schumacher (1961)- Summary of stratigraphy of New Guinea. Proc. 9th Pacific Science Congress, Bangkok 1957, 12, p. 318-324.
(Overview of Silurian- Pliocene stratigraphy of W New Guinea. Kemum Fm in Birds Head contains Lower Silurian Monograptus. Permo-Carboniferous rel. widespread clastics and sandy limestones with spiriferid brachiopods and Glossopteris flora, etc.)

Hidayati, S., A. Cipta, A. Omang, R. Robiana & J. Griffin (2013)- Earthquake hazard map of Papua, Indonesia. Proc. 49th Annual Session Coord. Comm. Geoscience Programmes E and SE Asia (CCOP), Sendai, p. 61-72.
(online at: www.ccop.or.th/download/as/52as2.pdf)
(Probabilistic seismic hazard model, based on recognition of 9 tectonic plates, 14active thrust and strike-slip faults,2-3 subduction segment, and 9 zones for diffuse earthquakes (from historic earthquakes))

Hill, K.C. & R. Hall (2003)- Mesozoic- Cenozoic evolution of Australia's New Guinea margin in a West Pacific context. In: R.R. Hillis & R.D. Muller (eds.) The evolution and dynamics of the Australian Plate. Geological Society of America (GSA), Special Paper 372 and Geological Society of Australia Special Publ. 22, p. 265-290.
(online at: https://www.researchgate.net/publication/279409657_Mesozoic-Cenozoic_evolution_of_Australia's_New_Guinea_Margin_in_a_West_Pacific_Context)
(Island of New Guinea at N Australian margin. Complex evolution, largely masked by Mio-Pliocene orogenesis. In Paleozoic, New Guinea contained boundary ('Tasman Line') between Late Paleozoic active margin in E and extensional margin in W. Permian- Early Triassic active margin with widespread M Triassic granite intrusions. Triassic-Jurassic rifting followed by Cretaceous passive margin subsidence and renewed rifting in Late Cretaceous- Paleocene. Rapid N-ward movement of Australian Plate since Eocene resulted in Mio-Pliocene collision with Philippine-Caroline Arc, which commenced in Late Oligocene and orogenesis continues today. Change in character of New Guinea lithosphere from thick and strong in W to thin and weak N and E of Tasman Line important influence on style and location of Mesozoic and Cenozoic deformation)

Hill, K.C., N. Hoffman, P. Lunt & R. Paul (2002)- Structure and hydrocarbons in the Sareba Block, 'Bird's Neck', West Papua. Proc. 28th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 227-248.
(E Birds Neck- W Cenderawasih Bay NE- trending Sareba Graben, originated in Late Jurassic- Early K. Cretaceous- M Miocene starved basinal facies. Adjacent Lengguru foldbelt formed by collision of Weyland Terrane with Birds Neck, consuming Paleocene oceanic crust of Cenderawasih Bay. Thin-skinned thrusting in Late Miocene, thick-skinned thrusting/ uplift in Pliocene, Pleistocene orogenic collapse into Cenderwasih Bay Pliocene oceanic crust, leaving <2 Ma metamorphic core compex on Wandamen Peninsula)

Hill, K.C., J.T. Keetley, R.D. Kendrick & E. Sutriyono (2004)- Structure and hydrocarbon potential of the New Guinea foldbelt. In: K.R. McClay (ed.) Thrust tectonics and hydrocarbon systems, American Assoc. Petroleum Geol. (AAPG), Memoir 82, p. 494-514.
(Papuan Fold Belt structures inverted extensional faults and asymmetric detachment folds that break through overturned forelimb. Previous fault-bend foldmodel flawed. PNG deformation front has not yet impinged on strong Australian lithosphere, so low fold belt occupies its own foreland basin. W PNG Fold Belt gas-condensate province just impinged on strong lithosphere, developing foreland basin and basement-cored anticlines. Irian Jaya Fold Belt deformation front encountered strong Australian lithosphere, causing 15km-thick Paleozoic-Mesozoic sequence thrust to surface along previously extensional basin-margin fault. Focusing deformation on one fault created mountains 5km high and adjacent foreland basin. Birds Neck Lengguru Fold Belt resembles oil province in Papuan Fold Belt, but Pleistocene extensional faulting may cause breaching)

Hill, K.C., R.D. Kendrick, P.V. Crowhurst & P.A. Gow (2002)- Copper-gold mineralisation in New Guinea: tectonics, lineaments, thermochronology and structure. Australian J. Earth Sciences 49, 4, p. 737-752.

(Late Miocene-Pliocene copper-gold deposits tied to intrusives (of mantle origin, not subduction-related). Richest deposits at intersections of N-NE trending transfer faults and inverted Mesozoic extensional faults. Mineralisation during inversion of these faults and correlates with propagation of orogenesis from NE to SW)

Hill, K.C., P.B. O'Sullivan, K. Lumbanbatu et al. (1998)- Tectonics and hydrocarbons in Irian Jaya, constraints from zircon fission track analysis. Proc. 26th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. *(Poster Abstract)*
(Zircons ages reflecting ages of volcanism: U. Miocene- Pliocene, Paleocene, M Cretaceous, Late Triassic- E Triassic, Late Carboniferous- E Permian and Proterozoic-E Paleozoic)

Hirschi, H. (1908)- Reisen in Nordwest Neu-Guinea. Jahresbericht Geographisch-Ethnogr. Gesellschaft, Zurich 1907-1908, Von Lohbauer, Zurich 1908, p. 71-106.
(online at: https://www.e-periodica.ch/digbib/view?pid=ghl-001:1907-1908:8#87)
('Travels in NW New Guinea'. Mainly travel log of traverses from Fakfak to Cenderawasih Bay by Swiss BPM geologist Hirschi. Collected M Jurassic ammonites at Wendesi, Cenderawasih Bay, described by Boehm 1913)

Hobson, D.M., A. Adnan & L. Samuel (1997)- The relationship between Late Tertiary basins, thrust belt and major transcurrent faults in Irian Jaya: implications for petroleum systems throughout New Guinea. In: J.V.C. Howes & R.A. Noble (eds.) Proc. Petroleum Systems of SE Asia and Australasia Conf., Jakarta 1997, Indonesian Petroleum Association (IPA), p. 261-284.
(Irian Jaya fold-thrust belt two Tertiary uplift phases. Older structures formed ahead of oceanic crustal slabs during obduction onto N Australian Plate margin. Younger structures formed after oceanic obduction ceased, and since Late Pliocene. Folds and thrusts controlled by restraining bends in NE-SW dextral, transcurrent fault system. Extensional basins along releasing bends. Younger structures formed after hydrocarbon generation ceased. Two ages of compressive structures also in Papuan Thrust Belt, but formed ahead of discrete accreted terranes. In most of Thrust Belt only one generation of folds. In PNG plate-bounding, transcurrent fault systems well N of Thrust Belt, and deformation affects only N Papuan basins)

Hope, G.S. (1983)- The vegetation changes of the last 20,000 years at Telefomin, Papua New Guinea. Singapore J. Tropical Geography 4, p. 25-33.

Hope, G.S. & J. Golson (1995)- Late Quaternary change in the mountains of New Guinea. Antiquity, Cambridge University Press, 69, 265, p. p. 818-830.

Hope, G.S., J.A. Peterson, U. Radok & I. Allison (eds.) (1976)- The equatorial glaciers of New Guinea. Results of the 1971-1973 Australian Universities Expedition to Irian Jaya: survey, glaciology, meteorology biology and paleoenvironments, A.A. Balkema, Rotterdam, p. 1-256.
(online at: http://papuaweb.org/dlib/bk/hope1976/)
(Results of 1971-1973 Australian Universities Expedition to Carstensz glaciers, W Irian Jaya. No geology)

Hope, G.S. & J. Tulip (1994)- A long vegetation history from lowland Irian Jaya, Indonesia. Palaeogeogr. Palaeoclim. Palaeoecology 109, p. 385-398.
(Pollen analysis of 10m core from mire at 780m altitude and 2°S latitude on ultrabasic soils on N coastal range of W Papua, believed to cover ~60,000 yr B.P. Montane forest grew around site continously through Late Pleistocene with increases in higher-altitude taxa from 25- 10.5 ka, the time of glacial maxima. Fine charcoal record after 10.9 ka, probably anthropogenic disturbance)

Hopping, C.H. & R.H. Wagner (1962)- In: W.A. Visser & J.J. Hermes, Geological results of the exploration for oil in Netherlands New Guinea, Kon. Nederlands Geologisch Mijnbouwkundig Genootschap (KNGMG), Geologische Serie 20, Enclosure 17, Photographs of fossils, p. 1-11.
(Identifications and photos of Early Permian plant fossils from Birds Head outcrops and well cores (Poeragi 1). Both Gondwanan (Glossopteris spp.) and Cathaysian (Taeniopteris, Pecopteris, Sphenophyllum) elements)

Housh, T. & T.P. McMahon (2000)- Ancient isotopic characteristics of Neogene potassic magmatism in Western New Guinea (Irian Jaya, Indonesia). Lithos 50, 1-3, p. 217-239.
(Collision-related Central Range Late Miocene- Pleistocene intrusives and volcanics with unique isotope compositions, probably reflecting interaction of mantle derived parent magma, Proterozoic or Archean lower crust and possibly younger crust. Some of the ~3 Ma zircons with Proterozoic-age cores (1295-1773 Ma))

Hovig, P. (1937)- Mijnbouw en geologie van Nieuw Guinea. In: W.C. Klein (ed.) Nieuw Guinea, Molukken Instituut, Amsterdam, II, p. 547-598.
(online at: https://resolver.kb.nl/resolve?urn=MMKB05:000044109:pdf)
('Mining and geology of New Guinea'. Review of generally poorly known geology and mining potential of West and East New Guinea)

Hubrecht, P. (1913)- Beknopt geologisch en meteorologisch verslag der derde Zuid-Nieuw Guinea expeditie 1912-1913. Bulletin van de Maatschappij ter Bevordering van het Natuurhistorisch Onderzoek der Nederlandsche Kolonien 68, p. 37-51.
('Brief geological and meteorological report of the Third South New Guinea Expedition 1912-1913'. Results of the Franssen Herderschee Expedition from South coast of New Guinea, up Lorentz/ Noord River to the snow-covered Wilhelmina Peak (now Puncak Trikora) in Central Range)

Hubrecht, P.F. (1918)- Rapport over Nieuw Guinea. Typescript at Bureau of Mines office, Jayapura, p. 1-25.
('Report on New Guinea'. Geological observations Netherlands New Guinea and during 1913 traverse from S Coast to the snow-covered Wilhelmina peak in the Central Range)

Hubrecht, P.F. (1921)- Beknopt geologisch verslag van de wetenschappelijke Noord Nieuw-Guinea expeditie. Publ.?
('Brief geological report of the scientific North New Guinea Expedition')

Hubrecht, P.F. (1923)- Het hooggebergte van Nieuw Guinea. Handelingen 2e Nederlandsch-Indisch Natuurwetenschappelijk Congres, Bandung 1922, p. 38-
('The high mountain range of New Guinea'. Presentation by geologist Dr. P.F. Hubrecht)

Hughes, S. & N. Wiwoho (2005)- The discovery, geology, alteration and mineralization of the Deep MLZ deposit, Papua. In: S. Prihatmoko et al. (eds.) Indonesian mineral and coal discoveries, Indonesian Association Geologists (IAGI) Special Issue, p. 18-30.
(Deeper level of Cu-Au mineralization in East Ertsberg skarn system, identified in 2004. Associated with Ertsberg Diorite intruded into Paleogene limestone)

Husein, S., R. Syahputra, M. Nukman, N.I. Setiawan, D.T. Wicaksono & W. Nugroho (2018)- Morphotectonic and orogenic uplift of Cyclops Mountains, Papua. Proc. 47th Annual Conv. Indonesian Association Geologists (PIT IAGI), Pekanbaru 2018, p. 1-7. *(online at: www.researchgate.net/publication/328703795_Morphotectonic_and_Orogenic_Uplift_of_Cyclops_Mo Etc.)*
(Cyclops Mountains at N coast near Jayapura, considered as the last accreted terranes of Pacific Plate origin. Orogenic uplift since Pleistocene with subduction tectonics as main mechanism along New Guinea Trench. Four erosional terraces developed at elevations of 100, 200, 400 and 800 m asl, suggesting episodic uplift. NE-SW erosional gorges associated with left-lateral strike-slip faults)

Hutasoit, L.M. & Y. Ashari (1998)- The origin of saline spring water in Baliem Valley, Irian Jaya based on its isotopic composition. Proc. 27th Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 4, p. 114-120.
(online at: https://www.iagi.or.id/web/digital/56/84.pdf)
(Salt water springs in Krulu and Gondura, in Baliem Valey, Central Range of W Papua. Water not of marine origin, but meteoric water that evolved chemically in subsurface, probably originating in Habbema Lake- Trikora Peak area, before 1953 (indicating evaporite formations in subsurface?; JTvG))

Hutubessy, S. (1998)- Konfigurasi struktur geologi bawah permukaan hasil analisa data gayaberat dan seismologi di dataran tinggi Wamena, Irian Jaya. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 8, 85, p. 12-23.
('Deep structural configuration from gravity and seismological data analysis in Wamena high valley, Irian Jaya')

Ibel, D., T. Mölg & C. Sommer (2025)- Brief communication: Tropical glaciers on Puncak Jaya (Irian Jaya/West Papua, Indonesia) close to extinction. The Cryosphere (EGU) 19, 12, p. 6629-6637.
(online at: https://tc.copernicus.org/articles/19/6629/2025/tc-19-6629-2025.pdf)
(Recent satellite imagery and historical glacier extents from analogue maps, resulted in new map of glacier change on Puncak Jaya since 1850 (end of Little Ice Age): decrease of total glacier surface area by >99 % since 1850 and by ∼65 % since last survey in 2018)

Ibel, D., T. Molg & C. Sommer (2025)- Surveying tropical glacier change on Puncak Jaya (Irian Jaya/West Papua, Indonesia) in recent years using multispectral high-resolution satellite imagery, publishing updated map of change 1850-2024. Pangaea, Germany. *(online dataset),*
(online at: https://doi.pangaea.de/10.1594/PANGAEA.979847)
(Study of retreat of glaciers in area of Puncak Jaya in West Papua. Decrease of total glacier surface area by >99% since 1850 and by 64% since last survey in 2018. Puncak Jaya glaciers likely disappear around 2030)

Ibrahim, K., G. Abigail, P. Kawab, S. Bijaksana, S.J. Fajar, B. Sapiie, L.O. Ngoimani et al. (2025)- Magnetic basement depth from marine magnetic data in Cendrawasih Bay hydrocarbon prospect area, Bird Head, Papua, Indonesia. Indonesian J. on Geoscience (IJOG) 12, 3, p. 383-400.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/1048/519)
(Magnetic data in Cenderawasih Bay area, W Papua, suggest three structural subbasins with magnetic basement depths from 0.4-7 km and sediment thicknesses >3 km: (1) between Cendrawasih Bay and Num Island, (2) between Cendrawasih Bay and Yapen Island, and (3) between Yapen and Biak Islands. Magnetic highs around Yapen Island correlate with Miocene volcanic and ultramafic outcrop)

Idris, R., Tasiyat & N. Djumhana (2002)- Geological reservoir of the Matoa Field Salawati Basin, Irian Jaya. Proc. 31st Annual Conv. Indonesian Association Geologists (IAGI), Surabaya, 1, p. 236-264.
(Matoa field NNE-SSW trending anticlinal structure discovered in 1991. Producing from Late Miocene Kais Limestone reservoir, with larger foraminifera Marginopora vertebralis and Alveolinella quoyi. Both reefal facies (porosity 18-22%, perm 10-40 mD) and non-reefal (platform) facies (porosity 15-20%, perm 10-30 mD). Reef reservoir not connected to platform facies reservoir. Cum. production from 30 wells ~12.3 MMBO)

Ikhwanudin, F. & C.I. Abdullah (2015)- Indication strike slip movement a part of Sorong Fault Zone in Yapen Island, Papua, Indonesia. GSTF J. of Geological Sciences (JGS) 2, 1, p. 25-33.
(online at: http://dl6.globalstf.org/index.php/jgs/article/view/1224/1515) (journal discontinued after one year)
(Major NE-SW stress produced NW-SE Jobi sinistral-slip fault on Yapen, interpreted as part of E-W Sorong strike slip fault zone. Yapen stratigraphy: Late Eocene- earliest Miocene Yapen Fm tuffaceous sst (deep marine island arc volcanoclastics), E-M Miocene Wurui Fm Lst, Late Miocene cataclastic breccia with basalt, gabbro clasts, E Pliocene Kurudu Fm Sst)

Ikhwanudin, F. & C.I. Abdullah (2015)- Stratigraphy, facies and diagenesis of limestone in Wurui Formation, Yapen Island, Papua, Indonesia. Proc. 77th EAGE Conference & Exhibition, Madrid 2015, Tu N110 06, p. 1-5.
(Extended Abstract)
(Study of Wurui Fm limestone in Dawai Village, E part of Yapen Island. Age of limestone Te5-Tf2 (E-M Miocene). Depositional environment inner-middle neritic, diagenesis mixed marine-phreatic)

Ikhwanudin, F. & C.I. Abdullah (2016)- The connection between ophiolite occurance and Yapen-Sorong Fault Zone (YSFZ), Papua, Indonesia. Proc. 78th EAGE Conference & Exhibition, Vienna 2016, Th P5 08, p. 1-5.
(Sheared and brecciated ophiolitic rocks on NE Yapen island, unconformable over Wurui Limestone Fm (M Miocene?). Drifted and brecciated mainly in Late Miocene-Pliocene. Ophiolite is carried by Yapen-Sorong Fault Zone in strike-slip compressional regime)

Indarto, S. (1996)- Potensi batupasir kuarsa di daerah Aikimia, Wamena, Irian Jaya. Proc. 25th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, p. 56-66.
('Quartz-sand potential of the Aikimia area, Wamena, Irian Jaya'. (probably on quartz-rich (95-99%) Upper Cretaceous Ekmai sandstone outcrops in Baliem Valley, Central Range of W Papua; JTvG)

Indarto, S., N. Sumawijaya, A. Bukit & N. Sastra (1987)- Geologi daerah Wamena dan Depapre Jayapura Irian Jaya. Pusat Penelitian Geoteknologi LIPI, K87-2, p. 1-24.
('Geology of the Wamena and Depapre Jayapura areas, Irian Jaya'. Lithologic analysis of sandstones and dolomitic limestones in Wamena area, Central range. Petrographic analysis of (Cretaceous?; JTvG) sandstone in Aikima area 95-99% quartz. Depapre-Sentani-Jayapura in NE Irian Jaya common harzburgite, lateritized, overlain by limestone)

Indarto, S., M. Syafei, Praptisih & S. Djoehanah (1999)- Provenance study of shaly-sandy unit of Kembelengan Formation, Wamena, Irian Jaya. Proc. 28th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 3, p. 75-82.
(online at: https://www.iagi.or.id/web/digital/57/7.pdf)
(In Indonesian, with English abstract. U Cretaceous Kembelangan sandstones in Wamena area, Central Range, 20-30 cm thick beds and thinning upward. Petrography shows quartz (58-70%), clay (10-12%), feldspar (6-8%), calcite, muscovite (3-7%), glauconite, and is classified as quartz wacke of recycled orogen provenance)

Indriyani, P.D., A. Harja & T.B. Nainggolan (2020)- Petrophysical analysis to determine reservoir and source rocks in Berau Basin, West Papua Waters. Bulletin of the Marine Geology 35, 1, p. 13-22. *(online at: https://media.neliti.com/media/publications/381262-petrophysical-analysis-to-determine-rese-52355842.pdf)*
(Berau Basin (W of Bintuni Basin, W Papau) has same reservoir and source potential as Mesozic clastic sediments of Australian NW Shelf. Three wells suggest 4 reservoir rock zones and 4 source rock zones)

Insley, M. & M. Tocher (1999)- Comparison of field development in the frontal regions of the fold and thrust belts of PNG/Irian Jaya and Pakistan. In: C.A. Caughey & J.V.C. Howes (eds.) Proc. Conference Gas habitats of SE Asia and Australasia, Jakarta 1998, Indonesian Petroleum Association (IPA), p. 225-236.

Jablonski, D. (2007)- Geology and exploration potential of the offshore S.W. Bintuni Basin, Semai-Gorong Basin, Eastern Indonesia. Proc. SE Asia Petroleum Exploration Society (SEAPEX) Conference, Singapore, 2p.
(Abstract only)
(No wells in SW Bintuni Basin, but large structures. Three provinces: Seram Thrust Belt in W, Seram Trough in centre and Seram Fold Belt in E. Area underlain by older extensional regime, overprinted by latest Miocene-Recent compressional pulses, younging to NE. W part of area imbricate thrusts, E area gentle folds. Source rocks may include Permian paralic shales and coals, M-U Triassic restricted marine claystones, and L-M Jurassic paralic coals and clays. Plays: (1) Paleozoic rift fault blocks, (2) Triassic limestone build-ups, (3) Triassic-M Jurassic rift fault blocks, (4) Callovian-Oxfordian fractured limestone, (5) Upper Cretaceous- Lower Tertiary sandstones associated with M Palaeocene Coral Sea rifting, (6) Miocene build-ups (Kais Fm- equivalent); (7) Imbricate thrusts in Seram Thrust Belt and (8) Gentle folds in Seram Fold Belt in E)

Jackson, J.E. (2010)- Neogene intrusions in the Western Central Range, Papua, Indonesia: petrologic, geochemical, and isotopic comparison of the Miocene Ular Merah and Pliocene Komopa Magmatic Districts. M.Sc. Thesis University of Texas at Austin, p. 1-360. *(Unpublished)*
(Two belts of Neogene igneous rocks in New Guinea Central Range, with Miocene (20-10 Ma) belt outcropping N of Pliocene (7-3 Ma) belt. Miocene magmatic rocks in PNG (Maramuni Volcanic Arc) intruded Australian continental rocks; those in W Papua intruded allochthonous arc/forearc terranes. Pliocene magmatic rocks young from W to E, and emplaced into Australian continental crust at highest elevations in C Range. Two magmatic districts in W Central Range studied here: (1) Komopa Pliocene (3.9-2.9 Ma) quartz monzodiorites, granodiorite and monzogranites, emplaced into Australian passive margin strata, shoshonitic, similar to intrusions from Minjauh Volcanic Field, Ertsberg Mining District and Etna Bay (products of collisional delamination tectonism as leading edge of Australian continental lithosphere jammed N-dipping subduction zone beneath Irian Ophiolite) and (2) Ular Merah late E Miocene (17.4-16.6 Ma) calc-alkaline, porphyritic diorites

and monzodiorites, emplaced into allochthonous Irian Ophiolite Belt. Adakite-like characteristics suggest partial remelting of garnet-bearing plutons emplaced into mantle beneath allochthonous ophiolite)

Jongmans, W.J. (1940)- Beitrage zur Kenntnis der Karbonflora von Niederlandisch Neu Guinea. Mededelingen Geologische Stichting 1938-1939, Heerlen, p. 263-274.
('Contributions to the knowledge of the Carboniferous flora of Netherlands New Guinea'. Description of mixed 'Cathaysian' flora (Taeniopteris, Pecopteris spp.) and Gondwanan 'Glossopteris' fauna from two localities in Otakawa River, Central Range foothills, S of Carstensz Peaks. Here believed to be of Late Carboniferous age, but regarded as Permian by Hopping and Wagner (in Visser & Hermes, 1962), or Late Permian by McLoughlin (1993), based on correlation with Bowen Basin (Glossopteris, etc.; Identifications re-evaluated by Rigby (1997)and Playford & Rigby (2007); JTvG) (JWJ, p. 265-266 also mentions several occurrences of possible Carboniferous or Permian wood (Calamites, Dadoxylon) and plant fossils (Pecopteris arborescens) from NW Kalimantan and Sarawak; not published elsewhere?))

Jongmans, W.J. (1941)- Elementen der *Glossopteris* flora in het Carboon van Nieuw Guinea. Handelingen 28e Nederlandsch Natuur- en Geneeskundig Congres, Utrecht, C, p. 267-271.
('Elements of the Glossopteris flora in the Carboniferous of New Guinea'. Plant fossils from two localities collected by BPM in Akimeugah area, SW Papua, of Carboniferous age (now deemed to be Permian; HvG). Two localities, one with Gondwanan flora (Vertebraria only) and one with rel. rich Asian flora (Cathaysian; Pecopteris, Taeniopteris; also Euramerican elements), proving the two floras lived in close proximity (not necessarily 'mixed floras' as often suggested; HvG))

Jordan, L. (1931)- Foraminifera from the Pliocene of New Guinea. M.S. Thesis, Dept. of Geology, Massachussets Institute of Technology (MIT), p. *(Unpublished)*

Jost, B.M., M. Webb & L.T. White (2018)- The Mesozoic and Palaeozoic granitoids of north-western New Guinea. Lithos 312-313, p. 223-243.
(online at: https://www.researchgate.net/publication/326143306_The_Mesozoic_and_Palaeozoic_granitoids_of_north-western_New_Guinea)
(Late Paleozoic and E Mesozoic granitoids of NE Birds Head mainly small-medium size intrusions of Late Devonian- E Carboniferous (363-328 Ma) and latest Permian-Triassic (257-223 Ma) ages, intruding Silurian-Devonian Kemum Fm metasediments. Most peraluminous and derived from partial melts of metasedimentary continental crust. Minor mantle-derived material, especially in Permian-Triassic. Devonian-Carboniferous granitoids (Mariam Ngemona, Wasiani, etc. granites/granodiorites) and volcanics locally restricted. Late Permian-Triassic intrusions (Sorong, Anggi, Maransabadi, Kwatisore, Netoni, Sorong, etc.) likely part of long active continental margin subduction system spanning length of New Guinea, E Australia and Antarctica)

Jost, B.M., M. Webb, L.T. White & H. Tiranda (2021)- Regional high-T/low-P metamorphism of the Kemum Basement High, Bird's Head, West Papua, Indonesia. J. Metamorphic Geology 39, 6, p. 781-817.
(Kemum basement high in Bird's Head of NW New Guinea consists of Silurian-Devonian turbidites that were regionally metamorphosed in lower greenschist facies. Along E margin intruded by granitoid bodies. Metamorphism of regional extent and often unrelated to granitoid intrusions. Increase in peak metamorphic T from W to E. Two phases of HT/LP metamorphism, tentatively correlated with two episodes of magmatic activity in Devonian-Carboniferous and Permian-Triassic)

Julianti, D.V. Mamengko, A.A. Yarangga & L.B. Ginting (2022)- Depositional environments of coal based on maceral analysis of the Klasaman Formation in the Salawati Basin Klayili District Sorong Regency West Papua Province. Proc. 51st Annual Conv. Indonesian Association Geologists (PIT IAGI 51), Makassar 2022, 99, p. 1-6.
(online at: https://www.iagi.or.id/web/digital/71/PITIAGI-22-S-Abs-011.pdf)
(Late Miocene-Pliocene (N18) Klasaman Fm in Salawati Basin with thin delta plain coals (3-30 cm), dominated by vitrinite (68-76%) with inertinite 5.5-13 %, liptinite 0.9- 8% and pyrite 8.5-24%. Vitrinite reflectance ~60% (high volatile bituminous coal rank B)

Julianti, D.V. Mamengko, A.A. Yarangga, D. Kurniadi & A. Khaliq (2022)- Depositional environment based on palynological and foraminiferous analysis of the Klasaman Formation in the Salawati Basin, Klayili area, Klayili District, Sorong Regency, West Papua Province. Proc. 46th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA22-SG-114, p. 1-16. *(online at: www.researchgate.net/publication/366681401_Depositional_Environment_Based_on_Palynological_ Etc.)*
(Study of Late Miocene-Pliocene (N18) part of Klasaman Fm in Salawati Basin, NW Birds Head. Overall facies in delta plain environment, as part of shallowing upward, progradational system)

Kamaruddin, C.H. (2012)- Deliniasi zona ubahan porfiri Cu-Au di daerah Orion, Pegunungan Bintang, Papua. Proc. 41st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2012-M-10, p. 31 *(Abstract only) (online at: https://www.iagi.or.id/web/digital/9/2012_IAGI_Yogyakarta_Deliniasizonaubahan-Porfiri-Cu-Au-di-Daerah-Orion.pdf)*
('Delineation of Cu-Au porphyry alteration in the Orion area, Star Mountains, Papua'. Pyrite-chalcopyrite-bornite minwralization at Ok Darknir associated with monzodiorie. Max. levels of 4:48 g Au /t and 1.5% Cu)

Kambu, M.R. (2014)- Geologi dan karakteristik batuan beku ultramfik sebagai bahan baku konstruksi di daerah Lembah Sunyi, Kelurahan Angkasapurah, Kota Jayapura, Provinsi Papua. J. Ilmiah Magister Teknik Geologi (UPN) 7, 1, p. 1-6.
(online at: http://jurnal.upnyk.ac.id/index.php/mtg/article/view/265/227)
('Geological characteristics and ultramafic igneous rocks as a raw material in the construction at the Lembah Sunyi area, Angkasapurah Village, Jayapura, Papua Province'. Widespread serpentinized ultramafic rocks)

Kambu, Y. & W. Permana (2008)- Permian- Cretaceous hydrocarbon prospectivity at Berau- Papua. Proc. 32nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IP08-SG-080, p. 1-9.
(Small Permian, Triassic, Jurassic, Cretaceous paleogeographic maps of Berau area, offshore S side Birds Head, most of them showing NW-SE trending facies belts, becoming more marine to SW)

Kamtono, E. Soebowo & Praptisih (1991)- Geologi daerah Pass Valley, Irian Jaya. J. RISET Geologi dan Pertambangan (LIPI) 10, 1, p. 29-36.
('Geology of the Pass Valley area, Irian Jaya'. Pass Valley area NE of Wamena with outcrops of folded Cretaceous Kembelangan Fm and Tertairy New Guinea Limestone Gp)

Katchan, G. (1982)- Mineralogy and geochemistry of Ertsberg (Gunung Bijih) and Ertsberg East (Gunung Bijih Timur) skarns, Irian Jaya, Indonesia and the Ok Tedi skarns, Papua New Guinea. Ph.D. Thesis, University of Sydney, NSW, p. 1-498. *(Unpublished)*

Kato, M., D. Sundari & S.K. Skwarko (1999)- First description of Carboniferous corals from Western Irian Jaya, Indonesia. Geological Research Development Centre (GRDC), Bandung, Seri Paleontologi 9, p. 9-41.
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('Fossils from the Paleozoic of South Central New Guinea'. Summary of macrofossils reported from >1500m thick Paleozoic section. Includes Devonian-to Permian brachiopods and rugose and tabulate corals of Silurian (Halysites), Devonian (Heliolites barrandei, Favosites reticulatus, Cyathophyllum anisactis, C. douvillei, etc.) and Permian (Lonsdaleia) ages)

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(Orthoconic cephalopods from dark shales that look like Jurassic Kembelangan Fm in Star Mountains near PNG border, collected by Kennecott. Look like E-M Ordovician nautiloids and may be from Kariem Fm. If correct, these are oldest fossils known from Indonesia. Propose new genus-species name Irianoceras antiquum (re-assigned to Bactroceras latisiphonatum Glenister by Crick and Quarles van Ufford (1995))

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(Interpretation of 1981 Shuttle Imaging Radar strip of E Birds Head (NE edge of Bintuni Basin, Lina Mts.). Abutment of E-W central Vogelkop monocline against NNW-SSE running Lengguru fold belt appears to be fault-controlled. Also Bintuni Basin controlled by faults that parallel the Central Birds Head monocline in N and S. Anomalous fold direction of Imskin anticline is surface expression of block movements along these faults)

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(Seismic lines across offshore S Batanta Basin W of Salawati/ Birds Head reflect young transtensional and transpressional structuring along Sula-Sorong Fault Zone. M-L Pliocene extensional event and Late Pleistocene-Recent inversion sediments. Water depths 200-1500m)

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(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/16)
(Offshore N Waigeo in zone of oblique convergence of Australian and Pacific plates, and bound by left-lateral transform Sorong Fault Zone (SFZ) in S. Total magnetic intensities +200 nT to -150 nT indicate area with rocks of oceanic origin with highs (terranes) and lows (basins). Deep SE-NW trending Waigeo Trough with up to 1000m of (Pliocene- Quaternary?) sediment is tectonic contact between island-terranes of Waigeo and Ayu islands and Pacific Oceanic crust)

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(Ertsberg-Grasberg district in W Papua hosts two giant porphyry and skarn-hosted Cu-Au systems that formed between 3.3 and 2.5 Ma in Central Range. Cu-Au systems are associated with two dioritic intrusive centers, Grasberg and Ertsberg. High grade Cu-Au ore concentrations locally controlled by host lithology (carbonates). Paleocene Waripi Fm limestone principal host of Big Gossan and Kucing Liar Cu-Au skarn ore zones. Ertsberg and Dom Cu-Au skarns developed in lower part of Late Oligocene- Lower Miocene Kais Fm)

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('Sirga Fm sandstone provenance analysis on Grasberg open pit, Tembagapura, Mimika District, Papua province'. Measured sections of mid-Oligocene Sirga Fm from Grasberg mine area and in cores. Thickness ~10-31m?. Samples are lithic arenite, feldspathic wacke and lithic wacke. Provenance interpreted as 'recycled orogen'. Transport directions from S to N suggested by intercalated claystone in N of study area)

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(Unnamed well in W Papua drilled >3000m of unusually thick Pleistocene sediments, with thin section of Late Pliocene in basal ~50m. Good pollen recovery, with mixture of Australian and Asian elements. Existence of Asian palynomorphs indicates dispersal of Asian flora into New Guinea following arrival of Australian plates at around end-Oligocene. Palynological assemblages from upper interval indicate climate changes, from dry to wet. Low pollen recovery in lower interval, possibly due to deposition in deep marine environment, far from continent (incl. Globorotalia truncatulinoides and Discoaster brouweri near TD at 3150m!))

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(Paleoenvironments of Late Permian-Cretaceous of Bintuni Bay: Permian-Triassic Ainim Fm non-marine (shale primary gas source rock for area). E Jurassic non-deposition. M Jurassic Lower Kembelangan Fm fluvial sandstone (main reservoir). Overlain by Late Jurassic deeper marine shale. E Cretaceous absent, suggesting erosion. Late Cretaceous Jass Fm deep marine shale. With paleogeographic maps)

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(online at: https://iopscience.iop.org/article/10.1088/1755-1315/873/1/012048/pdf)
(Identification of Ransiki fault segment in S Manokwari, eastern Birds Head, using gravity gradient analysis NNW trending extensional? fault separating low density Pliocene Befoor Fm and Quaternary sediments from high-density Late Eocene- M Miocene Arfak 'volcanic basement')

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(Gravity and magnetic inversions in northern W Papua characterize subduction of Pacific Ocean plate in N, extensive intrusion of igneous rocks, and low density-susceptibility contrast in Bintuni basin (source of oil and natural gas). Boundary between sediment layer and basement 15-20 km deep, with rocks from uplifted mantle in N and Silurian- Devonian Kemum Fm in S)

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(online at: https://app.ingemmet.gob.pe/biblioteca/pdf/SEG-SP16-215.pdf)
(Review of Late Pliocene Ertsberg-Grasberg district in Central Range of W Papua, which hosts two giant Cu-Au (± Mo) porphyry and skarn-hosted Cu systems, formed between 3.3- 2.5 Ma, associated with two separate K-rich dioritic intrusions. Economic mineralization in each system vertically continuous over >1500 m. Grasberg system two deposits: Grasberg porphyry and Kucing Liar skarn. Ertsberg system four deposits: Ertsberg skarn, Ertsberg East skarn, Dom skarn and Big Gossan)

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(Supergiant Grasberg porphyry deposit in Papua hosted by Grasberg Igneous Complex that fills upward-flared diatreme ~1,800 m wide at 4,250-m surface elevation. Emplaced into folded and strike-slip faulted Tertiary and Cretaceous sediments and comprises 3.6-3.3 Ma Dalam monzodiorite intrusions and subordinate volcanic rocks occupying much of the pipe (3.2 Ma Main Grasberg intrusion), and the NW-SE-trending 3.2 to 3.0 Ma Kali dikes. Two porphyry systems, Gajah Tidur Cu-(molybdenum) and Main Grasberg Cu-Ag)

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(Chevron discussion of petroleum potential of undrilled Mesozoic section in S Bintuni West Papua I and III blocks. Not much new)

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(Basal sedimentary unit on Waigeo is Tanjung Bomas Fm and contains late M Eocene radiolarian assemblage. Overlies ?Late Jurassic-Early Cretaceous ophiolite complex and thin volcaniclastic Kapadiri Fm with Early Cretaceous calpionnelids)

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(Well-preserved Early Eocene radiolarian assemblages from marine sediments on Waigeo Island, NW of Birds Head)

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(New Guinea Island formed under oblique subduction of Pacific Plate since Late Cretaceous. Gravity and magnetic anomalies useful for identification of microplate boundaries (deep-seated large-scale faults and subduction zones). Seven microplates identified: Caroline, North Bismarck, Manus, South Bismarck, Solomon Sea, Woodlark and Ontong Java Plateau. Several key events, at 45 Ma, 25 Ma and 5 Ma, mainly involving formation and termination of Melanesian Arc, collision between Ontong Java Plateau and Solomon Islands, and arc-continent collision at New Britain Island Arc. These events contributed to a series of island arcs and back-arc basins that further evolved into relatively independent microplates. Microplates classified as accretion-derived, collision-derived and back-arc rifting-derived types)

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Livingstone, H.J., B.W. Sincock, A.M. Syarief, Sriwidadi & J.N. Wilson (1992)- Comparison of Walio and Kasim Reefs, Salawati Basin, Western Irian Jaya, Indonesia. In: C.T. Siemers et al. (eds.) Carbonate rocks and reservoirs of Indonesia: a core workshop, Indonesian Petroleum Association Core Workshop Notes 1, p. 4/1- 4/40.
(Kasim and Walio fields reservoirs Miocene Kais Fm reefal carbonates. Walio field producing 98.5% water, Kasim 99.4% water. Walio on N rim of extensive carbonate bank or shelf, Kasim part of elongate pinnacle reef complex. Reservoir rocks mainly of skeletal/coral wackestones and packstones Dolomite commonly replaced original argillaceous mud matrix; on reef flanks much of original texture destroyed. Porosity mainly from leaching of aragonitic fragments. Reservoirs highly stratified and divided into five units)

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(Western portion of Papuan foreland basin of PNG extends into Indonesia, It is overlooked and poorly explored and is able to receive charge from source kitchens in Papua New Guinea)

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('Geological-mining reconnaissance of W New Guinea' Geologic survey of Birds Head/ Bintuni Basin area, with investigation of oil seeps and coal occurrence, etc. Late Paleozoic and Jurassic dark shales with quartzites and limestones. Widespread Eocene Nummulites- Alveolina limestones and Late Tertiary limestones. Mesozoic generally more intensely folded than Tertiary)

Luck, R.B. (1999)- Structural geology of the Grasberg Lime quarry and Amole Drift: implications for emplacement of the Grasberg Igneous Complex, Irian Jaya, Indonesia. M.A. Thesis University of Texas at Austin, p. 1-552. *(Unpublished)*
(Pliocene Grasberg Igneous Complex in C Range of W Papua one of world's largest copper-gold porphyry-type systems. Diameter of 1.7 km at 4000m level. Two structural regimes (1) Miocene contractional episode that resulted in km-scale folding, concurrent with arc-continent collision inN-dipping subduction zone; (2) more subtle regime of NE-SW left-lateral strike-slip faulting, with 5 strike-slip faults with 10's-100's m of displacement, lasting from ~4 Ma to ~2 Ma)

Luck, R.B., B. Sapiie & M. Cloos (1999)- Pull-apart history for emplacement of the Grasberg igneous complex, Irian Jaya, Indonesia. Geological Society of America 1999 Annual Meeting, Abstracts with Programs 31, 7, p. 92-93. *(Abstract only).*
(Granodioritic Grasberg Igneous Complex three-phase intrusion with major copper and gold reserves. Early Dalam intrusive phase can not be dated. Main Grasberg Intrusive and Late Kali Intrusive phases Ar isotopic ages of ~3 Ma. Ten-step cross-sectional model for GIC emplacement. Tens of km of regional shortening followed by few km of left-lateral displacement contemporaneous with GIC intrusion in pull-apart between two strike-slip faults. Model does not require stratovolcano for copper-porphyry formation (see also Sapiie & Cloos, 2004))

Lumbanbatu, K. (1998)- Zircon fission track dating of the Arafura platform and Central Range up-thrust zone, Irian Jaya, Indonesia. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 8, 87, p. 14-36.
(Zircon fission track and Apatite fission track analyses of Permian- Miocene rocks in SW part of W Papua Central Range (Omba, Waghete, Timika map sheets) suggest folding-uplift in latest Miocene- Pliocene. Tipuma Fm found to be younger than generally accepted: wide range of ages, mean 148 Ma, latest Jurassic- E Cretacous instead of Triassic (see also Kendrick et al. 1995))

Lunt, P. & R. Djaafar (1991)- Aspects of the stratigraphy of Western Irian Jaya and implications for the development of sandy facies. Proc. 20th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 107-124.
(Stratigraphic observations on W New Guinea. Permian fusulinid distribution and Gondwanan- Cathaysian plants, etc. Late Cretaceous (Late Turonian- E Santonian) oceanographic event towards more calcareous deep marine deposits, Late Cretaceous volcanism of Birds Head, etc.)

MacDonald, G.D. & L.C. Arnold (1994)- Geological and geochemical zoning of the Grasberg Igneous Complex, Irian Jaya, Indonesia. J. Geochemical Exploration 50, 1-3, p. 143-178.
(Grasberg Igneous Complex is high grade porphyry Cu-Au deposit in central highlands of New Guinea. Mineralization confined to intrusive rocks emplaced in tightly folded Tertiary carbonates. Mineralization extends from surface at 4200m elevation to deepest drill penetrations at 2700m elevation. Two-three distinct intrusion stages produced two porphyry orebodies with different mineralization as well as sulfide-rich skarn at margin of igneous complex. Intrusives and mineralization radiometrically dated at 2.7- 3.3 Ma)

MacDonald, G.D. & L.C. Arnold (1995)- Factors responsible for extreme concentration of Cu and Au in the Grasberg deposit. A comparative look at the porphyry copper systems of the Ertsberg District, Indonesia. In: A.H. Clark (ed.) Giant ore deposits II, Queens University, Kingston, Ontario, Canada, p. 314-333.

Malensek, G.A. (1997)- Economic evaluation of the Wanagon gold deposit, Irian Jaya, Indonesia. Masters Thesis, Colorado School of Mines, p. 1-142. *(Unpublished)*
(Low grade pyrite-gold mineralization at Wanagon near Ertsberg, Irian Jaya, in hornfelsed, altered Cretaceous Kembelangan Gp siliciclastic rocks, near contact with Tertiary New Guinea Limestone. Deposit ~300m long, up to 200m wide and 300m deep. Origin of deposit is unclear but characteristics of calcic gold skarn)

Mamengko, D.V., B. Muljana & Y.B. Sendjaja (2014)- Analisis fasies dan lingkungan pengendapan Formasi Mamberamo "B" di Cekungan Papua Utara sebagai kandidat source rock. In: Geologi untuk meningkatkan kesejahteraan masyarakat, Seminar Nasional Fakultas Teknik Geologi, UNPAD, Bandung 2014, p. 374-387.
(online at: www.researchgate.net/publication/324527383_ANALISIS_FASIES_DAN_LINGKUNGAN_ Etc.)

('Facies analysis and depositional environment of the Mamberamo "B" Formation in the North Papua Basin as a source rock candidate')

Mamengko, D.V., Y.B. Sandjadja, B. Mulyana, H. Panggabean, I. Haryanto, E.B. Lelono, J.T. Musu & Panuju (2019)- Perkembangan fasies sedimen Formasi Mamberamo berumur Miosen Akhir- Pliosen di cekungan Papua Utara. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 20, 1, p. 37-47.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/399/377)
('Sedimentary facies development of the Upper Miocene-Pliocene Mamberamo Fm in the North Papua Basin'. N Papua fore arc basin in northern coastal area of W Papua filled by M-U Miocene turbidite sediments (Makats Fm?), overlain by U Miocene-Quaternary 'syn-orogenic molasse' marginal- non marine Mamberamo Fm clastics)

Mamengko, D.V., I.B. Sosrowidjojo, B. Toha & D.H. Amijaya (2012)- Geokimia batuan induk Formasi Mamberamo dan Makats di Cekungan Papua Utara. Proc. 41st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2012-E-34, p. 1-5.
(online at: https://www.iagi.or.id/web/digital/9/2012_IAGI_Yogyakarta_Geokimia-Batuan-Induk-Formasi-Mamberamo.pdf)
('Geochemistry of source rocks of the Mamberamo and Makats Formations, North Papua Basin'. Makats and Mamberamo 'B' Fms near N coast of W Papua with abundant Type III kerogen (TOC up to 4.8%) and are potential hydrocarbon source rocks. 2D basin modeling indicates Makats Fm generated oil since 3.35 Ma, Mamberamo since 2.25 Ma. Hydrocarbon resources formed from Makats source rocks estimated at about 24,487.38 BCF Gas and 635,889.54 MMB Oil (interesting precision!; JTvG))

Mamengko, D.V., H. Susanto, J.T. Musu & A. Yusriani (2014)- Potensi hidrokarbon cekungan Papua Utara berdasarkan karakteristik rembesan minyak Sungai Teer. Proc. 43rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, PIT IAGI 2014-139, p. 1-6.
(online at: https://www.researchgate.net/publication/324527463_POTENSI_HIDOKARBON_CEKUNGAN_PAPUA_UTARA_BERDASARKAN_KARAKTERISTIK_REMBESAN_MINYAK_SUNGAI_TEER)
('Hydrocarbon potential of the North Papua basin based on the characteristics of Teer River oil seepage'. N Papua frontier basin with oil seeps on Teer River. Two samples from oil seepage show biodegradation based on n-alkane distribution. Pristane/phytane ratio indicates source rocks shaly coal with low reducing conditions. Oleanane and bicadinane peaks suggest Cenozoic-age source rocks with Type III kerogen)

Marcou, J.A., D. Samsu, A. Kasim et al. (2004)- Tangguh LNG's gas resource: discovery, appraisal and certification. In: R.A. Noble et al. (eds.) Proc. Deepwater and frontier exploration in Asia & Australia Symposium, Jakarta, Indonesian Petroleum Association (IPA), p. 159-176.
(Tangguh complex 6 gas fields: Vorwata, Wiriagar deep, Roabiba, Ofaweri, Ubadari and WOS. Proven 1998 reserves 14.4 TCF, may grow to 24 TCF. 77% of gas in high-quality M Jurassic sst (av. porosity 12.3%, perm 250 mD), rest in lesser-quality Paleocene turbidite sst (porosity 11-14.5%, perm 2-30 mD). Well data from Wiriagar Deep 1, 2, 5, 7 and Vorwata 2 wells)

Mardani, R. & P. Butterworth (2016)- Palaeocene reservoir depositional systems of the WD Field, Papua Barat Province: a play fairway opening discovery. Proc. IPA 2016 Technical Symposium, Indonesia exploration: where from- where to, Indonesian Petroleum Association (IPA), Jakarta, 43-TS-16, p. 1-19.
(Wiriagar Deep (WD) gas field in Birds Head/ Bintuni Bay first discovered by ARCO in 1994, with gas in stacked Waripi Fm Paleocene shallow marine and deep marine turbidite sandstone reservoirs (and M Jurassic sandstones). Three main reservoir depositional systems in 'classic' passive margin overall progradational (SE-directed?) Paleocene series, from basin floor lobes at base, through slope channel complexes to shelf edge deltas, and overlain by Eocene evaporites and Faumai Lst).)

Martin, B.A. & S.J. Cawley (1991)- Onshore and offshore petroleum seepage: contrasting a conventional study in Papua New Guinea and airborne laser fluorosensing over the Arafura Sea. Australian Petroleum Exploration Assoc. (APEA) Journal 31, p. 333-353.

(Onshore seeps in PNG Aure Thrust Belt mapped with use of local people. Analyses suggest oil-prone source rock of probable Jurassic age. Seeping petroleum liquids are gas condensates in subsurface, and in this uplifted region likely from accumulations only. Offshore Airborne Laser Fluorosensor (ALF) data over W Arafura Sea indicate active oil seepage. Distribution compatible with understanding of subsurface Paleozoic- Mesozoic source kitchens. Goulburn Graben seepage likely from Paleozoic-(?)Triassic (with possible contribution from other Mesozoic sources), and migrating through largely unfaulted Mesozoic seal. Evidence for liquid petroleum seepage from Mesozoic in Calder Graben via faults through regional seal along Lynedoch Bank Fault System)

Martin, K. (1881)- Eine Tertiaerformation von Neu-Guinea und benachbarten Inseln nach Sammlungen von Macklot und v. Rosenberg's. Sammlungen Geologischen Reichs-Museums Leiden, ser. 1, 1, p. 65-83.
(also in Jaarboek Mijnwezen 11 (1882), Wetenschappelijk Gedeelte, p. 137-156)
(online at: www.repository.naturalis.nl/document/552374)
('A Tertiary formation from New Guinea and adjacent islands, from collections of Macklot and Von Rosenberg'. Descriptions of Tertiary fossils from W Papua (incl. Eocene Alveolina limestone), Kur, Kai Besar and Aru islands (post-Tertiary mollusc breccia))

Martin, K. (1911)- Palaeozoische, Mesozoische und Kaenozoische Sedimente aus dem sud-westlichen Neu-Guinea. Sammlungen Geologischen Reichs-Museums Leiden, ser. 1, 9, 1, E.J. Brill, p. 84-107.
(online at: www.repository.naturalis.nl/document/552433)
('Paleozoic, Mesozoic and Cenozoic sediments from SW New Guinea'. Brief review of fossils collected in foothills South of Central Range by Heldring in 1907-1909 expeditions. Flanks of Wilhelmina (=Trikora) peak composed of Eocene Nummulites and Alveolina limestones. Float in Setakwa (Otakwa) river with Mesozoic limestone with ammonite (Coeloceras?) and Eocene Lacazina limestone. In Noordwest River hard quartz sandstone with brachiopods Rhynconella and Spiriferina (Permian?). In Noord/ Lorentz River Paleozoic grey limestone with trilobite fragments, also blue gray rock with orthoceratid, probably Actinoceras. In B-River (upper tributary of Eilanden R.) Jurassic ammonites (Macrocephalites?), belemnites, also Eocene Nummulites and Alveolina limestones, E Miocene Lepidocylina limestone, etc. No plates)

Martodjojo, S., D. Sudradjat, E. Subandrio & A. Lukman (1975)- The geology and stratigraphy along the roadcut Tembagapura, Irian Jaya (Indonesia). Institut Teknologi Bandung, Report, p. 1-51. *(Unpublished)*
(First description of thick Paleozoic- Mesozoic section along newly built road from Tembagapura town to Freeport Ertsberg mine. Stratigraphic interpretation revised by Oliver et al. 1995)

Martin, P.E., F.A. Macdonald, N. McQuarrie, R.M. Flowers & P.J.Y. Maffre (2023)- The rise of New Guinea and the fall of Neogene global temperatures. Proc. National Academy of Sciences USA (PNAS) 120, 40, e2306492120, p. 1-10.
(online at: https://www.pnas.org/doi/epdf/10.1073/pnas.2306492120)
(The ~2000-km-long Central Range of New Guinea is hotspot of modern carbon sequestration due to chemical weathering of ophiolites with steep topography in warm wet tropics. New (U-Th)/He thermochronology data reveal rapid uplift and regional denudation between 10- 6 Ma, with up to 20 km of exhumation. New model estimates 0.6 to 1.2 °C of cooling associated with Late Miocene rise of New Guinea due to increased silicate weathering, with CO_2 sink continuing to Present. Rise of New Guinea contributed to Neogene climate cooling)

Maryono, A. & D. Power (2013)- Gold endowment and metallogeny of the island of Papua. Proc. Annual Convention Indonesian Soc. Economic Geologists (MGEI), Bali 2013, Papua and Maluku Resources, p. 143-150.

Masduki, D. & H. Sugiharto (1993)- The geology and hydrocarbon aspects of the frontier Central Range of Irian Jaya. Proc. 22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 627-637.
(Review of W Papua Central Range geology. Primarily a summary of Esso-Pertamina 1991 joint field survey in Central Range of West Papua (authors were not involved in the original study; JTvG). Thrusting to S/SW of ~6000m thick Paleozoic- E Jurassic continental series and M Jurassic- Tertiary Australian continental margin sequence. Large WNW-ESE trending surface anticlines, mainly formed in Late Miocene- E Pliocene. Oil seeps and stains at Tiom (Yereka), Wamena, Magi and Oro). Etc.)

Masria, M., N. Ratman & K. Suwitodirdjo (1981)- Geologic map of the Biak Quadrangle, Irian Jaya, 1:250,000, Quadrangle 3115. Geological Research Development Centre (GRDC), Bandung.
(Geologic map of Biak and Supiori Islands. Oldest rocks Korido meta-sediments, Unconformably overlain by Late Eocene- E Oligocene Auwewe island-arc volcanics, unconformably overlain by Late Oligocene? Wainukendi Fm limestone, overlain by earliest Miocene Wafordori Fm marine marls and Miocene Napisendi Fm limestones and marls)

Mathur, R., J. Ruiz, S. Titley, S. Gibbins & W. Margotomo (2000)- Different crustal sources for Au-rich and Au-poor ores of the Grasberg Cu-Au porphyry deposit. Earth Planetary Science Letters 183, 1-2, p. 7-14.
(online at: https://www.academia.edu/download/53991250/Different_crustal_sources_for_Au-rich_an20170727-2976-14a7dxv.pdf)
(Grasberg is porphyry copper deposit, cut by second stage mineralization enriched in gold. Porphyry-type event 2.9 Ma age and crustal component for source of base metals. Secondary event different crustal sources for ore-forming elements and suggest gold may be derived from sedimentary protoliths)

Mathur, R., S. Titley, J. Ruiz, S. Gibbins & K. Friehauf (2005)- A Re-Os isotope study of sedimentary rocks and copper-gold ores from the Ertsberg District, West Papua, Indonesia. Ore Geology Reviews 26, p. 207-226.
(Ertsberg orebody is copper-gold, roof-pendant of sedimentary strata in diorite. Grasberg and Kucing Liar molybdenites mineralization ages of 2.88 and 3.01 Ma, Ertsberg Molybdenite younger age of 2.54 Ma, similar to Ar chronologies of Pollard and Taylor (2000))

Matsuda, F., Y. Indra, D. DesAutels & B.Y. Chua (2002)- Integration of geological and geophysical data to reconstruct depositional models of Miocene carbonate reservoirs from Southeast Asia. AAPG Annual Convention Abstracts, 1p.. *(Abstract only; no figures)*
(online at: https://www.searchanddiscovery.com/pdfz/abstracts/pdf/2002/annual/SHORT/ndx_46293.pdf.html)
(Reservoir section in Miocene Upper Kais Fm in E Walio field, Irian Jaya, subdivided into seven shallowing upward cycles. In lower four cycles, reef cores developed in N and E to SE margins, and back reef environment developed in central and W part. In upper three cycles, reef cores present in S area and Walio Reef backstepped in N part. Reservoir section of F6 field was subdivided into lower, middle and upper units)

Matsuda, F., Y. Matsuda, M. Saito & R. Iwahashi (1999)- A computer simulation model facies-3D for the reconstruction of the carbonate sedimentary process. In: G.H. Teh (ed.) Proc. 9th Regional Congress Geology, Mineral Energy Resources of SE Asia (GEOSEA '98), Kuala Lumpur 1998, Bull. Geological Society Malaysia 43, p. 407-415.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1999041.pdf)
(Simulation study of deposition of Upper Kais Fm reefal carbonates in, Walio Field, Salawati Basin. Upper Kais deposited during third-order cycle (5.5-4.2 Ma). Eight carbonate facies. Simulation describes backstepping and facies change at major flooding events)

Matsuda, F., Y. Matsuda, M. Saito, R. Iwahashi, Y. Indra & D. DesAutels (1997)- A computer simulation for the reconstruction of the carbonate sedimentary process in the Miocene Kais Formation, eastern Indonesia. Proc. ASCOPE '97 Conference, Jakarta, ASEAN Council on Petroleum, 1, p. 79-98.
(Presumably same as Matsuda et al, (1999), above)

Matsuda, F., M. Saito, R. Iwahashi, H. Oda, Y. Indra & D. DesAutels (2000)- Facies 3D- a computer simulation model for reconstruction of sedimentary processes: a case study for Miocene carbonate reservoirs. Proc. 27th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 653-661.
(Simulation model of U Miocene reefal carbonate reservoirs of Kais Fm in Walio Field, Salawati Basin)

Matsuda, F., M. Saito, R. Iwahashi, H. Oda & Y. Tsuji (2004)- Computer simulation of carbonate sedimentary and shallow diagenetic processes. In: Integration of outcrop and modern analogs in reservoir modeling, American Assoc. Petroleum Geol. (AAPG), Memoir 80, p. 365-382.
(Simulation models Pleistocene Ryukyu Group, SW Jaopan, and U Miocene reefal carbonate reservoirs of Kais Fm in Walio Field, Salawati Basin, W Papua)

Maxwell, R., F. Waina & S. Youens (2024)- Extension of the Papua New Guinea P'nyang gas play into the Oksibil area of Indonesia. Proc. 48th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA24-G-158, p. 1024-1045.
(On potential W-ward continuation of P'Nyang gas field play in Central Range foldbelt of PNG into Indonesia. P'Nyang gas field 1970 Chevron gas discovery, now ExxonMobil-operated, with reserves of 4.3 TCF. Similar triangle zone play observed in carbonate massif near Oksibil in far NW of former Warim PSC. Late Triassic granodiorites penetrated in P'Nyang Fieldand dated as 205 ± 5 Ma (Popek, 1991))

McAdoo, R.L. & J.C. Haebig (1999)- Tectonic elements of the North Irian Basin. Proc. 27th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 545-562.
(Waropen Basin between C Ranges and New Guinea Trench forearc basin and one or two subduction-related accretionary prisms. Subduction stopped and relative plate motion now oblique. Plate boundary is sinistral Yapen Fault Zone, on mainland a line of mud volcanoes, extending W along N coast of Yapen Island and may connect to Sorong Fault system. N Irian Basin >25,000' Tertiary sediments in Waropen, Teer River, Waipoga and Meervlakte intermontane sub-basin depocenters. Rapid subsidence created asymmetric basin fills dominated by turbidites. Potential reservoir distribution problematical with good quality turbidite reservoirs near margins. Large reef complexes evident. Terrigenous-derived kerogens serve as potential petroleum source. Low thermal gradient of 1.67° F/100'. Since 1950's, 12 wells drilled, resulting in two gas and one gas/oil discoveries. Four wells abandoned before reaching target due to overpressure)

McCaffrey, R. & G.A. Abers (1991)- Orogeny in arc-continent collision; the Banda Arc and western New Guinea. Geology (GSA) 19, 6, p. 563-566.
(online at: https://www.researchgate.net/publication/240669545_Orogeny_in_arc-continent_collision_The_Banda_arc_and_western_New_Guinea)

McConachie, B., H. King & M. Keyang (2000)- Old fault controlled foldbelt structures and the petroleum systems of Warim in West Papua. AAPG International Conference Bali 2000, Search and Discovery Article #90913, 1p.
(Abstract only)
(online at: https://www.searchanddiscovery.com/abstracts/html/2000/intl/abstracts/269.htm)
(Series of NW-SE trending "3KB trend" faults cross-cutting foldbelt, variously active in Triassic-Jurassic, Oligocene and Plio-Pleistocene; summary of Conoco Warim Block exploration)

McConachie, B.A., E. Lanzilli, R.D. Kendrick & C Burge (2000)- Extensions of the Papuan Basin foreland geology into eastern Irian Jaya (West Papua) and the New Guinea fold belt in Papua New Guinea. In: P.G. Buchanan et al. (eds.) Papua New Guinea's petroleum industry in the 21st century, Proc. 4th PNG Petroleum Convention, Port Moresby, p. 219-237.
(Comparison of PNG Papuan foreland basin and adjacent Akimeugah Basin/Warim area of West Papua. W Papua part sparsely explored; several wells with oil shows. Quartz cementation important in deeper foreland basin in W)

McCue, K.F. (1987)- The plate boundary North of Australia. In: E. Brennan (ed.) Proc. Pacific Rim Congress 1987, Gold Coast, Australasian Institute of Mining and Metallurgy (AusIMM), Parkville, p. 827-830.
(Epicenters of shallow earthquakes used to identify active seismic zones, signifying present-day plate boundaries, particularly across New Guinea)

McDowell, F.W., T.P. McMahon, P.Q. Warren & M. Cloos (1996)- Pliocene Cu-Au-bearing igneous intrusions of the Gunung Bijih (Ertsberg) district, Irian Jaya, Indonesia: K-Ar geochronology. Journal of Geology 104, 3, p. 327-340.
(Nine potassic intermediate intrusives in Ertsberg area, aged 2.6-4.4 Ma. Do not appear related to subduction. A more northerly Miocene belt (10-20 Ma; PNG Maramuni Arc and extension to W) does represent subduction-related arc above SW dipping Benioff zone)

McMahon, T.P. (1994)- Pliocene intrusions in the Ertsberg (Gunung Bijih) Mining District, Irian Jaya, Indonesia: petrography, geochemstry, and tectonic setting. Ph.D. Thesis, University of Texas at Austin, p. 1-298.
(Unpublished) (16 Pliocene (3-4 Ma) intrusions crop out in Ertsberg Mining District, mainly small (<4 km^3), hypabyssal dikes and plugs, but Ertsberg 10-20 km^3. Intrusions high-K (latites, trachytes, trachydacites) and low-K (andesites, dacites) and equigranular (Ertsberg) to porphyritic (others). Plagioclase dominant mineral, most also with amphibole and biotite. Differences in type of ore deposits of Ertsberg (large body of crystal-poor magma cooling slowly, forming peripheral calc-silicate skarns) and Grasberg (periodic tapping of magmas and fluids from cupola of deeper magma chamber led to porphyry Cu mineralization) related to magmatic evolution. Younger magmatism in W Papua result of lithospheric delamination)

McMahon, T.P. (1994)- Pliocene intrusions in the Gunung Bijih (Ertsberg) mining district, Irian Jaya, Indonesia; petrography and mineral chemistry. International Geology Review 36, 9, p. 820-849.
(Part 1 of 2 papers. At least 16 Pliocene hypabyssal intrusions crop out within Gunung Bijih (Ertsberg) Mining District, W Papua, with several associated Cu-Au ore deposits. Most skarns associated with quartz monzonite Ertsberg Intrusion. Intrusions emplaced at <2 km depth into deformed sedimentary rocks that originally were deposited on N margin of Australian continent. Emplacement of at least one intrusion controlled by cross-cutting NW- and NE-trending fault sets. Intrusions can be divided into high-K group of latites, trachydacites, and trachytes (volumetrically more important), and low-K andesites and dacites)

McMahon, T.P. (1994)- Pliocene intrusions in the Gunung Bijih (Ertsberg) mining district, Irian Jaya, Indonesia; major- and trace-element chemistry. International Geology Review 36, 10, p. 925-946.
(Gunung Bijih (Ertsberg) Mining District is group of small, hypabyssal Pliocene intrusions with Cu-Au ore deposits, near highest parts of Central Range of W Papua. Several skarn orebodies around margins of Ertsberg Intrusion. All but Big Gossan deposit related genetically to Ertsberg Intrusion. Nearby supergiant Grasberg porphyry copper deposit related to first two stages of intrusions in Grasberg Complex. Intrusions intermediate in composition, with high-K latite- trachydacite-trachyte, and low-K andesite and dacite. Chemical variation product of combined fractionation, assimilation, and recharge prior to emplacement in shallow crust, derived from same lower crustal magma chamber)

McMahon, T.P. (1999)- The Ertsberg intrusion and the Grasberg Complex: contrasting styles of magmatic evolution and Cu-Au mineralization in the Gunung Bijih (Ertsberg) Mining District, Irian Jaya, Indonesia. Buletin Geologi (ITB) 31, 3, p. 123-132.

McMahon, T.P. (2000)- Magmatism in an arc-continent collision zone: an example from Irian Jaya (western New Guinea), Indonesia. Buletin Geologi (ITB) 32, 1, p. 1-22.

McMahon, T.P. (2000)- Origin of syn- to post-collisional magmatism in New Guinea. Buletin Geologi (ITB) 32, 2, p. 89-104.

McMahon T.P. (2001)- Origin of a collision-related ultrapotassic to calc-alkaline magmatic suite: the latest Miocene Minjauh volcanic field, Irian Jaya, Indonesia. Buletin Geologi (ITB) 33, p. 47-77.

Mealey, G.A. (1996)- Grasberg. Mining the richest and most remote deposit of copper and gold in the world, in the mountains of Irian Jaya, Indonesia. Freeport-McMoRan Inc., New Orleans, p. 1-370.
(History of discovery and development of one of worlds largest Cu-Ag mines in high mountains of W Papua, wriitten by executive of Freeport McMoRan mining company)

Meinert, L.D., K.H. Hefton, D. Mayes & I. Tasiran (1997)- Geology, zonation, and fluid evolution of the Big Gossan Cu-Au skarn deposit, Ertsberg District, Irian Jaya. Economic Geology 92, 5, p. 509-534.
(Big Gossan Cu-Au skarn deposit highest grade copper deposit Ertsberg district. Mineralization associated with 3-4 Ma granodioritic dikes, intruded close to steep fault contact between shale of Cretaceous Ekmai Fm and overlying Paleo- Eocene Faumai Fm. Most mineralization in purer carbonate rocks of Waripi Fms)

Meirawaty, M., R. Al Furqan, S.D. Nuryana & A.Yani (2018)- The alteration characteristic of Cu-Au skarn and porphyry-style alteration in The Deep MLZ, Ertsberg District, Papua, Indonesia. IOP Conference Series Earth and Environmental Science 212,:012025, p. 1-13.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/212/1/012025)
(Deep Mill Level Zone (DMLZ) is world class copper-gold skarn deposit in lower part of East Ertsberg Skarn System. Hosted in Paleocene Waripi Fm that was intruded by Diorite to Quartz Monzodiorite. Etc.)

Meizarwin (2002)- Discovery and future exploration potential Tangguh gas fields, Bintuni Basin, Papua-Indonesia. In: Giant Field and New exploration concept seminar, IAGI, Jakarta 2002, p. 19-21. *(Abstract only)*

Melia, S. (2020)- The structure and evolution of the Sorong Fault Zone, Indonesia using multibeam and seismic datasets. Ph.D. Thesis Royal Holloway University of London, p. 1-251. *(Unpublished)*

Memmo, V., C. Bertoni, M. Masini, J. Alvarez, V. Memmo, Z. Imran, A. Echanove & D. Orange (2013)- Deposition and deformation in the Recent Biak Basin (Papua Province, Eastern Indonesia). Proc. 37th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA13-G-122, p. 1-12.
(Plio- Pleistocene Biak Basin, between Biak- Yapen islands and N of Sorong- Yapen strike-slip system, probably transtensional pull-apart basin in oblique collision zone of Australian and Pacific Plates. Oceanic or transitional basement of basin postulated. Basin fill appears to be dominated by slope and deep water clastics)

Mernagh, T.P. & J. Mavrogenes (2019)- Significance of high temperature fluids and melts in the Grasberg porphyry copper-gold deposit. Chemical Geology 508, p. 210-224.
(Hypersaline fluid and melt inclusions in Grasberg Cu-Au deposit exhibit unrealistically high homogenisation temperatures up to 1300 °C; may be used as tracers of the magmatic body from which they exsolved at depth)

Mernagh, T.P., C. Leys & R.W. Henley (2020)- Fluid inclusion systematics in porphyry copper deposits: The super-giant Grasberg deposit, Indonesia, as a case study. Ore Geology Reviews 123, 103570, p. 1-20. *(see also Corrigendum, in Ore Geology Reviews 124, 103622, 39)*
(Grasberg super-giant porphyry copper deposit related to episodic degassing of shallow intrusions during growth of 3.3-3.6 Ma monzodiorite intrusions. It occupies breccia-filled diatreme underlying crater of a maar volcano and preserved a lacustrine-volcaniclastic sequence that marks the paleo-surface to within a few 100m. Fluid inclusion data with respect to this paleo-surface shows porphyry mineralization extended from paleo-depth of ~500 m to >1500m depth, as defined by drilling. Grasberg deposit has 3 populations of fluid inclusions (low salinity, hypersaline liquid and multi-solid inclusions, reflecting expansion of continuum low salinity/low density magmatic vapor phase to a two-phase fluid)

Mertig, H.J. (1995)- Geology and ore formation of the Dom copper skarn deposit, Ertsberg (Gunung Bijih) District, Irian Jaya, Indonesia. M.A. Thesis, University of Texas, Austin, p. *(Unpublished)*

Mertig, H.J., J.N. Rubin & J.R. Kyle (1994)- Skarn Cu-Au orebodies of the Gunung Bijih (Ertsberg) District, Irian Jaya, Indonesia: J. Geochemical Exploration 50, p. 179-202.
(Ertsberg major Cu-Au skarn deposits products of hydrothermal systems associated with Pliocene magma emplacement. Orebodies in Cretaceous- Tertiary sedimentary sequence, deformed as Australian continental margin entered N-dipping subduction zone at 12 Ma. Intrusions K-Ar ages 2.7-4.4 Ma. Skarn orebodies in Tertiary New Guinea Limestone. Differences among skarn orebodies related to protolith composition. Oligo-Miocene Ainod Fm likely protolith for GB and Dom orebodies. GBT and upper IOZ orebodies probably hosted by Eocene Faumai Fm. DOZ and lower IOZ orebodies in dolomitic unit, probably Paleocene Waripi Fm)

Miedema, J., C. Ode & R.A.C. Dam (eds.) (1998)- Perspectives on the Bird's Head of Irian Jaya, Indonesia. Proc. Conference, Leiden 1997, Rodopi, Amsterdam, p. 1-982.
(Conference proceedings. Includes invited papers on geology by N. Ratman and R. Dam)

Milsom, J. (1991)- Gravity measurements and terrane tectonics in the New Guinea region. J. Southeast Asian Earth Sciences 6, p. 319-328.

(Interpretation of gravity data in 7 areas of W Papua and PNG. In some areas gravity conforms to geological models like in Papuan Ultramafic belt. Others, like Weyland Terrane in W Papua more complicated, where Dow et al. (1986) interpretation is not compatible with gravity data. Main gravity high located over large M Miocene diorite batholith, possibly emplaced after overthrusting)

Milsom, J., D. Masson, G. Nichols, N. Sikumbang, B. Dwiyanto, L. Parson & H. Kallagher (1992)- The Manokwari Trough and the western end of the New Guinea Trench. Tectonics 11, 1, p. 145-153.
(online at: https://www.academia.edu/download/68119495/91tc0125720210715-28372-t2lz2y.pdf)
(New Guinea Trench seafloor depression parallel to N coast of New Guinea for 700 km. W end lies 600 km E of Philippine Trench; intervening region series of N- trending ridges and troughs. Ayu Trough and Tobi and Mapia ridges most prominent. Trench marks site of subduction, but present-day activity disputed. W termination at ridge system culminating in Mapia Island. Trench with 1 km undisturbed sediments and S slopes extensively channeled, suggesting lack of recent deformation. 400 km W of W end of trench, N coast of New Guinea is flanked, at distance of only few tens of km, by deep trough. Sonar imagery of 'Manokwari Trough' suggests recent convergence and transcurrent movement. Trough and abrupt termination of New Guinea Trench are consequences of seafloor spreading in Ayu Trough after subduction ceased at trench)

Moerman, C. (1908)- Verslag over een geologische verkenningstocht door het terrein beoosten der Etna Baai (19 Nov. 1904- 16 Febr. 1905). In: G.P. Rouffaer et al., De Zuidwest Nieuw Guinea Expeditie van het Koninklijk Nederlands Aardrijkskundig Genootschap 1904/5, Brill, Leiden, p. 401-416.
('Report of a geological reconnaissance trip through the area East of Etna Bay 1904-1905'. SW New Guinea Expedition 1904-1905'. Etna Bay (Lahakia Bight), SE of Lengguru foldbelt, is surrounded by massive Eocene Discocyclina-Nummulites-alveolinid limestone, locally with andesite intrusions. Also quartz sandstones, probably underlying limestones, and float of diorite and andesite. Area E of Etna Bay mainly dark slates, locally steeply dipping, with one deformed ammonite, possibly of Late Jurassic age according to G. Boehm (first record of Mesozoic marine sediments in SW New Guinea))

Moffat, D.T., L.F. Henage, R.A. Brash et al. (1991)- Lengguru, Irian Jaya: prospect selection using field mapping, balanced cross-sections and gravity modeling. Proc. 20th Annual Conv. Indonesian Petroleum Association (IPA), p. 85-106.
(Balanced cross-sections through Lengguru foldbelt. Plio-Pleistocene thrust-fold belt with inversion and non-inversion imbricate thrust structures. External zone detached, ramp anticlines, dominantly thin-skinned and no basement-involvement. Sub-thrust extensional systems which offset basement suggested by regional gravity at boundary with internal zone. Platform carbonates of New Guinea Lst form competent unit. Internal zone closely spaced imbricates, many of which breached to Kembelangan Gp. Close thrust spacing reflects lithological change from platform to distal facies carbonates; boundary with external zone represents paleo-shelf margin)

Moig, N.A.W. (1994)- High resolution aeromagnetics as an aid to structural interpretation over the Muturi PSC, Irian Jaya. Proc. 23rd Annual Conv. Indonesian Petroleum Association (IPA), p. 417-438.
(1993 'High Resolution' aeromagnetic survey allowed resolution of lineaments and domains in basement and sedimentary section. NE-SW and NW-SE trends fundamental structural elements controlling distribution of features in Mesozoic and younger sections)

Molengraaff, G.J.H. (1960)- Over het voorkomen van ertsen in economische hoeveelheid op Nederlands-Nieuw-Guinea. De Ingenieur 72, 52, A, p. 677-682.
('On the occurrence of ores in commercial quantities in Netherlands New Guinea')

Molengraaff, G.J.H., G.A. Hermans & J.A.J. Kaptein (1959)- Rapport over het geologisch-mijnbouwkundig onderzoek van het eiland Salawati (Nieuw Guinea) in 1958. Report S.784/NNG, Technical University Delft, p.
(Unpublished)
(Report of geological-mining investigations of Salawati island. Part of series of late 1950's survey reports of parts of Birds Head and nearby Salawati, Batanta and other islands by G.J.H. Molengraaff and TH Delft students)

Monnier, C., J. Girardeau, M. Pubellier & H. Permana (2000)- L'ophiolite de la chaine centrale d'Irian Jaya (Indonesie): evidences petrologiques et geochimiques pour une origine dans un bassin arriere-arc. Comptes Rendus Academie Sciences, Paris, Series IIA, Earth Planetary Science 331, 11, p. 691-699.
(online at: https://www.researchgate.net/publication/235952878_L'ophiolite_de_la_chaine_centrale_d'Irian_Jaya_Indonesie_evidences_petrologiques_et_geochimiques_pour_une_origine_dans_un_bassin_arriere-arc)
('The ophiolite of the Irian Jaya Central Range (Indonesia): petrological and geochemical evidence for a back-arc origin'. Central Range ophiolite belt with peridotites, gabbros, dolerites and basalts outcrops over 450 x 50 km area. Chemistry suggests it formed in backarc environment rather than oceanic domain. Probable age Jurassic. Obduction age Tertiary, but exact age still to be determined)

Monnier, C., J. Girardeau, M. Pubellier, M. Polve, H. Permana & H. Bellon (1999)- Petrology and geochemistry of the Cyclops ophiolites (Irian Jaya- East Indonesia): consequences for the evolution of the North Australian margin during Cenozoic. Mineralogy and Petrology 65, p. 1-28.
(online at: www.academia.edu/5211608/Petrology_and_geochemistry_of_the_Cyclops_ophiolites_Irian_Etc.)
(Cyclops Massif ophiolitic sequence with peridotites, gabbros, dolerites, mid-oceanic ridge basalts and minor boninitic lavas. Tectonically overlies high T-high P mafic rock, metamorphosed in E Miocene. Basalts and cumulate rocks typical of back-arc magmas. K/Ar ages from basalts (29 Ma) and boninites (43 Ma) combined with geochemical signatures indicate Cyclops Mts formed in single suprasubduction environment. This implies S-ward subduction of Australian oceanic lithosphere beneath N Australian margin. Ultramafic rocks and related lavas (boninites) likely formed in Eocene in forearc, before S-ward obduction onto island arc in E Miocene. Pliocene back-thrusting event led to slicing of backarc basin series onto arc and fore-arc sequences)

Montgomery, S.L. & J. Wold (2001)- E. Indonesian gas- 1: Irian Jaya's Waropen basin could hold more giant gas reserves. Oil and Gas Journal 99, 25, p. 34-42.
(NW New Guinea Waropen Basin up to 10 km mainly Plio-Pleistocene turbidite clastics. Proven gas potential in 1958 Niengo 1 gas test. Potential plays deep water sands and Miocene-Pliocene carbonates)

Montgomery, S.L., R. McAdoo, J.C. Haebig, T. Fraser & J. Wold (2001)- E. Indonesian Gas-2- Potential giant gas reserves await development in Irian Jaya. Oil and Gas Journal 99, 26, p. 40-42.
(Discussion of undeveloped gas reserves in Waropen frontier basin of northern Irian Jaya. Gas discoveries made in 1958 and 1973 were abandoned for lack of oil indications. Offshore well also found gas in turbiditic sands in Mamberamo D unit (Plio-Pleistocene))

Muhartanto, A., A.H. Hamdani, Safrizal, L. Fauzielly & A. Triwerdhana (2018)- Studi karakteristik dan permodelan termal batuan induk Tersier di Cekungan Salawati, Papua Barat. Lembaran Publikasi Minyak dan Gas Bumi, Lemigas, 52, 3, p. 119-130.
(online at: https://journal.lemigas.esdm.go.id/index.php/LPMGB/article/view/723)
(Study of 'Tertiary source rock characteristics and thermal modeling in the Salawati Basin, West Papua'.)

Muiz, B.A., H.A. Suhendar, V.I. Magfirah, A. Bachtiar & P.T. Setyobudi (2024)- Maturing prospects and leads in the carbonate pinnacle reef of the Kais Formation in West Salawati. Proc. 48th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA24-G-70, p. 1-16.
(BLL-A 1 well in 2016 was successful discovery in Mio-Pliocene Kais Fm carbonate reservoir at 11,482'. New work by Mont d'Or identified 22 additional undrilled pinnacle reef prospects in Kais Fm)

Mujito (1994)- Hydrocarbon resource assessment of the Miocene carbonate play, Kepala Burung, Irian Jaya, Indonesia. In: J.L. Rau (ed.) Proc. 29th Annual Session Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Hanoi 1992, 2, p. 61-66.
(Assessment of Miocene Kais carbonate buildups and platform play in Salawati and Bintuni basins. Remaining hydrocarbons in Salawati Basin 1.02 M Tons oil, 1.48 Gm3 gas, Bintuni 0.78 M Tons oil, 0.54 Gm3gas)

Muller, S. (1844)- Bijdragen tot de kennis van Nieuw-Guinea. In: Temminck, C.J. (1839-1844) Verhandelingen over de natuurlijke geschiedenis der Nederlandsche overzeesche bezittingen door de leden der Natuurkundige Commissie in Indie en andere schrijvers, Land en Volkenkunde, Leiden, p. 1-80.

(online at: https://ia802907.us.archive.org/2/items/verhandelingeno00temm/verhandelingeno00temm.pdf)
('Contributions to the knowledge of New Guinea'. Early naturalist descriptions of West Papua from Salomon Muller's 1828-1830 Triton Expedition)

Musper, K.A.F.R. (1938)- Over het voorkomen van *Halysites wallichi* Reed op Nieuw Guinea. De Ingenieur in Nederlandsch-Indie (IV. Mijnbouw en Geologie) 5, 10, p. IV.156- IV.158.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1938-10.pdf)
('On the occurrence of Halysites wallichi Reed on Nieuw Guinea'. Second record of tabulate coral Halysites since Teichert (1928), from limestone, collected by Terpstra in pebbles of Penanggi River, a tributary of the Oesak R. in headwaters of Noord or Lorentz River of Central Range foothills). Probably of Silurian age, although E Devonian can not be excluded)

Musu, J.T., H. Sutanto, D.V. Mamengko, A. Yusriani, A Mannappiang & A.H. Satyana (2015)- Opportunities in frontier North Papua Basin, Indonesia: constraints from oil seep of the Teer River and its expected petroleum system. Poster presentation AAPG/ SEG International Conference Exhib. (ICE), Melbourne.
(Abstract online at: https://library.seg.org/doi/10.1190/ice2015-2210079)
(Underexplored North Papua Basin with famous oil seep of Teer River. Biomarker study of oil shows minor biodegradation. Pristane/ phytane ratio >3 indicates oil generatio from shaly to coaly source rocks, deposited in oxidizing environment. High oleanane and appearance of bicadinanes suggest Miocene or younger age. Oil generated from maturity equivalent with Ro of 0.9 (top oil window) at depth of ~4000m. Main candidates for active source rocks in M-L Miocene Makats Fm or E Pliocene Memberamo B Fm)

Nash, C., G. Artmont, M.L. Gillan, D. Lennie, G. O'Connor & K.R. Parris (1993)- Structure of the Irian Jaya mobile belt, Irian Jaya, Indonesia. Tectonics 12, p. 519-535. *(online at: https://www.academia.edu/114824725/Structure_of_the_Irian_Jaya_Mobile_BElt_Irian_Jaya_Indonesia)*
(PT Freeport paper on Irian Jaya Mobile belt/ Central Range. Seven structural domains, from N to S: (1) N Coast region: Tertiary volcanics and sediments overlain by Pliocene-Pleistocene successor basin (2) allochthonous terrane of ophiolites and high-grade metamorphics; (3) Derewo metamorphic assemblage, displaying polyphase deformation; (4) marginal zone within Mesozoic-Paleogene miogeoclinal sediments with steep duplex structures and remnant klippen; (5) 40-50 km-wide partly inverted synclinorium composed of miogeoclinal sediments; (6) regional S- vergent overturned anticlinorium formed by incompetent Paleozoic sediments; (7) foreland thrust domain involving both Mesozoic-Cenozoic miogeoclinal cover and deformed Neogene foreland molasse basin sequence. Late Oligocene-Miocene docking of metamorphics, island arc assemblages and ophiolites produced tectonically stacked E-W trending structures thrust onto N margin of Australian continent. Late Miocene-Pliocene collision with Melanesian Arc brought accreted Australian margin into contact with W-moving Pacific Plate and instituted regime of oblique transpression. Resulting structures E-W sinistral wrenching and NW thrusts along lateral E-W ramps)

Nauw, M., M.F. Riza, R. Mardani & P. Butterworth (2017)- Compartmentalization of Paleocene-aged deep water reservoirs at Wiriagar Deep, Papua Barat Province. Proc. 41st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA17-392-G, p. 1-15.
(Paleocene basin floor fan and slope channel sandstones of Wiriagar Deep field with gas trapped in large NW-SE closure, created during Oligocene compression and reactivated during Plio-Pleistocene. Reservoir compartmentalisation by combination of depositional facies and strike slip faults)

Nauw, M., E.V. Yudhanto, A. Maulana, N. Clark & G. Doughty-Jones (2019)- Understanding reservoir quality mechanisms in the Wiriagar Deep Paleocene Field Papua Barat Province. Proc. 43rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA19-G-119, p. 1-23.
(Wiriagar Deep field in Bintuni Basin with Paleocene with gas in complex deep-water reservoirs depositional system ranging from lobe, and slope channel to shelf edge environments. Average porosity 13%, and permeability 15 mD. Calcite cementation and presence of significant lithic grains in Paleocene sandstones result in reservoir quality degradation through compaction and cementation. Slope channel sands better reservoir quality than shelf and basin floor fan facies)

New, B.T.E. (2005)- Controls of copper and gold distribution in the Kucing Liar deposit, Ertsberg mining district, West Papua, Indonesia. Ph.D. Thesis James Cook University, Townsville, p. 1-235.
(online at: http://eprints.jcu.edu.au/2083)
(Kucing Liar large sediment-hosted Cu-Au deposit in Ertsberg District in Central Ranges of W Papua. High sulphidation ore continuous with porphyry-skarn chalcopyrite, both formed from mixing of magmatic with meteoric waters in fault zone in calcareous shale and limestone adjacent to Grasberg Igneous Complex)

Newton, R. Bullen (1916)- Notes on some organic limestones, etc., collected by the Wollaston expedition in Dutch New Guinea. In: Reports on the collections made by the British Ornithologists Union Expedition and the Wollaston Expedition in Dutch New Guinea 1910-1913, 2, 20, p. 1-20.
(Mainly on larger foraminifera from limestones in SW part of W Papua Central Range, collected by Wollaston Expedition in 1912-1913 along Utakwa River, on way to Carstensz Peaks. Dominated by Lepidocyclina spp (Nephrolepidina and Eulepidina types) and Spiroclypeus (not Cycloclypeus; latest Oligocene- Early Miocene age; JTvG). Also occurrence of Jurassic mollusc Ctenostreon cf. terquemi in pebbles of Utakwa River. With review of older paleontological literature of New Guinea)

Nicoll, R.S. (1981)- Irian Jaya conodont age determinations. Bureau Mineral Resources (BMR), Canberra, Professional Opinion 1981/20, p.
(Modio Dolomite of Irian Jaya contains conodonts of Siluro-Devonian age)

Nicoll, R.S. (2002)- Conodonts from Noordwest 1 and Cross Catalina 1, West Papua, Indonesia. Unpublished report for Santos Pty, p.
(Nicoll (2006) and Zhen et al. (2011): Early Ordovician conodonts in these 2 wells; presumably in carbonates)

Nicoll, R.S. & G.M. Bladon (1991)- Silurian and Late Carboniferous conodonts from the Charles Louis Range and central Birds Head, Irian Jaya, Indonesia. BMR J. Australian Geology Geophysics 12, 4, p. 279-286.
(online at: https://d28rz98at9flks.cloudfront.net/49553/Jou1991_v12_n4.pdf)
(Conodonts from Modio Dolomite in Charles Louis Range, SW West Papua, with Panderodus cf. P. simplex, probably Silurian age. Float samples of Birds Head Aimau Fm with Neognathodus cf. bassleri and Hindeodus minutus suggest Late Carboniferous age)

Noble, R., J. Decker, T. McCullagh, D. Sebayang & D. Orange (2016)- Kofiau and Cendrawasih Bay frontier basin exploration: from joint studies to post-drill assessment. Proc. IPA 2016 Technical Symposium, Indonesia exploration: where from- where to, Indonesian Petroleum Association (IPA), Jakarta, 6-TS-16, p. 1-18.
(Review of exploration activities in Kofiau Basin (NW of Birds Head) and Cendrawasih Bay (Waipoga) Basin (E of Birds Head. Kofiau basin NE-SW trending depocenter with transtensional evolution controlled by Sorong Fault Zone. Two episodes of basin formation (E Pliocene, M Pliocene- Recent), separated by deformation- erosion event. Cendrawasih Bay (Waipoga) Basin part of N New Guinea Plio-Pleistocene post-collisional clastic basin. Oil and gas seeps in both basins oil and gas seepage with biomarkers/isotopes showing Tertiary source rock(s). No details on three recent unsuccessful exploration wells)

Norvick, M.S. (2002)- The tectono-stratigraphic history of the northern margins of the Australian Plate from the Carnarvon Basin to Papua New Guinea. Western Australia basins Symposium 3, p. 963-964.
(Set of stratigraphic diagrams used to describe tectonostratigraphy of N margins of Australian Plate. Selected chronostratigraphic transects for Barrow Sub-basin, Dampier Sub-basin, N Bonaparte-Timor island area, Birds Head-Seram region, Papuan Fold Belt and stratigraphic comparison for these basins)

Novita, D., D.F. Badaruddin, S. Koesuma & H. Ramelan (2022)- Interpretasi sumur log untuk menentukan zona prospek hidrokarbon pada Cekungan Akimeugah, Papua. Lembaran Publikasi Minyak dan Gas Bumi (Lemigas) 56, 1, p. 1-10.
(online at: https://journal.lemigas.esdm.go.id/index.php/LPMGB/article/view/915/710)
('Interpretation of well logs to determine the hydrocarbon prospectivity zones in the Akimeugah Basin, Papua'. Log interpretation of E Cretaceous Toro and Wonowogi Fms sandstone reservoir intervals with oil shows in KAU-1 and KAU-2 wells in Akimeugah basin in foreland S of Central Range of West Papua)

Nugraha, A., A. Prabowo, M.R.H. Sahidu. J. Rivera & R. Mahfoedz (2024)- Deep water slope channels geometry and reservoir properties in Wiriagar Deep Field Bintuni Basin. Proc. 48th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA24-G-3, p. 1-13.
(Wiriagar Deep Field 1994 discovery, now second biggest gas field in Greater Tangguh area, Bintuni Basin, W Papua, with gas in marginal marine M Jurassic clastics and Paleocene deep water channel sands. Channel sands trend NW-SE, with predicted width range of 1.5-2.5 km.. Good well-log cross-sections).

Nugraha, H.D. (2018)- Characterisation of Palaeocene remobilised deposits utilising cores and image logs in the HN Field, Bintuni Basin: distribution and implications to reservoir geometry prediction. Proc. 42nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA18-510-G, p. 1-21.
(Slumps and remobilised debrites in Paleocene Waripi/ Daram Fm deepwater deposits of 'HN Field', Bintuni Basin, W Papua (= WD Field of Mardani and Butterworth, 2016 = Wiriagar Deep)

Nugrahanto, K., S.W. McFall & F. Estella (2001)- Submarine-fan deposition in the lower Steenkool formation, Bintuni Basin, Irian Jaya, Eastern Indonesia: 'deep-water reservoir potential?'. In: A. Setiawan et al. (eds.) Deep-water sedimentation of Southeast Asia, Proc. 2nd Regional Seminar Indonesian Sedimentologists Forum (FOSI), Jakarta 2001, p. 66-84.
(Late Miocene- Pliocene post-Kais Limestone clastics in Bintuni Basin overall coarsening upward strata, characterizing change from Klasafet to Steenkool Fms. Depositional environment changes from deep-marine Klasafet to deltaic to deep-water Lower Steenkool. Basin floor and slope fans and (N to S?) progradational complexes with clinoformal and shingled geometries interpreted within Lower Steenkool interval)

Nuraeni, A., G.J. Schurter, Y. Supriyatna, Supriyono, B. Hornby & C. Erdemir (2008)- 3D VSP finite-difference modeling to address advance seismic imaging challenges in Bintuni Bay, Irian Jaya Barat. Proc. 32nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA 08-G-061, p. 1-10.
(3D seismic modeling method to better image gas-bearing Paleocene turbiditic channel sands over Wiriagar Deep field, previously hard to see below thick karstified Oligo-Miocene carbonates. Channel complexes trend NW-SE, ~1km wide))

Nurwani, C., Z. Imran, C.I. Abdullah, S. Nurmala Mulyati & D.R. Aprillian (2017)- Hydrocarbon prospectivity of Cendrawasih Bay area. Int. Proc. Chemical Biological Environmental Engineering 101, 15, p. 106-112.
(online at: http://www.ipcbee.com/vol101/rp017_ICGES2017-E0010.pdf)
(Cenderawasih Bay covers Cendrawasih Basin and North Waipoga/Memberamo Basin in E. Underlain by Pacific oceanic and volcanic arc crust. Several wells drilled since 1973, with oil and gas shows. Reservoir rocks in Pliocene-Pleistocene Memberamo Fm turbidites. Source rocks include shale of Miocene Makats Fm. Area high potential of hydrocarbons, thermogenic or biogenic)

Nurzaman, Z.Z. & A. Pujianto (1994)- Geology and reservoir characterisation of Wiriagar Field as a diagenetic facies for reservoir stimulation. Proc. 23rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 29-45.
(Reservoir characterization of U Miocene reefal Kais Lst in Wiriagar Field, Bintuni Basin. Producing up to 8470 BOD from 3 wells since 1990. Recoverable reserves ~3.5 MBO, with additional potential of 7.4 MBO. OWC at -1686' subsea. Wiriagar oil with low dissolved gas, sweet and low wax content, probably sourced from Jurassic Lower Kembelangan shales and Permian Aifam Fm. After 18 months of production water cut increased to 93%. Complex diagenetic history, including fracturing)

Nyoman Suta, I. & L. Silahi (1994)- The structurally trapped Matoa field and porosity distribution, Salawati Basin, Irian Jaya. Proc. 23rd Annual Conv. Indonesian Association Geologists (IAGI), 2, Jakarta, p. 1128-1141.
(online at: https://www.iagi.or.id/web/digital/54/49.pdf)
(Matoa oil field is 1991 Santa Fe- Pertamina discovery and only structural trap field in Salawati Basin. Production from non-reefal M-L Miocene Kais Fm platform carbonates. Three productive zones, with av. porosities 11.6- 21%, both primary and secondary. Upper 100' of Kais Fm thick pelagic marine planktonic foram mudstone. NE-SW trending fault-bounded antinlinal structure. 14 wells producing 10,000 BOD)

O'Connor, G.V., L. Soebari & S. Widodo (1994)- Upper Miocene-Pliocene magmatism of the Central Range mobile belt, Irian Jaya, Indonesia. Proc. 23rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 1, p. 316-333.
(online at: https://www.iagi.or.id/web/digital/62/28.pdf)
(Major magmatic event in Central Range from 7.1- 2.6 Ma (mainly 7-5 Ma), possibly related to S-dipping subduction after Late Miocene arc reversal. Belt of quartz-poor 'shoshonitic-affinity' calc-alkaline intrusions and volcanics (andesite, trachytes) extends from Etna Bay in W (134.5°) to Ilaga in E (138.0°) and includes Grasberg and porphyry copper and Ertsberg gold-copper skarn. Apparent younging of magmatism in SW direction. After ~4 Ma plate convergence taken up in large transform system; no currently active Benioff zone)

O'Connor, G.V., L. Soebari & S. Widodo (1994)- Upper Miocene- Pliocene magmatism of the Central Range Mobile Belt, Irian Jaya, Indonesia. Proc. 4th Asia Pacific Mining Conference, Jakarta, AFMA, p. 1-27.
(Same paper as O'Connor et al. 1994, above)

O'Connor, G.V., W. Sunyoto & L. Soebari (1999)- The discovery of the Wabu Ridge gold skarn, Irian Jaya, Indonesia. In: G. Weber (ed.) Proc. PACRIM '99 Congress, Bali 1999, Australasian Institute of Mining and Metallurgy (AusIMM), Melbourne, p. 549-557.
(Wabu Ridge Gold Skarn deposit identified in 1990 at elevations up to 3100m in Central Range, W Papua, 35 km NNW of Grasberg porphyry deposit. Mineralisation in skarn along S boundaries of Late Miocene Pagane intrusive monzonite-diorite. Intrusive complex in footwall of E-W Derewo fault with sinistral strike-slip and reverse fault movement. Derewo fault separates Derewo metamorphics to N from Australian craton platform sediments to S. Skarn area 6 x 1.5 km, in Tertiary New Guinea limestone group, dominated by prograde garnet. Same paper re-published as Sunyoto & Soebari 2005?)

Oehlers, M. (2005)- Defining structural style using satellite imagery and DEM's: examples from the Bird's Head, Western Papua and the Masilah Basin, Yemen. Proc. 2005 SE Asia Petroleum Exploration Society (SEAPEX) Exploration Conference, Singapore, p. 1-51. *(Abstract + Presentation)*.
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(Offshore Semai area S of Bird's Head, Irian Jaya, with interaction of Australian, Pacific and Eurasian Plates. Some compressional events in Oligocene-Miocene, ending with Misool-Onin-Kumawa Ridge uplift in M Pliocene. New seismic generated three regional exploration plays, but 7 dry exploration wells in 2010-2012)

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(First description of in-situ Late Devonian (Frasnian) rugose and tabulate colonial corals in uppermost part of ~1000m thick Silurian-Devonian Modio Fm, mainly along Timika- Ertsberg road. Genera include Scruttonia, Disphyllum and Haplothecia. Associated with brachiopods and stromatoporoids. Pre-Frasnian corals (Favosites, Lithophyllum, etc.) from stream cobbles at two localities. They indicate presence or former presence of more complete M Paleozoic sequence than previously known in Irian Jaya)

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(M-L Miocene turbidite sequence exposed in Metaweja area of North Papua (Mamberamo) Basin. Sandstones lithic greywacke with 44% volcanic lithic fragments, 20% matrix, 10% clay size fragments, 10% secondary porosity and 13% calcite cement)

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(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/438/416)
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(Discussion of deeper potential in Salawati Basin, a producing basin in Miocene Kais Fm carbonates since 1936. Several penetrations of Paleozoic in Walio area. Basement of Salawati Basin is Devonian Kemum Fm metasedimentsa and Permian clastics and younger intrusives. Jurassic absent. Etc. Not much new)

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(Salawati Basin source rocks for Kais reservoirs likely Tertiary Klasafet Fm and equivalent. Older soure rocks problematic. Permo-Triassic Aifam Gp source rocks late mature (1.2 % Ro in W, 0.9 % Ro in E), due to uplift and erosion. Late Jurassic- Cretaceous Kembelangan Fm late mature in W and peak mature in E)

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(Lengguru fold-thrust belt radar images of SW part Birds neck show compressional and extensional features. Compression during Plio-Quaternary. Broad (100 km wide) area of extension with normal faults forming horsts and grabens that mimic a fan-shaped feature extending from N10°E in NW to N85°E in SE. Extension may be associated with gravitational collapse in context of tectonic escape, with Banda Sea acting as free boundary)

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('Geomorphology of active faults on Rumberpon Island, West Papua, Indonesia'. Earthquake and surface data show N-S and NE-SW trending, W-dipping active normal faults off SE side of Birds Head)

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(also as Lemigas SC 32, 2009, online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/844)
(Onshore Waipoga-Waropen Basin at N coast of W Papua with gas discoveries since 1958, but non-commercial. Thiick (up to 7500m) Plio-Pleistocene turbiditic sediments of Mamberamo Fm. Quantitative nannoplankton investigation of 200-3160m interval in onshore 'T' well shows latest Pliocene-Pleistocene zones NN18-NN19. Pleistocene Zone NN19 subdivided into 9 subzones. Common reworked Cretaceous- Pliocene nannos)

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('Biostratigraphic zonation of Coniacian- Maastrichtian nannoplankton, Bintuni Basin'. 14 nannofossil zones CC12 (U Turonian) - CC26 (U Maastrichtian) recognized, based on samples from Bintuni Bay wells RBB-1, WD-4 and Birds Head Ainin River outcrop samples. U Cretaceous Jass Fm presumably unconformable on M-L Jurassic Lower Kembelangan Fm sediments)

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by nonmarine kerogen. Tertiary source rocks dominated by marine algal sapropel and oil prone. Oils in New Guinea Lst from Tertiary source, with possible exception of Wiriagar. Present day kitchen areas for pre-Tertiary source in Bintuni and Berau Basins. Gas migrated NW along regional anticlines from deep SE Bintuni Basin in last five million years)

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('The Sorong-Kofiau segment of the Sorong strike-slip fault, West Papua, Indonesia: evidence from bathymetry and SBP data'. Bathymetry and sub-bottom profile data acquired by LIPI 2007 expedition show SW-NE Sorong-Kofiau segment of Sorong fault, 170 km long, forming a deep valley of ~2025-2300 ms at N coast of Sorong City, shallowing up to 600-700ms in Sagewin Strait and towards Kofiau Island. Sorong Fault is sinistral strike-slip fault characterized by positive flower structures, drag folds and pull apart basins.Etc.)

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(Three major Cenozoic events in N West Papua after formation of Eocene-Oligocene Cyclops volcanic arc and back-arc basin above S-dipping intra-oceanic subduction zone: (1) Late Oligocene- E Miocene obduction of Cyclops ophiolite over N side of arc, with high-P-T metamorphism (MacArthur metamorphics, ~20-25 Ma)); (2) Miocene- Pliocene thrusting of back-arc volcanics and (3) W-ward emplacement of microplates, accommodated by strike slip faults and thrusting in N West Papua. Meervlakte sub-basin possibly related to Sepik-Ramu basin in PNG)

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Petrequin, P. & A.M. Petrequin (1993, 2000)- Ecologie d'un outil: la hache de pierre en Irian Jaya (Indonesie). Monographies du CRA 12, CNRS Editions, Paris, p. 1-461.
('Ecology of a tool: the stone adze in Irian Jaya'. Monograph on stone adzes across western New Guinea)

Petroconsultants (1990)- Bintuni- Salawati basins. Southeast Asia Basin Opportunities XII, 68p. *(Unpublished)*

Phoa, R.S.K. & L. Samuel (1986)- Problems of source rock identification in the Salawati Basin, Irian Jaya. Proc. 15th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 405-421.
(Salawati basin oils similar and sourced from kerogen rich in fresh-brackish water algae and higher plants with significant marine type II, sulphur-rich kerogen. Miocene marine Klasafet and Klamogun shales and arbonates were regarded as source rocks for Miocene Kais Fm reefs oils, but possibly more than one source)

Pieters, P.E. (1982)- Geology of New Guinea. In: J.L. Gressitt (ed.) Biogeography and ecology of New Guinea. Dr. W. Junk Publishers, The Hague, 1, 1, p. 15-38.

Pieters, P.E., C.J. Pigram, D.S. Trail, D.B. Dow, N. Ratman & R. Sukamto (1983)- The stratigraphy of western Irian Jaya. Proc. 12th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 229-261.
(online at: https://www.academia.edu/112512278/The_stratigraphy_of_Western_Irian_Jaya)
(Stratigraphic columns across W New Guinea from Birds Head- Misool East to 136° E. Grouped into three provinces: Continental (Paleozoic- Miocene Australian continent series in S New Guinea, Birds Head, Misool), Oceanic (ophiolite-island arc basement of N New Guinea, Cenderawasih Bay, Waigeo, Yapen, etc.) and Transition (Central Range metamorphics, Tamrau Mts, Wandamen Peninsula, Weyland Mts))

Pieters, P.E., C.J. Pigram, D.S. Trail, D.B. Dow et al. (1983)- The stratigraphy of western Irian Jaya. Bull. Geological Research Development Centre (GRDC) 8, p. 14-48.
(same paper as above)

Pieters, P.E., R.J. Ryburn & D.S. Trail (1979)- Geological reconnaissance in Irian Jaya, 1976-1977. Bureau Mineral Resources Geology Geophysics, Australia, Record 1979/19, p. 1-74.
(online at: www.ga.gov.au/corporate_data/13721/Rec1979_019.pdf)
(Results of 1976-1977 geological reconnaissance trips to various parts of W Papua, mainly Birds Head, also Wandamen Peninsula, Schouten Islands, Gag Island, Cycloops Mountains)

Pigott, J.D. & P.K. Bettis (1996)- Heat flow and geothermal gradients of Irian Jaya- Papua New Guinea: implications for regional hydrocarbon exploration. In: G.P. & A.C. Salisbury (eds.) Trans. 5th Circum-Pacific Energy and Mineral Resources Conference, Honolulu 1990, Gulf Publishing, Houston, p. 445-458.
(Compilation of wells temperature and basins heatflow data for all of New Guinea island. Heat flow averages for basins: Salawati 1.98±0.76 HFU (geothermal gradient 3.9 ± 1.48°C/100m), Bintuni 1.49±0.77 HFU (3.31 ± 1.5°C/100m) and Papua Basin 1.57±0.49 HFU (2.61±0.8°C/100m. With calculations to depth of Top oil window for Salawati- Bintuni and Gulf of Papua basins. Similar to Pigott (IPA 1994))

Pigram, C.J. (1986)- Western Irian Jaya: the end-product of oblique plate convergence in the late Tertiary-discussion. Tectonophysics 121, 2-4, p. 345-348.
(Critique of Dow & Sukamto 1994 paper. In Pigram's opinion differences in basement geology and Late Paleozoic and Mesozoic history between Birds Head, Birds Neck and Misool regions and Australian Craton cannot be explained in terms of simple lateral facies changes, but suggest W Irian Jaya is complex amalgamation of continental fragments, not simply an extension of Australian Craton. E Paleozoic rocks of Australia- New Guinea craton not undergone M Paleozoic regional metamorphism that affected Birds Head)

Pigram, C.J. & H.L. Davies (1987)- Terranes and the accretion history of the New Guinea orogen. BMR J. Australian Geology Geophysics 10, 3, p. 193-212.
(online at: www.ga.gov.au/corporate_data/81217/Jou1987_v10_n3_p193.pdf)
(Classic paper, with interpretation of New Guinea- E Indonesia complex tectonic history in terms of numerous plates, many which derived from E margin of New Guinea, rifted off and transported West. Prior to 40 Ma N edge of Australia- New Guinea continent faced ocean basin that had developed in Mesozoic By ~25 Ma (latest Oligocene) first composite terranes docked (Sepik and probably also Rouffaer terranes). By ~14 Ma (latest M Miocene) N part of E Papua composite terrane had docked. By 10 Ma (Late Miocene) W lrian Jaya composite terrane and northern island-arc terranes of C New Guinea docked. By 2 Ma Late (Pliocene) northern terranes of W lrian Jaya (Tamrau, Arfak, Waigeo terranes) docked, also Seram composite terrane. Opening of Woodlark Basin currently dismembering E end of E Papua composite terrane)

Pigram, C.J. & H. Panggabean (1981)- Pre-Tertiary geology of western Irian Jaya and Misool Island: implications for the tectonic development of Eastern Indonesia. Proc. 10th Annual Conv. Indonesian Petroleum Association, Jakarta (IPA), Jakarta, p. 385-399.
(Broad review of W Irian Jaya stratigraphy, tectonics. Late Phanerozoic rift-drift sequence in Birds Head- Misool region, likely formed during opening of Indian Ocean in Mesozoic, which also formed Banda Sea)

Pigram, C.J. & H. Panggabean (1984)- Rifting of the northern margin of the Australian continent and the origin of some microcontinents in Eastern Indonesia. Tectonophysics 107, 3-4, p. 331-353.
(online at: https://www.academia.edu/81506484/Rifting_of_the_northern_margin_of_the_Australian_continent_and_the_origin_of_some_microcontinents_in_Eastern_Indonesia)
(Classic paper linking New Guinea Jurassic-Cretaceous rift-drift stratigraphy to E Indonesian microcontinents like Buton, Buru-Seram and Banggai-Sula. New Guinea N margin rifting began at ~230 Ma. Onset of seafloor spreading (marked by post-breakup unconformity) ranges in age from 185 Ma in PNG to 170 Ma in Irian Jaya and continues to young in SW direction along W margin of Australian continent, reflecting opening of Indian Ocean off W Australia. By end Jurassic N margin of Australian continent faced seaway which linked proto-Indian and proto-Pacific oceans, which was separated from pre-existing Neo-Tethys and Panthalassa oceans by microcontinents, now preserved in E Indonesia. Banggai-Sula and Buton rifted off PNG side of margin, Birds Head closer ties to N Queensland, NE Australia)

Pigram, C.J. & H. Panggabean (1989)- Geology of the Waghete Sheet area. Geological Research Development Centre (GRDC), Bandung, p. 1-46., 1: 250,000 scale map.

Pigram, C.J., G.P. Robinson & S.L. Tobing (1982)- Late Cainozoic origin for the Bintuni Basin and adjacent Lengguru fold belt, Irian Jaya. Proc. 11th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 109-126.
(Bintuni Basin and Lengguru foldbelt are very young features, possibly result of collision between W Irian Jaya microcontinent and NW margin of Australian continent. Deposition of New Guinea Limestone in Irian Jaya ceased in M Miocene and this limestone forms basement to Late Cenozoic clastic sediments of asymmetrical Bintuni Basin. Intensity of deformation in Lengguru foldbelt increases E-wards; along E margin folded sediments are low-grade metamorphics faulted against Late Miocene- Pliocene gneisses of Wandamen Peninsula (K-Ar ages two clusters: ~5 Ma= age of metamorphism, and 1.5 Ma= age of uplift))

Pigram, C.J., G.P. Robinson & S.L. Tobing (1982)- Late Cainozoic origin for the Bintuni Basin and adjacent Lengguru foldbelt. Geological Research Development Centre Bull. 7, p. 24-36.
(Same paper as above)

Pigram, C.J. & U. Sukanta (1982)- Geological data record of the Taminabuan 1:250,000 sheet area, Irian Jaya. Geological Research Development Centre (GRDC), Open file Report, p. *(Unpublished)*

Pigram, C.J. & U. Sukanta (1989)- Geology of the Taminabuan sheet area, Irian Jaya, scale 1:250,000. Geological Research Development Centre (GRDC), Bandung, p. 1-51. *(Unpublished)*

Pigram, C.J. & P.A. Symonds (1991)- A review of the timing of the major tectonic events in the New Guinea orogen. J. Southeast Asian Earth Sciences 6, p. 307-318.
(Three major events shaped New Guinea orogen: (1) Mesozoic extension with Triassic and E Jurassic rifting, leading to passive margin along N edge of Australian craton; (2) Second phase of rifting in Late Cretaceous, dismembering E part of margin and opening Coral Sea basin and contemporaneous ocean basin to N in Latest Cretaceous-Eocene; (3) Initiation of mountain building. First foreland load-induced basin flexing in Mid-Oligocene, coinciding with switch in main clastic source from S to N. Darai carbonate platform backstepping from Late Oligocene- M Miocene)

Pireno, G.E. (2008)- Potensi Formasi Sirga sebagai batuan induk di Cekungan Salawati, Papua. M.Sc. (S2) Thesis, Institut Teknologi Bandung (ITB), p. 1- . *(Unpublished)*
('The potential of the Sirga Formation as a source rock in the Salawati Basin, Papua'. SF-1X well (2007) in Salawati Basin with oil and gas shows in Late Oligocene Sirga Fm sandstones, in SAR-1X well (2008) oil in pre-Kais sandstones, making M-Miocene Klasafet source rock unlikely. Oils from both wells waxy (3.6 wt%) with very low sulphur, heavy carbon isotopes (-22 to -23), pristane/phytane ratio 1.33- 2.61, with oleanane as biomarker of Tertiary land plants and diahopane/ neohopane as biomarker of shallow lacustrine source. Most likely source E Tertiary lacustrine rocks, possibly Sirga Fm deposited in extensional-graben system)

Pitaloka, R., A. Vanessa & O. Verdiansyah (2013)- Mineralogy of sulfide ore from skarn type deposits, Oksibil, Papua, Indonesia. Proc. Joint Convention 38th Indonesian Association Geophysicists (HAGI) - 42nd Indonesian Association Geologists (IAGI), Medan, JCM2013-0222, p. 1-4.
(online at: https://www.iagi.or.id/web/digital/8/2013_IAGI_Medan_Mineralogy-of-Sulfide.pdf)
(Ok Sibil area in E part of West Papua fold-thrust belt known for five types of calcic-skarn deposits: iron-skarn, tungsten, copper, zinc-lead and tin-tungsten. Mineralization due to Pliocene intrusion into Tertiary Yawee Fm limestone. Sulphide ore of Oksibil skarn mainly sphalerite, also chalcopyrite, pyrite, galena, covellite, chalcosite, anglesite, etc. Temperature of ore fluid 234-266 °C to 258-320 °C)

Playford, G. & J.F. Rigby (2008)- Permian palynoflora of the Ainim and Aiduna formations, West Papua. Revista Espanola Micropaleontologia 40, 1-2, p. 1-57.
(online at: http://revistas.igme.es/index.php/revista_micro/article/view/359/357)
(Palynology of Permian samples from Birds Head (Ainim Fm) and W part of Central Range (Aiduna Fm) of W Papua. Similar palynoflora in both places, with 26 species of spores, 18 species of pollen, incl. Laevigatosporites vulgaris, Protohaploxypinus limpidus, etc., and 5 species of microphytoplankton. Dated as late Early- early M Permian (Kungurian-Roadian). Mainly Gondwanan affinity spore-pollen suite (but key Gondwanan trilete genus Dulhuntyispora spp. absent) and megaflora, but also minor Cathaysian elements)

PND- Patra Nusa Data (2009)- Opportunities (II), Salawati Basin. Inameta J. 8, Sept. 2009, p. 28-33.
(online at: www.patranusa.com)
(Overview of Salawati Basin, W end of Birds Head, in conjunction with tender round offering)

Polhemus, D.A. & J.T. Polhemus (1998)- Assembling New Guinea- 40 million years of island arc accretion as indicated by the distribution of aquatic Heteroptera (Insecta). In R. Hall & J. Holloway (eds.) Biogeographical and geological evolution of SE Asia. Backhuys Publishers, Leiden, p. 327-340.
(Relatesmodern distribution of aquatic insects to terrane accretion history)

Pollard, P.J. & R.G. Taylor (2002)- Paragenesis of the Grasberg Cu-Au deposit, Irian Jaya, Indonesia: results from logging section 13. Mineralium Deposita 37, 1, p. 117-136.
(Grasberg Cu-Au deposit within Grasberg Pliocene Igneous Complex (GIC). Multiple intrusive phases; 35 separate stages of hydrothermal alteration and infill recognized)

Pollard, P. J., R.G. Taylor & L. Peters (2005)- Ages of intrusion, alteration, and mineralization at the Grasberg Cu-Au deposit, Papua, Indonesia. Economic Geology 100, 5, p. 1005-1020.
(online at: https://www.academia.edu/107390920/Ages_of_Intrusion_Alteration_and_Mineralization_at_the_Grasberg_Cu_Au_Deposit_Papua_Indonesia)
(40Ar/39Ar ages of 10 micas from Grasberg Igneous Complex range from 3.33- 3.01 Ma. Grasberg Igneous Complex formed during several cycles of intrusion/ hydrothermal alteration, each lasting ~0.1 m.y. or less. Phlogopite predating magnetite from Kucing Liar Cu-Au deposit adjacent to Grasberg has age of 3.41 Ma, within error of age of Dalam intrusive rock and suggests formation of calc-silicate skarn at early stage in development of complex. Intrusion and mineralization at Ertsberg (2.67, 2.71 Ma) younger than Grasberg)

Posthumus-Meyes, R., E.J. de Rochemont, J.W.R. Koch, et.al. (1908)- De Zuidwest Nieuw-Guinea Expeditie 1904/5 van het Koninklijk Nederlands Aardrijkskundig Genootschap. E.J. Brill, Leiden, 676p.
('The SW New Guinea expedition 1904-1905 of the Royal Dutch Geographical Society'. Report of geography, geology, climate, anthropology, etc., of SW Papua)

Potter, D.R. (1996)- What makes Grasberg anomalous, implications for future exploration. Proc. Conference Porphyry related copper and gold deposits of the Asia Pacific Region, Cairns 1996, Australian Mineral Foundation (AMF), Adelaide, p. 10.1-10.13.
(AMF defunct since 2001)

Potter, D., K. Parris, J. MacPherson, D. Wadsworth, G. O'Connor, W. Sunyoto, S. Widodo, C. Jones, D. MacKenzie & A. Edwards (1999)- Gold and silver exploration in Irian Jaya. Mining Engineering 51, 11, p. 33-36.
(On Freeport regional exploration programs in W Papua since 1990, to locate additional Ertsberg/ Grasberg-type deposits. Other types of deposits may be present in largely unexplored W Papua)

Prabowo, A., H. Samodra, S. Permanadewi & A. Ratdomopurbo (2017)- Determine Holocene rate of uplift of Waigeo Island area based on the counting of exposed *Ostrea* age using 14C Radiocarbon dating to site elevation. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, p. 1-7.
(online at: https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_Determine-Holocene-Rate.pdf)

(Waigeo island NW of Birds Head. 14C dating of marginal marine Ostrea mollusc fossils from uplifted Miocene(?) Waigeo Fm limestone along S part of island gave ages of ~8200 and 11000 years at 110 and 70m above sea level, suggesting recent uplift rates of ~6.3- 13.4 mm/year)

Pradipta, A., N. Yudhandono & S.M. Hadi (2017)- Petroleum systems and play concepts of Papuan Bird's Head. In: SKK Migas Memoir Team (eds.), Petroleum Systems of the Eastern Indonesia Region, Memoir 1, Jakarta, p. 302-371.

Prasad, M.N.V. (1981)- New species of fossil wood *Planoxylon* from the Late Paleozoic of Irian Jaya, Indonesia. Bull. Geological Research Development Centre (GRDC) 5, p. 37-40.
(Planoxylon stopesii from Permian Aimau Fm of Birds Head shows characters of araucarian and abietinian wood types, common in Late Paleozoic of Gondwanaland (Rigby 1998))

Prendergast, K. (2003)- Porphyry-related hydrothermal systems in the Ertsberg District, Papua, Indonesia. Ph.D. Thesis, James Cook University, Australia, p. 1-188.
(online at: http://researchonline.jcu.edu.au/27155/1/27155-prendergast-2003-thesis.pdf)
Ertsberg district hosts multiple skarn and porphyry-related deposits, and is one of largest Cu-Au resources in world. Grasberg (~3.33- 3 Ma) and Ertsberg (~3-2.67 Ma) igneous complexes post-dated by early porphyry-style mineralisation and spatially related skarn Cu-Au mineralisation. Deep-intermediate high sulphidation style mineralisation late development at both locations)

Prendergast, K., G.W. Clarke, N.J. Pearson & K. Harris (2005)- Genesis of pyrite-Au-As-Zn-Bi-Te zones associated with Cu-Au skarns; evidence from the Big Gossan and Wanagon gold deposits, Ertsberg District, Papua, Indonesia. Economic Geology and Bull. Soc. Economic Geology 100, 5, p. 1021-1050.
(online at: https://pdfs.semanticscholar.org/a381/12d358829aae4ef2ef833e6e4914f63f96ba.pdf)
(Ertsberg district multiple skarn and porphyry-related deposits, together comprising one of largest Cu-Au resources in world. Skarn Cu-Au deposits at Big Gossan and Wanagon Gold overprinted by distinctive late-stage pyrite, sphalerite, arsenopyrite and native gold. Big Gossan younger than 2.82 ± 0.04 Ma; Wanagon Gold 40Ar/39Ar age of 3.62 ± 0.05 Ma. Etc.)

Prentice, M.L., G.S. Hope, K. Maryunani & J.A. Peterson (2005)- An evaluation of snowline data across New Guinea during the last major glaciation, and area-based glacier snowlines in the Mt. Jaya region of Papua, Indonesia, during the last glacial maximum. In: S.P. Harrison (ed.) Snowlines at the last glacial maximum and tropical cooling, Quaternary International 138-139, p. 93-117.
(Data from Puncak Jaya show Last Glacial Maximum glaciation less extensive than previously thought)

Prihanasto, A.S., H. Nugroho & P. Rachwibowo (2011)- Porosity study of Paleocene sandstone reservoir using core and petrography and influence to porosity calculation from density log at Wiriagar Deep field, Bintuni Basin, Papua. Proc. Joint 36th HAGI and 40th IAGI Annual Conv., Makassar, JCM2011-120, p. 1-29.
(online at: https://www.iagi.or.id/web/digital/10/2011_IAGI_Makassar_Porosity-Study-of-Paleocene.pdf)
(In Indonesian. Paleocene deep water gas sands in Wiriagar Deep field, Bintuni Basin, variable but generally poor reservoir quality due to calcite cementation and heterogeneous turbidite sandstones reservoirs)

Pubellier, M. & P.R. Cobbold (1996)- Analogue models for the transpressional docking of volcanic arcs in the western Pacific. Tectonophysics 253, p. 33-52.
(Sand box modeling used for analogues of S Philippines and N New Guinea margins)

Pubellier, M., B. Deffontaines, J. Chorowitz, J.P. Rudant & H. Permana (1999)- Active denudation morphostructures from SAR ERS-1 images (SW Irian Jaya). Int. J. Remote Sensing 20, p. 789-800.
(SAR ERS-1 images are sensitive to minute textural or topographic contrasts in areas of dense vegetation. S flank of western fold-thrust Belt of W Papua is site of active tectonic denudation on S leading edge of very recent (Pliocene-Pleistocene) orogen. Neotectonics three stages:Pliocene collision (compression S of Weyland Range) followed by strike slip environment that isolated front of belt, and by currently active gravitational denudation. Tarera basin is pull-apart along left-lateral Tarera fault)

Pubellier, M., B. Deffontaines, J. Chorowicz, J.P. Rudant & H. Permana (2005)- Expression of morpho-structures on SAR ERS imagery- escape tectonics at a front belt; a case study: SW Irian Jaya (West Papua). In: K. Fletcher (ed.) Spaceborne radar applications in geology, ESA TM-17, p. 16/1-16/9.

Pubellier, M. & F. Ego (2002)- Anatomy of an escape tectonic zone, Western Irian Jaya (Indonesia). Tectonics 21, 4, 1019, p. 1-16.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1029/2001TC901038)
(Birds Head block escape rate from GPS geodetic measurements is 7 cm/yr. Movement accommodated by broad shear zone. Evolution of escape zone depends on geometry of former margin of Australia, which controls style of deformation)

Puntodewo, S.S.O., R. McCaffrey, E. Calais, Y. Bock, J. Rais, C. Subarya, R. Poewariardi, C. Stevens, J. Genrich, Fauzi, P. Zwick & S. Wdowinskic (1994)- GPS measurements of crustal deformation within the Pacific-Australia plate boundary zone in Irian Jaya, Indonesia. Tectonophysics 237, p. 141-153.
(online at: http://www.web.pdx.edu/~mccaf/pubs/puntodewo_irian_tecton_1994.pdf)
(GPS sites in SE Irian Jaya close to moving with Australia. Most convergence between Pacific and Australian plates probably at New Guinea Trough. Biak (136°E), and Sorong (W tip of Birds Head at 131°E) both move ~95 mm/yr to WSW relative to Irian Jaya, but <15 mm/yr relative to each other, showing Sorong fault not presently major boundary between Australian and Pacific plates. Plate boundary now S of Sorong- Biak sites)

Purbo-Hadiwidjojo, M.M. (1964)- Geology and mineral wealth of West Irian. Contributions Department of Geology, Institute of Technology Bandung (ITB) 53, p. 33-47.

Quarles van Ufford, A.I. (1996)- Stratigraphy, structural geology and tectonics of a young forearc-continent collision, western Central Range (western New Guinea), Indonesia. Ph.D. Thesis University of Texas, Austin, p. 1-420.
(online at: https://repositories.lib.utexas.edu/handle/2152/30179)
(Study of geology and stratigraphy along Ertsberg mine access road and mining district in West Papua. Mine road N-dipping homocline exposing ~18-km thick Precambrian or Early Paleozoic to Cenozoic sequence. Incl. detail study of 1600-1800m thick New Guinea Lst, with Waripi Fm dolomitic and anhydritic limestone and quartz sandstones (~290-400m; Paleocene/ Ta1), Faumai Fm M-L Eocene/ Ta3-Tb, with Lacazinella at top), Sirga Fm marl, mature quartz sst and thin coal (40m, E Oligocene/ Tc) and Kais Fm (up to ~1200m Oligocene/Tc- M Miocene/Tf2). After E Mesozoic rifting, N Australian continental margin was passive margin until M Miocene. Central Range of New Guinea formed when this margin collided with N-dipping subduction zone (initiation ~12 Ma). At ~4 Ma start of left-lateral transform faulting along Australian- Pacific Plate)

Quarles van Ufford, A. & M. Cloos (2005)- Cenozoic tectonics of New Guinea. American Assoc. Petroleum Geol. (AAPG) Bull. 89, 1, p. 119-140.
(New Guinea foldbelt formed in two distinct collisional events: Peninsular Orogeny in Oligocene in E Papua-New Guinea, and Central Range orogeny starting in latest M Miocene (12 Ma), with crystalline basement becoming involved in deformation at ~8 Ma)

Raden Idris & R. Munir (2000)- An overview: geological and economic prospects in Timoforo Block, Irian Jaya. AAPG International Conference & Exhibition, Bali, Search and Discovery Article #90913, 1p. *(Abstract only)*
(online at: https://www.searchanddiscovery.com/abstracts/html/2000/intl/abstracts/181.htm)
(Timoforo Block in Bird's Head N of Wiriagar and Muturi. Ainim Fm sst in Mogoi Deep 1 and Kais limestone Fm in Mogoi and Wasian oil fields are proven reservoir rocks. Permian Ainim excellent source potential. Modeling of Bintuni Basin shows hydrocarbon generation in E Jurassic, expulsion in M Eocene. S Timoforo Block at least three structures with reserves around 1.7 TCF)

Ramli, T., H. Mersil Saleh, I. Nurdiana & R. Fakhruddin (2021)- Paleozoic basin indication at south of Papua, Indonesia. In: Int. Conf. Science Infrastructure Technology and Regional Development, South Lampung 2020, IOP Conference Series: Earth and Environmental Science 830, 012045, p. 1-10.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/830/1/012045/pdf)
(Identified Paleozoic rocks in S Papua (Timika-Tembagapura road and offshore wells): Otomona Fm (Late Proterozoic-Cambrian), Tuaba Fm quartz sst (Ordovician), Modio Fm dolomites and fine sst (Silurian-Devonian; with Monograptus convolutes), Aiduna Fm (Late Carboniferous-Permian; unconformable over Modio Fm). Thick Otomona Fm deposited in prograding submarine fan. Etc.)

Rao, Y. (2012)- Petroleum geology and exploration potential of oil and gas in Block A of Waipogah Basin, Indonesia. Zhongguo Shiyou Kantan = China Petroleum Expl., Beijing, 17, 5, p. 55-58.
(In Chinese. Block A in middle of Waipogah backarc sag basin, northern W Papua. Major source rocks limestone and mudstone of Mamberamo, Darante and Makat Fms, with intra-formational sandstone and limestone reservoir rocks. N zone in block has good hydrocarbon potential)

Ratman, N. (1986)- Metaliferous mineralization related to the geological environment in Western Irian Jaya. Bull. Geological Research Development Centre (GRDC) 12, p. 1-14.
(Most promising metal prospects in New Guinea: (1) laterite nickel-chromium ores derived from ultramafic rocks in North; (2) base metal mineralization in Central Range associated with Pliocene intrusions and M Miocene volcanics; (3) rare earth elements associated with Permo-Triassic granitoids in Birds Head)

Ratman, N. (1998)- Geology of the Bird's Head, Irian Jaya, Indonesia. In: J. Miedema et al. (eds.) Perspectives on the Bird's Head of Irian Jaya, Indonesia. Proc. Conference, Leiden October 1997, Editions Rodopi, Amsterdam, p. 719-755.
(High-level review of Birds Head geology. As on mainland Irian Jaya three tectonic zones: Continental (most of area), Oceanic (N coast ophiolites and Paleogene-E Miocene arc volcanics) and Mobile Belt (N and SE))

Ratman, N., G.P. Robinson & P.E. Pieters (1989)- Geological map of Manokwari Quadrangle, Irian Jaya, 1:250,000. 2nd Ed., Geological Research Development Centre (GRDC), Bandung.
(Geologic map of NE corner of Birds Head. Geology similar to Ransiki Sheet, with Paleozoic Kemum Block in SW, Arfak Block Oligocene- E Miocene volcanic arc to NE (Arfak Volcanics, Lembai Diorite, overlain by E-M Miocene Maruni Limestone), separated by Ransiki and Sorong (strike-slip?) fault zones)

Redmond, J.L. & R.P. Koesoemadinata (1976)- Walio oilfield and the Miocene carbonates of Salawati Basin. Proc. 5th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 41-57.
(Walio Miocene carbonate buildup, 21km long, rising 1200' above platform. Steep flanks to N and E, S flank less well defined. N-S trending normal faults. Low salinity formation waters suggest fresh water flushing)

Reijnders, J.J. (1964)- A pedo-ecological study of soil genesis in the tropics from sea level to eternal snow, Star Mountains, Central New Guinea. Doct. Thesis University of Utrecht, p. 1-159. *(Unpublished)*
(also in Nova Guinea, Geology, 6 1994. Soil studies as part of 1959 Royal Netherlands Geographical Society Expedition to Star Mountains. With 1: 250,000 scale soil map)

Reynolds, C.D., I. Havryluk, S. Bastaman & S. Atmowidjojo (1973)- The exploration of nickel laterite deposits in Irian Barat. In: B.K. Tan (ed.) Proc. Reg. Conf. Geology of SE Asia, Bull. Geological Society Malaysia 6, p. 309-323.

(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1973021.pdf)
(*Nickel-bearing laterites developed in-situ on nickel-bearing peridotites in two areas of W Papua, surveyed in 1969-1971: (1) 40x5 km belt along toe of S and W slopes of Cyclops Mts, W Papua, and (2) Waigeo island. 80x 5km belt and on smaller islands off N coast. Similar to other nickel laterites in tropical areas*)

Reynolds, C.D., I. Havryluk, Soepomo & S. Bastaman (1972)- The exploration of the nickel laterite deposits in Irian Barat, Indonesia. Bull. of National Institute Geology and Mining (NIGM), Bandung, 4, 1, p. 59-75.
(Same as Reynolds et al. 1973, above)

Riadini, P., A.C. Adyagharini, A.M. Surya Nugraha, B. Sapiie & P.A. Teas (2009)- Palinspastic reconstruction of the Bird Head pop-up structure as a new mechanism of the Sorong Fault. Proc. 33rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, IPA09-SG-067, p. 349-361.
(Seismic interpretation along offshore NW Bird Head area show development of pop-up structures at NW Birds Head area as evidence of Sorong Fault activity. Cuts Paleozoic- Tertiary rocks. Graben development at Eocene-Oligocene sequence was related with passive margin NW shelf Australia rifting since Mesozoic)

Riadini, P. & B. Sapiie (2011)- The Sorong Fault zone kinematics: implication for structural evolution on Salawati Basin, Seram and Misool, West Papua, Indonesia. AAPG Annual Convention Exh., Houston 2011, Poster.
(online at: www.searchanddiscovery.com/documents/2011/50489riadini/ndx_riadini.pdf)
(New model for Sorong left-lateral fault zone, active since Late Miocene)

Riadini, P. & B. Sapiie (2012)- The Sorong Fault Zone kinematics: the evidence of divergence and horsetail structure at NW Bird's Head and Salawati Basin, West Papua, Indonesia. AAPG International Conference Exhib., Singapore 2012, Search and Discovery Article 30264 (2013), p. 1-37. *(Presentation package)*
(online at: www.searchanddiscovery.com/documents/2013/30264riadini/ndx_riadini.pdf)
(Sorong Fault Zone strike-slip system in NW-SW Birds Head area formed during deposition of M-L Miocene sequence as growth fault and remained active until today. SW Birds Head area part of divergent strike-slip system leading to development of pull-apart basin around Salawati basin area. NW Bird's Head area reverse and normal faults as part of horsetail structure and restraining and releasing fault system)

Riadini, P., B. Sapiie & A.M.S. Nugraha (2012)- The Sorong fault zone kinematics: implication for structural evolution on Salawati Basin, Seram and Misool, West Papua, Indonesia. Berita Sedimentologi 24, p. 61-72.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/185/155)
(Sorong Fault Zone is active left lateral fault system, active since Late Miocene, extending 1000 km from E part of island to Bird's Head region. SFZ moved Bird's Head area, (incl. Salawati Basin to W, with the movement of the Pacific Plate. Rotation and translation separated Salawati Basin from Bird's Head region. Etc.

Riadini, P., B. Sapiie, A.M.S.-Nugraha, F. Nurmaya, R. Regandara & R.P. Sidik (2010)- Tectonic evolution of the Seram fold-thrust belt and Misool-Onin-Kumawa anticline as an implication for the Bird's Head evolution. Proc. 34th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA10-G-154, p. 1-21.
(Seismic interpretation with 2D palinspatic reconstructions suggest Seram Fold-Thrust Belt and Misool-Onin-Kumawa Anticline not only related to rotation and translation phase from Sorong Fault Zone activities but also combined with additional W-movement of Tarera-Aiduna strike-slip system. Deformation active since Late Miocene as result of collision between Pacific island arc complexes and margin of NW Australia plate)

Rigby, J.F. (1996)- The significance of a Permian flora from Irian Jaya (West New Guinea) containing elements related to coeval floras of Gondwanaland and Cathaysialand. The Palaeobotanist 45, p. 295-302.
(online at: http://14.139.63.228:8080/pbrep/bitstream/123456789/1724/1/PbV45_295.pdf)
(Re-determination of Permian floras from W Papua described by Jongmans (1940) and study of new material from Aiduna Fm in SW part of main New Guinea island. Mainly of Gondwanan affinity (Glossopteris, Vertebraria), but also Cathaysian elements (Gigantonoclea, Fascipteris) and genera that could be from either region (Pecopteris, Trizygia). Several new species of Glossopteris. Not viewed as 'mixed flora', but as overlap of temperate Gondwanan and (sub-)tropical Cathaysian floras)

Rigby, J.F. (1998)- *Glossopteris* occurrences in the Permian of Irian Jaya (West New Guinea). In: G.R. Shi, N.W. Archbold & M. Grover (eds.) Strzelecki Int. Symposium on Permian of Eastern Tethys: biostratigraphy, palaeogeography and resources. Proc. Royal Society of Victoria 110, 1-2, p. 309-315.
(Permian flora in Aiduna Fm outcrop in SW part of New Guinea 'body' and in Birds Head Poeragi 1 well. Glossopteris species dominate, but mainly new, endemic species. Assemblages transitional between temperate Gondwana Glossopteris flora and tropical Cathaysia flora. These are seed plants, suggesting land connection between two regions)

Rigby, J.F. (2001)- A review of the Early Permian flora from Papua (West New Guinea). In: I. Metcalfe, J.M.B. Smith et al. (eds.) Faunal and floral migrations and evolution in SE Asia- Australasia, A.A. Balkema, Lisse, p. 85-95.
(Permian Aiduna Fm. S of main suture in W New Guinea, with 20 plant fossil species. Flora dominated by Gondwanaland Glossopteris, but also includes Cathaysian-related species Fascipteris aidunae and Gigantonuclea iriani, perhaps reflecting narrower Paleo-Tethys seaway than commonly suggested)

Robertson, J.D. (2004)- Tangguh- the first major Pre-Tertiary discovery in Indonesia. Houston Geological Society Bull. 46, 6, p. 21-23.
(More extensive report below)

Robertson, J.D. (2006)- Tangguh: the first major Pre-Tertiary discovery in Indonesia. In: C. Sternbach et al. (eds.) Discoverers of the 20th century: perfecting the search, American Assoc. Petroleum Geol. (AAPG), Special Publ. 1, p. 171-180.
(1994 gas discovery at Wiriagar Deep 1 by ARCO in Paleocene-Jurassic formations below Miocene Wiriagar oil field in Bintuni basin of W Papua. Oil in Wiriagar field was Jurassic, despite flowing from Miocene limestone reservoir. Gas overpressures in discovery well indicated gas column of >2000 ' (610 m). From 1994-1998, ARCO farmed into adjacent acreage containing majority of Jurassic gas. Estimated total reserves 24 TCF gas (14.4 TCF certified as proved), forming basis for what Indonesian government designated in 1997 as Tangguh LNG Project. Tangguh was first major Pre-Tertiary hydrocarbon discovery in Indonesia)

Robinson, G.P., B.H. Harahap & M. Suparman & G.M. Bladon (1985)- Geology of the Fak Fak sheet area, Irian Jaya. Geological Research Development Centre (GRDC), Indonesia, p. 1-40.

Robinson, G.P., B.H. Harahap & M. Suparman (1988)- Fak Fak 1:250,000 map sheet, Irian Jaya. Geological Research Development Centre (GRDC), Indonesia, Geologic Data Record.

Robinson, G.P. & N. Ratman (1977)- Explanatory notes on the Manokwari 1:250 000 geological map, Irian Jaya. Bureau Mineral Resources Geology Geophysics, Canberra, Record 1977/32, p. 1-25.
(online at: https://d28rz98at9flks.cloudfront.net/13561/Rec1977_032.pdf)
(Manokwari map sheet with Silurian- Holocene rocks. Kemum Fm Silurian- Devonian metasediments, with metamorphic grade increasing to E. K-Ar ages of Wariki granodiorite M-L Triassic (~222-246 Ma, biotite, muscovite); M Miocene Lembai diorite 15.4 Ma. Oligocene-Miocene Arfak Volcanics may conformably overlie subsurface Imskin Fm open marine limestone. Collision Birds Head and 'Banda Arc' at end-Miocene. In NE part of map Late Miocene- Pleistocene soft mudstones-sst of Befoor Fm (with deep marine E Pleistocene/N22 forams near top), unconformably overlain by Pleistocene raised reefs of Manokwari Limestone, suggesting recent uplift)

Robinson, G.P. & N. Ratman (1978)- The stratigraphic and tectonic development of the Manokwari area, Irian Jaya. BMR J. Australian Geology Geophysics 3, p. 19-24.
(online at: www.ga.gov.au/corporate_data/80941/Jou1978_v3_n1_p019.pdf)
(Manokwari area in NE corner of Birds Head, W Papua, with Silurian-Devonian Kemum Fm metamorphics to S, mainly fine, low-grade meta-sediments. Intruded by Late Permian- M Triassic Wariki granodiorites and M Miocene Lembai diorite. Oligocene-Miocene Arfak Fm basaltic and andesitic volcanics to SE. Massive E-M Miocene Kais Fm limestone elongate ridges NE of, and unconformably over, volcanics. In NE Befoor Fm Late Miocene -Pleistocene clastics, overlain by Pleistocene raised reefs. Sorong and Ransiki Fault Zones are continent-island arc collision sutures which have subsequently undergone sinistral transcurrent faulting)

Robinson, G.P., R.J. Ryburn, B.H. Harahap, S.L. Tobing, G.M. Bladon & P.E. Pieters (1990)- Geology of the Kaimana sheet area, Irian Jaya (Quad. 3012). Geological Research Development Centre (GRDC), scale 1: 250,000, p. 1-50.
(Surface geology of part of Lengguru foldbelt)

Robinson, G.P., R.J. Ryburn, B.H. Harahap, S.L. Tobing, G.M. Bladon & P.E. Pieters (1990)- Geology of the Steenkool sheet area, Irian Jaya (Quad. 3013). Geological Research Development Centre (GRDC), scale 1: 250,000, p. 1-45.
(Surface geology of part of North Lengguru foldbelt- Birds Neck area)

Robinson, G.P., R.J. Ryburn, S.L. Tobing & A. Achdan (1988)- Geologic data record Steenkool (Wasior) - Kaimana 1: 250,000 sheet area, Irian Jaya. Geological Research Development Centre (GRDC), Open File report, p. 1-153.

Rohmala, F.K., D.V. Mamengko, W. Rana, P.A. Kusumo, J.T. Musu (2020)- Analisis lingkungan pengendapan Formasi batugamping Dayang Distrik Batanta Utara, Kabupaten Raja Ampat, Provinsi Papua Barat. Lembaran Publikasi Minyak dan Gas Bumi (Lemigas) 54, 3, p. 127-148.
(online at: https://journal.lemigas.esdm.go.id/index.php/LPMGB/article/view/567)
('Analysis of the depositional environment of the Dayang limestone formation, North Batanta District, Raja Ampat Regency, West Papua Province'. Mainly chemical analysis and microfacies description. No age info)

Rossetter, R.J. (1976)- New Guinea Limestone Group Bomberai Peninsula, Irian Jaya. Proc. Carbonate Seminar Jakarta 1976, Indonesian Petroleum Association (IPA), Special Volume, p. 93-98.

Rouffaer, G.P. et al. (1908)- De Zuidwest Nieuw-Guinea-expeditie 1904/5 van het Koninklijk Nederlands Aardrijkskundig Genootschap. Brill, Leiden, p. 1-677.
(online at: www.google.com/...)
('The SW New Guinea expedition 1904/5 of the Royal Netherlands Geographical Society'. Mainly geographic-ethnographic reconnaissance expedition, with chapter on geology by C. Moerman (1908, p. 399-416))

Rubin, J. (1996)- Skarn formation and ore deposition at the Gunung Bijih Timur (Ertsberg East) complex, Irian Jaya, Indonesia. Ph.D. Thesis University of Texas at Austin, p. 1-310.

Rubin, J.N. & J.R. Kyle (1997)- Precious metal mineralogy in porphyry-, skarn-, and replacement-type ore deposits of the Ertsberg (Gunung Bijih) District, Irian Jaya, Indonesia. Economic Geology 92, 5, p. 535-550.
(online at: www.researchgate.net/publication/236019893_Precious_metal_mineralogy_in_porphyry-_skarn-_and_replacement-type_ore_deposits_of_the_Ertsberg_Gunung_Bijih_District_Irian_Jaya_Indonesia)
(Details of gold- copper mineralogy in Pliocene Grasberg- Ertsberg complexes, W Papua. Generally high but variable native Au fineness, Cu-Fe sulfide host for most Ag in Gunung Bijih Timur Cu-Au skarn, etc.)

Rubin, J.N. & J.R. Kyle (1998)- The Gunung Bijih Timur (Ertsberg East) skarn complex, Irian Jaya, Indonesia: geology and genesis of a large, magnesian Cu-Au skarn. In: D.R. Lentz (ed.) Mineralized intrusion-related skarn systems, Mineralogical. Assoc. Canada, Short Course Notes 26, Chapter 8, p. 245-288.
(Comprehensive review of Gunung Bijih Timur (= Ertsberg East) skarn Cu-Au mineralization in Paleo- Eocene limestones, associated with Pliocene (2.6- 3.1 Ma) intermediate-composition plutons, intruded into thick Mesozoic- Cenozoic sedimentary sequence. Vertical extent of skarn ~1200m (elevation 2800-4000m asl))

Rumbiak, U. C.K. Lai, R. Al Furqan, M. Rosana, E. Yuningsih, B. Tsikouras, E. Ifandi et al. (2022)- Geology, alteration geochemistry, and exploration geochemical mapping of the Ertsberg Cu-Au-Mo district in Papua, Indonesia. J. Geochemical Exploration 232, 106889, p. 1-21.
(Ertsberg-Grasberg district hosts world's largest Cu-Au (single bondMo) skarn system, related to Pliocene Ertsberg- and Grasberg intrusive complexes. Mineralization in five stages: (I) prograde skarn; (II) retrograde

alteration; (III) massive anhydrite replacement; (IV) late hydrothermal veining; (V) supergene alteration. Ore fluid sourced from potassic center in NW part of Ertsberg monzonitic pluton)

Ruslan, M. & Y. Kumoro (1993)- Aspek geologi dalam penentuan trase Jalan Waghete- Enarotali- Kumopa, Kabupaten Paniai, Irian Jaya. Proc. 22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, p. 581-589.
(online at: https://www.iagi.or.id/web/digital/61/58.pdf)
(Geological aspects for the determination of the route of the Waghete- Enarotali- Kumopa road, Paniai, Irian Jaya')

Rusmana, E., K. Parris, U. Sukanta & H. Samodra (1995)- Geologic map of the Timika Quadrangle, Irian Jaya, scale 1: 250,000. Geological Research Development Centre (GRDC), Bandung.

Rutten, L.M.R. (1914)- Foraminiferen-fuhrende Gesteine von Niederlandisch Neu-Guinea. In: A. Wichmann (ed.) Nova Guinea. Resultats de l'expedition scientifique Neerlandaise a la Nouvelle-Guinee de 1903, vol. VI-Geologie, part 2, Brill, Leiden, p. 21-51.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB02:000122467:00005))
('Foraminifera-bearing rocks from Netherlands New Guinea'. Descriptions of foraminifera collected by A. Wichmann during the 1903 Netherlands New Guinea Expedition. Includes occurrences of Lacazina (Lacazinella) wichmanni, Alveolina wichmanni n.sp., Nummulites and Discocyclina larger forams in Eocene of Dramai Island, SE of Triton Bay, Miocene Lepidocyclina associated with arc volcanics on Arimoa Islands off N New Guinea, M Miocene with Cycloclypeus annulatus, etc.)

Rutten, L. (1920)- On foraminifera-bearing rocks from the basin of the Lorentz River (Southwest Dutch New Guinea). Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 22, 2, p. 606-614.
(*online at: https://dwc.knaw.nl/DL/publications/PU00012007.pdf)*
(Eocene Alveolina-Lacazina and Nummulites and Miocene Lepidocyclina foraminiferal limestone pebbles from Lorentz River (S foreland of Central Range). Eocene Alveolina-Lacazina limestone from top of Wilhelmina (Trikora) peak. Unlike N New Guinea, no fragments of volcanic rocks observed in Central Range Cenozoic limestones and sandstones)

Rutten, L. (1921)- Quaternary and Tertiary limestones of North New Guinea between the Tami- and the Biri-River basins. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam 23, 8, p. 1137-1141.
(online at: https://dwc.knaw.nl/DL/publications/PU00014766.pdf)
(Tertiary limestones collected by BPM from N New Guinea between Tami and Biri rivers. No detailed locality information. Majority of limestones of Oligo-Miocene age with Lepidocyclina. Also two samples of black-grey Eocene reefal limestone with Alveolina, Nummulites, Orthophragmina (=Discocyclina) in Nanggoi River, S Nimboran Mts)

Rutten, L. (1923)- Geologische gegevens uit het gebied van den Vogelkop van Nieuw-Guinea. Verslagen Koninklijke Akademie van Wetenschappen, Amsterdam, Afd. Wis- en Natuurkunde, 32, 3, p. 221-224.
('Geological data from the region of the Birds Head of New Guinea'. Early notes on Birds Head geology, based on rock collections collected between 1917-1921 by East Indies Mines Department. Widespread Oligo-Miocene limestones with Lepidocyclina, Miogypsina, etc., but relatively rare Eocene (Lacazina limestones in Rumberpon-Horna area at Cenderawasih Bay coast and NW Birds Head))

Rutten, L. (1923)- Geological data derived from the region of the 'Birds Head' of New Guinea. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 26, 3-4, p. 274-277.
(online at: https://dwc.knaw.nl/DL/publications/PU00014942.pdf)
(English version of paper above)

Rutten, L.M.R. (1925)- Foraminiferen-houdende gesteenten uit het gebied van de 'Vogelkop' op Nieuw Guinea. Jaarboek Mijnwezen Nederlandsch-Indie 53 (1924), 1, p. 147-167.

('Foraminifera-bearing rocks from the area of the 'Birds Head' on New Guinea'. Brief descriptions of foram-bearing samples, including globigerinid limestone near SE coast (= Imskin Fm of subsequent authors), Eocene Nummulites-Alveolina-Lacazina in Horna region and many E-M Miocene limestone localities)

Rutten, L.M.R. (1927)- Geologie van Nieuw Guinea en de Aroe-eilanden. In: L.M.R. Rutten (1927) Voordrachten over de geologie van Nederlandsch Indie, Wolters, Groningen, p. 782-803.
(Historic review of knowledge of the geology of New Guinea and the Aru Islands in the mid-1920s)

Rutten, L.M.R. (1936)- Roches et fossiles de l'Ile Pisang et de la Nouvelle Guinee. Bull. Musee Royal Histoire Naturelle Belgique 12, 10, p. 1-13.
(online at: http://biblio.naturalsciences.be/rbins-publications/bulletin-of-the-royal-belgian-natural-history-museum/12-36/irscnb_p4087_0126ffp_12_bulletin-10.pdf)
('Rocks and fossils from Pisang Island and from New Guinea'. Pisang Island, E of Misool. Samples of Eocene shallow marine limestones from Pisang Island, collected by Van Straelen in 1929, contain Lacazinella, Fasciolites wichmanni (= simple Alveolina), Nummulites bagelensis, Discocyclina, etc., but no Pellatispira)

Sabra, E., (2025)- Geochemical characteristics of Bintuni oil Seep, oil-oil correlation, and oil-source rock correlation using biomarker data in the Bintuni Basin, West Papua. Scientific Contributions Oil and Gas (SCOG), Lemigas, 48, 2, p. 239-257.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/1740/1402)
(Organic geochemistry of oil from Bintuni onshore oil seep in SE corner of Birds Head. Closest similarities between Bintuni oil seep, Salawati oil, nearby Manimeri oil seep and M-L Miocene Klasafet Fm shale samples strongly suggests the oil seep source rock is Klasafet Fm)

Sadjati, O., N.A. Ascaria & A.H. Satyana (2002)- Generation and migration of hydrocarbons from pre-Tertiary source rocks of the Kamundan area, West Papua, Eastern Indonesia. AAPG International Conference, Cairo, 2002.
(Abstract only) (Kamundan area N of Wiriagar Deep giant gas field in Jurassic sandstones. Thermal modeling at Ayot-2, Tarof-2 and Wiriagar-1 wells suggest sources mature since 240-260 Ma (Permo-Triassic). In 210 Ma (Late Triassic) hydrocarbons charged Jurassic reservoirs (?). Migration continued and charged Cretaceous reservoirs until mid-Cretaceous tectonic activity uplifted area and changed migration routes. Afterwards, hydrocarbons re-migrated along Cretaceous unconformity and charged Late Cretaceous and Paleocene reservoirs, causing significant hydrocarbon accumulation in Paleocene reservoirs)

Sahidu, M.R.H., S.A. Putri, C.S. Birt & R. Apriani (2018)- Integration of 2D analog and 3D high resolution seismic data for regional shallow overburden description in the Tangguh Field, Indonesia. Proc. 42nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA18-G-85, p. 1-17.
(Late Miocene-Pliocene Steenkool Fm thickens to E (by progressive onlap to W onto Top Late Miocene Top Kais Lst and thickening to E). Kais Lst drowned by influx of clastic material into rapidly evolving E-dipping foreland basin in-front of Lengguru foldbelt. Shallow marine Lower Steenkool Fm with shallow gas in W part of area. Fluvial-deltaic Upper Steenkool Fm with stacked coal beds in E of area. Shortening in Lengguru fold-thrust belt stopped in Pleistocene. Faulting in Steenkool formation by Plio-Pleistocene strike-slip tectonics, creating E-W faults. Upper Steenkool Fm eroded by Pleistocene unconformity E of Tangguh field)

Sakagami, S. (2000)- Middle Permian Bryozoa from Irian Jaya, Indonesia. Bull. National Science Museum, Tokyo, Ser. C 26, 3-4, p. 139-168.
(online at: http://ci.nii.ac.jp/naid/110004313633/en)
(24 species/ 18 genera of Permian bryozoa from Aiduna Fm at 4 localities in Waghete map sheet. Fauna very similar to Timor described by Bassler (1929), also Peninsular Thailand and W Australia. Incl. Fistulipora spp, Eridopora, Tabulipora, etc. Part of typical S Tethys realm. Age most likely early Guadalupian, M Permian)

Salo, J.P. (2005)- Evaluating sites for subsurface CO_2 injection/ sequestration: Tangguh, Bintuni Basin, Papua, Indonesia. Ph.D. Thesis, University of Adelaide, p. 1-368.
(Text online at: http://digital.library.adelaide.edu.au/dspace/bitstream/2440/49746/2/02whole_v.1.pdf)

(Downdip aquifer leg of M Jurassic (Bathonian- Bajocian) Roabiba Fm quartzose marine sandstone is most viable option for disposal of excess CO_2 from Tangguh gas production. Second best is 'Aalenian sandstone'. M Jurassic (Aalenian-Callovian) overall transgressive series over Permian (Triassic- E Jurassic absent over Tangguh study area; E Jurassic only in nearby East Onin 1 well), with deeper marine facies to SW and S, with sediment supply mainly from NE. Major unconformity between Late Jurassic- Late Cretaceous, with Early Cretaceous missing, followed by Late Cretaceous (Turonian- Maastrichtian) rifting in Birds Head region, probably separating Birds Head microcontinent from Australia- New Guinea Plate. Erosion of folded Eocene-Oligocene at Basal Miocene unconformity reflects collision of Birds Head and Australia-New Guinea)

Salo, J.P. (2024)- Resilient, discovery and development of Tangguh's giant and supergiant gas fields, Part 1. AAPG Explorer 45, 11, p. 46-56.
(Eyewitness review of history of discovery and geology of Tangguh LNG project in Bintuni Basin, West Papua. It started with ARCO 1994 onshore discovery well Wiriagar Deep 1, with gas in M Jurassic clastics, Cretaceous carbonate and Early and Late Paleocene turbidites, with overpressure suggestive of a 2200' gas column across all reservoirs. Additional discoveries followed by Occidental Petroleum in 1990-1992 in offshore Bintuni Bay gas discoveries in M Jurassic sandstones Roabiba-1, Ofaweri-1 and Wos-1)

Salo, J.P. (2024)- Resilient, Part 2: Tangguh LNG's giant discoveries. AAPG Explorer 45, 12, p. 46-54.
(Continuation of Salo (2024) paper above. Wiriagar Deep 2 drilled offshore in 1995 confirmed gas in Paleocene turbidites and gas in thicker M Jurassic sandstones section. Pressure data suggested existence of giant gas field in Jurassic.ARCO follow-up at Vorwate 1, 2 wells in 1996-1997 and Ubadari in 1997. Etc.)

Sampurno, S.T., B. Sapiie, A. Kurniawan, D. Danil & R. Fauziah (2023)- Exploration strategy in the remote area with complex structure and many surface and subsurface challenges in the onshore West Papua, Indonesia. Proc. 47th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA23-G-70, p. 1-16.
(Onshore West Papua area (W New Guinea 'Main Body' Central Range and foreland basin to the S) still underexplored, with only about 15 exploratory wells drilled (>140 wells in PNG, to the East))

Samuel, L., K. Lukman & Suharno (1990)- Dominant geological factors which controlled petroleum potential of Salawati and Bintuni basins, Irian Jaya. Proc. 19th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 41-51.
(online at: https://www.iagi.or.id/web/digital/47/19th-(11-13-Des-1990)-Book-I-51-61.pdf)
(Birds Head Salawati basin more productive for Tertiary hydrocarbon discoveries than Bintuni basins. Possibly related to presence of Cretaceous shale seal in Bintuni, absence in Salawati)

Samuel, L. & L. Kartanegara (1991)- The role of Cretaceous seal to the hydrocarbon potential of the Salawati and Bintuni Basins, Irian Jaya, Indonesia. AAPG Annual Convention, Dallas, Abstracts, American Assoc. Petroleum Geol. (AAPG) Bull. 75, 3, p. 666.
(In Bintuni basin rel. little success in Miocene carbonates (only in Mogoi and Wagian fields). Presence of Cretaceous shales seal important: where this regional seal is noneffective, oil may migrate vertically from pre-Tertiary sources to Tertiary reservoirs)

Samuel, L. & R.S.K. Phoa (1986)- Problems. of source rock identification in the Salawati basin, Irian Jaya. Proc. 15th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 404-422.

Sapiie, B. (1998)- Strike-slip faulting, breccia formation and porphyry Cu-Au mineralization in the Gunung Bijih (Ertsberg) Mining District, Irian Jaya, Indonesia. Ph.D. Thesis, University of Texas at Austin, p. 1-304. *(Unpublished)*
(Most of Cenozoic tectonic evolution in New Guinea result of obliquely convergence and collision between Australian and Pacific Plates. In area of Gunung Bijih (Ertsberg) Mining District two deformation stages: (1) 12- 4 Ma 10's of km of contractional deformation, generating NW-trending folds and reverse/ thrust faults, (2) few km of strike-slip offset between 4- 2 Ma. Five major left-lateral strike-slip fault zones identified)

Sapiie, B. (2000)- Structural geology and ore deposit: case study of the Grasberg super porphyry Cu-Au mineralization, Irian Jaya, Indonesia. Proc. 29th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 1-21.
(Strike-slip faulting in Central Range Irian Jaya started at ~4 Ma, after 10's of km of contractional deformation. Grasberg igneous complex emplaced at major left step in left-lateral strike slip system)

Sapiie, B. (2002)- Structural pattern and deformation style in the Central Range of Irian Jaya (West Papua), Indonesia. Proc. 28th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 369-376.
(Central Range two stages of deformation: NW-trending folding between ~12- 4 Ma, followed by strike-slip faulting after 4 Ma. Change of deformation style related to change in relative plate motions between Australia and Pacific Plates)

Sapiie, B. (2007)- Strike-slip faulting and collisional delamination in the Central Range of West Papua, Indonesia. Proc. Joint Convention 32nd HAGI, 36th IAGI and 29th IATMI, Bali 2007, p. 1001-1002. *(Extended Abstract) (online at: https://www.iagi.or.id/web/digital/28/2007_IAGI-Bali_Strike-Slip-Faulting-and-Collisional-Delamina-in-teh-Central.pdf)*
(Change in deformation style in Central Range from regional folding to localized strike-slip between ~4-2 Ma interpreted to be manifestation of short-lived change in relative plate motion between Australian and Pacific plates at 4 Ma (transform movement between Australian plate and short-lived Caroline plate).

Sapiie, B. (2016)- Kinematic analysis of fault-slip data in the Central Range of Papua, Indonesia. Indonesian J. on Geoscience (IJOG) 3, 1, p. 1-16.
(online at: http://ijog.bgl.esdm.go.id/index.php/IJOG/article/view/225/202)
(Most of Cenozoic tectonic evolution in New Guinea result of oblique convergence that led to arc-continent collision between Australian- Pacific Plates. Structural analysis in Gunung Bijih (Ertsberg) District indicates two deformation stages since ~12 Ma: (1) en-echelon NW-trending folds and reverse faults; (2) left-lateral strike-slip faulting sub-parallel to regional strike. Change from contractional to left-lateral strike-slip offset due to change in relative plate motion between Pacific-Australian Plates from 246° to 253° at ~4 Ma. From ~4- 2 Ma, transform motion along ~270° trend caused left-lateral strike-slip. Strike-slip faulting with 100s of m to at most a few km of offset significant for magma intrusion and mineralization)

Sapiie, B., A.C. Adyagharini & P. Teas (2010)- New insight of tectonic evolution of Cendrawasih Bay and its implications for hydrocarbon prospect, Papua, Indonesia. Proc. 34th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA10-G-158, p. 1-11.
(Deformation of Cendrawasih Bay related to coupling movement of Yapen-Sorong Fault Zone and Tarera-Aiduna left-lateral strike-slip faults. Cenderawasih Basin formed by NW-SE directed shortening and is most likely overlain by Australian continental crust)

Sapiie, B. & M. Cloos (2000)- Strike slip faulting in the core of the Central Range of New Guinea: aftermath of collisional delamination. Geological Society of America 2002 Denver Annual Meeting, 1p. *(Abstract only)*
(Strike-slip faulting in Gunung Bijih (Ertsberg) District during latest stage of collisional orogenesis, localizing igneous intrusion and copper-gold mineralization at 3 Ma. C Range tectonically inactive; current movements along N edge of island and Tarera-Aiduna fault zone. Between 3 Ma and Pleistocene glaciation, strike-slip motion ceased in W highlands. Rupture of N end of Australian plate (collisional delamination) started at ~8 Ma and propagated >1000 km E by 3 Ma, causing short-lived melting event. Batholithic-scale magma chambers in lower crust from ~7 to 3 Ma. Core of collisional belt was zone of weakness, localizing tectonic motions. Since then upper ~20 km of upwelled asthenosphere cooled, forming new lithospheric mantle. Healing of lithosphere beneath W Central Range caused plate motions to become concentrated at weaknesses along N coast of island)

Sapiie, B. & M. Cloos (2004)- Strike-slip faulting in the core of the Central Range of west New Guinea: Ertsberg Mining District, Indonesia. Geological Society of America (GSA) Bull. 116, 3-4, p. 277-293.
(online at: https://earthjay.com/earthquakes/20190506_PNG/sapiie_cloos_2004_strike_slip_faulting_PNG.pdf)
(Most of New Guinea Cenozoic tectonic evolution result of obliquely convergent motion. Two stages of deformation: (1) ~12- 4 Ma: km-scale folds and thrusts recording many tens of km of shortening; (2) starting at

~4 Ma five NW-trending (~300°) strike-slip fault zones in core of W Highlands, aiding ascent of magmas. Intrusives of 4.4- 2.6 Ma ages formed in pull-aparts along left-lateral strike slip faults. NE trending normal faults and veins suggest NW-SE extension)

Sapiie, B. & M. Cloos (2013)- Strike-slip faulting and veining in the Grasberg giant porphyry Cu-Au deposit, Ertsberg (Gunung Bijih) mining district, Papua, Indonesia. International Geology Review 55, 1, p. 1-42.
(Comprehensive review of Grasberg igneous complex in Ertsberg mining district in western Central Range of Papua. Giant Cu-Au deposit that was emplaced at 3 Ma. Abundant steeply dipping strike-slip faults in deposit (75% of all faults), in three structural domains, E-NE, NW and N-trending faults. Formed in left-lateral Riedel shear system, trending N60W. Two major stages of vein formation: (1) post-Main Grasberg Intrusion and pre-Late Kali Intrusion, and (2) post-LKI)

Sapiie, B., W. Naryanto, A.C. Adyagharini & A. Pamumpuni (2012)- Geology and tectonic evolution of Bird Head region Papua, Indonesia: implications for hydrocarbon exploration in the Eastern Indonesia. AAPG International Conference Exh., Singapore 2012, Search and Discovery Article 30260, p. 1-39.
(online at: www.searchanddiscovery.com/documents/2012/30260sapiie/ndx_sapiie.pdf)
(Birds Head region of W Papua in region with deformation varying from area to area, indicating several translations and rotations during history)

Sapiie, B., D.H. Natawidjaja & M. Cloos (1999)- Strike slip tectonics of New Guinea: transform motion between the Caroline and Australian plates. In: I. Busono & H. Alam (eds.) Developments in Indonesian tectonics and structural geology, Proc. 28th Annual Conv. Indonesian Association Geol. (IAGI), Jakarta 1999, 1, p. 1-15.
(online at: https://www.iagi.or.id/web/digital/63/Vol_1-Development-in-Indonesian-Tectonics-_-Structural-Geology-12-18-(1).pdf)
(Most of Cenozoic tectonic evolution of New Guinea result of oblique convergence that led to collisision between Australian continent and oceanic arc at leading edge of Pacific Plate. Ertsberg mining district of W Papua two stages of deformation: (1) ~12- 4 Ma WNW-trending en-echellon folds (10's of km of shortening) and (2) ~4-2 Ma mainly left-lateral strike slip faulting, with offsets up to 1-2 km. Change in style related to minor change in plate motion at ~4 Ma, also forming Caroline Plate)

Sapiie, B., S.T. Sampurno, N.A. Manaf, S.E. Saputra & M. Riswanty (2023)- Hydrocarbon exploration challenge in the Central Range fold-thrust belt, Papua, Indonesia. Proc. 47th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA23-G-67, p. 1-11.
(Review of the Papua Central Range fold-thrust belt and re-evaluation of hydrocarbon prospectivity of Warim Block in foreland basin S of Central Range, near PNG border.Seven exploration wells drilled by Conoco in 1990s. Proven Mesozoic petroleum system, with Early (should be Late) Jurassic Kopai Fm and Late (should be Early) Cretaceous sandstone of Woniwogi Fm as primary Mesozoic reservoirs)

Sapiie, B., J. Syafriady, M. Hadiana, I. Gunawan & A. Rudyawan (2024)- A new approach of hydrocarbon prospect of Lengguru fold-thrust-belt, Papua, Indonesia. Proc. 48th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA24-G-357, p. 1424-1439.
(Brief review of virtually unexplored Lengguru foldbelt, W of Central Range of W Papua. Here interpreted as basement-involved deformation with >30% shortening. M-L Jurassic sandstone of Woniwogi Formation (should be E Cretaceous?; JTvG) as reservoir and E Jurassic (??) Kopai Formation as the primary source rocks in this area. Etc. Numerous oil and gas seeps discovered during fieldwork to W margin of LFTB)

Sapin, F., M. Pubellier, J.C. Ringenbach & V. Bailly (2009)- Alternating thin versus thick-skinned decollements, example in a fast tectonic setting: the Misool-Onin-Kumawa Ridge (West Papua). J. Structural Geology 31, p. 444-459.
(Misool-Onin-Kumawa Ridge between Seram accretionary wedge and Lengguru fold belt (<8 My). Three deformation stages: (1) Messinian thin-skinned fold-and-thrust belt over shaly-silty Permian-Paleocene; (2) Pliocene thick-skinned event responsible for uplift of ridge, possibly induced by onset of continental subduction; (3) Pleistocene deformation when thin-skinned tectonics resumed in Seram Trough. Currently, Seram wedge abuts ridge, transferring compression N into Salawati Basin. Jumps of active detachment levels may be response

to changes in subduction parameters (velocity, rugosity, etc.) during transition between oceanic and continental subduction, or from thinned crust to thicker continental crust)

Saputra, A., R. Hall & L.T. White (2014)- Development of the Sorong Fault Zone North of Misool, Eastern Indonesia. Proc. 38th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA14-G-086, p. 1-14.
(online at: https://www.researchgate.net/publication/310953769_Development_of_the_Sorong_Fault_Zone_North_of_Misool_Eastern_Indonesia)
(Sorong Fault Zone W of Birds Head with several small basins along 3 major (left-lateral) fault strands. Evidence of both transpression and transtension along sinistral strike-slip system. Kofiau Basin may be N part of Salawati Basin, displaced to W on Molucca-Sorong Fault during Pliocene)

Saputra, S.E.A. (2021)- Cenozoic deformation and tectonics of eastern Bird's Head Peninsula, West Papua, Indonesia. Ph.D. Thesis, University of Wollongong, p. 1-272.
(online at: https://ro.uow.edu.au/theses1/1308)
(Birds Head moving WSW relative to Australian plate based on GPS data, but slower than WSW movement of adjacent Pacific-Caroline Plate. Indicates subduction along Manokwati Trough and New Guinea Trench. Sorong Fault largely aseismic. Kemum High mega pop-up structure formed since Late Miocene by double bend in Sorong and Yapen faults. At N end of Lengguru foldbelt, Permian Mawi metasediment complex multiply deformed in Late Permian- E Triassic in E Gondwanan active continental margin, before unconformably overlying U Triassic-LowerJurassic Tipuma Fm)

Saputra, S.E.A. (2021)- Active tectonics of Western New Guinea (Papua and West Papua) - Indonesia. Proc. 51st Annual Conv. Indonesian Association Geologists (PIT IAGI 51), Makassar 2022, p. 1-16.
(online at: https://www.iagi.or.id/web/digital/71/PITIAGI-22-P-Abs-031.pdf)
(W New Guinea affected by oblique convergence of Pacific-Caroline Plate relative to Australian Plate in late Cenozoic (<5 Ma). Active tectonics of Western New Guinea shown by earthquake focal mechanism solutions in Birds Head, Bird's Neck and W part of Birds Body. Seismicity in N Birds Head Peninsula mainly S-dipping thrusts, probably initiation of subduction in Manokwari Trough. In N Cendrawasih Bay common E-W trending sinistral strike-slip solutions, reflecting movement on strike-slip Yapen Fault (accomodating oblique convergence with Pacific-Caroline Plate. Kemum High of Paleozoic basement in N Birds Head formed adjacent to double restraining bend along Sorong and Yapen faults. In Birds Neck E-W strike-slip solutions reflecting sinistral movement along Tarera-Aiduna Fault. Birds Head Peninsula moving as block to WSW relative to Australian Plate, consistent with Pacific-Caroline Plate motion (but at lower velocity?; GPS). Etc.)

Saputra, S.E.A. & C.L. Fergusson (2023)- Pacific-Gondwana Permo-Triassic orogenic belt with lesser overprinted Cenozoic deformation, Eastern Bird Head Peninsula, West Papua, Indonesia. Indonesian J. on Geoscience (IJOG) 10, 2, p. 119-138.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/933/393)
(Paleozoic- E Mesozoic Pacific-facing active margin of E Gondwana extends into Kemum Block of N Birds Head Peninsula. Associated with Mid-Paleozoic orogenic deformation (equivalent of 'Tasmanide' M Permian- M Triassic Hunter Bowen Orogeny?), Devonian- Triassic silicic magmatism and foreland basin deposition. Mawi Bay ?Permian Complex multiply-deformed, first in pre-Late Triassic, with isoclinal to tight NNE facing folds. Unconformably overlain by U Triassic- M Jurassic Tipuma Fm. Mesozoic-Paleogene of N Lengguru Fold Belt affected by N-NW trending folds and may have influenced Pliocene- Quaternary C Birds Head Monocline associated with Kemum Block uplift in N Birds Head)

Saputra, S.E.A., C.L. Fergusson, A. Dosseto, A. Dougherty & C.V. Murray-Wallace (2022)- Late Quaternary neotectonics in the Bird's Head Peninsula (West Papua), Indonesia: implications for plate motions in northwestern New Guinea, western Pacific. J. Asian Earth Sciences 236, 105336, p. 1-12.
(N Birds Head Peninsula of NW New Guinea underwent rapid uplift over past 2.7 Ma, with development of mountainous Kemum High (up to 2200m), associated with formation of C Bird's Head monocline. Late Quaternary uplift rates of up to 1.28 m/ka determined for emergent coral reefs in Manokwari region. Present-day tectonic setting of Bird's Head consistent with ongoing oblique convergence between Bird's Head and Pacific-Caroline plate, accommodated over past 2 Ma by incipient S-dipping subduction along Manokwari

Trough (with longer-lived subduction along New Guinea Trench) and sinistral strike-slip movement along Yapen fault, whereas Sorong Fault has been largely inactive)

Saputra, S.E.A., C.L. Fergusson & C.V. Murray-Wallace (2022)- Ransiki earthquakes, northeastern Bird's Head Peninsula, northwestern New Guinea, Indonesia: deformation partitioning in oblique plate convergence. J. Geodynamics 158, 101999, p. 1-20.
(online at: https://www.sciencedirect.com/science/article/pii/S026437072300039X)
(Earthquakes in Ransiki region, NE Birds Head, show WSW oblique plate convergence between Australian and Pacific-Caroline plates is partitioned into E-W sinistral strike-slip motion along Yapen Fault and NNE compression associated with Ransiki Fault)

Saputra, S.E.A., C.L. Fergusson, C.V. Murray-Wallace & A.P. Nutman (2023)- Neogene uplift and deformation in the northeastern Bird's Head Peninsula, West Papua, Indonesia: consequences of oblique plate convergence. International Geology Review 65, 21, p. 3348-3376.
(online at: https://www.tandfonline.com/doi/full/10.1080/00206814.2023.2188404)
(Mainly literature overview and interpretation of NE Birds Head geology. With some detrital zircon analyses from Late Miocene-Pliocene Befoor Fm in Manokwari area (main age peaks ~15.3 and 30 Ma). Kemum High uplift was mainly Pleistocene in age)

Saragih, R.Y., A.K. Gibran, D.A.R. Prawiranegara, G.G. Arvillyn & A. Kusworo (2017)- Mesozoic source rock potential in Lengguru Basin, West Papua. Proc. 41st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA17-273-G, p. 1-16.
(Jurassic-Cretaceous Kopai Fm in NE part of Lengguru foldbelt rel. high organic richness (TOC up to 1.2-17.7%). Most samples Type III kerogen. High thermal maturity in samples from NE area (overmature). Hydrocarbon seeps)

Saragih, R.Y., A.K. Gibran, D.A.R. Prawiranegara, F.E. Saputra, A. Hamzah & D. Irawan (2018)- Mesozoic petroleum system in Lengguru Basin, West Papua: an integrated aproach from facies, diagenesis and geological structures. Proc. 42nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA18-368-G, p. 1-28.
(online at: https://www.researchgate.net/publication/342657328_MESOZOIC_PETROLEUM_SYSTEM_IN_LENGGURU_BASIN_WEST_PAPUA_AN_INTEGRATED_APPROACH_FROM_FACIES_DIAGEN ....Etc.)

Saragih, R.Y., G.M.L. Junursyah, F. Badaruddin & Alviyanda (2018)- Structural trap modelling of the Biak-Yapen basin as a Neogen frontier basin in North Papua. Proc. 42nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA18-408-G, p. 1-25.
(Biak Island and Supiori Islands interpreted as series of extensional fault blocks with >2000m of Neogene sediments, overlying Eocene arc volcanics)

Saragih, R.Y., H.L. Sunan, E. Slameto & I. Nurdiana (2020)- Rifting and lifting Neogene age in Biak-Yapen basin based on structural trajectory analogy in Biak and Supiori Island. Proc. Int. Conf. Engineering, Technology and Innovative Researches (ICETIR 2020), Purbalingga 2020, IOP Conference Series: Materials Science and Engineering, 982, 1, 012042, p. 1-18.
(online at: https://iopscience.iop.org/article/10.1088/1757-899X/982/1/012042/pdf)
(Neogene rocks of Biak and Supiori Islands suggest four tectonic phases: Rifting at M-L Miocene, Late Miocene-Pliocene and Pleistocene; uplift during Pleistocene-Recent)

Sardjono (1998)- Gravity field and structure of the Sorong Fault Zone, Eastern Indonesia. Ph.D. Thesis University College London, p. 1-269. *(Unpublished)*
(online at: https://discovery.ucl.ac.uk/id/eprint/10101405/1/Gravity_field_and_structure_of.pdf)
(Ph.D. project under Prof. J. Milsom. Gravity surveys along coastlines of Banggai-Sula islands, E Sulawesi, Halmahera, Bacan and Obi, integrated with earlier gravity data. Values <-250 mGal in S part of Molucca Sea to >+320 mGal near sea level in coastal areas S of Mangole and N of Sulabesi (Sula Group). Steep free-air gravity gradients S of Mangole and W of Obi. Gravity along Sorong FZ near Banggal-Sula Islands suggest mainly attenuated continental fragments, juxtaposed to thick tectonic melange and anomalous oceanic crust. Continental

fragments of Banggai-Sula dip N-ward, interpreted as response to sinking of Molucca Sea lithosphere. Obi region gravity suggests most of island peridotitic and basaltic rocks, with continental crust in S and S offshore. Ultramafic and basic rocks emplaced on Obi by reverse fault. Exposed basaltic rocks may be remnant of oceanic Philippine Sea Plate)

Sarmili, L., F.K. Jevie & M.F. Rosiana (2009)- Keterdapatan mineral zirkon dan hubungannya dengan batuan metamorfik di Teluk Wondama, Papua. J. Geologi Kelautan 7, 1, p. 37-45.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/169/159)
('Occurrence of zircon minerals and their relationship to metamorphic rocks in Wondama Bay, Papua' (= Wandamen Bay). Zircon-bearing metamorhic schist and amphibolite of Roon Island along Wandamen Bay point to granitoid, continental crust composition of precursor rock)

Sastratenaya, A.S., P. Sampurno & D. Soetarno (1988)- Favourable formations for uranium occurrences in Irian Jaya. Proc. Conf. Uranium deposits in Asia and the Pacific; geology and exploration, Jakarta 1985, Int. Atomic Energy Agency (IAEA), Vienna, IAEA-TC-543/19, p. 259-274.
(Probability of Uranium occurrences in basement complexes of W Papua good, owing to younger (Jurassic, Tertiary) intrusions of intermediate acidic magmatic rocks. Most important province is C Irian Jaya with formations favorable for U occurrences, i.e. Aifam, Iwur, Buru, Klasaman and Steenkool Fms. Some indications of mineralized granitic outcrops found by ground surveys in Ransiki area)

Satyana, A.H. (2001)- Dynamic response of the Salawati Basin, Eastern Indonesia, to the Sorong Fault tectonism: example of inter-plate deformation. Proc. 30th Annual Conv. Indonesian Association Geologists (IAGI) and GEOSEA 10th Regional Congress, Yogyakarta 2001, p. 288-291. *(online at: https://www.academia.edu/13803779/DYNAMIC_RESPONSE_OF_THE_SALAWATI_BASIN_EASTERN_INDONESIA_TO_THE_SORONG_FAULT_TECTONISM_EXAMPLE_OF_INTER_PLATE_DEFORMATION)*
(Sorong Fault major left-lateral fault responsible for reversal of Salawati basin polarity. Late Paleozoic- Miocene beds thicken to S-SE, revealing presence of long-lived southern depocenter. At Miocene-Pliocene boundary basin tilted to W-SW, marking inception of Sorong Fault in N Irian Jaya. By mid-Pliocene Sorong Fault splayed into Salawati Basin and basin subsided rapidly to N-NW with uplift of S and E parts of basin. Coeval with rapid deposition of Late Pliocene Klasaman Fm sediments, which triggered shale diapirism)

Satyana, A.H. (2003)- Sorong Fault and the reversal of the Salawati Basin. Indonesian Petroleum Association (IPA) Newsletter, March 2003, p. 15-21.
(Major E-W trending left-lateral Sorong strike-slip fault system along N Birds Head, W Papua and Papua New Guinea separates W-moving Pacific oceanic (Caroline and Philippine Sea) plate from relatively stable Australian continental plate. In Salawati Basin polarity reversal in Pliocene)

Satyana, A.H. (2003)- Re-evaluation of the sedimentology and evolution of the Kais carbonate platform, Salawati Basin, Eastern Indonesia: exploration significance. Proc. 29th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 185-206.
(New paleogeographic model of Miocene Kais carbonates, making previous basinal zone lagoonal)

Satyana, A.H. (2008)- Aromatic methylphenanthrene biomarker and maturity of oils keys to identifying new active source rocks in the Salawati Basin, Indonesia. American Assoc. Petroleum Geol. (AAPG), Int. Conf. Exhib., Cape Town, 1p. *(Abstract only)*
(Salawati Basin with foredeep kitchen bordered by Sorong Fault zone. Early-migrated and moderate-heavy oils in updip area, late-migrated and light oils and gas in downdip area approaching kitchen. Hydrocarbon sources Miocene Kais and Klasafet mudstones and shales. Maturity of oils derived from aromatic biomarker methylphenanthrene (MP) index increases towards downdip area. Low maturity oil seeps at Sorong deformed zone do not follow pattern, suggesting source from E Pliocene Lower Klasaman shale)

Satyana, A.H. (2009)- Emergence of new petroleum system in the mature Salawati Basin: keys from geochemical markers. Proc. 33rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 775-795.

(Salawati Basin proven petroleum system is Miocene Kais/Klasafet. Over Sorong foredeep kitchen, oils generated from lower maturity rocks than overmature Kais/Klasafet marly carbonaceous shales, must be sourced by Early Pliocene Lower Klasaman shales)

Satyana, A.H. & N. Herawati (2011)- Sorong fault tectonism and detachment of Salawati Island: implications for petroleum generation and migration in Salawati Basin, Bird's Head of Papua. Proc. 35th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA11-G-183, p. 1-21.
(Sorong Fault at N and W margin of Salawati Basin reversed basin polarity from basin with S depocenter before Pliocene to the basin with N depocenter today. Subsidence of basin to N resulted in petroleum generation from Miocene Kais-Klasafet carbonates and shales main source rocks. Salawati Island, once attached to main Bird's Head, detached and rotated CCW, opening Sele Strait. After rotation Salawati Island translated SW-ward to present position)

Satyana, A.H., M.E.M. Purwaningsih & E.C.P. Ngantung (2002)- Evolution of the Salawati structures, eastern Indonesia: a frontal Sorong fault deformation. Proc. 31st Annual Conv. Indonesian Association Geologists (IAGI), Surabaya, 1, p. 277-293.
(online at: https://www.iagi.or.id/web/digital/17/EVOLUTION-OF-THE-SALAWATI-STRUCTURES,-EASTERN-INDONESIA-;-A-FRONTAL-SORONG-FAULT-DEFORMATION.pdf)
(Neogene structures in Salawati Basin tied to Sorong Fault tectonism. Four stages of development, reflecting 25° CCW rotation of strain ellipsoid between M Pliocene- Pleistocene. Sorong Fault started at ~3.5 Ma, dissecting N margin of Salawati Basin. Present-day structuring mainly SSW-NNE normal faulting)

Satyana, A.H., Y. Salim & J.M. Demarest (2000)- Significance of focused hydrocarbon migration in the Salawati Basin: controls of faults and structural noses. Proc. 27th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 513-530.

Satyana, A.H. & I. Setiawan (2001)- Origin of Pliocene deep-water sedimentation in Salawati Basin, Eastern Indonesia: deposition in inverted basin and exploration implications. In: A. Setiawan et al. (eds.) Deep-water sedimentation of Southeast Asia, Proc. 2nd Regional Seminar Indonesian Sedimentologists Forum (FOSI), Jakarta, p. 53-65.
(online at: https://tektonesiana.org/wp-content/uploads/2021/11/satyana-2001-origin-of-pliocene-deep-water-sedimentation-in-salawati-basin-eastern-indonesia-deposition-in-inverted-basin-and-exp.pdf)
(New Mid-Late Pliocene NW Salawati Basin depocenter created by tectonic loading of contemporaneous Upper Klasaman Fm thrust sheets along regional Sorong left-lateral strike-slip fault. Accommodation filled with bathyal debris flow deposits. Thick Klasaman deposits buried Miocene source rocks once deposited in lagoonal environment to reach oil window and triggered overpressuring and shale diapirism of E Pliocene Lower Klasaman Fm shales)

Satyana, A.H. & M. Wahyudin (2000)- Meteoric water flushing and microbial alteration of Klamono and Linda oils, Salawati Basin, Eastern Indonesia: geochemical constraints, origin and regional implications. Proc. 29th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 71-84.
(Klamono and Linda fields oils evidence of biodegradation. Water from Kais Limestone outcrop flowed W to Klamono field. Linda field probably affected by meteoric water moving along fault)

Schappert, A. (1990)- The seismicity of the Tembagapura region, Irian Jaya. Proc. 19th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 50-56.
(online at: https://www.iagi.or.id/web/digital/48/19th-(11-13-Des-1990)-Book-II-60-66.pdf)
(Tembagapura at S slopes of West Papua Central Range in seismically active Southen Highland seismic zone. Two groups of events: (1) deep events (>100km deep epicenters), associated with S-ward subduction of Solomon/ Pacific plate; (2) shallow earthquakes (<30km), related to mountain building in upper crust)

Schellart, W.P. & W. Spakman (2015)- Australian plate motion and topography linked to fossil New Guinea slab below Lake Eyre. Earth Planetary Science Letters 421, p. 107-116.
(online at: https://www.sciencedirect.com/science/article/pii/S0012821X15001855)

(On relation between latest Cretaceous- E Eocene (~71-50 Ma) N-dipping subduction at N edge of New Guinea-Australian plate and Cenozoic Australian plate motion changes and topography evolution of Australian continent. Evidence for ~4000 km wide subduction zone, which culminated in ophiolite obduction and arc-continent collision in New Guinea- Pocklington Trough region during subduction termination, coinciding with cessation of spreading in Coral Sea. Renewed N-ward motion caused Australian plate to override sinking subduction remnant, detected with seismic tomography at 800-1200 km depth in mantle under C-SE Australia. Slab sinking and mantle flow cause S-migrating negative dynamic topography of several 100m to present-day ~200m deep depression of Lake Eyre Basin and Murray-Darling Basin)

Schlumberger, C. (1894)- Note sur *Lacazina wichmanni* Schlumb. n.sp. Bull. Societe Geologique France (3), 22, p. 295-298.
(Larger foram species Lacazina wichmanni n. sp. described from (Eocene) limestone from Triton Bay area, Lengguru foldbelt, collected by Wichmann. Species also known from other parts of East Indonesia, also New Caledonia?; Koolhoven 1929.)

Schroo, H. (1961)- Some pedological data concerning soils in the Baliem Valley, Netherlands New Guinea. Boor en Spade 11, p. 84-103.
(Early paper on geomorphology and relatively poor soil quality in Baliem Valley, Central Range)

Schroo, H. (1963)- An inventory of soils and soil suitabilities in West Irian. I. Netherlands J. Agricultural Science 11, 4, p. 308-333.
(online at: https://library.wur.nl/ojs/index.php/njas/article/view/17544)
(Overview of soils and suitabilities for agriculture by former Chief soil scientist of Netherlands New Guinea, (1956-1962))

Schroo, H. (1963)- An inventory of soils and soil suitabilities in West Irian. IIA. Netherlands J. Agricultural Science 11, 5, p. 387-417.
(online at: https://library.wur.nl/ojs/index.php/njas/article/view/17538)
(Reviews of soils and suitabilities of specific areas of interest in Netherlands New Guinea 1-20)

Schroo, H. (1964)- An inventory of soils and soil suitabilities in West Irian. IIB. Netherlands J. Agricultural Science 12, 1, p. 387-417.
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(online at: https://www.jstage.jst.go.jp/article/jpe1952/36/3/36_3_107/_pdf/-char/en)
(No seismological evidence of subduction along New Guinea Trench W of 140°E (believed to be relic of ancient subduction). Region between N New Guinea Trench and Central Range characterized by strike-slip faulting and reverse faulting. Yapen Island earthquake suggests active strike-slip motion along this part of Sorong fault zone. Thrust mechanisms common in Meervlakte Basin. Additional strike-slip faulting and thrust faulting in Tarera and Wandamen Fault Zones. Oblique convergence between Caroline and Australian plates in W New Guinea divided into strike-slip and dip-slip components. East of 140°E along New Guinea Trench, Bismarck plates are subducting, producing intermediate- depth seismicity beneath central New Guinea)

Setiadi, I. & Marjiyono (2018)- Interpretasi geologi bawah permukaan dan delineasi Cekungan Salawati wilayah Sorong dan sekitarnya berdasarkan analisis spektral serta pemodelan 2D dan 3D Data Gayaberat. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 19, 3, p. 117-130.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/409/3560

(Geological subsurface interpretation and delineation of the Salawati Basin in the Sorong area and surroundings based on spectral analysis of 2D and 3D modelling of gravity data'. Average sediment thickness in area 3.4 km. Five subbasins. Basement metamorphics)

Setiawan, B., G. de Jong, A. Soeldjana, C. Aloysius, B. Webb, A. Issel & S. Lasito (2013)- Mineralogy and chemical characteristics of the Waripi-hosted Cu-Au skarn system at the Big Gossan underground mine, Papua, Indonesia- determining the host rocks using XRD and XRF analysis. Proc. Annual Conv. Indonesian Soc. Economic Geologists (MGEI), Kuta 2013, Papua and Maluku Resources, p. 183-194.
(Big Gossan mine one of two underground mines operated by PT Freeport, 3 kmS of Grasberg. Mining system from 2540-3180m level. Stratabound skarn system formed sub-parallel to Ekmai-Waripi Fm contacts. Main host Waripi Fm)

Setiawan, Y., E. Syafron, N. Arbi, M. Hardenberg, M. Jones, H. Banjarnahor, Nakamoto, I. Argakosesoemah et al. (2016)- Chasing the Jurassic sand in Semai Basin, Papua. Proc. IPA 2016 Technical Symposium, Indonesia exploration: where from- where to, Indonesian Petroleum Association (IPA), Jakarta, 40-TS-16, p. 1-23.
(Since 2006 oil companies invested $600MM in unsuccessful exploration of Semai basin between Onin Peninsula/ Birds Head and Seram Trough (Trench). Tight Lower Jurassic sandstone penetrated in Lengkuas-1 well at 6500m TVDSS (63m gross, but not fully penetrated; porosity <1-2%), i.e. older than M Jurassic main reservoirs in Tangguh fields. Probably part of W-E (or SW to NE?) backstepping pattern in E-M Jurassic deltaic sandstones. Same-age reservoir much shallower in Bawang Putih-1 and Serai-1 wells to E; also poor reservoir quality. Reduced porosity in E Jurassic sandstones due to deep burial (quartz overgrowth) and >3km of late structural uplift and inversion. With paleogeographic maps for E Jurassic, Paleocene, Miocene)

Setyadi, H., N. Wiwoho, B. Kusnanto, S. Widodo & N. Sugita (1999)- The lithogeochemistry and magnetic susceptibility properties of the Kucing Liar copper-gold skarn deposit, Ertzberg, Irian Jaya, and its implications for the mineral exploration. Proc. 28th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 2, p. 217-225.
(online at: https://www.iagi.or.id/web/digital/65/15.pdf)
(Kucing Liar 1992 discovery of multistage Cu-Au skarn/ replacement deposit from fluids emanating from W-SW side of Grasberg porphyry intrusive. Mainly in U Cretaceous Ekmai Fm and Paleogene Waripi Fm, along WNW-ESE reverse fault, at depth of 500-1500m below surface elevation of 3700m asl))

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('Pre-Tertiary pollen from the Birds Head area, Papua'. Palynology of samples from Ainim River shows Late Permian Ainim Fm (Protohaploxypinus microcorpus zone, with Falcisporites australis, Lunatisporites noviaulensis, etc.), overlain by Late Cretaceous Jass Fm (Tricolporites apoxyexinus zone, also with Coniacian-Campanian planktonic foraminifera and nannofossils in samples G3-G7), overlain by Eocene (Florschuetzia trilobata zone). Permo-Triassic sediments deposited in terrestrial environment with some marine influence, Cretaceous mainly marine)

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(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/download/204/195)
('Gravity-magnetic field over the ophiolite (ultramafic) of Beoga, Papau and implications for its emplacement'. Large 50x100 km outcrop of ultramafics has elliptical gravity anomaly pattern, suggesting possible fragmentation of ophiolite during obduction. Also gravity model over Meratus Mts and Banda Sea-Seram)

Siagian, H.P., I. Sobari, J. Nasution, B.S. Widijono, B. Setyanta, Nurmaliah, K. McKenna & A. Noetzli (2013)- Airborne magnetic and radiometric geophysical mapping in South and Central Range Mountains, Papua Indonesia. Proc. ASEG-PESA 23rd International Geophysical Conference Exhib., Melbourne 2013, p. 1-4.
(online at: http://www.publish.csiro.au/ex/pdf/ASEG2013ab371)

(Geological Survey of Indonesia commissioned airborne magnetic and radiometric survey covering W Papua Central Highlands and S side of highlands in 2010-2011)

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Sidarto & N. Ratman (1996)- Geologi lembar Jayawijaya, Irian Jaya, ditafsir dari citra radar. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 6, 61, p. 2-10.
('Geology of the Jayawijaya sheet, Irian Jaya, interpreted from radar imagery')

Sieber, M.J., F.J. Brink, C. Leys, P.L. King & R.W. Henley (2020)- Prograde and retrograde metasomatic reactions in mineralised magnesium-silicate skarn in the Cu-Au Ertsberg East Skarn System, Ertsberg, Papua Province, Indonesia. Ore Geology Reviews 125, 103697, p. 1-14.
(manuscript online at: www.researchgate.net/publication/343308063_Prograde_and_retrograde_meta Etc.)
(The 2.7-2.9 Ma Ertsberg East Skarn System (EESS) is world-class Cu-Au skarn, near intrusion at paleodepth of 0.5- >2.5 km. Mineralisation developed by reaction of magmatic fluid with contact metamorphosed siliciclastic and carbonate rocks at margin of Ertsberg quartz monzodiorite intrusion. Contact metamorphism at 51 ± 5 MPa and 700- 800 °C. Prograde metamorphism formed forsterite-dominated skarns Formation of metal sulphides within forsterite skarns of EESS required minimum flux of ~1,050 Mt SO2(g) and show that volcanic degassing may have occurred over ~3,900 years)

Silalahi, P., M. Ahmad, F.G. Aiwoy, L. Soebari, G. de Jong, E.C. Aloysius & A.F. Budirumantyo (2013)- Molybdenite and bornite distributions in the Ertsberg Stockwork Zone (Esz), Papua, Indonesia. Proc. Annual Conv. Indonesian Soc. Economic Geologists (MGEI), Kuta, Bali, Papua and Maluku Resources, p. 197-203.
(online at: www.researchgate.net/publication/265168866_Molybdenite_and_Bornite_Distributions_in_the_Ertsberg_Stockwork_Zone_Esz_Papua_Indonesia)
(Ertsberg Stockwork Zone deposit is hosted within Ertsberg Diorite (Late Pliocene; 2.66 Ma), SW of E Ertsberg Skarn System. Copper- gold mineralization controlled by biotite-bornite and quartz-chalcopyrite stockwork veins, mainly between 3100-3700m elevation. Lateral and downward decrease in copper-gold mineralization and increase of quartz- bornite and molybdenite veins)

Simandjuntak, T.O., B. Mubrata, D. Sukarna, K. Astadireja, Marino, I. Zulkarnain, N. Buyungg, D. Sutarno & A. Mahfi (1994)- Evolusi tektonik daerah Lengguru, Irian Jaya, dan hubunggannya dengan jebaka sumberdaya hidrokarbon. Proc. 23rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 1, p. 370-388.
(online at: https://www.iagi.or.id/web/digital/62/31.pdf)
('Tectonic evolution of the Lengguru area, Irian Jaya, and relation to hydrocarbon deposits'. Incl. 90° CW rotation of Lengguru Block along Aru-Waipona fracture after Late Miocene- E Pliocene thrusting of Melanesian orogeny)

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(online at: www.buletingeologi.com/index.php/buletin-geologi/article/view/44/15)
('Study of source rock geochemistry and modeling of the West Berau Block Basin, Berau Basin, West Papua' Source rock analysis of Gunung-1 well Lower Kembelangan Fm and Tipuma Fm best source rocks. Lower Kembelangan Fm late mature. Late Mocene-Pliocene trap formation postdated hydrocarbon generation)

Skwarko, S.K., J. Sornay & T. Matsumoto (1983)- Upper Cretaceous molluscs from western Irian Jaya. Publ.Geological Research Development Centre (GRDC), Bandung, Seri Paleontologi 4, p. 61-73.
(Small Middle Campanian mollusc fauna and one ammonite (Pachydiscus) from Mios River, Ransiki Sheet, Birds Head. Five species of Inoceramus, some similar to species decribed from Misool by Boehm)

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(Barremian ammonites (large Crioceratites (Menuthicrioceras) irianensis n.sp., Pseudothurmannia, Hemihoplites taminabuanensis n.sp.) and pectinid bivalve molluscs from basal Jass Fm (= Kembelangan Fm) marine clastics in tributary of Ainim River, Taminabuan sheet, SW Birds Head. Beds are transgressive, disconformable over Tipuma Fm)

Smith, E.M. (1966)- Nouvelle Guinee. Lexique stratigraphique international 6, Oceania, Fasc. 3a, p. 1-136.
(New Guinea chapter of International Stratigraphic Lexicon. Alphabetical listing with brief descriptions descriptions of geological formations in both W Papua and Papua New Guinea. Somewhat dated (latest reference dated 1957))

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(online at: www.researchgate.net/publication/265251553_The_Ertsberg_Stockwork_Zone_A_Unique_Porphyry_C Etc.)
(same paper as below)

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(online at: www.bgl.esdm.go.id/publication/kcfinder/files/MGI%2020130101.pdf)
(Ertsberg Stockwork Zone is unique Cu-Au deposit type in Ertsberg Mining District, with characteristics of both porphyry and skarn-type deposits)

Soebowo, E., Kantono & Y. Kumoro (1991)- Penyelidikan geologi dengan hubungannya dengan pemilihan trase jalan antara Wosiala Hingga Dombomi, Jaya Wijaya, Irian Jaya. Proc. 20th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 541-552.
(online at: https://www.iagi.or.id/web/digital/49/20th-(10-12-Des-1991)-37.pdf)
('Geological investigations related to the selection of road alignment between Wosiala to Dombomi, Jaya Wijaya, Irian Jaya'. Traverses New Guinea Limestone, ?Miocene clastics and U Cretaceous Kembelangan Fm clastics. Part of projected Wamena- Jayapura road (still not completed in 2025))

Soehaimi, A., M.T. Zen, H. Moechtar & U. Lumbanbatu (2001)- The tsunamigenic earthquake of 17 February 1996 and the seismicity of Papua. Proc. CCOP 37th Annual Session, Bangkok 2000, 2, Technical Reports, p. 72-76.
(Magnitude 8 earthquake NE of Biak island related to thrusting of submarine reverse fault. Aftershocks indicating normal fault movements associated with fault along N shore of Biak island and left-lateral horizontal motions associated with Yapen Fault)

Soemarto K., B. (1986)- Geologi daerah Wamena- Irian Jaya. Pusat Penelitian Geoteknologi LIPI, p. 1-18. *(Unpublished)*
('Geology of the Wamena area- Irian Jaya'. In central part of Central Range of Indonesian Papua)

Soeparman, S. & Budijono (1989)- Cu-skarn deposits at Ertsberg mine area, Irian Jaya. Geologi Indonesia (IAGI) 12, 1 (Prof. Dr. J.A. Katili 60 years Special Volume), p 359-374.
(On Ertsberg and Ertsberg East skarn deposits: Cu-Au mineralization in Eocene Faumai Limestone, associated with Pliocene quartz monzonite-syenite intrusion)

Soepriadi, S. (2012)- Morfotektonik daerah Enarotali, Kabupaten Paniai, Provinsi Papua. Proc. 41st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2012-GD-05, p. 17-18 *(Abstract only)*
(online at: https://www.iagi.or.id/web/digital/9/2012_IAGI_Yogyakarta_Morfotektonik-daerah-Enarotali.pdf)
('Morphotectonics of the Enarotali area, Paniai District, Papua Province'. Lithologies of Enarotali area Cretaceous Ekmai Fm glauconitic quartz sandstone and Paleocene Waripi Fm sandstone limestone. Etc.))

Soeryowibowo, M., L. Tjahjadi, A. Pradipta & Y. Kambu (2022)- Uba Deep-1: Pre-Jurassic Petroleum System in Bintuni Basin, Papua, Indonesia. Proc. 46th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA22-G-11, p. 1-15.
(Uba Deep-1 exploration well in Bintuni basin (BP, 2019) drilled with two objectives (1) explore extent of Permian petroleum system in Bintuni Basin, and (2) appraise Jurassic gas pool resource of Ubadari gas field. Uba Deep-1 successfully penetrated ~1000' of marine? Permian below at 10,078' MD, with gas shows, but no good-quality reservoirs. Well also penetrated >1500' of Triassic, including redbeds, which was not expected. Triassic section showed minor gas shows. With Permian paleogeography map. NW-SE trending Oligocene thrust folds. Late Cretaceous and Callovian unconformities, Etc.

Stehn, C.E. (1927)- Devonische Fossilien von Hollandisch-Neu-Guinea. Wetenschappelijke Mededeelingen Dienst Mijnbouw Nederlandsch-Indie 5, p. 25-27.
('Devonian fossils from Netherlands New Guinea'. Brief report on brachiopods Atrypa reticularis var. desquamata and Orthotethes (Schuchertella) cf. umbraculum in sandstone pebbles from upper Setakwa River, collected by O.G. Heldring around 1910. Species known from Devonian of China, Queensland, etc.)

Stevens, C.W. (1999)- GPS studies of crustal deformation in eastern Indonesia and Papua New Guinea. Ph.D. Thesis, Rensselaer Polytechnic Institute, Troy, New York, p. 1-117. *(Unpublished)*

Stevens, C.W., R. McCaffrey, Y. Bock, J.F. Genrich, M. Pubellier & C. Subarya (2002)- Evidence for block rotations and basal shear in the world's fastest slipping continental shear zone in NW New Guinea. In: S.A. Stein & J.T. Freymueller (eds.) Plate Boundary Zones, American Geophysical Union (AGU) Geodynamics Series 30, p. 87-99.
(Birds Head moves 75-80 mm/year relative to N Australia, twice as fast as any other continental block. Left-lateral shear zone possibly as wide as 300 km. Despite high rate, rel. little seismic activity. Movement may be driven by basal drag of Pacific plate sliding beneath it)

Struckmeyer, H.I.M., M. Yeung & M.T. Bradshaw (1990)- Mesozoic palaeogeography of the northern margin of the Australian Plate and its implications for hydrocarbon exploration. In: G.J. & Z. Carman (eds.) Petroleum exploration in Papua New Guinea, First PNG Petroleum Convention, Port Moresby, p. 137-152.

Struckmeyer, H.I.M., M. Yeung & C.J. Pigram (1993)- Mesozoic to Cainozoic plate tectonic evolution and palaeogeography of the New Guinea region. In: G.J. & Z. Carman (eds.) Petroleum exploration in Papua New Guinea, Proc. 2nd PNG Petroleum Convention, Port Moresby, p. 261-290.
(Triassic- Cenozoic tectonic evolution of New Guinea area. Key proponent of restoration of 'Tasmanide' microcontinental blocks, like Birds Head and 'Australian' terranes in E Indonesia, to areas East of PNG in Paleozoic-Mesozoic time)

Subroto, E.A., H.L. Ong, H. Bagiyo & B. Priadi (1996)- Korelasi antara batuan induk dan minyak bumi di cekungan Salawati, Irian Jaya. Buletin Geologi (ITB) 26, 1, p. 65-72.
(Salawati Basin Kais Fm oils derived from Tertiary shallow marine (deltaic?) to non-marine source rocks. No evidence for Pre-Tertiary source)

Subroto, E.A. & B. Sapiie (2014)- Source rocks assessment in Bintuni Basin, Papua, Indonesia. Proc. 3rd Annual Int. Conf. on Geological & Earth Sciences (GEOS 2014), GEOS14.42, p. 99.
(Bintuni Basin geochem analyses of sediments and crude oils show absence of oleanane biomarker, eliminating Tertiary sediments as source rock. Most sediments rich in organic matter and main constraint is maturity)

Sudaryanto, S. Indarto & E.T. Sumarnadi (1991)- Kajian bahan konstruksi jalan antara km 35 dan km 75 pada rencana pembuatan jalan tembus Wamena- Senggi- Jayapura, Irian Jaya. J. RISET Geologi dan Pertambangan (LIPI) 10, 1, p. 37-41.
('Study of road construction materials between km 35 and km 75 on planned Wamena- Senggi- Jayapura road, Irian Jaya'.)

Sudijono (2000)- Biostratigraphy and depositional environment of the limestone sequence in the drill hole LS-12, Ertsberg mining district, Irian Jaya. Geological Research Development Centre (GRDC), Bandung, Seri Paleontologi 10, p. 1-25.
(M Eocene (Ta3)- earliest Miocene (basal Te5) Largr Foram assemblages in Faumai-Sirga-Kais succession in well LS-12 well. Faumai Fm contains Lacazinella and Fasciolites, no Pellatispira. Sirga Fm quartz sandstone is barren, but is at base Oligocene, overlain by Rupelian (Tc) with Nummulites fichteli)

Sugiharto, S., B. Antoro & B. Bensaman (1998)- Mineralisasi skarn Cu-Au daerah Wawa, Teluk Etna, Irian Jaya, Indonesia. Proc. 27th Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 1, p. 169-178.
(online at: https://www.iagi.or.id/web/digital/56/20.pdf)
('Cu-Au skarn mineralization in the Wawa area, Etna Bay, Irian Jaya')

Suhendi, D.D., A. Bari & N.I. Basuki (2025)- Mineralization characteristics of the Darknir Cu-Mo porphyry prospect based on DSG-19-001 drilling in the Oksibil District, Pegunungan Bintang Regency, Papua Pegunungan Province. Bulletin of Geology (ITB) 9, 1, p. 1-13.
(online at: https://buletingeologi.com/index.php/buletin-geologi/article/view/405/114)
(Oksibil Project located in eastern Papuan fold-thrust belt (Star Mountains). Exploration in Oksibil began in 1988-1999 by PT Ingold. Cu-Mo porphyry mineralization at Darknir Prospect associated with Antares plutonic complex hornblende-biotite diorite and monzodiorite (Pliocene age according to Page (1975); no ages mentioned in thi spaper), intruded by basaltic andesite porphyritic dikes, biotite diorite and quartz monzodiorite. Increasing Cu and Mo with depth suggests potential for higher-grade Cu-Mo porphyry deposits at greater depth)

Sukanta, U., S. Atmawinata & B.H. Harahap (1987)- Kendali tektonika dalam pengendapan di cekungan Bintuni, Irian Jaya. Proc. 16th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, p. 1-12.
('Tectonics- controlled sedimentation in the Bintuni Basin, Irian Jaya')

Sukanta, U. & B.H. Harahap (1993)- The western Irian Jaya microcontinent- a review. Jurnal Geologi dan Sumberdaya Mineral (JGSM), 3, 19, p. 13-20.
(Review of concept of West Irian Jaya microcontinent (Birds Head- Misool- Birds Neck) of Pigram et al. (1983), as separate microcontinent that rifted off in Jurassic and was reattached to W Papua in Neogene. Here questioned due to the many similarities between stratigraphies of Birds Head and New Guinea mainland)

Sukanta, U. & B.H. Harahap (1996)- Tectonostratigraphy of the Mesozoic-Cenozoic Pacific Province succession in Northeastern Irian Jaya, Eastern Indonesia. Proc. Seminar Nasional Geoteknologi III: Dampak regionalisasi dan globalisasi industri dan perdagangan terhadap Lembaga Litbang, LIPI, Bandung, p. 518-538.

Sukanta, U., H. Panggabean, A.S. Hakim, S. Wiryosujono & Amiruddin (1995)- Paleozoic- Mesozoic stratigraphy and sedimentology of a siliciclastic-dominated unit, southern Central Range, Irian Jaya. In: D. Sukarna (ed.) Proc. Seminar The Irian Jaya geological potentials in the light of the Eastern Indonesia regional development program, Geological Research Development Centre (GRDC), Bandung, Special Publ. 19, p. 1-24.

Sukanta, U., E. Rusmana, S. Wiryosujono, H. Samodra & Tasiran (1995)- Wave, tide and storm influenced muddy shelf: a special emphasis on the Cretaceous Piniya mudstone in the Timika sheet area, Irian Jaya. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 5, 49, p. 10-24.
(Outcrops of Late Cretaceous mudstones near Mile 74 along new Freeport roadcut N of Tembagapura. 800m thick section measured section with ~100m or more of E Cretaceous Woniwogi f-m sandstones at base, overlain by 600m of thin-bedded mudstones with virtually no sandstones (unlike Wamena and Kaimana-Steenkool sheets, where 10m thick sandstones are present. Interpreted as low energy shelf deposits, below storm wave base, on passive margin. Gradually coarsens upward into ~100m thick latest Cretaceous Ekmai Sst)

Sukanta, U., S. Wiryosujono & A.S. Hakim (1995)- Geologic map of the Wamena Quadrangle, Irian Jaya, scale 1: 250,000 (Quad 3311). Geological Research Development Centre (GRDC), Bandung.

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(Pre- Mobil fieldwork overview of Lengguru foldbelt play potential)

Sulaksono, A. (2021)- Mineral chemistry and sulfur isotope insights into magmatic and hydrothermal processes leading to porphyry Cu mineralization at Grasberg, Indonesia. D.Sc. Thesis, Akita University, Japan, p. 1-133.
(online at: https://air.repo.nii.ac.jp/record/5391/files/shihakukou1365.pdf)
(On chemical conditions required for generation of porphyry Cu deposits like Grasberg)

Sulaksono, A., Y. Watanabe, A. Arribas, T. Echigo, R. Al Furqan & C.A. Leys (2021)- Reduction of oxidized sulfur in the formation of the Grasberg porphyry copper-gold deposit, Papua, Indonesia. Mineralium Deposita 56, 6, p. 1027-1042.
(Short version of thesis above. Describes magmas and sequence of chemical processes generating hydrothermal fluids that formed Grasberg porphyry copper-gold deposit. Reduction of oxidized sulfur essential. Etc.)

Sumarko K.B. (1996)- Karakteristik geologi batubara di daerah aliran Sungai Titaka dan Sungai Tuko, cekungan Bintuni, Irian Jaya. Proc. 25th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 294-312.
('Characteristics of the coal geology in the drainage area of Titaka and Tuko Rivers, Bintuni Basin, W Papua')

Sunyoto, W. (1999)- The nature and distribution of gold mineralisation in hole BO52-4 of the Wabu Skarn system, Irian Jaya. M.Sc. Thesis, James Cook University, Townsville, p. *(Unpublished)*

Sunyoto, W., G. de Jong & L. Soebari (2012)- Porphyry and skarn Cu-Au deposits and its associated Cu-Au bearing intrusions of the Ertsberg District, Papua, Indonesia. Proc. Banda and Eastern Sunda Arcs, MGEI Annual Convention, Malang 2012, p. 279-281. *(Extended Abstract; no figures)*
(Ertsberg district thee giant copper-gold deposits: Grasberg Porphyry, Ertsberg East Skarn System and Kucing Liar Skarn. Grasberg open pit mine peak production in 2000 was 1,200,000 t/day)

Sunyoto, W. & L Soebari (2005)- The discovery of the Wabu Ridge gold skarn, Papua. In: S. Prihatmoko et al. (eds.) Indonesian mineral and coal discoveries, Indonesian Association Geologists (IAGI), Jakarta, Special Issue, p. 74-84.
(Same title published by O'Connor, Sunyoto & Soebari, 1999. Wabu Ridge gold skarn deposit identified in 1990 in Central Range, W Papua, 35km NNW of Grasberg porphyry deposit. Mineralisation in skarn along S boundaries of Late Miocene Pagane intrusive monzonite-diorite)

Supriatna, Y., J. Keggin, J.J. Chameau & Supriyono (2010)- High fold wide azimuth 3D OBC data to overcome noise and image through karst limestone: Bintuni Bay, Irian Jaya Barat. Proc. HAGI-SEG Int. Geoscience Conference, Bali 2010, IGCE10-OP-029, p. 1-6.
(Seismic processing to improve imaging of Pre-Tertiary clastics below surface limestone. No geology)

Surono, S. Bachri, S. Bawono & D. Sukarna (1995)- Geological Map of the Sawai Sheet, Irian Jaya, 3214, 1:250,000 Scale. Geological Research Development Centre (GRDC), Bandung.
(Map sheet at E side of northernmost part of West Papua, around Mamberamo River/ delta. Mainly alluvial deposits. With major E-W trending anticline with mud volcanoes along Mamberamo Fault Zone, exposing (Late?) Miocene Wurui Fm limestone and Pliocene Kurudu Fm clastics)

Suseno, W.A., S. Zahnuarianto, Y.P. Wulandari & D. Miraza (2018)- The deeper potential in the Kepala Burung PSC, Salawati Basin: a review from current 3D seismic data. Proc. 42nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA18-150-G, p. 1-15.
(3D seismic surveys in Walio and Arar areas of Birds Head. Closures identified in deeper horizons below Kais carbonates, possibly Paleogene Waripi Fm or Jurassic Kembelangan Gp))

Sutadiwiria, Y., Y. Surtiati & A.H. Satyana (2006)- Reefal build ups within Miocene Kais Platform: roles of 3D seismic data in defining a subtle trap. Proc. Jakarta 2006 International Geoscience Conference Exhib., Indonesian Petroleum Association (IPA), Jakarta, 06-INT-09, p. 1-3.
(3D seismic significant in recognition of 'Intra-Kais reefal build ups', like Matoa-20 well. Argo 1 well (2005) successful test)

Sutadiwiria, Y., Y.B. Susilo, M.A. Jambak, Cahyaningratri, D. Syavitri & M. Burhannudinnur (2022)- Characteristics of source rock in Salawati Basin, West Papua. Int. J. Multidisciplinary Current Educational Research (IJMCER) 4, 3, p. 186-192.
(online at: https://www.ijmcer.com/wp-content/uploads/2022/06/IJMCER_R0430186192.pdf)
(Kais, Klasafet and Klasaman Fms have proven oil source rocks; underlying Faumai and Sirga Fms may also have source potential, but no data)

Sutarto, W. Sunyoto, S. Widodo, L. Soebari, Sutanto, H. Setyadi & P. Wiguna (2008)- Sekuen paragenesa dan zonasi skarn pada endapan bijih Big Gossan Distrik Ertsberg, Timika, Papua. Proc. 37th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 798-812.
(online at: https://www.iagi.or.id/web/digital/14/2008_IAGI_Bandung_Sekuen-Paragenesa-dan-Zonasi.pdf)
('Paragenetic sequence and zonation of the Big Gossan skarn ore deposit of the Ertsberg District, Timika, Papua'. Big Gossan high-grade high copper deposit with reserves of 52.7 MM ton with average Cu content of 2.31%, Au 1.1 gr /ton and Ag 14.75 gr/ ton. Tabular ore body >1 km long, >500m high and up to 200m wide)

Sutriyono, E. (1999)- Structure and thermochronology of the Bird's Head of Irian Jaya, Indonesia. Ph.D. Thesis La Trobe University, Melbourne, p. 1-321. *(Unpublished)*
(Multiple scenarios for structure and evolution of Lengguru Fold Belt. Early Paleozoic redeposited detrital zircons in Paleocene Waripi section of Bintuni Bay suggest attachment to Australian continent (but could also be from Birds Head Kemum terrane?; JTvG)

Sutriyono, E. (2003)- Provenance study and tectonic implications for rock sequences in the Lengguru fold belt of Western Papua: constraints from zircon fission track thermochronology. Forum Teknik 27, p. 121-131.
(online at: http://i-lib.ugm.ac.id/jurnal/detail.php?dataId=5789)
(Zircon fission track thermochronology study shows Triassic-Pliocene source terrains for W Papua clastics. Pliocene Buru Fm in Lengguru Fold Belt abundant Paleogene (~55 Ma) volcanic zircons, possibly derived from erosion of Weyland Terrane, which may be part of Paleogene 'Caroline Arc', eroding after Late Miocene collision with W Papua microcontinent. Main compression 12- 4 Ma, followed by transpression in Central Range, but continued compression in frontal Lengguru FB (Buru anticline, etc.). U Cretaceous Ekmai sst in E Lengguru FB has Triassic age zircons, suggesting erosion of Triassic igneous rocks at that time)

Sutriyono, E. (2005)- Thermochronological constraints on cooling and uplift episodes in the Lengguru fold belt of Western Papua. Jurnal Teknologi Mineral (ITB) 12, 2, p. 65-75.
(Apatite fission track data from Triassic- Lower Jurassic in Lengguru foldbelt suggest maximum T of ~130°C, and ~7 km pre-deformation burial due to deposition of thick Tertiary carbonates. Sequence underwent ~50°-60°C cooling at 5 Ma, consistent with ~4 km unroofing in response to uplift, due to collision with Paleogene volcanic arc in Late Miocene-Pliocene. Upper Miocene-Pleistocene provenance terrain cooled through partial annealing isotherm to ~60°C in E Miocene. Protolith then buried below 3 km and exposed to paleotemperature of ~110°C in M-L Miocene prior to uplift in last 4 My)

Sutriyono, E. (2006)- Hydrocarbons and thermal evolution of the Bintuni basin of Western Papua, assessed by apatite fission track study. Media Teknik (UGM) 28, 1, p. 13-19.
(AFT data from Bintuni basin with ~9 km Permian- Recent sediments, gently folded by Lengguru foldbelt deformation. U Miocene-Pleistocene Steenkool Fm 4-5 km thick, with paleotemperatures below 85°C, Triassic-Lower Jurassic Tipuma Fm max. paleo-T ~110°C. Rocks at maximum temperature today. Exposure of Mesozoic rocks to high paleotemperatures due to Late Cretaceous-Pleistocene burial. Deeper sequences in basin not buried as deeply, allowing preservation of reservoir porosity. Gas generation/ migration for 30 TCF Tangguh field in last 5 My, with kitchen area ~50 km to E)

Sutriyono, E. (2008)- Accretion history of Paleogene arc terranes in Western Papua: evidence from Apatite Fission Track data. J. Ilmiah Magister Teknik Geologi (UPN) 1, 2, p. 1-13.
(online at: http://jurnal.upnyk.ac.id/index.php/mtg/article/view/172)
(Apatite Fission Track (AFT) data from Tosem and Tamrau blocks in N part of Birds Head. Tosem Block (collided with Birds Head microcontinent at ~5 Ma) with Oligocene Mandi island arc volcanics (K-Ar ages mainly Oligocene, 32-11 Ma; probably part of Auwewa Paleogene arc. Lembai Diorite K/Ar age ~16 Ma), showing effects of Late Miocene collision of Tosem Paleogene arc and Tamrau continental block. Tosem Block: (1) cooling in E Miocene at ~18 Ma; (2) Late Miocene (~8 Ma) cooling, due to uplift and denudation after collision with Tamrau terrane. M Miocene Tamrau Block Moon volcanics rapid cooling caused by uplift and denudation in Late Miocene at ~5 Ma, also resulting from collision with Tosem island arc)

Sutriyono, E. & K.C. Hill (2002)- Structure and hydrocarbon prospectivity of the Lengguru Fold Belt, Irian Jaya. Proc. 28th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 319-334.
(Restored cross-sections Lengguru foldbelt. Major uplift and cooling of LFB at ~5 Ma; tight Woniwogi sst at Kamakawala 1 may have been as deep as 6.3 km in Late Miocene, followed by ~4km of E Pliocene uplift, downgrading hydrocarbon potential of LFB)

Sutriyono, E., P.B. O' Sullivan & K.C. Hill (1997)- Thermochronology and tectonics of the Bird's Head Region, Irian Jaya: apatite fission track constraints. In: J.V.C. Howes & R.A. Noble (eds.) Proc. Petroleum Systems of SE Asia and Australia Conf., Jakarta 1997, Indonesian Petroleum Association (IPA), p. 285-299.
(AFT analyses in N Birds Head Tosem Block shows rapid cooling of dacite/diorite in E Miocene and Late Miocene cooling of granite-syenite intrusions, the latter probable response to uplift/obduction of Tosem Block onto N Birds Head. Also AFTT results from Tarof 2 and E Lengguru)

Suwarna, N. & Y. Noya (1995)- Geological map of the Jayapura (Peg. Cycloops) Quadrangle, Irian Jaya, scale 1:250,000. Geological Research Development Centre (GRDC), Bandung.
(Common mafic-ultramafic rocks, all in tectonic contact with other units. Cycloops metamorphic Gp includes schist, gneiss, amphibolite, marble, some with glaucophane, E Miocene radiometric ages of schists associated with ophiolites in Cyclops Mts: 20.6±4 Ma and 21.4±4 Ma. Middle Oligocene age of emplacement of ultramafic rocks(?). Ultramafics probably overlain by Late Oligocene- E Miocene Nubai Fm limestone (with Spiroclypeus) in E part Cycloops Mts, lower part interfingering with ?Oligocene Auwewa Fm basaltic-andesitic arc volcanics, upper part interfingers with M-L Miocene turbiditic and volcanoclastic marine Makats Fm (with Miogypsina). Pleistocene Jayapura Fm limestones uplifted over 700m)

Syaeful, H., I.G. Sukadana & A. Sumaryanto (2013)- Geological setting and geochemical approach for Uranium exploration in Papua. In: Papua & Maluku Resources, Proc. Annual Conv. Indonesian Society of Economic Geologists (MGEI), Bali, p. 159-170.
(online at: http://repo-nkm.batan.go.id/963/1/PROSIDING_SYAEFUL_MGEI_2013.pdf)
(West Papua relatively unexplored for uranium. Some uranium anomalies in Tipuma Fm sandstones, Quaternary Mokmer Fm carbonates and Oligocene Wainukendi Fm)

Syafron, E., R. Mardani, S.W. Susilo & R. Anshori (2008)- Hydrocarbon prospectivity of the Pre-Tertiary interval in the offshore Berau Area, Bird's Head, Papua. Proc. 32nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA08-G-015, p. 1-10.
(In Berau basin W of Tangguh, all petroleum system elements are working. Biggest risk maturity level of source rock. Primary reservoir target Jurassic transgressive sandstones, equivalent to reservoir in Tangguh fields, but thinner and more distal marine sands penetrated in wells offshore)

Syam, B., A.H. Hamdani, Y. Yuniardi & N. Djumhana (2008)- Oil to source correlation for detect hydrocarbon origin and migration on offshore Southwest Salawati Basin. Proc. 32nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA08-SG-009, p. 1-11.

(Oils from low oxygen marine source rocks in offshore Salawati basin well OT4 tied to Lower Klasafet Fm source rocks in onshore Salawati wells Iw-1 and Im33. OK1 well oil appears to be different. Offshore oils originated from Klasafet Fm source to N)

Talent, J.A., W.N. Berry & A.J. Boucot (1975)- Correlation of the Silurian rocks of Australia, New Zealand, and New Guinea. Geological Society of America (GSA), Special Paper 150, p. 1-108.

Talent, J., R. Mawson & A. Simpson (2003)- Silurian of Australia and New Guinea: biostratigraphic correlations and paleogeography. In: E. Landing & M.E. Johnson (eds.) Silurian lands and seas- paleogeography outside of Laurentia, Bull. New York State Museum 493, p. 181-220.

Teas, P.A., J. Decker, D. Orange & P. Baillie (2009)- New insight into structure and tectonics of the Seram Trough from SeaSeepTM high resolution bathymetry. Proc. 33rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA-G-091, p. 515-532.
(High resolution bathymetry and seismic over active convergent deformation system in Seram Trough. Described as zone of young thrusting within Australian continental crustal block between Birds Head and Seram Island. Offshore extension of New Guinea Tarera-Aiduna fault zone is readily apparent)

Teichert, C. (1928)- Nachweis Palaeozoischer Schichten von Sudwest Neu-Guinea. In: A. Wichmann (ed.) Nova Guinea. Resultats de l'expedition scientifique Neerlandaise a la Nouvelle-Guinee de 1903, vol. VI- Geologie, part 3, Brill, Leiden, p. 71-92.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB02:000122467:00005)
('Report of Paleozoic beds from SW New Guinea'. First record of shallow marine Paleozoic bes, incl. dark Silurian limestone with tabulate coral Halysites from float in Upper Lorentz/ Noordwest Rivers, S of Wilhelmina Peak in Central Range, West Papua. Also Devonian sandstones with Spirifer, Chonetes and other brachiopods, dark Permo-Carboniferous limestones with Martinia, Murchisonia, Orthoceras, etc. Material collected by J.W. van Nouhuys during Lorentz 1909-1910 South New Guinea expedition)

Terpstra, H. (1939)- Resultaten van een goud exploratie in het stroomgebied van de Lorentz en Eilanden Rivier in Nederlands Nieuw Guinea. De Ingenieur in Nederlandsch-Indie (IV) 6, 1, p. IV.1- IV.6.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1939-01.pdf)
('Results of gold exploration south of the Central Range of West Papua. With small map)

Terpstra, H. (1941)- Opmerkingen naar aanleiding van ir. P.F. de Groot's "Kort Verslag over de werkzaamheden van de IIIde Expeditie der N.V. Mijnbouw Maatschappij Nederlandsch Nieuw-Guinea in 1938 en 1939". De Ingenieur in Nederlandsch-Indie (IV) 8, 1, p. IV.1- IV.4.
(Critical review of De Groot (1940) report on result of mineral exploration expedition by Terpstra who led earlier part of this campaign)

Thery, J.M., M. Pubellier, B. Thery, J. Butterlin, A. Blondeau & C.G. Adams (1999)- Importance of active tectonics during karst formation. A Middle Eocene to Pleistocene example of the Lina Mountains (Irian Jaya, Indonesia). Geodinamica Acta 12, 3-4, p. 213-221.
(Lina Mountains at E side of Birds Head Ayumara Plateau, with Pleistocene karst development in Eocene Faumai Fm platform carbonate. ~250m of Lacazinella-bearing M-L Eocene limestone on Late Maastrichtian, overlain by>50m of Oligocene Sirga sst.)

Thirnbeck, M.R. (2001)- The Sentani and Siduarsi nickel-cobalt laterite deposits, Northeast Irian Jaya, Indonesia. In: G. Hancock (ed.) Proc. PNG Geology, exploration and mining Conference, Port Moresby 2001, Australasian Institute of Mining and Metallurgy (AusIMM), Melbourne, p. 245-254.
(Results of mineral exploration in nickel-cobalt laterite deposits by PT Pacific Nikkel Indonesia in 1970. Developed on serpentinized harzburgites exposed along S and W flanks of Cyclops Range, NE West Papua. Seven nickel-cobalt laterite deposits in Sentani COW. Cretaceous? Basement complex of ultramafic, basic and metamorphic rocks, overlain by Pleistocene? Hollandia/ Jayapura Fm massive, chalky, coralline limestone (now at ~700m above sea level))

Thirnbeck, M.R. (2004)- A search for gold in Indonesian New Guinea. Proc. PACRIM 2004 Conference, Hi tech and world competitive mineral success stories around the Pacific Rim, Adelaide 2004, Australasian Institute of Mining and Metallurgy (AusIMM), Parkville, p. 391-399.
(Overview of twelve 1994-1999 gold exploration programs North of Central Range, W Papua)

Thomsen, M. (2015)- Notes from meetings with Jacques Dozy by Michael Thomsen describing the initial 1936 discovery of the Ertsberg, Dom and Grasberg outcropping copper deposits, Irian Jaya, Indonesia. Unpublished Report, p. 1-22.
(online at: www.researchgate.net/publication/282704930_Notes_from_Meetings_with_Jacques_Dozy_by_Michael_Thomsen_Describing_the_Initial_1936_Discovery_of_the_Ertsberg_Dom_and_Grasberg_Ou Etc.)
(Notes by Freeport Indonesia Chief Geologist from 1979-1985, about his 1983 meeting with Jacques J. Dozy on his 'accidental' Ertsberg discovery 46 years earlier, in 1937)

Thomsen, M. (2015)- Comparative geologic maps from 1936, 1979 and 2003, Ertsberg, Ertsberg East and Grasberg Cu-Au deposits, Irian Jaya, Indonesia. Unpublished Report, p. 1-6. *(online at: www.researchgate.net/publication/282704836_Comparative_Geologic_Maps_from_1936_1979_and_2003_Ertsberg_Ertsberg_East_and_Grasberg_Cu-Au_Deposits_Irian_Jaya_Indonesia_by_Michael_Thomsen)*

Tikku, A.A., C. Subarya, Masturyono, R. McCaffrey & J. Genrich (2006)- Motion of the Bird's Head Block and co-seismic deformation from GPS data. American Geophysical Union (AGU) Meeting, Baltimore 2006 *(Abstract only)*
(Previous analysis of GPS data collected between 1991 and 1997 revealed rotation of Bird's Head Block of W New Guinea and high shear rates between Pacific and Australian plates accommodated within block. Additional GPS data collected between 1992-2005 suggest Birds Head moving ~100 mm/yr WSW relative to Australia. Cenderawasih Bay area more SW movement, suggesting separate 'East Birds Head Plate' that accommodates shear between Birds Head block and Australian plate)

Tjia, H.D. (1973)- Irian fault zone and Sorong melange, Indonesia. Sains Malaysiana 2, 1, p. 13-30.

Tjia, H.D., R. Hadian, A.R. Sumailani & A. Martono (1980)- The nature of Umsini volcano, Irian Jaya, Indonesia. Bulletin of Volcanology 43, 3, p. 595-600.
(Mount Umsini at N end of Arfak Range in NE Birds Head of W Papua listed as active volcano. Consists of folded turbidites, mainly dipping 32° to ENE, with greywacke sands composed mainly of mafic volcanic debris, and volcano-clastic rocks. Intruded by E Oligocene gabbroic, occasionally dioritic, rocks (K-Ar age 33 Ma). Absence of volcanic activity, crater relicts and general morphology and lithology suggest Mt Umsini not an active volcano (part of Auwewa Oligocene intra-oceanic arc?; JTvG))

Tobing, R.L. (2015)- Characteristics of gas shale in Dakebo Formation at Waghete area- Papua Province. Buletin Sumber Daya Geologi 10, 1, p. 15-21. *(online as: https://buletinsdg.geologi.esdm.go.id/index.php/bsdg/article/view/BSDG_VOL_10_NO_1_2015_2/106)*
(Dark, organic-rich claystone of Plio-Pleistocene Dakebo Fm in W part of Central Range of W Papua, in synclinal area E of Tigi Lake. Deposited in non-marine environment. TOC 3-12%, immature, gas-prone)

Tonggiroh, A. (2014)- Indikasi tipe endapan emas porfiri daerah Mamberamo, Provinsi Papua. Pros. 2014 Seminar Penelitian Teknologi Terapan 2014, 8, Hasanuddin University, Makassar, TG1, p. 1-6.
('Indications of a porphyry-type gold deposit in the Mamberamo area, Papua Province')

Toussaint, E.F.A., R. Hall, M.T. Monaghan, K. Sagata, S. Ibalim, H.V. Shaverdo, A.P. Vogler, J. Pons & M. Balke (2014)- The towering orogeny of New Guinea as a trigger for arthropod megadiversity. Nature Communications 5, 4001, p. 1-10.
(online at: https://www.nature.com/articles/ncomms5001.pdf)

(Diverse radiation of freshwater arthropods originated in emerging C New Guinea orogen, out of Australia, about 10 Myrs ago. Further repeated more recent colonization of lowlands as they emerged as colliding oceanic island arcs, continental fragments and Papuan Peninsula, and recolonization of central orogen)

Toussaint, E.F.A., L.T. White, H. Shaverdo, A. Lam, S. Surbakti, R. Panjaitan, B. Sumoked, T. von Rintelen, K. Sagata & M. Balke (2021)- New Guinean orogenic dynamics and biota evolution revealed using a custom geospatial analysis pipeline. BMC Ecology and Evolution 21, 51, p. 1-28.
(online at: www.ncbi.nlm.nih.gov/pmc/articles/PMC8022562/pdf/12862_2021_Article_1764.pdf)
(Molecular phylogeny of Exocelina endemic diving beetles used as test of evolution of New Guinean biota and Neogene geological evolution of New Guinea)

Tonny, S.A. & H. Bagiyo (1993)- New insight on tectonic setting and hydrocarbon potential of Cenderawasih Bay and its adjacent areas. Proc. 22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 664-677.
(Cenderawasih Bay underlain by deformed oceanic and volcanic rock basement. Pull-apart basin between Sorong and Tarera-Aiduna fault zones. Sediment-fill similar to Miocene- Recent Mamberamo Basin, where there are hydrocarbon indications)

Trautman, M.C. (2013)- Hidden intrusions and molybdenite mineralization beneath the Kucing Liar skarn, Ertsberg-Grasberg mining district, Papua, Indonesia. M.Sc. Thesis University of Texas, Austin, p. 1-335.
(online at: http://repositories.lib.utexas.edu/handle/2152/21903)
(Ertsberg-Grasberg Cu-Au Mining District of W Papua hosts Ertsberg Skarn, Grasberg porphyry and several other orebodies. Two 1700m cores beneath Kucing Liar ore skarn and Grasberg Complex contain high concentrations of vein and disseminated molybdenite. Core KL98-10-22 intersects two previously unencountered intrusions: (1) "Tertiary intrusion Kucing Liar" (Tikl; 3.28 Ma) and (2) "Tertiary Pliocene intrusion" (Tpi; 3.18 Ma). Magmatic zircons ages ~3.4 Ma (Dalam Andesite) and 2.8 Ma (Ertsberg intrusion). Inherited zircon cores indicate Precambrian basement (mostly Proterozoic;mainly ~1650-2400 Ma; some grains at ~2500 Ma). Deep Molybdenite veining postdates stockwork veining (~3 Ma Re-Os ages))

Tregoning, P. & A. Gorbatov (2004)- Evidence for active subduction at the New Guinea Trench. Geophysical Research Letters 31, L13608, p. 1-4.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2004GL020190)
(Seismic tomography shows SW-ward subduction along New Guinea Trench in PNG and Indonesia. High-velocity zone down to ~300km, with dip angle gradually increasing from ~10° at ~143°E to 30° at ~136°E. Length of ~650 km of subducted slab under New Guinea suggests subduction started at ~9 Ma)

Tu, A., S. Zahirovic, S. Polanco, S.C. Boone, M. Boyd, C. Mallard, P. Restrepo, Y. Ibrahim, L. Mahoney et al. (2025)- Predicting the preservation of buried ore deposits using deep-time landscape evolution modeling. Science Advances 11, 48, eady6244, p. 1-6.
(online at: https://www.science.org/doi/epdf/10.1126/sciadv.ady6244)
(Model of landscape evolution of New Guinea mountains simulating 15 Myrs of uplift, erosion, climate variability, sea-level change, and lithological differences. Combined with known porphyry copper endowment, can be used to identify new targets and assess likelihood of exhumation and preservation of porphyry copper deposits. Papuan Fold Belt most prospective region of New Guinea for near-surface porphyry copper deposits (paper does not seem to address post-15 Ma plates movements, rotations, etc.; JTvG)

Turner, S., J.M.J. Vergoossen & G.C. Young (1995)- Fish microfossils from Irian Jaya. Memoir Assoc. Australasian Palaeontologists (AAP) 18, p. 165-178.
(Late Silurian (M Ludlow) thelodonts and acanthodians micro-remains from Lorenz River in eastern W Papua and Kemum Fm of N part of Birds Head are first Paleozoic fish fossils from W Papua. Most forms comparable to Late Silurian- earliest Devonian N Hemisphere forms (Burrow et al. 2010: Silurian thelodont scales originally referred by Turner et al. (1995) to Thelodus trilobatus might be better placed in Praetrilogania))

Ubaghs, J.G.H. (1946)- Preliminary report on a geological reconnaissance in the area of the Cycloops Mountains, New Guinea. Geological Survey Report, p. *(Unpublished)*

Ubaghs, J.G.H. (1955)- Mineral deposits in the Cyclops Mountains (Netherlands New Guinea). Nova Guinea, new series 6, 1, p. 167-175.
(Indications of chromite, nickel-cobalt, iron laterite, talc, asbestos, etc., all associated with peridote-serpentinite in Cyclops Mountains of NE part of West Papua. Area surveyed in 1949)

Umbach, K.E. & D. Klepacki (1994)- A triangle zone along the active thrust front in southern Irian Jaya. Proc. 23rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 305-321.
(Seismic data and surface geology data from central segment of New Guinea Fold and Thrust belt show complex, Alberta-style thrust front. S-propagating thrust belt results from active oblique convergence of ~120mm/yr between Australian and Pacific plates. Stratigraphy in thrust front Mesozoic clastics overlain by Miocene carbonate and marl, overlain by thick Upper Miocene- Recent clastic foredeep fill. Three detachment horizons in U Cretaceous, M Miocene and uppermost Miocene create triangle zone duplex structure)

Untung, M. (1982)- Gravity and magnetic study of the Kepala Burung region, Irian Jaya. Ph.D. Thesis University of New England, NSW, Australia, p. *(Unpublished)*

Untung, M. (1989)- The isostatic state of the crust in the western portion of Irian Jaya. In: B. Situmorang (ed.) Proc. 6th Regional Conference Geology mineral hydrocarbon Resources of SE Asia (GEOSEA VI), Jakarta 1987, Indonesian Association Geologists (IAGI), p. 43-59.
(Strong gravity gradients along main transform zones like Sorong fault. High negative anomaly over Bintuni basin probably reflects flexural loading of lithosphere. Central Range also negative anomalies)

Untung, M., Sardjono, I. Budiman, J. Nasution, E. Mirnanda, E.G. Sirodj & L.F. Henage (1995)- Hydrocarbon prospect mapping using balanced cross-sections and gravity modelling, Onin and Kumawa Peninsulas, Irian Jaya, Indonesia. In: G.H. Teh (ed.) Southeast Asian basins; oil and gas for the 21st century. Proc. AAPG-GSM Int. Conference 1994, Bull. Geological Society Malaysia 37, p. 445-470.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1995a31.pdf)
(Geology mapping and acquisition of gravity data along 26 traverses (650 km) across Onin and Kumawa peninsulas. Predominant outcrop is karstified New Guinea Limestone, up to 2150m thick. Onin and Kumawa peninsulas lie at margin of Jurassic rift faulting, inverted during Pliocene-Pleistocene collision of Australian Plate and Banda arc. Gravity data indicate basement at depth of ~3 km in Onin area, ~6 km in Bomberai area)

Untung, M., Sardjono, I. Budiman, J. Nasution, E. Mirnanda, L.F. Henage & E.G. Sirodj (1996)- Balanced cross-section and gravity modelling for hydrocarbon prospect mapping in the Onin and Kumawa Peninsulas, Irian Jaya, Indonesia. Bull. Geological Research Development Centre (GRDC) 19, p. 1-32.
(Same paper as above)

Urban, L. & M.L. Allen (1977)- Vitrinite reflectance as an indicator of thermal alteration within Paleozoic and Mesozoic sediments from the Phillips Petroleum Company ASM-1X well, Arafura Sea. Palynology 1, p. 19-26.
(Also in GEOSEA 1975 conference volume, p. 103-108. Palynology of Late Permian- Early Cretaceous section. Marine Early Cretaceous unconformable on Early Triassic non-marine sediments. Lack of liquid hydrocarbon source. Max. maturity in early oil window (Rv ~0.60-0.70%))

Utomo, W., M. Bagus K., D. Witjaksono, I. Prasetyo, Y. Wijaya, F. Zamil & N. Witasta (2015)- The geology of the Mogoi Wasian fields, Bintuni Basin, West Papua. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI, Balikpapan, JCB2015-174, p. 1-5.
(online at: https://www.iagi.or.id/web/digital/3/2015_IAGI_Balikpapan_The-Geology-of-The-Mogoi.pdf)
(Study of small, shallow Mogoi-Wasian field in Bintuni Basin, discovered by NNGPM in 1941, cumulative production 7.9 MMBO. M Miocene Kais Limestone reservoir generally tight with fractures. Seal Pliocene Steenkool shale. Oil sourced from marine Jurassic- Cretaceous sediments of Jass/ Kembelangan Group. Four reservoir facies. Porosity mainly secondary. Trap combination structural-stratigraphic. British Gas Mogoi Deep

1 well (1992) discovered significant gas in Pre-Tertiary)

Valenta, W.T. (1979)- Seismic modelling of porosity distribution in a Miocene reef, Salawati Island, Indonesia. Proc. 8th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 159-176.

Valk, W. (1960)- The mining potentials of Netherlands New Guinea. Nova Guinea, N.S., 10, Geology 1, 3, p. 5-12.

Valk, W. (1960)- Notes on coal in Netherlands New Guinea. Nova Guinea, Geology, 1-3, p. 1-4.
(Reported coal seams near Horna not Eocene, but extensively faulted Pliocene lignite seams, unsuitable for exploitation. Similar unfavorable results for other reported occurrences)

Valk, W. (1962)- Geology of West Amberbaken (New Guinea). Geologie en Mijnbouw 41, 9, p. 384-390.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0OVpzS0VvNXlqZWc/view)
(N coast mountain range of Birds Head dominated by andesites, part of E-W trending, 120x30 km andesite province, probably >1000m thick and dipping ~20° N. Associated brackish-fresh water shales probably earliest Miocene (Te) age. Further W similar shales overlain by Tf1- E-M Miocene limestones. Mio-Pliocene or Pliocene folding event)

Valk, W. (1962)- Geologische verkenning omgeving Ilaga. Bureau Mines Netherlands New Guinea, Report 25, p. 1-6.
(Brief report on geological reconnaissance of the Ilaga region, Central Range, W Papua)

Valk, W., B. Broos, A. Doeve et al. (1961)- Geologische verkenning Bokondini-Kelila-Pyramide, Wamena-Koerima. Bureau Mines Netherlands New Guinea, Report 23, p.
(Geological reconnaissance of area around Wamena Grand Valley, Central Range, West Papua)

Van Bemmelen, R.W. (1939)- The geotectonic structure of New Guinea. De Ingenieur in Nederlandsch-Indie (IV) 6, 2, p. IV.17- IV.27.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1939-02.pdf)
(Review of tectonics of New Guinea island. Not much new)

Van Bemmelen, R.W. (1940)- Verslag van een petrographisch onderzoek der gesteente collectie van het Boven Digoel gebied, verzameld tijdens de derde expeditie der N.V. Mijnbouw Maatschappij Nederlandsch Nieuw Guinea (1938-1939). De Ingenieur in Nederlandsch-Indie (IV) 7, 10, p. IV.137- IV145.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1940-10.pdf)
('Report of petrographic analysis of a rock collection from the Upper Digul area, collected by Third Netherlands New Guinea Mining Company expedition in 1938-1939, W Papua'. Mainly pebbles from rivers. Sediments include E Miocene and Pliocene limestones. Also andesites, granodiorites, etc.)

Van Bemmelen, R.W. (1953)- Geologie. In: W.C. Klein (ed.) Nieuw Guinea, de ontwikkeling op economisch, sociaal en cultureel gebied in Nederlands en Australisch Nieuw Guinea, I, Staatsdrukkerij (Dutch Govt. Printing Office, The Hague, p. 259-284.
(Rel. brief review of West Papua geology, as still poorly known around 1951. New Guinea still subjected to active orogenic processes, but active volcanoes absent in West Papua)

Van Bemmelen, R.W. (1953)- Mijnbouw. In: W.C. Klein (ed.) Nieuw Guinea, de ontwikkeling op economisch, sociaal en cultureel gebied in Nederlands en Australisch Nieuw Guinea, I, Staatsdrukkerij (Dutch Govt. Printing Office, The Hague, p. 285-310.
(Review of 1953 status of exploration for gold, coal, nickel/ cobalt, etc. in West Papua. Unlike PNG, no commercialy viable deposits identified yet. Horna coal field of Birds Head is the only potentially commercial coal field of New Guinea (forseparate review of petroleum in West Papua see Gheyselinck, 1953))

Van den Bold, W.A. (1942)- Some rocks from the course of the Digoel, the Oewi-Merah and the Eilanden River

(South New Guinea). Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam 45, 8, p. 850-854.
(online at: https://dwc.knaw.nl/DL/publications/PU00017831.pdf)
(Pebbles of igneous rocks collected in Digul, Oewi-Merah (tributary of Digoel) and Eilanden rivers in S New Guinea by Heldring in 1909 include augite granite, augite monzonite, diorite, gabbro. Probably all of Neogene age. No illustrations)

Van den Boogaard, M. (1990)- A Ludlow conodont fauna from Irian Jaya (Indonesia). Scripta Geologica 92, p. 1-27.
(online at: https://repository.naturalis.nl/pub/317481/SG1990092001.pdf)
(Silurian conodont faunas from calcareous quartz sandstone boulder from Lorentz (or Noord) River, West Papua, collected by Heldring in 1906 S of Camp Alkmaar. Dominated by forms also known from SE Australia and Yunnan (Coryssognathus dentatus, Ozarkodina crispa, Ozarkodina confluens). Age probably Late Ludlowian. Sample initially described by Martin (1911), who noticed small trilobite fragments)

Van der Fliert, J.G., H. Graven & J.J. Hermes (1980)- On stratigraphic anomalies associated with major transcurrent faulting. Eclogae Geologicae Helvetiae 73, 1, p. 223-237.
(online at: https://www.e-periodica.ch/cntmng?pid=egh-001%3A1980%3A73%3A%3A1192))
(Comparison of two major transcurrent fault systems (Betic Fault System of S Spain, Sorong Fault zone of Birds Head, W Papua). Both accompanied by tectonic mega-breccia with blocks of exotic material, up to 10's of km^2 in size. Fault zones subparallel to main orogen and horizontal displacements in late stage of orogenic history)

Van der Goes, H.D.A. & J.H. Croockewit (1862)- Nieuw Guinea, ethnographisch en natuurkundig onderzocht en beschreven in 1858 door een Nederlandsch Indische Commissie. Bijdragen Koninklijk Instituut Taal Land en Volkenkunde van Nederlandsch Indie, Frederik Muller, Amsterdam, p. 1-233.
(online at: https://www.jstor.org/stable/pdf/25733864.pdf)

Van der Voort, M. & F.A. Wentholt (1943)- Soil expedition North New Guinea. II. The back-country of Manokwari. Chuo Noozi Sikenzyoo (= Contributions of the Soil Research Station, Bogor), 2603, Contribution 6, p. 1-38.
(online at: https://edepot.wur.nl/485783)
(On soil types around Manokwari, Birds Head, surveyed during Expedition Wentholt, October 1932. Published during Japanese occupation in the year 2603 of the Japanese Imperial calendar. 18 soil types on lmestone and river terraces, etc. Manokwari region no prospects for larger plantations)

Van der Wegen, G. (1962)- Geologische verkenning van de Baliem kloof. Bureau Mines Netherlands New Guinea, Hollandia (Jayapura), Report 31, p. *(Unpublished)*
(First geological reconnaissance of the Baliem Gorge, Central Range)

Van der Wegen, G. (1963)- De geologie van het eiland Waigeo (Nieuw Guinea). Geologie en Mijnbouw 42, p. 3-12.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0ZGVQOF9iMkdUMlE/view)
('The geology of Waigeo island (New Guinea/West Papua)'. Ultrabasic rocks present in narrow belt along N and W coasts, overlain by spilites and keratophyres, pelagic limestones, pelites, radiolarites and chert, all strongly folded. Unconformably overlain by Late Oligocene- E Miocene Batanta Fm, dominated by andesitic and basaltic volcanics in lower part, and greywackes in upper part. Possible uncomformity within Batanta Fm: Lower Te (Latest Oligocene) overlain (unconformably?; with pebbles of andesite and Batanta Fm at base) by >1450m of Upper Tf-Tg (M Miocene-Pliocene) carbonates of Waigeo Fm)

Van der Wegen, G. (1966)- Contribution of the Bureau of Mines to the geology of the Central mountains of W. New Guinea. Geologie en Mijnbouw 45, 8, p. 249-261.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0eEFCSU4yM0ExaDQ/view)
(Summary of geological activities of the short-lived Bureau of Mines in Hollandia (Jayapura) from 1959 until transfer of Dutch administration of West Papua to United Nations in 1962. Reconnaissance surveys in Central

Range, upper reaches of Eilanden River in C Range foreland and Upper Kau-Birim area of Star Mountains. No figures/maps)

Van der Wegen, G. (1971)- Metamorphic rocks in West Irian. Scripta Geologica 1, p. 1-13.
(online at: https://repository.naturalis.nl/pub/317506)
(Metamorphics along N edge of Central range of W Irian associated with ophiolitic suite basic- ultrabasic rocks, and indicating high Pressure- low Temperature regional metamorphism. Metamorphic rocks at Australian-side of Papuan Geosyncline associated with medium- acidic intrusives)

Van der Wegen, G., J.H.A. Doeve et al. (1962)- Geologische verkenning Katoepa- Kangeh Rivier. Bureau Mines Netherlands New Guinea, Hollandia (Jayapura), Report 27, p. *(Unpublished)*

Van de Waard, R. (1962)- Geologische verkenning Ilaga-Mulia-Sinak. Bureau Mines Netherlands New Guinea, Hollandia (Jayapura), Report 28, p. *(Unpublished)*
('Geological reconnaissance of Ilaga-Mulia- Sinak', W part of Central Range)

Van Dun, F.W.P. (1962)- A survey of the Efar-Sidoas Mountain ridge in northern Netherlands New Guinea. Geologie en Mijnbouw 41, 9, p. 391-395.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0b1R5QWVwRUtCaUU/view)
(Geologic reconnaissance in Efar-Sidoas ridge, 50 km SE of Sarmi on N coast of W Papua, shows ridge composed of folded Neogene sediments with core of basic igneous rocks and pre-Tertiary schists (but much less than suggested on Zwierzycki (1921) map)

Van Es, E. (1959)- Korte toelichting bij de fotogeologische kaart van het Westelijk Centrale Bergland van Nederlands Nieuw Guinea. Report Stichting Geologisch Onderzoek Nederlands Nieuw Guinea, 18, p. 1-13.
('Brief explanation of the photo-geologic map of the Western Central Range of Netherlands New Guinea'. Unpublished?)

Van Gelder, J.K. (1912)- Verslag omtrent eene geologische verkenning van de Mamberamo-Rivier op Nieuw-Guinea. Jaarboek Mijnwezen Nederlandsch Oost-Indie 39 (1910), Verhandelingen, p. 87-112.
(Geological reconnaissance Mamberano and Lower Idenburg Rivers during November 1909- April 1910 Military reconnaissance expedition. Mostly alluvial deposits, with folded Young Tertiary clastics with andesite intrusions in Van Rees mountains. Possibly 5 km thick Young Tertiary stratigraphic section along Van Gelder River, from which also ?Old Tertiary limestone and float of Cretaceous fossils were reported. Van Rees Mts- Meervlakte transition structurally complex fault zone. Toradja River (tributary of Mamberamo River), at foot of Central Range, with only metamorphic and ultrabasic rocks)

Van Gorsel, J.T. (2012)- Middle Jurassic ammonites from the Cendrawasih Bay coast and North Lengguru fold-belt, West Papua: implications of a ‘forgotten’ 1913 paper. Berita Sedimentologi 23, p. 35-41.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/191/161)
(Occurrences of Middle Jurassic (Bathonian-Callovian) bathyal shales with 'Macrocephalites' ammonite faunas as reported earlier from 'Birds Neck' by Boehm (1913) and Gerth (1927) represent deep marine Middle Jurassic facies. This suggests an eastern limit for gas-productive Middle Jurassic sandstone reservoirs of Bintuni Bay and thus may have negative implications for the potential of Mesozoic hydrocarbon plays in Cenderawasih Bay)

Van Nes, E. (1954)- Exploration of the nickel, cobalt and chrome deposits in the Cyclops area. The First Delft Nieuw Guinea Expedition 1952, Delft Technical University, Report, p. *(Unpublished)*

Van Nort, S.D., G.W. Atwood, T.B. Collinson, D.C. Flint & D.R. Potter (1991)- Geology and mineralization of the Grasberg copper-gold deposit, Irian Jaya, Indonesia. Mining Engineering 43, p. 300-303.

Van Straelen (1928)- Crustaces decapodes subfossiles de Merauke (Nouvelle Guinee). In: A. Wichmann (ed.) Nova Guinea. Resultats de l’expedition scientifique Neerlandaise a la Nouvelle-Guinee de 1903, vol. VI-Geologie, part 3, Brill, Leiden, p. 63-69.

(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB02:000122467:00005)
('Subfossil decapod crustaceans from Merauke (New Guinea)'. Crab fossils collected by natives and handed to by 1907 Lorentz Expedition from Merauke at S coast (Thalassina, Scylla), probably of Quaternary age)

Van Rossum, B. (1958)- Geological survey of the Central Digoel hinterland. Nederlands Nieuw Guinea Petroleum Maatschappij (NNGPM), Geological Report 460, p. *(Unpublished)*

Varianto, Y.A.T., S.S. Surjono & Salahuddin (2019)- Erosion and its implication on hydrocarbon generation in 'ARD' Block, Akimeugah Basin, West Papua. J. Applied Geology (UGM) 2, 2, p. 58-72.
(online at: https://jurnal.ugm.ac.id/jag/article/view/53204/26744)
(Offshore ARD block in NW Arafura Sea with Cambrian-Recent stratigraphy. Five tectonic phases led to four uplift periods with sediment erosion of 1832'-6951', negatively affecting hydrocarbon generation)

Vera, R. (2009)- Characterization of Roabiba Sandstone reservoir in Bintuni Field, Papua. M.Sc. Thesis, Texas A&M University, College Station, p. 1-114.
(online at: www.repository.tamu.edu/bitstream/handle/...1/.../VERA-THESIS.pdf?).

Verhofstad, J. (1967)- Glaucophanitic stone implements from West New Guinea (West Irian). Geologie en Mijnbouw 45, 9, p. 291-300.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0cXk1WDdFNjltdnc/view)
(Stone tools used by Dani tribes from C Highlands of W Papua all hard, dense, fine-grained, metamorphic glaucophanites with epidote, glaucophane and lawsonite. Two main mineral assemblages: (1) epidote-glaucophane (crossite) - lawsonite- sphene and (2) quartz- glaucophane. Metamorphics appear to be derived from mafic rocks; quartz-rich assemblages may have originated from impure siliceous sediment. Rocks originated from outcrops in belt of low-grade metamorphic and basic to ultrabasic igneous rocks along northern edge of Central Ranges, and belong to lawsonite-pumpellyite-epidote-glaucophane metamorphic subfacies (see also H. Harrer's 1965 memoir))

Verhofstad, J. (1992)- Herinneringen van een veldgeoloog (2): Simpang kanan-kiri (voormalig Ned. Nieuw-Guinea). GEA 1992, 4, p. 119-121.
(online at: http://natuurtijdschriften.nl/record/414906)
('Memories of a field geologist (2): Simpang kanan-kiri (in former Netherlands New Guinea')

Verhofstad, J. (1993)- Herinneringen van een veldgeoloog (4): Bokondini (voormalig Ned. Nieuw-Guinea). GEA 1993, 4, p. 134-137.
(online at: http://natuurtijdschriften.nl/download?type=document&docid=414941)
('Memories of a field geologist (4): Bokindini (in former Netherlands New Guinea'. Brief review of field mapping project of West Papua Central Range in 1961 by the 'Bureau of Mines of Netherlands New Guinea. Government post Bokondini used as base. Local Dani tribes used stone tools made of glaucophane schist, which came from areas to North)

Verhofstad, J., H. de Herdt et al. (1961)- Geologische verkenning Swart Vallei. Bureau Mines Netherlands New Guinea, Report 26, p. 1-7. *(Unpublished)*
('Geological reconnaissance of the Swart valley', Central Range, New Guinea)

Verhofstad, J., D. Kerrebijn et al. (1961)- Geologische verkenning Swart Vallei- Bokondini- Archbold Meer. Bureau Mines Netherlands New Guinea, Report 24, p. 1-14. *(Unpublished)*
('Geological reconnaissance Swart Valley- Bokondini- Archbold Lake')

Verstappen, H.Th. (1952)- Luchtfotostudies over het centrale bergland van Nederlands Nieuw Guinea- part 1. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 69, p. 336-362.
(Air-photo interpretation studies of the Central Range of Netherlands New Guinea- part 1)

Verstappen, H.Th. (1952)- Luchtfotostudies over het centrale bergland van Nederlands Nieuw Guinea- part 2. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 69, p. 425-431.
(Air-photo interpretation studies of the Central Range of Netherlands New Guinea- part 2)

Verstappen, H.Th. (1960)- Geomorphological observations on the North Moluccan- Northern Vogelkop island arcs. Nova Guinea, Geol. 1-3, p. 13-37.
(Following peneplanation of pre-upper Miocene volcanic rocks, on whose surfaces Miocene conglomerates and limestones were deposited, crustal movements formed volcanic and non-volcanic island arc with intervening deep. Volcanic arc extends from Morotai through Halmahera to N Vogelkop and non- volcanic arc from NE and SE Halmahera through Gebe toward Waigeo. Present-day coastal features product of postglacial eustatic and younger tectonic activity)

Verstappen, H.Th. (1964)- Geomorphology of the Star Mountains. Nova Guinea (Geology) 5, p. 101-158.
(Star mountains (Sterrengebergte) of W Papua major boxfolds, steep escarpments and karsted limestone terrains. Relief in youthful stage. Local remnants of older erosion surface occur, separated by areas of lower elevation with complete rejuvenation)

Verstappen, H.Th. & J.P. Doets (1950)- Enige geomorphologische aantekeningen over de Wisselmeren, Centraal Nederlands Nieuw Guinea. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap LXVII, p. 489-496.
('Geomorphologic notes on the Wissel (=Paniai) Lakes, Central New Guinea'. Three lakes at 1640- 1749m altitude, draining to S, but Paniai Lake may have drained N before main uplift of Central Range)

Vincelette, R.R. (1973)- Reef exploration in Irian Jaya. Proc. 2nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 243-277.

Vincelette, R.R. & R.A. Soeparjadi (1976)- Oil-bearing reefs in Salawati Basin of Irian Jaya, Indonesia. American Assoc. Petroleum Geol. (AAPG) Bull. 60, p. 1448-1462.
(Salawati basin >4600m marine Tertiary sedimentary deposits. Basin initiated in Miocene, with deposition of basinal limestone and shale. E and S basin margins shallow-water carbonate rocks with well-defined shelf and shelf margin. Productive reef belt basinward of shelf margin. Reefs heights >490m, areal extent 5- 124 km^2. Porosities in reefal carbonate up to 43%, average 20- 30%. Late Pliocene-Pleistocene normal faults cut many reefs, which combined with postreef structural tilt modified original reefs configuration and oil accumulations)

Visser, D. (2004)- An unpublished manuscript by C.E.A. Wichmann (Ueber den Chloromelanit von der Humboldt-Bai auf Neu-Guinea). In: J.L.R. Touret & R.P.W. Visser (eds.) Dutch pioneers of the earth sciences, Kon. Nederlandse Akademie van Wetenschappen, Amsterdam, p. 177-
(online at: http://https://dwc.knaw.nl/wp-content/HSSN/2004-5-Dutch%20Pioneers%20Earth%20Sciences.pdf)
(Unpublished 1904 manuscript by C.E.A. Wichmann 'On the chloromelanite from the Humboldt Bay in New Guinea', from archives of University of Utrecht; printed here. Chloromelanite is iron-rich variety of jadeite, and possibly metamorphosed gabbroic rocks. Rocks commonly used by local tribes to make stone adzes. Probably collected near Sentani Lake/ Cyclops Range foothills)

Visser, W.A. (1968)- A geological reconnaissance in the Nassau Range: discussion. Geologie en Mijnbouw 47, 1, p. 47-49.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0VGxXWjdfSUl4UFE/view)
(Comments on Dow (1968) paper on Central Range reconnaissance)

Visser, W.A. & J.J. Hermes (1962)- Geological results of the exploration for oil in Netherlands New Guinea. Verhandelingen Kon. Nederlands Geologisch Mijnbouwkundig Genootschap, Geologische Series 20, p. 1-265.
(Extensive compilation of NNGPM (Netherlands New Guinea Petroleum Maatschappij= Shell-Caltex-Stanvac consortium) oil exploration and survey work in W New Guinea from 1935-1960)

Visser, W.A. & K.E. Kleiber (1959)- Geology of the Vogelkop, Netherlands New Guinea. Proc. 5th World Petroleum Congress, New York 1959, 1, 52, p. 943-956.

(Birds Head oldest sediments of Silurian age, intensely folded, possibly in Devonian. Unconformably overlain by Permo-Carboniferous clastics and minor limestones up to 2450m in N Birds head. Thin Triassic redbeds overlain by M Jurassic- Cretaceous marine Kembelangan Fm. Paleocene- Miocene section mostly carbonates, except for Oligocene Sirga-Ainod clastics, which were derived from N. N rim of Tertiary basin steeply dipping)

Wachsmuth, W. & F. Kunst (1986)- Wrench fault tectonics in Northern Irian Jaya. Proc. 15th Ann Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 371-376.
(Mamberamo in northern West Papua underlain by Pretertiary? ophiolite, Paleogene volcanic arc deposits,Late Oligocene- M Miocene Darante Limestone and very thick Late Miocene-Pleistocene clastics. Structural developments dominated by major sinistral strike slip faulting. Main area of deformation distributed over multiple faults system affecting 15 km wide zone at surface. Where compressional offsets occur, fault zone may >50 km wide. Rombebai Block is compressional offset of Yapen Fault Zone, with intense folding and upthrusted basement. Second offset in Podena area interpreted to have created Teer River Sub-basin, which is strongly affected by shale diapirism. "Gauttier Offset" E of Gauttier Mountains is older, presently inactive transcurrent fault. Etc.)

Wafforn, S. (2017)- Geo- and thermochronology of the Ertsberg-Grasberg Cu-Au mining district, west New Guinea, Indonesia. Ph.D.Thesis University of Texas at Austin, p. 1-356.
(online at: https://repositories.lib.utexas.edu/handle/2152/61523)
(Novel U/Pb depth profiling technique shows Grasberg Igneous Complex intrusive magmatism active from 3.6-3.1 Ma. Cu-Au mineralization started after intrusion of MGI (3.22 Ma) and predates EKI (3.20 Ma) and LKI (3.09 Ma). High grade core of Grasberg deposit formed in <100 to 220 kyr. Ertsberg pluton (3.1-2.8 Ma) and other minor intrusions shows magmatism in district took less than 1 Myr. Rapid cooling of surface samples precludes presence of 2 km volcanic edifice overlying orebody. Garnets from Big Gossan skarn show skarn formed between 2.9-2.7 Ma)

Wafforn, S., S. Seman, J.R. Kyle, D. Stockli, C. Leys, D. Sonbait & M. Cloos (2018)- Andradite garnet U-Pb geochronology of the Big Gossan skarn, Ertsberg- Grasberg mining district, Indonesia. Economic Geology 113, 3, p. 769-778.
(Big Gossan Cu-Au skarn formed near contact between U Cretaceous Ekmai Limestone and Paleocene Waripi dolomitic limestone, adjacent to 3.1-2.8 Ma Ertsberg diorite. Andradite garnets dated as 2.9-2.7 Ma, compatible with district-wide zircon U-Pb geochronology and single 2.82 Ma phlogopite 40Ar/39Ar age for skarn. New data confirm that Big Gossan was one of last ore-forming events in Ertsberg-Grasberg district)

Wahyono & Sidarto (2001)- Aspek geologi endapan batubara di daerah Sorong, Irian Jaya. Geological Research Development Centre (GRDC), Bandung, Special Publ. 26, p. 1-13.
('Geologic aspects of coal deposits in the Sorong area' On thin Plio- Pleistocene coal deposits near Sorong, W Birds Head, E Salawati Basin, in regressive Klasaman Fm. Sediments from Sorong Fault Zone High in N)

Ward, M.A. (1974)- Report on geological reconnaissance Block 5, Irian Jaya, Indonesia. PT Paniai Lakes Minerals, Report, p. *(Unpublished*)

Waren, R. (2022)- Depositional environment model of Main Jurassic sand in Ubadari Field, Eastern Indonesia. Proc. 46th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA22-G-21, p. 1-15.
(Ubadari 1997 gas discovery in Berau/ Bintuni Basin, W Papua. Five main fluvial and shallow marine depositional environments in Main M Jurassic sands)

Waren, R., A. Maulana, R. Panggeleng, T. Septyana & C. Birt (2022)- Ubadari Field, from stranded gas resources to optimize Tangguh LNG Business. Proc. 46th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA22-G-22, p. 1-13.
(Ubadari gas field in Berau-Bintuni Bay originally not part of Tangguh LNG project due to small size, but 2019 appraisal well showed lateral extent greater than originally estimated. Development now fast-tracked for including in Tangguh LNG)

Warren, P.Q. (1995)- Petrology, structure and tectonics of the Ruffaer metamorphic belt, west central Irian Jaya, Indonesia. M.A. Thesis University of Texas, Austin, 2 vols., p. 1-338. *(Unpublished)*
(Metamorphic belt along N side of Central Range, also known as Derewo metamorphic belt (see Warren & Cloos (2007) paper below))

Warren, P.Q. & M. Cloos (2007)- Petrology and tectonics of the Derewo metamorphic belt, West New Guinea. International Geology Review 49, 6, p. 520-553.
(Derewo-Rouffaer Metamorphic Belt (DM) >500 km long, ~10-30 km wide terrane of slate and phyllite on N flank of Central Range. S edge is Derewo fault in W, but gradational with unmetamorphosed passive margin strata in E. N boundary is fault contact with Irian Ophiolite Belt. Metamorphic protoliths are Jurassic-Cretaceous Australian passive-margin strata. Most of rock pelitic, with minor siltstones, sandstones protoliths. Peak metamorphic conditions in Hitalipa area 250-350°C at 5-8 kbar (burial depths 15- 25 km). DM formed as Australian continental rise and slope sediments entered N-dipping subduction zone since 30 Ma. Widespread emergence by 12 Ma, followed by major uplift from collisional orogenesis at ~8 Ma. Present-day high topography of C Range established by ~4 Ma when delamination of subducting plate was complete and collisional movements changed into left-lateral transform fault system. Tens of km of strike-slip displacement in core of C Range, offsetting parts of metamorphic belt along Derewo and related faults)

Wass, R.E. (1989)- Early Permian bryzoa from Irian Jaya, Indonesia. Geological Research Development Centre (GRDC), Bandung, Seri Paleontologie 6, p. 11-25.
(Common late E Permian (Baigendzhinian) bryozoa in outcrops of Aifat Fm (= M Aifam) of upper Aifar River, SW part of Birds Head. Assemblages affinities with Ko Muk region of Peninsular Thailand (with Sulcoretepora, Streblascopora, Rhabdomeson; interpreted as Late Artinskian in age by Sakagami 1976) and NW Australia Canning Basin (with Stenodiscus variablis))

Webb, M. (2023)- Basin development in the arc-collision zones of New Guinea - examples from Bintuni to the Gulf of Papua. Proc. SE Asia Petroleum Exploration Society (SEAPEX) 50th Golden Jubilee Convention, Singapore, p. 1-26. *(Abstract + Presentation)*
(New Guinea island has common Oligocene and younger history of arc collision and basement uplift. Review of Bintuni and Salawati basins, similar to Papuan Basin in E New Guinea: initiated during Triassic passive margin extension, followed by compressional foreland basin regime during Melanesian arc collision in Miocene. Etc. N and NW basins in area of very young (2-7Ma), significant, subsidence and uplifts. Three separate Cenzoic collisional events in New Guinea: (1) Continental fragment collision (- 60 Ma), (2) Arc-continent collision 1 (32 -20 Ma), (3) Arc-continent collision 2 (12-5 Ma))

Webb, M. & L.T. White (2016)- Age and nature of Triassic magmatism in the Netoni Intrusive Complex, West Papua, Indonesia. J. Asian Earth Sciences 132, p. 58-74. *(manuscript online at: https://pure.royalholloway.ac.uk/ws/files/27026244/1_s2.0_S136791201630298X_main.pdf)*
(Zircon U-Pb dating of in Netoni Intrusive Complex in Tamrau Mountains along Sorong Fault Zone in N Birds Head suggests series of pulses of Triassic magmatism between 248- 213 Ma (M-L Triassic; similar earlier K-Ar ages of 241-208 Ma in Pieters et al. 1983, 1989). Extensive incorporation of country rock xenoliths into Netoni Intrusive Complex. Granitoids likely emplaced in Andean-style subduction belt along E Gondwana (New Guinea - E Australia) through much of Paleozoic. Volcanic ejecta produced along this arc likely source of detritus for Triassic and younger sedimentary rocks in New Guinea and E Indonesia)

Webb, M., L.T. White & B.M. Jost (2017)- Connecting the Bird's Head to the Bird's Body- Cenozoic arc magmatism extends along the length of New Guinea. EGU General Assembly 2017, Geophysical Research Abstracts 19, EGU2017-977, 1p. *(Abstract only)*
(M-L Miocene intermediate -felsic volcanics and associated granitoid intrusives in Birds Head formed along active continental margin (equivalent of Maramuni arc and Frieda River Complex in E New Guinea/PNG). Several Eocene island arcs with mainly mafic volcanics accreted along Birds Head, possibly coinciding with M-L Miocene magmatism and may be equivalents of Cyclops Mountains arc in N-C New Guinea)

Webb, M. & L.T. White, B.M. Jost & H. Tiranda (2019)- The Tamrau Block of NW New Guinea records late Miocene-Pliocene collision at the northern tip of the Australian Plate. J. Asian Earth Sciences 179, p. 238-260.
(Tamrau Block is terrane in N part of Birds Head, at N side of Sorong strike-slip Fault Zone. Oldest rocks Jurassic-Cretaceous New Guinea passive margin sediments (Tamrau Fm), deformed and metamorphosed in three events. First phase with amphibolite facies possibly in Oligo-Miocene. Tamrau Fm unconformably overlain by Ajai Lst. Both units cross-cut and overlain by M Miocene Moon Volcanics. Overlying M-L Miocene Koor Fm partially contemporaneous with volcanism. Post-Koor folding/ faulting followed by deposition of undeformed Opmorai Fm (~10.5–4.5 Ma) and records collision of part of oceanic island arc (Tosem Block) to Tamrau Block. No provenance relationship between Tamrau and Kemum blocks. Tamrau Block transported ~300 km W along Sorong FZ after late Miocene-Pliocene collision between Tosem Block and N margin of Australian Plate)

Webb, M., L.T. White, B.M. Jost, H. Tiranda & M. BouDagher-Fadel (2020)- The history of Cenozoic magmatism and collision in NW New Guinea- new insights into the tectonic evolution of the northernmost margin of the Australian Plate. Gondwana Research 82, p. 12-38.
(pre-proof online at: https://ro.uow.edu.au/cgi/viewcontent.cgi?article=2145&context=smhpapers1)
(In Birds Head of W Papua six units of Oligocene-Pliocene igneous rocks, recording magmatism in response to interaction between Australian and Philippine Sea plates. In Eocene start of oblique subduction of Australian Plate under Philippine Sea Plate (Philippine- Caroline Arc; recorded in Dore, Mandi and Arfak volcanics of Birds Head; 32-27 Ma). Collision in Oligocene-Miocene caused reversal in subduction polarity from N-dipping to S-dipping. Subduction of Philippine Sea Plate under Australian Plate produced M Miocene magmatism in W New Guinea (18-13 Ma Moon Volcanics in Birds Head; correlates with Utawa diorite in Central Range, Maramuni Arc in PNG, etc.). Following terminal arc-continent collision in Late Miocene-Pliocene, mantle derived magmas migrated up large strike-slip faults and erupted in Plio-Pleistocene)

Webb, M., L.T. White, C.J. Manning, B.M. Jost & H. Tiranda (2020)- Isotopic mapping reveals the location of crustal fragments along a long-lived convergent plate boundary. Lithos 372-373, 105687, p. 1-17.
(Isotopic data from 21 samples show three distinct crustal domains under western New Guinea; (1) Palaeozic-Mesozoic Australian continental crust, (2) thinned transitional crust intruded by Miocene-Pleistocene magmatic rocks and (3) accreted island arc crust. Data indicate that Proterozoic- Mesozoic Australian continental crust exists beneath New Guinea; northernmost extent of Australian continental crust exists beneath N-most section of W New Guinea (means Birds Head?). Isotopic map shows position of ancient Australian-Pacific Plate boundary, consistent with broad-scale seismic tomography imagery (everything N of Central Range= oceanic/ island arc crust). Continental crust in Birds Head extends beneath Tamrau Block to at least latitude 0°30′ S)

Weiland, R.J. (1993)- Plio-Pleistocene unroofing of the Irian fold-and-thrust belt South of the Gunung Bijih (Ertsberg) Mining district, Irian Jaya, Indonesia: apatite fission-track thermochronology. M.A. Thesis, University of Texas, Austin, p. 1-84. *(Unpublished)*

Weiland, R.J. (1999)- Emplacement of the Irian ophiolite and unroofing of the Ruffaer metamorphic belt of Irian Jaya, Indonesia. Ph.D. Thesis, University of Texas, Austin, p. 1-526. *(Unpublished)*
(Irian Ophiolite metabasites near Gauttier Offset exhumed from NE dipping subduction zone. Amphibolites metamorphosed at ~700°C, blueschists at ~400°C, eclogites at ~450°C. Metamorphism ages between 65/70 Ma-50/ 45 Ma. N Rouffaer Metamorphic Belt metapelites K-Ar ages ~35-20 Ma, recording metamorphism of passive margin strata. Intrusives near Irian Ophiolite characteristic of volcanic arcs; isotopic ages ~35-24 Ma (allochthonous Oligocene- E Miocene oceanic arc) and ~12-10 Ma (autochthonous M Miocene Maramuni Arc). Subduction of Australian passive margin strata and continental lithosphere led to uplift of Irian Ophiolite. Exhumation of metamorphic rocks by normal faulting near ophiolite-metamorphic belt contact (amphibolites from <15 km, slate from 15-20 km, phyllites from 25-30 km). Blueschists and eclogite exhumed from 25-35 km depth along Gauttier Offset. Unroofing in E metamorphic belt increased from 23 to 2 Ma. W metamorphic belt unroofed at ~0.3 km/My from 21-3 Ma and ~6.9 km/My. Age of ophiolite uncertain, probably around Late Cretaceous- Paleocene)

Weiland, R.J. & M. Cloos (1996)- Pliocene-Pleistocene asymmetric unroofing of the Irian fold belt, Irian Jaya, Indonesia: apatite fission-track thermochronology. Geological Society of America (GSA) Bull. 108, 11, p. 1438-1449.
(Fission-track ages of apatite from Pliocene intrusions at Ertsberg district at crest of C Range 3.7 ± 0.9 to 2.0 ± 0.3 Ma. Grasberg pluton emplaced into its own volcanic cover and <2 km of material eroded since Pliocene. Apatites from Triassic-Jurassic Tipuma, Carboniferous-Permian Aiduna Fms and igneous dikes exposed halfway S slope of range fission-track ages between 2.7 ± 0.7 and 2.0 ± 0.5 Ma and indication of slower cooling than Pliocene intrusions. Resetting of provenance fission-track ages in detrital apatite requires burial deeper >4 km. Uplift of Mapenduma Anticline S of Central Range started at ~7 Ma, with ~9 km of erosion of sediment since then (unroofing here 2.5-5 x faster than at crest of C Range, probably due to higher rainfall on S slope)

Westermann, G.E.G. (1995)- Mid-Jurassic Ammonitina from the Central Ranges of Irian Jaya and the origin of stephanoceratids. In: Barnabas Geczy Jubilee Volume, Hantkeniana 1, Budapest, p. 105-118.
(Descriptions of mainly Bajocian ammonites from C Ranges of W Papua. Riccardiceras n. gen. (type species Coeloceras longalvum) and Riccardiceras suzukinense sp. nov.)

Westermann, G.E.G. & J.H. Callomon (1988)- The Macrocephalitinae and associated Bathonian and early Callovian (Jurassic) ammonoids of the Sula islands and New Guinea. Palaeontographica A, 203, p. 1-90.
(Five Bathonian- Early Callovian ammonite assemblages on S Taliabu. Also from Bathonian at Strickland River, PNG. East Indian faunas dominated by Macrocephalitidae, many of which are species unknown outside Indonesia- New Guinea (one other SW Pacific occurrence in New Zealand). Because of high endemicity at species level in Macrocephalitinae and at genus level in Satoceras and Irianites, E Indonesia and PNG may be considered as separate ammonite faunal province or subprovince, perhaps part of Maorian/SW Pacific Province during Late Bajocian- E Callovian. Diversity and compositions of ammonite faunas suggest Sula was in warmer waters than Birds Head Peninsula)

Westermann, G.E.G. & T.A. Getty (1970)- New Middle Jurassic Ammonitina from New Guinea. Bull. American Paleontology 57, 256, p. 231-308.
(Bajocian- Callovian ammonites from loose stream bed material in Kemabu valley, NE of Paniai Lakes, Central Range, presumably from Kembelangan Fm 'A-member' phyllites and re-examination of Bajocian- Callovian ammonites from other parts Indonesian archipelago. Most ammonite species endemic to E Indonesia)

White, L.T., R. Hall & I. Gunawan (2017)- Multiple tectonic mode switches indicate short-duration heat pulses in a Mio-Pliocene metamorphic core complex, West Papua, Indonesia. American Geophysical Union (AGU) Fall Meeting, New Orleans, V31D-02, 1p. *(Abstract only)*
(online at: https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/222305)
(Wandaman Peninsula at W side of Cenderawasih Bay almost entirely composed of metamorphic rocks, associated with Late Mio-Pliocene metamorphic core complex. Multiple phases of deformation, all within last few Myrs: (1) crustal extension and partial melting at 5-7 Ma according to new U-Pb data from metamorphic zircons; (2) extensional phase followed by two phases of folding; (3) overprinted by brittle extensional faults and uplift, continuing today)

White, L.T., R. Hall, I. Gunawan & B. Kohn (2019)- Tectonic mode switches recorded at the northern edge of the Australian Plate during the Pliocene and Pleistocene. Tectonics 38, 1, p. 281-306.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2018TC005177)
(Medium-high grade metamorphic rocks at Wandamen Peninsula, W Papua, suggest multiple deformation episodes in last 6 Myrs. Early phase of crustal extension between ~6 and 5 Ma, with formation of metamorphic core complex. Metamorphic zircon growth at 4.9-5.3 Ma interpreted to post-date peak P-T conditions of regional stretching phase. Shear fabrics associated with metamorphic core complex overprinted by two generations of folds. Later mode switch documented by young common brittle extensional faults after 3 Ma)

White, L.T., M.P. Morse & G.S. Lister (2014)- Lithospheric scale structures in New Guinea and their control on the location of gold and copper deposits. Solid Earth (EGU) 5, p. 163-179.
(online at: www.solid-earth.net/5/163/2014/se-5-163-2014.pdf)

(Comparison of lineaments with location of major gold and copper deposits in New Guinea indicate link between arc-normal structures and mineralization, but only for deposits younger than 4.5 Ma)

White, L.T., M. Webb, B.M. Jost, D. Gold, I. Gunawan, & H. Tiranda (2020)- New insights into the geological evolution of West Papua from recent field and laboratory studies. Proc. 2nd Int. Conference Earth Science, Mineral, and Energy (ICEMINE 2019), Yogyakarta, AIP Conference Proceedings 2245, 070037, p. 1-8.
(online at: www.researchgate.net/publication/338901403_New_insights_into_the_geological_evol....Etc.)

Wibisono, A.D., Y.S. Dewi, O. Oktariano, B. Sapiie & I. Gunawan (2018)- Unlocking hydrocarbon potential in Bird's Head Papua Indonesia using integrated geophysical and geological evaluation. Proc. 8th European Association of Geoscientists & Engineers (EAGE) International Geological and Geophysical Conference Exhib., Saint Petersburg 2018, p. 1-5. *(Extended Abstract)*
(Distribution of Pre-Tertiary reservoir and source rock facies in E Indonesia influenced by old tectonic grains such as Paleozoic-Mesozoic grabens. New plays identified in Birds Head of W Papua (Triassic and Early Jurassic reservoir and Paleocene Daram Sandstone)

Wibisono, A., A. Hafeez, Rochmad, D. Lestiyardi, K. Iqbal & C.S. Pulukadang (2016)- Unlocking a carbonates reservoir riddle: a post mortem of the K-2 appraisal well dry hole in the Salawati Basin, West Papua, Indonesia. Proc. 40th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA16-282-G, p. 1-8.
(Low oil saturation in 2013 K-2 appraisal well in flank of unspecified Kais Lst buildup in Salawati Basin)

Wibisono, A., R. Hendrawan, B. Pandito, M.F. Yulisasongko & D.B. Prihanto (2018)- Finding a giant potential: Sele Strait, Salawati Basin, West Papua. Proc. 43rd Annual Scientific Meeting of Himpunan Ahli Geofisika Indonesia (HAGI), Semarang, p. 1-5.
(online at: https://library.hagi.or.id/wp-content/uploads/2025/01/PITHAGI2018-392.pdf)
(Potential giant faulted-folded prospect in underexplored Sele Strait, Salawati Basin, Birds Head, W Papua)

Wichmann, A. (1901)- Uber einige Gesteine von der Humboldt-Bai (Neu-Guinea). Centralblatt Mineralogie Geologie Palaontologie, 1901, p. 647-652.
(online at: www.biodiversitylibrary.org/item/196149page/749/mode/1up)
('On some rocks from Humboldt Bay, New Guinea'. Rock descriptions from area Eastof Cyclops Mts near Jayapura in NE corner of West Papua, collected by missionary G.L. Bink in 1893. Including dunite, serpentine, diabase and Neogene Globigerina marls. Not much detail (see also Rutten 1914))

Wichmann, A. (1909)- Entdeckungsgeschichte von Neu-Guinea (bis 1828). In: A. Wichmann (ed.) Nova Guinea, Resultats de l'expedition scientifique neerlandaise a la Nouvelle Guinee en 1903, E.J. Brill, Leiden, vol. 1, p. 1-387.
(online at: https://www.biodiversitylibrary.org/item/181401#page/7/mode/1up)
('Discovery history of New Guinea (until 1828)'. Review of voyages to and observations made on New Guinea before 1828. No geology)

Wichmann, A. (1910)- Entdeckungsgeschichte von Neu-Guinea (1828 bis 1885). In: A. Wichmann (ed.) Nova Guinea, Resultats de l'expedition scientifique neerlandaise a la Nouvelle Guinee en 1903, E.J. Brill, Leiden, 2, 1, p. 1-369.
(online at: https://ia800305.us.archive.org/29/items/novaguinearesult2191nede/novaguinearesult2191nede.pdf)
('Discovery history of New Guinea (1828-1885)', vol. 1 of 2. Brief reports of 100's of sea voyages to New Guinea)

Wichmann, A. (1912)- Entdeckungsgeschichte von Neu-Guinea (1885-1902). In: A. Wichmann (ed.) Nova Guinea, Resultats de l'expedition scientifique neerlandaise a la Nouvelle Guinee en 1903, E.J. Brill, Leiden, vol. 2, 2, p. 371-1026.
('Discovery history of New Guinea (1885-1902)', vol. 2 of 2)

Wichmann, A. (1915)- On phosphorite of the isle of Ajawi. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 18, 1, p. 214-220.

(online at: https://dwc.knaw.nl/DL/publications/PU00012495.pdf)
(Island of Ajawi (also called Mios Kairu), NW of Schouten Islands, not visited by Europeans since William Dampier in 1700, Low-lying, forested limestone islands with up to 16m high phosphorite rocks, derived from bird excrement)

Wichmann, A. (1917)- Bericht uber eine im Jahre 1903 ausgefuhrte Reise nach Neu-Guinea. In: A. Wichmann (ed.) Nova Guinea, Resultats de l'expedition scientifique neerlandaise a la Nouvelle Guinee en 1903, E.J. Brill, Leiden, vol. IV, p. 1-492.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB24:073756000:00007)
(Detailed geographic- geological travel account of 1903 expedition to Northern Netherlands New Guinea. Includes records of Late Jurassic ammonites in area of low metamorphic phyllites- quartzites near Jamoer Lake, Middle Jurassic ammonites near Wendesi along Cenderawasih Bay, etc. Occ. Eocene limestone with Lacazinella on Dramia Island off Lengguru foldbelt, etc)

Wichmann, A. (1913-1928)- Nova Guinea. Resultats de l'expedition scientifique Neerlandaise a la Nouvelle-Guinee de 1903, vol. VI- Geologie, part 1, p. 1-20, part-2 (1914), p. 21-51, part 3 (1928), p. 53 92.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB02:000122467:00005)
(French version of original German text of New Guinea expedition by Prof. Arthur Wichmann. Part.VI-1 with paper by G. Boehm (Jurassic ammonites), part VI-2 with paper by L. Rutten (Tertiary foraminifera; incl. Lacazina wichmanni), part VI-3 with papers by H. Schluter (Jura fossils, Upper Sepik, PNG), V. van Straelen (decopods Merauke) and C. Teichert (Paleozoic beds, SW New Guinea))

Widi, B.N. (2017)- Potensi endapan laterit kromit di daerah Dosay, Kabupaten Jayapura, Papua. Buletin Sumber Daya Geologi 12, 1, p. 1-12. *(online at: https://buletinsdg.geologi.esdm.go.id/index.php/bsdg/en/article/view/BSDG_VOL_12_NO_1_2017_1/pdf)*
('Potential of lateritic chromite deposits in the Dosay area, Jayapura Regency, Papua'. Presence of chromite in weathered ultramafic rocks of Cycloop Mountain Range, West Sentani. Chromite content in saprolite 1.3- 4.7%)

Widodo, S., N. Belluz, N. Wiwoho, B. Kusnanto, P. Manning, A. Edwards & G. Macdonald (1998)- Geology of the Kucing Liar Ore Body, Irian Jaya, Indonesia. In: T.M. Porter (Ed.) Porphyry and hydrothermal copper and gold deposits- a global perspective, Proc. Australian Min. Found. (AMF) Conf., Perth, PGC Publishing, Adelaide, p. 49-60.
(Kucing Liar newly discovered ore zone at Freeport Grasberg mine. Contains >2.16 Gt @ 1.2% Cu, 1.2 g/t Au, 3.95 g/t Ag with over 2500 t (80 Moz) of contained gold. Mineralisation both skarn and replacement ore in sediments surrounding Grasberg porphyry. Deposit strike length 2 km, averaging thickness 200-250m)

Widodo, S., P. Manning, N. Wiwoho, L. Johnson, N. Belluz, B. Kusnanto, G. MacDonald & A.C. Edwards (1999)- Progress in understanding and developing the Kucing Liar orebody, Irian Jaya, Indonesia. Proc. International Congress Earth science, exploration and mining around the Pacific Rim (PACRIM '99), Bali 1999, Australasian Institute of Mining and Metallurgy (AusIMM), Parkville, Publ. Series 4/99, p. 499-507.
(Kucing Liar skarn deposit in Ertsberg mining district first intersected in 1994 drill holes and consists of magnetite-copper-gold replacement and skarn mineralisation in Tertiary and Cretaceous units)

Widyanita, A., A. Purwati, J. Naar & W. Hidayat (2011)- Geocellular modelling of Vorwata, Wiriagar Deep, Roabiba and Ofaweri Fields, Tangguh JV. Proc. 35th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA09-G-096, p. 1-14.
(Reservoir model of M Jurassic Roabiba Fm in five-field Tangguh gas field complex. Vorwata field ~80% of total resources. Model divided into 3 members, 15 zones. Some zones partially eroded or pinching-out. Roabiba Fm sandstones- mudstones deposited in tide-influenced braided rivers and deltas (Lw Roabiba; Toarcian- Bajocian), tide-dominated delta and tidal-shoreface (U Roabiba; Late Bajocian- Bathonian) and delta front-offshore settings (M Roabiba; Bajocian)).

Willems H.W.V. (1934)- Astridiet, een chroomrijk gesteente van Nieuw-Guinea. De Ingenieur in Nederlandsch-Indie (IV) 1, 7, p. IV.120- IV.121.

(online at: https://www.stichtingblauwelijn.nl/assets/files/1934-07.pdf)
('Astridite, a chrome-rich rock from New Guinea'. New rock name proposed for dark green ornamental stone from block found in 1910 by Ir. J.K. van Gelder near the docks of Manokwari, Birds Head (exact origin not clear). Course-grained ultramafic rock, composed of chromian jadeite. Named after Belgian Queen Astrid, who showed interest in the rock during visit to Geological Museum in Bandung in May 1932)

Williams, P.R. & Amiruddin (1983)- Diapirism and deformation East of the Mamberamo River, Northern Irian Jaya. Proc. 12th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 68-79.
(Hilly terrain E of Mamberamo River underlain by Mamberamo Fm Late Miocene-Pleistocene predominantly deep marine clastics. Shale diapirism caused much of deformation. Parts of succession overturned, probably prior to current diapiric intrusion. Blocks in diapirs probable Eocene to M Miocene ages. Diapirism probably initiated because of overpressuring due to rapid deposition and tectonic compression. Scaly clay formation not related to collision or subduction, but to diapirism in transcurrent fault system)

Williams, P.R. & Amiruddin (1984)- Diapirism and deformation East of the Mamberamo River, Northern Irian Jaya. Bull. Geological Research Development Centre (GRDC) 10, p. 10-20.
(Same paper as above)

Williams, P.R., C.J. Pigram & C.B. Dow (1984)- Melange production and the importance of shale diapirism in accretionary terranes. Nature 309, p. 145-146.
(N Irian Jaya discontinuous belt of melange between Cenderawasih Bay and PNG border product of shale diapirism. Deformation of up to 7000m of Mamberamo Fm M Miocene- Pliocene turbidites from M Pleistocene until today. Matrix of diapyric mudstones rich in M Miocene foraminifera. Exotic blocks include Eocene- E Miocene limestone, volcanic rocks, serpentinites)

Williams, P.W. (1971)- Illustrating morphometric analysis of karst with examples from New Guinea. Zeitschrift fur Geomorphologie, N.F, 15, p. 40-61.

Wilson, J.N. (1995)- Geologic summary of the Salawati Basin, Irian Jaya. In: C. Caughey et al. (eds.) Seismic atlas of Indonesian oil and gas fields II: Java, Kalimantan, Natuna, Irian Jaya, Pertamina/ Indonesian Petroleum Association (IPA), Jakarta, p. IRJ1-IRJ5.
(Salawati Basin Tertiary feature over tectonic terranes accreted in Paleocene. N and W portion over Kemum Fm metamorphosed Silurian and Devonian clastics. S and E part over Paleozoic- Lower Tertiary shallow water sandstones, coals and shales. Well data indicate Salawati Basin initiated in Upper Oligocene. Sirga Fm sst-shales overlie igneous/metamorphic basement and are transgressed by Kais Fm limestones. Late Miocene increase in subsidence caused development of pinnacle reefs on basin margin and drowning of many older reefs. Sorong fault more active at end-Miocene, creating landmass to N with massive influx of Pliocene Klasafet Fm clastics, locally 6 km thick. Pleistocene tectonic episode created complex fault system)

Winkelmolen, A.W., J.W.C.M. van der Sijp & F.H. van Oyen (1955)- Geological reconnaissance of the Wissel Lakes area (Central Dutch New Guinea). Nederlands Nieuw Guinea Petroleum Maatschappij (NNGPM) Report 26497, p.
(Unpublished NNGPM report, showing outcrops of Triassic (Tipuma Fm) sandstones at W side Paniai Lake (not captured on more recent GRDC map))

Wiryosujono, S. (1997)- Beberapa aspek diagenesis batugamping Formasi Waripi bagian bawah di daerah Wamena, Irian Jaya diamati melalui sayatan tipis. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 7, 70, p. 11-18.
('Some aspects of the carbonate diagenesis of the lower Waripi Fm in the Wamena area, Irian Jaya. Paleocene Waripi Fm sandy limestone at base of New Guinea Limestone Gp is ~100m thick transition between U Cretaceous glauconitic Ekmai Sst and Eocene Yawee Limestone. Limestone has undergone dolomitization, recrystallization, silicification and fracturing, probably in meteoric phreatic environment)

Wisesa, K.D., A. Mangala, H. Arbi, Qi Adlan & R.M.G. Gani (2017)- Distribution of Permian source rocks maturation related to Lengguru fold-thrust belt position in Bintuni Basin. Proc. 41st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA17-405-SG, p. 1-10.
(Maturity of Ainim Fm Permian source rocks in wells of Bintuni Basin varies from Ro 0,63% - 1.59%, and increases to NE, towards Lengguru fold-thrust belt (Ro 1.5% onshore Bintuni Bay). Gas in Bintuni fields likely came from NE (no details on wells, samples, uncontrolled maps))

Wollaston, A.F.R. (1914)- An expedition to Dutch New Guinea. The Geographical Journal 43, 3, p. 248-268.
(Report on second failed British Expedition (after 15-month Mimika Expedition in 1910-1911), targeting to be first to reach snow-covered Carstensz peaks (15,800'), going up Utakwa River. 74 Dayaks were recruited in C Borneo in July-August 1912. Alexander ('Sandy') Wollaston was accompanied by biologist C.B. Kloss, a Dutch military escort of 40 soldiers and 80 convict porters (total expedition team had 226 members!). Expedition started late September 1912, reached base of snow in early 1913, but had to return before almost reaching top of Carstensz Pyramid limestone peak. On return in early April 1913, all reports, maps, instruments and many samples were lost when most canoes were swept away at Canoe camp. For descriptions of rock samples see R.B. Newton (1916))

Wollaston, A.F.R. (1914)- Mountaineering in Dutch New Guinea. Alpine Journal 28 (205), p. 296-305.
(Brief version of the 1910-1913 British Wollaston expeditions report, above)

Wooley, J.B. (1936)- Report on a reconnaissance trip to North New Guinea. Nederlandsch Nieuw Guinea Petrolreum Maatschappij, Report 12659, p. *(Unpublished,but copy likely in GSI-Bandung files)*
(Includes survey of Yapen Island)

Yabe, H. & T. Sugiyama (1942)- Younger Cenozoic reef corals from the Nabire beds of Nabire, Dutch New Guinea. Proc. Imperial Academy (Tokyo) 18, 1, p. 16-23.
(online at: https://www.jstage.jst.go.jp/article/pjab1912/18/1/18_1_16/_pdf)
(Fossil corals from beds considered to be of Plio-Pleistocene age in Nabire district, W Papua. Descriptions of 20 species from 10 localities near Cenderawasih Bay, collected by Tayama S of Nabire. 90% Recent species, one new (Cyathoseris? tayamai)))

Yabe, H. & T. Sugiyama (1942)- Notes on *Anisocoenia* Reuss and *Favoidea* Reuss. Proc. Imperial Academy (Tokyo) 18, 4, p. 194-199.
(online at: https://www.jstage.jst.go.jp/article/pjab1912/18/4/18_4_194/_pdf)
(Reviews of related coral genera Anisocoenia and Favoidea. Description of specimen of Anisocoenia junghuhni from Plio-Pleistocene limestone of Nabire district, W Papua, which is very similar to typical Favoidea)

Yang, X., H. Qi, J. Deng & Z. Zhang (2025)- Geochemical constraints on the petrogenesis of Cenozoic adakitic porphyries in West Papua, Indonesia: implications for the metallogeny of the Grasberg Cu-Au deposit and associated tectonic evolution. J. Asian Earth Sciences 294, 106809, p.
(Monzonite porhyries of Pliocene age (~3.1-2.9 Ma) that hosted the Grasberg area supergiant Cu-Au porphyry deposit have adakite-like geochemical features. Formed by partial melting of enriched, metasomatized lithospheric mantle mixed with melts from ancient lower continental crust after collisional delamination of Australian continental lithosphere since~6 Ma. Subsequent strike-slip faulting created pathways for shallow emplacement of adakitic monzonites and Cu-Au mineralization)

Yogi, A. (2020)- Petrophysics analysis for reservoir characterization of Cretaceous clastic rocks: a case study of the Arafura Basin. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 21, 3, p. 129-139.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/527/435)
(Petrophysics analysis of Cretaceous in Koba-1 and Barakan-1 wells in Arafura Basin)

Yoshino, H., T. Tanaka & H. Yamaguchi (2003)- Petroleum geology in Bintuni Basin in East Indonesia- a case study of exploration and evaluation of giant gas fields. J. Japanese Association for Petroleum Technology 68, 2-3, p. 200-210.

(online at: https://www.jstage.jst.go.jp/article/japt1933/68/2-3/68_200/_pdf)
(In Japanese with English summary. Bintuni foredeep basin has certified 14.4 TCF gas for Wiriagar, Berau and Muturi PSCs in Jurassic and Paleocene reservoirs)

Yudhanto, E.V. & D. Pasaribu (2012)- Structural evolution of Ubadari Field, Bird's Head, Papua. Proc. 36th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA12-G-187, p. 1-10.
(Ubadari field in Berau PSC, about 50 km SW of Tangguh is 1997 BP gas discovery in M Jurassic Roabiba sst and Paleocene sst reservoirs. Birds Head region three main erosion events: Permo-Triassic, Oligocene (NW-SE structural trends of Ubadari, Kalitami, Wiriagar and Vorwata; believed to be result of initial collision between Australian and Pacific plates) in Pliocene. Ubadari low relief structure before Pliocene and continued to grow to present day structure. Roabiba sst sandstone transgressive succession, back stepping from SW to NE)

Yudhanto, E.V. & D. Pasaribu (2012)- Structural evolution of Ubadari Field, Bird's Head, Papua, Indonesia. Proc. AAPG International Conference Exhibition, Singapore 2012, Search and Discovery Article 30248, p. 1-16.
(online at: https://www.searchanddiscovery.com/documents/2012/30248yudhanto/ndx_yudhanto.pdf)
(Extended Abstract, similar to paper above)

Yuniarni, R. & Dipowiguno (2017)- Neogene Arfak Volcanics, Ransiki, West Papua. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, p.

Yzerman, R. (1939)- Korte verslagen van den geoloog der expeditie van het Kon. Nederlands Aardrijkskundig Genootschap naar het Wisselmeergebied en het Nassau-gebergte op Nederlandsch Nieuw Guinea in 1938. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 56, p. 677-679 and p. 791-792.
(online at: https://resolver.kb.nl/resolve?urn=MMUBA13:001695001:pdf)
('Short reports by the geologist of the expedition of the Dutch Geographical Society from the South coast to the Wissel (Paniai) Lakes area and Central Range of Netherlands New Guinea in 1938'. Mainly travel reports)

Yzerman, R. (1947)- De aanstaande expeditie van het Nederlandsch Nieuw Guinea Exploratie Committee. Bull. Bureau of Mines Geological Survey Indonesia 1, 1, p. 17-19.
('The upcoming expedition of the Netherlands New Guinea Exploration Committee')

Zakaria, F., I. Syafri & P. Wiguna (2017)- Hubungan antara phyllic alteration dengan nilai kekuatan batuan di Undercut Level Tambang Grasberg Block cave, PT Freeport Indonesia. Bull. Scientific Contribution (UNPAD) 15, 3, p. 233-242.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/15101/pdf)
('The relationship between phyllic alteration and rock strength value in the Grasberg mine Block Cave Undercut Level'. Grasberg Block Cave underground mine with three intrusion stages: Dalam (3.51 Ma), Main Grasberg (3.21 Ma) and Kali (3.1 Ma). Mineral alterations affect rock strength)

Zarmansyah, T.A. & G.J. Edelbrock (1992)- Drilling in karst terrain of Irian Jaya. Proc. 21st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 98-108.

Zetra, Y., R.Y.P. Burhan, A.D. Pratama & A. Wahyudi (2020)- Origin and maturity of biomarker aliphatic hydrocarbon in Wondama coal Indonesia. J. Indonesian Chemical Soc. 3, 2, p. 73-116.
(online at: https://dx.doi.org/10.34311/jics.2020.03.2.107)
(Coals at Wondama Bay in Lengguru foldbelt, West Papua, immature, sub-bituminous)

Zglinicki, K., P. Kosinski, A. Piestrzynski & K. Szamałek (2020)- Geological prospection of placer chromium deposits in the Waropen Regency - Indonesia (New Guinea) using the method of indicator minerals. Minerals (MDPI) 10, 94, p. 1-23.
(online at: https://www.mdpi.com/2075-163X/10/2/94)
(Analysis of chromian spinels in beach and river sediments along Waropen Bay led to the discovery of rich chromian-bearing deposits in Botawa River sediments. Source of chromian spinels most likely peridotites from the Earth's mantle. West parts of Van Rees Mountains probable parent rocks for chromium-bearing sediments)

Zglinicki, K., K. Szamałek & I. Gorska (2020)- The Cyclops Ophiolite as a source of high-Cr spinels from marine sediments on the Jayapura Regency Coast (New Guinea, Indonesia). Minerals (MDPI) 10, 9, p. 1-29.
(online at: https://www.mdpi.com/2075-163X/10/9/735)
(Heavy minerals in marine sediments along Jayapura Regency coast include high-Al and high-Cr spinels, chromian andradite, Mg-olivine, magnetite, limonite and minerals from serpentine-group minerals (lizardite, antigorite). Sediments contains increased concentrations of W, Ag and minor Ni and Cr., and sourced from Cyclops ophiolite. Chemical composition of chromian spinels indicates Cyclops peridotites formed in supra-subduction zone environment)

Zhang, B., Y.H. Xu, G.D. Wang, X.L. Cui, Z.S. Li et al. (2022)- Discovery of high-Mg diorites in Nabire area, Indonesia and its implications. J. Earth Sciences and Environment (China) 44, 3, p. 499-512 *(in Chinese)*
(online at: http://jese.chd.edu.cn/Upload/PaperUpLoad/a7bd4eab-6d3a-4466-a112-975b713b7fdd.pdf)
(High-Mg diorites found in Nabire area, Papua, in C-NW part of Central Orogenic Belt of New Guinea. Associated with Cu-Au mineralization)

Zhang, Z., X. Luan, F. Tian, W. Ran, L. Zhang, D. Dong & W. Sun (2022)- Dynamic processes of upper plate deformation at the New Guinea Trench. Tectonophysics 839, 229517, p. 1-15.
(online at: www.researchgate.net/publication/362369843_Dynamic_processes_of_upper_plate_deform Etc.)
(Upper plate of New Guinea Trench (subduction zone) off N coast of Papua dominated by compressive or strike-slip deformation. Ages poorly constrained due to lack of drilling data)

Zhang, Z., X. Luan, S. Li, X. Wang & D. Dong (2024)- The relationship between the nature of margins and the subduction of oceanic plateaus: Insights from variations in the forearc basement and sediments along the New Guinea Trench in the West Pacific. Tectonophysics 874, 230235, p. 1-15.
(Study of variations in forearc structures of New Guinea Trench off N coast of New Guinea based on multichannel seismic profiles)

Zhou, L., T.P. Mernagh, Y. Li, B. Mo, X. Lin, L. Zhang, A. Li & C. Leys (2022)- Combined focused ion beam-scanning electron microscope and synchrotron X-ray fluorescence analysis of multi-solid and melt inclusions from the super-giant Grasberg Cu-Au deposit, Indonesia. J. Geochemical Exploration 243, 107108, p. 1-16.
(Mineralised quartz veins from Grasberg Cu-Au deposit in W Papua contain multi-solid inclusions and silicate melt inclusions. High salinity multi-solid inclusions and melt inclusions formed early in vein paragenesis. High metal-bearing capacity of salt melts suggests fertile mineral system)

Zwierzycki, J. (1922)- Koelietoestanden op Nieuw-Guinea. De Mijningenieur 3, 4, p. 46-50.
('Coolie' (contract laborer) conditions on New Guinea'. Description of fieldwork logistics of multi-year geological mapping project in North New Guinea by the 'Dienst van den Mijnbouw', in particular about difficulties with hiring of local Papuas)

Zwierzycki, J. (1922)- Tektonisch-morphologische beschouwingen omtrent de Noordkust van Nieuw-Guinea. Handelingen 2e Nederlandsch-Indisch Natuurwetenschappelijk Congres, Bandoeng 1922, p. 188-197.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:040930000:00001)
('Tectonic-morphological considerations on the North coast of New Guinea'. Brief overview, no figures)

Zwierzycki, J. (1924)- Verslag over geologisch-mijnbouwkundige onderzoekingen in een gedeelte van Noord-Nieuw-Guinea. Jaarboek Mijnwezen Nederlandsch Oost-Indie 50 (1921), Verhandelingen, 1, p. 95-161.
('Report on a geological-mining survey in a part of North New Guinea'. Numerous gas and salt water seeps, also two oil seeps (Teer River and tributary of Verkam River) in NE part of West Papua. Tectonic complexity of region may limit commercial hydrocarbon potential. Includes petrographic descriptions by W.F. Gisolf, p. 133-161)

Zwierzycki, J. (1926)- Notes on the morphology and tectonics of the North Coast of New Guinea. Philippine J. Science 29, 4, p. 505-515.
(online at: https://philjournalsci.dost.gov.ph/images/pdf_upload/pjs1926/PJS_Vol_29_No4_Mar_1926.pdf)

(Abbreviated, English version of Zwierzycki 1924 Mijnwezen report on geology of North New Guinea, 'for the American public')

Zwierzycki, J. (1928)- Geologische overzichtskaart van den Nederlandsch-Indischen Archipel. Toelichting bij de bladen XIV en XXI (Noord en Zuid Nieuw Guinea). Jaarboek Mijnwezen Nederlandsch-Indie 56 (1927), Verhandelingen 1, p. 248-308.
(maps online at: https://digitalcollections.universiteitleiden.nl/view/item/814924 and at: https://digitalcollections.universiteitleiden.nl/view/item/813547)
('Geological overview map of the Netherlands Indies Archipelago. Explanatory notes of sheets XIV and XXI (North and South New Guinea)'. Two 1:1M scale overview maps of N and S halfs of 'main body' of West Papua (most of New Guinea area still unmapped at that time))

Zwierzycki, J. (1932)- Geologische overzichtskaart van den Nederlandsch-Indischen Archipel, schaal 1: 1,000,000. Toelichting bij blad XIII (Vogelkop, West Nieuw Guinee). Jaarboek Mijnwezen Nederlandsch-Indie 59 (1930), Verhandelingen 3, p. 1-55.
(text online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:041770000:00001)
(map online at: https://digitalcollections.universiteitleiden.nl/view/item/815734)
('Geological overview map of the Netherlands Indies Archipelago, scale 1:1 Million. Explanatory notes of sheet XIII (Birds Head, New Guinea'. Early map and overview of Birds Head geology. Oldest sediments Permo-Carboniferous, unfossiliferous ?Triassic, marine Jurassic shales with ammonites and belemnites (comparable to Sula islands), Upper Cretaceous pelagic Globotruncana limestones, Eocene Lacazina-Nummulites limestones (Tan Sin Hok also found some Pellatispira?) and rel. widespread Miocene limestones. Also metamorphic rocks, granites, andesites, gabbro and serpentinite, etc.)

VIII.2. Misool

Baggelaar, H. (1937)- Tertiary rocks from the Misool Archipelago (Dutch East Indies). Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 40, 3, p. 285-292.
(online at: https://dwc.knaw.nl/DL/publications/PU00017038.pdf)
(Larger forams from limestones collected by F. Weber-BPM from small islands S of Misool identified as Eocene (Alveolina on Jef Lili) and Miocene (Spiroclypeus, Lepidocyclina from 7 islands) genera. (N.B:'Miocene' age identifications erroneous and should also be Eocene (Baggelaar 1938). Also critiqued by Musper in Neues Jahrbuch Geologie Palaontologie, 1937, p. 926-927)

Baggelaar H. (1938)- Some correcting notes on 'Tertiary rocks from the Misool-Archipelago (Dutch East Indies)'. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 41, 3, p. 301.
(online at: https://dwc.knaw.nl/DL/publications/PU00017168.pdf)
(Rectification of Baggellar (1937) Lepidocyclina and Spiroclypeus identified from seven islands S of Misool are Discocyclina and Asterocyclina, and probably also Pellatispira (fig. 10 from Sabenibnoe island W). All limestones therefore appear to be of Eocene age, not Miocene)

Belford, D.J. (1991)- A record of the genus *Lockhartia* (foraminiferida) from Misool archipelago, Irian Jaya. BMR J. Australian Geology Geophysics 12, 4, p. 297-299.
(online at: www.ga.gov.au/corporate_data/81297/Jou1991_v12_n4_p297.pdf)
(Late Paleocene- M Eocene Lockhartia, Discocyclina and Distichoplax biserialis in 'Daram Sandstone' of Sabennibnu Island, SE of Misool)

Boehm, G. (1910)- Zur Geologie des Indo-Australischen Archipels. 5: Zur Kenntniss der Sudkuste von Misol. Centralblatt Mineralogie Geologie Palaontologie 1910, 7, p. 197-209.
(online at: www.biodiversitylibrary.org/item/192869#page/219/mode/1up)
(On the geology of the Indo-Australian Archipelago 5: On the knowledge of the South coast of Misool'. Brief descriptions of Triassic- Eocene stratigraphy of Lilinta area at S coast of Misool and offshore islands, based on trip in 1900. Youngest rocks Eocene white Alveolina Limestone, oldest rocks U Triassic Daonella and Athyriden-limestone. Also Jurassic Harpoceras and Hammatoceras beds. With map)

Boehm, G. (1924)- Uber eine senone Fauna von Misol. Palaeontologie von Timor, Schweizerbart, Stuttgart, 14, 26, p. 83-103.
('On a Senonian fauna from Misool'. Upper Cretaceous of Misool mainly marly rocks with large Inoceramus (I. misoliensis n.sp., I. haasti n.sp and others), ammonite Pachydiscus papuanus and rudists (Durania wanneri, D. deningeri, D. crispa n.spp.))

Challinor, A.B. (1989)- The succession of *Belemnopsis* in the Late Jurassic of Eastern Indonesia. Palaeontology 32, 3, p. 571-596. *(online at: www.palass.org/sites/default/files/media/publications/palaeontology/volume_32/vol32_part3_pp571-596.pdf)*
(Belemnopsis from Misool and Sula all part of B. moluccana lineage. Misool Jurassic stratigraphy condensed relative to Sula. Misool: 85m of Oxfordian Demu Fm carbonate/ shale overlain by ~100m of Kimmeridgean-Tithonian Lelinta shale with minor sandstone)

Challinor, A.B. (1989)- Jurassic and Cretaceous belemnitida of Misool Archipelago, Irian Jaya, Indonesia. Geological Research Development Centre (GRDC), Bandung, Special Publ. 9, p. 1-153.
(Callovian- Hauterivian belemnites from S Misool and islands off S coast. Good correlation with thicker and more complete (down to Toarcian) Jurassic section of Sula Islands. No clear Kimmeridgean fossils found. Similarities between Misool and Madagascar assemblages, but, unlike earlier studies, no close relationships observed between Indonesian and New Zealand assemblages)

Challinor, A.B. (1991)- Revision of the belemnites of Misool and a review of the belemnites of Indonesia. Palaeontographica Abt. A, 218, p. 87-164.

(Mid-Bajocian- Hauterivian belemnites from Sula Islands, Misool and W Papua six genera and 40 species: Dicoelites (M Bajocian- E Oxfordian), Conodicoelites (M Bathonian- E Oxfordian), Belemnopsis (late Bathonian-Valanginian), Hibolithes (important only in Callovian-Oxfordian and Hauterivian) and Cretaceous Duvalia and Chalalabelus. Postulated relationships between Indonesian and New Zealand Belemnitidia non-existent. Gondwana Belemnopsis strongly endemic. Tethyan province extended from W Europe to PNG and possibly New Caledonia inM Jurassic and E Cretaceous. Indo-Tethyan province extending E from N India to PNG existed in Late Jurassic)

De Lange, G.J., J.J. Middelburg, R.P. Poorter & S. Shofiyah (1989)- Ferromanganese encrustations on the seabed west of Misool, Eastern Indonesia. In: J.E. van Hinte et al. (eds.) Proc. Snellius II Symposium, Jakarta 1987, Netherlands J. of Sea Research 24, 4, p. 541-553.
(Black coating on carbonate rocks from seafloor at ~1000m is iron and manganese-rich dolomite)

Froidevaux, C.M. (1974)- Geology of Misool Island (Irian Jaya). Proc. 3rd Annual Conv. Indonesian Petroleum Association (IPA), p. 189-196.
(Misool almost complete Triassic- Present stratigraphic record. Misool Island is N flank of ESE plunging anticlinorium. Oldest rocks exposed folded Triassic flysch along S shore. In Jurassic Misool located near N edge of sea that deepened to S. Thick Eocene carbonates.'Oligocene' unconformity: Miocene carbonates thin W-ward from >1300m to 100m and overlap successively older rocks. Island presently being tilted to SE)

Gerth, H. (1932)- *Thecocyathus misolensis* sp. nov. Eine Koralle aus dem Oxford von Misol. Beitrage Palaontologie des Ost Indischen Archipels, Neues Jahrbuch Mineralogie Geologie Palaontologie, Abhandlungen, Beilage Band B69, p. 169-171.
('Thecocyathus misolensis sp. nov., A coral from the Oxfordian of Misool')

Hasibuan, F. (1987)- The Triassic worm-tube *Terebellina mackayi* (Bather) from Indonesia. Geological Society New Zealand, Misc. Publ. 37 A, p.
(Triassic calcareous tube worm in Ladinian or Carnian Keskain Fm 'flysch' deposits of Misool)

Hasibuan, F. (1990)- Mesozoic stratigraphy and paleontology of Misool Archipelago, Indonesia. Ph.D. Thesis, University of Auckland, p. 1-384. *(Unpublished)*
(Mesozoic on S half of Misool and adjacent islets includes Triassic (Anisian- Norian), Jurassic (Toarcian-Tithonian) and Cretaceous, unconformably over low metamorphic Siluro-Devonian Ligu Fm. Triassic Keskain Fm 1000m of Anisian-Ladinian sst/shale unconformably overlain by ~100m Late Triassic (Carnian-Rhaetian) Bogal Fm limestone. Major unconformity in E Jurassic. Most Jurassic formations rift-drift on N margin of Australian Gondwanana continent. In Triassic Misool related to Buru, Seram and Sumatra Islands, although few common species. Triassic and Lias also similar faunas to Alps and Mediterranean. Jurassic of Misool similar to Sula in bivalve content, but diverse ammonites of Sula replaced by assemblages of belemnites. In Triassic-Jurassic Misool was on SE margin of Tethys Sea. E Triassic block faulting affected Misool, but since then relatively stable and on N margin of Australian-Gondwana continent)

Hasibuan, F. (1992)- Mesozoic biostratigraphy of Misool Archipelago, Indonesia. Proc. Second International Symposium Geology and evolution of Eastern Tethys, IGCP 321, Abstracts, p. 50-59.

Hasibuan, F. (1998)- Asosiasi fauna paleoekologi dan lingkungan pengendapan formasi-formasi batuan Jura-Kapur Awal di Kepulauan Misool, Irian Jaya. Proc. 27th Annual Conv. Indonesian Association Geologists (IAGI), 2 (Sedimentology Paleontology Stratigraphy), Yogyakarta, p. 27-36.
(online at: https://www.iagi.or.id/web/digital/56/29.pdf)
('Paleoecological faunal associations and depositional environments of Jurassic- Upper Cretaceous rock formations of the Misool Islands, Irian Jaya'. Four paleoecological faunal associations in shelfal marine Jurassic of SE Misool: (1) Bivalve- Ammonite (Toarcian- Bathonian; locally with low oxygen(?), pseudoplanktonic Bositra ornata), (2) Belemnite-Bivalve (Callovian- Oxfordian), (3) Ammonite-Bivalve-Belemnite, with Belemnopsis moluccana, Retroceramus haasti, Malayomaorica (Kimmeridgean- E Tithonian), (4) Bivalvia-Ammonite-Belemnite with Buchia spp, Belemnopsis galoi, B. stolleyi, etc. (Tithonian))

Hasibuan, F. (2004)- Buchiidae (Bivalvia) Jura Akhir sampai Kapur Awal dari kepulauan Misool dan korelasi regionalnya. Jurnal Sumber Daya Geologi (JSDG) (GRDC, Bandung), 14, 2 (146), p. 51-60.
('Late Jurassic- Early Cretaceous Buchiidae from Misool'. Bivalves of Buchia family in Demu Fm (Late Callovian- Oxfordian; Praebuchia), Lelinta Fm (Late Oxfordian- E Berriasian; B. subspitiensis, B. blanfordiana; also with Malayomaorica) and Gamta Fm (Late Callovian-Cenomanian). Stratigraphic ranges of Buchia from Misool correlated with overseas Buchia, showing good marker for regional correlation)

Hasibuan, F. (2007)- Annelid *Terebellina mackayi* (Bather) from Middle Triassic Keskain Formation, Misool Archipelago. Jurnal Sumber Daya Geologi (JSDG) 17, 2, p. 116-123.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/284/255)
(Infaunal tube worm with agglutinated body in M Triassic Keskain Fm 'flysch' deposits at S side of Misool, associated with Daonella and ammonite Beyrichites. Also known from Sumatra, Thailand, Timor, New Zealand)

Hasibuan, F. (2008)- Pre-Tertiary biostratigraphy of Indonesia. Proc. Int. Symposium Geoscience Resources and Environments of Asian Terranes (GREAT 2008), 4th IGCP 516 and 5th APSEG, Bangkok, p. 323-325.
(online at: https://library.dmr.go.th/elib/cgi-bin/opacexe.exe?op=mmvw&db=Main&skin=S&mmid=13577&bid=18301)
(Paleozoic rocks in Indonesia scattered amongst archipelago and generally thin. Biostratigraphy scarce and most publications not in English. Sumatra and Timor only localities with exposed ?Carboniferous-Permian. Siluro-Devonian faunas only on Irian Jaya. Mesozoic biostratigraphy based mainly on Misool Archipelago, with most complete Mesozoic section ranging from Triassic (Anisian?) to Upper Cretaceous)

Hasibuan, F. (2009)- Biostratigrafi dan biota Jura kepulauan Misool, Indonesia, dan korelasi interregional dan globalnya. Jurnal Sumber Daya Geologi (JSDG) 19, 3, p. 191-207.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/205/196)
('Jurassic biostratigraphy and biota of the Misool islands and its interregional and global correlations'. Jurassic on Misool ~260m thick, spanning Toarcian- Tithonian stages. Can be correlated with New Guinea fauna with ammonites like Fontannesia killiani. Similar bivalve faunas as Sula islands, but Sula faunas also rich in ammonites, while Misool has more belemnites)

Hasibuan, F. (2010)- Cretaceous Inoceramidae (Bivalvia) from Fafanlap Formation, Misool Archipelago, Indonesia. Proc. IGCP 507 Project Symposium Paleoclimates in Asia during the Cretaceous, Yogyakarta 2010, 1p. *(Abstract only)*
(online at: http://igcp507.grdc.esdm.go.id/downloads/cat_view/34-documents)
(Description of small collection of M Campanian inoceramid bivalves from Fafanlap Fm, Misool. Similar to Campanian assemblage from U Kembelangan Fm from W Papua 'Birds Head')

Hasibuan, F. (2010)- Analisis lingkungan pengendapan batuan berumur Jura di Kepulauan Misool, Papua berdasarkan fosil makro. Jurnal Sumber Daya Geologi (JSDG) 20, 5, p. 235-250.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/176/172)
('Facies analysis of rocks of Jurassic age of the Misool islands, Papua, based on macrofossils'. Bivalve molluscs throughout section, belemnites first appear in Callovian. Four Toarcian-Berriasian fossil assemblages on Misool: (1) bivalve-ammonite with Bositra ornati (= anoxic, Aalenian); (2) belemnite-bivalve (Callovian-Oxfordian; with Retroceramus galoi, Malayomaorica, etc.); (3, 4) ammonite-bivalve-belemnite and bivalve-ammonite-belemnite assemblages (Kimmeridgean- Tithonian). Paleoenvironment continental shelf and slope, at N margin of Gondwanaland/ S coast of Tethyan Sea)

Hasibuan, F. (2012)- Mesozoic geology and paleontology of Misool Archipelago, Eastern Indonesia. Geological Agency, Bandung, p. 1-210.
(Thorough review of geology, paleontology (diverse marine faunas of brachiopods, molluscs, ammonoids), biostratigraphy of ~1800m thick M Triassic- Cretaceous section of Misool Islands, and correlations with other regions. Oldest rocks thick, locally steeply dipping Ligu Fm low-grade turbiditic meta-sediments (possibly equivalent of Kemum Fm of Birds Head). Overlain by >1000m thick M Triassic Keskain Fm flysch-type clastics

(with endemic Daonella lilintana) and locally steeply dipping, ~100m thick shallow marine Carnian- U Norian 'Athyrid Limestone' (Bogal and Lios Fms; with Misolia misolica brachiopod and Palaeocardita globiformis). Unconformably overlain by gently-dipping neritic marine late E Jurassic ~260m thick ('break-up unconformity'), starting with Late Toarcian Yefbie Fm shales, with basal conglomerate of milky quartz pebbles. 'Aucella (Buchia, Malayomaorica) Sandstone and Demu Limestone of Callovian-Oxfordian age with belemnites, etc. Tithonian Lelinta Fm with inoceramid pelagic molluscs and Belemnopsis galoi. Main faunal affinities with New Guinea and Buru island. E Cretaceous rel. deep marine pelagic 'Facet Fm' limestone)

Hasibuan, F. & J.A. Grant-Mackie (2007)- Triassic and Jurassic gastropods from the Misool Archipelago. Jurnal Sumber Daya Geologi (JSDG) 17, 4 (160), p. 257-272.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/294/265)
(Gastropod fauna of Triassic and Jurassic ages from SE Misool Archipelago reviewed, based on 1981 collection. Five described species and five in open nomenclature. Most taxa unique to this area, but Eucyclus orbignyanus known also from Europe)

Hasibuan, F. & P. Janvier (1985)- *Lepidotes* sp. (Actinopterygii, Halecostomi), a fish from the Lower Jurassic of Misool Island. Geological Research Development Centre (GRDC), Bandung, Seri Paleontologi 7, p. 10-17.
(Lepidotes-like scales of E Jurassic marine fish fossils from Misool island)

Hasibuan, F. & E. Rusmana (2007)- Cretaceous rocks of Misool Archipelago, Indonesia. Jurnal Sumber Daya Geologi (JSDG) 17, 6 (162), p. 420-435.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/322/288)
(Overview of stratigraphy and macrofaunas of Cretaceous at S side Misool and adjacent islands. Section dominated by relatively thin deep marine calcilutites (~100m thick Berriasian- Cenomanian Gamta Fm limestone with chert and with Hibolithes, Belemnopsis, and ~80m of M Cenomanian- Santonian Waaf Fm red-brown and while bedded limestone with reddish chert, rich in planktonic forams). Thicker (~200m) and probably shallower Campanian- Late Maastrichtian Fafanlap Fm shaly limestone with silts and sands and oolitic limestone at top. Macrofossils include Inoceramus and rudist Durania wanneri)

Heinz, R. (1928)- Uber die Oberkreide-Inoceramen der Inseln Fafanlap, Jabatano und Jillu III im Misol Archipel und ihre Beziehungen zu denen Europas und anderer Gebiete. Mitteilungen aus dem Mineralogisch-Geologischen Staats-Institut in Hamburg 10, p. 99-110.
(online at: https://babel.hathitrust.org/cgi/pt?id=uiug.30112027732475&seq=221)
('On the Upper Cretaceous Inoceramus molluscs from the islands Fafanlap, Jabatano and Jillu III in the Misool Archipelago and their relations to those of Europe and other areas'. Revision of J. Boehm (1924) inoceramid bivalves from Fafanlap Fm. Fossils considered to be of Turonian-Senonian age, not Maastrichtian as suggested by Boehm. Incl. species Inoceramus haani, I. australis, I. schoenbachi var. rumphii, I. regularis var. misoliensis, etc. Mainly European affinities. No figures)

Helby, R. & F. Hasibuan (1988)- A Jurassic dinoflagellate sequence from Misool, Indonesia. Proc. 7th International Palynological Conference, Brisbane, p. 69. *(Abstract only)*
(Diverse Jurassic dinoflagellate assemblages from Misool. Yefbie shale Toarcian-Bathonian Caddasphaera halosa zone. Demu Fm late Callovian suite to Oxfordian Wanaea spectabilis zone. Lelinta shale upper Oxfordian-early Kimmeridgean Wanaea clathrata zone, possibly extending into early Berriasian Kalyptea wisemaniae zone. Mid-Bathonian- Late Callovian unconformity between Yefbie Fm and Demu Fm. Apparent absence of Kimmeridgean Dingodinium swanense zone in middle Lelinta shale)

Jaworski, E. (1915)- Die Fauna der obertriadischen Nuculamergel von Misol. In: J. Wanner (ed.) Palaontologie von Timor, Schweizerbart, Stuttgart, II, 5, p. 73-174.
('Fauna from Upper Triassic Nucula marls of Misool'. Nucula marls in SE part of Lios island SE of Misool underlies the 'Athyridenkalk' (Misolia limestone). Mainly bivalves (Pecten misolensis and other spp., Nucula misolensis n.sp., Anadontophora, Myophoria, Paleocardita), gastropods, solitary corals (Molukkia triasica n.gen., n.sp., Leptophyllia praecursor n.sp.)

Kristan-Tollmann, E. & F. Hasibuan (1990)- Ostracoden aus der Obertrias von Misol (Indonesien). Austrian J. Earth Sciences (Mitteilungen Osterreichischen Geologischen Gesellschaft) 82, p. 173-181.
(online at: www.zobodat.at/pdf/MittGeolGes_82_0173-0181.pdf)
('Ostracods from the Upper Triassic of Misool'. Small ostracod fauna from marine Early Carnian?. Nearly all genera known from W Tethys, but found here for first time in E-most Tethys. One new form (Hasibuana asiatica))

Krumbeck, L. (1911)- Uber die Fauna des Norischen Athyridenkalkes von Misol. Dissertation Friedrich-Alexanders-Universitat zu Erlangen, Schweizerbart, p. 1-38.
('On the fauna of the Norian athyrid limestone of Misool'. Brief description of Late Triassic macrofauna of ~50m thick limestone rich in Misolia brachiopods from S coast and ilands Jillu, etc., off S Misool. Includes some corals (Thecosmilia), stromatoporoids, hydrozoans (Heterastridium), pectenids, etc. No illustrations)

Krumbeck, L. (1913)- Obere Trias von Buru und Misol. C. Der Athyridenkalk des Misol-Archipels. Palaeontographica Supplement IV, 2, Beitrage zur Geologie von Niederlandisch-Indien II, 1, p. 128-161.
('Upper Triassic of Buru and Misool. C. The Athyrid limestone of the Misool Archipelago'. Macrofaunas collected by Boehm and Wanner from the ~50m thick Athyrid Limestone of the Misool islands. Rel. shallow marine dark grey limestone with grey and yellowish marls with corals (Thecosmilia cf. clathrata), hydrozoa (Heterastridium), crinoids (Pentacrinus), brachiopods (Spirigera, Aulacothyris), bivalves (Pecten, Anadontophora, Cardita,

Krumbeck, L. (1934)- Die Aucellen des Malms von Misol. Beitrage zur Palaeontologie des Ostindischen Archipels 10, Neues Jahrbuch Mineralogie Geologie Palaontologie, Beilage Band 71, p. 422-467.
('The Aucellas from the Malm of Misool'. West Misool Upper Jurassic (Oxfordian) siliceous marls with muscovite and fine quartz grains and Aucella sandstone with common Aucella (now called Buchia) molluscs, commonly compressed and dissolved. Also Aucellas from clay-marls from Facet island ('Fatjet Schiefer'), with rich open marine foram assemblages. Facet shales with Aucella (Buchia) malayomaorica, also known from Timor, Roti, Buru, Seram and New Zealand North Island, underlying Demu Limestone with A. cf. subspitiensis)

MacFarlan, D.A.B., F. Hasibuan & J.A. Grant-Mackie (2011)- Mesozoic brachiopods of Misool Archipelago, eastern Indonesia. In: G.R. Shi (ed.) Brachiopods: extant and extinct, Proc. 6th International Brachiopod Congress, Melbourne 2010, Memoir Assoc. Australasian Palaeontologists (AAP) 41, p. 149-177.
(Mesozoic brachiopod fauna of Misool ten species, only one previously described (Rhaetian Misolia misolica; three varieties of Von Seidlitz (1913) are synonyms). Four new Late Triassic species, incl. Zugmayerella bogalica, two Jurassic (incl. Aucklandirhynchia yefbiensis) and three Cretaceous. Biogeographically fauna is Perigondwanan (or S Tethyan). Aucklandirhynchia yefbiensis and Prochlidonophora spinulifera of Austral affinity and Ptilorhynchia pugnaciformis belongs to Circum-Pacific or bipolar genus)

Mulyadi, D. (2010)- Mikrofasies dan diagenesa batugamping Formasi Zaag de Pulau Misool dan sekitarnya. J. Teknologi Technoscientia (AKPRIND) 3, 1, p. 22-27
(online at: https://journal.akprind.ac.id/index.php/technoscientia/article/view/430/314)
('Microfacies and limestone diagenesis of the Zaag Fm of Misool island and surroundings'. (Paleocene-?) Eocene Zaag Fm carbonates on Misool two facies: (1) packstones with Fasciolites (Alveolina) and Lacazinella and (2) grainstones with Fasciolites (Alveolina), miliolids and algae)

Pigram, C.J., A.B. Challinor, F. Hasibuan, E. Rusmana & U. Hartono (1982)- Geological results of the 1981 expedition to the Misool Archipelago, Irian Jaya. Bull. Geological Research Development Centre (GRDC) 6, p. 18-29.
(Misool islands with rel. complete and fossiliferous Mesozoic sequences. Low-grade Paleozoic metamorphic basement (folded 'flysch') similar to Seram Sea area islands. ?Triassic flysch-type Keskain Fm unconformably overlain by Late Triassic reefal Bogal Lst with brachiopod Misolia. Marine Jurassic section above E Jurassic breakup unconformity starts with Toarcian-Callovian quartz sandstone but mostly shale with belemnites and ammonites. Latest Jurassic- E Cretaceous section is deep marine Facet Gp calcilutites, overlain by Fafanlap tuffaceous clastics. Eocene Zaag Lst platform carbonates with Alveolina. Late Oligocene unconformity overlain by E Miocene Kasim marls (equivalent of Sirga sst of New Guinea?) and E-M Miocene Openta Lst)

Pigram, C.J., A.B. Challinor, F. Hasibuan, E. Rusmana & U. Hartono (1982)- Lithostratigraphy of the Misool Archipelago, Irian Jaya, Indonesia. Geologie en Mijnbouw 61, 3, p. 265-279.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0V29FOHAxRDlzM3c/view)
(On surface geology of islands S of Misool and Paleozoic- Pliocene stratigraphy of Misool. Metamorphics form basement overlain by ?Triassic flysch which was block-faulted and uplifted during Carnian, after which platform carbonates were deposited followed by a period of non-deposition. Marine sedimentation resumed in E Jurassic with fine clastics and bathyal carbonates, incl. radiolarian cherts. E Cretaceous volcanism accompanied by change to fluvio-deltaic environment. E Tertiary carbonate platform, with marl deposited after Late Oligocene folding. Quaternary uplift formed Misool Archipelago. Misool stratigraphy is continuation of NW Australian/ New Guinea rift-drift sequence formed during breakup of N Gondwana)

Roggeveen, P.M. (1939)- Geologisch onderzoek van Noord Misool. Nederlands Nieuw Guinea Petroleum Maatschappij (NNGPM) Report 19288, p. 1-40. *(Unpublished)*
('Geologic investigations of North Misool'. Frequently quoted NNGPM report, a.o. in Van Bemmelen 1949)

Rusmana, E., U. Hartono & C.J. Pigram (1989)- Geological map of the Misool quadrangle, Irian Jaya, 1:250,000. Geological Research Development Centre (GRDC), Bandung.

Simbolon, B., S. Martodjojo & R. Gunawan (1984)- Geology and hydrocarbon prospects of the Pre-Tertiary system of Misool area. Proc. 13th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 317-340.
(Review of M Triassic- Cretaceous stratigraphy and paleogeography of Misool Island area)

Siregar, M.S. (1985)- Karbonat Formasi Waaf berumur Kapur di Pulau Misool. J. RISET Geologi dan Pertambangan (LIPI) 6, 2, p. 36-45.
(Cretaceous Waaf Formation carbonate on Misool Island'. Waaf Fm U Cretaceous carbonate well exposed in S area of Misool. Composed of limestone, marl and chert, generally dark (red-brown), thin-bedded (2-20 cm) with abundant planktonic forams (Globotruncana) in fine matrix. Interpreted as deep marine pelagic sediment)

Siregar, M.S. (1986)- Endapat karbonat laut dalam di Pulau Misool. Proc. 15th Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta 1986, p. 11-17.
(online at: https://www.iagi.or.id/web/digital/42/PIT-IAGI-1986-Vol-1-Paper-2.pdf)
(Menarine carbonate deposits of Misool island'. Brief review of Triassic- Cenozoic stratigraphy (largely based on Pigram et al. (1982) and Simbolon et al., 1984; no mention of Skwarko (1981 or pre-Independence publications; JTvG)

Siregar, M.S., K. Suharyono, Atot, Munasri, Y. Silahali & F. Hehuwat (1986)- Geologi batuan fosfatan di Pulau Misool, Irian Jaya. Proc. 15th Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, p. 434-444.
(online at: https://www.iagi.or.id/web/digital/44/PIT-IAGI-1986-Vol-2-Paper-13.pdf)
('Geology of phosphatic rocks on Misool island, West Papua'. On phosphorite layers and phosphatic nodules in U Triassic- Cretaceous marine sediments of Misool. No phosphorite deposits of economic size observed)

Skwarko, S.K. (1981)- History of geological investigations of the Misool Archipelago, Moluccas, Indonesia. Geological Research Development Centre (GRDC), Bandung, Seri Paleontologi 2, p. 53-66.
(Overview of 50 papers on Misool geology since 1899. Mesozoic probably >4000m thick, overlying pre-Late Triassic metamorphics and subdivided into 22 time-rock units. ?Ladinian-Carnian Keskain flysch overlain by Norian marls and Misolia limestones. Jurassic unconformable on Triassic, with thin M Liassic quartz sst, followed by shelfal marine marls, shales, thin limestones, calcareous sandstones, with locally common macrofossils. Cretaceous mainly pelagic limestone)

Soergel, W. (1913)- Geologische Mitteilungen aus dem Indo-Australischen Archipel. 9: Lias und Dogger von Jefbie und Filialpopo (Misol Archipel). Neues Jahrbuch Mineralogie Geologie Palaontologie, Beilage Band B 36, p. 586-612.

('Liassic and Dogger of Jefbie and Filialpopo, Misool Archipelago'. Descriptions of Middle Jurassic macrofossils collected by Boehm in 1901, Van Nouhuys and J. Wanner in 1909. Mainly bivalves (Astarte spp., Nucula, Cucullaea, etc.), also gastropods, brachiopods, ammonites (Harpoceras spp.) and belemnites)

Soergel, W. (1915)- Unterer Dogger von Jefbie (Misol Archipel). Ein Nachtrag zur Stratigraphie und Biologie. Zeitschrift Deutschen Geologischen Gesellschaft, Berlin, 67, B, Monatsberichte 3, p. 99-109.
(online at: https://ia800308.us.archive.org/3/items/zeitschriftderd671915deut/zeitschriftderd671915deut.pdf)
(More on Dogger (M Jurassic) of Jefbie, Misool Archipelago. After completion of Soergel (1913) paper, additional fossils from Jefbie received from J. Wanner, incl. Harpoceras toarcense, H. comense, Hildoceras, Nucula hammeri, etc. No figures)

Stolley, E. (1934)- Zur Kenntnis des Jura und der Unterkreide von Misol. 1. Stratigraphischer Teil. Beitrage zur Palaontologie des Ostindischen Archipels 11, Neues Jahrbuch Mineralogie Geologie Palaontologie, Abhandlungen B, 71, p. 470-486.
('On the knowledge of the Jurassic and Lower Cretaceous of Misool- Part 1 Stratigraphy')

Stolley, E. (1935)- Zur Kenntnis des Jura und der Unterkreide von Misol. 2. Palaeontogischer Teil. Neues Jahrbuch Mineralogie Geologie Palaontologie, Abhandlungen B, 73, p. 42-69.
(online at: http://jurassic.ru/pdf/Stolley_1935_K_Misol_HI.pdf)
('On the knowledge of the Jurassic and Lower Cretaceous of Misool- Part 2- paleontology'. Study of belemnites from new collections from Misool by F. Weber in Basel. New species of Prodicoelites, Belemnopsis (incl. B. indica-moluccana and B. incisa), Hibolites (H. weberi), Duvalia, etc.)

Syafron, E. (2011)- Evaluation of the Mesozoic stratigraphy of Misool island and implications for petroleum exploration in the Bird's Head region, West Papua, Indonesia. Proc. 35th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA11-G-158, p. 1-13.
(Review of Triassic- Jurassic stratigraphy of Misool. Bajocian (M Jurassic) Yefbie Fm marine black shale with terrestrial influence; probably distal facies of Roabiba Sst reservoirs in Tangguh area, Bintuni Bay. Shale underlain by Toarcian sandy limestone and basal conglomerate, equivalent to E Jurassic sandstones penetrated in East Onin-1ST and TBJ-1X wells. Best potential source rock Yefbie Fm shale (TOC up to 1.9%, HI 120-180 mgS2/gTOC, gas prone kerogen type III). No potential reservoir in outcrop)

Thrupp, G.A., E.A. Silver & H. Prasetyo (1986)- Preliminary results of a palaeomagnetic study of Misool, Irian Jaya. In: IOC Symposium on marine science in the Western Pacific: the Indo-Pacific convergence, Townsville 1986, p. 29. *(Abstract only)*
(Results of paleomagnetic analysis of 614 samples from 107 sites on Misool. Tertiary carbonates very weak magnetizaton, but Late Cretaceous Fafanlap and Waaf formations retain well-defined, pre-folding magnetic directions that suggest substantial CCW rotation of Misool relative to Australia (presumably since Late Cretaceous; JTvG))

Thrupp, G.A., W.V. Sliter, E.A. Silver, C.J. Pigram, H. Prasetyo & R.S. Coe (1988)- Palaeomagnetism of Late Cretaceous calcareous sediments from the Misool Archipelago, Irian Jaya. 9th Australian Geological Convention, Brisbane 1988, Abstracts 21, p. 401-402.

Thrupp, G.A., W.V. Sliter, E.A. Silver, H. Prasetyo & R.S. Coe (1987)- Paleomagnetic evidence from Late Cretaceous rocks of Misool for rotation relative to Australia. EOS Transactions 68, 44, p. 1260. *(Abstract only)*
(Paleomag data collected for 107 sites on Misool. For most formations magnetization barely detectable, but exceptional fidelity of thermal demagnetization data of Late Cretaceous (Turonian-. Santonian) Waaf Fm planktonic foram biomicrites. Indicate 33°+/- 5° CCW rotation of Misool since Cretaceous and negligible latitudinal displacement relative to Australia (see also Wensink et al. 1989))

Vogler, J. (1941)- Ober-Jura und Kreide von Misol (Niederlandisch-Ostindien). In: Beitrage zur Geologie von Niederlandisch-Indien, Palaeontographica Supplement IV, IV, 4, p. 243-293.

('Upper Jurassic and Cretaceous of Misool'. Reports of acid tuffs in Jurassic and Upper Cretaceous limestones. Late Jurassic Facet Limestone with calcispheres Stomosphaera and Cadosina spp. Illustrations of vertical sections of Upper Cretaceous keeled Globotruncana planktonic forams)

Von Seidlitz, W. (1913)- *Misolia*, eine neue Brachiopoden-Gattung aus den Athyridenkalken von Buru und Misol. Beitrage zur Geologie von Niederlandisch-Indien II, 2, Palaeontographica Supplement IV, p. 163-194.
(online at: http://sammlungen.ub.uni-frankfurt.de/botanik/periodical/pageview/4499569)
(New genus-spcies Misolia misolica for Upper Triassic (Norian) shallow marine costate athyrid brachiopod from Athyrides limestone SW of Lilinta in Misool and Fogi Beds of Buru. Genus characteristic of 'Gondwanan Tethys'; also known from NW Australian margin)

Wandel, G. (1936)- Beitrage zur Kenntnis der Jurassischen Molluskenfauna von Misol, Ost Celebes, Buton, Seran und Jamdena. In: J. Wanner (ed.) Beitrage zur Palaeontologie des Ostindischen Archipels 13, Neues Jahrbuch Mineralogie Geologie Palaontologie, Beilage Band 75B, p. 447-526.
('Contributions to the knowledge of Jurassic molluscs from Misool, East Sulawesi, Buton, Seram and Yamdena'. Description of Mollusca, mainly collected by F. Weber. Misool faunas include upper Liassic Harpoceraten beds, lower Dogger Hammoceraten beds, Oxfordian Aucella malayomaorica marls (also in E Sulawesi), etc.)

Wanner, J. (1910)- Beitrage zur geologischen Kenntnis der Insel Misol (Niederlandisch Ost-Indien). Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2) 27, p. 469-500.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:037122000:00005)
('Contributions to the geological knowledge of Misool island'. Early description of geology and Mesozoic stratigraphy of S Misool and adjacent islands, based on 3-week visit in 1909. Misool island structure rel. simple: 10-20° N-dip. U Triassic- Cretaceous open marine succession, overlain by Eocene alveolinid limestone: (1) Triassic Keskain Beds with Daonella, (2) Nucula Marls, with Triassic Nucula, Myophoria, Cardita (3) U Triassic Athyrid Limestone, (4) Harpoceratid shales with E Jurassic ammonites-belemnites, (5) Lilinta Beds with U Jurassic ammonites- belemnites, (6) Facet Shales, (7) Facet Limestones with Cretaceous planktonic foraminifera, incl. Discorbina (=Globotruncana), (8) Inoceramus-Radiolites marl with U Cretaceous bivalves and rudists, (9) Eocene Alveolina Limestone, (10) Late Tertiary limestone with Lepidocyclina, etc. With 1:187,500 scale map)

Weber, F. (1930)- Verslag over het geologisch onderzoek op de eilandengroep van Misool. Nederlands Nieuw Guinea Petroleum Maatschappij (NNGPM), Report 12103, p.
('Report of geological investigations of the Misool islands group'. Frequently quoted unpublished BPM/ NNGPM report on Misool islands geology)

Wensink, H., S. Hartosukohardjo & Y. Suryana (1989)- Palaeomagnetism of Cretaceous sediments from Misool, northeastern Indonesia. In: J.E. van Hinte et al. (eds.) Proc. Snellius II Symposium, Jakarta 1987, Netherlands J. of Sea Research 24, p. 287-301.
(online at: https://www.academia.edu/58922368/Palaeomagnetism_of_cretaceous_sediments_from_Misool_Northeastern_Indonesia)
(Misool paleo pole positions do not correspond to Australia; probably split off in Late Triassic-Jurassic. In Late Cretaceous Misool was at ~20° S, much farther N relative to Australia than today. 20° CCW rotation since Late K. Main folding phase on Misool Late Oligocene; older folding event in Late Triassic)

VIII.3. Arafura Shelf

Adhyaksawan, R., P.T. Allo, M. Raharja, M. Isjmiradi & M. Boyd (2010)- Arafura seismic processing: importance of iterating velocity analysis and integrating regional geology to counter signal masking by major unconformities: Proc. 34th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 1-5.

Aldha, T. & Kim Jae Ho (2008)- Tertiary hydrocarbon play in NW Arafura Shelf, Offshore South Papua: frontier area in Eastern Indonesia. Proc. 32nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA08-G-144, p. 1-9.
(On proven Tertiary petroleum system on NW margin of Arafura Shelf between N Aru Islands and Lengguru foldbelt)

Balke, B. & D. Burt (1976)- Arafura Sea area, In: R.B. Leslie et al. (eds.), Economic geology of Australia and Papua New Guinea, Australasian Institute of Mining and Metallurgy (AIMM) Monograph 7, p. 209-214.

Balke, B., C. Page, R. Harrison & G. Roussopou (1973)- Exploration in the Arafura Sea. Australian Petroleum Exploration Assoc. (APEA) Journal 13, p. 9-12.

Bradshaw, J. (1990)- Geological cross-section of the Arafura Basin. Bureau Mineral Resources Geology Geophysics, Record 1990/14, p. 1-18. + Plates
(online at: www.ga.gov.au/metadata-gateway/metadata/record/14306/)
(Offshore Arafura Basin contains >9 km of Paleozoic rocks in Arafura Graben in S part of basin. Basin underlain by M- Late Proterozoic sequence which thickens to E and is probably equivalent to onshore McArthur Basin. Overlain by Mesozoic Money Shoal Basin, ~1 km thick over central parts of graben, thickening rapidly to W and thinning to E and N)

Bradshaw, J., R.S. Nicoll & M. Bradshaw (1990)- The Cambrian to Permo-Triassic Arafura Basin, Northern Australia. Australian Petroleum Exploration Assoc. (APEA) Journal 30, 1, p. 107-127.
(Arafura Basin N Australia shelf thick Cambrian- Permo-Triassic sequence, unconformably overlying Proterozoic McArthur basin, and unconformably overlain by M Jurassic and younger Money Shoal basin. Broad northern platform (3-5 km Paleozoic) and NW trending Goulburn graben (Carboniferous-Lower Permian; >10km Paleozoic; 6 exploration wells). Cambrian-Ordovician mainly carbonates. Late Devonian and Late Carboniferous mainly clastics.)

Brown, C.M. (1979)- Arafura and Money Shoal Basins explanatory notes and stratigraphic correlations. Bureau Mineral Resources Geology Geophysics, Record 1979/51, p. 1-14.
(online at: https://d28rz98at9flks.cloudfront.net/13751/Rec1979_051.pdf)
(Arafura Basin is poorly known intracratonic basin of thick Paleozoic and Proterozoic sedimentary rocks which crop out along N coast of Arnhem Land and extend offshore beneath Arafura Sea. Correlation panel through Paleozoic- Mesozoic of wells Heron 1- Lynedoch 1- Money Shoal 1 and shallow onshore wells. (Manuscript for Brown, 1980))

Brown, C.M. (1980)- Arafura and Money Shoal basins. In: Stratigraphic correlation between sedimentary basins of the ESCAP Region, ESCAP Atlas of Stratigraphy II, 7, p. 52-57.

Carter, P.A. (2013)- Under-explored Palaeozoic and Mesozoic petroleum systems. Proc. 75th EAGE Conference & Exhibition, London, p. 1-4. *(Extended Abstract)*
(Barakan Graben on Arafura Shelf SE of Tanimbar Trough may be underlain by Paleozoic oil source rocks, analoguous to NW Australia shelf Goulburn Graben and Petrel Sub-basin)

Dinkelman, M., J. Granath, J. Christ & P. Emmet (2010)- Arafura Sea: a deep look at an underexplored region. SEAPEX Press 62, 13, 1, p. 76-95.
(New deep regional seismic shows locally very thick (up to 30km) sedimentary section on Arafura Platform. Almost all Precambrian Wessel Group and MacArthur Basin sequence)

Dumont, C. & P. Dattilo (2015)- Money Shoal Basin, North Australia: a sequence stratigraphy study of the Plover and Flamingo Formations. Proc. SE Asia Petroleum Exploration Society (SEAPEX) Conference 2015, Singapore, 5, 7.2, p. 1-3.
(Extended Abstract + Presentation)
(Mesozoic Money Shoal Basin overlies Neoproterozoic-Paleozoic intra-cratonic Arafura Basin. Paleozoic-Mesozoic separated by Late Triassic 'Fitzroy' angular unconformity (N-S compression). E-M Jurassic Plover Fm overall transgressive unit above unconformity, onlapping to SE. Deposition of Late Jurassic- E Cretaceous Flamingo clastic reservoirs partly controlled by paleo-trough and Tithonian tectonic inversion phase)

Earl, K.L. (2006)- An audit of wells in the Arafura Basin. Geoscience Australia Record 2006/02, p. 1-86.
(Online at: www.ga.gov.au/image_cache/GA15192.pdf)
(Summary of geology and wells in Australian sector of S Arafura Sea. Most wells in Goulburn Graben, penetrated Paleozoic of inverted Goulburn graben and Jurassic- Cretaceous of Money Shoal successor basin)

Earl, K.L. G. Logan, H. Struckmeyer& J. Totterdel(2006)- The northern Arafura Basin– a shallow water frontier. AUSGEO News, Gescience Australia, 81, p. 1-4.
(online at: https://www.researchgate.net/publication/280930254_The_northern_Arafura_Basin_-_a_shallow_water_frontier)
(Brief review.. N part of Arafura Basin characterised by large NE-trendingNeoproterozoic half grabens. Overlying Palaeozoic section structurally conformable, with long hiatuses at base Cambrian, Devonian and Carboniferous-Permian sections. Northern Platform has undergone only minor deformation. Hydrocarbon generation and expulsion indicated by possible oil seeps and bright seismic amplitudes)

Edgar, N.T., C.B. Cecil, R.E. Mattick, A.R. Chivas, P. de Deckker & Y.S. Djajadihardja (2003)- A modern analog for tectonic, eustatic and climatic processes in cratonic basins: Gulf of Carpenteria, Northern Australia. In: C.B. Cecil & N.T. Edgar (eds.) Climate controls on stratigraphy, Soc. Sedimentary Geology (SEPM) Special Publ. 77, p. 193-205.
(Gulf of Carpentaria, SE of Arafura Shelf, is tropical, silled epicontinental sea. Reconnaissance seismic and well data show Cenozoic sedimentation clastics-dominated in temperate climate. In Miocene carbonate deposition expanded S-ward into gulf region. In Late Miocene carbonate sedimentation replaced by terrigenous clastics from the developing New Guinea Central Range, during period of wetter climate. At least 14 basin-wide transgressive–regressive cycles identified by channels eroded under subaerial conditions since about Miocene)

Fairbridge, R.W. (1951)- The Aroe Islands and the continental shelf North of Australia. Scope, University West Australia, 1, 6, p. 24-28.
(Geomorphology study of Aru Islands from air photos. Arafura shelf is vast peneplained platform of Pre-Cambrian rocks. Aru Islands Pre-Cambrian basement with thin veneer of Late Tertiary and Quaternary sediments. Marine channels subdividing Aru islands group may be drowned Pleistocene river valleys)

Granath, J., J. Christ, M. Dinkelman & P. Emmet (2011)- Arafura and Banda Seas: a plate-scale look at exploring a convergent margin. SEAPEX Press 63, 14, 1, p. 68-91.
(New deep (>40 km) regional seismic along convergent margin between Aru Trough from Seram to Tanimbar. Seram viewed as fragment of Birds Head thrust North over itself Aru Trough is young extensional basin with complicated Plio-Pleistocene stratigraphy)

Granath, J.W., M. Dinkelman, J.C. Christ-Stringer & P.A. Emmet (2012)- Highlights and implication of a deep-crustal seismic reflection survey in the Arafura Sea region. Berita Sedimentologi 24, p. 48-60.
(online at: www.iagi.or.id/fosi/berita-sedimentologi-no-24-timor-and-arafura-sea.html)
(New deep seismic shows thick two-part Proterozoic section of ~15+ km thick Arafura Basin and underlying additional 15+ km of McArthur Basin equivalents, making up virtually entire crust under Arafura platform. Weber Deep initiated as forearc extensional event, which severed accretionary prism from its volcanic core, then evolved into basin within Banda Basin. Seram thrust belt lies above strike-slip system that separates Banda microplate from Birds Head, and forms plate boundary in that area)

Grosjean, E., G.A. Logan, N. Rollet, G.J. Ryan & K. Glenn (2007)- Geochemistry of shallow tropical marine sediments from the Arafura Sea, Australia. Organic Geochemistry 38, 11, p. 1953-1971.
(Organic matter in modern Arafura Sea tropical carbonate shelf sediments dominated by marine algal input. Closest to shore, high taraxerol abundance indicates strong input of mangrove material during transgression following Last Glacial Maximum. Sediments in paleo-channels with dissolved CH4 of microbial origin)

Gumilar, I.S. (2017)- Periode deformasi Kenozoikum Kepulauan Aru, Cekungan Wokam, Maluku. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 18, 2, p. 89-103.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/186/281)
('Cenozoic deformation period in the Aru Islands, Wokam Basin, Moluccas'. Three periods of Cenozoic deformation on Aru island, all with strike slip faulting: Late Miocene NW-SE stress (SW-NE folds), Late Pleistocene extension, and late N-S lineations)

Harahap, B. H. (2012)- Tectonostratigraphy of the southern part of Papua and Arafura Sea, Eastern Indonesia. Juranal Geologi Indonesia (Indonesian J. on Geoscience; IJOG) 7, 3, p. 167-187.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/145)
('Tectonostratigraphy of the southern part of Papua and the eastern part of the Arafura Sea')

Hardjawidjaksana, K. (1988)- The structure and tectonics of the Aru Trough and its surroundings, Banda Arc, Indonesia. M.Sc. Thesis, London University, p. *(Unpublished)*

Helby, R. (2006)- A palynological reconnaissance of new cuttings samples from the Arafura-1, Kulka-1 and Tasman-1 wells. In: H.I.M. Struckmeyer (comp.) New datasets for the Arafura Basin. Geoscience Australia Record 2006/06, Canberra, p. 1-17.
(Results of palynological analyses from Australian part of Arafura shelf. E Permian Pseudoreticulatispora confluens and Corisaccites alutas in all 3 wells, Carboniferous D. birkheadensis and Spelaeotriletes yberti zones in Kulka 1)

Jongsma, D. (1970)- Eustatic sea level changes in the Arafura Sea. Nature 228, p. 150-151.
(Arafura Sea shelf is submerged subaerialle eroded land surface with fluvial pattern of channels and drowned reefs near edge of shelf. Marine survey in Arafura Sea supports eustatic sea level lowering of >130m between 21,000- 14,000 yrs BP. Submarine teraces down to 200m (dated at probably 170,000 yr BP) reflect much lower sea levels during earlier Pleistocene glacials)

Jongsma, D. (1974)- Marine geology of the Arafura Sea. Bureau Mineral Resources Geology Geophysics, Canberra, Bull. 157, p. 1-56.
(online at: www-a.ga.gov.au/web_temp/1366411/Bull_157.pdf)
(Results of BMR marine geological survey in Australian sector of Arafura Sea in 1969. Seismic profiling revealed series of unconformities in the top few 100m of section. Regional unconformity at base Mesozoic, which overlies Precambrian. Paleozoic sediments may be present in graben in Money Shoal area and N of Melville Island. Another unconformity correlated with regional Mio-Pliocene surface encountered in Ashmore Reef 1 well, etc., corresponding to later Cenozoic orogenies. Near Aru Islands the post-Mesozoic section thin or absent as result of uplift and erosion associated with active orogenic belts to N)

Kaswandi, A.A., F. Ferdian & D. Setiawan (2017)- Tectonostratigraphy of NW edge Arafura platform. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, p. 1-5.
(online at: https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_Tectonostratigraphy-of-NW-Edge.pdf)
(Tectonostratigraphy of NW edge of Arafura Platform divided into (1) Prekinematic 1 and 2 (Proterozoic-Devonian), Syn-kinematic 1 (Permian- E-Triassic rifting; thickening towards NNE-SSW trending normal faults; ASM 1), Base-Jurassic unconformity, Post-kinematic 1 (backstepping M-L Jurassic- Cretaceous, thickening to W), Post-kinematic 2 (Paleogene- Miocene New Guinea Lst), Syn-kinematic 2 (E Pliocene extension at W platform edge) and Syn-kinematic 3 (Late Pliocene and younger Akimeugah foreland basin, thickening to NE; Aru Trough opening)

Katili, J.A. (1986)- Geology and hydrocarbon potential of the Arafura Sea. In: M.T. Halbouty (ed.) Future petroleum provinces of the world, American Assoc. Petroleum Geol. (AAPG), Memoir 40, p. 487-501.
(Arafura Sea continental shelf dominated by Late Paleozoic-Cenozoic shelf sediments, underlain by granitic basement. Two tectonic styles: block faulting in shelf and slope sediments of Arafura sea and Overthrusting of chaotic sediments from Banda Arc towards Australian continent. In Malita- Calder graben gas shows in M Jurassic- E Cretaceous sediments)

Kusnida, D. & T. Naibaho (2018)- Sediment core from the seafloor of Aru Trough, West Papua- Indonesia. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 19, 1, p. 1-7.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/334/332)
(Core ARU-3 from seafloor of Aru Trough W of Aru Islands at water depth of 3543m, 2.26m long. Mainly greenish clay. One thin possible ash layer)

Labutis, V., A. Moore & J. Bradshaw (1992)- Petroleum prospectivity evaluation report Arafura Basin. Australian Geological Survey Organisation (AGSO), Canberra, Record 1992/84, p. 1-58.
(online at: www.ga.gov.au/corporate_data/14584/Rec1992_084.pdf)
(Petroleum prospectivity study of Australian part of Arafura Shelf, incl. Goulburn Graben, N Arafura sub-basin. Bitumen strandings in Arafura Basin have Cretaceous or younger origin)

Livsey, A. (2016)- Hydrocarbon exploration in the Arafura Sea- what works and what doesn't. In: 2016 Technical Symposium Where from, where to, Indonesian Petroleum Association (IPA), Jakarta, p. *(Abstract?)*

Mamengko, M.D.H., D.V. Mamengko & T.P. Setyowati (2026)- 1D basin modeling and geochemical anaylsis of the Arafura Basin.Lemigas Scientific Contributions Oil and Gas (SCOG) 49, 1, p. *(in press)*
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/2007)
(Thermal maturity modeling of five exploration wells (ABDX-1, BRX-1, KBX-1, KLX-1, BBX-1). The analysis identifies several potential source rock intervals ranging from Permian, Jurassic, Cretaceous, to Tertiary ages.

Martin, B.A. & S.J.Cawley (1991)- Onshore and offshore petroleum seepage; contrasting a conventional study in Papua New Guinea and airborne laser fluorosensing over the Arafura Sea. Australian Petroleum Exploration Assoc. (APEA) Journal 31, 1, p. 333-353.

Miharwatiman, J.S., L. Andria, D.W. Kleibacker, J. Elliot & J.A. Baker (2013)- Exploration of the Arafura Basin Indonesia. Proc. SE Asia Petroleum Exploration Society (SEAPEX) Conference, Singapore 2013, p. 1-29. *(Presentation)*
(online at: www.seapex.org/im_images/pdf/Simon/12%20Joko%20Suklis%20SEAPEX2013_Arafura.pdf)

Miharwatiman, J.S., L. Andria, D.W. Kleibacker, J. Elliot & J.A. Baker (2013)- Exploration of the Arafura Basin, Indonesia. Proc. 37th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA13-G-184, p. 1-14.
(https://www.researchgate.net/publication/286919786_Exploration_of_The_Arafura_Basin_Indonesia)
(Same story as Miharwatiman et al. (2013), above. Results of recent ConocoPhillips exploration of Arafura Basin. Thick N-S trending, 700km long Late Proterozoic rift basin on NW margin of Australian continent, overlain by E Paleozoic, inverted in Triassic? (with 8000'- 15,000' of uplift/ erosion) and overlain by thin Cretaceous- Tertiary section. Two unsuccessful wells drilled in 2010-2011, Aru-1 in Amborip VI PSC and Mutiara Putih-1 in Arafura Sea PSC, both TD in Ordovician clastics and limestones, with Silurian- Carboniferous section missing)

Miyazaki, S. & B. McNeil (1998)- Arafura Sea: petroleum prospectivity bulletin and database. Bureau Resource Science, Petroleum Prospectivity Bulletin and Database, 1998/1, p.

Miyazaki, S. & B. McNeil (1998)- Arafura Sea- Tertiary, Mesozoic, Palaeozoic and weathered basement plays. Australian Petroleum Exploration Assoc. (APEA) Journal 38, p. 878.
(Petroleum potential in Arafura Sea: Tertiary, Mesozoic-Paleozoic sandstones or carbonates, weathered Pre-Cambrian basement. NW-trending Goulburn Graben emerged end-Paleozoic, leaving peneplain in E Jurassic. M Jurassic marine transgression over smoothed erosional surface, undeformed, with angular unconformity at base.

Oil shows from Paleozoic-Mesozoic in four wells. Bitumen strandings on S shores of Arafura Sea. Oil slicks over Goulburn Graben during ALF survey. Paleozoic source rocks retain oil generative capability. Jurassic and E Cretaceous sandstones good porosity. Paleozoic reservoirs poor, but often fractured. Six play types: fault rollovers low-relief anticlines, 400 km long Tithonian- basal Cretaceous channel, etc.)

Moore, A. (1995)- Is oil being generated beneath the northern Arafura Sea? AGSO Research Newsletter 23, p. 5-7.
(online at: https://d28rz98at9flks.cloudfront.net/90450/ResearchNews_23_p005.pdf)
(Geohistory analysis of oil exploration wells in (Australian) Arafura Sea indicates that Paleozoic source rocks in Goulburn Graben expelled hydrocarbons before traps formed in Triassic time. Larger areas outside graben less deformed and with low geothermal gradient, and may have remained immature until buried by Tertiary sediments of Money Shoal Basin. In areas to N, hydrocarbons could have been generated since Jurassic)

Moore, A., J. Bradshaw & D. Edwards (1996)- Geohistory modelling of hydrocarbon migration and trap formation in the Arafura Sea. Petroleum Exploration Society Australia (PESA) Journal, 24, p. 35-52.
(online at: www.ga.gov.au/image_cache/GA7804.pdf)
(Lower Paleozoic in Goulburn Graben wells in Australian part of Arafura Sea reached peak maturity before Late Triassic formation of graben)

Moss, S. (2001)- Extending Australian geology into eastern Indonesia and potential source rocks of the Indonesian Arafura Sea. PESA News, Feb-Mar 2001, p. 54-56.
(Lower Paleozoic 'Larapintine' and U Paleozoic 'Gondwanan' petroleum systems, as identified in NW Australia, extend into parts of E Indonesia. Mesozoic 'Westralian' source rocks unlikely in Indonesian Arafura Sea)

Nainggolan, T B., M P Adhar & I Setiadi (2021)- Integration of post-stack inversion and rock physics to determine sandstone reservoir quality: Barakan Sub-basin case. Proc. The 3rd Southeast Asian Conference on Geophysics, Bandung 2020, IOP Conference Series: Earth and Environmental Science 873, 012020, p. 1-6.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/873/1/012020)
(Study of 2D marine seismic and wells Barakan-1 and Koba-1wells. Cross-plot of gamma ray log versus acoustic impedance shows strong correlation of good porosity sandstone to low impedance in Cretaceous Ekmai Fm)

Nicol, G.N. (1970)- Exploration and geology of the Arafura Sea. Australian Petroleum Exploration Assoc. (APEA) Journal 1970, 10, p. 56-61.

Nicoll, R.S. (2006)- Cambrian and Ordovician sediments and biostratigraphy of the Arafura Basin, offshore Northern Territory, Australia. In: H.I.M. Struckmeyer (comp.) New datasets for the Arafura Basin. Geoscience Australia Record 2006/06, Canberra, p. 1-16.
(online at: https://www.ga.gov.au/products/servlet/controller?event=GEOCAT_DETAILS&catno=63994)
(Extensive M Cambrian- E Ordovician 'Goulburn Gp' carbonate shelf underlies most of Arafura Sea between Australia and New Guinea. Same sedimentary package hydrocarbon-bearing in Canning and Amadeus Basins. Conodonts from upper part of carbonate-dominated sequence Late Cambrian- Lower Ordovician (early Arenig) age (Cordylodus sp., Prioniodus adami, Jumudontus brevis, Bergstroemognathus extensus, Serratognathus bilobatus, Cooperignathus aranda, Oepikodus communis, O. cleftus))

Nicoll, R.S. (2006)- Devonian stratigraphy and biostratigraphy of the Arafura Basin, offshore Northern Territory, Australia. In: H.I.M. Struckmeyer (comp.) New datasets for the Arafura Basin. Geoscience Australia Record 2006/06, Canberra, p. 1-10.
(online at: https://www.ga.gov.au/products/servlet/controller?event=GEOCAT_DETAILS&catno=63994)
(Devonian sediments in Goulburn Graben are of Upper Devonian (Famennian) age, and unconformably overlie Cambrian- E Ordovician Goulburn Gp. Conodont faunas from Djabura and Yabooma Fms may represent, crepida and expansa conodont zones and suggests shallow water, inner shelf depositional environments)

Oktariano, O., R.D. Pradhana, S.E. Saputra, B. Sapiie & I. Gunawan (2018)- Exploration new play in frontier basin Aru, Eastern Indonesia using new insight of geophysical and geological evaluation. Proc. 8th EAGE International Geological and Geophysical Conference Exhib., Saint Petersburg, p. *(Extended Abstract)*
(On Pre-Tertiary in Aru area)

Panuju (2012)- Well log sequence stratigraphy and chronostratigraphy of Barakan area, Arafura Sea. Proc. 41st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2012-GD-26, p.
(Sequence stratigraphic interpretation of Barakan-1, Koba-1 and Abadi-1 wells. Cambrian- Recent succession subdivided into 14 sequence units. Several unconformities, and deepening of depositional setting from Koba-1 (N) to Abadi-1 (S))

Panuju, S. Sofyan & H.L. Setiawan (2009)- Sikuen stratigrafi wilayah barat Cekungan Arafura: studi kasus penampang sedimen sumur Barakan-1 dan Koba-1. Proc. 38th Annual Conv. Indonesian Association Geologists (IAGI), Semarang, PITIAGI2009-055, p. 1-15.
(online at: https://www.iagi.or.id/web/digital/26/2009_IAGI_Semarang_Sikuenstratigrafi-Wilayah-Barat.pdf)
('Sequence stratigraphy of the W margin of the Arafura Basin: study of sediments of wells Barakan 1 and Koba 1'. Correlation and sequence stratigraphic interpretation of two key Arafuru Platform margin wells. Latest M Jurassic (Callovian) to basal Cretaceous (Berriasian-Valanginian) sand-rich interval unconformable over Cambrian and older rocks, overlain by deep water M-L Cretaceous clastics and Tertiary carbonate section)

Patmawidjaya, T. & Subagyo (2014)- Penelitian gayaberat dan geomagnit Kepulauan Aru, Cekungan Wokam. J. Geologi Kelautan 12, 1, p. 1-14.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/241/231)
('Gravity and geomagnetic studies of the Aru Islands, Wokam Basin')

Petroconsultants Australasia/ Northern Territory Geological Survey (1989)- Arafura Basin. Multiclient study report, p. 1-117. *(Unpublished)*

Priyanto, B., K. Hokstad, C. Zwach, M. van Schaack, R. Mjos, E.T. Hartadi, Z.A. Tasarova & K. Dufaut (2015)- Heat fow estimation from BSR: An example from the Aru region, ofshore West Papua, Eastern Indonesia. Proc. 39th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA15-G-267, p. 1-11.
(Bottom Simulating Reflector (BSR) widespread on deep-water seismic lines in Aru Trough, corresponding to largest depth of gas hydrate stability. Location of the BSR may be used to estimate heat flow. Statoil heat flow estimates from BSR mapping suggests change in heat flow regime across Tarera-Aiduna strike slip fault zone: lower heat flow NW of TAFZ and higher heat flow in SE, near Aru Trough spreading zone)

Ramli, T., H.M. Saleh, I. Nurdiana & R. Fakhruddin (2021)- Paleozoic basin indication at south of Papua, Indonesia. Proc. Int. Conference on Science, Infrastructure Technology and Regional Development (ICoSITeR 2020), South Lampung 2020, IOP Conference Series: Earth and Environmental Science 830, 012045, p. 1-10.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/830/1/012045/pdf)
(Review of Paleozoic section on Arafura Shelf and southern part of West Papua. Thick Paleozoic basin, rel. thin Mesozoic and Cenozoic)

Rollet, N., G.A. Logan, G. Ryan, A.G. Judd, J.M. Totterdell, K. Glenn et al. (2009)- Shallow gas and fluid migration in the northern Arafura Sea (offshore Northern Australia). Marine and Petroleum Geology 26, p. 129-147.
(Neoproterozoic-Paleozoic Arafura Basin extends from onshore N Australia across Arafura Sea into Indonesian waters, and is overlain by Mesozoic- Cenozoic Money Shoal Basin. Shallow gas indicators and fluid migration pathways in Holocene section identified from pockmarks and echo sounder profiles. Gas in shallow cores of microbial origin, but deeper fluid movement suggested by hydrocarbon slicks interpreted on synthetic aperture radar data)

Sabra, E. (2021)- Evaluation of hydrocarbon source rock potential and organic geochemistry in North Arafura Shelf, Papua (Indonesia). Indonesian J. on Geoscience (IJOG) 8, 3, p. 401-416.

(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/624/349)
(Two potential source rock intervals of Permian age identified in N Arafura Shelf area, offshore S coast of Papua, one in Kola-1 well, one in ASM-1X well)

Shor, G.G. (1974)- Seismic refraction results from the Arafura Sea. CCOP Newsletter 1, 3, p. 21-23.

Siregar, P.H. (2024)- The under explored Paleozoic play in Arafura Platform area: A new perspective. Proc. 48th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA24-G-103, p.

Sloan, R.A. & J.A. Jackson (2012)- Upper-mantle earthquakes beneath the Arafura Sea and south Aru Trough: implications for continental rheology. J. of Geophysical Research: Solid Earth 117, B5, B05402, p. 1-13.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2011JB008992)
(Upper continental lithospheric mantle earthquakes generally rare. Two earthquakes under Arafura Sea, where upper mantle probably rel. cool (<600°C), and one of these earthquakes lies ~25 km below Moho in region where there is no evidence of unusually high strain rates)

Smith, M.R. & J.G. Ross (1986)- Petroleum potential of northern Australian continental shelf. American Assoc. Petroleum Geol. (AAPG) Bull. 70, 11, p. 1700-1712.
(Australian part of Arafura Shelf. Thick Paleozoic basin with possible Devonian reefs, overlain in W by Mesozoic-Tertiary section. Three prospective sequences: Cenozoic with Miocene reefal carbonates, Mesozoic with thick sandstone intervals and thick Paleozoic basin, possibly containing Devonian reefs and younger Paleozoic sandstone intervals. Mesozoic basin prime target for exploration)

Struckmeyer, H.I.M. (comp.) (2006)- Petroleum geology of the Arafura and Money Shoal Basins. Geoscience Australia Record, Canberra, Report 2006/22, p. 1-37.
(online at: https://d28rz98at9flks.cloudfront.net/63995/Rec2006_022.pdf)
(Arafura Basin is thick Neoproterozoic-Paleozoic intracratonic basin that extends from onshore N Australia across Arafura Sea into Indonesian waters. Four subsidence phases, and one uplift phase. Two major episodes of upper crustal extension: NW-SE in Neoproterozoic and NE-SW in Late Carboniferous-E Permian. Major phase of contractional deformation in Middle–Late Triassic, particularly in Goulburn Graben. M Jurassic- Recent subsidence at margin has been called Money Shoal Basin. Four potential source rock intervals)

Struckmeyer, H.I.M. (2006)- The northern Arafura Basin- exploration opportunities from Geoscience Australia's new petroleum program. Australian Petroleum Production Exploration Association (APPEA) J., 2006, 2, p. 143-154.

Struckmeyer, H.I.M., G.J. Ryan & I. Deighton (2006)- Geohistory models for Arafura Basin wells and pseudo-wells. In: New datasets for the Arafura Basin, Geoscience Australia Record 2006/06, p. 1-9.
(online at: www.ga.gov.au/metadata-gateway/metadata/record/gcat_63994)
(Geohistory modeling of wells and pseudo-wells on Australian part of Arafura Platform. Area complex multi-phase subsidence history of initial extension in Neoproterozoic, followed by periods of non-deposition and subsidence in Paleozoic. Contractional event in Triassic resulted in uplift and erosion of up to 3200m of sediments. Modelling suggests high heatflow values for Early Paleozoic)

Subroto, E.A. & D. Noeradi (2008)- Petroleum system of the Paleozoic and Mesozoic formation intervals in the northern Arafura Sea, Papua, Indonesia. EAGE 8th Middle-East Geoscience Conference Exh. (GEO 2008), Bahrein, 1p. *(Abstract only)*
(Geochemical analyses and modeling of outcrop and well samples (mainly W Papua; JTvG) suggest two oil and gas source rocks: (1) Permian Aiduna Fm (TOC=1.3-6.6%, Ro 0.55%); (2) Jurassic- Cretaceous Kembelangan Gp. Basal Lower Kembelangan entered late maturity for hydrocarbon generation (Ro = 1.2%) at ~2 Ma and reached maturity at ~5-10 Ma. Paleozoic formations reached maturation during Mesozoic. Possible reservoirs porosity 5-15% and permeability 10-20 mD)

Summons, R.E., J. Bradshaw, M. Brooks, A.K. Goody, A.P. Murray & C.B. Foster (1993)- Hydrocarbon composition and origins of coastal bitumens from the Northern Territory, Australia. Petroleum Exploration Society Australia (PESA) Journal 21, p. 31-42.
(online at: www.ga.gov.au/image_cache/GA7803.pdf)
(Analyses of coastal bitumens from Northern Territory beaches, facing Arafura Sea. Most samples are waxy bituments derived from lacustrine source rocks, similar to C Sumatra Minas oil and may originate from SE Asia. Associated pollen latest Cretaceous or younger. Second oil family from marine source)

Tayama, R. (1939)- Topography, geology and coral reefs in the Aru Islands in the Dutch East Indies. Japanese J. Geology and Geography 16, p. 31-32.
(Summary by T. Kobayashi of paper in Contributions Inst. Geology Pal. Tohuku Imperial University, Sendai, 20, 1936, p. 1-35. Aru Islands jointed and dismembered Miocene- Pliocene limestone plateau, possibly on granite)

Thomas, B.M., P. Hanson, J.G. Stainforth, P. Stamford & L. Taylor (1990)- Petroleum geology and exploration history of the Carpentaria Basin, Australia, and associated infrabasins. In: M.W. Leighton et al. (eds.) Interior cratonic basins, American Assoc. Petroleum Geol. (AAPG), Memoir 51, p. 709-724.

Verstappen, H.Th. (1959)- Geomorphology and crustal movements of the Aru Islands in relation to the Pleistocene drainage of the Sahul shelf. American Journal of Science 257, 7, p. 491-502.
(online at: https://ajsonline.org/article/58769-geomorphology-and-crustal-movements-of-the-aru-islands-in-relation-to-the-pleistocene-drainage-of-the-sahul-shelf/attachment/137156.pdf)
(Aru islands geanticlinal upwarp of Sahul shelf WNW of Australia. Structural terraces common and wrongly attributed to Recent uplift by several authors. Sunken coast lines and drowned abrasion platforms indicate subsidence of outer zones in Recent times. Channels between islands are result of pattern of diagonal shear joints and have no connection with Pleistocene courses of New Guinea rivers, as often suggested)

Wagimin, N. & E.A. Sentani (2009)- Opportunities (I), Sahul Basin. Inameta J. 7, p. 20-23.
(online at: www.patranusa.com)
(Overview of Arafura Sea/ Sahul Basin, W Papua, in conjunction with tender round offering)

Zhen, Y.Y., J.R. Laurie & R.S. Nicoll (2012)- Cambrian and Ordovician stratigraphy and biostratigraphy of the Arafura Basin, offshore Northern Territory. Memoir Assoc. Australasian Palaeontologists (AAP) 42, p. 437-457.
(Cambrian and Ordovician conodonts and other fossils from petroleum exploration wells (Tasman 1, Torres 1; Goulburn 1, Arafura 1) in Goulburn Graben of Arafura Basin off NW Australia. Also mentions occurrence of Early Ordovician conodonts from wells Noordwest 1 and Cross Catalina 1 in W Papua frontal foldbelt)

VIII.4. Papua New Guinea (East half of New Guinea main island)

Relevance for Indonesia:

- **Comparable Mesozoic-Cenozoic passive margin and collision geology in West Papua and PNG foldbelt;**
- **Comparable post-collisional Cenozoic accretionary terranes in northern West Papua and PNG**
- **The 'Tasmanide' Paleozoic- Triassic active margin 'basement' of PNG is similar to Kemum Terrane of Birds Head and the , Banggai-Sula islands.**

Abbott, L.D. (1995)- Neogene tectonic reconstruction of the Adelbert-Finisterre-New Britain collision, northern Papua New Guinea. J. Southeast Asian Earth Sciences 11, p. 33-51.
(Finisterre terrane colliding with Australian continent in N PNG today. Exposed in Adelbert and Finisterre blocks. Provenance shifts date collision at 3.0-3.7 Ma. Late Pliocene deep water basin between Adelbert block and continent. Deep marine sediments overthrust by older lithologies of Adelbert block. Collision of E part Adelbert block in M-Late Pliocene. W Adelbert block probably collided in latest Miocene. Collision of Adelbert block and most of Finisterre block above single, N-dipping subduction zone. Double subduction in Solomon Sea never extended >20 km W of present location)

Abbott, L.D. & E.A. Silver (1991)- Geology of the southern Finisterre Range: a case history of modern arc-continent collision. In: R. Rogerson (ed.) Proc. PNG Geology Exploration and Mining Conference, Rabaul 1991. Australasian Institute of Mining and Metallurgy (AusIMM), Melbourne, p. 1-7.
(Finisterre Range on N coast of PNG is uplifted forearc region of modern arc-continent collision. Range core composed of Finisterre Volcanics (Oligocene arc terrane), S flank is uplifted accretionary wedge and collision complex, with most thrusts dipping steeply N. Melange fabric near major thrusts. Abrupt change in S Finisterre sandstone provenance from external, orogenic source to Finisterre arc itself in Late Pliocene indicates collision of Finisterre Range younger than previously assumed)

Abbott, L.D., E.A. Silver, R.S. Anderson, R. Smith, J.C. Ingle, S.A. Kling, D. Haig et al. (1997)- Measurement of tectonic surface uplift rate in a young collisional mountain belt. Nature 385, p. 501-507.
(Finisterre Range in NE PNG (=uplifted forearc region of collided W Bismarck Arc) current tectonic uplift rate 0.8- 2.1 mm/yr)

Abbott, L.D., E.A. Silver & J. Galewsky (1994)- Structural evolution of a modern arc-continent collision in Papua New Guinea. Tectonics 13, 5, p. 1007-1034.
(online at: https://www.academia.edu/4110605/Structural_evolution_of_a_modern_arc_continent_collision_in_Papua_New_Guinea)
(N PNG Finisterre Mts- W Solomon Sea site of young, active, oblique collision of Finisterre arc terrane, progressing from NW to SE through time. Accretionary wedge complex of SW-ward younging imbricate thrust sheets alongW-ward extension of New Britain Trench and outcrops in Finisterre Mts as Erap Structural Complex. Collision doubled crustal thickness to 50-52 km)

Abbott, L.D., E.A. Silver, P.R. Thompson, M.V. Filewicz, C. Schneider & Abdoerrias (1994)- Stratigraphic constraints on the development and timing of the arc-continent collision in northern Papua New Guinea. Journal of Sedimentary Research B64, p. 169-183.
(Two sandstone provenance shifts on S flank Finisterre Range. First shift at ~16-18 Ma, from volcanolithic sediments to mixed-provenance rich in quartz and metasedimentary lithics, probably derived from orogenic belt active along Australian continental margin at that time. At 3.0-3.7 Ma volcanic source rejuvenated, reflecting initial collision/ uplift of SE-propagating Finisterre terrane and Australian continental margin. Finisterre terrane composed of Paleogene- Early Miocene volcanic arc rocks, overlain by Miocene- Pleistocene limestones and probably part of larger Outer Melanesian Arc)

Abers, G.A. (1989)- Active tectonics and seismicity of New Guinea. Ph.D. Thesis, Massachusetts Inst. Technology (MIT), p. 1-255.
(online at: https://dspace.mit.edu/handle/1721.1/51475)

(Extensive study of New Guinea active tectonics, based mainly on earthquake data, gravity, etc.))

Abers, G.A. & H. Lyon-Caen (1990)- Regional gravity anomalies, depth of the foreland basin and isostatic compensation of the New Guinea highlands. Tectonics 9, 6, p. 1479-1493.
(New Guinea foreland basin thickens from <200m in E PNG to 1 km in C PNG to >5km in W New Guinea, reflecting thrust loading of increasingly stronger lithosphere to W. PNG also lower elevations and young volcanism)

Abers, G. & R. McCaffrey (1988)- Active deformation in the New Guinea fold-and-thrust belt: seismological evidence for strike-slip faulting and basement-involved thrusting. J. of Geophysical Research 93, B11, p. 13332-13354.
(online at: https://www.researchgate.net/publication/248791585_Active_deformation_in_the_New_Guinea_fold-and-thrust_belt_Seismological_evidence_for_strike-slip_faulting_and_basement-involved_thrusting)
(New Guinea fold-and-thrust belt trend oblique to predicted convergence direction. Large component of left-lateral shear expected, but little geological evidence for such motion. Earthquake mechanisms in New Guinea foldbelt since 1964 indicate thrust events, with steep fault planes, 11-25 km deep, showing thrust faulting penetrates crystalline basement at high angles. Most earthquakes in W half of thrust belt show E-W oriented, left lateral strike-slip faulting. Translation by strike-slip faulting may play greater role than previously recognized)

Abers, G. & R. McCaffrey (1994)- Active arc-continent collision: earthquakes, gravity anomalies and fault kinematics in the Huon-Finisterre collision zone, Papua New Guinea. Tectonics 13, 2, p. 227-245.
(online at: www.researchgate.net/publication/248816208_Active_arc-continent_collision_Earthquakes Etc)
(Huon-Finisterre island arc terrane actively colliding with N edge of Australian continent. Thrust faulting along Ramu-Markham thrust fault zone accomodates most of H-F terrane overthrusting. Thrust earthquakes at depth of 35 km below Huon Peninsula. Thrust earthquake movement produces Pleistocene terrace upliftment on N Huon Peninsula. Much of terrane crust, but little of its mantle being added to Australian continent

Abers, G.A. & S.W. Roecker (1991)- Deep structure of an arc-continent collision: earthquake relocation and inversion for upper mantle P and S wave velocities beneath Papua New Guinea. J. of Geophysical Research 96, B4, p. 6379-6401.
(E PNG earthquakes and seismic velocities used to define subduction zones. Hypocenters show seismic zone dipping vertically or steeply to N beneath N Finistere-Huon ranges from 125-250 km depth, continuous along strike with New Britain seismic zone to E. No evidence for arc polarity reversal from seismicity)

Adams, C.G. & D.J. Belford (1979)- A new foraminifer from the Middle Eocene of Papua New Guinea. Palaeontology 22, 1, p. 181-187.
(Reticulogyra mirata, a new complex miliolid species from Middle Eocene Lower Chimbu limestone. Associated larger forams include Fasciolites, Nummulites javanus, Dictyoconus chimbuensis)

Afenya, P.M. (1986)- Chromite deposits of Papua New Guinea- a future potential source of chrome. In: G.H. Teh & S. Paramananthan (eds.) Proc. 5th Regional Congress Geology Mineral Energy Resources of SE Asia (GEOSEA V), Kuala Lumpur 1984, 1, Bull. Geological Society Malaysia 19, p. 303-314.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1986021.pdf)
(Chromite deposits associated with New Guinea ophiolite belt in SE PNG. Two main deposits, Ramu chromite and Hessen Bay chromite. Both with characteristics of podiform chromites. Uneconomic in primary form, but higher concentrations in weathered zones)

Aharon, P. & J. Chappell (1986)- Oxygen isotopes, sea level changes and the temperature history of a coral reef environment in New Guinea in the last 100,000 years. Palaeogeogr. Palaeoclim. Palaeoecology 56, p. 337-379.
(Seven reef terraces up to 370m elevation along raising coast of Huon Peninsula, PNG. Spaced at 20 kyr intervals)

Ahmed, M., S.A. Barclay, S.C. George, B. McDonald et al. (2004)- The distribution and isotopic composition of sulfur in solid bitumens from Papua New Guinea. In: R.J. Hill et al. (eds.) Geochemical investigation in earth and space science, a tribute to I.R. Kaplan. Geochem. Soc. Special Publ. 9, Elsevier, p. 51-58.

Ahmed, M., H. Volk, T. Allan & D. Holland (2012)- Origin of oils in the Eastern Papuan Basin, Papua New Guinea. Organic Geochemistry53, p. 137-152.
(Geochemical characteristics of 16 oils/condensates/seep oil/oil shows from E Papuan Basin and one seep oil from W Papuan Basin integrated with data from previous studies show two hydrocarbon families. Family A oils, mostly in WPB region generated from marine source rocks with higher plant derived organic matter, deposited in sub-oxic to oxic environment (likely M-U Jurassic). Family B oils mainly in EPB, generated from Cretaceous or younger marine carbonate source rocks deposited under anoxic- suboxic conditions, and containing mainly prokaryotic OM. Exact source rock formation still unidentified. Both families generated at similar thermal maturities of 1.0-1.3% vitrinite reflectance equivalent)

Alexander, E., J. Mackintosh, J. Hyde & P.C. Boult (2020)- An integrated structural interpretation and modelling workflow for the Barikewa Field, Papua New Guinea. Proc. 2020 PNG's Oil and Gas Industry, Port Moresby, AAPG Search and Discovery Article 20488, p. 1-6.
(online at: https://www.searchanddiscovery.com/pdfz/documents/2020/20488alexander/ndx_alexander.pdf)
(Barikewa Gas Field in Cretaceous Toro Fm and Hedinia Mb in foreland margin area of Papuan Basin discovered in 1950s. Interpreted by Santos as low relief inversion anticline towards S end of Darai Plateau)

Allan, T., M. Korsch & D. Whitford (2012)- Larger foraminiferal extinctions as indicators of eustatic sea level fall; new strontium isotope age evidence from the middle Miocene of the Papuan Basin, Papua New Guinea. Proc. 34th International Geological Congress, Brisbane, Australia, Abstracts, p. 2961. *(Abstract only)*
(Age range of three index taxa of Miocene larger foraminfera calibrated to geological timescale using Sr isotope stratigraphic studies of Darai Limestone. Extinction of Austrotrillina and Miogypsina coincident with M-L Miocene boundary (11.0-11.5 Ma) and a large eustatic 3rd order sea level fall. Disappearance of Miogypsina at approximately same age on North Marion Plateau. Disappearance of Lepidocyclina at ~7.5 Ma in PNG and S Marion Plateau may also reflect eustatic event)

Allan, T.L., J.A. Trotter, D.W. Whitford & M.J.Korsch (2000)- Strontium isotope stratigraphy and the Oligocene-Miocene T-Letter 'Stages' in Papua New Guinea. In: P.G. Buchanan et al. (eds.) Papua New Guinea's petroleum industry in the 21st century, Proc. 4th PNG Petroleum Convention, Port Moresby, p. 155-168.
(Strontium isotopes used to calibrate ages of Oligocene- early Late Miocene Darai Limestone. Age of larger foram zonal boundary Tf1/Tf2 (12.2 Ma) younger than generally accepted age of 15.0 Ma. Te/Tf1 boundary older (20.3 Ma) than generally accepted age of 18.5 Ma. Nummulites possibly ranges in Late Oligocene)

Allan, T., D.J. Whitford, G. Morgan, D.J. Holland & D.P. Leech (2006)- Tertiary stratigraphy of the Papuan Basin: insights from Strontium dating. AAPG Perth International Conference, p. *(Abstract only)*
(Three regressive cycles in Oligo-Miocene Darai Lst, each ending with shallow water limestones for which cycles are named: Mid Darai (28.5-17.5 Ma), Mala (17.5-14 Ma) and Warre (14.0-7.1 Ma). Warre Cycle marks top of Darai Lst. Early Oligocene widespread in basal Darai Lst, with significant Eocene reworking, and recycling of quartz sand from Cretaceous into Eocene and Oligocene units. Last appearances of index foraminifera marking T-Letter stage boundaries coincide with lower Mid Darai and lower- upper Warre Cycle boundaries. In Papuan Foreland, cycle boundaries are correlated with 3rd order seismic sequences, including major off-platform Miocene erosional events. Eustatic sea level falls possible factor in faunal 'turnovers')

Anfiloff, V. & A.J. Flavelle (1982)- Formal gravity interpretation over the 800-m Darai Escarpment in New Guinea. Geophysics (SEG) 47, 7, p. 1091-1099.
(Gravity traverse over 800m Darai escarpment shows fault near base of escarpment. No vertical continuation bump directly over fault. Upthrown basement at depth of roughly 2500m. Fault position near base of escarpment suggests history of repetitive crustal movements)

APC- Australasian Petroleum Company (1940)- Oil exploration in Papua and the Mandated Territory of New Guinea. Company brochure, National Press, Melbourne, p. 1-31. *(Reprinted in McWalter, 1996)*
(Review of exploration program of Australasian Petroleum Company Pty. Ltd. and Island Exploration Company in PNG since 1936. Also some earlier history of petoleum exploration in PNG since 1911)

APC- Australasian Petroleum Company (1961)- Geological results of petroleum exploration in western Papua 1937-1961 (compilers C.A.E. O'Brian, K.W. Gray & I. Gillipie). J. Geological Society of Australia 8, 1, p. 1-133.
(Compilation of previously unpublished PNG oil exploration and well data generated by APC. Principal reference for Papuan Basin stratigraphy)

APC- Australasian Petroleum Company (1961)- Puri No. 1 well, Papua. Bureau Mineral Resources Geology Geophysics, p. 1-59.
(Final well report of APC Puri 1 well, drilled in 1958 on thrust-faulted anticline with repeated stratigraphy at E end of Kereri Range, PNG Highlands. TD 10,100' in Cretaceous. In hanging wall ~1600' of Eocene- Miocene limestone with Discocyclina, Eorupertia and Distichoplax biserialis near base (= Late Paleocene or E Eocene; JTvG), overlain by Late Oligocene with Heterostegina borneensis (Late Eocene-E Oligocene not documented; JTvG). Tested wet gas below 7425' in sub-thrust Oligo-Miocene limestone)

APOC- Anglo-Persian Oil Company (1930)- Oil exploration work in Papua and New Guinea, conducted by the Anglo-Persian Oil Company on behalf of the government of the Commonwealth of Australia, 1920-1929, vol. 1, Harrison and Sons Ltd., London, p.
(First of 4 volumes and 2 Atlases describing oil exploration work by Anglo-Persian (predecessor company of BP) between 1920-1929. Volume 1 contains Part 1. Historical outline; Part 2. Reports of the first geological expedition, 1920-1923; Part 3. Drilling operations at Popo, 1922-1929)

APOC- Anglo-Persian Oil Company (1930)- Oil exploration work in Papua and New Guinea, conducted by the Anglo-Persian Oil Company on behalf of the government of the Commonwealth of Australia, 1920-1929, vol. 2, Harrison and Sons Ltd., London, p.
(Volume II contains Part 4. Reports of the second geological expedition, 1927-1929: Oriomo, Cape Vogel (incl. geological map of Cape Vogel and Kukula 2 well report by Hungarian Dr. Simon Papp, 1928), Barnum river, Sepik, Hansemann coast)

APOC- Anglo-Persian Oil Company (1930)- Oil exploration work in Papua and New Guinea, conducted by the Anglo-Persian Oil Company on behalf of the government of the Commonwealth of Australia, 1920-1929. vol. 3, Harrison and Sons Ltd., London, p.
(Volume III contains Part 4 (cont.) Geology of the Finsche coast area, north-west New Guinea)

APOC- Anglo-Persian Oil Company (1930)- Oil exploration work in Papua and New Guinea, conducted by the Anglo-Persian Oil Company on behalf of the government of the Commonwealth of Australia, 1920-1929, vol. 4, Harrison and Sons Ltd., London, p.
(Volume IV contains Part 5. A contribution to the tertiary geology of Papua, 1929-1930; Part 6. A brief review of the oil prospecting work at Upoia, 1911-1920; Part 7. A critical study of the geology and oil prospects of Papua and New Guinea as revealed by the work of the Anglo-Persian Oil Company, 1920-1929)

Arculus R.J., R.W. Johnson, B.W. Chappell, C.O. McKee & H. Sakai (1983)- Ophiolite-contaminated andesites, trachybasalts, and cognate inclusions of Mt. Lamington, Papua New Guinea: anhydrite-amphibole-bearing lavas and the 1951 cumulodome. J. Volcanology Geothermal Research 18, p. 215-247.
(Mt Lamington, together with Mount Victory, Mount Trafalgar and Hydrographers Range volcanic centers, rests on NE-dipping Papuan Ultramafic Belt (PUB) ophiolite; without evidence for Benioff-Wadati zone. Lavas of Mt Lamington porphyritic trachybasalt and high-Si-K andesite, contaminated by PUB ophiolite material)

Arnold, G.O., T.J. Griffin & C.C. Hodge (1979)- Geology of the Ok Tedi and southern Atbalmin, 1:100 000 sheet. Geological Survey of Papua New Guinea, Report 79/3, p. *(Unpublished)*

Arnold, G.O. & T.J. Griffin (1978)- Intrusions and porphyry copper prospects of the Star Mountains, Papua New Guinea. Economic Geology 73, 5, p. 785-795.
(Star Mountains of west PNG is copper province with Mount Fubilan (Ok Tedi) deposit and 10 other prospects. Wide range of calc-alkaline intrusions emplaced into Jurassic-Miocene shelf sediments at time of Plio-Pleistocene thrust faulting. Copper mineralization in skarns and disseminated in porphyry stocks)

Asami, N. & R.M. Britten (1980)- The porphyry copper deposits at the Frieda River Prospect, Papua New Guinea. In: S. Ishihara & S. Takenouchi (eds.) Granitic magmatism and related mineralization. Mining Geology, Tokyo, Special Issue, 8, p. 117-139.
(see also Britten 1981, Whalen et al. 1982)

Australasian Institute of Mining and Metallurgy (1998)- Geology of Australian and Papua New Guinean mineral deposits, AusIMM, Parkville, Monograph 22, p.

Ayyasami, K. & D.W. Haig (1997)- New evidence for Jurassic age of the lower Wahgi Group, northern flank of Kubor Anticline, Papua New Guinea. Neues Jahrbuch Geologie Palaontologie, Monatshefte 10, p. 575-584.
(Lower Maril Shale, overlying Omung Metamorphics on N flank Kubor Anticline, is Mid or Late Jurassic age, not Triassic as suggested by Francis et al. 1990)

Azeez, K.K.A., C. Athul & S. Thiel (2018)- Reservoir characterization and basement estimates in the Papuan Fold belt (Papua New Guinea-PNG), from reanalysis of the PNG MT data set. Marine and Petroleum Geology 98, p. 133-145
(Reinterpretation of magnetorelluric date over PNG foldbelt)

Azizi-Yarand, S.A. (1996)- Integrated geological and engineering evaluation of the Gobe Fields: Part II. Reservoir simulation and development plan. In: P.G. Buchanan (ed.) Petroleum exploration, development and production in Papua New Guinea, Proc. 3rd PNG Petroleum Convention, Port Moresby, p. 531-544.

Azizi-Yarand, S.A. & J.E. Livingston (1996)- Iagifu 3X/8X Toro block reservoir performance evaluation- case study. In: P.G. Buchanan (ed.) Petroleum exploration, development and production in Papua New Guinea, Proc. 3rd PNG Petroleum Convention, Port Moresby, p. 563-571.
(Oil production from Iagafu 3X/8X Toro Block started in mid-1992. Initial oil flow rates in 3 wells 6000-8000 B/D, but sharp decline in reservoir pressure in 3Q 1994))

Bachmann, H.G. (1988)- Exploration auf Platinmetalle in Papua Neuguinea. Die Geowissenschaften (Weinheim) 6, 5, p. 151-156.
('Exploration of platinum metals in Papua NewGuinea)

Bain, J.H.C. (1973)- A summary of the main structural elements of Papua New Guinea. In: P.J. Coleman (ed.) The Western Pacific: island arcs, marginal seas, geochemistry. Western Australia University Press, Perth, p. 147-161. *(also as BMR Geology Geophysics Record 1973/30. Summary of PNG geology, to accompany 1972 1:1M scale geologic map of PNG))*

Bain, J.H.C. & J.G. Binnekamp (1973)- The foraminifera and stratigraphy of the Chimbu Limestone, New Guinea. Geological Papers 1970-71, Bull. Bureau Mineral Resources (BMR) Australia 139, p. 1-12.
(online at: www.ga.gov.au/corporate_data/106/Bull_139.pdf)
(~300m of M Eocene/Ta3- E Oligocene/Tc limestone in Chimbu River Gorge (Kubor Anticline?), para-conformable on U Cretaceous. M Eocene (Ta3-Tb) with Lacazinella, Fasciolites/ Alveolina, Nummulites javanus, Discocyclina (no Pellatispira/ Biplanispira present, as suggested by Crespin, 1938), overlain by E Oligocene with Nummulites intermedius. Overlain by E Miocene (incl. latest Oligocene Te4?; JTvG) limestones with Miogypsinoides, Miogypsina, Heterostegina borneensis and Eulepidina, sometimes separated by mudstones)

Bain, J.H.C., H.L. Davies, P.D. Hohnen, R.J. Ryburn, I.E. Smith, R. Grainger, R.J. Tingey & M.R.Moffat (1972)- Geologic map of Papua New Guinea (map 1:1,000,000). Bureau Mineral Resources Geology Geophysics (BMR), Canberra.
(Geologic map of PNG in 4 sheets)

Bain, J.H.C. & D.E. MacKenzie (1974)- Karimui, Papua New Guinea Sheet SB/55-9. Papua New Guinea 1:250,000 Geological series and Explanatory Notes. Bureau Mineral Resources (BMR), Canberra, p. 1-39.
(Geologic map and explanatory notes of area North side of PNG Central Highlands, between 6-7° S and 144° - 145°30'E. In N of area Kubor Anticline with Late Paleozoic Omung metamorphics and Permo-Triassic Kubor granodiorite exposed in core. In S eastern end of Central Range foldbelt)

Bain, J.H.C. & D.E. MacKenzie (1975)- Ramu, Sheet SB/55-5. Papua New Guinea 1:250 000 Geological Series and Explanatory Notes, Bureau Mineral Resources, Canberra.
(Geologic map and explanatory notes of area North side of PNG Central Highlands, between 5-6° S and 144° - 145°30'E. In SW of area Kubor Anticline with Late Paleozoic Omung metamorphics and Kubor granodiorite, Triassic Kana Volcanics, etc. exposed in core. Towards NE ultrabasics belt and Mio-Pliocene Ramu Basin)

Bain, J.H.C., D.E. MacKenzie & R.J. Ryburn (1970)- Geology of the Kubor anticline, Central Highlands of Papua New Guinea. Bureau Mineral Resources Geology Geophysics, Record 1970/79, p. 1-85 + 17 map sheets
(online at: www.ga.gov.au)
(Manuscript for Bain et al. 1975 Kubor Anticline publication; see below)

Bain, J.H.C., D.E. MacKenzie & R.J. Ryburn (1975)- Geology of the Kubor anticline, Central Highlands of Papua New Guinea. Bureau Mineral Resources Geology Geophysics, Bull. 155, p. 1-106.
(online at: https://d28rz98at9flks.cloudfront.net/98/Bull_155.pdf)
(With Karimui, Ramu 1:250,000 PNG geology maps. Kubor Anticline N of main PNG detached foldbelt is basement-involved anticline with core of Omung Metamorphics, intruded by Late Permian? Kubor granodiorite. Both unconformably overlain by 30-250m Late Triassic Kuta Fm biohermal-reefal limestone with basal conglomerate containing igneous and metamorphic clasts and U Triassic dacites and basalts (Kana Volcanics. Overlain unconformably by ~7000m of U Jurassic- Upper Cretaceous clastic and volcanic rocks, U Paleocene? clastics (Pima Sst) and Eocene-Oligocene limestone (Nebilyer Lst) respectively. At NE end Upper Cretaceous rocks overlain with slight unconformity by ~300m of Eocene-Oligocene foraminiferal Chimbu Lst, Eocene-Oligocene limestones everywhere overlain by Miocene limestone or clastics)

Bainbridge, A.L., G.J. Corbett & T.M. Leach (1994)- The Nena high sulfidation system, Frieda River Copper, Papua New Guinea. In: R. Rogerson (ed.) Proc. Geology, exploration and mining Conference, Lae, PNG 1994, Australasian Institute of Mining and Metallurgy (AusIMM), Parkville, p. 131-137.

Bainbridge, A.L., S.P. Hitchman & G.J.DeRoss (1998)- Nena copper-gold deposit. In: D.A. Berkman and D.H. Mackenzie (eds.) Geology of Australian and Papua New Guinean mineral deposits, Australasian Institute of Mining and Metallurgy (AusIMM), Melbourne, Monographs 22, p. 855-861.

Baker, G. (1946)- Preliminary note on volcanic eruptions in the Goropu Mountains, southeastern Papua, during the period December 1943 to August 1944. Journal of Geology 54, 1, p. 19-31.
(Serpentinite boulders ejected during 1943-1944 eruption of small Goropu volcano (also known as Waiowa), eastern Papuan Peninsula. in area without previous volcanic activity, showing recent andesitic volcanism cutting through ultrabasic belt of Owen Stanley Ranges in SE PNG)

Balmer, S. (2011)- Biostratigraphy and paleoecology of lower Cretaceous bathyal deposits in the Papuan Basin, Papua New Guinea. In: M. Bak et al. (eds.) Integrating microfossil records from the oceans and epicontinental seas, Proc. Eighth Micropalaeontological Workshop MIKRO-2011, Krakow, Grzybowski Foundation Special Publ. 17, p. 68-69. *(Abstract Only)*
(online at: https://www.researchgate.net/publication/235746778_Integrating_Microfossil_Records_from_the_Oceans_and_Epicontinental_Seas_Edited_by)

(Lower Cretaceous Chim Fm dark grey mudstone/siltstone with calcite nodules and occasional volcanoclasitics, crops out in Wahgi Valley at N flank of Kubor Anticline. Originally dated as Aptian- Turonian in age (Haig, 1981). Study of 34 new samples from 3.5 km thick (?) Chim Fm shows entire formation of Albian age (e.g., Ticinella raynaudi, Ticinella madecassiana, Berthelina cenomanica). Paleoenvironments transitioning from open marine to more restricted basin, culminating in low foram diversity and high TOC, correlated to the Oceanic Anoxic Event 1d)

Bamford, R.W. (1972)- The Mount Fubilan (Ok Tedi) porphyry copper deposit, Territory of Papua and New Guinea. Economic Geology 67, 8, p. 1019-1033.
(Mt. Fubilan deposit (= Ok Tedi) is very young porphyry copper deposit in NW PNG, within WNW trending fold belt with numerous small Plio-Pleistocene intrusions. Fold belt on continental side of narrow transition zone between continental crust in S and possibly oceanic crust in N, which became site of Miocene island arc collision. Central orthoclase-rich intrusion contains most of disseminated copper mineralization. Associated peripheral mineralized skarn bodies with high copper grades and massive sulfide body)

Barclay, S.A., K. Liu & D. Holland (2003)- Reservoir quality, diagenesis and sedimentology of the Pale and Subu sandstones: re-visiting the eastern Papuan basin, Papua New Guinea. Australian Petroleum Production Exploration Association (APPEA) J. 43, p. 515-535.
(Campanian Pale sandstone in E Papuan foldbelt 160m thick shallow marine delta front-shoreface facies, porosity 5-16%, with biodegraded oil in outcrop)

Barndollar, P. (1993)- Hydrocarbon prospectivity of the Papuan Foreland. In: G.J. & Z. Carman (eds.) Petroleum exploration and development in Papua New Guinea, Proc. 2nd PNG Petroleum Convention, Port Moresby 1993, p. 517-525.
(Recent Papuan foldbelt discoveries with proven reserves of 14.5 TCF gas, 284 MMB Condensate and 395 MMB Oil)

Barrett, R.A. (1996)- A petroleum systems analysis of the Sepik and Ramu basins of Papua New Guinea. In: P.G. Buchanan (ed.) Petroleum exploration development and production in Papua New Guinea, Proc. 3rd PNG Petroleum Convention, Port Moresby, p. 495-509.
(Basins on N margin PNG, formed by complex series of Tertiary tectonic events. Up to 10 km of Mio-Pliocene sediments. Formation of several deep Late Oligocene- E Miocene basins overprinted by Late Miocene and younger compression. Potential plays Miocene carbonate buildups and Mio-Pliocene sandstones)

Barrett, R.A. (1997)- Petroleum systems analysis of the Sepik and Ramu basins of Papua New Guinea: implications for Irian Jaya. In: J.V.C. Howes & R.A. Noble (eds.) Proc. Petroleum Systems of SE Asia and Australia Conference, Jakarta 1997, Indonesian Petroleum Association (IPA), p. 247-260.
(Possible hydrocarbon systems in largely untested Tertiary basins of N New Guinea. Main targets Miocene carbonate buildups. Ramu Basin hundreds of biogenic gas seeps. Meervlakte Basin may be similar to Salawati and PNG Sepik basins and have well developed Miocene buildups. N Coast basin similar to PNG Ramu Basin and may have gas play in structured Plio-Pleistocene turbidites)

Barrett, R.A. (1999)- Play concepts of the northern basins of New Guinea Island. AAPG Annual Convention San Antonio, Abstracts, AAPG Search and Discovery Article 90928, 1 p. *(Brief abstract only)*
(online at: https://www.searchanddiscovery.com/abstracts/html/1999/annual/abstracts/038.htm)
(Six Mio-Pliocene sedimentary basins along N margin of New Guinea Island. Bintuni, Salawati and Waropen basins with proven hydrocarbons. Sepik, Ramu and Meervlakte basins with gas-oil seeps and shows in wells, but no sustained flow to date. Several established and emerging play concepts are recognized. Miocene reef play of Salawati can be extended to Sepik Basin in PNG and Meervlakte Basin of Irian Jaya. Sepik Basin has Miocene reefal buildups in both outcrop and subsurface. Meervlakte Basin fringed by Miocene reef outcrops, with active oil seep on its N flank. Emerging play is biogenic methane gas in Pliocene sandstones (Waropen Basin and Ramu Basin in PNG with common biogenic methane seeps from Plio-Pleistocene sandstone outcrops)

Barrett, R.A. (1999)- Plio-Pleistocene sedimentation and biogenic gas generation Waropen and Ramu Basins, NeuGuinea (Irian) Island. In: H. Darman & F.H. Sidi (eds.) Tectonics and sedimentation of Indonesia, FOSI-IAGI-ITB Regional Seminar to commemorate 50th anniversary of Van Bemmelen's Geology of Indonesia, Bandung 1999, p. 87. *(Abstract only)*.
(Waropen and Ramu basins along N margin of New Guinea formed in Neogene. Characterized by extremely high Plio-Pleistocene sedimentation rates, of mainly marine turbiditic deposits: up to 12km in Waropen basin, up to 7km of Pleistocene in Ramu Basin. Common organic (plant) material. Waropen basin with biogenic methane flows in wells and seeps)

Barrows, T.T., G.S. Hope, M.L. Prentice, L.K. Ffield & S.G. Tims (2011)- Late Pleistocene glaciation of the Mt. Giluwe volcano, Papua New Guinea. Quaternary Science Reviews 30, 19, p. 2676-2689.
(Mt Giluwe shield volcano largest area glaciated in PNG in Pleistocene. During Last Glacial Maximum glaciers reached down to 3200m. Ice caps formed on flanks of mountain at 4 occasions: 293-306 ka (Gogon Glaciation), 136-158 ka (Mengane Glaciation), ~62 ka (Komia Glaciation; >20.3-11.5 ka (Tongo Glaciation))

Baylis, S.A., S.J. Cawley, C.J. Clayton & M.A. Savell (1997)- The origin of unusual gas seeps from onshore Papua New Guinea. Marine Geology 137, p. 109-120.
(Gas seeps with associated oils and waters from onshore Aure Thrust Belt. Oils biodegraded and from dominantly marine source, some with evidence of higher land plant input. Thermal maturity low to moderately high. Some gases biogenic, some thermogenic and some mixed. Two biogenic groups, one with high CO_2 - light δD (acetate fermentation in low salinity), one with lower CO_2- heavier δD (biogenic CO_2 reduction associated with higher salinity, marine environments). Thermogenic gases associated with intermediate salinity and have exceptionally heavy d13C in CO_2).

Bee, A.G. (1982)- A review of Mesozoic and Cenozoic stratigraphy of Southwest Papua New Guinea. Australasian Petroleum Company (APC), PNG Geological Survey, Port Moresby, p. *(Unpublished?)*

Belford, D.J. (1957)- Micropalaeontological examination of samples from the Tabu area, Permit 22, Papua. Bureau Mineral Resources Geology Geophysics, Records 1957/029, p. 1-4.
(online at: https://www.ga.gov.au/products/servlet/controller?event=GEOCAT_DETAILS&catno=10228)
(Micropal analysis of 26 samples from Tubu area, Permit 22, 47 m NW of Port Moresby and 10m NE of Cape Suckling, collected by Papuan Apinaipi Petroleum Ltd. All material M Miocene- Pliocene age)

Belford, D.J. (1958)- Micropalaeontology of samples from Kaufana No. 1 well, Papua. Bureau Mineral Resources Geology Geophysics, Records 1958/9, p. 1-6.
(online at: www.ga.gov.au/products/servlet/controller?event=GEOCAT_DETAILS&catno=10317)
(Papuan Apinaipi Petroleum Co. Kaufana 1 well with diverse M Miocene and younger bathyal marine calcareous forams above 600' (incl. Miocene Lepidocyclina at 350'). From 640-3348' (TD) poor deep arenaceous water foram faunas only, probably all still of Miocene age)

Belford, D.J. (1958)- Micropalaeontology of samples from the Karema-Karova Creek and Malalaus-Saw Mountains areas, Papua. Bureau Mineral Resources Geology Geophysics, Records 1958/94, p. 1-3.
(online at: https://www.ga.gov.au/products/servlet/controller?event=GEOCAT_DETAILS&catno=10402)
(All rel. deep marine sediments of M Miocene- Pliocene age)

Belford, D.J. (1959)- Lower Miocene foraminifera from the Milne Bay area, Papua. Bureau Mineral Resources Geology Geophysics, Records 1959/99, p. 1-2.
(online at: www.ga.gov.au/products/servlet/controller?event=GEOCAT_DETAILS&catno=10530)
(Tuffaceous limestones collected by J.E. Thompson at Milne Bay (SE tip of PNG mainland) probably all of E Miocene age (Upper Te with Spiroclypeus, Lepidocyclina (E.), Miogypsina))

Belford, D.J. (1959)- Foraminifera from the Middle Purari River area, Papua. Bureau Mineral Resources Geology Geophysics, Records 1959/157, p. 1-4.
(online at: www.ga.gov.au/products/servlet/controller?event=GEOCAT_DETAILS&catno=10586

(Miocene- Pliocene sediments)

Belford, D.J. (1959)- Miocene foraminifera from the Wira Anticline, Puri-Purari River area, Papua. Bureau Mineral Resources Geology Geophysics, Records 1959/105, p. 1-6.
(online at: www.ga.gov.au/products/servlet/controller?event=GEOCAT_DETAILS&catno=10588)
(Samples from Wira anticline all Late Miocene- Pliocene deep marine faunas)

Belford, D.J. (1962)- Miocene and Pliocene planktonic foraminifera from Papua New Guinea. Bull. Bureau Mineral Resources Australia 62, p. 1-35.
(online at: https://d28rz98at9flks.cloudfront.net/253/Bull_062.pdf)
(Thirty-four species of planktonic foraminifera described from Miocene-Pliocene beds of PNG. Little or no info on localities, stratigraphy, ages)

Belford, D.J. (1963)- Foraminifera from Mutare No. 1 bore, Papua. Bureau Mineral Resources Geology Geophysics, Record 1963/170, p. 1-4.
(online at: https://d28rz98at9flks.cloudfront.net/11253/Rec1963_170.pdf)
(Oil Searc well drilled in 1963, with Early and Middle Miocene carbonates on unidentified Mesozoic section below 2633')

Belford, D.J. (1965)- Foraminifera from the Port Moresby area. Bureau Mineral Resources Geology Geophysics, Record 1965/102, p. 1-6.
(online at: https://d28rz98at9flks.cloudfront.net/11555/Rec1965_102.pdf)
(43 outcrop samples collected during Astrolabe Mineral Field survey, ranging in age from U Cretaceous (with Globotruncana) to E Miocene/ Te. Paleo-Eocene larger foram limestone with Halkyardia bikiniensis and Distichoplax biserialis. Reworked Eocene Pellatispira and Nummulites spp in 'E Miocene' Dokuna Tuff with Heterostegina borneensis (= Lower Te= Late Oligocene; JTvG))

Belford, D.J. (1965)- Foraminifera from the Wuroi No. 1 well, Papua. Bureau Mineral Resources Geology Geophysics, Record 1965/103, p. 1-3.
(online at: www.ga.gov.au/)
(Seven cores from Oil Search well Wuroi 1, ranging in age from M Miocene- Mesozoic)

Belford, D.J. (1965)- Foraminifera from outcrop samples, Star Mountains, Papua-New Guinea. Bureau Mineral Resources Geology Geophysics, Record 1965/233, p. 1-3.
(online at: www.ga.gov.au/products/servlet/controller?event=GEOCAT_DETAILS&catno=11686)
(Very brief report on outcrop samples from Star Mountains. Mainly E-M Miocene limestones, overlain(?) by zoneN8 planktonics from'Iwoer Fm')

Belford, D.J. (1966)- Miocene and Pliocene smaller foraminifera from Papua and New Guinea. Bull. Bureau Mineral Resources Australia 79, p. 1-223.
(online at: www.ga.gov.au/corporate_data/188/Bull_079.pdf)
(Comprehensive taxonomy/ descriptions of 156 Mio-Pliocene marine benthic foram species. Little or no stratigraphic info)

Belford, D.J. (1967)- Paleocene planktonic foraminifera from Papua and New Guinea. Australian Bureau Mineral Resources Australia (BMR) Bull. 92, p. 1-33.
(online at: https://d28rz98at9flks.cloudfront.net/168/Bull_092.pdf)
(Paleocene planktonic forams described from PNG areas Wabag in W Highlands and Cape Vogel in SE. Fourteen species assigned to Subbotina, Globigerina, Globorotalia and Chiloguembelina. Mainly from Globorotalia pseudomenardii Subzone; oldest beds may be Globigerina daubjergensis- G. trinidadensis Zone)

Belford, D.J. (1967)- Additional Miocene and Pliocene planktonic foraminifera from Papua and New Guinea. Australian Bureau Mineral Resources Bull. 92, p. 35-48.
(online at: https://d28rz98at9flks.cloudfront.net/168/Bull_092.pdf)

(Three more species of Mio-Pliocene planktonic foraminifera recorded and figured from PNG: Globorotalia crassaformis, G. archaeomenardii and Sphaeroidinellopsis kochi (mainly from Ramu Atitau area))

Belford, D.J. (1976)- Foraminifera and age of samples from southeastern Papua. Bureau Mineral Resources Geology Geophysics (BMR), Bull. 165, p. 73-86.
(online at: www.ga.gov.au/products/servlet/controller?event=GEOCAT_DETAILS&catno=76)
(Appendix in Smith & Davies (1976). Listings and illustrations of Upper Cretaceous planktonic foraminifera, Eocene planktonic and larger foraminifera, Late Oligocene- Miocene larger foraminifera and Plio-Pleistocene planktonics and smaller benthics from SE PNG)

Belford, D.J. (1977)- *Quasicyclammina* gen. nov. and *Thalmannammina* (Foraminiferida) from the Paleocene of Papua New Guinea. BMR J. Australian Geology Geophysics 2, 1, p. 35-42.
(online at: www.ga.gov.au/corporate_data/80906/Jou1977_v2_n1_p035.pdf
(New genus and species of cyclamminid agglutinated foraminifera from Upper Paleocene Lagaip Beds N of Central Range, NW of Mt. Hagen, PNG. Planktonic foraminifera from same area described by Belford (1967))

Belford, D.J. (1978)- The genus *Triplasia* (Foraminiferida) from the Miocene of Papua New Guinea. Bureau Mineral Resources Geology Geophysics Bull. 192 (Crespin Volume), p. 1-7.
(online at: https://d28rz98at9flks.cloudfront.net/68/Bull_192.pdf)
(Three species of small benthic agglutinated foram Triplasia in Lower Miocene Yangi beds in Wabag area)

Belford, D.J. (1982)- *Planorbulinella solida* sp. nov. (Foraminiferida) from the Miocene of Papua New Guinea. BMR J. Australian Geology Geophysics 7, 4, p. 321-325.
(online at: www.ga.gov.au/corporate_data/81128/Jou1982_v7_n4_p321.pdf)
(New species name for Linderina sp.indet. as recorded from Cape Vogel area, PNG. Rel. widespread in Early Miocene (Te5-Tf1) of PNG)

Belford, D.J. (1984)- Tertiary foraminifera and age of sediments, Ok-Tedi-Wabag, Papua New Guinea. Bureau Mineral Resources (BMR) Geology Geophysics Bull. 216, p. 1-52.
(online at: www.ga.gov.au/corporate_data/16/Bull_216.pdf)
(Paleocene- Pliocene planktonic foraminifera distribution from outcrop samples in Ok Tedi and Wabag map sheets. Top larger foram zone Te correlated to planktonic foram zones N6-N7, with zone N8 planktonics overlying top Darai limestone Lower Tf assemblages. Occurrence of Lacazinella near Telefomin)

Benyshek, E.K. & B. Taylor (2021)- Tectonics of the Papua-Woodlark Region. Geochem. Geophysics Geosystems 22, 1, e2020GC009209, p. 1-26.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2020GC0092090)
(Recent review of complicated young tectonics of the Papua-Woodlark region)

Belford, D.J. (1985)- Late Albian planktonic foraminifera, Strickland River, Papua New Guinea. BMR J. Australian Geology Geophysics 9, 2, p. 183-189.
(online at: www.ga.gov.au/corporate_data/81181/Jou1984_v9_n2_p183.pdf)
(Late Albian planktonic foraminifera assemblage with Globigerinelloides, Hedbergella spp., Planomalina buxtorfi, Praeglobotruncana stephani, Rotalipora apenninica and R. ticinensis from Ieru Fm at S side of Mueller Anticline, Central Range, PNG. Tropical assemblage, unlike temperate Queensland fauna)

Bennett, D.J., R.P. Brand, C.R. Mills & B.D. Morris (2000)- Exploration potential of the West Bosavi area, Papuan foreland basin, Papua New Guinea. In: P.G. Buchanan et al. (eds.) Papua New Guinea's petroleum industry in the 21st century, Proc. 4th PNG Petroleum Convention, Port Moresby, p. 139-154.
(Geology and exploration potential of Papuan foreland basin W of Bosavi lineament. Structure rel. simple. Main plays are compactional drapes over basement highs and tilted fault blocks. Reservoir targets mainly E Cretaceous Toro Sst, with deeper targets in Late Jurassic Digimu Fm sandstones)

Best, J.G. (1964)- Regional geology - Markham Valley, Territory of Papua and New Guinea (1:250,000 Sheet SB 55-10). Bureau Mineral Resources Geology Geophysics, Record 1964/80, p. 1-6.
(online at: www.ga.gov.au/products/servlet/controller?event=GEOCAT_DETAILS&catno=11337)
(Brief report in conjunction with groundwater drilling. Mountains at E end of Markham Valley mainly Kaindi Metamorphics, tightly folded and NNE striking, intruded by Morobe granodiorite. In SW ?Paleozoic metamorphics. Northern Finisterre- Saruwaged Range folded-faulted WNW trending Mio-Pliocene sediments)

Bickel, R.S. (1974)- Reconnaissance geology of the Cape Vogel Basin, Papua New Guinea. American Assoc. Petroleum Geol. (AAPG) Bull. 52, 12, p. 2477-2489.
(Cape Vogel basin extends for 400 km along NE side of E PNG, 80% offshore. Three subbasinal areas. Basins overlie obducted plate of oceanic mantle and crust that was thrust SW onto Mesozoic Owen Stanley metamorphic rocks. Tertiary sediments: Late Oligocene Iauga Fm volcanics and deep-marine deposits, overlain unconformably by early M Miocene limestone, overlain by >4000m thick U Miocene-Pliocene clastics)

Bickel, R.S. (1976)- Cape Vogel Basin. In: R.B. Leslie et al. (eds.) Economic geology of Australia and Papua New Guinea, Vol. 3, Petroleum. Australasian Institute of Mining and Metallurgy (AusIMM), Monograph 7, p. 506-513.

Bidgood, M., M. Dlubak & M. Simmons (2015)- Making the most of biostratigraphic data; examples from Early Cretaceous to Late Jurassic shallow marine sand units in Papua New Guinea and Australasia. Berita Sedimentologi 33, p. 11 20.
(online at: www.iagi.or.id/fosi/files/2015/09/BS33-Marine-Geology-of-Indonesia-II-R1.pdf)
(Ages of Late Jurassic- E Cretaceous marine sandstones of PNG and Australian NW Shelf. PNG Late Jurassic: Koi-Lange, Iagafu and Hedinia Sst. E Cretaceous:Berriasian Digimu, Toro Sst, Valanginian- Hauterivian Alene Sst. Sandstones in Titanichthys-1 well on NW Shelf can be correlated to PNG sand cycles)

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Binnekamp, J.G. (1970)- Foraminifera and age of samples from the Star Mountains, Territory of Papua New Guinea. Bureau Mineral Resources Geology Geophysics, Record 1970/14, p. 1-8.
(online at: www.ga.gov.au/products-services/legacy-publications.html)
(Foraminifera from 56 limestone outcrop samples from PNG Central Range, close to West Papua border. Mainly Late Oligocene- E-M Miocene (Te- lower Tf) ages, some Oligocene Tcd)

Binnekamp, J.G. & D.J. Belford (1970)- Foraminifera and age of outcrop samples collected during the Kubor survey 1968, Central Highlands, New Guinea. Bureau Mineral Resources Geology Geophysics, Record 1970/012, p. 1-32.
(online at: www.ga.gov.au/products-services/legacy-publications.html)
(Foraminifera from 158 Kubor Range outcrop samples. Oldest rocks Cretaceous Chim Fm with Cenomanian-Turonian planktonics. Most samples hard limestones with larger foraminifera. Eocene-E Oligocene Chimbu Lst with M-U Eocene Alveolina, Dictyoconus, Nummulites, Asterocyclina and Lacazinella wichmanni. Darai Lst in S of area with E Miocene with Miogypsina near top. Oligocene age rocks rel. rare. Reworking of Eocene larger forams into E Miocene in SE of area (in 'Movi Beds/ Omaura greywacke' which unconformably overlie Eocene--E Oligocene Chimbu Lst; Bain et al. (1974)?; incl. Biplanispira; p. 22, Pellatispira, p. 26). Aure Group deeper water facies of M Miocene age (zone N11-12; with Gr. fohsi group. For locality map see Bain et al. 1970))

Bird, K.J. & R. Seggie (1990)- Barikewa and Iehi gas fields revisited. In: G.J. & Z. Carman (eds.) Petroleum exploration in Papua New Guinea, Proc. First PNG Petroleum Convention, Port Moresby, p. 551-565.
(Barikewa and Iehi gas fields discovered in 1958 and 1960 in foreland of Papuan foldbelt. Berriasian-Valanginian Toro Fm reservoir section shows 3 coarsening-upward cycles)

Blake, D.H. & E. Loffler (1971)- Volcanic and glacial landforms on Mount Giluwe, Territory of Papua and New Guinea. Geological Society of America (GSA) Bull. 82, p. 1605-1614.
(During maximum Pleistocene glaciation up to 400m thick glaciers extended down to 2750-3000m elevation on slopes of 4368m high Mount Giluwe volcano)

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(Epithermal veins and breccias at Kainantu gold-copper deposit in PNG host gold mineralization in NW-SE steeply dipping lodes, parallel to pre-mineralization dextral strike-slip shear-zone network)

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(New Th-U analyses of >20 raised Quaternary coral reef terraces on Huon Peninsula in PNG clarify history of tectonic uplift and late Quaternary eustatic sea level fluctuations (see also Chappell et al. 1996, and others))

Bodorkos, S., S. Sheppard, D. Saroa, C.U. Tsiperau, K. Sircombe (2013)- New SHRIMP U-Pb zircon ages from the Wau-Bulolo region, Papua New Guinea. Geoscience Australia Record 2013/25, p. 1-56.
(online at: https://d28rz98at9flks.cloudfront.net/76362/Rec2013_025.pdf)
(Wau Bulolo region in Papuan Peninsula comprises Owen Stanley Metamorphics metasediments, intruded by M-Miocene Morobe Granodiorite batholith, and overlain by Pliocene sediments and volcanics of Wau Basin. With Morobe alluvial gold field and Hidden Valley epithermal Au-Ag deposit. Zircon ages of (1) Pliocene Bulolo Volcanics (~3.2-3.5 Ma); (2) M Miocene Morobe Granodiorite (13.6 Ma); (3) metasandstone from Mesozoic Owen Stanley Metamorphics with youngest detrital zircon of 248 Ma (E Triassic) together with Permian age cluster around 283 Ma; also older zircons (similar age distribution as Omung Metamorphics (both too old for zircons from post-230 Ma felsic magmatic rocks, widespread in assumed source region?)

Boult, P.J. (1993)- The reservoir potential of the Imburu, Toro and Ieru Formations in the Ok Menga area, PNG. In: G.J. & Z. Carman (eds.) Petroleum exploration and development in Papua New Guinea, Proc. 2nd PNG Petroleum Convention, Port Moresby, p. 191-200.
(Outcrop study of reservoir sandstones in Ok Menga area, SW of Hindenburg wall. Basal Cretaceous Toro Fm 141m thick (net sand 88m), underlying Imburu Fm 65m net sand)

Boult, P.J. (1997)- A review of the petroleum potential of Papua New Guinea with a focus on the eastern Papuan Basin and the Pale sandstones as a potential reservoir fairway. In: A.J. Fraser et al. (eds.) Petroleum geology of Southeast Asia, Geological Society, London, Special Publ. 126, p. 281-291.
(Overview of PNG plays, with schematic paleogeographic maps for Late Jurassic Imburu- Toro and Campanian Pale Sandstone)

Boult, P.J. & G.J. Carman (1993)- The sedimentology, reservoir potential and seal integrity of the Pale sandstone at the Aure Scarp, Papua New Guinea. In: G.J. & Z. Carman (eds.) Petroleum exploration and development in Papua New Guinea, Proc. 2nd PNG Petroleum Convention, Port Moresby, p. 125-137.
(Coral Sea syn-rift sediments exposed at Aure Scarp in E Papuan Basin include up to 200m thick marginal marine Campanian Pale Sst, Quartz-rich, clean, porosity ~20%, perm. 750 mD. Underlain by Albian marine shelfal deposits and basalts with K/Ar age of 88 Ma; overlain by M-L Paleocene Mendi Fm limestone. Source of sand probably from Omung Metamorphics along Kubor trend to N)

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(Coral Sea syn-rift sediments exposed at Aure scarp in E Papuan basin include Campanian Pale Sst fluvial to barrier island facies, mature quartz arenite, probably derived from Paleozoic Omung Metamorphics along Kubor trend to N. Up to 190m thick, av. porosity 20%, 750 md. Overlain by Paleogene Mendi Group Lst)

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(Includes oxygen isotope analysis of U Jurassic Belemnopsis gerardi fron Kuabgen Gp, Upper Fly River, suggesting paleotemperature of 15.9 °C)

Boyd, G., V. Donagemma, J. McPherson, M. Dubsky, Y. Sun & S. Barclay (2015)- Innovative 3D reservoir characterization in the Papua New Guinea Fold belt. Proc. Eastern Australian Basins Symposium (EABS), Petroleum Exploration Society Australia (PESA), p. 289-296
(Reservoir models of latest Jurassic Imburu Fm (Iagifu, Hedinia, Digimu members) and earliest Cretaceous Toro Sst, using data from 156 wells in PNG foldbelt, from P'nyang in NW to Iehi Field in SE. Deposited in two depositional settings: (1) prograding, shallow marine or nearshore, and (2) outer estuarine mouth bar environment. Key reservoir sandbodies composed of stacked sequences of uniform sandstones, with lateral and vertical continuity of nearshore and incised valley fill deposits for 10's- 100's km along foldbelt. In Juha Field elevated temperatures (probably burial related) significantly reduced rock quality)

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(online at: http://www.searchanddiscovery.com/pdfz/documents/2016/30440boyd/ndx_boyd.pdf.html)
(Same paper as Boyd et al. (2015, above))

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(First discovered in 1986 in PNG foldbelt, Kutubu oil fields Iagifu and Hedinia produced >300 MMbbl since 1992. Production from Late Jurassic- E Cretaceous Toro, Digimu and Iagifu sand reservoirs, sourced from M Jurassic black shales, and regionally sealed by E Cretaceous Ieru shales. Structures formed by oblique collision of island arcs with Australian Plate in Late Miocene- E Pliocene)

Britten, R.M. (1981)- The geology of the Frieda River Copper prospect, Papua New Guinea. Ph.D. Thesis, Australian National University (ANU), Canberra, p. 1-395. *(online at: https://openresearch-repository.anu.edu.au/bitstreams/86ab6ac5-caa2-4d28-8c28-4ec737d7637e/download)*
(Frieda River Prospect in structurally disrupted M Miocene eugeosynclinal sediments of New Guinea Mobile Belt in W Sepik District, PNG. Epithermal copper-gold and porphyry copper deposits associated with Frieda River Complex intrusives and remnants of nearshore stratovolcano at S margin of submerging trough. K-Ar ages of igneous activity: early intrusion 17.3-16.8 Ma, main intrusion 16.8-13.1 Ma)

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(online at: www.publish.csiro.au/EX/ASEG2018abT5_1A)
(River drainage of New Guinea evolved rapidly since Pliocene time. Relief growth initiated in accreted oceanic terranes in N and migrated into Australian margin interior over time. Rise of Highlands and Papuan Peninsula spurred drainage reorganization, and affected composition of clastic sediments delivered to shelves)

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(Two distinct Mesozoic successions: 'Fly Association' (S part foldbelt- Papuan platform; derived from Australian continent) and 'Sepik Association' (N and E parts of foldbelt; around margins of volcanic arc))

Brown, C.M. & G.P. Robinson (1982)- Kutubu, Papua New Guinea - 1:250,000 geological series. Geological Survey of Papua New Guinea, Explanatory Notes, SB/54-12, p. 1-43.
(Geologic map and explanatory notes of Southern Highlands, between 6-7° S and 142°30'- 144° E. Most of area Central range foldbelt, with outcrops of Miocene Darai Limestone, overlain by major Late Pliocene-Quaternary dormant volcanic centers (Bosavi, Kerewa, Giluwe, etc.). Oldest rocks exposed in anticlines in NE part of area (Upper Cretaceous))

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(Many of young surface anticlines in Papuan foldbelt believed to be inversions of Triassic- M Jurassic rifts/ half grabens (not like previous thin-skinned structural models of Hobson (1986) and Hill (1991))

Buddin, T. (1993)- Petroleum evaluation of the Aure thrust belt, Gulf of Papua, Papua New Guinea. Simon Petroleum Techn. Ltd., SOPAC Technical Report 183, p. 1-39.
(online at: www.sopac.org/data/virlib/TR/TR0183.pdf)
(Aure Thrust Belt is SE continuation of producing Papuan Fold Belt. Late Miocene Talama Fm volcanics (6-7 Ma) mark top of pre-deformational sequence, Pliocene Orubadi Beds exhibit marked growth sequences. ATB likely to be gas province, charged from Miocene Aure Fm source rocks)

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Callot, J.P., K.C. Hill, R. Divies, S. Wood, F. Roure & W. Sassi (2015)- Pressure and basin modeling in foothills: a study of the Kutubu area, Papua New Guinea fold and thrust belt. AAPG/SEG International Conference Exhibition, Melbourne, p. 1-23. *(Extended abstract)*
(online at: www.searchanddiscovery.com/documents/2015/30431callot/ndx_callot.pdf)
(PNG petroleum system studied along 200 km transect in frontal fold-thrust belt, based on regional balanced cross section. Scenario integrates Jurassic rifting and passive margin stage, uplift related to Coral Sea rifting and Plio-Pleistocene shortening, together with U Cretaceous erosion (600-1300m), and early growth of Hedinia Anticline. Deep type III source rock explains small extent of maturation. Type II/III Cretaceous source rock maturation starts in M Cretaceous with strong increase during late tectonic burial (50% in last 7 Ma))

Callot, J.P., W. Sassi, F. Roure, K.C. Hill, N. Wildon & R. Divies (2017)- Pressure and basin modeling in foothill belts: a study of the Kutubu Area, Papua New Guinea fold and thrust belt. In: M.A. AbuAli et al. (eds.) Petroleum systems analysis- case studies, American Assoc. Petroleum Geol. (AAPG), Memoir 114, Chapter 7, p. 165-190. *(Full paper of Callot et al. 2015 Abstract above)*

Cameron, M.L. (2014)- Rifting and subduction in the Papuan Peninsula, Papua New Guinea: The significance of the Trobriand Trough, the Nubara strike-slip fault, and the Woodlark rift to the present configuration of Papua New Guinea. Ph.D. Thesis, University of Alabama, Tuscaloosa, p. 1-211. *(online at: https://media.proquest.com/media/hms/ORIG/2/4zunH?_s=R7MDVbpLCUdp%2BMrQHt5e22Ak3%2FY%3D)*
(Calculated extension of ~111 km across the Woodlark rift incompatible with >130 km needed to exhume D'Entrecasteaux islands metamorphic core complexes on shallow angle faults (<30°) using N-S extension in Woodlark Basin. Nubara Fault continues west of the Trobriand Trough. Etc.)

Carey, S.W. (1937)- The morphology of New Guinea. Australian Geographer 3, 5, p. 5-31.

Carey, S.W. (1938)- Tectonic evolution of New Guinea and Melanesia. D.Sc. Thesis, University of Sydney, p. 1-200. *(Unpublished)*

Carey, S.W. (1945)- Notes on Cretaceous strata in the Purari Valley, Papua. Proc. Royal Society of Victoria 56, 2, p. 123-130.
(Cretaceous 6000' dark, thick massive or thick-bedded sandstones and dark thin-bedded shales in SE Highlands. Except for one 10' thick 'Exogyra' mollusc bed and sandstone with belemnite Tetrabelus macgregori and plant material, sandstones unfossiliferous and shales have poor fauna. Cretaceous unconformably overlain by Eocene limestone (Lacazina limestone; known from loose blocks only?))

Carey, S.W. (1990)- Fifty years of oil search. In: G.J. & Z. Carman (eds.) Petroleum exploration in Papua New Guinea, Proc. First PNG Petroleum Convention, Port Moresby 1990, p. 17-26.

Carman, G.J. (1987)- The stratigraphy of the Aure Scarp, Papua New Guinea. Petroleum Exploration Society Australia (PESA) Journal 11, p. 26-35.
(Aure Scarp/fault in NE Papuan Fold Belt defines major thrust which displaces at least 4450m of stratigraphic slab. Exposures with 500m of Cretaceous Ieru Fm marine siltstones/ mudstones, 950m of Paleocene-Oligocene Mendi Fm carbonates (micrites and cherty limestones) and ~3000m of Miocene Aure beds. Pale Sandstone Mb proposed for Campanian barrier bar or beach deposit at top Ieru Fm: 150m of m-c quartz sst in 1-2m coarsening-upward beds. Puri oil well, 40 km W of Aure Scarp, flowed oil 1610 BOD from similar carbonate. Major decollement below Pale Sst)

Carman, G.J. (1990)- Occurrence and nature of Eocene strata in the eastern Papuan Basin. In: G.J. & Z. Carman (eds.) Petroleum exploration in Papua New Guinea, Proc. First PNG Petroleum Convention, Port Moresby 1990, p. 169-183.
(M Eocene bioclastic, siliceous and cherty limestones occur along 1000km of E Papuan Basin from Mendi/ Kagua to Aure Scarp. Chimbu Lst with Lacazinella and Nummulites neritic, most others deep marine? with radiolaria, planktonic foraminifera)

Carman, G.J. (1993)- Palaeogeography of the Coral Sea, Darai and foreland megasequences in the eastern Papuan basin. In: G.J. & Z. Carman (eds.) Petroleum exploration and development in Papua New Guinea, Proc. 2nd PNG Petroleum Convention, Port Moresby, PNG Chamber of Mines and Petroleum, p. 291-309.
(Late Cretaceous (88 Ma) pillow basalts on Aure Scarp record onset and N-most locality for Coral Sea rift. Campanian Pale sst and Barune Sst interpreted to be synrift sediments. Maastrichtian-Paleogene shallow carbonates on Cretaceous rift shoulder. With Campanian- Pliocene paleogeographic maps of S PNG)

Carman, G.J. & N.W. Archbold (1990)- Macrofossil evidence for a palaeo-high, Erun Anticline, PNG. In: G.J. & Z. Carman (eds.) Petroleum exploration in Papua New Guinea. Proc. First PNG Petroleum Convention, Port Moresby, p. 397-402.

(Erun anticline at E side of Crater Montain volcano (presumably frontal Aure foldbelt- SE end of Kubor Terrane?) with relatively shallow marine Aptian- Cenomanian (Turonian?) marls with Pecten-type mulluscs in core of anticline. Unconformably overlain by Late Eocene- E Oligocene Chimbu Limestone with Discocyclina (and Biplanispira?))

Carne, J.E. (1913)- Notes on the occurrence of coal, petroleum and copper in Papua. Australia Dept. of External Affairs, Melbourne, Bull. 1, p. 1-116.
(online at: https://nla.gov.au/nla.obj-52797997/view?partId=nla.obj-95409124#page/n2/mode/1up)
(First verification of reported oil -gas seeps and coal occurrences in PNG by Australian Assistant Government Geologist of NSW, Joseph Edmund Carne. Most of book is description of gas and oil seeps at Opa and Akauda (off Vailala River), with comparisons to Indonesian oil fields and oil types. Also reviews of Astrolabe copper field, coal at Purari, etc. (see also follow-up historic reports by E.R. Stanley (1913, 1923, 1926) and A. Wade (1915, 1927))

Causebrook, R.M. & G.J. Solomon (1990)- Hydrocarbon exploration and structure of the Northwest Darai Plateau. In: G.J. & Z. Carman (eds.) Petroleum exploration in Papua New Guinea, Proc. First PNG Petrol. Convention, Port Moresby, p. 337-350.
(Darai Plateau is deeply karstified NW-SE trending elevated block, S of Papuan foldbelt oil-gas gas fields Iagafu and Hedinia. Miocene Darai Limestone at surface. Structure interpeted as relatively simple Miocene inversion of Mesozoic rift)

Challinor, A.B. (1990)- A belemnite biozonation of the Jurassic-Cretaceous of Papua New Guinea and a faunal comparison with Eastern Indonesia. BMR J. Australian Geology Geophysics 11, p. 429-447.
(online at: www.ga.gov.au/corporate_data/81270/Jou1990_v11_n4_p429.pdf)
(Central PNG highlands belemnites show Bathonian-Tithonian age for Maril shale, Berriasian Toro sst, etc. Belemnite succession of PNG resembles that of E Indonesia Sula islands)

Chambers, J. & L. Maxwell (2020)- A summary of the petroleum distribution and potential of PNG. Proc. 1st AAPG/EAGE Papua New Guinea Geoscience Conf. Exhib., Port Moresby 2020, AAPG Search and Discovery Article 11347, p. 1-6. *(Extended Abstract + Poster)*
(online at: www.searchanddiscovery.com/pdfz/documents/2020/11347chambers/ndx_chambers.pdf.html)
(Discovered resource in Papuan Basin estimated at 7 BBOE. 160 wells (5 times fewer than Carnarvon Basin). Like other Mesozoic basinsin NW Australia- E Indonesia Super Gas Province, Papuan Basin overwhelmingly gas-prone, as result of mixed terrestrial organic sources in Late Permian-Jurassic. Only localised Oxfordian-Kimmeridgian syn-rifts (Dampier, Vulcan, PNG foreland) contain more oil-prone source rocks. Creaming curves suggest significant potential remains in Foldbelt and Eastern Carbonate Trend. Discovery size in Foreland Area is expected to be smaller than other areas)

Chapman, F. (1914)- Description of a limestone of Lower Miocene age from Bootless Inlet, Papua. Proc. Royal Society New South Wales, Sydney 48, p. 281-301. *(online at: https://ia801701.us.archive.org/5/items/journalproceedi481914roya/journalproceedi481914roya.pdf)*
(One of earliest micropaleontological papers on PNG rocks, in SE PNG. Little or no locality information, but adequate descriptions of larger foraminifera (presence of Lepidocyclina (Eulepidina) and possible Heterostegina borneensis indicate Lower Te letter stage, now assigned to latest Oligocene; JTvG))

Chapman, F. (1925)- On some palaeontological and stratigraphical relations of the Cainozoic rocks of Papua and New Guinea with these of the East Indies. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 8 (Gedenkboek Verbeek, memorial volume), p. 81-88.
(online at: https://books.google.com/books?id=Yy0RAAAAIAAJ&pg)
(Brief discussion of Cenozoic rocks and macrofossils known from PNG, and comared to Indonesian faunas)

Chapman, F. & A. Wade (1918)- Report on a collection of Cainozoic fossils from the oil-fields of Papua. Bull. Territory of Papua 5, Melbourne, p. 1-17.

Chappell, J. (1974)- Geology of coral terraces, Huon Peninsula, New Guinea: a study of Quaternary tectonic movements and sea-level changes. Geological Society of America (GSA) Bull. 85, p. 553-570.
(More than 20 offlapping Late Pleistocene coral terraces, up to 220 kyr old and up to 600m in elevation, formed during uplift of NE Huon Peninsula in NE PNG)

Chappell, J. (1974)- Upper mantle rheology in a tectonic region: evidence from New Guinea. J. of Geophysical Research 79, 2, p. 390-398.
(Deformed coral terraces on NE New Guinea coast provide opportunity for estimating lithosphere-asthenosphere rheology in tectonic region. Terraces can be traced for ~130 km and extrapolated to point of convergence ~55 km beyond zone of least rapid uplift)

Chappell, J. (1983)- A revised sea-level record for the last 300,000 years from Papua New Guinea. Search 14, p. 99-101.

Chappell, J. (1993)- Contrasting Holocene geologies of lower Daly River, northern Australia, and lower Sepik-Ramu, Papua New Guinea. Sedimentary Geology 83, p. 339-358.
(Holocene geology of Sepik and Ramu River systems strongly affected by post-glacial sealevel changes, and differs from N Australia Daly River)

Chappell, J., A. Omura, T. Esat, M. McCulloch, J. Pandolfi, Y. Ota & B. Pillans (1996)- Reconciliation of late Quaternary sea levels derived from coral terraces at Huon Peninsula with deep sea oxygen isotope records. Earth Planetary Science Letters 141, p. 227-236.
(online at: http://large.stanford.edu/publications/coal/references/docs/Chappell.pdf)
(Late Quaternary sea level changes from 120ka- now derived from raised coral reef terraces at Huon Peninsula in PNG now good correspondence with trends derived from oxygen isotopes in deep sea cores)

Chappell, J., Y. Ota & K. Berryman (1996)- Late Quaternary coseismic uplift history of Huon Peninsula, Papua New Guinea. Quaternary Science Reviews 15, 1, p. 7-22.
(Huon Peninsula episodic uplift shown by regressive terraces cut into raised late Quaternary reef tracts. Uplift events believed to be coseismic. Amplitude of uplift events averages ~3 m and increases from NW to SE)

Chappell, J., Y. Ota & C. Campbell (1998)- Decoupling post-glacial tectonism and eustasy at Huon Peninsula, Papua New Guinea. In: I.S. Stewart & C. Vita-Finzi (eds.) Coastal tectonics, Geological Society, London, Special Publ. 146, p. 31-40.

Chappell, J. & H.A. Polach (1976)- Holocene sea-level change and coral reef growth at Huon Peninsula, Papua New Guinea. Geological Society of America (GSA) Bull. 87, p. 235-240.
(At tectonically rising terraced coast of Huon Peninsula Holocene reef emerged by 12m. Uplift of Pleistocene reefs in area ~1.9 m/1000 yr. If uplift uniform rate, position of sea level at 6000 yrs ago ~-4m; 8000 yr ago~-14m)

Chappell, J.M.A. & M. Strathern (1966)- Stone axe factories in the highlands of East New Guinea. Proceedings of the Prehistoric Society 32, p. 96-121.
(Author visited ten 'prehistoric' stone axe mining sites in PNG in 1963, most of which had been abondoned by that time)

Chivas, A.R., J.R. O'Neil & G. Katchan (1984)- Uplift and submarine formation of some Melanesian porphyry copper deposits: stable isotope evidence. Earth Planetary Science Letters 68, p. 326-334.
(Hydrogen and oxygen isotope from young porphyry copper deposits in PNG (Ok Tedi; 1.2 Ma and Yandera; 6.5 Ma), Solomon Islands (Koloula; 1.6 Ma), etc. indicate mixing with meteoric water with isotopic signature of consistent with elevation of 200m a.s.l. or less at time of mineralization; exposed deposit now at 1800m a.s.l. Influx of meteoric water at Yandera when ground surface above deposit was at ~600m a.s.l. Deposit now at 1600m indicating uplift of ~2.2 km, with removal of 1.2 km of overburden by erosion)

Christopherson, K.R. (1991)- Applications of magnetotellurics to petroleum exploration in Papua New Guinea; a model for frontier areas. The Leading Edge 10, 4, p. 21-27.

Clift, P.D., Y. Du, M. Mohtadi, K. Pahnke, M. Sutorius & P. Boning (2024)- The erosional and weathering response to arc–continent collision in New Guinea. J. Geological Society, London, 181, 4, jgs2023-207, p. 1-17.
(online at: https://www.lyellcollection.org/doi/epub/10.1144/jgs2023-207)
(Collision between Australia and oceanic North Coast Range-New Britain Arc began in M Miocene, resulting in uplift of modern New Guinea Highlands. Erosion/weathering impact reconstructed from 'sedimentary archives' of DSDP cores from sites 210 and 287 in Gulf of Papua. Sr and Nd isotopes show dominant erosion from igneous arc- ophiolite crust: ~40–70% of total flux in E Miocene, increasing to ~80–90% at 8 Ma, before falling again to 72–83% today. Chemical alteration of sediment increased through time, especially since. 5 Ma)

Cole, J.P., M. Parish & D. Schmidt (2000)- Sub-thrust plays in the Papuan fold belt: the next generation of exploration targets. In: P.G. Buchanan et al. (eds.) Papua New Guinea's petroleum industry in the 21st century, Proc. 4th PNG Petroleum Convention, Port Moresby, PNG Chamber of Mines, p. 87-100.

Connelly, J.B. (1979)- Mode of emplacement of the Papuan ultramafic belt. BMR J. Australian Geology Geophysics 4, p. 57-65.
(online at: https://d28rz98at9flks.cloudfront.net/80985/Jou1979_v4_n1_p057.pdf)
(Papuan Ultramafic Belt probably overthrust sheet of oceanic crust and mantle, with thicker crustal section than normal oceanic crust. Left-lateral faulting of Belt after emplacement evident from displacement of ultramafic bodies. Belt aligned N-S when originally emplaced, and emplaced from W, 30° S of present latitude, before Australian Plate started to move N at ~55 Ma. Estimated uplift of presently exposed part up to 10 km)

Conybeare, C.E.B. & R.G.C. Jessop (1972)- Exploration for oil bearing sand trends in the Fly River area, western Papua. Australian Petroleum Exploration Assoc. (APEA) Journal 12, 1, p. 69-73.

Cooper, G.T., K.C. Hill & K. Baxter (1996)- Rifting in the Timor Sea and New Guinea; a template for compressional forward modelling. In: P.G. Buchanan (ed.) Petroleum exploration, development and production in Papua New Guinea, Proc. 3rd PNG Petroleum Convention, Port Moresby, p. 133-146.
(Foldbelt of New Guinea underlain by Mesozoic rifts, along strike to Late Jurassic Vulcan sub-basin of Australia NW Shelf (but New Guinea margin rifting/ breakup Triassic?))

Cooper, G., D. Kendrick, F. Waina, C. Hamilton & M. Nongkas (2012)- New insights in to the structural and thermal development of the Papuan Foreland: implications for hydrocarbon charge and prospectivity. In: Eastern Australian Basins Symposium (EABS) IV, Brisbane, Petroleum Exploration Society Australia (PESA), p. 1-14.
(Thermochronological data for 29 wells in Papuan Foreland show present-day heat flow consistent with median values for Australian continental plate. Paleothermal data suggest Cecilia Trough and Morehead Graben presently at maximum temperatures, but wells in central Foreland much higher temperatures in past, suggesting either km-scale uplift and erosion or (less likely) elevated heat flows associated with Coral Sea Rifting in Late Cretaceous-Paleocene)

Cooper, P. & B. Taylor (1987)- Seismotectonics of New Guinea: a model for arc reversal following arc continent collision. Tectonics 6, 1, p. 53-68.
(Seismicity shows active subduction zones. E of 149°E Solomon Plate subducted to N and S. W of 149°E forearcs collided and override doubly subducted Solomon Plate. Ramu-Markham suture plunges W at 5° angle below N New Guinea coastal ranges. From 144°-148° E convergence between Bismarck and Indo-Australian plates accommodated by thrusting in Finisterre and Adelbert ranges and compression of New Guinea orogenic belt, together with basement-involved foreland folding/ thrusting to S. Finisterre block overthrusts New Guinea foldbelt, Adelbert block sutured to New Guinea and overthrusts oceanic lithosphere of Bismarck Sea. W of 144°E seismicity defines S-dipping Benioff zone and oblique subduction along New Guinea Trench)

Corbett, D.W.P. (1962)- Geological reconnaissance in the Ramu Valley and adjacent areas, New Guinea. Bureau Mineral Resources Geology Geophysics, Record 1962/032, p. 1-14.

(online at: www.ga.gov.au/products/servlet/controller?event=GEOCAT_DETAILS&catno=10922)
(Survey at NE coastal area of PNG around Lower Ramu Valley. At S side NE foothills of Schrader Ranges all greenschist facies unfossiliferous greywackes/ siltstones. In N Adelbert Mts (Miocene-Recent volcanics-dominated sediments))

Corbett, G.J. (1994)- Regional structural control of selected Cu/Au occurrences in Papua New Guinea. In: R. Rogerson (ed.) Proc. PNG Geology, exploration and mining conference, Lae 1994, Australasian Institute of Mining and Metallurgy (AusIMM), Melbourne, p. 57-70.
(NE-trending structural grain in Papuan Fold Belt and relation to copper-gold deposits)

Corbett, G.J. (2005)- The geology and mineral potential of Papua New Guinea. Papua New Guinea Department of Mining, Port Moresby, p. 1-152.

Corbett, G.J. (2009)- Tectonic/structural control to Papua New Guinea Au-Cu mineralisation. *(Abstract Only)*
(online at: www.smedg.org.au/Corbett%20Au-Cu%20in%20PNG%20May09.pdf)

Corbett, G.J., T.M. Leach, R. Stewart & B. Fulton (1995)- The Porgera gold deposit: structure, alteration and mineralisation. Proc. Pacific Rim Congress (PACRIM '95), Auckland 1995, Australasian Institute of Mining and Metallurgy (AusIMM), Melbourne, p. 151-156.
(Gold mineralisation at Porgera derived from deep differentiated magma source capped by inward dipping sills and stocks of Porgera Intrusive Complex. Arc normal transfer structure provides conduit. Etc. (see also Richards, 1990)

Craig, M.S. & K. Warvakai (2009)- Structure of an active foreland fold and thrust belt, Papua New Guinea. Australian J. Earth Sciences 56, 5, p. 719-738.
(Seismic lines across foreland at SW side of Papuan foldbelt show en echelon anticlines: Strickland, Cecilia, and Wai Asi. Folding mainly in upper 2000m, which consist of Darai Lst overlain by Miocene- Quaternary siliciclastics. Competent Darai Lst ~1000m thick, overlying similar thickness of relatively incompetent Cretaceous Ieru Fm. Age of folding Late Pliocene and Pleistocene)

Craig, M.S., K. Warvakai & H.L. Davies (2000)- Seismic structure of the Strickland Anticline, Papuan fold belt. In: P.G. Buchanan et al. (eds.) Papua New Guinea's petroleum industry in the 21st century, Proc. 4th PNG Petroleum Convention, Port Moresby, p. 443-456.

Crespin, I. (1938)- The occurrence of *Lacazina* and *Biplanispira* in the Mandated Territory of New Guinea. Bureau Mineral Resources (BMR), Canberra, Palaeontological Bull. 3, p. 3-8.
(online at: www.ga.gov.au/corporate_data/200/Bull_003.pdf)
(Eocene limestone near Chimbu aerodrome, PNG, with abundant calcareous algae (Lithothamnium), common larger forams Lacazina and also Pellatispira and rare Biplanispira. These genera not normally found associated (illustrations on Plate 2 look convincing, but Pellatispira/Biplanispira not seen in these rocks by Bain & Binnekamp 1973; JTvG)

Crespin, I. (1938)- A Lower Miocene limestone from the Ok Ti River, Papua. Bureau Mineral Resources (BMR), Canberra, Palaeontological Bull. 3, p. 9-12.
(online at: www.ga.gov.au/corporate_data/200/Bull_003.pdf)
(Limestone beneath 'mudstone grit series' at W bank Ok Ti River (= Upper Tedi River; near Irian Jaya border, with headwaters in Star Mts). Assemblage of Heterostegina borneensis, Borelis pygmaeus and Eulepidina (practically identical to assemblages from W Java Rajamandala Limestone= Te1, Latest Oligocene; JTvG))

Crespin, I. (1958)- Microfossils in Australian and New Guinea stratigraphy. J. Proc. Royal Society New South Wales 92, 4, p. 133-147.
(Review of progress of micropalaeontology in Australia and New Guinea, with bibliography of key papers. Groups of microfossils recognized foraminifera, radiolaria, calpionellidae, holothurian sclerites, alcyonarian sclerites, sponge spicules, conchostraca, ostracoda, microplankton, conodonts, spores-pollens, diatoms)

Crespin, I. (1962)- *Lacazinella*, a new genus of trematophore Foraminifera. Micropaleontology 8, p. 337-342.
(New genus name for Lacazina wichmanni, a larger foram from Upper Eocene limestone near the Chimbu aerodrome in PNG)

Crespin, I. & D.J. Belford (1955)- Foraminifera from the Upper Sepik River, Western New Guinea. Bureau Mineral Resources Geology Geophysics, Record 1955/46, p.
(online at: www.ga.gov.au/products/servlet/controller?event=GEOCAT_DETAILS&catno=9037)
(Brief report on samples from river float, derived from Central Range near W Papua border. Of limited use)

Crespin, I. & D.J. Belford (1955)- Micropalaeontological examination of rock samples from the Cape Vogel area, Papua. Bureau Mineral Resources Geology Geophysics, Record 1955/96, p.
(online at: www.ga.gov.au/corporate_data/8990/Rec1955_096.pdf)
(107 samples collected by J.E. Thompson from Cape Vogel area, E end of Papuan Peninsula, are mainly U Miocene- Pliocene open marine fauna. A few limestones contain Lower Tf (M Miocene) larger forams, incl. Miogypsina polymorpha, Katacycloclypeus, etc.))

Crespin, I. & D.J. Belford (1956)- Micropalaeontological examination of rock samples from the Upper Sepik-August River area, New Guinea. Bureau Mineral Resources Geology Geophysics, Record 1956/20, p. 1-5.
(online at: www.ga.gov.au/corporate_data/10180/Rec1956_020.pdf)
(Samples of E and M Miocene limestones, clastics with common reworked U Cretaceous and Paleocene planktonics, etc. For geology of area see Perry (1956))

Crespin, I. & D.J. Belford (1957)- Micropalaeontological examination of rock samples from the Central Highlands, New Guinea. Bureau Mineral Resources Geology Geophysics, Record 1957/91, p. 1-6.
(online at: www.ga.gov.au/corporate_data/10290/Rec1957_091.pdf)
(Micropaleontological analysis of outcrop samples collected by McMillan & Johnson (1960) around E part of Bismarck Range/ Goroka Valley. In Watabung and Bena-Bena area at S side of Bismarck anticline U Cretaceous with Pseudorbitoides, Eocene pebbles with Nummulites, Discocyclina and Pellatispira spp, Oligocene and Miocene with Lepidocyclina, Miogypsina, etc. No locality maps)

Crespin, I. & G.A.V. Stanley (1965)- Palaeontological investigations, Papua and New Guinea. A revision of list in BMR Report 20, with additions to the end of 1965. Bureau Mineral Resources Geology Geophysics, Record 1965/186, p. 1-44.
(online at: www.ga.gov.au/corporate_data/11639/Rec1965_186.pdf)
(Comprehensive listing of paleontological reports for PNG by Bureau of Mineral Resources, 1922-1965)

Crook, K.A.W. (1961)- Diagenesis in the Wahgi valley sequence, New Guinea. Proc. Royal Society of Victoria 74, 1, p. 77-81.
(Wahgi valley sequence Permian- U Jurassic-Miocene sediments on Paleozoic basement. In Chim and Wahgi valleys 24.800' of pre-Miocene sediments, once overlain by probable 10,000' of Miocene shales-greywackes. Sediments that were buried to depths of 13,000'- 28,000' show diagenesis characteristic of laumontite facies. Sediments buried below 28,000' in prehnite-pumpellyite facies of diagenesis)

Crook, K.A.W. (1989)- Suturing history of an allochthonous terrane at a modern plate boundary traced by flysch-to-molasse facies transitions. Sedimentary Geology 61, p. 49-79.
(S boundary of S Bismarck plate in PNG (Ramu-Markham FZ) changes character from W to E as result of oblique collision and suturing of Finisterre Terrane with New Guinea margin. Correlations between facies and tectonic settings: (1) terrane yet to dock, western New Britain Trench: conglomeratic flysch; (2) terrane now docking, Huon Gulf: marine molasse (3) terrane already docked, Markham Valley: fluvial molasse)

Crowhurst, P.V. (1999)- The tectonic history of Northern Papua New Guinea. Ph.D. Thesis, La Trobe University, Melbourne, p. 1-414. *(Unpublished)*

Crowhurst, P.V., K.C. Hill, D.A. Foster & A.P. Bennett (1996)- Thermochronological and geochemical constraints on the tectonic evolution of northern Papua New Guinea. In: R. Hall & D. Blundell (eds.) Tectonic evolution of Southeast Asia, Geological Society, London, Special Publ. 106, p. 525-537.
(Bewani-Torricelli Mts along N margin of PNG formed as island arc in Late Eocene- E Oligocene and accreted to margin by Late Oligocene. E Miocene extension due to inferred rollback of subducting slab beneath New Guinea. Two inferred metamorphic core complexes rapid cooling from 27-23 Ma and 20-18 Ma. Continued subduction beneath New Guinea resulted in Maramuni Arc in M Miocene and end of extension. Collision of Melanesian Arc caused regional uplift of N PNG, mainly from 8-5 Ma, with >3-4 km of denudation)

Crowhurst, P.V., R. Maas, K.C. Hill, D.A. Foster & C.M. Fanning (2004)- Isotopic constraints on crustal architecture and Permo-Triassic tectonics in New Guinea: possible links with eastern Australia. Australian J. Earth Sciences 51, 1, p. 107-124.
(online at: https://www.academia.edu/28925034/Isotopic_constraints_on_crustal_architecture_and_Permo_Triassic_tectonics_in_New_Guinea_possible_links_with_eastern_Australia?f_ri=219794)
(New ages for Triassic igneous and metamorphic rocks. Triassic volcanic arc in N New Guinea intrudes high-grade metamorphic rocks probably resulting from Late Permian- E Triassic (~260-240 Ma) orogenesis, as recorded in New England Fold Belt. Late Triassic magmatism in New Guinea (~220 Ma) related to coeval extension and rifting as precursor to Jurassic breakup of Gondwana margin. Amanab- Idenburg metadiorite near PNG border ~240 Ma. Second magmatic event in Late Triassic ~220 Ma (Kubor granodiorite, Strickland granite, etc.). Evidence for two metamorphic events in Amanab block: one high-grade before 240 Ma (Late Permian- E Triassic) and lower grade event in Miocene)

Cullen, A.B. (1991)- The North New Guinea Basin, Papua New Guinea; a case study of basin evolution at a modern accretionary plate boundary. Ph.D. Thesis, University of Oklahoma. Norman, p. 1-313. *(Unpublished)*

Cullen, A.B. (1991)- Neogene tectonic evolution of the Ramu Basin, Papua New Guinea; evidence of subsidence analysis of the Tsumba 1 Well. The Compass (University of Oklahoma) 68, 3, p. 181-190.

Cullen, A.B. (1996)- Ramu Basin, Papua New Guinea: a record of Late Miocene terrane collision. American Assoc. Petroleum Geol. (AAPG) Bull. 80, 5, p. 663-684.
(Ramu Basin Late Miocene collisional successor basin developed as Finisterre/Adelbert terrane collided with Maramuni arc. Age of arc volcanism Late Oligocene- M Miocene. Subduction polarity uncertain)

Cullen, A.B. & J.D. Pigott (1989)- Post-Jurassic tectonic evolution of Papua New Guinea. Tectonophysics 162, p. 291-302.
(Series series of kinematically constrained tectonic reconstructions of PNG, documenting post-Jurassic evolution of N margin Australian plate from rifted, passive continental margin to one composed of accreted, tectonostratigraphic terranes undergoing sinistral oblique transpression. Allochthonous terranes represent marginal basins and fringing island arcs which began docking to Australian plate in Miocene. At present, assemblage forms diffuse suture zone between Australian and Pacific plates)

Daczko, N.R., P. Caffi, J.A. Halpin & P. Mann (2009)- Exhumation of the Dayman dome metamorphic core complex, eastern Papua New Guinea. J. Metamorphic Geology 27, 6, p. 405-422.
(~750 km^{2}Dayman dome of Late Cretaceous Suckling-Dayman massif, E PNG rises 2850m high, with >1000m high fault scarp at N edge, which is part of microplate boundary separating continental crust of New Guinea highlands from continental and oceanic crust of Woodlark microplate. Eclogite-bearing core complexes NE of Dayman dome exhumed from 24-28 kbar in last few millions of years. Pumpellyite-actinolite facies assemblages with local lawsonite and/or glaucophane in core of complex indicate exhumation from depths of 20-30 km)

Daczko, N.R., P. Caffi & P. Mann (2010)- Structural evolution of the Dayman dome metamorphic core complex, eastern Papua New Guinea. Geological Society of America (GSA) Bull. 123, p. 2335-2351.
(Shallow-dipping ductile mylonitic shear zone and concordant brittle detachment fault (Mai'iu fault) control orientation of dip slopes on flanks of Mt Dayman, E Papuan Peninsula, PNG. Dip slopes in all directions. Orientation of megacorrugations on Mt Dayman domed surface (footwall) consistent with NNE-directed

transport of hanging-wall block of low-grade volcanic and sedimentary rocks and minor ultramafic rocks. Previously documented as thrust surface, but more likely extensional origin (boudinaged veins, etc.))

Dallwitz, W.B., D.H. Green & J.E. Thompson (1966)- Clinoenstatite in a volcanic rock from the Cape Vogel Area, Papua. Journal of Petrology 7, 3, p. 375-403. *(also as BMR Report 1965/56, 68p.)*
(online at: https://d28rz98at9flks.cloudfront.net/11509/Rec1965_056.pdf)
(Unique porphyritic volcanic rock from near Boboni, Cape Vogel Peninsula, NE Papua, with abundant phenocrysts of twinned clinoenstatite, a mineral rarely found in volcanic rocks. Probably pre-Lower Miocene submarine volcanics; one radiometric K/Ar date of 28 Ma (Late Oligocene). Possibly reflect assimilation of Mg-rich ultramafic rocks or mixing with ultramafic magma (called boninite by Walker & Cameron 1983; Late Paleocene Ar/Age of ~59 Ma by Walker & McDougall, 1982))

Dalrymple, R.W., E.K. Baker, P.T. Harris & M.G. Hughes (2003)- Sedimentology and stratigraphy of a tide-dominated foreland-basin delta (Fly River, Papua New Guinea). In: F.H. Sidi, D. Nummedal et al. (eds.) Tropical deltas of Southeast Asia- sedimentology, stratigraphy and petroleum geology, Society for Sedimentary Geology (SEPM) Special Publ. 76, p. 147-173.

Daniels, M.C. (1993)- Formation pressure measurements and their use in oil exploration in the Kutubu project, Papua New Guinea. In: G.J. & Z. Carman (eds.) Petroleum Exploration and Development in Papua New Guinea, Proc. 2nd PNG Petroleum Convention, Port Moresby 1993, p. 579-588.

Daniels, M.C. & N.I. Duncan (1990)- The application of gas ratios in Papua New Guinea. In: G.J. & Z. Carman (eds.) Petroleum Exploration in Papua New Guinea, Proc. First PNG Petroleum Convention, Port Moresby, p. 83-94.

Daniels, M., M.I. Jacobson, J.D. Lee, D.T. Moffat & K.C. Richards (2000)- The application of exploration principles to define the potential of the S.E. Gobe field forelimb. In: P.G. Buchanan et al. (eds.) Papua New Guinea's petroleum industry in the 21st century, Proc. 4th PNG Petroleum Convention, Port Moresby 2000, p. 369-383.

Dang, H., J. Wu, Z. Xiong, P. Qiao, T. Li & Z. Jian (2020)- Orbital and sea-level changes regulate the iron-associated sediment supplies from Papua New Guinea to the equatorial Pacific. Quaternary Science Reviews 239, 106361, p. 1-21.
(Sediment cores off N New Guinea)

Darnault, R& K.C. Hill (2020)- Four-dimensional analog and geometrical modeling of the Hides anticline, Papua New Guinea: structure of a giant gas field. American Assoc. Petroleum Geol. (AAPG) Bull. 104, 4, p. 961-985.
(Hides anticline in PNG foldbelt underlain by basement normal fault that was mildly inverted before onset of pure compression deformation in sediment section. Main detachment level just above basement at ~8-10 km below surface, ramped up at basement fault, creating triangle-zone faults through overlying section. Early inversion initiatied back thrust and hinterland-verging tight fold in Mesozoic section. Deformation in overlying Miocene carbonates detached from underlying reservoir along U Cretaceous mudstone. Mesozoic structure verges NE, overlying Miocene structure verges SW)

Darnault, R., K. Hill, J.M. Mengus, J.M. Daniel, J.P. Callot & J.C. Ringenbach & (2015)- Analogue modelling of the Papua New Guinea fold and thrust belt. 77th EAGE Conference & Exhibition, Madrid, WS04-P01, p. 1-5.
(Extended Abstract)
(Brief review of IFP sandbox modeling of PNG foldbelt structure. Many folds formed as inversions of basement normal faults)

Darnault, R., K.C. Hill, J.M. Mengus, J.M. Daniel & N. Wilson (2016)- Analogue modeling of the Papua New Guinea fold and thrust belt. AAPG/SEG International Conference Exhibition, Melbourne 2015, Search and Discovery Article 30439, p. *(Extended abstract)*
(online at: www.searchanddiscovery.com/documents/2016/30439darnault/ndx_darnault.pdf)

(Sandbox experiments to model PNG foldbelt structures. Pre-existing normal fault in basement led to development of detachment fold in cover abutting the basement in footwall. Development of overturned detachment fold enhanced when basement fault was first partially inverted)

Darnault, R., K.C. Hill, J.M. Mengus & N. Wilson (2015)- Analogue modeling of the Papua New Guinea fold and thrust belt. Proc. Eastern Australian Basins Symposium (EABS), Petroleum Exploration Society Australia (PESA), p. 249-254.
(Similar to Darnault et al. 2015, 2016)

Davey, R.J. (1988)- Palynological zonation of the Lower Cretaceous, Upper and uppermost Middle Jurassic in the northwestern Papuan Basin of Papua New Guinea. Geological Survey Papua New Guinea, Port Moresby, Memoir 13, p. 1-77.
(Robertson Research Jurassic-Cretaceous marine dinoflagellate zonation, from samples along Strickland River in W PNG. Similar to Helby, Morgan & Partridge (1987) zonation, but more elaborate (12 zones in Callovian-Tithonian). (See also revised Helby et al. zonations updated in 2004 and 2006; JTvG))

Davey, R.J. (1999)- Revised palynological zonation for the Late Cretaceous and Late Jurassic of Papua New Guinea. Geological Survey Papua New Guinea, Port Moresby, Memoir 17, p. 1-51.

Davies, H.L. (1959)- The geology of the Ajura Kujara Range. Bureau Mineral Resources Australia (BMR), Record 1959/32, p. 1-39.
(online at: https://d28rz98at9flks.cloudfront.net/10462/Rec1959_032.pdf)
(Mapping work in 1957-1958. Ajura Kujara Range in E PNG part of Papuan Ultrabasic Belt, thought to be of U Mesozoic or Lower Tertiary age. Rocks range from ferromagnesian types in E and S to gabbroic types in E and NE. Lateritic concentrations of nickel in soils over olivine-bearing rocks, but no grades high enough for exploitation).

Davies, H.L. (1963)- Papuan Basic belt, with special reference to the Bowutu Mountains and Ajura Kujara Range. M.Sc. Thesis, University of Western Australian, p. 1-149. *(Unpublished)*

Davies, H.L. (1968)- Papuan ultramafic belt. Proc. 23rd Session International Geological Congress, Prague 1968, 1, p. 209-230.
(Papuan Ultramafic Belt along NE side of the Owen-Stanley Range in SE PNG ~400 km long and 40 km wide, composed of gabbro and peridotite. Thought to represent fragment of oceanic crust and mantle that moved W-ward since Cretaceous and forced upward after collision with sialic core of PNG))

Davies, H.L. (1969)- Peridotite-gabbro-basalt complex in eastern Papua; an overthrust plate of oceanic mantle and crust. Ph.D. Thesis, Stanford University. Stanford, p. 1-88. *(Unpublished)*
(online at: http://sul-derivatives.stanford.edu/derivative?CSNID=00018812&mediaType=application/pdf)
(Early investigation of 400km long and 40km wide Papuan Ultramafic Belt, a peridotite-gabbro-basalt complex, thought to be part of plate of Cretaceous oceanic mantle and crust. NW-SE trending outcrop belt 400 km long, 40 km wide, on NE side of Owen Stanley Range in E PNG. Ultramafics thrusted over generally sialic metamorphic rocks in Eocene or Oligocene (Cretaceous sediments?, now in blueschist and greenschist facies)

Davies, H.L. (1969)- Notes on Papuan Ultramafic Belt mineral prospects, Territory of Papua and New Guinea Bureau Mineral Resources (BMR), Record 1969/67, p. 1-19.
(online at: https://d28rz98at9flks.cloudfront.net/12326/Rec1969_067.pdf)
(Presence of nickel sulphide and chromitite lenses. Lateritic nickel prospects in Ultramafic Belt deemed uneconomic)

Davies, H.L. (1971)- Peridotite-gabbro-basalt complex in Eastern Papua: an overthrust plate of oceanic mantle and crust. Bureau Mineral Resources Geology Geophysics, Bull. 128, p. 1-48.
(online at: www.ga.gov.au/metadata-gateway/metadata/record/145/)

(Similar to above. Papuan Ultramafic Belt peridotite-gabbro-basalt complex thought to be part of overthrust sheet of Cretaceous oceanic mantle and crust. From top to bottom complex consists of (1) Basalt zone (Basalt and spilite, massive and as pillow lavas, some dacite, 4-6 km thick); (2) Gabbro zone (4 km); (3) Ultramafic zone (cumulates, up to 0.5 km; noncumulates: harzburgite, etc., with metamorphic textures; 4-8 km thick)

Davies, H.L. (1976)- Papua New Guinea Ophiolites. 25th International Geological Congress, Sydney, Excursion Guide 52A, p. 1-16.

Davies, H.L. (1978)- Geology and mineral resources of Papua New Guinea. In: P. Nutalaya (ed.) Proc. 3rd Regional Conference Geology and Mineral Resources of SE Asia (GEOSEA III), Bangkok, Asian Institute of Technology, p. 685-699.
(Early review of PNG geology)

Davies, H.L. (1980)- Folded thrust fault and associated metamorphics in the Suckling-Dayman Massif, Papua New Guinea. American Journal of Science 280-A, p. 171-191.
(Suckling-Dayman Massif in SE PNG mainly metamorphosed Late Cretaceous basalt and limestone, apparently metamorphosed by underthrusting to 25-35 km depth in N-dipping Eocene subduction system. Massif partly surrounded by ophiolite outcrops and in places overlain by ultramafic rocks)

Davies, H.L. (1980)- Crustal structure and emplacement of ophiolite in southeastern Papua New Guinea. In: C. Allegre & J. Aubouin (eds.) Orogenic mafic ultramafic association, Colloques Internationaux. Centre National Recherche Scientifique (CNRS), Paris, 272, p. 17-33.

Davies, H.L. (1981)- The major ophiolite complex in Southeastern Papua New Guinea. In: A.J. Barber & S. Wiryosujono (eds.) The geology and tectonics of Eastern Indonesia, Proc. CCOP-IOC SEATAR Working Group Meeting, Bandung 1979, Geological Research Development Centre (GRDC), Bandung, Special Publ. 2, Bandung, p. 391-408.
(Papuan Ultramafic Belt NE of Owen Stanley Range simple layered sequence of basalt (4 km), gabbro (4 km) and ultramafic rocks (4-8 km). Ophiolite complex thought to represent Jurassic and/or Cretaceous Pacific oceanic crust, juxtaposed with Cretaceous sediments of NE Australian continental margin in NE-dipping subduction zone in E or M Eocene, choking subduction here ('choked subduction zone model' of ophiolite emplacement and uplift). Complex exposed by vertical movements in Neogene. NE dipping ophiolite complex continuous with crust and upper mantle of Solomon Sea Basin)

Davies, H.L. (1982)- The Papua New Guinea thrust belt, longitude 141-144 East. Bureau Mineral Resources Geology Geophysics, Canberra, Record 1982/3, p. 1-24.

Davies, H.L. (1982)- Mianmin, Papua New Guinea. 1:250,000 Geological Series- Explanatory notes. Dept. Minerals and Energy, Geological Survey Papua New Guinea, SB/54-3, p. 1-44.
(PNG map sheet immediately E of W Papua border, N side of Central Range. Three geologic units: Papuan Basin (Pliocene thrust belt) in S, Central basement massif (with ultramafics, Ambunti metamorphics, Jurassic black phyllite/ schist (Om Beds), Cretaceous- Eocene Salumei Fm volcanic arc/ arc trench deposits, Tau blueschist, etc.) and Lumi Trough (Sepik) Neogene basin in N (oldest recorded sediments M Miocene). M Miocene Frieda dioritic complex with porphyry copper mineralization. In SW corner Late Miocene Pliocene Antares monzodiorite complex (= Star Mountains; ~8- 4 Ma))

Davies, H.L. (1983)- Wabag, Papua New Guinea. 1:250,000 Geological Series- Explanatory notes. Dept. Minerals and Energy, Geological Survey Papua New Guinea, SB/54-8, p. 1-84.
(PNG map sheet in NW part of Central Range thrust belt. Two main provinces, separated by Stolle- Lagaip- South Kubor Fault Zone: (1) Papuan Basin in SW (Central Range thrust belt; with M Jurassic - Tertiary Australian margin shelf sediments), and (2) Central orogenic Belt in NE ('mobile zone'; with M-L Triassic sediments and volcanics). Most faults NE-dipping reverse/ thrust faults, with possible 70km of left-lateral strike slip along Stolle-Lagaip-South Kubor fault. With Porgera gold mine, associated with M-L Miocene diorite intrusives into folded Late Cretaceous Chim Fm sediments. Oil seeps in SW)

Davies, H.L. (1990)- Structure and evolution of the border region of New Guinea. In: G.J. & Z. Carman (eds.) Petroleum exploration in Papua New Guinea, Proc. First PNG Petroleum Convention, Port Moresby, p. 245-269.
(Geology and stratigraphy of border region between W Papua and PNG, from Australian craton in S, across foldbelt, to accreted terranes in N. Disconformity at K-T boundary, spanning latest Maastrichtian- E Paleocene zone P2. Transcurrent faulting and narrowing of foldbelt at PNG- W Papua border may coincide with E border of more rigid Precambrian craton. Major M Miocene calc-alkaline volcanics in border regions (Maramuni Arc) and common Late Miocene- younger intrusives. Main development of PNG foldbelt 4-2 Ma, still continuing. Bismarck-Kubor moved relative to Fly Platform (paleomag suggests large Pliocene CCW rotation))

Davies, H.L. (1991)- Regional geologic setting of some mineral deposits of the New Guinea region. In: R. Rogerson (ed.) Proc. PNG Geology, Exploration and Mining Conference 1991, Rabaul, Australasian Institute of Mining and Metallurgy (AusIMM), Melbourne, p. 49-57.
(Mineral deposits in C New Guinea associated with Neogene intrusions of magma of mantle origin that penetrated thick Precambrian and Paleozoic continental crust. Magmatism not obviously subduction-related)

Davies, H.L. (1992)- Mineral and petroleum resources of Papua New Guinea with notes on geology and history. Department of Geology, University of Papua New Guinea, p. 1-35.

Davies, H.L., W.J.S. Howell, R.S.H. Fardon, R.J. Carter & E. Bumstead (1978)- History of the Ok Tedi copper prospect, Papua New Guinea, I: The years 1966-1976 and II: The years 1975-1978. Economic Geology 73, p. 796-809.
(Ok Tedi porphyry copper-gold deposit at Mt Fubilan in Star Mts of W PNG discovered and tested by Kennecott Copper subsidiary in 1968-1971. Mining operation negotiations failed in March 1975. In 1976 PNG government entered into agreement with BHP-led consortium)

Davies, H.L. & D.S. Hutchison (1982)- Ambunti, Papua New Guinea- 1:250,000 geological series with Explanatory Notes. Geological Survey of Papua New Guinea, Port Moresby, SB/54-4, p.
(Map sheet in Sepik River region, N PNG)

Davies, H.L. & A.L. Jaques (1984)- Emplacement of ophiolite in Papua New Guinea. In: I.G. Gass et al. (eds.) Ophiolites and oceanic lithosphere, Geological Society, London, Special Publ. 13, p. 341-349. *(online at: https://www.researchgate.net/publication/249548266_Emplacement_of_ophiolite_in_Papua_New_Guinea)*
(Major ophiolite complexes of PNG on NE margin of Australian craton and flanked by Paleogene volcanic arcs. Ophiolites are segments of oceanic lithosphere, in forearc zone prior to arc-continent collision. Central Range ophiolite (April ultramafics) complex structure and probably developed as series of thrust sheets in subduction system; thrust sheets subjected to renewed deformation after arc-continent collision)

Davies, H.L., J. Lock, D.L. Tiffin, E. Honza, Y. Okuda, F. Murakami & K. Kisimoto (1987)- Convergent tectonics in the Huon Peninsula region, Papua New Guinea. Geo-Marine Letters 7, 3, p. 143-152.
(Anticlinal nappe forming Huon Peninsula and adjacent ranges extends offshore as Huon Ridge. Frontal thrust of nappe is Ramu-Markham Fault (onshore) and deformation front along line of Markham Canyon (offshore). Timing and geometry of Finisterre arc-continent collision controversial, and origin of Finsch Deep unresolved)

Davies, H.L. & M. Norvick (1974)- Blucher Range, Papua New Guinea. BMR and Geological Survey of PNG, 1:250,000 Geological Map series and explanatory notes, sheet SB/54-7, p. 1-29.
(Geologic map and explanatory notes of PNG Central Highlands, E of Indonesia border, between 5-6° S and 141° - 142°30'E. Major anticlines like Muller Anticline with Jurassic- Cretaceous section exposed in core)

Davies, H.L. & M. Norvick (1977)- Blucher Range stratigraphic nomenclature. Geological Survey Papua New Guinea, Port Moresby, Report. 77-14, p. 1-43.

Davies, H.L., R.C.B. Perembo, R.D. Winn & P. Kengemar (1997)- Terranes of the New Guinea Orogen. In: G.E. Hancock (ed.) Proc. Papua New Guinea Geology, Exploration and Mining Conference 1997, Madang, Australasian Institute of Mining and Metallurgy (AusIMM), Melbourne, p. 61-66.
(History of terrane accretion to N margin of Australian craton starts earlier (Late Cretaceous) than previously suggested. Collisions in C Highlands in Late Paleocene-E Eocene and Finisterre collision that precedes and is distinct from Pliocene Bismarck volcanic arc collision)

Davies, H.L. & I.E. Smith (1970)- Geology of Eastern Papua: a synthesis. Bureau Mineral Resources Geology Geophysics, Canberra, Record 1970/116, p. 1-27.
(online at: www.ga.gov.au/corporate_data/12529/Rec1970_116.pdf)
(Brief review of geology of SE PNG mainland with Owen Stanley Range and nearby D'Entrecasteaux, Woodlark and Louisiade islands, All with rel. widespread metamorphic and ultramafic rocks)

Davies, H.L. & I.E. Smith (1971)- Geology of Eastern Papua. Geological Society of America (GSA) Bull. 82, p. 3299-3312.
(Geology of E Papua Peninsula around Owen Stanley Range. Core of mainly Cretaceous sialic rocks metamorphosed in early Eocene, at time of emplacement of Papuan ultramafic belt, flanked by Mesozoic and younger mafic rocks)

Davies, H.L. & I.E. Smith (1974)- Tufi-Cape Nelson, Papua New Guinea- 1:250,000 Geoloogical Map Series. Bureau Mineral Resources (BMR), Canberra, and Geological Survey of Papua New Guinea, Explanatory Notes, SC/55-84, p. 1-34.

Davies, H.L., I.E. Smith, G. Cifali & D.J. Belford (1968)- Eastern Papua geological reconnaissance. Bureau Mineral Resources (BMR) Geology Geophysics, Canberra, Record 1968/66, p. 1-31.
(Geology of SE 'tail' of PNG mainland)

Davies, H., M. Swift & L. Jonda (2014)- Puzzling juxtaposition of extensional and contractional tectonics in southeastern Papua New Guinea. Proc. 6th Research Science Technology (RST) Conference, University PNG, 141119, p. 1-5.
(SE one-third of Peninsula shows extensional tectonics N of ~10°S, with outcrops of ophiolite and metamorphic rocks, and contractional tectonics S of that line. Extensional tectonics reflect W-ward propagation of Woodlark Rift, contractional structures due to convergence between Papuan Plateau and Papuan Peninsula)

Davies, H.L. & A.N. Williamson (2001)- Buna, PNG 1:250,000 Geological map series, Sheet SC/55-3, Explanatory Notes to accompany Buna 1:250,000 geologic map, Geological Survey Papua New Guinea, Port Moresby, p. 1-23.

Davies, H.L., R.D. Winn & P. KenGemar (1996)- Evolution of the Papuan Basin: a view from the orogen. In: P.G. Buchanan (ed.) Petroleum exploration, development and production in Papua New Guinea, Proc. 3rd PNG Petroleum Convention, Port Moresby, p. 53-62.
(New Guinea orogen formed by succession of collisions of Australian craton with microcontinents and volcanic island arcs, from Late Cretaceous- today. Five main collision events: (1) Irian ophiolite event (end-Cretaceous collision of Australian craton and volcanic island arc, wih K-Ar ages of metamorphic sole 61-68 Ma); (2) Late Paleocene- E-M Eocene Kami event (closing of Kami small ocean basin and suturing of (para-autochthonous?) Bena Bena, Jimi and Kubor terranes with Australian craton); (3) Late Eocene- Oligocene Sepik collision of Australian continent and major volcanic arc(s), accomodating foreland loading and deposition of Darai Limestone; (4) Late Oligocene collision of East Papua Composite Terrane and (5) E Miocene collision of Oligocene- E Miocene Finisterre volcanic arc, with downwarping of continental margin creating Ramu-Markham basin. Often delay in time between collision and uplift)

Davis, K., K. Pedersen, B. Todd & K. Wall (2000)- Integrated geological and engineering evaluation of Central Moran field, Papua New Guinea. In: P.G. Buchanan et al. (eds.) Papua New Guinea's petroleum industry in the 21st century, Proc. 4th PNG Petroleum Convention, Port Moresby 2000, p. 397-425.

(Moran Field in S highlands of PNG is 1996 oil discovery in E Cretaceous Toro and Digimu Fms sands. Narrow, SW vergent anticline with overturned forelimb)

Dekker, F., H. Balkwil, A. Sister, R. Herner & W. Kampschuur (1991)- A structural interpretation of the Onshore Eastern Papuan fold belt, based on remote sensing and fieldwork. In: G.J. & C.Z. Carman (eds.) Petroleum exploration in Papua New Guinea, Proc. First PNG Petroleum Convention, Port Moresby, p. 319-336.

Dekker, F., H.R. Balkwill, A. Slater, R.R. Herner & W. Kampschuur (1991)- Exploring Papua New Guinea with remote sensing field work. World Oil 212, p. 71-86.

Denison, C.N. & J.S. Anthony (1991)- New Late Jurassic subsurface lithostratigraphic units, PPL-100, Papua New Guinea. In: G.J. & C.Z. Carman (eds.) Petroleum exploration in Papua New Guinea, Port Moresby 1990, Proc. First PNG Petroleum Convention, Port Moresby, p. 153-158.
(Kimmeridgean- Tithonian lithostratigraphic- biostratigraphic units of PNG)

DesOrmeau, J.W., S.M. Gordon, T.A. Little & S.A. Bowring (2014)- Tracking the exhumation of a Pliocene (U)HP terrane: U-Pb and trace-element constraints from zircon, D'Entrecasteaux Islands, Papua New Guinea. Geochem. Geophysics Geosystems 15, 10, p. 3945-3964.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1002/2014GC005396)
(Domal structures on D'Entrecasteaux Islands with UHP Pliocene (5.6- 4.6 Ma) eclogites and evidence for partial melting. Zircons from orthogneiss of Normanby Dome record HP metamorphism from 5.66- 5.04 Ma. Melt crystallization began in Goodenough and Normanby Domes within 0.75 Myr of HP metamorphism. Exhumation and cooling of HP rocks in PNG began first in E (Normanby Dome); in W (Goodenough Dome) ~1 Myr later. Mailolo Dome, cooled~2 My after exhumation of Normanby Dome. All domes reveal final extension-driven exhumation by 1.82 Ma)

DesOrmeau, J.W., S.M. Gordon, T.A. Little, S.A. Bowring & N. Chatterjee (2017)- Rapid time scale of Earth's youngest known ultrahigh-pressure metamorphic event, Papua New Guinea. Geology (GSA) 45, 9, p. 795-798.
(Youngest known UHP eclogite from eastern PNG (Mailolo Dome) shows crustal rocks subducted to P 27-31 kbar and T ~715 °C. Zircons suggest ages of 6.0 ± 0.2 Ma to 5.2 ± 0.3 Ma for UHP metamorphism and 3.2-2.3 cm/yr exhumation rate. Subsequent retrogression of terrane near base of crust and final emplacement in upper crust in <~3 My)

De Vis, C.W. (1905)- Fossil vertebrates from New Guinea. Annals Queensland Museum 6, p. 26-31.

DeVries, M.S., R.D. Parish & J.L. Ryan (1996)- Horizontal well drilling in the Kutubu project, Papua New Guinea. In: P.G. Buchanan (ed.) Petroleum exploration, development and production in Papua New Guinea; Proc. 3rd PNG Petroleum Convention, Port Moresby, p. 551-561.

Dickins, J.M. (1958)- Jurassic pelecypods from the Kubor Ranges, New Guinea. Unpublished Report.
(Includes the first identification of Late Jurassic Buchia malayomaorica from Kubor Ranges, PNG)

Dixon, J.M. (1996)- Physical model investigation of the influence of early extensional (growth) faults on fold-thrust structures, with application to the Papuan fold and thrust belt. In: P.G. Buchanan (ed.) Petroleum exploration, development and production in Papua New Guinea, Proc. 3rd PNG Petroleum Convention, Port Moresby, p. 147-160.
(Papuan foldbelt result of protracted Mesozoic- E Tertiary continental rifting and passive margin sedimentation and folding-thrusting in Late Tertiary. Plasticine- silicone structure modeling stress hydrocarbon potential of footwall structural traps)

Dobmeier, C.J. & B. Poke (2012)- Geological map publication series of Papua New Guinea, 1:100 000, Sheet 7887 Aiome. Mineral Resources Authority, Port Moresby.

Dobmeier, C.J., B. Poke & B. Wagner (2012)- Geological map publication series of Papua New Guinea, 1:100 000, Sheet 7886 Minj. Mineral Resources Authority, Port Moresby.

Donaldson, J.C. & J.T. Wilson (1990)- Geology and hydrocarbon potential of the Sepik-Ramu area, Ramu Basin. In: G.J. & C.Z. Carman (eds.) Petroleum exploration in Papua New Guinea, Proc. First PNG Petroleum Convention, Port Moresby, p. 499-512.
(Improved seismic processing over Sepik-Ramu area, N New Guinea, suggests major tectonic event took place in Late Miocene- Early Pliocene, not M Miocene as previously suggested. Thick Miocene section contains 70x12 km area of E-M Miocene carbonates with pinnacle reefs, potentially analogous to Salawati Basin)

Donaldson, J.C. & J.T. Wilson (1996)- Geology and hydrocarbon potential of the Sepik-Ramu area, Ramu Basin, Papua New Guinea. In: G.P. & A.C. Salisbury (eds.) Trans. 5th Circum-Pacific Energy and Mineral Resources Conference, Honolulu 1990, Gulf Publishing, Houston, p. 279-299.
(Same paper as Donaldson & Wilson 1990)

Doust, H. (1990)- Geology of the Sepik Basin, Papua New Guinea. In: G.J. & Z. Carman (eds.) Petroleum Exploration in Papua New Guinea, Proc. First PNG Petroleum Convention, Port Moresby, p. 461-477.
(Sepik Basin in N part of New Guinea orogen is Neogene successor basin underlain and surrounded by terranes that were accreted in Oligocene-Miocene. Torricelli- Prince Alexander Mts in N are island arc/ oceanic terranes with some E-M Miocene limestones, mountains to S mainly metamorphics. Shell 1986 Nopan well 1, drilled of fault block, penetrated mainly M-L Miocene marine sediments before reaching weathered chlorite-epidote schist at 2312m, without oil shows or anticipated carbonate reservoirs)

Dow, D.B. (1961)- The relationship between the Kaindi metamorphics and Cretaceous rocks at Snake River, Territory of Papua and New Guinea. Bureau Mineral Resources Geology Geophysics, Record 1961/160, p. 1-10.
(online at: https://www.ga.gov.au/products/servlet/controller?event=GEOCAT_DETAILS&catno=10885)
(Snake River area at NW end of Owen-Stanley folded zone (SW of Lae and W of Morobe granodiorite) has thick Cretaceous greywackes previously regarded as part of Kaindi Metamorphics, but are less metamorphosed and less complexely folded. Cretaceous molluscs fauna previously described by Glaessner (1949) include Trigonia. Kaindi Metamorphics are greenschist facies metasediments withe marble lenses and possibly correlative of Permian Omung metamorphics of Kubor Block)

Dow, D.B. (1962)- A geological reconnaissance of the Jimi and Simbai Rivers, Territory Papua and New Guinea. Bureau Mineral Resources Geology Geophysics, Record 1962/110, p. 1-31.
(online at: www.ga.gov.au/products/servlet/controller?event=GEOCAT_DETAILS&catno=10999)
(Area of Jimi Anticline at N side of Jimi River (SW of Upper Ramu River and NW of Mt Herbert/Mt Wilhelm of Bismarck Range. Stratigraphy from old to young: (1) indurated ?Permian greywackes, (2) thick-bedded Jimi Fm greywackes with minor basic volcanics (with U Triassic bivalves Gervillea, Costatoria bivalves); (3) U Jurassic Maril shale with Inoceramus and Buchia malayomaorica (4) Lower Cretaceous basaltic Kondaku Tuff; (5) M Cretacous Genjinji/ Chim Gp marine shales with belemnites (6) thick U Cretaceous submarine basaltic Kumbruff volcanics ('spilites'); (7) thick Eocene Asai Beds (siltstone, shale, limestone with locally common Nummulites/ Discocyclina; metamorphosed to North. Triassic- Jurassic section appears to thicken from W to E (NE? Some of the main faults appear to have transcurrent component)

Dow, D.B. (1973)- The geological evolution of Papua New Guinea. Australian Natural History 17, 12, p. 389-397.
(online at: https://media.australian.museum/media/dd/Uploads/Documents/36124/ams370_vXVII_12_lowres.a8b8f6a.pdf)
(Brief review of PNG geology)

Dow, D.B. (1977)- A geological synthesis of Papua New Guinea. Bureau Mineral Resources Geology Geophysics, Bull. 201, p. 1-41.
(online at: www.ga.gov.au/corporate_data/90/Bull_201.pdf)

(Main island of PNG formed by interaction between Australian Plate in SW and Pacific Plate in NE. Between platform and oceanic crust and island arcs, is deformed mobile belt ~150 km wide. Platform stable continental crust of Paleozoic crystalline rocks, overlain by Mesozoic and Tertiary sedimentary rocks, mostly undeformed. Mobile belt deformed since at least Late Mesozoic, with variety of geosynclinal sediments and also site of widespread igneous activity. Oceanic crust and island arcs form NE margin of mobile belt. Oldest rocks in oceanic crust and island arcs are Late Cretaceous ophiolites and island-arc volcanics. Major orogeny in Oligocene, forming belt of metamorphics along length of mobile belt (metamorphics overlain by Upper Te/ E Miocene forams at several localities). E Miocene widespread shelf sediments (mainly limestone). Etc.)

Dow, D.B. & H.L. Davies (1964)- The geology of the Bowutu Mountains, New Guinea. Bureau Mineral Resources Geology Geophysics, Canberra, , Report 75, p. 1-31.
(online at: www.ga.gov.au/products-services/legacy-publications/reports.html)
(Geologic map of Bowutu Mountains, at NW end of Papuan Ultrabasic belt in SE PNG, between Owen Stanley Range and Morobe Coast. Bowutu Mts consist of igneous rocks of Papuan Basic Belt (emplaced in U Cretaceous or Early Tertiary) and Mageri Volcanics (M Miocene); Owen Stanley Range is made up of metasediments of Owen Stanley Metamorphics)

Dow, D.B. & F.E. Dekker (1964)- The geology of the Bismarck Mountains, New Guinea, Bureau Mineral Resources Geology Geophysics, Canberra, Report 76, p. 1-45.
(online at: www.ga.gov.au/products-services/legacy-publications/reports.html)
(W Bismarck Mts W of Mt Wilhelm are NE of main Central Range of PNG and SW of Ramu Valley. Oldest rocks Upper Triassic Jimi Greywacke and Kana Fm volcanoclastics, unconformably overlain by E Jurassic Balimbu Greywacke, M Jurassic Mongum Volcanics and Late Jurassic Maril Shale. Bismarck granodiorite probably U Triassic- lowermost Jurassic)

Dow, D.B. & M.D. Plane (1965)- The geology of the Kainantu goldfields. Bureau Mineral Resources Geology Geophysics, Canberra, Report 79, p. 1-28.
(online at: www.ga.gov.au/corporate_data/14993/Rep_079.pdf)
(Area of NE PNG Kainantu goldfields with Paleozoic? Bena Bena Fm metamorphics, intruded by U Triassic or younger Bismarck and Mt Victor granodiorites, overlain by Lower Miocene (Te) Nasananka conglomerate and Omaura greywacke (w. Spiroclypeus, Eulepidina, etc.). Unconformably overlain Lower Tf Lamari Conglomerate (w. Miogypsina, Miogypsinoides dehaartii, Lepidocyclina (N)) and ?Pliocene andesitic Aifunka Volcanics with gold lodes)

Dow, D.B., J.A.J. Smit, J.H.G. Bain & R.J. Ryburn (1972)- Geology of the South Sepik region, New Guinea. Australia Bureau Mineral Resources Geology Geophysics, Canberra, Bull. 133, p. 1-88.
(online at: https://d28rz98at9flks.cloudfront.net/128/Bull_133.pdf)
(Geology of N part of Central Range mountains to Sepik River in North. Oldest rocks M Triassic Yuat Fm black shale and U Triassic dacitic Kana Volcanics. Triassic unconformably overlain by M Jurassic- Cretaceous (incl. Maril Shale with M. malayomaorica). Ambunti Metamorphics are post-Eocene and pre-Middle Miocene in age. p. 26: Salumei Fm of S Sepik region Upper Cretaceous- Eocene thick turbiditic greywacke series with volcanic beds, Cretaceous planktonics and Eocene limestone lenses with Biplanispira, Pellatispira. Time- equivalent of bulk of Lagaip beds, but no volcanics in Lagaip Fm. Widespread M Miocene (Tf1-2) arc volcanics)

Downes, P.M., R.H. Findlay, S. Nekitel, J. Arumba & G. Kopi (1994)- Review of the geology and mineralisation of the Kainantu Area, Papua New Guinea. In: R. Rogerson (ed.) Proc. PNG Geology, Exploration and Mining Conference, Lae, Australasian Institute of Mining and Metallurgy (AusIMM), p. 1-9.
(Kainantu area in composite Scrapland composed of Mesozoic greenschist - amphibolite facies Bena Bena and Goroka Fm metamorphics and intrusives, overlain by Late Cretaceous-Miocene marine sediments, volcanics and M-L Miocene intrusives. Four deformation events, oldest producing slaty cleavage and isoclinal E-W trending folds. Known mineralization gold-copper skarn, porphyry copper epithermal and gold placer deposits, many associated with 9-13 Ma old porphyry intrusives)

Duck, B.H. (2001)- The Boundary Volcano- its geological associations and implications for exploration. In: G. Hancock (ed.) Geology, Exploration and Mining Conference, Port Moresby 2001, Proc. Australasian Institute of Mining and Metallurgy (AusIMM), Parkville, p. 87-92.

Dugmore, M.A. & P.W. Leaman (1998)- Mount Bini copper-gold deposit. In: D.A. Berkman & D.H. Mackenzie (eds.) Geology of the mineral deposits of Australia and Papua New Guinea, Australasian Institute of Mining and Metallurgy (AusIMM), Monograph Series 22, p. 833-848.

Dugmore, M.A., P.W. Leaman & R. Philip (1996)- Discovery of the Mt Bini porphyry copper-gold-molybdenum deposit in the Owen Stanley Ranges, Papua New Guinea- A geochemical case history. J. Geochemical Exploration 57, p. 89-100.
(Bini Cu-Au-Mo deposit with overprinted epithermal Au-Ag in Owen-Stanley Ranges, 50 km NE of Port Moresby, located by stream sediment and rock float sampling. Part of calc-alkaline Bavu Igneous Complex of probable Pliocene age, intruded into Owen Stanley Metamorphics)

Durkee, E.F., W.D. Stewart & G. Francis (1987)- Oil and gas potential of Papua New Guinea. In: M.K. Horn (ed.) Transactions Fourth Circum Pacific Energy and Mineral Resources Conference, Singapore 1986, p. 63-101.
(Review of oil-gas plays and discoveries of PNG Papuan Basin, Bougainville, New Ireland, North New Guinea)

Earnshaw, J.P., A.J.C. Hogg, N.H. Oxtoby & S.J. Crawley (1993)- Petrographic and fluid inclusion evidence for the timing of diagenesis and petroleum entrapment in the Papuan Basin. In: G.C. & Z. Carmen (eds.) Petroleum Exploration and Development in Papua New Guinea, Proc. 2nd PNG Petroleum Convention, Port Moresby, p. 459-476.
(Fluid inclusion study in Papuan foldbelt discoveries suggests petroleum emplacement occurred after quartz cementation, probably during active thrusting of Late Pliocene- Recent)

Edwards, A.B. (1950)- The petrology of the Miocene sediments of the Aure Trough, Papua. Proc. Royal Society of Victoria, Melbourne, 60, p. 123-148.
(Miocene in Aure Trough ~15,000' thick graywackes, mudstones, conglomerates and limestone. Sediments composed mainly of material derived from andesitic tuffs and lavas, transported over short distance)

Edwards, A.B. (1950)- The petrology of the Cretaceous greywackes of the Purari Valley, Papua. Proc. Royal Society of Victoria, Melbourne, 60, p. 163-171.
(online at: https://zenodo.org/records/16250589)
(Purari valley Cretaceous low-quartz (clear, 5-15%) and high feldspar (30-55%) and chlorite, etc., matrix, and metamorpic and igneous lithics. Derived mainly of granitic material, but also from sedimentary schists and andesitic tuffs)

Edwards, A.B. & M.F. Glaessner (1953)- Mesozoic and Tertiary sediments from the Wahgi Valley, New Guinea. Proc. Royal Society of Victoria, Melbourne, 64, 6, p. 93-112.
(online at: https://biostor.org/reference/259079)
(In Chimbu area N of Kubor Range, S of Bismarck Range, very thick 'geosynclinal' Upper Jurassic- Eocene section (22,500'!). Upper Jurassic Maril Shale with common Buchia malayomaorica, Belemnopsis gerardi, Inoceramus cf. haasti, Calpionella alpina, etc. Kondaku Tuff (6100'?) with Aptian- Cenomanian ammonites (Deshayites, etc.). U Cretaceous Maram shales rel. unfossiliferous, but yielded some Cenomanian ammonites, Inoceramus and foraminifera. Chimbu Tuff mainly unfossiliferous, except reportedly with Fasciolites wichmanni (abundant) and Lacazina wichmanni. Not sure if Lacazina, Pellatispira, Biplanispira were actually found here in Chimbu Limestone)

Eisenberg, L.I. (1993)- Hydrodynamic character of the Toro Sandstone, Iagafu/ Hedinia area, Southern Highlands Province, Papua New Guinea. In: G.J. & Z. Carman (eds.) Petroleum exploration and development in Papua New Guinea, Proc. 2nd PNG Petroleum Convention, Port Moresby, p. 447-458.
(Oil distribution in Iagafu/ Hedinia fault-propagation folds in frontal Papuan foldbelt affected by hydrodynamic flow in Toro Sst reservoir, causing tilted oil-water contact)

Eisenberg, L.I. (1996)- Strontium isotope analysis and structural interpretation of P'nyang Anticline, Papuan Fold Belt, Western Highlands Province, Papua New Guinea. In: P.G. Buchanan (ed.) Petroleum Exploration in Papua New Guinea, Proc. 3rd PNG Petroleum Convention, Port Moresby, p. 231-244.
(Structure of P'nyang gas-bearing anticline in PPL101 in PNG Southern Highlands constrained by Sr isotope age analyses in Oligo-Miocene Darai Limestone (showing downfaulted nature of NE P'nyang Anticline))

Eisenberg, L.I., J.C. Phelps, T.L. Allen, J.A. Trotter, M.J. Korsch & D.J. Whitford (1996)- Darai Limestone depositional history and Strontium chronostratigraphy, Papuan fold belt, Papua New Guinea. In: P.G. Buchanan (ed.) Petroleum exploration, development and production in Papua New Guinea, Proc. 3rd PNG Petroleum Convention, Port Moresby, p. 345-356.
(Sr isotope ratios important tool in determination of stratigraphic position within Oligo-Miocene Darai Limestone. In parts of area minimal or non-depostion during E Miocene. At Juha continuous carbonate deposition)

Eisenberg, L.I., M.V. Langston & R.E. Fitzmorris (1994)- Reservoir management in a hydrodynamic environment, Iagifu-Hedinia area, Southern Highlands, Papua New Guinea. Proc. SPE Asia Pacific Oil and Gas Conference, Melbourne 1994, p. 1-18.
(Agogo and Iagifu/Hedinia fields in S Highlands produced first commercial oil in PNG in 1992. NW to SE regional scale water flow in Toro Sst parallels Papuan Fold Belt for 115km, passing through Iagifu/Hedinia oil field, affecting oil distribution in Toro reservoirs. NW side swept free of moveable oil. Oil/water contacts tilted up to 6 degrees and three members of Toro Sst Fm each have own hydrocarbon-water contacts)

England, R.N. & H.L. Davies (1973)- Mineralogy of ultramafic cumulates and tectonites from Eastern Papua. Earth Planetary Science Letters 17, p. 416-425.
(Ultramafic rocks in Papuan Ultramafic Belt two categories on basis of fabric: (1) rocks with textures which indicate origin by crystal settling from presumably basaltic magma (ultramafic cumulates); and (2) rocks with textures which suggest recrystallization in solid state (ultramafic tectonites))

Erceg, M.M., G.A. Craighead, R. Halfpenny & P.J. Lewis (1991)- The exploration history, geology and metallurgy of a high sulphidation epithermal gold deposit at Wafi River, Papua New Guinea. In: R. Rogerson (ed.) Proc. Geology, Exploration and Mining Conference, Rabaul 1991, Australasian Institute of Mining and Metallurgy (AusIMM), Parkville, p. 58-65.

Erni, A. (1944)- Ein Cenoman Ammonit *Cunningtoniceras holtkeri* nov.spec. aus Neu Guinea, nebst Bemerkungen uber einige ander Fossilien von dieser Insel. Eclogae Geologicae Helvetiae 37, p. 468-475.
(online at:https://www.e-periodica.ch/digbib/view?pid=egh-001%3A1944%3A37%3A%3A486)
('A Cenomanian ammonite Cunningtoniceras hoeltkeri n.sp. from New Guinea, with remarks on some other fossils from the island'. Ammonite collected in Wagi valley, PNG, during 1936/1939 anthropological New Guinea expedition. Ammonite pebbles viewed as 'magic stones' by natives)

Espi, J.O., K.I. Hayashi, K. Komuro, Y. Kajiwara & H. Murakami & (2005)- The Bilimoia gold deposit, Kainantu, Papua New Guinea: a fault-controlled, lode-type, synorogenic tellurium-rich quartz-gold vein system. Proc. 8th Biennial Meeting, Soc. Geology Applied to Mineral Deposits, Beijing, Springer, 9-19, p. 941-944.
(Bilimoia gold deposit in NE PNG is fault-hosted quartz-gold vein system hosted by 290-221 Ma years old basement that was regionally metamorphosed to greenschist facies at ~45 Ma. Mineralisation related to I-type, intermediate-felsic 9-7 Ma year-old porphyries)

Espi, J.O., K.I. Hayashi, K. Komuro, H. Murakami & Y. Kajiwara (2007)- Geology, wall-rock alteration and vein paragenesis of the Bilimoia gold deposit, Kainantu metallogenic region, Papua New Guinea. Resource Geology 57, 3, p. 249-268.
(online at: https://onlinelibrary.wiley.com/doi/pdfdirect/10.1111/j.1751-3928.2007.00021.x)

(Bilimoia gold deposit in eastern Central Mobile Belt of PNG in fault-hosted, NW-NNW-trending Au-quartz veins hosted by M-L Triassic greenschist that metamorphosed between Late Triassic and E-M Jurassic. Bilimoia deposit related to Late Miocene (9-7 Ma) I-type, intermediate to felsic and late mafic intrusions)

Espi, J.O., Y. Kajiwara, M.A. Hawkins & T. Bainbridge (2002)- Hydrothermal alteration and Cu-Au mineralization at Nena high sulfidation-type deposit, Frieda River, Papua New Guinea. Resource Geology 52, p. 301-313.
(Nena Cu-Au deposit in Frieda River mineral district of NW mainland PNG, discovered in 1975. Mineral district represents nearshore isolated island strato-volcano of Miocene age. Basement is U Cretaceous- Eocene Salumei Fm, metamorphosed between 27-25 Ma, Unconformaby overlain by E-M Miocene Wogamush Fm volcanoclastics. April Ultramafics emplaced in Late Eocene-Early Miocene, before M Miocene Frieda River Intrusive Complex, with Nena Diorite age ~17.3-13.1 Ma. High sulfidation system)

Etheridge, R. (1889)- On our present knowledge of the palaeontology of New Guinea. Records Geological Survey of New South Wales 1, 3, p. 172-179.
(Includes first description of Jurassic ammonites from PNG, from river float at the Observatory Bend of the Strickland River, at 6°38'30'S and 142°E; Boehm, 1913)

Findlay, A.L. (1974)- The structure of the foothills South of the Kubor Range, Papua New Guinea. Australian Petroleum Exploration Assoc. (APEA) Journal J. 14, 1, p. 14-20.
(Structural styles at S side of NW-SE trending Kubor Range, where Permian granodiorite intruded Paleozoic metamorphics. S side of Kubor Range up to 7km of Mesozoic sediments, including mid-Cretaceous Kondaku Tuffs in N part. E-M Miocene Darai Lst in S replaced by basinal Aure Group closer to Kubor Range. U Miocene-Pliocene Orubadi Fm clastics in S, not deposited towards Kubor Range ?)

Findlay, R.H. (1995)- Stratigraphic constraints on the development and timing of arc-continent collision in Northern Papua New Guinea: discussion. Journal of Sedimentary Research 65B, p. 281-282.
(Reply to Abbott et al. 1994 paper)

Findlay, R.H. (1998)- Palaeostress in the Ramu Markham obduction zone. Proc. GEOSEA'98, Ninth Regional Congress Geology Mineral Energy Resources of SE Asia, Geological Society Malaysia, p. 229-230.
(Abstract only) (Ramu-Markhan obduction zone consists of Southern Microcontinent (Scrapland) which accreted to Australia in Late Eocene- Oligocene (Sepik Event) and which is being overthrust by Finisterre terrane to N, starting in Pliocene and continuing today)

Findlay, R.H. (2003)- Collision tectonics of northern Papua New Guinea: key field relationships in the Finisterre, Sarawaget and Adelbert Mountains and New Britain demand a new model. In: R.R. Hills & R.D. Muller (eds.) Evolution and dynamics of the Australian Plate, Geological Society of America (GSA), Special Paper 372, p. 291-307.
(Revised lithostratigraphy for Finisterre, Sarawaget and Adelbert Mountains of N PNG. Lithostratigraphic relations demand interpretation of Finisterre Volcanics as allochthonous terrane, which collided with Australian-PNG craton in Pliocene. Finisterre Volcanics formed as autochthonous plateau in backarc basin or intra-arc rift-basin of Sepik Arc to S which collided with Australia in Oligocene)

Findlay, R.H., L. Arumba, J. Kagl, G. Kopi, S. Nekitel et al. (1997)- Papua New Guinea 1:250,000 Geological Atlas, Markham, Sheet SB/55-10 (2nd ed.). Geol. Survey PNG, Port Moresby, p.

Findlay, R.H., L. Arumba, J. Kagl, S. Nekitel, N. Mosusu, C. Rangin & M. Pubellier (1997)- Revision of the Markham 1: 250 000 sheet, Papua New Guinea: what is the Finisterre Terrane? In: G. Hancock (ed.) Proc. PNG Geology, Exploration Mining Conf., Madang 1997, Australasian Institute of Mining and Metallurgy (AusIMM), Melbourne, p. 87-98.

Finlayson, D.M., B.J. Drummond, C.D.M. Collins & J.B. Connelly (1977)- Crustal structure under the Mount Lamington region of Papua New Guinea. In: R.W. Johnson (ed.) Volcanism in Australasia, Elsevier, Amsterdam, p. 259-274.
(Mt Lamington stratovolcanoN of Owen Stanley Range in E Papua underlain by Papuan Ultramafic Belt ophiolites. Moho depth shallows from 21km under N Papua coast to 8km under Mt Lamington. Crustal layers velocities compatible with oceanic crust, but crustal thickness along coast twice normal oceanic crust. Prominent negative magnetic anomaly associated with Papuan Ultramafic Belt. Volcanism cannot be associated with well-defined Benioff zone)

Finlayson, D.M., B.J. Drummond, C.D.M. Collins & J.B. Connelly (1977)- Crustal structures in the region of the Papuan ultramafic belt. Physics Earth Planetary Interiors 14, p. 13-29.
(Papuan Ultramafic Belt major dipping layered structure. Thickness of crustal material seaward of belt probably too great to be oceanic. Crustal thickness offshore 33 km in area of Huon Gravity Low in W Solomon Sea, 27 km in area N of Trobriand Platform, 13 km in C Solomon Sea. Crust under Trobriand Gravity High may contain ophiolite rock suite similar to Papuan Ultramafic Belt)

Finlayson, D.M., K.J. Muirhead, J.P. Webb, G. Gibson, A.S. Furumoto, R.J.S. Cooke & A.J. Russell (1976)- Seismic investigation of the Papuan Ultramafic Belt. Geophysical Journal International 44, p. 45-59.
(online at:https://academic.oup.com/gji/article/44/1/45/665428)
(Seismic data from profile along NE Papuan peninsula coast indicate velocities which can be correlated with oceanic layers 1, 2 and 3, but with crustal thickness 20-25 km. Crustal thickness >2x thickness of gabbro and basalt components of ophiolite suite exposed inland. Low-velocity zone below Moho. Return to upper mantle velocities at ~50 km)

Finlayson, E.J., N.M.S. Rock & S.D. Golding (1988)- Deformation and regional carbonate metasomatism of turbidite-hosted Cretaceous alkaline lamprophyres (NW Papua New Guinea). Chemical Geology 69, p. 215-233.
(Metasomatised camptonite dykes and stocks, named Fu Intrusives, in thrust plates of Mesozoic slates in New Guinea Thrust Belt. Intrusions emplaced prior to Oligo-Miocene folding deformation and low-grade regional metamorphism of host (K-Ar ages of 75 Ma/ Campanian probable age of intrusion). REE patterns and initial Sr ratios typical of alkaline lamprophyres. Carbonate metasomatism of intrusive suite result of metamorphic dewatering of host rocks during slaty cleavage development)

Fisher, M.S. (1936)- The origin and composition of alluvial gold, with special reference to the Morobe goldfield, New Guinea. Transactions of the Institution of Mining and Metallurgy, London, 44, p. 337-563.

Fischer, M.W. & J. Warburton (1996)- The importance of Pre-Tertiary basin architecture for hydrocarbon accumulation in the Papuan fold and thrust belt: models, analogues and implications. In: P.G. Buchanan (ed.) Petroleum exploration, development and production in Papua New Guinea, Proc. 3rd PNG Petroleum Convention, Port Moresby, p. 111-131.
(Late Miocene Papuan fold-thrust belt commonly interpreted as thin-skinned fold-thrust belt with layer-cake stratigraphy, but many surface anticlines are inverted footwalls of older extensional faults)

Fisher, N.H. (1939)- Ore geology of the Day Dawn Mine, New Guinea. Economic Geology 34, 2, p. 173-189.

Fisher, N.H. (1939)- Metasomatism associated with Tertiary mineralization in New Guinea. Economic Geology 34, 8, p. 890-905.
(Effects of metasomatism on mineralization in Wau- Edie Creek area. Edie Creek and other alluvial gold deposits in Mandated Territory of New Guinea tied to series of Late Tertiary porphyry intrusions)

Fisher, N.H. (1944)- Outline of the geology of the Morobe Goldfields. Proc. Royal Society Queensland 55, 4, p. 51-58.

Fisher, N.H. (1945)- The fineness of gold, with special reference to the Morobe goldfield, New Guinea. Economoc Geology 40, p. 449-495.

(online at: https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.907.1362&rep=rep1&type=pdf)

Fisher, N.H. (1973)- Mineral resouces (of PNG). Australian Natural History 17, 12, p. 398-403. *(online at: https://media.australian.museum/media/dd/Uploads/Documents/36124/ams370_vXVII_12_lowres.a8b8f6a.pdf) (Brief review of PNG mineral deposits, as known in the early 1970s)*

Fisher, N.H. (1975)- Alluvial gold of the Morobe goldfield, P.N.G. In: C.L. Knight (ed.) Economic Geology of Australia & Papua New Guinea, The AusIMM, Melbourne, Monograph 5, p. 1045-1049.

Fitzgerald, E.M.G., J. Velez-Juarbe & R.T. Wells (2013)- Miocene sea cow (Sirenia) from Papua New Guinea sheds light on Sirenian evolution in the Indo-Pacific. J. Vertebrate Paleontology 33, 4, p. 956-963.
(Vertebrae and ribs of indeterminate sirenian from Burdigalian-Serravallian (Tf1) section, 150m below top of Darai Limestone in Selminum Tem cave, Hindenburg Range, W PNG. Represent earliest mammal recorded from New Guinea)

Fleming, A.W., G.A. Handley, K.L. Williams, A.L. Hills & G.J. Corbett (1986)- The Porgera gold deposit, Papua New Guinea. Economic Geology 81, p. 660-680.
(Porgera gold mine in highlands of PNG. M Miocene intrusive system, derived from melting of thickened crust, emplaced in Late Cretaceous sediments on N margin Papuan platform, ~25 km S of Central orogenic belt. Mineralization associated with porphyritic intrusions of mafic diorite)

Fleming, A.W. & T.I. Neale (1979)- Geochemical exploration at Yandera porphyry copper prospect, Papua New Guinea. J. Geochemical Exploration 11, p. 33-51.
(Case history of geochemical exploration of porphyry Cu-Mo system at Yandera prospect at foot of Mt Wilhelm in Bismark Ranges of PNG. Part of U Miocene batholith of Bismark Intrusive Complex)

Francis, G. (1983)- Tertiary biostratigraphy and lithostratigraphy of Petroleum Prospecting Licence (PPL) 30: a critical review. Geological Survey Papua New Guinea, Report 83-8, p. 1-24.

Francis, G. (1986)- Some current problems of Mesozoic geology in the Papuan Basin. Geological Survey Papua New Guinea, Technical Note 4/86, p. *(Unpublished)*

Francis, G. (1990)- The North New Guinea Basin and associated infra-basins. In: G.J. & Z. Carman (eds.) Petroleum exploration in Papua New Guinea, Proc. First PNG Petroleum Convention, Port Moresby 1990, p. 445-460.
(Good review of North New Guinea Miocene- Pleistocene basins N of Central Range (Aitape, Sepik, Ramu). With results of 7 exploration wells and Miocene- Pliocene paleogeographic maps (cross-sections show dominant fold-thrust style of tectonics; most authors interpret this as left-lateral transpressional system; JTvG))

Francis, G. & D. Deibert (1988)- Petroleum potential of the North New Guinea basin and associated infra-basins. Geological Survey Papua New Guinea, Report 88/37, p. 1-229.

Francis, G., R. Rogerson, D.W. Haig & J. Sari (1986)- Neogene stratigraphy, sedimentation and petroleum potential of the Oiapu-Yule Island- Oroi Region, Papua New Guinea. In: G.H. Teh & S. Paramananthan (eds.) Proc. 5th Regional Congress Geology Mineral Energy Resources of SE Asia (GEOSEA V), Kuala Lumpur 1984, 1, Bull. Geological Society Malaysia 19, p. 123-152.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1986011.pdf)
(Miocene Aure association in SE PNG mainly bathyal shales and turbidite sandstones. Folding phase in latest M Miocene culminating with thrusting in Late Miocene to create SE Papuan foldbelt. Deformation associated with basaltic volcanism (Talama Fm). Local carbonate buildups on cores of anticlines (Ou-Ou Lst). Unconformably overlain by latest Miocene- E Pliocene Orubadi Beds. E Pliocene influx of coarser clastic from rising mountains to NE (Era beds). Second phase of thrusting in Late Pliocene- E Pleistocene. Most thrust faults dip to NE)

Francis, G., R. Rogerson, D.W. Haig & J. Sari (1985)- Neogene stratigraphy, structure and petroleum potential of the Yule Island- Delena region, Papua New Guinea. UN ESCAP Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas, CCOP, Technical Bulletin 17, p. 13-59.
(online at: https://repository.unescap.org/items/33b0ec01-4c95-44ab-bf2e-673f4cff2cc6)
(Similar to 1986 GEOSEA V paper, above. Yule island (Rabao) off mainland PNG, 100 km N of Port Moresby, and adjacent mainland Delena region. Apparently conformable M Miocene-Pliocene sequence ranging from planktonic foram zones N10-N18, bathyal at base, shallow marine at top)

Francis, G., R. Rogerson, D. Hilyard & D.W. Haig (1990)- Excursion guide to the Waghi and Chimbu Georges. In: R. Rogerson (ed.) Excursion Guide Series, Geological Survey Papua New Guinea, Port Moresby, p. 1-55.

Francis, G., R. Rogerson & L. Queen (1991)- The distribution, petrology and mineralisation of mid-Cretaceous to Palaeogene marine volcanics in Papua New Guinea. In: R. Rogerson (ed.) Proc. PNG Geology, exploration and Mining Conference, Australasian Institute of Mining and Metallurgy (AusIMM), Melbourne, p. 17-25.

Francis, G. & G.E.G. Westermann (1993)- The Kimmeridgean problem in Papua-New Guinea and other parts of the Indo-Southwest Pacific. In: G.J. & Z. Carman (eds.) Proc. 2nd PNG Petroleum Convention, Port Moresby, p. 75-93.
(Ammonites rel. rare in PNG Late Jurassic; belemnites and bivalves more common. Diagnostic Kimmeridgean ammonites almost unknown in Indo-SW Pacific from Himalaya-PNG- New Zealand, making biozone-stage calibrations difficult in this region. Also provincialism of PNG belemnites makes direct correlations to Tethyan of Europe impossible. In Sula Islands more complete Jurassic ammonite sequenc, with 3 Oxfordian zones. (from base: Wanaea spectabilis, upper W. spectabilis and Wanaea clathrata dinozones). Ammonite-rich zone overlain by ammonite-poor zone, then latest Tithonian- earliest Berriasian assemblage with P. iehiense dinos)

Franklin, S.P. & J.E. Livingston (1996)- Development of an infill well program to maximise economic return from the Iagafu- Hedinia Field: Part I. Integrated strauctural, stratigraphic and reservoir attribute modelling as input to reservoir simulation and well targeting. In: P.G. Buchanan (ed.) Petroleum exploration development and production in Papua New Guinea, Proc. 3rd PNG Petroleum Convention, Port Moresby, p. 573-589.
(Iagafu- Hedinia oil-gas field in Papuan Fold Belt with 31 MMBO recoverable reserves. Large thrust fault duplex structure, with detachment surfaces in Cretaceous Ieru Shale, causing discordance between structure at surface and basal Cretaceous Toro Sst reservoir level. Toro Sst main reservoir 100m thick, composed of four stacked parasequences of wave-dominated delta complex, separated by marine flooding surfaces)

Gagel, C. (1913)- Beitrage zur Geologie von Kaiser Wilhelms-Land. In: Beitrage zur geologischen Forschung der deutschen Schutzgebiete, 4, Konigliche Geologische Landesanstalt, Berlin, p. 1-55.
('Contribution to the geology of Kaiser Wilhelms Land (= German colony of northern PNG)

Galewsky, J. (1998)- The dynamics of foreland basin carbonate platforms: tectonic and eustatic controls. Basin Research 10, p. 409-416.
(Numerical modeling of coral growth and flexural subsidence in foreland basin setting matches drowning and backstepping of Quaternary carbonate platforms in Huon Gulf, PNG)

Galewsky, J., E.A. Silver, C.D. Gallup, R.L. Edwards & D.C. Potts (1996)- Foredeep tectonics and carbonate platform dynamics in the Huon Gulf, Papua New Guinea. Geology (GSA) 24, p. 819-822.
(Side-scan sonar and seismic data reveal history of carbonate platform growth, drowning, and back stepping in the Huon Gulf, documenting subsidence of Huon Gulf in response to encroaching Finisterre Mts at ~5.7 mm/yr for past 348 ky (highest subsidence in any any foredeep). Reefs may have formed during sea-level lowstands and drowned during rapid rates of sea-level rise)

Gardner, J.V. (1970)- Submarine geology of the western Coral Sea. Geol. America, Bull. 70, p. 1399-1424.
(Coral Sea Basin probably formed by Late Eocene- E Oligocene rotational spreading, with subsidence of basin margins. Erosional unconformity, previously identified on seismic across marginal Queensland Plateau, dated as E Miocene and represents initial marine transgression onto basin margin. Subsidence continued, accompanied

by faulting which subdivided margin into four plateaus. Thick terrigenous turbidites derived from New Guinea deposited during last glacial stage, but predominately calcareous pelagic sediments since then)

George, S.C., F.W. Krieger, P.J. Eadington, R.A. Quezada, P.F. Greenwood et al. (1997)- Geochemical comparison of oil-bearing fluid inclusions and produced oil from the Toro sandstone, Papua New Guinea. Organic Geochemistry 26, p. 155-173.
(Oil in Lower Cretaceous Toro Sst in Iagifu-7X different from fluid inclusion oil. DST oils sourced from oxic mixed marine/ terrestrial source, probably M- L Jurassic mudstones. Fluid inclusion oils from less terrestrially-influenced marine source rock deposited under less oxic conditions. Fluid inclusion oils early oil charge from probably Cretaceous source, which started migrating into Toro sst in Miocene. At Iagifu early oil diluted by larger volume of Jurassic oil generated at end-Miocene)

George, S.C., Volk, H., Ahmed, M., Middleton, H., T. Allan & D. Holland (2004)- Novel petroleum systems in Papua New Guinea indicated by terpane and methylhopane distributions. In: P.J. Boult et al. (eds.) Eastern Australasian Basins Symposium II, Adelaide, Petroleum Exploration Society Australia (PESA), Special Publ., p. 575-588.
(Most PNG oil production from W Papuan fold belt, with oils from Jurassic marine source with terrestrial organic matter. Puri-1 oil and Subu wells (Aure Scarp) bitumens indicate Jurassic source also in E Papuan Basin. Calcareous source rock may be regionally significant in E Papuan Basin. W Papuan Basin oils from Iagifu and P'nyang wells (W Fold belt) and Bujon 1 from foreland indicate Late Cretaceous or younger marine source with minor terrestrial organic matter. Oil from Koko 1 in foreland indicate lacustrine source. Oil stains in Bujon-1 also likely from this source, age unconstrained, but expelled later than Late Cretaceous or younger marine source rock which generated FI oil in Bujon 1. Future PNG petroleum plays not restricted to Jurassic source/- M Cretaceous reservoir paradigm)

George, S.C., H. Volk, M. Ahmed, W. Pickel & T. Allan (2007)- Biomarker evidence for two sources for solid bitumens in the Subu wells: implications for the petroleum prospectivity of the East Papuan Basin. Organic Geochemistry 38, p. 609-642.
(Late Cretaceous sst from Subu 1,2 (Aure Scarp) with solid bitumens, reflect biodegradation of two oil families: (A) marine source with significant terrestrial organic matter, believed to be Jurassic; (B) more reducing; so far unidentified. Condensate charge relatively recent. Solid bitumen from Miocene volcanolithic sst from Ouha anticline from early mature Paleogene or late Cretaceous source with predominantly terrestrial organic matter in oxic environment. This sample proves existence of different oil source rocks in E Papuan Basin)

Ghasemi, H., P. Cummins, G. Weatherill, C. McKee, M. Hazelwood & T. Allen (2020)- Seismotectonic model and probabilistic seismic hazard assessment for Papua New Guinea. Bull. Earthquake Engineering 18, p. 6571-6605.
(online at: https://link.springer.com/content/pdf/10.1007/s10518-020-00966-1.pdf)
(Revised seismic zoning map for PNG)

Giddings, J., C.T. Klootwijk, W. Sunata, C. Loxton, C. Pigram & H. Davies (1985)- Palaeomagnetism of Australia's active northern margin in New Guinea. In: E.C. Leitch & E. Scheibner (conv.) Third Circum-Pacific terrane conference, Extended abstracts, Geological Society Australia 14, p. 83-86.

Giddings, J.A., L.J. Aden, B.J. Darby & D.L. Leech (2019)- Muruk Discovery, Western Fold Belt – Papua New Guinea. Proc. SEAPEX Exploration Conference 2019, Singapore, p. 1-20. *(Abstract + Presentation)*
(Muruk 2016 gas discovery by Oil Search/ ExxonMobil in western highlands of PNG. Structure of prospect decoupled from overlying surface structures, with at least one major detachment surface above Early Cretaceous Toro Sandstone reservoir level). Additional gas accumulation in footwall structure, penetrated by Sidetrack 3 and Muruk 2 wells)

Giddings, J.A., L.J. Aden, B.J. Darby, D.L. Leech, D.Y. Lyons, A.L. Djakic et al. (2020)- The Muruk gas field: insights into structural style in the western foldbelt of Papua New Guinea. Proc. 1st AAPG/EAGE Papua New

Guinea Geoscience Conference Exhib., PNG's Oil and Gas Industry maturing through exploration, development and production, Port Moresby 2020, AAPG Datapages/Search and Discovery Article 90371 1p.
(Abstract only) (Muruk 1 2017 Oil Search well intersected two separate gas accumulations in 'Muruk A' and 'Muruk B' thrust sheets in Toro Fm. First test of prospect where reservoir was decoupled from overlying surface structure)

Glaessner, M.F. (1942)- The occurrence of the New Guinea turtle (*Carettochelys*) in the Miocene of Papua. Records Australian Museum 21, 2, p. 106-109.
(online at: http://australianmuseum.net.au/Uploads/Journals/17293/262_complete.pdf)
(Mold of turtle bone in Miocene dark tuffaceous sandstone in quarry near APC 01 well location, on road leading from left bank of Vailala River near mouth of Kariava Creek)

Glaessner, M.F. (1945)- Mesozoic fossils from the Central Highlands of New Guinea. Proc. Royal Society of Victoria 56, p. 151-168.
(U Jurassic and M Cretaceous molluscs from Central PNG. Incl. Late Jurassic Buchia malayomaorica, Belemnopis gerardi and Grammatodon virgatus from Kuabgen Range at Upper Fly River area, S Central Highlands. Also Albian Feing Group with belemnite Parahibolites blanfordi. Cretaceous from hills N of Purari River with Exogyra probably Aptian-Albian)

Glaessner, M.F. (1949)- Mesozoic fossils from the Snake River, Central New Guinea. Memoir Queensland Museum 12, 4, p. 165-180.
(Mollusc faunas from Mesozoic beds of Snake river region, PNG, include Cucullaea (Ashcroftia) distorta, Glycymeris sp., Trigonia (Aganthotrigonia) phyllitica, Cardium sp., Voisella sp. and Tibia? morobica. Age of fauna is Cretaceous)

Glaessner, M.F. (1950)- Geotectonic position of New Guinea. American Assoc. Petroleum Geol. (AAPG) Bull. 34, p. 856-881.
(Division of New Guinea into twelve structural zones. N and E parts of island essentially Melanesian while W New Guinea influenced by Asiatic Banda arcs. S and C New Guinea essentially Australian and appear to continue as submerged median mass SW under Coral Sea)

Glaessner, M.F. (1952)- Geology of Port Moresby, Papua. In: Sir Douglas Mawson Anniversary Volume, University of Adelaide, p. 63-86.

Glaessner, M.F. (1958)- New Cretaceous fossils from New Guinea, Guinea, with a contribution on a new ammonite genus by R. Casey. Records South Australian Museum 13, 2, p. 199-126.
(Cenomanian- Albian molluscs and ammonites from Central Highlands. Includes new Cenomanian ammonite species from Chim Fm near Chimu airstrip, Chimbuites sinuosocostatus)

Glaessner, M.F. (1960)- Upper Cretaceous larger foraminifera from New Guinea. Science Reports Tohoku University, Series 2 (Geology), Special Volume 4 (Hanzawa Memorial Volume), p. 37-44.
(online at: https://tohoku.repo.nii.ac.jp/records/10735)
(Abundant larger forams Pseudorbitoides israelskii and Orbitoides tissoti described from Campanian of Port Moresby area, PNG. First report of this distinctive assemblage outside Caribbean-Gulf of Mexico area)

Glaessner, M.F., K.M. Llewellyn & G.A.V. Stanley (1950)- Fossiliferous rocks of Permian age from the Territory of New Guinea. Australian J. Science 13, p. 24-25.
(Short report on first discovery of 200' of 'Permian' limestone at Gum/Kum Creek 4 miles SSE of Hagen airstrip, overlying Mt Kubor granite. Subsequently re-interpreted as Late Triassic in age. Limestone not contact-metamorphic. Coarser parts have grains of quartz, feldspar, mica flakes. Associated with quartzite)

Glen, R.A., E. Belousova & W.L. Griffin (2016)- Different styles of modern and ancient non-collisional orogens and implications for crustal growth: a Gondwanaland perspective. Canadian J. Earth Sciences 53, 11, p. 1372-1415.

(online at: http://www.nrcresearchpress.com/doi/pdf/10.1139/cjes-2015-0229)
(Review of 'accretionary orogens' of N and E Gondwana (convergent margin orogens without continental block collisions), including chapter on Papua New Guinea Orogen)

Goldberg, A. & D. Holland (2008)- Inversion tectonics and the structural development of the Elk/ Antelope gas field, Papua New Guinea. In: J.E. Blevin et al. (eds.) Third Eastern Australasian Basins Symposium, Sydney 2008, Petroleum Exploration Society Australia (PESA), Special Publ., p. 247-258.
(Elk/Antelope gas field in a complex zone of deformation at front of E-most Papuan Foldbelt, where orientation of foldbelt changes from WNW/ESE strike in W, to NW/SE strike in E. Basement-involved inversion played key role. Elk structure formed from thrust detatchment within Ieru Fm above large inverted fault block. Same level of detatchment interpreted for Puri structure)

Goldberg, A., M. Wilson & S. Sioni (2010)- Quantitative seismic interpretation for characterizing carbonate diagenesis; an Elk/Antelope Gas field study. In: N. Harrison (ed.) 21st Geoph. Conf. Australian Soc. Exploration Geophysicists (ASEG), Sydney 2010, p. 1-4. *(Extended Abstract)*
(Elk/Antelope gas field in PNG is hosted in Miocene reefal and deepwater carbonates. Carbonates exhibit multiple diagenetic overprints and complex internal seismic reflector heterogeneity. Dominant control on seismic reflection events within reservoir are porosity variations)

Gong, W., J. Xing, C. Xu, H. Zhang, Y. Liu & W. Chen (2022)- Heterogeneous morphology of the Solomon Sea slab along the New Britain Trench and its dynamic implications from the analysis of seismicity and gravity anomalies. Geological Journal 58, 1, p. 1-20.
(New Britain-North Solomon subduction system located at convergence boundary between Indo-Australian and Pacific plates. Maximum subduction depth of Solomon Sea Plate decreases from ~600 to ~400 km and slab morphology changes from steep-dipping subduction to slab roll-back from Green/ Buka Islands to Bougainville Islands. Spatial differences of subduction correlated with block of upper mantle in Ontong Java oceanic Plateau, which thickens from NW to SE along North Solomon Trench)

Gow, P.A., P. Upton, C. Zhao & K.C. Hill (2002)- Copper-gold mineralisation in New Guinea: numerical modelling of collision, fluid flow and intrusion-related hydrothermal systems. Australian J. Earth Sciences 49, 4, p. 753-771.
(Porphyry Cu-Au mineralisation in New Guinea foldbelt tied to local dilation, facilitating magma emplacement by reactivation of arc-normal transfer faults, where they cut weakened fold belt. Rapid uplift and erosion greatest in W of W Papua, where stronger Australian crust acts as buttress. In Papuan Fold Belt uplift greatest near margins, where weaker fold belt abuts stronger crust and/or major faults have been reactivated)

Gow, P.A & J.L. Walshe (2005)- The role of preexisting geologic architecture in the formation of giant porphyry-related Cu ± Au deposits: examples from New Guinea and Chile. Economic Geology 100, 5, p. 819-833.
(Development of porphyry copper-gold deposits in New Guinea during Tertiary magmatic event that overprinted extensional Mesozoic passive margin. During collision deeply detached listric faults were inverted and focused uplift/exhumation. Steep transverse faults formed wrench systems with pathways for magma or fluids. Competent units of flat-lying stratigraphic packages like Darai/Mendi Limestone impeded magma ascent and formed cap on magma and/or fluid system)

Grainge, A. (1993)- Recent developments in prospect mapping in the Hides/Karius area of the Papuan fold belt. In: G.J. & Z. Carman (eds.) Petroleum exploration and development in Papua New Guinea, Proc. 2nd PNG Petroleum Convention, Port Moresby 1993, p. 527-537.
(Of the 26 structures drilled in Papuan Foldbelt Toro fairway half have been discoveries, all in readily identifiable thrust-related anticlines. Better surface geologic maps being made using Remote sensing, Strontium isotope stratigraphy, magnetotelluric methods, etc.)

Grainge, A.M., A.J.D. Hine & P.J. Brawley (1990)- Discovery and development of the Hides gas field in Licence PPL 27, Papua New Guinea. In: G.J. & Z. Carman (eds.) Petroleum exploration in Papua New Guinea, Proc. First PNG Petroleum Convention, Port Moresby, p. 539-550.

(Hides gas field 1987 BP discovery in S Highlands Province. Structure large NW-SE trending anticline. Reservoir Early Cretaceous (Berriasian) Toro Fm quartz sandstone. Reserves estimate 1-3 Tcf gas)

Grainger, D.J. & R.L. Grainger (1974)- Explanatory notes of the 1:2,500,000 Mineral deposits map of Papua New Guinea. Bureau Mineral Resources (BMR), Canberra, Bull. 148, p. 1-171.
(online at: https://d28rz98at9flks.cloudfront.net/114/Bull_148.pdf)
(Gold widely distributed through PNG, associated with Tertiary acid and intermediate rocks. Major porphyry copper province (Panguna, Ok Tedi deposits). Bauxite on Manus Island. Chromite and nickel mineralization disseminated in ultramafic rocks in SE Papua. Molybdenum in several minor occurrences. Small deposits of manganese, phosphate, asbestos, diatomite, graphite, mercury, pumice and sulphur, but not or marginally economic. Many occurrences of lignite, but mostly low-grade and in remote localities. Many oil and gas seepages (listed and shown on map))

Grant, J.N. & R.L. Nielsen (1975)- Geology and geochronology of the Yandera porphyry copper deposit, Papua New Guinea. Economic Geology 70, 7, p. 1157-1174.
(Porphyry copper- molybdenum- gold mineralization at Yandera, 100 km SW of Madang, in N part of PNG highlands. Associated with M Miocene (12-14 Ma) Bismarck synorogenic batholith complex, emplaced during collision of Australian plate and island-arc zone. Intruded into strongly folded-faulted Goroka Fm metamorphics. Mineralization genetically related to aplitic quartz monzonite porphyry, emplaced at ~6.5 Ma. (see also Titley et al. 1978, Watmuff 1978))

Grant-Mackie, J., G. Francis, G.E. Westermann & A.B. Challinor (2006)- Jurassic molluscan palaeontology of the Telefomin area, Papua New Guinea. Geological Survey Papua New Guinea, Memoir 18, p. 1-101.
(online at: http://jurassic.ru/pdf/grant-mackie_etal2006.pdf)
(Overview of Late Jurassic bivalves, belemnites, foraminifera, nannofossils and palynology from area N of Telefomin in PNG foldbelt (ammonites already decribed by Westermann). Mainly from 1991 Francis and Westermann float collections. Also used missionary Crouch collection in Ontario. Ammonites include Late Oxfordian- E Kimmeridgian Sulaites. Associated bivalves Retroceramus galoi- R. subhaasti, Malayomaorica and Oxytoma. Belemnites mainly Belemnopsis moluccana-galoi-stolleyi clade as well as Hibolithes taylori, a ?Tithonian- Berriasian species endemic to New Guinea. No age-diagnostic dinoflagellates or foraminifera).

Green, D.H. (1961)- Ultramafic breccias from the Musa Valley, Eastern Papua. Geological Magazine 98, 1, p. 1-17.
(Musa Valley area rocks of Papuan Ultramafic Belt outcrop over 25x 45 miles, part of folded layered sequence of magnesian dunite and peridotite. Agglomerate-like breccias of fragments of ultramafic rock in variable matrix occur as irregular vent-like bodies in peridotite and as horizontal sheets in Pleistocene-Recent sediments. Breccias interpreted as vent and extrusive breccias resulting from penetration, brecciation and local entrainment (fluidization) of peridotitic country rock by volcanic gases)

Green, R. & R.B. Pitt (1967)- Suggested rotation of New Guinea. J. Geomagnetism Geoelectricity 19, p. 317-321.
(online at: www.jstage.jst.go.jp/article/jgg1949/19/4/19_4_317/_pdf)
(Paleomagnetic sampling at 8 Cretaceous- Recent sites in New Guinea (no locality map; mainly N of Central Range?) suggest increase in westerly declination with age, stretching back as far as Cretaceous (U Cretaceous sample= Chimbu River volcanics). Australia and New Guinea moved N during Tertiary, with New Guinea rotating anticlockwise)

Gregory, J.W. & J.B. Trench (1916)- Eocene corals from the Fly River, Central New Guinea. Geological Magazine, N.S., 3, 11, p. 481-488.
(Descriptions of fossil corals in river float collected by MacGregor in 1890 in Fly River area S of Macrossan Island. Probably M Eocene age. Descriptions of Feddenia, Circophyllia and new species Stylophora papuensis, Stylina macgregori, Leptoria carnei, Dachiardia macgregori, Plesiastrae horizontalis, Kobya hemicribriformis)

Gregory, J.W. & J.B. Trench (1916)- Eocene corals from the Fly River, Central New Guinea (2). Geological Magazine, N.S., 3, 12, p. 529-536.
(Continuation of Gregory and Trench (1916). Descriptions of Actinacis maitlandi n.sp., A. sumatraensis (Tornquist) (= Cretaceous species from Sumatra), Porites deshayesana, Montipora antiqua n.sp.)

Griffin, T.J. (1979)- Granitoids of the Tertiary continent- island arc collision zone, Papua New Guinea. Geological Survey Papua New Guinea, Report 79/22, p. 1-28.
(See also Griffin (1983) GSA publication below)

Griffin, T.J. (1983)- Granitoids of the Tertiary continent- island arc collision zone, Papua New Guinea. In: J.A. Roddick (ed.) Circum-Pacific plutonic terranes, Geological Society of America (GSA) Memoir 159, p. 61-76.
(Similar Tertiary I-type calkalkaline granitoids in 3 structural-tectonic zones of PNG: island arc, continental-orogenic and cratonic. Associated with volcanics and porphyry Cu-Au mineralization. Tied to partial melting at base of crust, possibly resulting from subduction, crustal thickening or crustal buckling)

Grund, R.B. (1976)- North New Guinea Basin. In: R.B. Leslie et al. (eds.) Economic geology of Australia and Papua New Guinea, 3, Petroleum, p. 449-506.

Gunson M.J., D.W. Haig, B. Kruman, R.A. Mason, R.C.B. Perembo & R. Stewart (1997)- Stratigraphic reconstruction of the Porgera region, Papua New Guinea. In: Papua New Guinea Geology, Exploration and Mining Conference, Port Moresby 1997, Australasian Institute of Mining and Metallurgy, Madang, 1, p. 99-108.

Gunson M.J., G. Hall & M. Johnston (2000)- Foraminiferal coloration index as a guide to hydrothermal gradients around the Porgera intrusive complex, Papua New Guinea. Economic Geology 95, p. 271-282.
(Porgera intrusive complex and gold mineralization in Cretaceous black mudstones of Central Range of PNG. Color changes in bathyal agglutinated foraminifera (Cribrostomoides, Dorothia, Marssonella), from white to dark gray, used to map thermal maturation. Foraminiferal coloration showed pairing of hot and cold areas across major structures, associated with upflow (hot) and recharge (cold) of fluids)

Haberle, S.G. (1998)- Late Quaternary vegetation change in the Tari Basin, Papua New Guinea. Palaeogeogr. Palaeoclim. Palaeoecology 137, p. 1-24.

Haddad, D. & A.B. Watts (1999)- Subsidence history, gravity anomalies, and flexure of the Northeast Australian margin in Papua New Guinea. Tectonics 18, 5, p. 827-842.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/1999TC900009/pdf)
(PNG folbelt at least 2 major orogenic loading events: (1) start of Miocene and marking initial docking of an exotic terrane with Australian craton; associated with widespread carbonate deposition and (2) earliest Pliocene main phase of fold-thrust belt uplift, representing ongoing history of collision at NE margin of Australian continent)

Haig, D.W. (1979)- Early Jurassic foraminiferids from the western Highlands of Papua New Guinea. Neues Jahrbuch Geologie Palaontologie, Monatshefte 4, p. 208-215.
(Sinemurian-Pliensbachian shelfal foraminifera from gently folded Balimbu greywacke in upper Jimi River area near Mongum, S foothills of Bismarck Range in western (should be eastern?) PNG Highlands. Assemblage dominated by nodosarians and includes Lingulina, Frondicularia, Involutina liassica. No agglutinants)

Haig, D.W. (1981)- Mid-Cretaceous foraminiferids from the Wahgi Valley, Central Highlands of Papua New Guinea. Micropaleontology 27, p. 337-351.
(Albian-Cenomanian open marine forams from Kondaku Tuff and Chim Fm at N flank Kubor Anticline. Cretaceous overlies Jurassic Maril shale with minor unconformity. Planktonic forams include Favusella washitensis, Hedbergella delrioensis, Hedbergella implicissima, Planomalina buxtorfi, Praeglobotruncana, Rotalipora appenninica, R. greenhornensis, etc. Diverse benthic assemblage, dominated by agglutinants)

Haig, D.W. (1982)- Deep-sea foraminifera from Paleocene sediments, Port Moresby, Papua New Guinea. J. Foraminiferal Research 12, 4, p. 287-279.
(online at: http://jfr.geoscienceworld.org/content/12/4/287.full.pdf)
(Tropical Paleocene (P1-P7) planktonic foram assemblages from lower bathyal calcareous mudstones in highly folded 'Port Moresby Beds'. No stratigraphic sections, limited geologic context)

Haig, D.W. (1985)- *Lepidocyclina* associated with Early Miocene planktic foraminiferids from the Fairfax Formation, Papua New Guinea. In: J.M. Lindsay (ed.) Stratigraphy, palaeontology, malacology; papers in honour of Dr. Neil Ludbrook, South Australia Dept. of Mines and Energy Special Publ. 5, p. 117-131.
(Friable bathyal marine mudstone in upper Fairfax Fm 25 km NW of Port Moresby with Early Miocene/ Burdigalian zone N7 planktonic foraminifera and displaced shallow marine Lepidocyclina (Nephrolepidina) sumatrensis, L. (N.) ferreroi, L. (N) martini and Miogypsina, characteristic of Lower Tf Letter Stage. Average degree of curvature of Lepidocyclina embryon of 43% agrees with age-equivalent assemblages from Indonesia)

Haig, D.W. (1994)- Zone N18 in foreland basin and oceanic platform sequences, Lower Pliocene, Papua New Guinea. In: Forams '94 International Symposium on Foraminifera, Berkeley, Paleobios 16, 2, Suppl., p. 33.
(Planktonic and benthonic foraminifera from zone N18 in the siliciclastic Orubadi Beds of Papuan Foreland Basin. Type section >2000m thick and includes two mid bathyal- inner neritic shallowing upward sequences, Orubadi Beds and underlying Puri Lst (pelagic middle bathyal base of sequence) belong to N17B and N18. No reworking in foraminiferal assemblages, although reworked nannofossils and dinoflagellates flood mud-fraction of sediment, suggesting extensive sediment plumes clouded surface waters of foreland basin)

Haig, D.W. (1996)- Late Neogene bathyal depocenters in mainland Papua New Guinea. In: P.G. Buchanan (ed.) Petroleum exploration, development and production in Papua New Guinea, Proc. 3rd PNG Petroleum Convention, Port Moresby, p. 313-327.
(Late Miocene- Pliocene bathyal deposits in Papuan foreland basin, Aure Trough, SW border of Papuan Peninsula and N New Guinea basin. Significant crustal loading in central orogenic belt in PNG at ~8.5 Ma produced bathyal troughs in Purari depocenter (Orubadi Fm) and along SW margin of Papuan Peninsula. Sepik Basin rapid uplift at ~7 Ma and subsidence between 6.5- 2 Ma. Onset of unroofing of Finisterre terrane between 4.1-3.1 Ma. Spine of mainland PNG was barrier to oceanic circulation: Papuan assemblages 'Trans-Equatorial', with Gr. menardii/ Gr. limbata/ Globigerinoides; N New Guinea assemblages dominated by Gr. tumida group)

Haig, D.W., G.S. Humphreys, R. Rogerson & G. Francis (1986)- Field guide to the Kubor Anticline, Central Highlands. 12th International Sedimentological Congress, Canberra 1986, Field trip 34B, Geological Survey of Papua New Guinea, Port Moresby, p.

Haig, D.W. & D.A. Lynch (1993)- A late early Albian marine transgressive pulse over northeastern Australia, precursor to epeiric basin anoxia: foraminiferal evidence. Marine Micropaleontology 22, 4, p. 311-362.
(Major transgressive pulse in late E Albian in W Papuan Basin, changing character of foraminiferal faunas from impoverished agglutinated-dominated Ammobaculites assemblages to diverse calcareous Marssonella/ Hedbergella assemblages. Similar change in coeval deposits of other basins on NE margin of Australian continent (incl. black shales of Toolebuc Fm). Rapid marine regression in W Papuan Basin immediately after latest Albian)

Haig, D.W. & S. Malagun (1980)- Uppermost Cretaceous and lowermost Tertiary sediments around Bogoro Inlet near Port Moresby, Papua New Guinea. Science in New Guinea 7, 1, p. 12-21.
(Maastrichtian-Paleocene deep marine limestones with planktonic foraminifera, unconformably overlain by Eocene calcarenite with larger forams, incl. Pellatispira)

Haig, D.W. & D. Medd (1996)- Latest Miocene to early Pliocene bathymetric cycles related to tectonism, Puri Anticline, Papuan Basin, Papua New Guinea. Australian J. Earth Sciences 43, 3, p. 451-465.
(Four bathyal-to-neritic progradational clastics cycles in 2000m thick Orubadi Fm (Late Miocene- E Pliocene N17B-N18; ~6.2-4.7 Ma) in Puri Anticline, Papuan foreland basin near frontal foldbelt, overlying Late Miocene pelagic Puri Limestone. Cycles reflect pulses of folding. Development of foredeep either in lower N17 or N16; ~11.5- 7 Ma?)

Haig, D.W. & R.C.B. Perembo (1990)- Foraminifera as Neogene stratigraphic guides for Papua New Guinea. In: G.J. & Z. Carman (eds.) Petroleum Exploration in Papua New Guinea, Proc. First PNG Petroleum Convention, Port Moresby, p. 381-395.
(Broad overview of Neogene planktonic and larger foram zonations, and paleobathymetry applicable to PNG. Top larger foram zone Te calibrated to planktonic foram zone ~N6)

Haig, D.W., R.C.B. Perembo, D.A. Lynch, G.J. Milner & M. Zammit (1993)- Marine stratigraphic units in Central Province, Papua New Guinea: age and depositional environments. In: G.J. & Z. Carman (eds.) Petroleum exploration and development in Papua New Guinea, Proc. 2nd PNG Petroleum Convention, Port Moresby, p. 47-60.
(SW part of Papuan Peninsula two main stratigraphic divisions: (1) incoherent Campanian- M Eocene units, ('Port Moresby Association'), with inner neritic Campanian 'Barune quartz sandstone' with Pseudorbitoides and Orbitoides (equivalent of Pale Sst of Aure Scarp), overlain by bathyal Maastrichtian- Paleocene pelagic carbonate mudstones and E-M Miocene bathyal-abyssal deposits (incl. radiolarian cherts), overlain by (2) rel. coherent M Oligocene - Pliocene succession, mainly deep water deposits with 5 possible shallowing-upward sequences. Late Oligocene Boera Beds outcrop 17km NW of Port Moresby with reworked Late Eocene forams, incl. Pellatispira, Asterocyclina, Nummulites)

Haig, D.W. & W. Tamu (1980)- Stratigraphic relationship between Barune Sandstone (Upper Cretaceous) and Baruni Calcarenite (Lower Tertiary) near Port Moresby, Papua New Guinea. Science in New Guinea 7, 3, p. 148-156.
(Baruni Sst with Campanian Pseudorbitoides israelskii and Orbitoides tissoti, originally described by Glaessner 1960. Overlain by deeper water Maastrichtian pelagic Bogoro Lst and Paleocene- E Eocene Port Moresby Beds, unconformably overlain by M-L Eocene 'Baruni calcarenite' with Nummulites and Discocyclina. Description of Barune sst suggests possible turbidites, dominated by calcareous bioclasts, but with some angular quartz. No volcanic/ igneous lithics observed. (Beds of this age generally absent in PNG foreland, but present in terranes of N New Guinea and of Birds Head?; JTvG))

Hall, R.J., R.M. Britten & D.D. Henry (1990)- Frieda River copper-gold deposits. In F.E. Hughes (ed.) Geology of the mineral deposits of Australia and Papua New Guinea, Australasian Institute of Mining and Metallurgy (AusIMM), Melbourne, Monograph 14, p. 1709-1715.

Hamilton, P.J., R.W.Johnson, D.E. Mackenzie & R.K. O'Nions (1983)- Pleistocene volcanic rocks from the Fly-Highlands province of western New Guinea: a note on new Sr and Nd isotopic data and their petrogenetic implications. J. Volcanology Geothermal Research 18, p. 449-459.
(Rb-Sr and Sm-Nd isotopes and trace-elements from 6 Pleistocene volcanoes of Fly-Highlands province suggest contamination of mantle-derived magmas by continental crust. No Benioff zone beneath Fly-Highlands province, suggesting mantle-derived magmas related to Pliocene crustal uplift formed in response to mid-Tertiary continent/island-arc collision)

Hammarstrom, J.M., D. Saroa, B.T. Setiabudi, D.N. Sunuhadi, G.R. Robinson, C.L. Dicken, B.J. Drenth, S. Ludington, A.A. Bookstrom & M.L. Zientek (2013)- Porphyry copper assessment for Tract 009pCu7203, Eastern Medial New Guinea magmatic belt- Papua New Guinea and Indonesia. In: J.M. Hammarstrom et al., Porphyry copper assessment of Southeast Asia and Melanesia, U.S. Geological Survey, Scientific Investigations Report 2010-5090-D, Appendix O, p. 219-238.
(online at: http://pubs.usgs.gov/sir/2010/5090/d/sir2010-5090d_text.pdf)
(Assessment of porphyry copper deposits in E part of late Miocene to Pliocene-Pleistocene Medial New Guinea magmatic belt)

Hammarstrom, J.M., D. Saroa, B.T. Setiabudi, D.N. Sunuhadi, G.R. Robinson, C.L. Dicken, S. Ludington, A.A. Bookstrom & M.L. Zientek (2013)- Porphyry copper assessment for Tract 009pCu7205, Maramuni Arc- Papua New Guinea. In: J.M. Hammarstrom et al., Porphyry copper assessment of Southeast Asia and Melanesia, U.S. Geological Survey, Scientific Investigations Report 2010-5090-D, Appendix P, p. 239-250.

(online at: http://pubs.usgs.gov/sir/2010/5090/d/sir2010-5090d_text.pdf)
(Assessment of porphyry copper deposits in M Miocene (~18-12 Ma) Maramuni magmatic arc in central part of PNG (S of Melanesian Arc terrane and N of Medial New Guinea magmatic belt), resulting from SW-dipping subduction of Solomon Sea Plate beneath E New Guinea. Known porphyry copper deposits include Frieda River (12 Ma). Yandera and Wafi-Golpu nearby but probably part of younger trend)

Hammarstrom, J.M., D. Saroa, B.T. Setiabudi, D.N. Sunuhadi, G.R. Robinson, C.L. Dicken, S. Ludington, A.A. Bookstrom & M.L. Zientek (2013)- Porphyry copper assessment for Tract 009pCu7208, Inner Melanesian Arc Terranes II-Northern New Guinea Island, Papua New Guinea. In: J.M. Hammarstrom et al., Porphyry copper assessment of Southeast Asia and Melanesia, U.S. Geological Survey, Scientific Investigations Report 2010-5090-D, Appendix S, p. 268-274.
(online at: http://pubs.usgs.gov/sir/2010/5090/d/sir2010-5090d_text.pdf)
(Assessment of porphyry copper deposits in Eocene-Oligocene- E Miocene accreted Inner Melanesian magmatic arc terranes along N margin of island of Papua New Guinea, (Bewani-Torricelli Mts, Finisterre-Adelbert Arc). May be related to S-ward subduction of Pacific Plate or Philippine Sea Plate, fragmented by strike-slip faulting since 25 Ma. Rocks age-equivalent to New Britain assemblage. No known deposits)

Hanani, A., P. Lennox & K. Hill (2016)- The geology and structural style of the Juha gas field, Papua New Guinea. Proc. 25th ASEG-PESA International Geophysical Conference Exhib., Adelaide, p. 1-7.
(online at: http://www.publish.csiro.au/ex/pdf/ASEG2016ab272)
(Juha gas-condensate field in25 km long/ up to 8 km wide anticlinal structure in SW Papuan foldbelt. Lower Cretaceous quartz sandstone reservoir buried by 1.5 km Cretaceous shale (regional seal), 1.5 km Miocene limestone and >1.6 km Pliocene-Pleistocene 'flysch' and 'molasse', before late Pliocene-Pleistocene uplift-erosion. Seismic indicates inverted basement faults beneath Juha, with detachment in Cretaceous mudstones, so overlying Miocene Limestone deforms partly independently. Deepest burial and gas-generation in Pliocene, before compressional deformation in Pleistocene. Part of ExxonMobil gas development)

Handley, G.A. (1987)- Exploration of the Porgera gold deposit. In: E. Brennan (ed.) Proc. Pacific Rim Congress 1987, Gold Coast, Australasian Institute of Mining and Metallurgy (AusIMM), Parkville, p. 145-149.
(Porgera Au deposit in PNG highlands contains ~387 tonnes of gold. Mmineralization complex intermix of Au and Ag sulphides, gold tellurides and free gold. Deposition structurally controlled within system of mafic diorite intrusions and adjacent sediments. Discovery of high-grade ore deep in Zone VII in 1984 turned this marginal deposit into potentially very large gold mine)

Handley, G.A. & D.D. Henry (1987)- Porgera gold deposit. In: F.E. Hughes (ed.) Geology of mineral deposits of Australia and Papua New Guinea, Australasian Institute of Mining and Metallurgy (AusIMM), Melbourne, 2, p, 1717-1724.

Harnish, S.A. (1990)- Tectonics and mineralization of the western and central New Guinea Mobile Belt. Proc. Pacific Rim 90 Congress, Australasian Institute of Mining and Metallurgy (AusIMM), Parkville, 3, p. 141-151.

Harrison, D. (1991)- The gravity field of the Papuan fold belt and its geological implications. Ph.D. Thesis University of London, p. *(Unpublished)*

Harrison, D. & J. Milsom (1996)- Paleo-rift controls on mechanisms of isostatic compensation in the Papuan Fold Belt. In: P.G. Buchanan (ed.) Petroleum exploration, development and production in Papua New Guinea, Proc. 3rd PNG Petroleum Convention, Port Moresby, PNG Chamber of Mines and Petroleum, p. 77-88.
(New Guinea Highlands divided into N zone of accreted allochthonous terranes and S zone (Papuan foldbelt) of deformed Australian continental margin sediments. Change in strength of lithosphere at former rifted margin of Australia. Margin now under foldbelt, but position may be deduced from sediment thickness and gravity data. Lithosphere weakened by loading unable to support topographic loads; strong lithosphere resists significant foreland basin formation)

Harrison, J. (1969)- A review of the sedimentary history of the island of New Guinea. Australian Petroleum Exploration Assoc. (APEA) Journal 1969, p. 41-48.

Haupt, O. (1905)- Eine Kreide-ahnlicher, wahrscheinlich Jungtertiarer Mergel aus Kaiser Wilhelmsland (Deutsch Neu-Guinea). Zeitschrift Deutschen Geologischen Gesellschaft, Berlin, 57, Monatsberichte 12, p. 565-569.
(online at: https://www.biodiversitylibrary.org/item/186976#page/1293/mode/1up)
('A chalk-like, probably Late Tertiary marl from Kaiser Wilhelms Land (German New Guinea)'. Brief note on chalky marl collected by Boehm from Huon Peninsula, near Finschhafen, NE PNG. With globigerinid forams, radiolaria, diatoms, sponge spicules, calcareous nannofossils)

Hawkins, M.A. (2001)- Controls on high-grade hypogene porphyry Cu-Au mineralisation at Frieda River, PNG. In: G Hancock (ed.) Proc. PNG Geology, Exploration and Mining Conference, Port Moresby 2001, Australasian Institute of Mining and Metallurgy (AusIMM), Parkville, p. 135-144.

Hawkins, M.A. & A.K. Akiro (2001)- Geology and exploration of the Irumafimpa gold project. In: G Hancock (ed.) Proc. PNG Geology, Exploration and Mining Conference, Port Moresby 2001, Australasian Institute of Mining and Metallurgy (AusIMM), Parkville, p. 145-156.
(Mining project in northern E Highlands of PNG, part of Kainantu Complex)

Hay, J.P., M.M. Haydon & F. Robert (2020)- Geology of the Porgera gold deposit, Papua New Guinea. In: R.H. Sillitoe et al. (eds.) Geology of the World's major gold deposits and provinces, Soc. Economic Geologists (SEG), Special Publ. 23, Chapter 27, p. 559-578.
(Porgera is a ~974t Au, low-sulfidation, alkalic, epithermal gold deposit in PNG foldbelt, associated with 6 Ma stocks of mafic alkalic Porgera Intrusive Complex, emplaced in Cretaceous carbonaceous mudstones in transpressional orogenic setting linked to continent-island arc collision)

Hebberger, J.J. (1992)- A synthesis of regional elements of the Papuan fold and thrust belt of Papua New Guinea. AAPG International Conference, Sydney 1992, Search and Discovery Article 91015. *(Abstract only)*
(Evolution of PNG fold- thrust belt: (1) development of passive margin during Late Triassic-Early Jurassic rifting, with escape of Kubor Anticline continental fragment to NE, causing development of restricted marine basin with Late Triassic and Jurassic source rocks. Basin affected depositional extent of Cretaceous-Tertiary rocks (e.g. Cretaceous Toro Sst, Miocene Darai Lst). Cretaceous deposition caused maturation of Jurassic source and migration into passive margin traps around basin margins. Pliocene-Pleistocene collision along N margin of New Guinea caused development of Papuan fold-thrust belt, uplift and movement of Kubor Anticline back to SW, partially over basinal area, and remigration of oil into thrust belt structures)

Hebberger, J.J., S.P. Franklin, W.H. Uberawa & A.M. Pytte (2000)- Development of the Iagifu-Hedinia Field, PNG fold belt; a multi-disciplinary reservoir management success story. Australian Petroleum Production Exploration Association (APPEA) J. 40, 1, p. 546-561.
(Iagifu-Hedinia oil field discovered by Chevron in 1986 in PNG Highlands. Discovered without seismic data due to too much karst development in area. First oil produced in 1992)

Hebberger, J.J. & J.C. Phelps (1992)- Change in structural style from thin-skinned to thick-skinned along the strike of the Papuan fold and thrust Belt, Papua New Guinea. AAPG International Conference, Sydney 1992, Search and Discovery Article 91015. *(Brief Abstract only)*
(online at: https://www.searchanddiscovery.com/abstracts/html/1992/international/abstracts/1106a.htm)
(In Papuan fold-thrust belt gradual (150 km) change along strike from thin-skinned thrust folds with 1-8 km spacing in area of Iagifu/Hedinia oil discoveries to 20-40 km wide basement-involved folds near Irian Jaya border. No dramatic difference in thickness or composition of U Jurassic- Tertiary sediments evident. Gravity data suggest increase in depth to granitic basement along strike, but not in same area as change thin- to thick-skinned thrusting. Change in style may be related to different levels of detachment. In both areas two major detachment levels: one 15-20 km below top of basement, one near base of sedimentary section)

Hegner, E. & I.E. Smith (1992)- Isotopic compositions of Late Cenozoic volcanics from southeast Papua New Guinea; evidence for multi-component sources in arc and rift environments. Chemical Geology 97, p. 233-249.
(Transition from collisional to extensional tectonics in SE Papuan Peninsula reflected in cessation of arc-type volcanism and eruption of rifting-related transitional basalts. Trachytes inherited isotopic signatures either from lower crust recycled into upper mantle, possibly during Mesozoic rifting of Australian craton, or from unknown ancient continental block in Late Cretaceous basement of E PNG)

Helby, R.J. & A.D. Partridge (1976)- Palynological analysis of Aramia-1, Papuan Basin. Esso Australia Ltd., Palaeontological Report 1976/5A, p. 1-14.
(Published as microfiche Appendix 1 in R. Helby et al. (eds.) (1987) A palynological zonation of the Australian Mesozoic, Memoir Assoc. Australasian Palaeontologists 4, p. 85-98)
(Bathonian- Albian palyno-biostratigraphic zonation)

Helby, R.J. & A.D. Partridge (1976)- Palynological analysis of Barikewa-1, Papuan Basin. Esso Australia. Esso Australia Ltd., Palaeontological Report 1976/12, p. 1-13.
(Published as microfiche Appendix 1 in R. Helby et al. (eds.) (1987) A palynological zonation of the Australian Mesozoic, Memoir Assoc. Australasian Palaeontologists 4, p. 100-112)
(Bathonian- Albian palyno-biostratigraphic zonation)

Helby, R.J. & A.D. Partridge (1976)- Palynological analysis of the Mesozoic cores samples from Iehi 1, Papuan Basin. Esso Australia. Esso Australia Ltd., Palaeontological Report 1976/13, p. 1-17.
(Published as microfiche Appendix in R. Helby et al. (eds.) (1987) A palynological zonation of the Australian Mesozoic, Memoir Assoc. Australasian Palaeontologists 4, p. 114-124)
(Callovian- Albian palyno-biostratigraphic zonation)

Helby, R.J. & A.D. Partridge (1977)- Palynological analysis of the Mesozoic sequence in Iamara-1, Esso Australia. Esso Australia Ltd., Palaeontological Report 1977/3, p. 1-11.
(Published as microfiche Appendix 1 in R. Helby et al. (eds.) (1987) A palynological zonation of the Australian Mesozoic, Memoir Assoc. Australasian Palaeontologists 4, p. 126-142; (Bathonian- Aptian palyno-biostratigraphic zonation)

Helby, R.J. & A.D. Partridge (1977)- Palynological analysis of Omati-1 and Omati-2 wells, Papuan Basin. Esso Australia Ltd., Palaeontological Report 1977/10, p. 1-23.
(On microfiche appendix 1 in R. Helby et al. (eds.) (1987) A palynological zonation of the Australian Mesozoic, Memoir Assoc. Australasian Palaeontologists 4, p. 144-166)
(Oxfordian-Albian palyno-biostratigraphic zonation)

Hennig, A., N. Yassir, M.A. Addis & A. Warrington (2002)- Pore-pressure estimation in an active thrust region and its impact on exploration and drilling. In: A. Huffman & G. Bowers (eds.) Pressure regimes in sedimentary basins and their prediction, American Assoc. Petroleum Geol. (AAPG), Memoir 76, 9, p. 89-105.
(Pore pressures in PNG fold belt and foreland basin highly variable and compartmentalized. Conventional pore-pressure detection techniques in shales cannot be used with confidence in tectonically active regions)

Henry, D.D. (1984)- Copper deposits of the Frieda River prospect- Papua New Guinea. In: S.T. Watson (ed.) Transactions Third Circum-Pacific Energy and Mineral Resources Conference, Honolulu 1982, American Assoc. Petroleum Geol. (AAPG), p. 279-283.
(Frieda River porphyry copper prospect in PNG Mobile Belt, close to W Papua border. Mineralization associated with M Miocene andesitic volcanic complex. Ore grades generally low)

Hill, K.C. (1987)- New tectonic framework for PNG and the Caroline Plate: implications for cessation of spreading in back-arc basins. In: E. Brennan (ed.) Proc. Pacific Rim Congress 1987, Gold Coast, Australasian Institute of Mining and Metallurgy (AusIMM), Parkville, p. 179-182.

Hill, K.C. (1989)- The Muller anticline, Papua New Guinea: basement-cored, inverted extensional fault structures with opposite vergence. Tectonophysics 158, p. 227-245.
(Papuan Foldbelt two dominant structural styles: (1) in NE 1 km thick, thin-skinned thrust-imbricate slices of Miocene limestone, (2) in SW much larger asymmetrical folds, with thicker stratigraphic sections, resulting from Mio-Pliocene inversion of Mesozoic- Paleogene extensional faults. Outcrop of basement in center of Muller Range 8 km above regional. E Muller anticline basement thrust to SW, W Muller anticline thrust to NE. Faults under Muller anticline active as extensional faults in Mesozoic, soling at mid-crustal detachment. Extensional faults beneath EMA and WMA opposite vergence and separated by transfer zone)

Hill, K.C. (1990)- Structural styles and hydrocarbons in the Papuan Fold Belt, a review. In: G.J. & Z. Carman (eds.) Petroleum Exploration in Papua New Guinea, Proc. First PNG Petroleum Convention, Port Moresby, p. 301-310.
(Early version of numerous Hill PNG structure papers)

Hill, K.C. (1991)- Structure of the Papuan Fold Belt, Papua New Guinea. American Assoc. Petroleum Geol. (AAPG) Bull. 75, 5, p. 857-872.
(Papuan lithosphere rel. weak, dissected by Mesozoic faults that partly reactivated during Neogene compression, forming basement-involved anticlines)

Hill, K.C. (1991)- Timing of deformation and thermal history in Papua New Guinea: a review. Petroleum Exploration Society Australia (PESA) Journal 19, p. 62-67.
(Apatite fission track analysis of Fly Platform and S Papuan Fold Belt suggests widespread M Cretaceous volcanism and Late Cretaceous thermal maximum, probably related to rift-drift in Coral Sea. Most N and W samples reached thermal maximum during Pliocene deformation of Papuan foldbelt. Rapid uplift of basement-cored Muller Anticline in W Papuan Foldbelt and Kubor Anticline in E Papuan Fold Belt at 4.0 ± 0.5 Ma (Kubor thrusting continuing to present day. Cretaceous and Miocene granites NE of Kubor Anticline uplifted at 10- 5 Ma, part of ongoing shortening in C PNG over last 10 Ma, propagating to SW)

Hill, K.C., K. Bradey, J. Iwanec, N. Wilson & K. Lucas (2008)- Structural exploration in the Papua New Guinea fold belt. In: J.E. Blevin et al. (eds.) Third Eastern Australasian Basins Symposium, Sydney 2008, Petroleum Exploration Society Australia (PESA) Special Publ., p. 225-238.
(In PNG foldbelt large N-S-striking Triassic folds within basement, that influenced subsequent faulting, facies changes and reservoir compartments. Early inversion faults pre-requisite to substantial offset on thin-skinned detachments. Early structures probably trapped migrating hydrocarbons; subsequent thin-skinned deformation decapitated inversion crests, retaining hydrocarbons in newly folded and thrusted hanging wall structures)

Hill, K.C., G.T. Cooper, A. Pokondepa, P. Essy, T. Phonsit & M. Haydon (2023)- Structural and tectonic evolution of the Porgera gold mine; highlands of Papua New Guinea. Geosciences (MDPI) 13, 8, 234; p. 1-17.
(online at: https://www.mdpi.com/2076-3263/13/8/234)
(Porgera Transfer Zone is major crustal structure across PNG, with >50 km offset of ophiolites and very different geology and topography on either side. In Late Jurassic, PTZ probably separated oceanic crust and thick Jurassic Om shales in W from continental promontory in E. During Late Miocene-Recent orogenesis, differential compression of these features created dextral strike slip fault across fold belt with pull-apart basins at fault relays. This facilitated ascent of intrusions and mineralization at Porgera. Etc.)

Hill, K.C., J. Forwood, C. Rodda, C. Smyth & G. Whitmore (1993)- Structural styles and hydrocarbon prospectivity around the northern Muller anticline, PNG. In: G.J. & Z. Carman (eds.) Petroleum exploration and development in Papua New Guinea, Proc. 2nd PNG Petroleum Convention, Port Moresby, p. 325-324.
(Discussion of surface anticlines N of large Muller Anticline in W PNG foldbelt, with Triassic (222 Ma) granodiorite basement and Mesozoic sandstones exposed in core)

Hill, K.C. & A.J.W. Gleadow (1989)- Uplift and thermal history of the Papuan foldbelt, Papua New Guinea: apatite fission track analysis. Australian J. Earth Sciences 36, p. 515-539.

(Papuan fold belt uplifted and eroded from earliest Pliocene (5 Ma) to Present, suggesting Late Miocene collision of New Guinea with island arc to N. Uplift and cooling of basement in Kubor and Muller Anticlines, 250 km apart, took place at 4.0±0.5 Ma. Mountain front anticlines like Iehi underwent heating in Late Cretaceous, prior to Paleocene uplift and associated with opening of Coral Sea. Thermal modelling of Iehi 1 indicates ~800m of Late Cretaceous eroded in Paleocene)

Hill, K.C. & A.J.W. Gleadow (1990)- Apatite Fission Track analysis of the Papuan Basin. In: G.J. & Z. Carman (eds.) Petroleum exploration in Papua New Guinea, Proc. First PNG Petroleum Convention, Port Moresby, p. 119-136.
(Widespread Albian volcanogenic detritus in Papuan Basin and E Australia probably sourced from N PNG. AFTA of Ieru Fm in S Papuan basin suggest no heating above 60°C, so underlying Jurassic at best marginally mature for hydrocarbons. S Papuan basin probably at max. T in Late Cretaceous, before Paleogene uplift)

Hill, K.C., G. Grey, D. Foster & R. Barrett (1993)- An alternative model for the Oligo-Miocene evolution of the northern PNG and the Sepik-Ramu basins. In: G.J. & Z. Carman (eds.) Petroleum exploration and development in Papua New Guinea, Proc. 2nd PNG Petroleum Convention, Port Moresby, p. 241-259.
(N New Guinea underwent extension in Late Oligocene- E Miocene, probably related to initiation of oblique sourthern subduction under New Guinea margin (not compression as suggested in other models; there is no obvious body colliding at that time). Mid-crustal rocks with E Miocene cooling ages are local metamorphic core complexes. M Miocene volcanic detritus fill of Sepik- Ramu basins from Maramuni Arc. Late Miocene collision of Adelbert-Finisterra Arc resulted in compressional deformation through much of New Guinea and transpressional regime in Sepik area)

Hill, K.C. & K.A. Hegarty (1987)- New tectonic framework for PNG and the Caroline Plate: implications for cessation of spreading in back-arc basins. In: Pacific Rim Congress 87, Gold Coast 1987, Australasian Institute of Mining and Metallurgy (AusIMM), Parkville, p. 179-182.
(New plate tectonic scenario for N PNG. In N New Guinea Late Oligocene- E Miocene obduction of Mesozoic oceanic crust, followed by S-dipping subduction beneath New Guinea causing extensive M Miocene volcanism. E Pliocene uplift/ folding of main Papuan Foldbelt at ~4 Ma tied to collision of extinct Eocene- Oligocene island arc system with New Guinea margin)

Hill, K., J. Iwanec & D. Lund (2012)- Near-field, subthrust and deep reservoir tests of the Kutubu oil and gas fields, Papua New Guinea. AAPG International Conference Exhib., Singapore 2012, Search and Discovery Article 20183, p. 1-34. *(Presentation)*
(online at: www.searchanddiscovery.com/documents/2012/20183hill/ndx_hill.pdf)
(Kutubu oil field (= Iagafu- Hedinia) is thrust-faulted anticline in Papuan Fold-Belt, en echelon to smaller Agogo oil field. Structures first drilled in mid-80's and produced over 300 MBO from basal Cretaceous Toro and Digimu sst reservoirs. Reservoirs overlain by ~1 km of Cretaceous shale and ~1 km of Miocene limestone. Kutubu subthrust structure drilled in 2011. Toro-Digimu reservoirs overturned in footwall, with oil-bearing Toro. Koi-Iange test further back on Kutubu field encountered interbedded sands-shales of Koi-Iange Fm)

Hill, K.C., K. Lucas & K. Bradey (2010)- Structural styles in the Papuan Fold Belt, Papua New Guinea: constraints from analogue modelling. In: G.P. Goffey et al. (eds.) Hydrocarbons in contractional belts, Geological Society, London, Special Publ. 348, p. 33-56.
(Structural styles in oil-producing areas of Papuan Fold Belt include inverted basement faults, detachment faults in Jurassic 1-2 km beneath Neocomian Toro Sst reservoir, and tight, overturned folds in reservoir sequence. Highly variable thicknesses in Cretaceous Ieru Fm, including detachments that isolate Miocene Darai Limestone. Large-offset thrust faults only produced in models with pre-cut faults, generating early inversion then large ramp anticlines, similar to Kutubu oil field. Kutubu oilfield trend probably underlain by large normal fault and oil-rich source rocks may be confined to hanging wall (N side) of this fault)

Hill, K.C. & L. Mahoney (2018)- Compressional evolution of the PNG margin from an orogenic transect from Juha to the Sepik. Proc. Australian Exploration Geoscience Conference (AEGC 2018), Sydney, ASEG Extended Abstracts 2018, 1, p. 1-3. *(Extended Abstract)*

(online at: www.publish.csiro.au/ex/pdf/ASEG2018abT5_3A)
(Regional restored cross-section across PNG orogenic belt shows Oligocene- Recent compressional deformation of margin. N end of section with Landslip Metamorphics, an accreted continental terrane, separated from main foldbelt by Jurassic April Ultramafics/ Om Metamorphics/ Eocene volcanics, together constituting accretionary prism. Suture overlain by Miocene sediments indicating Oligocene docking prior to E Miocene subsidence, consistent with E Miocene extension in PNG and emplacement of metamorphic core complexes in Sepik area. Neogene compression started at ~12 Ma with shortening of ~12mm/yr from 12-4 Ma, and 2.5mm/yr from 4-0 Ma, consistent with change in structural style in foldbelt from thrust to more ductile, fold-dominated deformation. Etc.)

Hill, K.C., L. Mahoney & S. McLaren (2020)- Compressional evolution of the PNG margin; a tale of two collisions. Proc. 1st AAPG/EAGE Papua New Guinea Geoscience Conf. Exhib., PNG's Oil and Gas Industry maturing through exploration, development and production, Port Moresby 2020, AAPG Search and Discovery Article 30661, p. 1-40. *(Abstract + Presentation)*
(online at: www.searchanddiscovery.com/documents/2020/30661hill/ndx_hill.pdf)
(Thermochronology data across Muller Range and N to Sepik Terrane suggest Muller area was buried by >1.5 km of sediment during Late Cretaceous-Eocene, then was uplifted and eroded during Oligocene due to docking of Sepik Terrane such that Eocene accretionary prism at S side of Sepik terrane overrode PNG margin. E Miocene regional extension created metamorphic core complexes in N PNG (Landslip Metamorphics?) and grabens in Darai on Fly Platform. Darai Limestone and marls cover suture between Sepik Terrane and mainland PNG. Neogene compression started at ~12 Ma with ~70 km shortening in Om terrane and ~38km in Fold Belt. Shortening 12mm/yr from 12-4 Ma, but only 2.5mm/year from 4-0 Ma, consistent with change in style from thrust to more ductile, fold-dominated deformation. Model requires thickening of continental crust beneath Muller Ranges. Gravity modelling indicates 10 km deep graben under Fold Belt, now inverted)

Hill, K.C., D. Medd & P. Darvall (1990)- Structure, stratigraphy, geochemistry and hydrocarbons in the Kagua-Kubor area, Papua New Guinea. In: G.J. & Z. Carman (eds.) Petroleum exploration in Papua New Guinea, Proc. First PNG Petroleum Convention, Port Moresby 1990, p. 351-366.
(Structural geology of in Kagua area, 70 km SW of Kubor anticline)

Hill, K.C., M.S. Norvick, J.T. Keetley & A. Adams (2000)- Structural and stratigraphic shelf-edge hydrocarbon plays in the Papuan fold belt. In: P.G. Buchanan et al. (eds.) Papua New Guinea's petroleum industry in the 21st Century, Proc. 4th PNG Petroleum Convention, Port Moresby, p. 67-85.
(PNG Mesozoic-Tertiary shelf-basin transition 20-50 km NE of main oil-gas fields and penetrated by only one well. Interpreted to be long-lived fault zone, with thick basinal facies to N. In S shallow marine Miocene limestone unconformable over Lower Cretaceous shelf clastics; in N more complete Upper Cretaceous- Miocene deep water marls. Numerous oil seeps. Main potential reservoir Lower Cretaceous Toro sst, but possibly distal facies. Re-entrants may have focused Toro fans)

Hill, K.C. & A. Raza (1999)- Arc-continent collision in Papua Guinea: constraints from fission track thermochronology. Tectonics 18, p. 950-966.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/pdfdirect/10.1029/1999TC900043)
(Paleogene arc along S margin of Caroline plate juxtaposed against PNG in E Miocene, coeval with locking of W-dipping Solomon subduction zone by Ontong Java Plateau. These events initiated wrenching along N PNG margin. Mobile Belt underwent extension above downgoing slab with rapid cooling of metamorphic rocks at 17 Ma, immediately before emplacement of Maramuni Arc from 17-12 Ma. Change in plate motion at 12-10 Ma terminated arc and caused PNG-Caroline plate convergence, creating New Guinea orogenic belt from 12 -4 Ma. This resulted in ~4.5 km of uplift and ~3 km of denudation and cooling of entire Mobile Belt in Late Miocene, propagating W along Mobile Belt at 8-5 Ma and S-ward into Fold Belt at 5-4 Ma. Change in plate motion at 4-3 Ma returned margin to transpression with local compression along strike-slip faults and ongoing collision of Finisterre Arc terrane)

Hill, K.C., R.J. Simpson, R.D. Kendrick, P.V. Crowhurstt, P.B. O' Sullivan & I. Saefu (1996)- Hydrocarbons in New Guinea, controlled by basement fabric, Mesozoic extension and Tertiary convergent margin tectonics. In:

P.G. Buchanan (ed.) Petroleum exploration, development and production in Papua New Guinea, Proc. 3rd PNG Petroleum Convention, Port Moresby, p. 63-76.
(PNG mobile belt formed by Oligocene compression followed by E Miocene extension. Foldbelt hydrocarbons largely controlled by basement architecture and style of folding-thrusting. Bosavi lineament separates oil province to E from gas province in W)

Hill, K.C. & R.H. Wightman (2015)- Inversion, detachment folds, and out-of-sequence thrusts in the Papua New Guinea Fold Belt. 77th EAGE Conference & Exhibition, Madrid, WS04-D01, 5p *(Extended Abstract)*
(Profiles through oil- gas-fields of Papuan Fold Belt indicates pre-existing basement configuration played significant role in compressional deformation at Moran-Paua, Agogo and Usano)

Hill, K.C., R.H. Wightman & L. Munro (2015)- Structural style in the Eastern Papuan Fold Belt, from wells, seismic, maps and modelling. AAPG/SEG Int. Conference Exhibition, Melbourne, Search and Discovery Article 30433, p. 1-10. *(Extended Abstract)*
(online at: www.searchanddiscovery.com/documents/2015/30433hill/ndx_hill.pdf)
(Structural deformation in PNG Fold belt involves reactivation of basement, detachment folds and out-of-sequence thin-skinned thrusts. Frontal, SW, portion of fold belt large oil-gas reserves. Large Miocene- Recent inversion structures preserved in foreland ahead of leading edge fold belt (e.g. Darai Plateau), suggesting crustal-scale faulting prior to thin-skinned deformation. Areas with thick syn-rift section developed large detachment folds, probably enhanced by early basement inversion or thrusting)

Hill, K.C., R.H. Wightman & L. Munro (2015)- Structural style in the Eastern Papuan Fold Belt, from wells, seismic, maps and modelling. Proc. Eastern Australian Basins Symposium (EABS), Petroleum Exploration Society Australia (PESA), p. 265-271.
(Similar to Hill et al. 2015)

Hilyard, D., R. Rogerson & G. Francis (1988)- Accretionary terranes and evolution of the New Guinea orogen, Papua New Guinea. Geological Survey Papua New Guinea, Report 88/9, p. 1-88.

Hilyard, D., R. Rogerson, A. Lloyd, H. Hekel & A. Webb (1988)- New micropalaeontological and isotopic age data from the highlands of Papua New Guinea. Geological Survey Papua New Guinea, Report 88/16, p.

Hirst, J.P.P. & C.A. Price (1996)- Sequence stratigraphy and sandstone geometry of the Toro and Imburu Formations within the Papuan fold belt and foreland. In: P.G. Buchanan (ed.) Exploration, development and production in Papua New Guinea, Proc. 3rd PNG Petroleum Convention, Port Moresby, p. 279-299.
(Six sequences in Late Oxfordian- Berriasian of Papuan Fld Belt. Passive margin setting after Triassic- E Jurassic rifting. Steady onlap of granitic basement to SW and W. Lower Toro sandstone K5 (upper P. apiculatum dinozone) is of Berriasian age and widespread lowstand shoreface deposit)

Hobson, D.M. (1986)- A thin-skinned model for the Papuan thrust belt and some implications for hydrocarbon exploration. Australian Petroleum Exploration Assoc. (APEA) Journal 26, p. 214-224.

Holm, R.J. (2013)- Magmatic arcs of Papua New Guinea: insights into the late Cenozoic tectonic evolution of the northern Australian plate boundary. Ph.D. Thesis, James Cook University, p. 1-220.
(online at: https://researchonline.jcu.edu.au/32125/1/32125_Holm_2013_thesis.pdf)
(Late Cenozoic Maramuni Arc intrudes New Guinea Orogen. Early arc magmatism in U Oligocene, with initiation of subduction beneath New Guinea. Arc magmatism related to N-dipping subduction punctuated by arrival of Australian continent at ~12 Ma, etc. Inherited zircon populations in Quaternary volcanics help identify northern extension of Tasman Line under younger crust)

Holm, R.J., D. Gold, L. White, M. Webb, L. Mahoney, S. McLaren, K. Heilbronn, J. Oesterle et al. (2020)- Provenance and tectonics of the allochthonous New Guinea terranes: implications for the formation and evolution of regional basins. Proc. 1st AAPG/EAGE Papua New Guinea Geoscience Conference Exhib., Port Moresby 2020, Search and Discovery Article, p. 1-8. *(Extended Abstract)*

(online at: www.searchanddiscovery.com/pdfz/documents/2020/11319gold/ndx_gold.pdf.html)
(Biostratigraphic and zircon age data from wells in PNG compared to wells in Australia, Papua and West Papua. Terrane evolution during and after Cretaceous best explained if some allochthonous terranes were blocks that were once closer to E Australia. Zircon age populations from Jurassic Tamrau Fm of N Birds Head and Lengguru fold-thrust belt of Bird's Neck share similar peaks to N Queensland and Queensland Plateau, and probably close to N Queensland during Cenomanian-Albian (see also Gold et al. 2020) (proposed as new tectonic model, but conclusions similar to unreferenced C. Pigram and H.L. Davies papers of 1980s?; JTvG))

Holm, R.J., K. Heilbronn, D. Saroa & G. Maim (2023)- Provenance of the Papuan Peninsula (Papua New Guinea): Zircon inheritance from Miocene-Pliocene volcanics and volcaniclastics. Geosciences (MDPI) 13, 11, 324, p. 1-29.
(online at: https://www.mdpi.com/2076-3263/13/11/324)
(Zircons from Miocene–Pliocene volcanics- volcaniclastics of Papuan Peninsula document active magmatism in Late Miocene- E Pliocene (~9- 4.5 Ma). Extensive inherited zircons, likely sourced from Owen Stanley Metamorphics (Cretaceous protolith, obducted by PUB at ~58 Ma; basement of Papuan Peninsula), with continental detritus with age peaks of Cretaceous (~100-110 Ma), Carboniferous–Triassic (~359–201 Ma), Devonian–Silurian (~444–359 Ma) to Paleoproterozoic, which cannot be derived from N Queensland, but correlate with probable source regions further S (C Queensland margin, New Caledonia). Regional reconstructions require major revision)

Holm, R.J. & B. Poke (2018)- Petrology and crustal inheritance of the Cloudy Bay Volcanics as derived from a fluvial conglomerate, Papuan Peninsula (Papua New Guinea): an example of geological inquiry in the absence of in situ outcrop. Cogent Geoscience 4, 1, p. 1-26.
(online at: https://www.tandfonline.com/doi/full/10.1080/23312041.2018.1450198)
(Clasts from isolated conglomerate outcrop in SE Papuan Peninsula with 9 types of volcanic rocks, from basalts to trachyandesites. Zircon U-Pb dating of volcanic clasts indicates activity of Cloudy Bay Volcanics mainly latest Miocene, between (~7- 5 Ma). Hf-isotopes of primary igneous zircons suggests relatively unradiogenic crustal contribution to magma compositions)

Holm, R.J., S. Richards & C. Spandler (2012)- Maramuni arc dynamics in response to Miocene Australian continental collision, Papua New Guinea: Insights into the Late Tertiary tectonic evolution of the northern Indo-Australian plate boundary. Proc. 34th International Geological Congress (IGC), Brisbane, Australia,
(Presentation online at: https://www.researchgate.net/publication/274512016_Maramuni_arc_dynamics_in_response_to_Miocene_Australian_continental_collision_Papua_New_Guinea Etc.

Holm, R.J., S. Richards, C. Spandler & G. Rosenbaum (2013)- Tracking the Tasman Line in New Guinea: insights into the role of major structure at accretionary margins. Asia Oceania Geosc. Soc. (AOGS) 10th Annual Meeting, Brisbane, SE26-A004. *(Abstract and Poster)*
(Tasman Line of E Australia is continental suture, separating E margin of Precambrian basement from W limit of Phanerozoic Tasmanides. Extension into New Guinea in W Papua New Guinea indicated by Quaternary magmatism (more intense volcanism in E, inherited zircons of Paleoproterozoic age (~1850 Ma) in W; Permian-Triassic (~250, 270 Ma) age peaks in E), morphological changes in axial ranges of New Guinea, dramatic displacement of Papuan Ophiolite Belt, etc. Important implications for understanding the occurrence of mineral deposits in region)

Holm, R.J., G. Rosenbaum & S.W. Richards (2016)- Post 8 Ma reconstruction of Papua New Guinea and Solomon Islands: Microplate tectonics in a convergent plate boundary setting. Earth-Science Reviews 156, p. 66-81.
(online at: https://earthjay.com/earthquakes/20181010_new_britain/holm_etal_2016_8Ma_recopnstruction_PNG_bougainville_solomon.pdf)
(Since ~6 Ma crustal elements that comprise PNG and Solomon Islands began interacting with impending collision between Ontong Java Plateau and Australian continent, leading to regional microplate tectonics and escalation in tectonic complexity. Bismarck Sea initially formed as back-arc basin behind New Britain arc, but later modified during arc-continent collision. Etc.)

Holm, R.J., C. Spandler & S.W. Richards (2015)- Continental collision, orogenesis and arc magmatism of the Miocene Maramuni arc, Papua New Guinea. Gondwana Research 28, 3, p. 1117-1136.
(online at: https://www.researchgate.net/publication/266395388_Continental_collision_orogenesis_and_arc_magmatism_of_the_Miocene_Maramuni_arc_Papua_New_Guinea)
(Late Miocene (~12- 6 Ma and older?) Maramuni arc in E Papuan Highlands with intrusive rocks in Kainantu region. From ~12-9 Ma subduction-zone magmas, with increasing incompatible trace element contents and decreasing εHf with time, reflecting increase in crustal component of magmas. Porphyry suites emplaced at 7.5-6 Ma with HREE-depletion. Geodynamic model involves arrival of Australian continent at N-dipping slab at Pocklington Trough (=W continuation of Aure Trough) from ~12 Ma. Continent collision led to underthrusting of leading continental margin, contributing crustal material to magma at ~9 Ma. From ~7 Ma slab break-off and lithospheric delamination reflected in second phase of orogenesis that produced HREE-depleted geochemical signatures of magmatic rocks. Small proportion of zircons Late Permian-M Cretaceous ages (previous interpretations show S-dipping slab from N New Guinea Trench?; JTvG))

Holm, R.J., S. Tapster, H.A. Jelsma, G. Rosenbaum & D.F. Mark (2019)- Tectonic evolution and copper-gold metallogenesis of the Papua New Guinea and Solomon Islands region. Ore Geology Reviews 104, p. 208-226.
(Manuscript online at: https://espace.library.uq.edu.au/view/UQ:a861329/UQa861329_OA.pdf)
(Review of PNG and Solomon islands mineral deposits. Convergence at Pacific-Australia plate boundary from 45 Ma accommodated by subduction at Melanesian trench, with related arc magmatism. Arrival of Ontong Java Plateau at trench at ~26 Ma resulted in cessation of subduction, followed by formation of Cu-Au porphyry-epithermal deposits at 24-20 Ma throughout Melanesian arc. Late Oligocene- E Miocene reorganization led to initiation of subduction at Pocklington trough, and onset of magmatism in Maramuni arc. Arrival of Australian continent at Pocklington trough by 12 Ma resulted in continental collision and ore deposit formation from 12-6 Ma (Cu-Au porphyry deposits in New Guinea Orogen, epithermal Au systems in Papuan Peninsula). From 6 Ma crustal delamination in PNG related to prior Pocklington trough subduction resulted in adiabatic mantle melting with emplacement of diverse Cu and Au porphyry and epithermal deposits within Papuan fold-thrust belt and Papuan Peninsula from 6 Ma- today)

Home, P.C., D.G. Dalton & J. Brannan (1990)- Geological evolution of the western Papuan basin. In: G.J. & Z. Carman (eds.) Petroleum exploration in Papua New Guinea, Proc. First PNG Petroleum Convention, Port Moresby, p. 107-117.
(BP review of stratigraphy, paleogeography and geologic evolution of PNG W Papuan Basin. Eight megasequences in Triassic- Neogene. Earliest sediments over Paleozoic metamorphics/ Permo-Triassic granites are M Triassic- M Jurassic rift deposits, with two rift events before break-up of Gondwana margin. Seafloor spreading began in M Jurassic, followed by passive margin phase with thermal subsidence. M Cretaceous (Cenomanian) second rift episode, related to rifting before seafloor spreading in Coral Sea. Regional thermal uplift/erosion at end-Cretaceous (major hiatus). Widespread Late Oligocene- M Miocene limestone deposition (Darai Lst). ~Langhian age ophiolite obduction in N PNG. Late Miocene (~10 Ma) inversion event tied to collision of N Papuan margin and Melanesian island arc)

Hopwood, B. (2013)- A regional study of the Toro and Imburu Formation aquifers in the Papuan Basin, Papua New Guinea. B.Sc. Hons. (Geology) Thesis, University of Adelaide, p. 1-119.
(online at: https://digital.library.adelaide.edu.au/dspace/bitstream/2440/105356/1/02whole.pdf)
(presentation at: https://digital.library.adelaide.edu.au/dspace/bitstream/2440/105356/2/03SuppMaterial.pdf)
(In Papuan foldbelt hydrocarbon distribution likely influenced by hydrodynamic bahavior in Toro and Imburu Fm reservoirs. E Cretaceous Toro Sst extensive hydrodynamic aquifer that likely flows NW to SE, from Lavani Valley Toro outcrop (recharge region) in Highlands, through to Kutubu Complex, potentially via Hides, (possibly Angore) and Mananda/SE Mananda Fields)

Hornafius, J.S. & R.E. Denison (1993)- Structural interpretations based on Strontium isotope dating of the Darai Limestone, Papuan fold belt, New Guinea. In: G.J. & Z. Carman (eds.) Petroleum exploration and development in Papua New Guinea, Proc. 2nd PNG Petroleum Convention, Port Moresby, p. 313-324.
(Darai Limestone in Muller and Kopiago anticlines of PNG foldbelt unconformably overlies U Cretaceous (Coniacian) marine sediments. First paper to use Sr-isotope dating, confirming E Oligocene- M Miocene age of

Darai Lst (33-15 Ma). Sedimentation rates much higher between 15-19 Ma than 20-33 Ma (unusual overlap of Te larger forams Spiroclypeus/Eulepidina and Katacycloclypeus (Tf) reported; not repeated in other studies on New Guinea/ Darai limestone like Allan et al. 2000))

Hughes, F.E. (ed.) (1990)- Papua New Guinea- geology and mineral deposits. In: Geology of the mineral deposits of Australia and Papua New Guinea. Australasian Institute of Mining and Metallurgy (AusIMM), Melbourne, Monograph 14, 2, p. 1681-1830.
(Chapter 9 in major review collection of mineral occurrences in Australia- New Guinea. With general overviews of PNG mineral deposits and sub-chapters on 20 gold and copper-gold deposits)

Hulse, J.C. & G.I. Harris (2000)- The Darai Plateau play: foreland basin potential. In: P.G. Buchanan, A.M. Grainge & R.C.N. Thornton (eds.) Papua New Guinea's petroleum industry in the 21st century, Proc. 4th PNG Petroleum Convention, Port Moresby, p. 169-185.
(Darai Plateau is large Plio-Pleistocene inversion of Mesozoic half-graben. Seismic imaging difficult in karsted terrain. E Cretaceous Toro Fm sandstones primary reservoir targets. With Toro Fm sandstone isopach map)

Hutchison, D.S. (1975)- Basement geology of the North Sepik region, Papua New Guinea. Bureau Mineral Resources Geology Geophysics, Canberra, Report, 1975/162, p. 1-55.
(online at: www.ga.gov.au/corporate_data/13402/Rec1975_162.pdf)
(N Sepik region mainly Mesozoic- Paleogene basement rocks, overlain by Neogene- Quaternary marine and non-marine sediments. Dominant feature is E-trending basement axis (left-lateral strike-slip fault-zone with horizontal slickensides; continuation of Sorong FZ of W Papua?), which separates metamorphic basement in S from mainly volcanic basement in N (Bliri Volcanics; with Eocene (Tab) Nummulites- Discocyclina and E-M Miocene Te Puwani Lst.). S of Sepik River sporadic exposures of probable U Cretaceous- Eocene greenschist and amphibolite-grade metamorphics correlate with Ambunti metamorphics. In E of area (E Prins Alexander Mts) Mt Turu complex ultramafics in contact with Oligocene metamorphics on S side. Ambunti metamorphics at S side have Eocene limestone lenses (Discocyclina, Nummulites) and are overlain by unmetamorphosed U Oligocene limestone with Lepidocyclina. In stream S of Amanab recrystallized limestone with U Cretaceous Pseudorbitoides. Late Permian- E Triassic intrusive rocks (242-257 Ma) in Border Mts SW of Amanab))

Hutchison, D.S. & M.S. Norvick (1978)- Wewak, Papua New Guinea- 1:250,000 geological series. Bureau Mineral Resources Geology Geophysics, Canberra, and Geological Survey Papua New Guinea, Map + Explanatory Notes, SA/54-16, p. 1-34.
(map online at: https://nla.gov.au/nla.obj-2821864331/view)
(Geologic map sheet along N coast of PNG (N of Sepik River))

Hutchison, D.S. & M. Norvick (1980)- Geology of North Sepik region, Papua New Guinea. Bureau Mineral Resources (BMR), Record 1980/24, p. 1-163.
(online at: www.ga.gov.au/products-services/legacy-publications/records/1980s.html)
(Geology of NW coastal area of PNG, E of West Papua border. Basement in N Sepik region consists of late Mesozoic and E Tertiary volcanic and metamorphic rocks, and is unconformably overlain by thick Neogene-Quaternary non-volcanic clastics. Complex of ultramafic and basic intrusive rocks in E Prince Alexander Mts (Mt Turu Complex) probably of Jurassic age and possibly small fragment of oceanic crust, emplaced to surface in Oligocene. Mixed high-grade metamorphic and acid intrusive rocks form Late Cretaceous Prince Alexander Complex in W and C Prince Alexander Mts. Basic- intermediate volcanics and related Paleocene- E Miocene sediments (Bliri volcanics) in Bewani and Torricelli Mts and N coastal ranges, appear to be remnants of E Tertiary island arc. Large, E-trending, dominantly transcurrent fault systems run length of region. Several oil-gas seeps known; few unsuccessful wells drilled in 1924-1927)

InterOil Australia (2011)- Formation evaluation, carbonate reservoir characterisation and resource assessment of the Elk and Antelope gas fields in the onshore Eastern Papuan Basin of Papua New Guinea. Proc. 2011 SE Asia Petroleum Exploration Society (SEAPEX) Conference, Singapore, p. 1-86. *(Abstract + Presentation)*

(2006-2008 discovery of >7 TCF Elk-Antelope gas field in onshore E Papuan Basin in foothills of Central Range. Gas field at crest of fold structure in leading edge of Aure Tectonic Belt. Reservoir fractured Oligocene- Miocene reefal carbonate. Not much on geology)

Jack, R.L. & R. Etheridge (1892)- The geology and palaeontology of Queensland and New Guinea. Geol. Survey of Queensland Publ. 72, p. 1-768. *(3 vols., 68 plates, map)*
(Classic work on Queensland geology, Devonian- Cretaceous stratigraphy and fauna. Thick Devonian with corals Favosites, Heliolites, Pachypora and Stromatopora and brachiopods Spirifera, Atrypa, Rhynchonella, Pentamerus and Stringocephalus. Permo-Carboniferous Bowen series with coal and Glossopteris flora, brachiopods, etc. Also chapter on Papua New Guinea geology)

Jackson, R. (1982)- Ok Tedi: the pot of gold. University of Papua New Guinea, Boroko, p. 1-199.

Jaques, A.L. (1976)- High-K2O island-arc volcanic rocks from the Finisterre and Adelbert Ranges, northern Papua New Guinea. Geological Society of America (GSA) Bull. 87, p. 861-867.
(Thick Oligocene- Early Miocene volcanics in Finistere- Adelbert Ranges. Probably formed in volcanic arc N of NE dipping subduction zone)

Jaques, A.L. (1981)- Petrology and petrogenesis of cumulative peridotites and gabbros from the Marum Ophiolite Complex. Journal of Petrology 22, 1, p. 1-40.
(N PNG Marum ophiolite complex composed of two allochthons thrusted over Cretaceous to Eocene low-grade metasediments in Paleocene- Eocene. 3-4 km thick sequence of ultramafic and mafic cumulates, with mainly dunite at base, through wehrlite, lherzolite, plagioclase lherzolite, pyroxenite, olivine norite-gabbro and norite-gabbro to anorthositic gabbro and ferrogabbro at top. Parent magmas Mg olivine-poor tholeiite. May result from partial melting of depleted mantle lherzolite at shallow depth at mid-ocean ridge or back-arc basin)

Jaques, A.L. (1981)- Ophiolites of Papua New Guinea. In: N. Bogdanov (ed.) IGCP Project 39 Ophiolites, p.

Jaques, A.L. & B.W. Chappell (1980)- Petrology and trace element geochemistry of the Papuan Ultramafic Belt. Contributions to Mineralogy and Petrology 75, p. 55-70.
(In Papuan Ultramafic Belt of PNG harzburgites at base of ophiolite are depleted in lithophile elements, consistent with proposed origin as 'depleted' upper mantle, residual after extraction of basaltic melt. Overlying layered ultramafic-mafic cumulates point to magnesian olivine-poor tholeiite parent magma(s) strongly depleted in 'incompatible' elements. LREE-depleted lavas in overlying basalt sequence resemble most depleted mid-ocean ridge basalts. Intruded Eocene tonalites genetically unrelated to ophiolites, and appear related to andesites of Cape Vogel and others at N end of PUB, and represent early stages of island-arc magmatism associated with NE-dipping subduction zone in E Eocene immediately prior to emplacement of PUB)

Jaques, A.L., B.W. Chappell & S.R. Taylor (1978)- Geochemistry of LIL-element enriched tholeiites from the Marum Ophiolite Complex, northern Papua New Guinea. BMR J. Australian Geology Geophysics 3, p. 297-310.
(online at: www.ga.gov.au/metadata-gateway/metadata/record/80972/)
(Geochemistry of spilitic pillow basalts (Tumu River basalts) associated with peridotites and gabbros of Marum ophiolite complex in N mainland PNG, thrust over low-grade metasediments of mainly Late Cretaceous- Eocene age. Comparable to tholeiites from oceanic islands. Reflect mantle-source composition rather than particular tectonic setting within ocean basin)

Jaques, A.L., B.W. Chappell & S.R. Taylor (1983)- Geochemistry of cumulus peridotites and gabbros from the Marum Ophiolite Complex, Northern Papua New Guinea. Contributions to Mineralogy and Petrology 82, p. 154-164.
(Late Mesozoic Marum ophiolite peridotite-gabbro sequence NE of Central Range in N PNG incomplete: upper part extrusives missing. Parent magmas of Marum cumulates strongly depleted in incompatible trace elements, and not of MORB composition)

Jaques, A.L. & G.P. Robinson (1977)- The continent/ island arc collision in northern Papua New Guinea. BMR J. Australian Geology Geophysics 2, p. 289-303.
(online at: www.ga.gov.au/corporate_data/80936/Jou1977_v2_n4_p289.pdf)
(Adelbert-Finisterre Paleogene oceanic volcanic arc above NE-dipping Indo-Australian Plate subduction zone active in Late Eocene- E Miocene. First collided with Australian continental crust in E Miocene in west, progressing eastward. In collision zone SW of arc with NE-dipping Marum ophiolite complex, with Eocene pelagic sediments interbedded with pillow basalts. SW of ophiolite Bismarck-Schrader Ranges low-grade metamorphics, laterally grading into Late Cretaceous- Eocene clastics and limestones. Metamorphics formed from continental slope flysch with abundant detritus of granitic, metamorphic and volcanic rocks)

Jaques, A.L. & G.P. Robinson (1980)- Bogia, Papua New Guinea, Sheet SB/55-1, 1:250. Geological Series-Explanatory Notes, PNG Dept. Minerals and Energy, p. 1-27.
(Geologic map sheet in NE PNG (Finisterre Range, etc.))

Jakes, P. & I.E.M. Smith (1970)- High potassium calc-alkaline rocks from Cape Nelson, eastern Papua. Contributions to Mineralogy and Petrology 28, p. 259-271.
(Cape Nelson Quaternary volcanic complex on NE coast of E PNG with two Quaternary stratovolcanoes, Mt Victory (1925m) and Mt Trafalgar (1720m). High-K calc-alkaline rocks dominated by andesites with numerous basic inclusions)

Jenkins, D.A.L. (1974)- Detachment tectonics in western Papua New Guinea. Geological Society of America (GSA) Bull. 85, p. 533-548.
(PNG foldbelt deformation in M-L Pliocene. Pattern of detachment related to configuration of two large basement uplifts, aligned WNW en echelon to spine of island. Uplift continued after thrusting ceased)

Jenkins, D.A.L. & A.J. Martin (1972)- Recent investigations into the geology of the southern highlands, Papua. Proc. 4th Symposium Development of petroleum resources of Asia and the Far East, UN ECAFE Mineral Resources Development Ser. 41, 1, p. 288-294.

Johnson, R.W. (1979)- Geotectonics and volcanism in Papua New Guinea: a review of the Late Cainozoic. BMR J. Australian Geology Geophysics 4, p. 181-207.
(online at: www.ga.gov.au/corporate_data/81001/Jou1979_v4_n3_p181.pdf)
(At least 6-perhaps 10, plate boundaries in PNG. Most are zones of convergence and ridge-transform zones where new sea floor is being created. Australian continent and Ontong Java Plateau reached region in Cenozoic. Late Cenozoic volcanoes of PNG widely distributed and chemically diverse. Andesite is common, but comendites, intra-plate rhyolites, strongly undersaturated rocks, and basalts also present)

Johnson, R.W. (1982)- Papua New Guinea. In: R.S. Thorpe (ed.) Andesites, John Wiley, p. 225-244.

Johnson, R.W. (2013)- Fire mountains of the islands- a history of volcanic eruptions and disaster management in Papua New Guinea and the Solomon Islands. Australian National University (ANU) Press, Canberra, p. 1-391.
(online at: www.oapen.org/download?type=document&docid=462202)
(Review of 57 active volcanoes of E PNG mainland and islands to East, including Rabaul, etc.)

Johnson, R.W. (2020)- Roars from the mountain. Colonial management of the 1951 volcanic disaster at Mount Lamington. Australian National University (ANU) Press, Canberra, p. 1-356.
(online at: https://press-files.anu.edu.au/downloads/press/n6294/pdf/book.pdf)
(On the violent eruption of Mount Lamington in Owen Stanley Range of E PNG, on 21 January 1951, killing thousands of Orokaiva people)

Johnson, R.W. & A.L. Jacques (1980)- Continent-arc collision and reversal of arc polarity: new interpretation from a critical area. Tectonophysics 63, p. 111-124.
(N New Guinea regarded as region where polarity of island arc reversed following collision with Australian continent, but evidence not compelling. Because present-day volcanism off PNG N coast associated with steeply

N-dipping Benioff zone and late Cenozoic volcanoes in central highlands cannot be related to Benioff zone, more acceptable interpretation is that, following collision, N-dipping slab beneath arc became suspended nearly vertically. Active marginal basin N of arc is unlikely subducted S beneath mainland, because lithosphere beneath marginal basins appears to be neither thick nor cold enough for initiation of subduction)

Johnson, R.W., D.E. MacKenzie & I.E.M. Smith (1971)- Seismicity and Late Cenozoic volcanism in parts of Papua New Guinea. Tectonophysics 12, p. 15-22. *(online at: www.academia.edu/92522189/Seismicity_and_late_cenozoic_volcanism_in_parts_of_Papua_New_Guinea)*
(Late Cenozoic volcanoes in New Guinea Highlands- E Papua of calc-alkaline and shoshonitic compositions; N coast of New Britain and islands toW tholeiitic basalt, andesite, dacite, and rhyolite. Earthquake foci for 1958-1970, can not be tied to S-dipping Benioff zone. Well-defined Benioff zone dips N beneath New Britain)

Johnson, R.W., D.E. MacKenzie & I.E.M. Smith (1978)- Delayed partial melting of subduction modified mantle in Papua New Guinea. Tectonophysics 46, 1-2, p. 197-216.
(Late Cenozoic volcanoes in E PNG assigned to nine volcanic provinces, seven of which related to arc-trench systems. Four of these seven associated with present-day subduction of lithosphere. Volcanism in three other provinces not related to subduction (higher 87Sr/86Sr values, etc.) and may have originated in mantle lithosphere chemically modified in Early Cenozoic or Late Mesozoic by slab-derived fluids)

Johnson, R.W., D.E. MacKenzie & I.E.M. Smith (1978)- Volcanic rock associations at convergent plate boundaries: reappraisal of the concept using case histories from Papua New Guinea. Geological Society of America (GSA) Bulll. 89, p. 96-106.
(Three volcanic rock associations in seven Late Cenozoic provinces at convergent plate boundaries in PNG)

Johnson, R.W., D.E. Mackenzie, G.A.M. Taylor & I.E.M. Smith (1973)- Distribution and petrology of the late Cainozoic volcanoes in Papua New Guinea. In: P.J. Coleman (ed.) The Western Pacific: island arcs, marginal seas, geochemistry, Western Australia University Press, p. 523-534.

Johnson, R.W., R.P. Macnab, R J. Arculus, R. J. Ryburn, R J.S. Cooke & B.W. Chappell (1983)- Bamus volcano, Papua New Guinea: Dormant neighbour of Ulawun, and magnesian-andesite locality. Geologische Rundschau 72, 1, p. 207-237.
(Bamus und Ulawun volcanoes on New Britan island, PNG, > 400 m higher than other major composite volcanoes in 1000-km-long Bismarck volcanic arc (~2300m tall). The two cones are probably related)

Johnson, R.W. & N.A. Threlfall (1985)- Volcano town: the 1937-43 Rabaul eruptions. Bureau of Mineral Resources, Robert Brown and Associates, Bathurst, NSW, p. 1-151.
(Town of Rabaul, New Britain Island, PNG, is Built within an active volcanic caldera and is vulnerable to eruptions from the historically active volcanoes. The 1937 eruption claimed hundreds of casualties)

Johnson, R.W. & N.A. Threlfall (2023)- Return to Volcano Town. Reassessing the 1937-1943 volcanic eruptions at Rabaul. Australian National University, ANU Press, Canberra, p. 1-410.
(online at: https://press.anu.edu.au/publications/series/pacific/return-volcano-town#pdf)
(Great popular science/ history book on volcanic activities near Rabaul town, New Britain Island, PNG))

Johnson, T.L. (1979)- Alternative model for the emplacement of the Papuan ophiolite, Papua New Guinea. Geology (GSA) 7, 10, p. 495-498.
(New model for geologic development of Papuan Peninsula, based on reinterpretation of nature of Owen Stanley metamorphic belt. Owen Stanley rocks interpreted as sediments deposited on oceanic crust and accreted to E-dipping island arc as underlying crust was subducted. Emplacement of ophiolite in two stages: (1) uplift due to buoyancy of lighter material accreted under ophiolite during subduction; (2) further uplift of ophiolite to present position when island arc collided with and partially subducted semicontinental material)

Johnstone, D.C. & J.K. Emmett (2000)- Petroleum geology of the Hides gas field, Southern Highlands, Papua New Guinea. In: P.G. Buchanan et al. (eds.) Papua New Guinea's petroleum industry in the 21st century, Proc. 4th PNG Petroleum Convention, Port Moresby, p. 319-336.
(Hides gas field in central highlands of PNG, discovered in 1987. SW-verging asymmetrical anticline with >2000m structural relief (and 1300m gas column?). Five gas-bearing reservoirs in clean quartz sandstones of Late Jurassic- Early Cretaceous Imburu and Toro Fms, with 7=10.6% porosity. Rel. dry gas, tied to clastic source with mixed terrestrial and marine kerogens. Estimated reserves 5.3 TCF gas and >100 MB Condensate)

Jongsma, D. (1970)- Marine geology and recent sediments of Milne Bay, New Guinea. Bureau Mineral Resources Geology Geophysics, Canberra, Record 1970/010, p. 1-24.
(online at: www.ga.gov.au/corporate_data/12423/Rec1970_010.pdf)
(Report version of Jongsma (1972). Milne Bay at SE tip of mainland PNG originated during formation of Owen Stanley fault onshore and Pocklington shear zone. Bay floor sinking in Quaternary, accumulating thick marine sediments)

Jongsma, D. (1972)- Marine geology and Recent sediments of Milne Bay, eastern Papua. Geological Papers 1969, Bureau Mineral Resources Geology Geophysics (BMR), Bull. 125, p. 35-54.
(online at: www.ga.gov.au/corporate_data/125/Bull_125.pdf)
(See also Jongsma (1970))

Kaczmarek, M.A., L. Jonda & H.L. Davies (2015)- Evidence of melting, melt percolation and deformation in a supra-subduction zone (Marum ophiolite complex, Papua New Guinea). Contributions to Mineralogy and Petrology 170, 19, p. 1-23.
(online at: http://doc.rero.ch/record/333011/files/410_2015_Article_1174.pdf)
(Geochemistry of Marum Ophiolite of E PNG, which obducted in Paleocene and Eocene, and is composed of two allochthons thrusted over Cretaceous to Eocene low-grade metasediments. Marum ophiolite is piece of depleted mantle, made of dunite and harzburgite, showing compositions of supra-subduction zone peridotite)

Kamenetsky, V.S., A.V. Sobolev, S.M. Eggins, A.J. Crawford & R.J. Arculus (2002)- Olivine-enriched melt inclusions in chromites from low-Ca boninites, Cape Vogel, Papua New Guinea: evidence for ultramafic primary magma, refractory mantle source and enriched components. Chemical Geology 183, p. 287-303.
(online at: www.researchgate.net/publication/222558906_Olivine-enriched_melt_inclusions_in_chrom Etc.)
(Study of melt inclusions in high-Cr primitive spinel in Paleocene low-Ca boninites from Cape Vogel, PNG. Cape Vogel primary melts could have originated from melting of refractory, hot (>1500°C) harzburgitic mantle fluxed by subduction-related, H2O-bearing enriched components)

Kaufman, R.L., J.C. Phelps & K.J. Kveton (1997)- Petroleum systems of the Papuan Basin, Papua New Guinea. In: J.V.C. Howes & R.A. Noble (eds.) Proc. Petroleum Systems of SE Asia and Australia Conference, Jakarta, Indonesian Petroleum Association (IPA), Jakarta, p. 237-246.
(Three petroleum systems in PNG: 1. Jurassic-Imburu (proven play); 2. Cretaceous (tentative; concluded from seeps oil analyses); 3. Tertiary (common oleanane in oil seep near Goroka, N of other seeps/ fields)

Kaufman, R.L. & B. Robertson (1999)- Application of reservoir geochemistry in the Iagifu-Hedinia Field, Papua New Guinea. Australian Petroleum Exploration Assoc. (APEA) Journal 39, p. 421-436.
(Combination of oil fingerprint and RFT pressure data in Iagifu-Hedinia Field demonstrated some seals effective over geologic time frames while others effective only on production timeframe. Geochemical data also indicate presence of reservoir compartments where other data were missing or inconclusive)

Kawagle, S.A. (2005)- The mineral resources of Papua New Guinea. Resource Geology 55, 3, p. 285-288.
(Brief review of PNG mining. Three world class, open pit mines at Ok Tedi, Porgera and Lihir; two medium-scale underground operations at Tolukuma and Kainantu. PNG y produced 68 Tonnes of gold in 2003 and 73.6 tonnes in 2004. Copper production averages ~200,000 Tonnes/ year)

Kawagle, S.A. (2007)- Petroleum resources of Papua New Guinea. Resource Geology 57, 3, p. 347-350.

(Brief review of PNG petroleum status. Petroleum sector has substantially grown in last 2 years. Oil- gas fields in Papuan fold belt and foreland and Fly platform. First commercial oil discovery in 1986 with first production in 1992. Oilfields small by world standards. Second major contributor to PNG revenue, after minerals)

Kawagle, S.A. & J.B. Meyers (1996)- Structural and sequence geometry of the Kiunga area, Papuan foreland basin, Papua New Guinea. In: P.G. Buchanan (ed.) Petroleum exploration, development and production in Papua New Guinea, Proc. 3rd PNG Petroleum Convention, PNG Chamber of Mines and Petroleum, Port Moresby, p. 175-193.
(PNG foreland basin S of Papuan foldbelt with 4 seismic megasequence boundaries: M Jurassic breakup unconformity, top Mesozoic Megasequence and top of Lower and Upper Darai Megasequence. Late Cretaceous? NW-trending wrench faults)

Keenan, S.E. & K.C. Hill (2015)- The Mananda Anticline, Papua New Guinea: a third oil discovery, appraisal programme and deep potential. AAPG/SEG Int. Conference Exhibition, Melbourne, Search and Discovery Article 10803, p. 1-13. *(Extended Abstract)*
(online at: www.searchanddiscovery.com/documents/2015/10803keenan/ndx_keenan.pdf)
(Mananda Anticline one of larger structures in Papuan Fold Belt (40x15 km, up to 2000m high). Stratigraphy 1 km of Miocene limestone over 1 km of Cretaceous shale over earliest Cretaceous Toro and Digimu sandstone reservoirs and inferred Jurassic source. Size of structure suggests basement inversion. Since 1971 nine wells drilled along topographic crest, including SE Mananda-1 oil-gas discovery in 1991. New work indicated structural crest SE of topographic crest. Mananda 5, 6 wells tested oil and gas in Toro Sst reservoirs)

Keenan, S.E. & K.C. Hill (2015)- The Mananda Anticline, Papua New Guinea: a third oil discovery, appraisal programme and deep potential. Proc. Eastern Australian Basins Symposium (EABS), Petroleum Exploration Society Australia (PESA), p. 297-306.
(Same as Keenan and Hill 2015, above)

Keetley, J.T., K.C. Hill & K.J. Kveton (2000)- 3D structural modeling of the Moran Oilfield, Papua New Guinea. In: P.G. Buchanan et al. (eds.) Papua New Guinea's petroleum industry in the 21st century, Proc. 4th PNG Petroleum Convention, Port Moresby, p. 309-318.
(3D restoration models of Moran anticine in central part of Papuan foldbelt (Late Miocene- Pliocene S-directed folding-thrusting))

Kendino, M., A.Y. Kaumi, D. Holland, J. Lamb & A. Murray (2020)- Hydrocarbons putting on a show! - Development of a PNG shows database. Proc. 1st AAPG/EAGE Papua New Guinea Geoscience Conference Exhib., Port Moresby 2020, AAPG Search and Discovery Article 42526, p. 1-22. *(Abstract + Presentation)*
(online at: www.searchanddiscovery.com/documents/2020/11320kendino/slides)
(Catalogue of PNG oil occurrences in surface seeps (reported since 1911) and shows in 300+ wells, in order to better define charge fairway(s))

Kennett, B.L.N. & D.R. Davies (2020)- Intra-plate volcanism in North Queensland and eastern New Guinea: A cryptic mantle plume? Gondwana Research 79, p. 209-216.
(Distinct patch of volcanism over the last 5-10 Ma, along edge of Australian craton, NE Australia and E PNG)

Kergaravat, C., W. Vetel, P. Souloumiac, P. Jousselin, W. Gordon-Canning, A. Shakerley et al. (2018)- Forward modeling and mechanical behaviors of a carbonate platform involved in fold-and-thrust belt. The case of Antelope Field and surrounding prospectivity In: PEGSB SEAPEX Asia Pacific E&P Conference, London, 2p. *(Extended Abstract)*
(Elk-Antelope multi-TCF gas field in western PNG represents isolated carbonate buildup involved in thrusting at junction of two major foldbelt systems, Papuan and Aure Foldbelts. Reservoirs E-M Miocene Darai Fm)

Khan, A.M. (1976)- Palynology of Neogene sediments from Papua (New Guinea) stratigraphic boundaries. Pollen et Spores 16, 2, p. 265-284.
(Early, dated paper on Neogene palynology from Iviri 1 well, Fly River Delta)

Kicinski, F.M. (1955)- Micropalaeontological examination of rock samples from Buna-Kokoda area, Eastern Papua. Bureau Mineral Resources (BMR) Geology Geophysics, Record 1955/009, p.
(Samples from Robinson Bay Limestone (which occur as caps on volcanic Iauga Fm Trobriand arc volcanics), have Lower Tf larger forams (= Burdigalian- Serravallian; Miogypsina kotoi, Austrotrillina, Flosculinella bontangensis, etc.)

King, S.J., D. Haig & A.G. Annette (2000)- The tectonic implications of rapid vertical facies changes in the Yule Island section, Aure Trough, Papua New Guinea. AAPG International Conference Exhib., Abstracts, American Assoc. Petroleum Geol. (AAPG) Bull. 84, 9, p. 1449.
(Yule Island section ~1.5 km thick marine M. Miocene- E Pliocene. Two separate cycles of tectonic uplift and subsidence in Aure Trough. Tectonic events recorded in succession include: 1) development of proximal foredeep in response to tectonic loading possibly accretion of E Papuan Composite Terrane prior to ~14.8 Ma; 2) 'marginal' uplift associated with development of a fold-and-thrust-belt from ~11.4 Ma; 3) second tectonic loading event, possibly accretion of Adelbert-Finisterre volcanic terrane at ~8.8 Ma; and 4) pervasive basin-wide uplift associated with development of second and fold-thrust-belt from ~5.2 Ma)

Kirby, G.A. (1996)- Geology and hydrocarbon prospectivity of the Aitape Basin, Papua New Guinea. British Geological Survey (BGS), Overseas Geology Technical Report Series WC/96/48, p. *(Unpublished)*
(Report prepared for Department of Mines and Petroleum, Papua New Guinea)

Kirby, G.A. (1996)- Geology and hydrocarbon prospectivity of the Ramu-East Sepik area, Papua New Guinea. British Geological Survey (BGS), Overseas Geology Technical Report Series WC/96/49, p. *(Unpublished)*
(Report prepared for Department of Mines and Petroleum, Papua New Guinea)

Kivior, I., S. Markham & L. Mellon (2015)- Mapping sub-surface geology from magnetic data in the Hides Area, Western Papuan Fold Belt, Papua New Guinea. Proc. Eastern Australian Basins Symposium (EABS), Petroleum Exploration Society Australia (PESA), p. 307-319.
(Structure interpretation of magnetic data in area of Hides and Karius gas fields, PNG foldbelt, consistent with structures mapped from seismic and well data)

Kivior, I., S. Markham & L. Mellon (2016)- Mapping sub-surface geology from magnetic data in the Hides Area, Western Papuan Fold Belt, Papua New Guinea. AAPG/SEG Int. Conference Exhib., Melbourne 2015, Search and Discovery Article 30438, p. 1-14.
(online at: www.searchanddiscovery.com/pdfz/documents/2016/30438kivior/ndx_kivior.pdf.html)
(Same as Kivior et al. 2015))

Klimchuk, G.A. (1993)- Provenance and depositional setting of the Pliocene Era Formation, Aure fold and thrust belt, Papua New Guinea. M.A. Thesis, University of Texas at Austin, p. 1-130. *(Unpublished)*

Klootwijk, C., J. Giddings & C. Pigram (1993)- Palaeomagnetic constraints on terrane tectonics: Highlands and Sepik regions, Papua New Guinea. Exploration Geophysics (Bull. Soc. Australian Exploration Geophysicists) 24, 2, p. 291-294.
(New Guinea more than 32 terranes of oceanic, continental or composite affinity. Paleomagnetic control on terrane movement of mainland New Guinea restricted to Birds Head of Indonesian West Papua (Giddings et al., 1993), and North Sepik and Highland regions of Papua New Guinea. Paleocene- E Miocene Bliri Volcanics of Bewani- Torricelli Arc complex in N Sepik region show overprint acquired at latitude of ~15°S, attributed to latest-Oligocene-E Miocene accretion of arc onto N margin of Australian plate. Declinations from Bliri Volcanics and cover sediments show meridional trend and indicate CCW rotations of Bewani-Torricelli Arc between 30°-110° relative to Australian craton. Also CCW rotations between 30°-100° in Kubor Anticline and Jimi terrane. In Mendi area of S Highlands CW rotations of 30°-50°)

Klootwijk, C., J. Giddings, C. Pigram, C. Loxton, H. Davies, R. Rogerson & D. Falvey (2003)- Papua New Guinea Highlands: palaeomagnetic constraints on terrane tectonics. Tectonophysics 362, p. 239-272.

(Paleomagnetic study of 21 localities in PNG Highlands. Three magnetic components: (1) recent overprint; (2) mainly normal polarity overprint during M-L Miocene intrusive activity in central cordillera; (3) primary component. Interior zone with Triassic- Miocene of Kubor Anticline, Jimi Terrane and Yaveufa Syncline in C and E Highlands 30°- 100°+ CCW rotations. Exterior zone is basement-involved Pliocene foreland fold-and-thrust belt in S Highlands. Exterior zone 30°- 50°+ clockwise rotations in Mendi area. Contrasting rotations across Tahin and Stolle-Lagaip-Kaugel Fault zones indicate decoupling of zones. CCW rotations in Kubor Anticline-Jimi Terrane cratonic spur interpreted as non-rigid rotation of continental terranes as they were transported W across NE Australian craton margin. This margin became reorganised after M Miocene, when N-advancing Australian craton impinged into W-moving Pacific plate/buffer-plate)

Klootwijk, C., J. Giddings, C. Pigram, C. Loxton, H.L. Davies R. Rogerson & D. Falvey (2003)- North Sepik region of Papua New Guinea: palaeomagnetic constraints on arc accretion and deformation. Tectonophysics 362, p. 273-301.
(online at: https://www.researchgate.net/publication/248242624_North_Sepik_region_of_Papua_New_Guinea_Palaeomagnetic_constraints_on_arc_accretion_and_deformation)
(Bewani-Torricelli Arc of N Sepik, Paleocene- E Miocene Bliri Volcanics counterclockwise rotations of 30°+-110°+ relative to Australian craton, and clockwise rotations of 100°- 170°+ of detached Tring Block. Latitudinal evolution of Bewani-Torricelli Arc similar to Baining Arc (Finisterre-Huon-New Ireland-New Britain), and indicates N-ward movement from ~30°S in Late Eocene to ~15°S in E-M Miocene, suggesting both arcs may be parts of larger E-W-oriented arc complex, possibly located on Pacific plate prior to accretion)

Klootwijk, C., J. Giddings, W. Sunata, C. Pigram, C. Loxton, H. Davies, R. Rogerson & D. Falvey (1987)- Paleomagnetic constraints on terrane tectonics in New Guinea. In: E. Brennan (ed.) Proc. Pacific Rim Congress 1987, Gold Coast, Australasian Institute of Mining and Metallurgy (AusIMM), Parkville, p. 237-239.
(online at: https://www.researchgate.net/publication/292648656_Palaeomagnetic_constraints_on_terrane_tectonics_in_New_Guinea)
(Paleomagnetic work for New Guinea shows common Late Tertiary overprints, suggesting NE margin of Australian craton with its accreted terranes becomes reorganized under influence of the sinistral Tonga-Sulawesi megashear, resulting in large-scaIe counterclockwise rotations. Birds Head probably some N-ward movement relative to Australia between M Eocene and M Miocene and some post E-M Miocene counterclockwise rotation. In N Sepik region Torricelli and Border Mountain blocks 100° or more CCW rotations. In Highlands Kubor Block 50-100°CCW rotation.Etc.)

Kloppenburg, A. & K.C. Hill (2015)- The Gobe Field, PNG: influence of basement architecture on fold and thrust belt structural style. Proc. Eastern Australian Basins Symposium (EABS), Petroleum Exploration Society Australia (PESA), p. 273-279.
(25 km long sinuous Gobe Anticline in SE Papuan Fold Belt three structural compartments, believed to be in part controlled by E Jurassic rift architecture in Permo-Triassic basement. Main oil gas reservoir U Jurassic Iagifu Sst. Overlying 1 km thick Cretaceous mudstone detached reservoir sequence from overlying 1 km thick Miocene limestone that formed Pliocene- Recent thin-skinned structures at the surface. Nearby basement-cored Iehi Anticline. Gobe Anticline resulted from interplay of two conjugate contractional fault sets)

Kloppenburg, A. & K.C. Hill (2016)- The Gobe Field, PNG: influence of basement architecture on fold and thrust belt structural style. AAPG/SEG Int. Conference Exhib., Melbourne 2015, Search and Discovery Article 20339, p. 1-11.
(online at: www.searchanddiscovery.com/documents/2016/20339kloppenburg/ndx_kloppenburg.pdf)
(Similar to Kloppenburg & Hill 2015))

Knight, C.L. (ed.) (1976)- Economic geology of Australia and Papua New Guinea. Australasian Institute of Mining and Metallurgy (AusIMM) Monograph, vol. 1. Metals, Parkville, Victoria, p. 1-1126.

Knight, C.L. (ed.) (1976)- Economic geology of Australia and Papua New Guinea. Australasian Institute of Mining and Metallurgy (AusIMM) Mononograph., vol. 2. Coal, Parkville, Victoria, p. 1-398.

Knight, C.L. (ed.) (1976)- Economic geology of Australia and Papua New Guinea. Australasian. Inst. Mining and Metallurgy (AusIMM) Monograph., vol. 3. Petroleum, Parkville, Victoria, p. 1-541.

Knight, C.L. (ed.) (1976)- Economic geology of Australia and Papua New Guinea. Australasian Institute of Mining and Metallurgy (AusIMM) Monograph, vol. 4. Industrial minerals and rocks, Parkville, Victoria, p. 1-423.

Kopi, G., I. Abiari, P.G. Quilty, T.W. Kilya, S. Nekitel, R.H. Findlay, C. Mortimer & P. Kia (2002)- Cretaceous macrofossils from the Ramu Valley and the Snake River, Papua New Guinea, place the northern terranes of PNG and the Owen Stanley Metamorphics in Gondwana. In: V.P. Preiss (ed.) Geoscience 2002, 16th Australian Geological Convention, Geological Society Australia. 67, p. 363. *(Abstract only)*

Koulali, A., P. Tregoning, S. McClusky, R. Stanaway, L. Wallace & G. Lister (2015)- New insights into the present-day kinematics of Papua New Guinea from GPS. Geophysical J. International 202, 2, p. 993-1004.
(online at: https://academic.oup.com/gji/article/202/2/993/592877)
(New GPS derived velocity field based on 1993-2008 observations at 30 GPS sites, combined with published GPS velocities in N and NW PNG. New Guinea Trench is active plate boundary, accommodating most of the convergence between Pacific and Australian plates in NW PNG with rates >90 mm/ yr. Some convergent deformation partitioned into shear along Bewani-Torricelli fault zone and S Highlands fold-thrust Belt. Fault system N of Highlands fold-thrust belt is major boundary between the rigid Australian Plate and N Highlands block, with convergence between ~6-11.5 mm/yr. N New Guinea Highlands and Papuan Peninsula two blocks separated by boundary through Aure Fold belt Belt. Ramu-Markham fault accommodates deformation associated with Finisterre arc-continent collision)

Krawczynski, L. (2015)- Hydrocarbon generation and distributon in the foreland part of the Papuan Basin. Proc. SE Asia Petroleum Exploration Society (SEAPEX) Conference 2015, Singapore, 8.2, p. 1-3. *(Extended Abstract)*
(Papuan Basin of PNG similar petroleum system to Mesozoic of Australia NW Shelf. Commercial discoveries in PNG foldbelt/ foothills and Tertiary carbonates play, but no fields in foreland basin yet. Active source rocks: (1) Triassic lacustrine shales, (2) Jurassic mixed marine-terrestrial Imburu Fm and (3) Late Cretaceous and younger terrestrial source rocks. Recent foreland basin wells Manta 1 and NW Koko 1 rely on long-distance (100km) migration from mature Jurassic source)

Krawczynski, L. (2019)- The Jurassic petroleum system of the Papuan Basin Fold Belt, Papua New Guinea, AAPG Hedberg Conference, The evolution of petroleum systems analysis, Houston 2019, 1p. *(Abstract)*
(online at: www.searchanddiscovery.com/abstracts/html/2019/hedberg-90349/abstracts/170.html)
(Papuan Basin geochemical fingerprint of fluids and source rocks point to deltaic-paralic carbonaceous shales and coals of M Jurassic Magobu Fm as main source. Hydrocarbon expulsion likely in Early Tertiary and entrapment during Late Miocene- Pliocene. Distributions of hydrocarbon phase in foldbelt previously attributed to variance in source rocks but may be linked to structural setting: oil discoveries primarily associated with thin skinned deformation, condensate /gas discoveries linked to thick-skinned deformation)

Krawczynski, L. & M. Neumaier (2025)- How structural setting and hydrocarbon phase are closely related. A case study from the Papuan Basin, Papua New Guinea. GeoExpro 22, 6, p. 95.
(online at: https://geoexpro.com/wp-content/uploads/2025/12/GeoExPro_25-06-issue-WEB-spreads.pdf)
(Brief communication arguing that hydrocarbon column heights and oil-versus-gas distribution in oil-gas fields in the Jurassic hydrocarbon system of PNG foldbelt are mainly controlled by structural complexity. Rel. simple structures tend to gas-only accumulations with rel. thick column heights)

Krieger, F.W., P.J. Eadington & L.I. Eisenberg (1996)- Rw, reserves and timing of oil charge in the Papuan Fold Belt. In: P.G. Buchanan (ed.) Petroleum exploration and development in Papua New Guinea, Proc. 3rd PNG Petroleum Convention, Port Moresby 1996, p. 407-416.
(Significant decreases in salinity in Cretaceous and Jurassic aquifers through evolution of Papuan basin, suggesting recharge with low salinity meteoric water (after oil charge))

Kristan-Tollman, E. (1986)- Beobachtungen zur Trias am Sudost-Ende der Tethys- Papua/ Neuguinea, Australien, Neuseeland. Neues Jahrbuch Geologie Palaontologie, Monatshefte 4, p. 201-222.
('Observations on the Triassic of the SE margin of the Tethys- Papua New Guinea, Australia and New Zealand'. Upper Triassic Tethyan faunas remarkably similar all the way E to New Zealand and NW Australia. Includes discussion of Kubor terrane Rhaetian Gurumugl reefal limestones ESE of Mount Hagen, PNG, which contains latest Triassic corals (Montlivaltia norica, Thecosmilia chlathrata) and diverse forams, incl. Tetrataxis, Involutina liassica, Galeanella tollmanni, etc.), suggesting Rhaetian age)

Kristan-Tollman, E. (1986)- Foraminiferen aus dem Rhatischen Kuta-Kalk von Papua- Neuguinea. Austrian J. Earth Sciences (Mitteilungen Osterreichischen Geologischen Gesellschaft) 78 (1985), p. 291-317.
(online at: http://geologie.or.at/index.php/downloads2/category/7-archiv-mitteilungen)
(First description of Rhaetian foraminifera from Kuta limestone, Mt. Hagen area, PNG Highlands. Fauna of Tethyan affinity, similar to same age faunas from Mediterranean/ Alps area. Three biofacies types: near-reef (with Trocholina, Coronipora, Semiinvoluta, etc.), fore-reef (crinoid detrital limestones with Variostoma cochlea, etc.) and lagoonal (low diversity with Angulodiscus, Glomospira/ Glomospirella)

Kristan-Tollman, E. (1990)- Rhaet-Foraminiferen aus dem Kuta-Kalk des Gurumugl-Riffes in Zentral-Papua/Neuguinea. Austrian J. Earth Sciences (Mitteilungen Osterreichischen Geologischen Gesellschaft) 82 (1989), p. 211-289.
(online at: http://geologie.or.at/index.php/downloads2/category/7-archiv-mitteilungen)
('Rhaetian foraminifera from the Kuta Limestone of the Gurumugl Reef in central PNG'. Detailed account of latest Triassic foram assemblage of 85 species from W part of Gurumugl Reef, W Kundiawa. Incl. Involutina liassica, Tetrataxis, Duotaxis, Triasina oberhauseri, Galeanella, Gaudryina, Agathammina, Endothyra, etc. All species also known from West Tethys, showing uniformity of Late Triassic Tethyan reef faunas. No stratigraphy info)

Kugler, A. (1966)- The stratigraphy, structure and tectonics of the Kukukuku Lobe Permit 22, Papua. Ph.D. Thesis University of Tasmania, Hobart, p. 1-365. *(Unpublished)*
(part online at: http://eprints.utas.edu.au/12292/7/kugler_intro-chp2.4.pdf)

Kugler, A. (1990)- Geology and petroleum plays of the Aitape Basin, New Guinea. In: G.J. & Z. Carman (eds.) Petroleum exploration in Papua New Guinea, Proc. First PNG Petroleum Convention, Port Moresby 1990, p. 479-490.
(Aitape Basin at NW most corner of PNG near W Papua border. Uup to 6 km thick Miocene-Pleistocene sediments (Boap Creek 1 well has 1500m of Pleistocene N22 section) on Oligocene and older volcanics and intrusives. Three 1980's BHP dry exploration wells. Oil and gas seeps along Torricelli-Bewani fault zone at S side of basin (with up to 10 km of throw). Several seismic anomalies indicative of Early Miocene reefal buildups; similaries with hydrocarbon-bearing Salawati basin in W Papua suggested)

Kugler, K.A. (1993)- Seismic structure and stratigraphy within the Aure fold and thrust belt, Gulf of Papua, Papua New Guinea. M.A. Thesis University of Texas at Austin, p. 1-104. *(Unpublished)*
(With 29 seismic profiles in separate container)

Kugler, K.A. (1993)- Detailed analysis from seismic data of the structure within the Aure fold and thrust belt, Gulf of Papua, Papua New Guinea. In: G.J. & Z. Carman (eds.) Petroleum exploration and development in Papua New Guinea, Proc. 2nd PNG Petroleum Conference, Port Moresby, p. 399-411.
(Onshore and offshore (N Gulf of Papua) Aure fold-thrust belt folds with amplitudes up to 3500m. Multiple sub-horizontal detachment zones in Paleogene- Pliocene; no evidence that crystalline basement is involved. Minimum shortening 20% for Late Miocene beds. First observable compression by Late Miocene (~5.3- 7.2 Ma), with deformation continuing today at frontal foldbelt)

Kulange, B.J., Y. Kajiwara & K. Komuro (2002)- Cu-Fe Bearing zinc sulfide from Laloki stratabound massive sulfide deposit, Papua New Guinea: chemical characterization. Resource Geology 52, p. 67-72.

(On unidentified, Cu-Fe zinc sulfide in Laloki sulfide deposit, ENE of Port Moresby, PNG. Laloki stratabound massive sulfide deposit part of Astrolabe Mineral Field. Mineralization in latest Paleocene siliceous- calcareous mudstone and rare chert in Cretaceous- Miocene thrust-faulted deep marine clastics and bioclastics with tuff and volcaniclastics. Sadowa Gabbro (~56 Ma) intrusice of tholeiitic affinity)

Kulig, C., R. McCaffrey, G.A. Abers & H. Letz (1993)- Shallow seismicity of arc-continent collision near Lae, Papua New Guinea. Tectonophysics 227, p. 81-93.
(Ramu-Markham Valley separates island arc rocks (Huon Penisula) to N from those of continental origin to S (Kubor Uplift) and appears to be western, onland extension of New Britain trench. E end of RMV narrow, near-vertical belt of seismicity between 10-30 km depth (Lae Seismic Zone), probably within lower plate of gently N-dipping thrust)

Lamerson, P.R. (1990)- Evolution of structural interpretations in Iagifu/Hedinia field, Papua New Guinea. In: G.J. & Z. Carman (eds.) Petroleum exploration in Papua New Guinea, Proc. First PNG Petroleum Convention, Port Moresby, p. 283-300.

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(online at: https://www.researchgate.net/publication/323441976_Magma_Evolution_Leading_to_Porphyry_Au-Cu_Mineralization_at_the_Ok_Tedi_Deposit_Papua_New_Guinea_Trace_Element_Geochemistr Etc.)
(Ok Tedi is Earth's youngest giant porphyry-skarn deposit. Zircons with inherited older cores in all intrusions. Inherited zircon populations and Hf isotopes of Pleistocene zircons record Proterozoic basement assimilation. Crystallization ages extend over 212 ± 44 k.y. Youngest zircons in each intrusion reflect emplacement age and suggest three pulses separated by ~160 k.y. Injection of more mafic magma into magma reservoir preceded emplacement of Fubilan porphyry at ~1.19 Ma and may be trigger for Au-Cu mineralization)

Larue, D. & M. Daniels (2000)- Stratigraphic architecture, facies and stratigraphic modeling of the upper and lower Iagifu reservoir intervals, Gobe and Southeast Gobe Fields, Papua New Guinea. In: P.G. Buchanan et al. (eds.) Papua New Guinea's petroleum industry in the 21st century, Proc. 4th PNG Petroleum Convention, Port Moresby, p. 349-367.
(Latest Jurassic Iagafu Fm in Gobe Main and SE Gobe fields in S Highlands of central PNG. Multiple sandstone reservoirs mainly shoreline-associated facies, separated by marine shale flooding surfaces. Lower Iagafu is prograding parasequence set)

LaRue, R.H. (1993)- Leading edge architecture of the Papuan fold belt. In: G.J. & Z. Carman (eds.) Petroleum exploration and development in Papua New Guinea, Proc. 2nd PNG Petroleum Convention, Port Moresby, PNG Chamber of Mines, p. 371-383.
(Structural modeling of leading edge of Papuan Fold Belt (Puri, Gobe anticlines). Many folds may be hybrid fault-propagation folds and fault-bend folds)

Leamon, G.R. & G.L. Parsons (1986)- Tertiary carbonate plays of the Papua Basin. Proc. 6^{h} Offshore South East Asia Conference 1986, Singapore, Proc. SE Asia Petroleum Exploration Society (SEAPEX) 7, p. 213-227.
(Overview of Eocene- Miocene carbonate play fairways in PNG)

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(Giant Porgera gold deposit in PNG highlands, Late Miocene (6 Ma) mineralization hosted in folded Jurassic-Cretaceous marine shales. High-grade mineralization mined out since 1990. Prospecting in late 1930s discovered alluvial gold in Porgera valley. Numerous core holes in 1964-1979 and 1983 identified two main mineralized zones. Geophysics played large part in defining extent of Porgera Intrusive Complex since 1985 and could have saved money if used earlier in exploration phase)

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(online at: https://www.biodiversitylibrary.org/item/108629#page/127/mode/1up)
(Tertiary echinoid faunas from three localities in PNG: (1) M Miocene Langimar Beds at Aseki village, Morobe (dominated by clypeasteroid echinoids), U Oligocene-Lw Miocene Padowa Beds in Sagarai valley, Milne Bay (dominated by spatangoids); (3) rich echinoid fauna from Lower Pliocene Kairuku Fm on Yule Island)

Lindley, I.D. (2014)- Suckling Dome and the Australian-Woodlark plate boundary in eastern Papua: the geology of the Keveri and Ada'u Valleys. Australian J. Earth Sciences 61, 8, p. 1125-1147.
(Owen Stanley Fault Zone is low-angle thrust boundary between Australian and Woodlark plates. W extension of OSFZ links with Woodlark Basin spreading center. Gravity data show OSFZ and Papuan Ultramafic Belt pass north of Mt Suckling. Mafic and ultramafic rocks of Mt Suckling district reassigned to Awariobo Range Complex. Extensive pillow basalts previously referred to M Eocene reassigned to Late Oligocene-M Miocene Wavera Volcanics. Buoyant uplift of Suckling Dome tied to granite intrusion into thick crust of E Papua region, and coincides with initiation of Woodlark rifting)

Lindley, I.D. (2016)- Epithermal and arc-related layered mafic platinum-group element mineralisation in the mafic-ultramafic rocks of eastern Papua. Australian J. Earth Sciences 63, 4, p. 393-411.
(Platinum-group element mineralisation in mafic-ultramafic rocks of E PNG)

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(Okiduse Volcanic Group host to most of island's historical gold and silver production. Facies associations suggest two major volcanic centers erupted synchronously during M Miocene (14-12 Ma))

Lindley, I.D. (2020)- Cenozoic volcanism, tectonics and mineralisation of Woodlark Island (Muyuw), eastern Papua. Australian J. Earth Sciences 68, 5, p. 609-627.
(Geology of Woodlark Island influenced by events prior to onset of continental rifting at ~8 M, followed by seafloor spreading in E Woodlark Basin between ~6- 3.6 Ma. Embryonic Woodlark Island consisted of latest Paleocene-Eocene shallow marine and deep-water turbidite deposits (Loluai Fm) and small submarine and emergent mafic volcanic centers (Utavai Basalt Mb). Platform carbonates extended across Woodlark Basin in late Oligocene– M Miocene (Nasai Lst). Onset of M Miocene eruptions in NNE-trending Okiduse Volcanic Zone (OVZ) in Kulumadau Horst and Graben Zone (KHGZ). Etc.)

Lindley, I.D. (2025)- Terrane accretion, contractional deformation, almost continuous magmatism and mineralisation in the New Guinea Orogen. Australian J. Earth Sciences 72, 8, p. 1047-1084.
(online at: https://www.tandfonline.com/doi/epdf/10.1080/08120099.2025.2570343)
(Major review. Ten terranes identified in New Guinea orogen, separated by major faults and in various stages of active collision-accretion. Australian craton's deformed N margin is complex zone of para-autochthonous and accreted allochthonous terranes. Convergence and compression occurred during sustained westward sinistral movement with intra-plate deformation, microplate formation and large-scale sinistral translations. Etc.)

Lindley, I.D. & P.J.S. White (2021)- A review of the occurrence of and potential for jade in the New Guinea Mobile Belt. Australian J. Earth Sciences 69, 4, p. 453-472
(New Guinea Mobile Belt extends across 2200 km, with belts of tectonised- serpentinised ultramafic rocks and metabasites, blueschists, intrusive masses of serpentinite, tremolitised rocks and talc. Geological conditions favorable for serpentinite-related metasomatic and carbonate replacement nephrite deposits and serpentinite-related vein and pod jadeite jade. Jade in E New Guinea in Suckling-Dayman massif (nephrite tools in surrounding areas). Nephrite in Kumusi River area, E of Kokoda. In Central Fold Belt, jadeite jade in headwaters

of several rivers. At Ya'li'me in Irian Jaya Ophiolite Belt, chloromelanite quarried for stone-tool manufacture. Jade in Cyclops Mountains- Lake Sentani ultramafic belt (upper Torare River area))

Lindley, I.D. & P.J.S. White (2023)- Jade occurrence in the Suckling-Dayman massif, eastern Papua. Technical Report, Mineral deposits of the mafic-ultramafic rocks of PNG, p. 1-13.
(online at: https://www.researchgate.net/publication/375863567_Jade_occurrence_in_the_Suckling-Dayman_massif_eastern_Papua)
(Jade widely distributed throughout 2200 km long New Guinea Mobile Belt, associated with tectonised and serpentinised ultramafic rocks, metabasites and blueschist rocks containing intrusive masses of serpentinite with tectonic inclusions, tremolite rocks and talc. One region in particular, centred on Suckling–Dayman massif in eastern Papua, is of interest as jade tools)

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(Fluid inclusion and isotope studies of cement in Iagafu reservoir sandstone in SE Gobe field suggests charge of high-maturity oil largely post-dated quartz overgrowth cements)

Liu, K. & K.A.W. Crook (1992)- Sedimentary basin evolution during propagating arc-continent collision, PNG. AAPG International Conference, Sydney 1992, Search and Discovery Article 91015, p. *(Abstract only)*
(Oblique collision between Finisterre arc-Australian continent at NE PNG margin created isolated basins along Markham Suture since Late Miocene. Basins initially formed by convergence of irregular plate margins. In SE end of Markham Suture sedimentary basin evolution recorded in Pliocene-Pleistocene Erap Complex and Leron Fm of accretionary prism. Remnant basin with >1000m of deep sea turbidites was enclosed by two plate promotories on Australian plate around 5 Ma. Around 3 Ma, as arc-continent collision proceeded, turbidites incorporated into approaching forearc, with thick submarine fan/ slope deposits in trench slope basins. As collision progressed, area was uplifted to form intramountane basin with fan delta deposition)

Liu, K. & K.A.W. Crook (1993)- Miocene- Pleistocene deep-sea to alluvial fan delta sedimentation in the Markham Basin, Papua New Guinea: sedimentary response to arc-continent collision. In: G.J. & Z. Carman (eds.) Petroleum exploration and development in Papua New Guinea, Proc. 2nd PNG Petroleum Convention, Port Moresby 1993, p. 97-109.
(Markham basin in NE PNG started out in ~M Miocene as remnant oceanic basin during collision of Finisterre Terrane and N PNG. Shallowing-upward basin fill sequence. M Miocene- E Pliocene clastic detritus derived from continent in S and deposited as deep sea fans, etc. Late Pliocene deposits dominated by clastics derived from volcanic terrane to N. Became intermontane basin in last 1 Myrs)

Liu, K. & K.A.W. Crook (2001)- Neogene sedimentary basin evolution in northern Papua New Guinea: a model for basin evolution in convergent margins settings. In: K.C. Hill & T. Bernecker (eds.) Eastern Australasian basins symposium, a refocused energy perspective for the future, Melbourne 2001, Petroleum Exploration Society Australia (PESA), Special Publ., p. 169-177.
(Mainly on M Miocene- Pleistocene predominantly deep-water stratigraphy of Markham basin, E PNG. Change from Australian plate- sourced Sukurum unit to Finisterre Arc terrane- sourced Nariawang unit at 3.7- 3.1 Ma, representing collision of Finisterre arc and Australian Plate. Collision earlier (10 Ma) in Ramu Basin)

Lloyd, A.R. (1978)- An outline of the Tertiary palaeontology and stratigraphy of the Gulf of Papua, Papua New Guinea. In: Wiryosujono & A. Sudradjat (eds.) Proc. Regional Conference Geology and Mineral Resources of SE Asia (GEOSEA), Jakarta 1975, Indonesian Association Geologists (IAGI), p. 43-54.
(8 offshore and 2 onshore wells in N Gulf of Papua penetrated succession of Late Eocene limestones with Pellatispira, Spiroclypeus, Discocyclina Distichoplax, etc., Late Oligocene marls, etc. Oligocene sediments

mostly absent. E-M Miocene limestones with Miogypsina, Spiroclypeus, Katacycloclypeus, etc. Late M- Late Miocene absent due to late M Miocene widespread uplift. Rapid subsidence in Pliocene- Recent)

Lloyd, A.R. (1988)- The geology and hydrocarbon potential of Southern Papua New Guinea. Alan R. Lloyd & Associates, p. 1-132. *(Unpublished consultant report)*

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(Book on landforms and geomorphological processes in Papua New Guinea, linked to geologic history)

Loffler, E. (1978)- Karst features in igneous rocks in Papua New Guinea. In: J.L. Davies & M.A.J. Williams (eds.) Landform evolution in Australasia, Australian National University Press, Canberra, p. 238-249.

Loffler, E., D.E. MacKenzie & A.W. Webb (1980)- Potassium-Argon ages from some of the Papua New Guinea volcanoes and their relevance to Pleistocene geomorphic history. J. Geological Society of Australia 25, p. 387-397.
(PNG Highlands volcanics ages suggest start of volcanic activity at 1.6 Ma, major activity ceasing at 0.2 Ma. Glacial activity on Mt Giluwe may date back to 0.7 Ma, and certainly to ~0.3 Ma, indicating altitudes of present magnitudes existed early in Pleistocene, and that most volcanism postdates uplift of central ranges)

Loudon, A.G. (1987)- Gold in Papua New Guinea. In: E. Brennan (ed.) Proc. Pacific Rim Congress 1987, Gold Coast, Australasian Institute of Mining and Metallurgy (AusIMM), Parkville, p. 767-772.
(Brief history of gold discovery and production in PNG)

Lowenstein, P.L. (1982)- Economic geology of the Morobe Goldfield, Papua New Guinea. Geological Survey of Papua New Guinea, Port Moresby, Memoir 9, 2 vols., p. 1-228.
(Review of discovery, exploitation, geology and economic potential of Morobe Goldfield of E PNG (includes Bulolo, Edie Creek, Wau, etc.))

Lowenstein, P.L. & P.E. Pieters (1974)- Gold and platinum in the East and West Sepik Districts. Dept. of Lands, Surveys and Mines, Geological Survey of Papua New Guinea, Report 74/25, p. 1-32.

Lucas, K. (2004)- Physical analog modelling of primary stratigraphic and structural controls on the evolution of the Papuan fold belt, Papua New Guinea, with implications for hydrocarbon exploration. M.Sc. Thesis Queen's University, Kingston, ON, Canada, 117p. *(Unpublished)*
(Papuan Foldbelt structures range from thin-skinned deformation of cover to reactivation of extensional basement faults. Scaled physical analog models used to predict structural style. Modelling of reactivation of extensional faults in thin-skinned setting indicates reactivation may occur early in deformation sequence, locally absorbing majority of shortening and controlling location of fold versus thrust-dominated structures)

Lunge, M., T. Ohba, T. Hoshide & R.J. Holm (2026)- Evidence for Middle Pleistocene intraplate basaltic volcanism on Fly Platform in Papua New Guinea, p. 1-37.. *(preprint online at: https://www.preprints.org/frontend/manuscript/bafcadcb50a6e09ce4898837e339904b/download_pub)*
(Meahill and Yemsigi outcrops of Late Pleistocene basalts (K-Ar age ~0.57 Ma in Fly Platform area in SW PNG. Geochemical signatures support intraplate origin with similarities to Pliocene-Pleistocene lava fields of NE Queensland. Possibly derived from older subducted slab material indicated by a lower mantle anomaly)

Lus, W.Y., I. McDougall & H.L. Davies (2004)- Age of the metamorphic sole of the Papuan Ultramafic Belt ophiolite, Papua New Guinea. Tectonophysics 392, p. 85-101.
(Papuan Ultramafic belt >400km long, 12 km thick. Probably Maastrichtian age oceanic crust (Ar-Ar ages 67-59.5 Ma). Emplaced during collision of Cape Vogel island arc and rifted fragment of Australia around K-T boundary. Thick metamorphic sole of 300m amphibolite-granulite, grading into lower-grade Emo metamorphics, cooled at ~58 Ma, Paleocene)

Lynch, D.A. & G.J. Milner (1993)- The Maastrichtian- Danian disconformity in the Mendi-Nipa region, Southern Highlands Province, Papua New Guinea. In: G.J. & Z. Carman (eds.) Petroleum Exploration in Papua New Guinea, Proc. 2nd PNG Petroleum Convention, Port Moresby 1993, p. 61-73.
(Stratigraphic gap across K-T boundary of 2 My (66.4-64.5) in Mendi-Nipa Region in PNG Southern Highlands, in more proximal Nipa region 4.5 My (69- 64.5 Ma))

MacKenzie, D.E. (1975)- Plate boundary evolution in the New Guinea region: Volcanic and plate tectonic evolution of central Papua New Guinea. Exploration Geophysics (Bull. Soc. Australian Exploration Geophysicists) 6, 2/3, p. 66-68.
(Volcanic activity in C PNG began in Late Triassic with submarine and terrestrial eruption of andesitic and dacitic lavas on and neaar NE corner of Australian Paleozoic continental crust. Minor basaltic to rhyolitic eruptions in Jurassic in same general area. In Cretaceous, volcanic activity increased in intensity and distribution, spreading to N and W, with mainly andesitic lavas, which may correlate with beginning of spreading in Pacific basin to NE and could be first subduction in area. No evidence to link earlier volcanism with subduction, although it took place near plate boundary).

MacKenzie, D.E. (1976)- Nature and origin of late Cainozoic volcanoes in western Papua New Guinea. In: R.W. Johnson (ed.) Volcanism in Australasia, Elsevier, Amsterdam, p. 221-238.
(Of Late Cenozoic volcanic centers in W PNG 16 rest on 25-30km thick Paleozoic crust and 10km of post-Paleozoic sediments; one on 35km thick pile of eugeosynclinal sediments. Basaltic rocks dominant in 11 centers, others mainly andesite. Magmas originated in upper mantle low velocity layer)

MacKenzie, D.E. (1978)- Plate-tectonic evolution and delayed partial melting in Western Papua New Guinea. Exploration Geophysics 9, p. 89-90.
(See also Johnson et al. 1978. Late Cenozoic volcanoes in PNG Highlands overlie cratonic crust but produce arc-type volcanics. Mantle magma source chemically modified during subduction and passed through rapid and pronounced changes in tectonic setting may later on be source of magmas produced during favourable but non-arc tectonic regime)

MacKenzie, D.E. & B.W. Chappell (1972)- Shoshonitic and calc-alkaline lavas from the Highlands of Papua New Guinea. Contributions to Mineralogy and Petrology 35, p. 50-62.
(Pleistocene- Recent stratovolcanoes in PNG Highlands calc-alkaline to shoshonitic lava, tuff, agglomerate, ash, and lahars. Volcanics originated either in base of thick sialic crust which is undergoing stabilization after major orogeny and uplift, or more probably, in eclogite sinking through underlying mantle)

MacKenzie, D.E. & R.W. Johnson (1984)- Pleistocene volcanoes of the western Papua New Guinea highlands: Morphology, geology, petrography, and modal chemical analyses. Bureau Mineral Resources Geology Geophysics, Canberra, Report 246, p. 1-271.
(online at: https://www.ga.gov.au/products/servlet/controller?event=GEOCAT_DETAILS&catno=15157)
(15 Pleistocene composite stratovolcanoes in PNG highlands in S part of C and W Ranges and adjacent Fly-Purari plains, rising 1000-2000m above basement and up to 3800m above sea level. Volcanism began in E Pleistocene or Late Pliocene, largely complete by ~200 000 years B.P. Mainly basaltic (70-80%) and andesitic lavas. Basalts generally overlain by andesites. General decrease in silica-saturation from NNE to SSW)

Macnab, R.P. (1969)- Geology of the Area - Upper Dilava- Auga- Middle Angabunga Rivers Area, Papua. Bureau Mineral Resources Geology Geophysics, Record No. 1969 /126, p. 1-49.

(Area NNW of Port Moresby. N- trending schists/ metasediments of Owen Stanley Metamorphics are flanked to W by similarly trending, steeply E-dipping marine sediments of Upper Cretaceous (Senonian) and Lower Miocene Auga Beds, underlain by U Cretaceous submarine basaltic Aibala Volcanics (overtrusting from E, probably in M Miocene). Auga River section >25,000' of sediments and volcanics. Lower Miocene limestones have common reworked Eocene forams. M Miocene Talama Volcanics unconformable over metamorphics and Auga Gp))

Madu, S. (1996)- Correlation sections of the Late Jurassic to Early Cretaceous succession in the Papuan fold belt, Papuan Basin. In: P.G. Buchanan (ed.) Petroleum exploration, development and production in Papua New Guinea, Proc. 3rd PNG Petroleum Convention, Port Moresby, p. 259-277.
(Twelve eustatic cycles around Toro and pre-Toro reservoir cross-sections along Agogo- Iagafu- Hedinia- Gobe fields trend. Sediment supply in Late Jurassic- E Cretaceous sandstones from SW)

Mahoney, L.G. (2021)- The structure and evolution of the northern Australian margin: Insights from the Papuan Fold and Thrust Belt, Papua New Guinea. Ph.D. Thesis, University of Melbourne, p. 1-353.
(online at: https://minerva-access.unimelb.edu.au/handle/11343/284860)
(Overview of PNG fold-thrust belt tectonics. With new Oligocene-Present plate reconstructions))

Mahoney, L., K. Hill, S. McLaren, A. Hanani (2017)- Complex fold and thrust belt structural styles: examples from the Greater Juha area of the Papuan Fold and Thrust Belt, Papua New Guinea. J. Structural Geology 100, p. 98-119.
(Accessible as appendix in Mahoney, 2021. Greater Juha area in Eastern Muller Ranges of Papuan Fold Belt in PNG with evidence of major inversion, detachment and triangle zone faults. Exposed Cenozoic Darai Lst shows ~13-21% shortening, yet structures elevated up to 7 km above regional, suggesting inversion of pre-existing rift architecture. Pervasive arc-normal oriented structures related to weakened Paleozoic basement cross-structures that affected E Mesozoic rifting)

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(Accessible as appendix in Mahoney, 2021. Late Cretaceous-Oligocene history in much of PNG unknown due to absence of stratigraphic record. New thermochronology data from Muller Range in Papuan fold-thrust belt suggests two major Cenozoic cooling events. Eocene-Oligocene cooling may relate to removal of 1500-3000 m of Late Cretaceous- Eocene before deposition of Darai Lst; may tie to collision of Sepik Terrane at N PNG margin. Muller Range uplift possibly in part facilitated by inversion of extensional faults. Well documented Neogene uplift tied to collision at N margin)

Mahoney, L., R. Stanaway, S. McLaren, K. Hill & E. Bergman (2021)- The 2018 Mw 7.5 Highlands earthquake in Papua New Guinea: implications for structural style in an active fold and thrust belt. Tectonics 40, 4, e2020TC006667, p. 1-20.
(2018 Mw 7.5 PNG Highlands earthquake main shock related to tectonic inversion on hidden NE-dipping extensional fault system beneath Papuan Fold and Thrust Belt, suggesting N Australian passive margin architecture has primary control on structural styles within PFTB)

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('The highland karsts and the concept of layering of New Guinea karsts'. Study of karst types in PNG (Huon Peninsula, etc.) from tropical coastal karst to snow karst in highlands)

Maitland, A.G. (1892)- Geological observations in British New Guinea. Geological Survey Queensland, Report 85, p.

(main geologic maps online at: www.parliament.vic.gov.au/papers/govpub/VPARL1892-93No161Plate7.pdf, www.parliament.vic.gov.au/papers/govpub/VPARL1892-93No161Plate9.pdf)
(Includes first description of granite outcrops at Mabaduan, PNG south coast, the axis of the New Guinea mountain chain is composed of metamorphic rocks, etc.)

Maitland, A.G. (1905)- The salient features of British New Guinea (Papua). J. West Australian Natural History Soc. 2, 2, p. 32-56.
(online at: www.biodiversitylibrary.org/item/207031#page/34/mode/1up)
(includes 1893 report of supposedly Devonian grey limestone with coral Heliolites porosa on Tauri River, E of Purari (only, but unverified report of Devonian fossils in PNG?; JTvG))

Manser, W. (1976)- Stratigraphy of Papua New Guinea. 25th International Geological Congress, Sydney, Excursion Guide 51A, p. 1-41.
(Brief overview of PNG geology and 4-day fieldtrip itinerary)

Marchant, S. (1969)- A photogeological assessment of the petroleum geology of the northern New Guinea basin North of the Sepik River, Territory of New Guinea. Bureau Mineral Resources (BMR), Canberra, Report 130 (Report PNG 4), p. 1-78.
(online at: www.ga.gov.au/... (202MB)
(Set of 1: 100,000 photogeological maps of NW part of PNG, N of Sepik River. Area of Bewani Mts, Torricelli Mts, Sepik Plains, etc., structurally complex. Some oil and gas seeps known from region)

Mason, D.R. (1978)- Compositional variations in ferromagnesian minerals from porphyry copper-generating and barren intrusions of the western highlands, Papua New Guinea. Economic Geology 73, 5, p. 878-890.
(On amphiboles and biotites from porphyry copper-generating and barren intrusions in W Highlands, PNG)

Mason, D.R. & J.E. Heaslip (1980)- Tectonic setting and origin of intrusive rocks and related porphyry copper deposits in the western Highlands of Papua New Guinea. Tectonophysics 63, p. 123-137.
(Tertiary and younger calc-alkaline intrusives and related porphyry copper mineralization in two tectonic settings: New Guinea Mobile Belt to N, and Australian Continental Block to S. Ages dominantly M Miocene (15-10 Ma) in Mobile Belt, Late Miocene- Pleistocene (7-1 Ma) in Continental Block. Transcurrent- and block-faulting controlled emplacement of intrusives)

Mason, D.R. & J.A. McDonald (1978)- Intrusive rocks and porphyry copper occurrences in the Papua New Guinea- Solomon island region: a reconnaissance study. Economic Geology 73, p. 857-877.
(Study of 141 Tertiary and younger intrusive igneous rocks from PNG main island to Solomon Islands region, representing barren and porphyry copper-mineralized intrusions from island-arc, continental margin, and continental settings)

Mason, H.D. & B.A. McConachie (2000)- Cross Catalina anticline: an oil accumulation in the New Guinea fold belt in Irian Jaya. In: P.G. Buchanan, A.M. Grainge & R.C.N. Thornton (eds.) Papua New Guinea's petroleum industry in the 21st century, Proc. 4th PNG Petroleum Convention, Port Moresby, p. 475-485.
(Cross Catalina 1 well 51m net oil-saturation in E Cretaceous Woniwogi Fm sst, but low porosity due to quartz overgrowths (2-12%). Cross Catalina structure ~200 km^2 and potential OIP may be >500 MBO)

Mason, R.A. (1994)- Structural evolution of the western Papuan fold belt, Papua New Guinea. Ph.D. Thesis, Royal School of Mines, Imperial College, University of London, p. 1-331.
(online at: https://spiral.imperial.ac.uk/handle/10044/1/37523)
(Papuan Fold Belt in PNG comprises deformed basement, platformal and basinal Mesozoic and Tertiary sediments. Deformation in fold belt started possibly in M-L Late Miocene and is currently continuing. Structure of W part of foldbelt characterised by thin-skinned thrusting and basement involved structures (inversion of Mesozoic-Tertiary extensional faults. Inversion thought to have post-dated initiation of thin skinned thrusting by ~5 Ma)

Mason, R.A. (1996)- Structure of the Western Papuan Fold Belt. In: P.G. Buchanan (ed.) Petroleum exploration, development and production in Papua New Guinea, Proc. 3rd PNG Petroleum Convention, Port Moresby, p. 161-173.
(Western Papuan foldbelt three structural domains: (1) frontal foldbelt with thick-skinned deformation (inversion folds over Mesozoic half-grabens); (2) central domain of thin-skinned imbricate thrust sheets of Darai Lst; (3) northern zone of intensely folded low-metamorphic rocks ('Om Beds' near Sepik River))

Mason, R.A. (1997)- Structure of the Alice anticline, Papua New Guinea: serial balanced cross-sections and their restoration. J. Structural Geology 19, 5, p. 719-734.
(Structures of W part of Papuan Fold Belt both thin-skinned thrusting and basement involved structures. Alice anticline is frontal foldbelt basement-involved structure, formed due to inversion of older extensional fault system, with varying amounts of shortening along strike. Rotations about vertical axes attributed to pinning of foreland propagating deformation, coincident with relay zones in early extensional fault geometry)

Matsumoto, T. & S.K. Skwarko (1991)- Ammonites of the Cretaceous Ieru Formation, western Papua New Guinea. BMR J. Australian Geology Geophysics 12, 3, p. 245-262.
(online at: www.ga.gov.au/corporate_data/49552/Jou1991_v12_n3.pdf)
(Eleven ammonite species from five localities in Ieru Fm (above Toro Sst) in W PNG Ok Tedi sheet. Four are typical Cenomanian species, others more likely Turonian- Santonian)

Matsumoto, T. & S.K. Skwarko (1993)- Cretaceous ammonites from South Central Papua New Guinea. AGSO J. Australian Geology Geophysics 14, 4, p. 411-433.
(online at: www.ga.gov.au/corporate_data/81375/Jou1993_v14_n4_p411.pdf)
(Eleven ammonite species from 11 localities in Central Higlands and foothills to S, collected by APC 1954-1969. Fauriella boissieri from Maril Shale is part of Berriasian Tethyan fauna. Large Puzosia aff. mayoriana and Pachydesmoceras suggest Cenomanian age. Acanthoceras rhotomagense, Cunningtoniceras cunningtoni, etc. definitive Cenomanian age. Romaniceras deverianum indicates Turonian age.

Matzke, R.H., J.G. Smith & W.K. Foo (1992)- Iagafu/Hedinia Field. First oil from the Papuan fold and thrust belt. In: M.T. Halbouty (ed.) Giant oil and gas fields of the decade 1978-1988, American Assoc. Petroleum Geol. (AAPG), Memoir 54, p. 471-482.
(Iagifu-Hedinia first oil development in PNG fold-thrust belt. Discovery well Iagifu-2X drilled in 1986 flowed 45° API oil and gas from thrust-cored anticline. Primary reservoir E Cretaceous (Berriasian) Toro sandstone. Well locations selected on basis of surface geology and well results. Estimated reserves 146.6 MBO)

Maxwell, L., L. Grant-Woolley, G. Wood & S. Hawkes (2020)- Benefits of a chronostratigraphic framework, an example from the Papuan Fold Belt. Proc. 1st AAPG/EAGE Papua New Guinea Geoscience Conference Exhib., Port Moresby 2020, AAPG Search and Discovery Article 51676, p. 1-6. *(Extended Abstract)*
(online at: www.searchanddiscovery.com/pdfz/documents/2020/51676maxwell/ndx_maxwell.pdf.html)
(Santos chronostratigraphy of Late Jurassic- E Cretaceous hydrocarbon reservoir sands of Papuan Basin. Deposited in overall transgression, with regressive events that resulted in deposition of shallow marine sands)

Maxwell, R., S. Youens & F. Waina (2025)- The P'Nyang oil and gas play in Western Papua New Guinea. Proc. SE Asia Petroleum Exploration Society (SEAPEX) Conference, SEC 2025, Singapore, 36p. *(Abstract + Presentation)*
(P'Nyang gas play is extensive underexplored exploration fairway beneath leading edge of Papua foldbelt, extending E and W from giant P'Nyang gas field. Sr-dating suggests Mid-Miocene unconformity within Darai Limestone (~16.6- 20 Ma missing))

McConachie, B. & E. Lanzilli (2000)- Stanley gas condensate field discovery and the oil potential of the Western Papuan Basin. In: P.G. Buchanan et al. (eds.) Papua New Guinea's petroleum industry in the 21st century, Proc. 4th PNG Petroleum Convention, Port Moresby, p. 427-442.
(Stanley 1 well drilled Oligocene inverted foreland structure, close to W Papua border and tested gas in Early Cretaceous Toro sandstone. Cecilia- Tarim foredeep loaded with ~1500m of ?M Miocene- Pliocene clastic

foreland sediments. Oligocene Sirga Fm ('Stanley sandstone') ~35m thick and unconformably overlies Cretaceous Ieru Fm. Toro reservoir thickness 28.5 net sand in EK10 E. torynum dinoflagellate zone)

McGee, W.A. (1987)- The chromite resources of Papua New Guinea. In: Pacific Rim Congress 87, Gold Coast 1987, Australasian Institute of Mining and Metallurgy (AusIMM), Parkville, p. 317-320.
(Chromite deposits associated with ophiolite complexes across PNG. Not currently exploitable, but potential where contained in laterites or sediments derived from ultramafic members of ophiolites)

McInerney, P., A. Goldberg & D. Holland (2007)- Using airborne gravity data to better define the 3D limestone distribution at the Bwata Gas Field, Papua New Guinea. Proc. 19th Geophysical Conference Australian Soc. Expl. Geophysics (ASEG 2007), Perth, p. 1-6.
(Bwata gas-condensate field in E Papua Basin is 1960 discovery on structural high of fractured Miocene Puri Limestone, with 157 m of gas pay. Geologic model constrained with new airborne potential field data, new seismic and data from nearby Triceratops-1 well, increasing gas in place resource to 762 BCF)

McMillan, N.J. & E.J. Malone (1960)- The geology of the eastern Central Highlands of New Guinea. Bureau Mineral Resources Geology Geophysics, Canberra, Report 48, p. 1-57.
(online at: https://d28rz98at9flks.cloudfront.net/14963/Rep_048.pdf)
(Area NE of Central Range foldbelt, with Bismarck Range (incl. Mt Wilhelm; 4509m) in center, Goroka Valley in S and Ramu valley in N (part of Bena-Bena Terrane of Davies, etc.). Large anticlinal structure cored by pre-Cretaceous Goroka/ Bena-Bena metamorphics (comparable to Kubor Block Omung Fm?), intruded by Permian? Bismarck granodiorite and overridden by Marum ophiolite in N. Locally overlain by folded Late Cretaceous arenaceous limestone- calcareous shale, with Pseudorbitoides cf. israelskyii and Globotruncana. Towards NE metamorphics overlain directly by shallow marine Eocene (Nummulites, Discocyclina) or latest Oligocene- E Miocene Te (Spiroclypeus, Miogypsinoides, etc.), overlain by M Miocene Tf (Miogypsina, Katacycloclypeus) marine sediments and M Miocene basic Daulo Volcanics, unconformably overlain by intermediate Pliocene Aifunka Volcanics)

McWalter, M. (1996)- Oil exploration in Papua and the Mandated Territory of New Guinea; reprint of an historical paper from 1940 with an introduction. In: P.G. Buchanan (ed.) Petroleum exploration, development and production in Papua New Guinea, Proc. 3rd PNG Petroleum Convention, Port Moresby, p. 17-49.
(Reprint of 1940 article by Australasian Petroleum Company (APC))

McWalter, M. (2000)- The petroleum industry in Papua New Guinea- achievements, opportunities and future directions in the 21st century. In: P.G. Buchanan et al. (eds.) Papua New Guinea's petroleum industry in the 21st century, Proc. 4th PNG Petroleum Convention, Port Moresby 2000, p. 3-14.

McWalter, M. (2017)- Why has Papua New Guinea been successful in producing oil and gas? Proc. SE Asia Petroleum Exploration Society (SEAPEX) Exploration Conference 2017, Singapore, Session 6, p. 1-24. *(Abstract + Presentation)*

Medd, D.M. (1993)- A geological evaluation of the Pangia anticline, Southern Highlands Province, PNG. In: G.J. & Z. Carman (eds.) Petroleum exploration and development in Papua New Guinea, Proc. 2nd PNG Petroleum Convention, Port Moresby, PNG Chamber of Mines, p. 385-397.
(Three structural models of Pangia Antcline in N-Central Papuan Thrust Belt, to explain missing Late Cretaceous- Paleocene section)

Medd, D.M. (1996)- Triangle zone deformation at the leading edge of the Papuan fold belt. In: P.G. Buchanan (ed.) Petroleum exploration, development and production in Papua New Guinea, Proc. 3rd PNG Petroleum Convention, Port Moresby, p. 217-229.
(Puri anticline, near SE part of leading edge of Papuan Fold Belt, is part of structural triangle zone, with backthrusts in roof section)

Medd, M.D. (1996)- Recent triangle zone deformation in Papua New Guinea. Bull. Canadian Petroleum Geology 44, 2, p. 400-409.
(Description of Puri anticline in PNG; in triangle zone along leading edge PNG foldbelt)

Menzies, D., S. Shakesby, J. Wass, D. Finn, N. Fitzpatrick, G. Morehari et al. (2013)- The Wafi-Golpu porphyry Cu-Au deposit: mineralisation and alteration zonation, surface geochemical expression and paragenesis. Proc. Symposium East Asia: geology, exploration technologies and mines, Bali 2013, Bull. Australian Institute of Geoscientists (AIG), 57, p. 60-63. *(Extended Abstract)*
(Miocene Wafi-Golpu porphyry Cu-Au deposit and epithermal Au mineralisation in Morobe Province of PNG. System bounded by NE- SW trending Wafi Transfer fault zone and intrudes basement of weakly metamorphosed Oligocene Langimar Fm siltstones- conglomerates (previously interpreted as Owen Stanley Metamorphics))

Menzies, J., H.L. Davies, W.J. Dunlap & S.D. Golding (2008)- A possible early age for a diprotodon (Marsupialia: Diprotodontidae) fossil from the Papua New Guinea highlands. Alcheringa 32, p. 129-147.
(Jawbone of fossil diprotodon (large wombat-type marsupial) from Pleistocene lacustrine sediments near Yonki in PNG highlands is coated with cemented fine breccia or tuff, suggesting it was originally buried in volcanic breccia (Ar/Ar age 13.2 Ma, M Miocene) and subsequently reworked by river erosion and redeposited)

Miller, S.R., S.L. Baldwin & P.G. Fitzgerald (2012)- Transient fluvial incision and active surface uplift in the Woodlark Rift of eastern Papua New Guinea. Lithosphere 4, 2, p. 131-149.
(online at: https://gsw.silverchair-cdn.com/gsw/Content_public/Journal/lithosphere/4/2/10.1130_L135.1/2/)
(Rapid extension led to formation of metamorphic core complexes ahead of W-ward-propagating Woodlark basin spreading center. Stream profiles on D'Entrecasteaux Islands and E PNG show prominent knickpoints, likely formed from transient Quaternary stream erosion due to increase in uplift rate)

Milsom, J.S. (1971)- Structure of Eastern Papua: an approach via gravity and other geophysical methods. Ph.D. Thesis, University of London, p. 1-183. *(Unpublished)*

Milsom, J.S. (1973)- Papuan Ultramafic Belt: gravity anomalies and the emplacement of ophiolites. Bull. Geol. America, 84, p. 2243-2258.
(Papuan Ultramafic Belt one of largest ophiolitic complexes in world. Most likely emplacement process is large-scale splitting of oceanic lithosphere as it approaches subduction zone)

Milsom, J.S. (1973)- The gravity field of the Papuan Peninsula. Geologie en Mijnbouw 52, 1, p. 13-19.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0YlR2ckxCR01kckE/view)
(Large gravity anomalies on Papuan Peninsula, PNG, associated with Papuan Ultramafic Belt, an overthrust ophiolitic complex which may once have formed frontal zone of island arc. Very low fields over outcrop of underthrust sialic metamorphics. Extreme E of peninsula built up of basaltic lava over with moderately high gravity fields; structure of this area is most simply explained in terms of Recent extensional movements)

Milsom, J. (1974)- East New Guinea. In: A.M. Spencer (ed.) Mesozoic-Cainozoic orogenic belts, Geological Society, London, Special Publ. 4, p. 463-474.
(Brief overview of geology of eastern part of Papua New Guinea, from Coral Sea to Papuan Peninsula (with Owen Stanley Range, Papuan Ultramafic Belt), Solomon Sea, New Britain and Bismarck Sea)

Milsom, J.S. (1981)- Neogene thrust emplacement from a frontal arc in New Guinea. In: K. McClay & N.J. Price (eds.) Thrust and nappe tectonics, Geological Society, London, Special Publ. 9, p. 417-426.
(N New Guinea evidence for Neogene collision of N margin Australian continent with S-facing island arc. Still active volcanism along length of arc and deep oceanic trench opposite segment E of collision zone. Finisterre Range, part of former frontal arc and now part of N New Guinea, up to 50 km S of expected position with respect to segments to E and W. Offset not deep seated feature, but result of movement on shallow thrust. Detachment of thrust sheet along volcanic arc line of weakness. Mobile segment may have been part of frontal arc that first collided with continental margin. Adjacent segments at time of collision opposite oceanic, deeper trenches, have not moved in this way)

Milsom, J.S. (1984)- The gravity field of the Marum ophiolite complex, Papua New Guinea. Geological Society, London, Special Publ. 13, p. 351-357.
(Marum ophiolite outcrops in NE PNG in fault contact with sialic rocks of continental core of island. To N overlain by thick sediments of Ramu Basin with major gravity low. Gravity anomaly high offset towards N edge of outcrops of basic rock. Anomaly similar in form, but smaller than Papuan Ultramafic Belt anomaly to E)

Milsom, J. (1989)- New Guinea and the western Melanesian arcs. In: A.E.M.Nairn et al. (eds.) The ocean basins and margins 7A, The Pacific Ocean, Plenum Press, New York, p. 551-605.

Milsom, J. (1991)- Oblique collision in New Guinea; implications for hydrocarbon exploration. In: J.W. Cosgrove & M.E. Jones (eds.) Neotectonics and resources, Belhaven Press, London, p. 257-267.

Milsom, J. (1999)- Geophysical contributions to the COASTPLAN project, Lae area, Papua New Guinea, 1998. In: G.H. Teh (ed.) Proc. 9th Regional Congress Geology Mineral Energy Resources of SE Asia (GEOSEA '98), Kuala Lumpur 1998, Bull. Geological Society Malaysia 43, p. 667-675.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1999065.pdf)
(Gravity survey around Huon Peninsula in Leron-Lae-Finschafen area of NE PNG confirmed presence of major foreland basin gravity low in N Markham Valley and probability of extension of Papuan Ultramafic Belt beneath Huon Peninsula)

Milsom, J. (2003)- Forearc ophiolites: a view from the western Pacific. In: Y. Dilek & P.T. Robinson (eds.) Ophiolites in Earth history. Geological Society, London, Special Publ. 218, p. 507-515.
(online at: https://www.academia.edu/17392252/Ophiolites_in_Earth_History)
(Many of world's largest ophiolite masses now interpreted as remnants of oceanic forearcs, stranded on continental margins in course of arc-continent collision. In C New Guinea, ophiolites emplaced along N flank of main mountain spine, ~100 km S of exposures of arc-volcanic basement in N coast ranges. Papuan Ultramafic Belt of E Peninsula backed to N and E by oceanic Solomon Sea)

Milsom, J. & R.H. Findlay (2000)- Petroleum prospects in the Ramu-Markham foreland basin, northeastern Papua New Guinea. AAPG International Conference, Bali 2000, American Assoc. Petroleum Geol. (AAPG) Bull. 84, 9 (Abstract only)
(Adelbert and Finisterre ranges (AFR) of N PNG separated from C New Guinea by Ramu- Markham valleyswith >6 km sediments. Gravity data indicate still thicker sediment beneath S-ward thrusting Finisterre Range. Majority of Ramu-Markham and AFR sediments derived from S. Seismic zones dipping both N, beneath AFR, and S beneath New Guinea Highlands testify to former presence of oceanic crust between two. Solomon Sea, believed to be Miocene age, is eastern extension of basin. Miocene back-arc spreading created oceanic crust, followed by arc reversal and basin destruction)

Milsom, J., R. Findlay & G. Kopi (2001)- Early nappe deformation in arc-continent collision: gravity evidence from the Huon Peninsula, Papua New Guinea. In: G. Hancock (ed.) Proc. Geology, Exploration and Mining Conference, Port Moresby 2001, Australasian Institute of Mining and Metallurgy, Parkville, p. 275-280.

Mollan, R.G. & G.J. Blackburn (1990)- Petroleum potential of the Fly-Bamu Deltas region. In: G.J. & Z. Carman (eds.) Petroleum exploration in Papua New Guinea, Proc. First PNG Petroleum Convention, Port Moresby, p. 215-226.

Montgomery, J.N. (1930)- A contribution to the Tertiary geology of Papua: The oil exploration work in Papua and New Guinea. Anglo-Persian Oil Company, 4, p. 3-85.

Morrison, G., G. Kary, R. Handfield & Frieda Project Staff (1999)- Intrusion- alteration- mineralisation relationships in the Frieda River Igneous Complex, PNG. In: G. Weber (ed.) Proc. PACRIM '99 Congress, Bali 1999, Australasian Institute of Mining and Metallurgy (AusIMM), Parkville, Publ. Series 4/99, p. 527-537.

(online at: https://www.researchgate.net/publication/333370862_Intrusion-Alteration-Mineralisation_Relationships_in_the_Frieda_River_Igneous_Complex_PNG)
(Major Cu-Au porphyry-epithermal system in the obducted volcano-sedimentary section of New Guinea mobile belt. First discovered by BMR mappin team in 1966. Located between two major NNE dipping thrust faults that underwent sinistral shear in Late Miocene-Recent. Associated with ~M Miocene (17-11 Ma) Frieda River Igneous Complex of basaltic andesite volcanics with cogenetic diorite. Etc.)

Morton, A.C., B. Humphreys, G. Manggal & C.M. Fanning (2000)- Provenance and correlation of Upper Jurassic and Lower Cretaceous reservoir sandstones in Papua New Guinea using heavy mineral analysis. In: P.G. Buchanan et al. (eds.) Papua New Guinea's petroleum industry in the 21st century, Proc. 4th PNG Petroleum Convention, Port Moresby, p. 187-203.
(Variations in heavy mineral assemblages used to correlate reservoir sandstones. Source area for PNG Lower Cretaceous Toro, etc. sandstones comprises metasedimentary basement terrain, including some high-grade rocks (granulite facies), with granite intrusions. Detrital zircon ages from 300- 3304 Ma (major cluster around ~1840-1880 Ma= late Barramundi orogeny felsic volcanism in N Australia; minor Carboniferous ages)

Mosusu, N., A. Bokuik, M. Petterson & R. Holm (2021)- Stream sediment datasets and geophysical anomalies: a recipe for porphyry copper systems identification- The Eastern Papuan Peninsula experience. Geosciences (MDPI) 11, 299, p. 1-16.
(online at: https://www.mdpi.com/2076-3263/11/7/299)

Munro, L., K.C. Hill & R.H. Wightman (2015)- Construction of 2D and 3D models of the Kutubu Oilfield, Papua New Guinea fold belt. Proc. Eastern Australian Basins Symposium (EABS), Petroleum Exploration Society Australia (PESA), p. 281-287.
(Kutubu Field in mountains of PNG comprises Hedinia Anticline (mainly gas) and oil-bearing Iagifu Anticline. Produced >300MMBBL oil from basal Cretaceous Toro Sst reservoir, overlain by 1 km of Cretaceous shale and 1 km of karstic Miocene limestone)

Munro, L., K.C. Hill & R.H. Wightman (2016)- Construction of 2D and 3D models of the Kutubu Oilfield, Papua New Guinea Fold Belt. AAPG/SEG Int. Conference Exhib., Melbourne 2015, Search and Discovery Article 20340, p. 1-11.
(online at: www.searchanddiscovery.com/documents/2016/20340munro/ndx_munro.pdf)

Munroe, S.M. & I.S.Williams (1996)- The Archaean basement of Papua New Guinea; evidence from the Porgera intrusive complex. In: J.M. Kennard (ed.) Geological Society Australia Abstracts No.41, p. 308.
(Porgera intrusive complex in W PNG contains mixture of Late Miocene and Archean zircons)

Murray, A.P., R.E. Summons, J. Bradshaw & B. Pawih (1993)- Cainozoic oil in Papua New Guinea- evidence from geochemical analysis of two newly discovered seeps. In: G.J. & Z. Carman (eds.) Petroleum exploration in Papua New Guinea, Proc. 2nd PNG Petroleum Convention, Port Moresby, p. 489-498.
(Two new oil seeps in Lufa District, ~20-30 km S of Goroka, in New Guinea mobile belt, just beyond N border of Papuan Basin foldbelt. Oils not biodegraded, and contain biomarkers indicative of mature Cenozoic source rocks (abundant oleananes, bicadinanes, etc. Little resemblance of biomarkers with Jurassic oils from Papuan foldbelt, but similar to fluvio-deltaic NW Java basin Arjuna field oil)

Nakamori, T., S. Matsuda, A. Omura & Y. Ota (1995)- Depositional environments of the Pleistocene reef limestones at Huon Peninsula, Papua New Guinea, on the basis of hermatypic coral assemblages. J. of Geography (Chigaku Zasshi) 104, 5, p. 725-742. *(mainly in Japanese)*
(online at: https://www.jstage.jst.go.jp/article/jgeography1889/104/5/104_5_725/_pdf)

Nelson, A. & B. Turner (2015)- Lateral velocity variations in the Darai Limestone, Papua New Guinea foreland. Proc. 24th ASEG-PESA International Geophysical Conference Exhib., Perth, p. 1-4.
(online at: http://www.publish.csiro.au/ex/pdf/ASEG2015ab245)

(Significant lateral velocity variation across >1km thick Late Oligocene-Miocene Darai Limestone, due to alteration, including dolomitisation. Most alteration associated with small-scale faulting)

Nelson, H. (1976)- Black, white and gold. Gold mining in Papua New Guinea 1878-1930. Australian National University Press, p. 1-298. *(reprinted 2016)*
(online at: https://press-files.anu.edu.au/downloads/press/p347033/pdf/book.pdf)
(Book about PNG miners from first 'gold rush' in 1878 until 1930, four years after alluvial miners finally found 'the big one' near Bulolo/ Edie Creek. During rush inland from Port Moresby in 1878 no gold was found)

Newton, R.B. (1918)- Foraminiferal and nullepire structures in some Tertiary limestones from New Guinea. Geological Magazine 6, 5, 5, p. 203-212.
(Pebbles from Upper Fly River, PNG, collected by MacGregor in 1890 include Eocene limestone with Alveolina wichmanni, Lacazinella wichmanni and Orthophragmina (= Discocyclina) and Miocene limestone with Carpenteria, Alveolina and Lithothamnium)

Noku, S.K., M. Akasaka & H. Matsueda (2011)- The Crater Mountain deposit, Papua New Guinea: porphyry-related Au-Te System. Resource Geology 61, 1, p. 63-75.
(online at: https://onlinelibrary.wiley.com/doi/pdf/10.1111/j.1751-3928.2010.00148.x)
(Crater Mountain Au deposit in PNG foldbelt explored since 1970s. Hosted by Pliocene- E Pleistocene calc-alkalic to K-rich alkali volcano, intruded into poorly consolidated Cretaceous-Miocene sedimentary rocks)

Noku, S.K. (2020)- An overview of geochemical exploration of hydrocarbons in Papuan Basin, Papua New Guinea. Proc. 1st AAPG/EAGE Papua New Guinea Geoscience Conf. Exhib., Port Moresby 2020, AAPG Search and Discovery Article 11326, p. 1-3. *(Extended Abstract + Poster)*
(online at: www.searchanddiscovery.com/pdfz/documents/2020/11326noku/ndx_noku.pdf.html)
(Present-day oil accumulations in Papuan fold belt fields Kutubu (Iagifu, Hedinia) and Gobe thought to be derived from clay-rich, Jurassic marine source rocks with mixed algal−terrigeneous organic matter. Co-reservoired gas suggest input from basinal facies to N/NW. Basinal Jurassic source facies contributed high-mature gas-condensate to current deposits (Hides, Juha, P'nyang), implying loss of earlier-generated black oils. Two major oil-gas families:(1) in W (Papuan foreland) likely sourced from Late Triassic and Late Jurassic clay-rich mixed marine-terrigeneous organic matter. Five oil families and two charge events (end Cretaceous and Cenozoic?); (2) in E generated from Cretaceous or younger marine carbonate source. Mesozoic rift basin of Gulf of Papua more gas than oil M-U Jurassic-Lower Cretaceous source rocks have mixed gas-oil potential)

Noku, S.K., H. Matsueda, M. Akasaka & J.O. Espi (2009)- The Laloki massive sulfide strata-bound deposit, Papua New Guinea: geology, mineralogy and geochemistry. In Proc. 10th Biennial Meeting Society for Geology Applied to Mineral Deposits (SGA), Townsville, p. 731-733.
(Laloki massice Au-Ag sulfide deposit in Astrolabe Field, 20km E of Port Moresby, SE PNG. Stratigraphically hosted by Paleo-Eocene mudstone and grey cherts. Early massive sulfide stage and late stage remobilization and brecciation. Temperatures of early and late stage mineralization range 309-498° C and 266-338° C).

Noku, S.K., S. Nasinom, E. Guru & E. Maso (2020)- Structural traps and hydrocarbon resources of the Papuan Basin: an overview. Proc. 1st AAPG/EAGE Papua New Guinea Geoscience Conference Exhib., Port Moresby 2020, AAPG Search and Discovery Article 11325, p. 1-17. *(Abstract + Presentation)*
(online at: www.searchanddiscovery.com/pdfz/documents/2020/11325noku/ndx_noku.pdf.html)
(Papuan fold thrust belt structural play styles influenced by extension of basement in the Triassic-Jurassic and compression in Late Miocene. Etc.)

Norvick, M. (2001)- Chronostratigraphic sections of the Northern margins of the Australian Plate. Consultant Report, Melbourne, p. *(Unpublished)*

Norvick, M. & D.S. Hutchison (1980)- Aitape-Vanimo, Papua New Guinea. 1:250,000 Geologische Series. Geological Survey Papua New Guinea, Explanatory Notes SA/54-11, SA/54-15, p. 1-45.

(Map sheet in NW corner of PNG, immediately E of W Papua border, N of Sepik River. Dominated by E-W Bewani- Torricelli mountain Ranges across central part of map sheet, composed of island arc association of U Cretaceous- E Miocene intrusives (Torricelli Intrusive Complex) and related volcanics and sediments (Bliri Volcanics), Overlain (and onlapped?) by E Miocene and younger sediments of Lumi (to S) and Atape (to N) Troughs. Includes Late Permian (257-242 Ma) granitoid boulders in Border Mountains of PNG- W Papua border area (possibly correlatice to Kubor grandiorite of PNG Highlands). In SW Ambunti metamorphic complex)

Nye, P.B. & N.H. Fisher (1954)- The mineral deposits and mining industry in Papua-New Guinea, Bureau Mineral Resources Geology Geophysics, Canberra, Report 9, p. 1-35.
(online at: www.ga.gov.au/corporate_data/14926/Rep_009.pdf)
(Brief, old review of history and status of mining activity in PNG in 1954)

Ollarves, R., S. Zhao & F. Gilby (2020)- Interaction between the folded structures of the Western Papua New Guinea Highlands: an example of how surface observations can assist in subsurface understanding. In: J.A. Hammerstein et al. (eds.) Fold and thrust belts: structural style, evolution and exploration, Geological Society, London, Special Publ. 490, p. 311-327.
(Three types of fold-thrusts in PNG foldbelt: I- basement-involved tectonics; group II- thin-skinned anticlines which sole near Koi-Iangi Sandstone; III- thin-skinned folds associated with intra-Ieru Fm detachment. Fold-thrust belt propagates from NW to SE. Group II folds developed as out-of-sequence thrusting and folding, associated with buttressing against Group I larger structures.)

Ollier, C.D. & C.F. Pain (1980)- Actively rising surficial gneiss domes in Papua New Guinea. J. Geological Society of Australia 27, p. 33-34.
(Surficial gneiss domes 2000-3000m high and 10's of km across in E-most PNG, consisting of gneiss. Dissected domes, unlikely formed by differential erosion. Foliation in gneiss parallel to dome surface, and therefore concentric in plan. Domes formed in area of thick crust in tensional environment. Faults can be traced around gneiss dome on Goodenough Island and around other domes in SE PNG. Each dome probably originated by pushing of granite pluton (see also Daczko et al. 2009, 2010))

Ollier, C.D. & C.F. Pain (1981)- Active gneiss domes in Papua New Guinea- new tectonic landforms. Zeitschrift fur Geomorphologie, N.F. 25, p. 133-145.

Oppel, T.W. (1970)- Exploration of the southwest flank of the Papuan Basin. Australian Petroleum Exploration Assoc. (APEA) Journal 10, 2, p. 62-69.

Osborne, N. (1945)- The Mesozoic stratigraphy of the Fly River headwaters. Proc. Royal Society of Victoria 56, 2, p. 133-148.
(Thick (~7500') marine Mesozoic in headwaters of Fly River. U Jurassic (?Callovian-Oxfordian Kuabgen Gp) with Malayomaorica- Belemnopsis gerardi, overlain by M Cretaceous (Albian-Cenomanian Feing Gp) with Inoceramus. Cretaceous unconformably overlain by Tertairy limestone, with U Cretaceous-Eocene missing)

Osborne, D.G. (1990)- The hydrocarbon potential of the western Papuan Basin foreland- with reference to worldwide analogues. In: G.J. & Z. Carman (eds.) Petroleum exploration in Papua New Guinea, Proc. First PNG Petroleum Convention, Port Moresby, p. 197-213.

Ota, Y. & J. Chappell (1999)- Holocene sea-level rise and coral reef growth on a tectonically rising coast, Huon Peninsula, Papua New Guinea. Quaternary International 55, p. 51-59.
(Post-glacial reef growth at Huon Peninsula tracked rising sea level ('keep-up' growth), from −70 m at 11,200 yr BP. Holocene reef emerged about 6300 yr BP in SE of region, where uplift rate is highest (3.3 m/ky))

Ota, Y., J. Chappell, R. Kelley, N. Yonekura, E. Matsumoto, T. Nishimura & J. Head (1993)- Holocene coral reef terraces and coseismic uplift of Huon Peninsula, Papua New Guinea. Quaternary Research 40, 2, p. 177-188.
(Six levels of emerged Holocene coral terraces along 40 km of Huon Peninsula coastline. Holocene reef crest, ~6000 yr B.P., is tilted down to NW and descends from 23 to 12 m in study area)

Ott, B. & P. Mann (2015)- Late Miocene to Recent formation of the Aure-Moresby fold-thrust belt and foreland basin as a consequence of Woodlark microplate rotation, Papua New Guinea. Woodlark microplate rotation, Papua New Guinea, Geochem. Geophysics Geosystems 16, p. 1988-2004.
(online at: http://onlinelibrary.wiley.com/doi/10.1002/2014GC005668/epdf)
(Aure-Moresby fold-thrust belt of SE PNG not SE extension of Papuan fold-thrust belt. Rel. narrow foldbelt and foreland basin in E Gulf of Papua formed in Late Miocene-Recent as result of CCW rotation of Woodlark microplate. 400 km long, NW trending Aure-Moresby fold-belt exposed onshore PNG plunges to SE, where continuous folds and NE-dipping thrusts can be imaged in subsurface for >250 km. CCW rotation of Woodlark microplate driven by slab pull of subducting N edge)

Owen, A.D. & J.C. Lattimore (1998)- Oil and gas in Papua New Guinea. Energy Policy 26, 9, p. 655-660.
(Late 1990's status of oil and gas reserves and production in Papua New Guinea)

Owen, M. (1973)- Upper Cretaceous planktonic foraminifera from Papua New Guinea. Palaeontological Papers 1970-1971, Bull. Bureau Mineral Resources Geology Geophysics 140, p. 47-65.
(online at: www.ga.gov.au/corporate_data/107/Bull_140.pdf)
(Diverse Turonian- Maastrichtian planktonic foraminifera assemblage from Lagaip Beds, Wabag area, W Highlands. Descriptions of 38 species (incl. Globotruncana wabagensis n. sp.) from 19 samples)

Page, R.W. (1976)- Geochronology of igneous and metamorphic rocks in the New Guinea Highlands. Bureau Mineral Resources Geoph. Bull. 162, p. 1-117.
(online at: https://www.ga.gov.au/products/servlet/controller?event=GEOCAT_DETAILS&catno=74)
(Mainland PNG Pretertiary igneous intrusive activity only in S part of C Highlands. Kubor Granodiorite Upper Permian (240 Ma;= E-M Triassic?) largest and oldest. Increased mid-Tertiary tectonism suggested by four 27-20 Ma metamorphic ages and granitic intrusive in S Sepik Ambunti Metamorphics. Volcanic and plutonic peak of igneous activity in M Miocene, 15-12 Ma)

Page, R.W. (1976)- Geochronology of Late Tertiary and Quaternary mineralized intrusive porphyries in the Star Mountains of Papua New Guinea. Economic Geology 70, p. 928-936.
(Majority of intrusions associated with porphyry copper mineralization between 7-1 Ma. Ok Tedi intrusion 2.6 Ma, mineralization 1.1 Ma; Star Mts intrusives 4.6- 3.6 Ma; Antares Monzonite 3.1-2.4 Ma)

Page, R.W. & R.W. Johnson (1974)- Strontium isotope ratios of Quaternary volcanic rocks from Papua New Guinea. Lithos 7, 2, p. 91-100.
(also as BMR Record 1973/91, online at: https://d28rz98at9flks.cloudfront.net/12915/Rec1973_091.pdf)
(Sr isotope data for Quaternary volcanic rocks from six areas in PNG suggest two broad groups: (1) island volcanoes with lower Sr37/Sr38 ratios (0.7034–0.7043), probably from relatively homogeneous upper mantle source regions; (2) PNG mainland volcanoes with higher and wider range of Sr37/Sr36 ratios, probably affected by sialic crustal contamination, or derived from heterogeneous sources in upper mantle)

Page, R.W. & I. McDougall (1970)- Potassium-Argon dating of the Tertiary f1-2 stage in New Guinea and its bearing on the geological time-scale. American Journal of Science 269, p. 321-342.
(In N PNG 13-15 Ma old volcanics between Tf1-2 limestones, suggestive of Middle Miocene age)

Page, R.W. & I. McDougall (1972)- Ages of mineralization of gold and porphyry copper deposits in the New Guinea highlands (Papua New Guinea). Economic Geology 67, p. 1034-1048. *(also BMR Record 1972/113)*
(K-Ar and Rb-Sr ages from five different areas of gold and porphyry copper mineralization in Highlands of PNG. Gold-bearing porphyries in Morabe Goldfield indicate 3.1-3.8 Ma age for mineralization. Gold- copper mineralization in Kainantu Goldfields as young as M-L Miocene. In Yanderra prospect 5 My gap between main M Miocene emplacement of pluton and Late Miocene copper mineralization. Frieda copper prospect intrusion in M Miocene. Mount Fubilan near Ok Tedi River mineralization age Pleistocene, 1.1- 1.2 Ma. All deposits so far dated are M Miocene or younger; magmatic activity and mineralization may have been triggered by interaction and collision between Pacific plate and Australian plate in about M Miocene)

Pain, C.F. (1983)- Volcanic rocks and surfaces as indicators of landform age: the Astrolabe Agglomerate, Papua New Guinea. Australian Geographer 15, 6, p. 376-381.
(Astrolabe Agglomerate pyroclastics with basaltic lavas at top, dated as 5.7 Ma. Since deposition unit slightly warped and deeply dissected. Sogeri Plateau largest remnant of larger erosion surface that may have extended over much of Owen Stanley Ranges)

Pain, C.F. (1983)- Geology and geomorphology of the Purari River catchment. In: T. Petr (ed.) The Purari-tropical environment of a high rainfall river basin, Monographiae Biologicae 51, p. 27-46.

Pain, C.F. (20233)- Middle- Upper Pleistocene tephras in the Papua New Guinea highlands. Australian J. Earth Sciences 70, 5, p. 627-658.
(Eighteen M-U Pleistocene (ca 200 ka) tephra units in highlands of PNG mapped in area between Tari in W to Kainantu and the Kassam Pass in E. Main sources Hagen, Giluwe and Yelia volcanoes; total thickness near source ~20m)

Pain, C.F. & R.J. Blong (1976)- Late Quaternary tephras around Mt. Hagen and Mt. Giluwe, Papua New Guinea. In: R.W. Johnson (ed.) Volcanism in Australasia, Elsevier, Amsterdam, p. 239-251.

Pain, C.F., C.J. Pigram, R.J. Blong & G.O. Arnold (1987)- Cainozoic geology and geomorphology of the Wahgi Valley, Central Highlands of Papua New Guinea. BMR J. Australian Geology Geophysics 10, 3, p. 267-276.
(online at: www.ga.gov.au/corporate_data/81224/Jou1987_v10_n3_p267.pdf)
(Wahgi Valley structural depression, between Bismarck Fault Zone to N and Kubor Anticline to S. Kubor Anticline cored with Paleozoic metamorphics and Triassic granodiorite and flanked by U Triassic, U Jurassic and Cretaceous sediments, which also occur on N side of Wahgi Valley, where they are deformed by Bismarck Fault Zone and intruded by Miocene intrusives Area land since ~35 Ma, latest Eocene)

Palmer, S.M., R. Carter & T. Varney (1992)- Sequence stratigraphy and reservoir prediction for the Toro Formation, Papua New Guinea. AAPG International Conference, Sydney 1992, Search and Discovery Article 91015, 1p.
(Abstract only. Toro Fm reservoir sands of PNG foldbelt 6 genetic stratigraphic units, separated by flooding surfaces. Biostratigraphy allows correlation of max. flooding surfaces. Sequence boundaries recognized as sharp-based inner shelf/shoreface sands over mid-outer shelf, bioturbated muds/silts. Primary reservoirs in shelf margin systems tracts. Further reservoirs in highstand and transgressive systems tracts (see also Varney & Brayshaw, 1993))

Palmieri, V. (1971)- Occurrence of Danian at Port Moresby. Report Geological Survey Queensland, Brisbane, 63, p. 1-8.

Park, S.C. & J. Mori (2007)- Are asperity patterns persistent? Implication from large earthquakes in Papua New Guinea. J. of Geophysical Research 112, B3, B03303, p. 1-16.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/2006JB004481/epdf)
(Asperities not persistent features when portions of New Britainsubduction zone slip in large earthquakes)

Parkin, J.N., S.M.T. Marsh & W.L. Wardlaw (1996)- The integration of exploration techniques in petroleum prospecting licenses PPL123, 156, 176 and 177 within the onshore and offshore Papuan Gulf region of Papua New Guinea. In: P.G. Buchanan (ed.) Petroleum exploration, development and production in Papua New Guinea, Proc. 3rd Papua New Guinea Petrol. Conv., Port Moresby, p. 243-256.
(Exploration of Mesozoic in blocks in coastal and shallow marine parts of S PNG, geologically part of foreland of Papuan Fold Belt and extending into Aure Trough and NE part of Fly Platform)

Parsons, G.L. & E.A. Bowen (1986)- The tectonic evolution and petroleum potential of the Papuan Basin, Papua New Guinea. Proc. 6^{h} Offshore South East Asia Conference 1986, Singapore, Proc. SE Asia Petroleum Exploration Society (SEAPEX) 7, p. 96-110.

Passmore, V.L., P.E. Williamson, A.R.G. Gray & P. Wellman (1993)- The Bamaga basin- a new exploration target. In: G.J. & Z. Carman (eds.) Petroleum exploration and development in Papua New Guinea, Proc. 2nd PNG Petroleum Convention, Port Moresby, PNG Chamber of Mines and Petroleum, p. 233-240.
(Undrilled Bamaga Basin sequence is lowermost basin in E Gulf of Carpenteria stacked basin sequence. Northerly trending sag basin of Paleozoic or Triassic age)

Paterson, S.J. & F.M. Kicinski (1956)- An account of the geology and petroleum prospects of the Cape Vogel Basin, Papua. In: Papers on Tertiary micropalaeontology, Bureau Mineral Resources Geology Geophysics, Canberra, Report 25, p. 47-70.
(online at: https://d28rz98at9flks.cloudfront.net/14939/Rep_025.pdf)
(Cape Vogel Basin in E PNG between Morobe Arc/ Owen Stanley folded-metamorphic and peridotite Zone and D'Entrecasteau metamorphics-granites Arc. At Cape Vogel Peninsula ~14,000' of M Miocene- Recent mainly arenaceous sediments exposed, with gentle post-Pliocene folding. Common shallow and non-marine sediments, no surface indications of oil, no oil in three test wells, and long history of volcanic activity suggest area has limited petroleum potential. In N part E Miocene Iauga Fm at base Tertiary 2000' thick with Miogypsina in upper part, overlain by Lower Tf (Burdigalian) Robinson Bay limestone)

Paterson, S.J. & W.J. Perry (1964)- The geology of the upper Sepik- August River area, New Guinea. J. Geological Society of Australia 11, 2, p. 199-211.
(Petroleum Permit 21 area with mountain ranges of pre-Upper Cretaceous (Paleozoic?)Gwin Metamorphics and igneous rocks. S-trending embayment, blanketed by alluvium and volcanic rocks, with 9320' composite Upper Cretaceous and Mio- Pliocene sediments. Upper Cretaceous greywackes and mudstones rel. deep marine with common planktonic foraminifera, incl. (Maastrichtian?) Globotruncana, etc. Miocene greywackes and detrital limestones with Upper Te- Tf larger foraminifera. Pleistocene Yapsei Volcanics)

Paul, R.J. & J.E. Bain (1998)- Reducing the risk: integrating gravity, magnetic, and seismic data in Papua New Guinea. The Leading Edge, p. 59-62 + 134.
(PPL 123 on Gulf of Papua Central coast. Gravity-magnetics used to support interpretation of poor seismic)

Pawih, B. (1989)- The stratigraphy of the Maprik district, Papua New Guinea. Petroleum Exploration Society Australia (PESA) Journal 14, p. 25-33.
(~4000m thick Pliocene basinal turbidites and ?Pleistocene fluvial deposits in Maprik district of NW PNG (S of Torricell/ Prince Alexander Mts). Well exposed Amogu and Ninab Rivers. Structure dominated by S-dipping homocline, related to loading of overthrust terranes. Metamorphic and deformed plutonic rocks in Prince Alexander Complex forms basement in N. Immature sandstones indicate rapid erosion, transport and burial. Most Neogene detritus from terrane dominated by amphibolites (= not Prince Alexander Mts))

Pawih, B. (1990)- Stratigraphy and tectonics of the Wewak Trough. In: G.J. & Z. Carman (eds.) Petroleum Exploration in Papua New Guinea, Proc. First PNG Petroleum Convention, Port Moresby 1990, p. 491-497.
(Wewak Trough in N New Guinea Basin contains <2000m of Pliocene (N18-N20) clastics and minor coral reef limestones, overlying 'Ambunti' metasediments in S and Miocene arc volcanoclastics in N)

Pegler, G., S. Das & J.H. Woodhouse (1995)- A seismological study of the eastern New Guinea and western Solomon Sea regions and its tectonic implications. Geophysical J. International 122, p. 961-981.
(online at: http://gji.oxfordjournals.org/content/122/3/961.full.pdf+html)
(Study of earthquake data from E PNG. Solomon Sea plate at depth beneath Finisterre Mts no longer influenced by tectonic forces acting at surface, but breaking up and sinking under own gravitational forces. N-dipping seismic zone with thrust mechanisms imaged above deeper Solomon Sea plate seismic zone and extrapolates to surface to Ramu Markham Fault, which marks suture between Finisterre Terrane and Australia-New Guinea plate and may extend to depth of 90km beneath W limit of Finisterre mountains)

Peng, N., H. Dang, J. Wu, I.W. Aiello & Z. Jian (2021)- Tectonic and climatic controls on the Plio-Pleistocene evolution of sediment discharge from Papua New Guinea. Marine Geology 441, 106627, p. 1-13.

(Longest (84m/ 4-Ma) IODP marine sediment core off W flank of southern Eauripik Rise, Caroline Sea, PNG. Major changes in sediment source supply during ~3.5–1.7 Ma, with significant increase in mafic materials like ophiolite, at ~2.9 Ma, in association with Adelbert-Finisterre Terrane collision with mainland PNG. Increasing chemical weathering since ~1.7 Ma, coinciding with onset of N Hemisphere Glaciation)

Perembo, R. (1983)- Stratigraphy of Delena Headland, Central Province, Papua New Guinea. Science in New Guinea 10, p. 137-165.

Perembo R.C.B. (2000)- Miocene bathyal deposits of foreland megasequence 1 in the Papuan fold belt, Papua New Guinea. In: P.G. Buchanan et al. (eds.) Papua New Guinea's petroleum industry in the 21st century, Proc. 4th PNG Petroleum Convention, Port Moresby, p. 123-138.
(Biostratigraphy of E-M Miocene (~20-10 Ma) widespread bathyal siliciclastic facies across PNG Fold Belt. Planktonic foram zones N5/N6- N14 recognized (but mainly N8-N11?; ~17-13 Ma; JTvG). This is part of foreland basin sequence, tied to late Early Miocene subdidence of Darai carbonate platform due to ophiolite obduction in northern PNG. Foreland basin fill terminated with Late Miocene hiatus (uplift around 10 Ma))

Perembo, R.C.B., H.L. Davies, E. Neinen & J. Agua (2000)- Port Moresby basement geology; a mid-Cainozoic accretionary prism. In: C.G. Skilbeck & T.C. Hubble (eds.) Understanding planet Earth; searching for a sustainable future, Abstracts Geological Society Australia 59, p. 386.

Perry, W.J. (1955)- Report on a reconnaissance of Petroleum Permit No. 21, Sepik. District, New Guinea. Bureau Mineral Resources Geology Geophysics, Record 1955/39, p. 1-7.
(online at: www.ga.gov.au/products/servlet/controller?event=GEOCAT_DETAILS&catno=9030)
(Preliminary version of Perry 1956)

Perry, W.J. (1956)- A geological reconnaissance of the Upper Sepik-August River area, Sepik district, New Guinea. Bureau Mineral Resources Geology Geophysics, Record 1956/31, p. 1-12.
(online at: www.ga.gov.au/products/servlet/controller?event=GEOCAT_DETAILS&catno=10154)
(Geology of area of NW PNG near W Papua border. In N West and Landslip Ranges mainly composed of metamorphic rocks, possibly of Paleozoic age. In S rocks of upper August, upper Sepik and Hoffnungs Rivers are tightly folded, low-grade metasediments (slates, phyllites, quartzites), tentatively correlated with Mesozoic rocks near Telefomin. Isolated Tertiary sediments in W side of area, some with reworked U Cretaceous and Paleocene planktonics, and minor limestone with Lower Tf larger forams (see Crespin & Belford 1956))

Peterson, A., S. Chandra & C. Lundberg (2004)- Landforms from the Quaternary glaciation of Papua New Guinea: an overview of ice extent during the Last Glacial Maximum. Developments in Quaternary Science 2, p. 313-319.

Peterson, E.C. & J.A. Mavrogenes (2014)- Linking high-grade gold mineralization to earthquake-induced fault-valve processes in the Porgera gold deposit, Papua New Guinea. Geology (GSA) 42, 5, p. 383-386.

Phelps, J.C. & C.N. Denison (1993)- Stratigraphic thickness variations and depositional systems of the Ieru Formation, Southern Highlands and Western Provinces, Papua New Guinea. In: G.J. & Z. Carman (eds.) Petroleum exploration and development in Papua New Guinea, Proc. 2nd PNG Petroleum Convention, Port Moresby, p. 169-189.
(Abrupt changes in thickness of Cretaceous Ieru Fm in Papuan fold-thrust belt partly overprint of Neogene-Recent thrust faulting. Ieru Fm deposition shelfal marine with deepening to upper bathyal in late Albian (incl. abundant Ticinella planktonic forams), then return to shelfal deposits in Cenomanian- Turonian. TV thickness in wells 760-1900m; much of thickness variation in Late Cenomanian, possibly tied to initiation of Coral sea rifting? (widespread Santonian- Eocene hiatus in PNG foldbelt also tied to Coral Sea opening?; JTvG))

Pieters, P.E. (1978)- Port Moresby-Kalo-Aroa, Papua New Guinea. Bureau Mineral Resources Geology Geophysics Australia and Geological Survey Papua New Guinea 1: 250,000 geological map series, Explanatory Notes SC/55-6, 7, 11, p. 1-55.

(Port Moresby geologic map, covering much of Owen Stanley Range of E Papuan Peninsula. Oldest rocks Mesozoic NE-dipping rocks of Papuan Ultramafic Belt, juxtaposed with high P Emo 'metamorphic sole', containingn rare lawsonite and glaucophane, indicating formation under high-P conditions, but with greenschist facies overprint. Metamorphism decreases to SW, grading into Kagi Metamorphics (greenschist facies), then U Cretaceous (Kemp Welch Fm) to Lower Eocene (Port Moresby Fm) clastics. In S Sadowa gabbro/basalt/dolerite batholith, emplaced between Late Eocene- M Oligocene. Area not prospective for oil and gas)

Pieters, P.E. (1980)- Kikori, Papua New Guinea, 1:250,000 geological map sheet SB/55-13. Bureau Mineral Resources Geology Geophysics, Canberra, Record 1980/79.

Pigott, J.D. (1994)- Irian Jaya- Papua New Guinea hydrocarbon exploration: constraints from regional distribution of geothermal gradients and heat flow. Proc. 23rd Annual Conv. Indonesian Petroleum Association, 1, p. 75-100.
(Present thermal state pervasive NW striking trend paralleling central cordillera with basinal and intra-basinal anomalies. Heat flow averages for Salawati 1.98 ± 0.76 HFU, Bintuni 1.49 ± 0.77 HFU, Papua Basins 1.57 ± 0.49 HFU. Av. geothermal gradients for three basins 3.90 ± 1.48 °C/100m, 3.31 ± 1.51 °C/100m, and 2.61 ± 0.81°C/100m, respectively)

Pigott, J.D. & D.G. Neese (1995)- Seismic stratigraphy of the Northern New Guinea Basin: insight into the tectonic evolution of a segmenting basin. Proc. 24th Annual Conv. Indonesian Petroleum Association 1, p. 383-396.
(Piore and Sepik Basins in N New Guinea Basin depositionally contiguous during Miocene. Both floored by Paleogene basement assemblage including fragments of volcanic arc and sporadic Bliri Sequence sediments. Overlying Miocene Sepik Sequence shallow marine to pelagic carbonates and axially transported slope systems which thin northward. Late Miocene basin-wide unconformity. Pliocene uplift of Bewani-Torricelli Mts along active N New Guinea Fault System separated Sepik Basin to S and Piore Basin to N)

Pigott, J.D., N.I. Trumbly & M.V. O'Neal (1984)- Northern New Guinea wrench fault system: a manifestation of late Cenozoic interactions between Australian and Pacific plates. In: S.T. Watson (ed.) Transactions Third Circum-Pacific Energy and Mineral Resources Conference, Honolulu 1982, p. 613-620.
(Two major products of Australia- Pacific convergence are Sorong Fault Zone of W Papua and Ramu- Markham fault zone of PNG. Two are possibly linked to form major left-lateral strike-slip system)

Pigram, C.J. (1978)- Geology of the Schrader Range. Geological Survey of Papua New Guinea, Report 76/4, p. 1-37 + plates.

Pigram, C.J., P.J. Davies, D.A. Feary & P.A. Symonds (1989)- Tectonic controls on carbonate platform evolution in southern Papua New Guinea: passive margin to foreland basin. Geology (GSA) 17, p. 199-202.
(M Oligocene collision of N Australian craton margin with complex subduction system created thrust mass and foreland basin from Coral Sea to Indian Ocean. Carbonate platform facies in SW PNG reflect transition from Eocene passive margin to early foreland basin. Initially, terrigenous sedimentation confined to proximal foredeep, with carbonate deposition adjacent to peripheral forebulge. Subsequent S-ward migration of basin resulted in thick carbonate platform deposition, followed by burial by clastic sediments from emerging orogen after proximal foredeep became filled)

Pigram, C.J., H.L. Davies, D.A. Feary, P.A. Symonds & G.C.H. Chaproniere (1990)- Controls on Tertiary carbonate platform evolution in the Papuan Basin: new play concepts. In: G.J. & Z. Carman (eds.) Petroleum exploration in Papua New Guinea, First PNG Petroleum Convention, Port Moresby, p. 185-195.
(Oligo-Miocene Darai Lst carbonate platform deposited in Papuan foreland basin. Oligo-Miocene limestones much larger areal extent and inboard of Late Eocene carbonate platform rim)

Pigram, C.J. & P.A. Symonds (1993)- Eastern Papuan Basin- a new model for the tectonic development, and implications from petroleum prospectivity. In: G.J. & Z. Carman (eds.) Petroleum exploration and development in Papua New Guinea, Proc. 2nd PNG Petroleum Convention, Port Moresby, p. 213-231.

(Study of tectonic evolution of E Papuan basin and W Coral Sea. NE-trending sinistral wrench fault between E Plateau and Gulf of Papua, accomodating Coral Sea opening)

Pinchin, J., K.F. Fowler & C.S. Bembrick (1986)- Fault structures within the Central Papuan Basin- implications for petroleum exploration. Proc. 6h Offshore South East Asia Conference 1986, Singapore, Proc. SE Asia Petroleum Exploration Society (SEAPEX) 7, p. 111-124.
(Previously unrecognized Late Cretaceous- Paleocene wrench faulting on Fly Platform, primarily in two NW trending parallel systems, Komewu and Fly. Rejuvenation of faults in Miocene)

Pitt, R.P.B. (1966)- Tectonics in Central Papua and the adjoining part of New Guinea. Ph.D. thesis, University of Tasmania, 292p.

Plane, M.D. (1967)- Stratigraphy and vertebrate fauna of the Otibanda formation, New Guinea. Bureau Mineral Resources Geology Geophysics, Bull. 86, p. 1-64.
(online at: www.ga.gov.au/corporate_data/165/Bull_086.pdf)
(Thick Late Tertiary intermontane lacustrine and fluviatile deposits in Morobe District, NE PNG, with 'Awe Fauna' vertebrate fossils. Pyroclastic rocks below mammal horizons K/Ar ages 6.1-7.6 Ma; 5.7 Ma. Fauna includes incisor of earliest known rodent from Australian region and new representatives marsupials; also gastropods, crocodilians, snakes, birds, and dasyurid (also Thylacinus tooth (Tasmanian tiger; Plane 1976))

Plane, M.D. (1967)- Two new diprotodontids from the Pliocene Otibanda Formation, New Guinea. In: R.A. Stirton et al. (eds.) Tertiary Diprotodontidae from Australia and New Guinea, Bull. Bureau Mineral Resources Geology Geophysics, 85, p. 105-128.
(online at: www.ga.gov.au/corporate_data/164/Bull_085.pdf)
(Mandibles of three diprotodontid marsupial species in Otibanda Fm: Nototherium watutense, Kolopsis rotundus n.sp. and Kolopsoides cullridells n.gen., n.sp.)

Playford, G. (1982)- Neogene palynomorphs from the Huon Peninsula, Papua New Guinea. Palynology 6, p. 29-54.
(Palynology of shales from 3 low-grade coal occurrences in Pindiu area, C Huon Peninsula, NE PNG. 25 types of spores-pollen of Miocene-Pliocene age, representing low diversity tropical freshwater swamp deposits)

Pono, S. (1990)- Seismic images of Papua New Guinea. In: G.J. & Z. Carman (eds.) Petroleum exploration in Papua New Guinea, Proc. 1st PNG Petroleum Convention, Port Moresby, p. 33-49.
(Selected seismic lines across most basins of PNG (many of poor quality))

Powell, T.G. & D.M. McKirdy (1975)- Geologic factors controlling crude oil composition in Australia and Papua, New Guinea. American Assoc. Petroleum Geol. (AAPG) Bull. 59, 7, p. 1176-1197.
(Mainly on Australian oils. Oil from Miocene reef in offshore Papuan basin from marine source)

Pollard, P.J. (2014)- Grade distribution of the giant Ok Tedi Cu-Au deposit, Papua New Guinea- a discussion. Economic Geology 109, 5, p. 1489-1492.
(Critical discussion of Van Dongen et al. (2013) Ok Tedi mine paper. Argues in favor of two separate major mineralization events, first skarn mineralization, second with post-intrusive hydrothermal intrusive breccias)

Pollard, P.J., R. Jongens, H. Stein, C.M. Fanning & R. Smillie (2020)- Rapid formation of porphyry and skarn copper-gold mineralization in a postsubduction environment: Re-Os and U-Pb geochronology of the Ok Tedi Mine, Papua New Guinea. Economic Geology 116, 3, p. 533-558. *(online at: https://www.researchgate.net/publication/347604168_Rapid_Formation_of_Porphyry_and_Skarn_Copper-Gold_Mineralization_in_a_Postsubduction_Environment_Re-Os_and_U-Pb_Geochronology_ Etc.)*
(Ok Tedi copper-gold mine in Star Mountains in western PNG, where Pleistocene monzodiorite-monzonite intrusions are associated with porphyry- and skarn-style Cu-Au mineralization. Six main phases of intrusive rocks in mine area: oldest Sydney Monzodiorite (~1.4 Ma), youngest Fubilan Quartz Monzonite Porphyry (~1.2 Ma))

Powell, T.G. & D.M. McKirdy (1976)- Geochemical character of crude oils from Australia and Papua New Guinea. In: R.B. Leslie et al. (eds.) Economic Geology of Australia and Papua New Guinea 3, Petroleum, Australasian Institute of Mining and Metallurgy, Parkville, p. 18-29.

Power-Fardy, D., R.M.D. Meares, A.R., Collins & P.T. Goldner (1990)- Platinum group element mineralisation in Papua New Guinea. In F.E. Hughes (ed.) Geology of the mineral deposits of Australia and Papua New Guinea, Monograph 14, Australasian Institute of Mining and Metallurgy, Melbourne, p. 1703-1705.

Powis, G. (1993)- The sequence stratigraphy of the Mesozoic reservoirs of the Gobe Anticline, Papuan thrust belt. In: G.J. & Z. Carman (eds.) Petroleum exploration and development in Papua New Guinea, Proc. 2nd PNG Petroleum Convention, Port Moresby, p. 155-167.
(Sequence stratigraphy and facies maps of Late Jurassic- E Cretaceous reservoir sandstones along Gobe Anticline, PNG foldbelt. Late Tithonian- Berriasian Upper Imburu Fm with five eustatic cycles; Valanginian Toro Sst controlled by 3 cycles)

Pratt, F.C. (2000)- Surveyors and the search for oil: PNG 1911-1942. In: P.G. Buchanan et al. (eds.) Papua New Guinea's petroleum industry in the 21st century, Proc. 4th PNG Petroleum Convention, Port Moresby, p. 43-63.
(Review of early oil industry activity in PNG and topographic surveyors who worked in oil exploration)

Purcell, P.G. (1990)- Marienberg-1 Sepik Basin. In: G.J. & Z. Carman (eds.) Petroleum Exploration in Papua New Guinea, Proc. 1st PNG Petroleum Convention, Port Moresby, p. 429-443.
(History and results of Marienburg 1 well, drilled in 1925-1928 in Ramu-Sepik Basin, on N coast along Sepik River (first 'deep' (825m) exploration well in N PNG). Mainly Late Miocene- Pliocene marine shale, with conglomerate near TD below 2600'. Some gas shows and oil stains encountered).

Queen, L.D. (2015)- The Tifalmin porphyry copper gold district, Star Mountains, Western Papua New Guinea. Proc. PACRIM 2015 Congress, Hongkong, Australasian Institute of Mining and Metallurgy (AusIMM), Melbourne, Publ. Ser. 2/2015, p. 357-360. *(Extended Abstract)*
(Tifalmin porphyry copper district in Star Mountains (~35 km NE of Ok Tedi mine) is cluster of related porphyry copper deposits and associated skarns. Located on N margin of Fly Platform, which is N limit of Australian craton, First discovered in 1960s. Mineralisation associated with 4-2 Ma age porphyritic diorites and tonalites that intrude U Eocene- M Miocene Darai Lst and underlying Cretaceous-Eocene Feing Gp)

Queen, L.D. & S.J. Tear (2015)- The Frieda Kiss- keeping it simple. Proc. PACRIM 2015 Congress, Hongkong, Australasian Institute of Mining and Metallurgy (AusIMM), Melbourne, Publ. Ser. 2/2015, p. 361-369.
(Extended Abstract. Evaluation of Frieda River Prospect in NW PNG)

Rand, A.L. & L.J. Brass (1940)- Results of the Archbold Expeditions No. 29. Summary of the 1936/1937 New Guinea expedition. Bull. American Museum Natural History 77, 7, p. 341-380.
(Report on geographic-biological expedition of Fly River area, PNG. Little or no geology)

Recker, B.S. (2017)- Basin analysis and hydrocarbon potential of the Papuan Basin, a frontier basin in Papua New Guinea. M.Sc. Thesis Ball State University, Muncie, Indiana, p. 1-106.
(online at: https://cardinalscholar.bsu.edu/bitstream/handle/123456789/200809/ReckerB_2017-3_BODY.pdf?sequence=1)
(Review of the lightly explored Papuan Basin Miocene foreland basin, southern PNG. 52 wells drilled in onshore and offshore parts of basin since 1911. Main target in offshore Papuan Basin Miocene reef systems)

Renton, J.F.A., J.H.S. Black & A.M. Grainge (1990)- The development of the Hides Gasfield, Papua New Guinea. Australian Petroleum Exploration Assoc. (APEA) Journal 30, p. 223-237.
(Hides 1987 BP/ Oil Search gas discovery in PPL 27 in S Highlands. Hides-1 tested up to 15.9 mmscf/d gas with minor condensate from four intervals in Toro Sst. Gas to be supplied to Porgera goldmine)

Restrepo-Pace, P.A., M. Callies & J. Lamb (2020)- Beyond geometry: 2D structural thermo-kinematic models of the Papuan fold and thrust belt. Proc. 1st AAPG/EAGE Papua New Guinea Geoscience Conference Exhib., PNG's oil and gas industry maturing through exploration, development and production, Port Moresby 2020, AAPG Search and Discovery Article 42526, p. 1-22. *(Abstract + Presentation)*
(online at: www.searchanddiscovery.com/pdfz/documents/2020/42526restrepo-pace/ndx_restrepo-pace.pdf.html)
(Review of problems with deep structural interpretations in PNG foldbelt)

Richards, J.P. (1990)- The Porgera gold deposit, Papua New Guinea: geology, geochemistry and geochronology. Ph.D. Thesis Australian National University, Canberra, p. 1-113.
(online at: https://openresearch-repository.anu.edu.au/handle/1885/12535)
(Porgera gold deposit in highlands of PNG associated with Porgera Intrusive Complex, hosted in Jurassic-Cretaceous shelf sediments. K-Ar dating of igneous biotite, and Ar/Ar dating of hornblende suggest age of emplacement of PIC 6.0 ± 0.3 Ma)

Richards, J.P. (1990)- Petrology and geochemistry of alkalic intrusives at the Porgera gold deposit, Papua New Guinea: J. Geochemical Exploration 35, p. 141-199.
(Porgera gold deposit in PNG Highlands close to, but on continental side of major trans-lithospheric fault (Lagaip Fault Zone) which separates Australian craton to S from accreted island-arc terrains to N. Middle-Late Miocene mafic intrusive complex consistent with intra-plate, alkaline parental magma, and derivation from enriched garnet lherzolite source in subcontinental lithosphere. Partial melting probably in response to M Miocene uplift of edge of Australian craton during collision with island-arc)

Richards, J.P. (1992)- Magmatic-epithermal transitions in alkalic systems: Porgera gold deposit, Papua New Guinea. Geology (GSA) 20, 6, p. 547-550.
(Porgera Au-Ag mineralization in two main stages: (1) disseminated auriferous pyrite in phyllic alteration zones and (2) fault-related, quartz-roscoelite-cemented hydrothermal breccias and veins with locally abundant free gold and Au-Ag-tellurides. Associated with Late Miocene (6 Ma) epizonal intrusive complex, emplaced in continental crust immediately prior to E Pliocene continent- island-arc collision)

Richards, J.P., C.J. Bray, D.M. DeR.Channer & E.T.C. Spooner (1997)- Fluid chemistry and processes at the Porgera gold deposit, Papua New Guinea. Mineralium Deposita 32, p. 119-132.
(Porgera gold deposit in PNG example of alkalic-type epithermal gold system (stage II), which overprints precursor stage of magmatic-hydrothermal gold mineralization (stage I))

Richards, J.P., B.W. Chappell & M.T. McCulloch (1990)- Intraplate-type magmatism in a continent-island arc collision zone: Porgera intrusive complex, Papua New Guinea. Geology (GSA) 18, p. 958-961.
(Porgera intrusive emplaced in Late Miocene, 6 Ma in Jurassic-Cretaceous shelf-facies sediments near edge of Australasian plate, apparently in backarc environment during subduction of oceanic microplate segment on two sides beneath continental margin and an island arc)

Richards, J.P., B.W. Chappell & M.T. McCulloch & I. McDougall (1991)- The Porgera gold deposit, Papua New Guinea, 1: Association with alkalic magmatism in a continent-island-arc collision zone. Brazil Gold '91 Conference, p. 307-312.
(online at: www.iaea.org/inis/collection/NCLCollectionStore/_Public/24/058/24058940.pdf)
(Mesothermal- epithermal Porgera gold deposit associated with shallow level (<2 km emplacement depth) stocks and dykes of Porgera Intrusive Complex, emplaced at 6.0 ± 0 3 Ma near NE edge of Australian craton, during period of Late Tertiary terrane accretion. Magmatism may have been related to deep subduction beneath continental margin. Gold mineralization immediately followed emplacement of PIC at 5-6Ma. Porgera intrusive suite sodic alkali basalts/gabbros, hawaiites, and mugearites. Porgera high-grade mineralization discovered in 1983, first gold poured in 1990)

Richards, J.P. & R. Kerrich (1993)- The Porgera Gold Mine, Papua New Guinea: magmatic hydrothermal to epithermal evolution of an alkali- type precious metal deposit. Economic Geology 88, 5, p. 1017-1052.

(Porgera Au deposit in PNG highlands associated with Late Miocene (6.0 ±0.3 Ma) epizonal intrusive complex, with close relationship between mafic alkalic magmatism and precious metal mineralizations. Mineralization shortly preceded E Pliocene collision between NE Australasian continental margin and island arc)

Richards, J.P., R. Kerrich & M.T. McCulloch (1991)- The Porgera gold deposit, Papua New Guinea, 2: Sources of metal. Brazil Gold '91 Conf., p. 397-401.
(online at: https://inis.iaea.org/collection/NCLCollectionStore/_Public/24/058/24058943.pdf)

Richards, J.P. & I. Ledlie (1993)- Alkalic intrusive rocks associated with the Mount Kare gold deposit, Papua New Guinea; comparison with the Porgera intrusive complex. Economic Geology 88, 4, p. 755-781.
(Mount Kare gold deposit discovered in 1986, 18 km SW of giant Porgera mine in PNG highlands. Both deposits associated with Late Miocene alkalic intrusives emplaced in Mesozoic-Tertiary shelf sediments near edge of Australian plate. K-Ar analysis of illite from altered rock records age of 5.5 Ma, in middle of age ranges of Porgera Au deposit (5.1- 6.1 Ma). Similar alkalic epithermal ore-forming processes at both locations)

Richards, J.P., M.T. McCulloch, B.W. Chappell & R. Kerrich (1991)- Sources of metals in the Porgera gold deposit, Papua New Guinea: evidence from alteration, isotope, and noble metal geochemistry. Geochimica Cosmochimica Acta 55, 2, p. 565-580.
(Porgera gold deposit associated with Late Miocene mafic alkalic Porgera Intrusive Complex, emplaced within continental crust near Lagaip Fault Zone, which represents Oligocene suture between Australian craton and Sepik Terrane volcano-sedimentary rocks. Magmatism at Porgera probably occurred in response to Late Miocene elimination of oceanic microplate and subsequent Early Pliocene collision between craton margin and arc system on Bismarck Sea plate. Gold mineralization occurred within 1 Ma of time of magmatism)

Richards, J.P. & I. McDougall (1990)- Geochronology of the Porgera gold deposit, Papua New Guinea; resolving the effects of excess argon on K Ar and 40Ar/ 39Ar age estimates for magmatism and mineralization. Geochimica Cosmochimica Acta 54, 5, p. 1397-1415.
(Mesothermal/epithermal gold mineralization in Porgera Intrusive Complex and sedimentary host rocks. Conventional K-Ar ages of hornblende from different intrusions between 7-14 Ma, but biotite separates concordant at 6.0 ± 0.3 Ma. Older apparent ages from conventional K-Ar and Ar/Ar analyses explained by excess 40Ar contamination. Late Miocene magmatism and mineralization occurred shortly prior to or during initiation of continent/arc collision and pre-dates Pliocene uplift and foreland deformation)

Richarz, P.S.R. (1910)- Der geologische Bau von Kaiser Wilhelms-Land nach dem heutigen Stand unseres Wissens. Neues Jahrbuch Mineralogie Geologie Palaontologie, Beilage Band 29, p. 406-536.
('The geological framework of Kaiser Wilhelms Land'. Early geological description paper of the then German colony, now northern PNG. Includes description of 'Upper Cretaceous' shallow marine mollusc fauna from Torricelli Mts (but associated with Oligo-Miocene Lepidocyclina and andesites))

Rickwood, F.K. (1954)- Geology of the Western highlands of New Guinea. J. Geological Society of Australia 2, p. 63-82.
(Oldest rocks in W Highlands Omung metamorphics and Kubor-Bismarck granodiorites. Overlain by Permian (= Triassic; JTvG) limestone at Kubor anticline, unconformably overlain by U Jurassic Maril Fm silty shale with Buchia malayomaorica and Inoceramus haasti. ?Oxfordian-Kimmeridgean coral reef limestone lenses at W end of Kubor anticline (incl. Tithonian? cavity fill of coral with Calpionella alpina). Cretaceous marine sediments and mid-Cretaceous Kondaku tuff horizon. Eocene-Miocene Chimbu Lst (with Lacazina in Eocene, Nummulites intermedia in Lower Oligocene and zone Te larger forams in Upper Oligocene- basal Miocene), overlain by Miocene Globigerina marls. Sedimentary succession in E thicker than in W. Jurassic seas transgressed from E. W part of region out of range of Cretaceous vulcanism, so pelagic sedimentation continued into E Miocene. M Miocene volcanic island arc near Lai Syncline. Main folding at end-Pliocene, followed by erosion and extensive Pleistocene volcanism)

Rickwood, F.K. (1968)- The geology of Western Papua. Australian Petroleum Exploration Assoc. (APEA) Journal 8, 2, p. 51-61.

Rickwood, F.K. (1990)- Towards development- The long history of petroleum exploration in Papua New Guinea. In: G.J. & Z. Carman (eds.) Petroleum Exploration in Papua New Guinea, Proc. 1st PNG Petroleum Convention, Port Moresby, p. 1-13.
(History of petroleum exploration in PNG. First reports of oil in PNG were from 1911, but commercial oil-gas discoveries only since 1980's)

Rickwood, F.K. (1992)- The Kutubu discovery: Papua New Guinea, its people, the country and the exploration and discovery of oil. Author edition book, Sydney, p. 1-172.

Ridd, M.F. (1976)- Papuan Basin- inshore. In: C.L. Knight (ed.) Economic geology of Australia and Papua New Guinea, 3, Petroleum, Australasian Institute of Mining and Metallurgy (AusIMM), Monograph 7, p.

Riker-Coleman, K.E., C.D. Gallup, L.M. Wallace, J.M. Webster, H. Cheng & R.L. Edwards (2006)- Evidence of Holocene uplift in east New Britain, Papua New Guinea. Geophysical Research Letters 33, 18, p. 1-4.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2006GL026596)
(Along SE coast of New Britain 6 raised reef terraces up to 270m above sea level. Average uplift rate 1.6 ± 0.4 m/ 1000 yrs)

Rinne, M.L. (2015)- Geology, alteration, and mineralisation of the Golpu porphyry and Wafi epithermal deposit, Morobe Province, Papua New Guinea. Ph.D. Thesis University of Tasmania, p. 1-255.
(online at: https://eprints.utas.edu.au/22758/1/whole_Rinne_thesis.pdf)
(Wafi-Golpu gold district in Mesozoic metasediments of Owen Stanley Range of New Guinea Orogen, Morobe Province of PNG, ~65km WSW of Lae, and NW of Morobe Goldfield. Cu-Au mineralization ant ~8.67 Ma tied to Golpu diorite, which post-dates Maramumi Arc magmatism (17-12 Ma; with Frieda, Nena porphyries). Golpu probably part of W-ward younging belt of porphyry generation that also includes Porgera, Star and Ok Tedi. Uplift and exhumation during life of porphyry driven by low-angle subduction of Solomon Sea Plate, resulting in shift from porphyry to epithermal activity over period of 0.25-0.40 Myrs)

Rinne, M.L., D.R. Cooke, A.C. Harris, D.J. Finn, C.M. Allen, M.T. Heizler & R.A. Creaser (2018)- Geology and geochronology of the Golpu porphyry and Wafi epithermal deposit, Morobe Province, Papua New Guinea. Economic Geology 113, 1, p. 271-294.
(Wafi-Golpu district of PNG contains epithermal veins and alteration that overprinted giant, high-grade Golpu porphyry Cu-Au deposit around Golpu diorite. Most porphyry mineralization between ~8.76- 8.73 Ma. Time between main Golpu porphyry mineralization to last stage of Wafi epithermal veins ~120-220 k.y.)

Ripper, I.D. & K.T. McCue (1983)- The seismic zone of the Papua fold Belt. BMR J. Australian Geology Geophysics 8, p. 147-156.
(online at: https://d28rz98at9flks.cloudfront.net/81143/Jou1983_v8_n2_p147.pdf)
(Seismicity of S highlands of PNG shows two zones: (1) S Highlands Seismic Zone follows Papuan Fold Belt from Kerema on Gulf of Papua through Star Mountains region into Irian Jaya (continuing Pliocene-Quaternary thrust faulting in Indo-Australian Plate); (2) Mount Hagen Seismic Zone, plunging NNE from S Highlands seismic zone S of Mount Hagen to intersect intermediate-depth seismicity beneath Ramu-Markham Valley)

Roberts, M.P. & R.A. Armstrong (2013)- Age and O, Hf isotope systematics of the Yandera porphyry rocks-constraints on magma sources, crystallisation history and crustal evolution. Proc. Symposium East Asia: Geology, exploration technologies and mines, Bali, Bull. Australian Institute of Geoscientists (AIG) 57, p. 80-82. *(Extended Abstract)*
(online at: https://www.aig.org.au/library/publications/aig-bulletins/)
(Yandera Cu-Mo-(Au) porphyry deposit on N flanks of Mt Wilhelm in PNG highlands. Known since 1965, first production scheduled for 2016. Chalcopyrite and bornite main copper minerals and molybdenite for Mo. Porphyries typical calc-alkaline I-type granitoids. U-Pb zircon ages from Yandera porphyries 3 groups, spanning 7.1-6.3 Ma. No appreciably older inherited zircons, apart from one Mesozoic age (unlike Ok Tedi Cu-Au deposit, with much greater crustal contribution and old inherited zircon ages))

Robinson, G.P. (1970)- The geology of the Huon Peninsula, New Guinea. Geological Survey Papua New Guinea, Port Moresby, Memoir 3, p. 1-71.
(Huon Peninsula of NE PNG with peaks up to 4121m above sealevel. Oldest rocks Lower Oligocene- Lower Miocene submarine andesitic-basaltic Finisterre Volcanics (locally with U Oligocene Spiroclypeus-Nephrolepidina Lst), Kwama basalt and associated small serpenitinite bodies. E-M Miocene volcanics-derived sandstone and >1000m thick E-M Miocene- Pliocene carbonates. Structure mainly N-tilting fault blocks with many high-angle normal faults, formed during intermittent Pliocene-Pleistocene uplift. Pleistocene reef terraces up to 700m above sea level. Stratigraphy and structural style similar to volcanic arc terranes of Solomon and New Hebrides Islands)

Robinson, G.P. (1974)- Huon-Sag Sag, Papua New Guinea- 1:250,000 geological series. Geological Survey Papua New Guinea, Explanatory Notes, SB/55-11, p. 1-22.

Robinson, G.P. & A.L. Jaques (1978)- Karkar Island, Papua New Guinea- 1:250,000 geological series. Bureau Mineral Resources Geology Geophysics, Canberra, and Geological Survey Papua New Guinea, Explanatory Notes, SB/55-2, p.

Robinson, G.P., A.L. Jaques & C.M. Brown (1976)- Madang, Papua New Guinea- 1:250,000 geological series. Bureau Mineral Resources Geology Geophysics, Canberra, and Geological Survey Papua New Guinea, Explanatory Notes, SB/55-6, p.

Rock, N.M.S. & E.J. Finlayson (1990)- Petrological affinities of intrusive rocks associated with the giant mesothermal gold deposit at Porgera, Papua New Guinea. J. Southeast Asian Earth Sciences 4, 3, p. 247-258.
(Porgera mafic rocks not ordinary tholeiitic or calc-alkaline basalts, andesites, gabbros or diorites, but shoshonitic, more specifically appinitic/ lamprophyric, similar to contemporaneous shoshonitic rocks in PNG)

Rod, E. (1974)- Geology of Eastern Papua: discussion. Geological Society of America (GSA) Bull. 85, p. 653-658.
(Discussion of Davies and Smith 1971 paper)

Rod, E. & J.B. Connelly (1980)- Mode of emplacement of the Papuan ultramafic belt; discussion and reply. BMR J. Australian Geology Geophysics 5, 1, p. 74-76.
(Discussion by Rod and Reply of Connelly (1979) paper on emplacement of Papuan Ultramafic Belt)

Rodgers K.A. (1975)- A comparison of the geology of the Papuan and New Caledonian ultramafic belts. Journal of Geology 83, 1, p. 47-60.
(Papuan and New Caledonian Ultramafic Belts both in S branch of Inner Melanesian arc. Both belts strong affinities with alpine-type ultramafic association: noncumulate harzburgite forms substrate on which cumulates of peridotite and gabbros formed. Overthrusting from NE onto sialic crust of islands preceded by eruption of voluminous tholeiitic basalts in Cretaceous or Eocene. Belts differ in tectonic relationship to Tertiary blueschist metamorphism, greater variety and of cumulate rocks in Papua; widespread chromitites in New Caledonia, etc. Upper mantle origin indicated for non-cumulates)

Rogerson, R. (1993)- Location, age, characteristics and exploitation potential of Papua New Guinea coal occurrences. In: A.J. Hargraves & C.H. Martin (eds.) Australasian coal mining practice, Australasian Institute of Mining and Metallurgy, Melbourne (AusIMM), Monograph Series 12, p. 56-61.

Rogerson, R. & G. Francis (1983)- Owen Stanley Metamorphic Complex: type of initial prograde metamorphism. Science in New Guinea 10, p. 60-64.

Rogerson, R.J., D.W. Haig & S.T.S. Nion (1981)- Geology of Port Moresby. Geological Survey Papua New Guinea, Report 1981/16, p. 1-56.

Rogerson, R.J. & D.B. Hilyard (1990)- Scrapland: a suspect composite terrrane in Papua New Guinea. In: G.J. & Z. Carman (eds.) Petroleum exploration in Papua New Guinea, Proc. First PNG Petroleum Convention, Port Moresby, p. 271-282.
(Suspect composite terrane outboard of Australian margin in E PNG, including basement blocks of Bena Bena/ Goroka, Kubor, Amanab, etc. Originated by mainly transform faulting along Australian-Pacific margin prior to and following Coral Sea opening (Late Cretaceous- E Eocene). Late Oligocene- E Miocene Aure/ Omaura Fm is oldest overlap assemblage of Scrapland and main body of PNG. Re-accretion to PNG margin certainly by N17 (Late Miocene), possibly as early as Late Oligocene)

Rogerson, R.J., D.B. Hilyard, E.J. Finlayson, D.J. Holland, S.T. Nion et al. (1987)- The geology and mineral resources of the Sepik headwaters region, Papua New Guinea. Geological Survey Papua New Guinea, Memoir 12, p. 1-97.

Rogerson, R., D. Hilyard, G. Francis & E. Finlayson (1987)- The foreland thrust belt of Papua New Guinea. In: E. Brennan (ed.) Proc. Pacific Rim Congress 87, Gold Coast, Australasian Institute of Mining and Metallurgy (AusIMM), Parkville, p. 579-583.
(PNG mainland dominated by foreland thrust belt. 'Body' is floored by Paleozoic granites and metamorphics of 'Fly Platform' and is part of Tasman Orogen. 'Tail' is underlain by Papuan Plateau, which rifted from Tasman Orogen during Coral Sea spreading (near K-T boundary). Thrusting began in E Miocene and continues today)

Rogerson, R. & C. McKee (1990)- Geology, volcanism and mineral deposits of Papua New Guinea. In: F.E. Hughes (ed.) Geology of the mineral deposits of Australia and Papua New Guinea. Australasian Institute of Mining and Metallurgy (AusIMM), Parkville, Monograph Series 14, p. 1689-1701.

Rogerson, R. & A. Williamson (1986)- Age, petrology and mineralization associated with two Neogene intrusive types in the Eastern Highlands of Papua New Guinea. In: G.H. Teh & S. Paramananthan (eds.) Proc. 5th Regional Congress Geology, Mineral and Energy Resources SE Asia SE Asia (GEOSEA V), Kuala Lumpur 1984, 2, Bull. Geological Society Malaysia 20, p. 487-502.
(online at: www.gsm.org.my/products/702001-101415-PDF.pdf)
(Numerous Neogene porphyritic basic-intermediate intrusives outcrop in eastern highlands of PNG between 144°E and 146°E, with radiometric ages from 18-7 Ma. Two distinct phases of plutonism: (1) oldest Akuna-type, large complexes (18-12 Ma; incl. Bismarck Intrusive Complex) with rel. little mineralization; (2) Elandora-type (incl. Yandera), 9-7 Ma, with hydrothermal Cu-Au-Ag mineralization smaller stocks, dykes, etc. (subsequently also called 'Maramuni Arc'?; JTvG))

Rogerson, R., A. Williamson & G. Francis (1986)- Recent advances in the knowledge of geology, energy resources and metallogenesis of Papua New Guinea since 1981. In: G.H. Teh & S. Paramananthan (eds.) Proc. 5th Regional Congress Geology Mineral Energy Resources of SE Asia (GEOSEA V), Kuala Lumpur 1984, 2, Bull. Geological Society Malaysia 20, p. 23-37.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1986b02.pdf)
(Review of new early 1980's geoscience and mineral exploration work in PNG)

Ronacher, E. (2002)- The Porgera gold deposit: fluid characteristics, ore deposition processes, and duration of the ore forming event. Ph.D. Thesis University of Alberta, Edmonton, p. 1-132.
(Porgera gold deposit in PNG foldbelt 40Ar/39Ar age of igneous biotite (5.99± 0.11 Ma) interpreted age of intrusive event; two hydrothermal roscoelite samples with 5.99± 0.08 Ma age of ore formation)

Ronacher, E., J.P. Richards & M.D. Johnston (1999)- New mineralisation and alteration styles at the Porgera gold deposit, Papua New Guinea. In: G. Weber (ed.) Proc. PACRIM '99 Congress, Bali 1999, Australasian Institute of Mining and Metallurgy (AusIMM), Publ. 4-99, p. 91-94.
(Porgera gold mine in PNG highlands producing gold since 1990. Deposit associated with 6 Ma-old mafic alkalic intrusions emplaced at shallow levels into unconsolidated Jurassic- Cretaceous sediments, where they caused formation of peperites)

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(Porgera gold deposit associated with sodic-alkalic intrusions of alkali basaltic- mugearitic composition, emplaced into Cretaceous mudstones- siltstones in latest Miocene. Magmatic biotite date of 5.99± 0.11 Ma, interpreted as onset of mineralizing activity. Age of main ore deposition event ~5.9 Ma. Ages for intrusive and mineralizing events nearly identical, suggesting magmatic and ore-forming system was short-lived)

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(Structure modeling of deeper structure of Irou (PPL76) and West Anesi (PPL56) anticlines, PNG foldbelt, constrained by magnetotelluric input)

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(Managalase Plateau in NE Papua is block of fractured basement metabasalt and basic plutonic rock overlain in E by33 small volcanic centres of late Pleistocene-Recent age which include rhyodacite ash cones and trachybasalt and basaltic latite lavas. To N Pleistocene and Recent andesitic strato-volcanoes along margin of Cape Vogel geosyncline, to S series of basaltic latite, alkali basalt and ultra-alkaline lava of Pliocene age along Papuan basic-ultrabasic belt)

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(Thick weathered dacitic ash for up to 48 km from Mount Lamington strato-volcano and thinning with distance from it. Age of Mount Lamington ~90,000 years)

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(Hydrographers Range is Pleistocene andesitic stratovolcano in NE PNG. Reconstruction of orginal surface and K-Ar age of associated lavas as 650-700 ka suggest denudation rate of 75cm/1000 years at 760m altitude)

Ryburn, R.J. (1980)- Blueschists and associated rocks in the south Sepik region, Papua New Guinea; field relations, petrology, mineralogy, metamorphism and tectonic setting. Ph.D. Thesis University of Auckland, p. 1-220. *(Unpublished)*
(online at: https://researchspace.auckland.ac.nz/handle/2292/2448)
(Blueschists in S Sepik formed in N-dipping subduction zone, beneath Paleogene arc system accreted along N coast of New Guinea. Blueschists in allochthonous Tau body E-W lens (55 x 8 km) and smaller allochthons E of

Tau. Blueschists in late-Mesozoic- Eocene Salumei Fm (mostly pelitic sediments derived from S) and in ophiolite fragments and other volcanogenic rocks, related to arc to N. Salumei Fm near Tau metamorphosed from prehnite-pumpellyite to low-greenschist grade during Oligocene- E Miocene metamorphism. Blueschists mostly mafic schists with blue amphibole. Metamorphic grade increases to N. Isolated mafic tectonic blocks in and N of Tau body include high-grade blueschist, eclogite and amphibolite, all metamorphosed mafic ophiolite. Metamorphic conditions require blueschists and eclogites formed in subduction system. Active and rapid transport is needed to bring these rocks back to shallow levels, and term 'retrojection' is coined)

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(online at: https://books.google.com/books?id=kBw0AQAAMAAJ&pg=PA1&lpg=PA1&dq=Die+Vulka etc.)
('The volcanic mountains of New. Guinea'. Early report on New Guinea volcanoes, including E Papua mainland and the D'Entrecasteaux islands (largely based on C. Wichmann data))

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(Type section of basal Cretaceous Toro Sandstone Fm at Mt. Toro escarpment, Strickland River area, Papuan basin. Upper Toro Sst Mb in outcrop 225m thick. With Berriasian age dinoflagellates (at base Peridictyocysta miriabilis zone to Leptodinium pinnosum zone at top; Davey 1987))

Sari, J., R. Failing & K. Wulff (1996)- The Giero Sandstone: a potentially new play in the Papuan Basin. In: P.G. Buchanan (ed.) Petroleum exploration, development and production in Papua New Guinea, Proc. 3rd PNG Petroleum Convention Port Moresby, p. 301-312.
(Cenomanian- Turonian (D. multispinum dinozone) turbiditic deep water sandstone in middle part of Giero Mb in parts of Papuan Basin foldbelt. Up to 70m thick sand-rich submarine fan intervals penetrated in Juha, Egele, Hides and Muller wells)

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(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB02:000122467:00005))
('Jurassic fossils from the Upper Sepik, New Guinea'. M-U Jurassic macrofossils from geodes in gravel float of Upper Sepik River, NW PNG, near 4°15' S- 141° E, collected in 1910 by the German 'Border Expedition'. Includes ammonites Macrocephalites keeuwensis, Perisphinctes spp., Idoceras, Phylloceras, Hoplites. Also canaliculate belemnites and Incoceramus galoi. Similarities with fauna from Sula islands, Cenderawasih Bay and Himalaya Spiti Beds)

Schmidt, P.W., D.A. Clark & K.J. Logan (1997)- Palaeomagnetism, magnetic petrophysics and magnetic signature of the Porgera intrusive complex, Papua New Guinea. Exploration Geophysics 28, 2, p. 276-280.
(online at: www.researchgate.net/publication/248903162_Palaeomagnetism_Magnetic_Petrophysics Etc.)
(Hornblende diorite and hornblende diorite porphyry most magnetic rock types in Porgera Complex. Both normal and reverse polarity preserved in Complex. Primary magnetisation carried by (titano)magnetite. Primary remanence directions demonstrate tilting of intrusions since emplacement (up to 50°- 60°). Tectonic rotations response to thin-skinned tectonic processes which accompanied rapid uplift of Complex)

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(Sediment cores from Lake Kutubu, S Highlands, PNG, with two prominent tephra layers, correlated with Tibito and Olgaboli tephras described nearby. Tibito tephra possibly from Long Island; Olgaboli tephra possibly from Karkar Island source)

Schofield, S. (2000)- The Bosavi Arch and the Komewu Fault zone: their control on basin architecture and the prospectivity of the Papuan foreland. In: P.G. Buchanan, A.M. Grainge & R.C.N. Thornton (eds.) Papua New Guinea's petroleum industry in the 21st century, Proc. 4th PNG Petroleum Convention, Port Moresby, p. 101-122.
(Kimu 1 and Koko 1 wells in PNG foreland, S of Mount Bosavi volcano. Most of Cretaceous section eroded at Base Tertiary unconformity in Koko 1 (uplift and erosion across Fly Platform coincides with Coral Sea rift event). Well TD in E-M Permian granite (269±7 Ma). E-M Jurassic section onlaps onto basement highs; thickening to N and E; facies more marine from SW to NE; Middle- early Late Jurassic extension formed localized depocenters on NW trending faults. Late Jurassic- E Cretaceous passive ramp margin)

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(Abstract + Presentation)
(Review of hydrocarbon prospectivity of two onshore areas south of PNG fold-thrust belt (Kina Petroleum farmout spiel)

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(online at: www.landesmuseum.at/pdf_frei_remote/VerhGeolBundesanstalt_1910_0318-0328.pdf)
('On foraminifera and a fish otolith from a fossil Globigerina marl of New Guinea'. Listing of Pliocene deep marine smaller foraminifera from blueish marls of Torricelli Mountains. Incl. new species Globigerina fistulosa (= Globigerinoides fistulosus))

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('Investigations in the interior of New Guinea Island'. Results of 1910-1911 German-Dutch expedition along border of Dutch and German sectors of New Guinea, led by zoologist-anthropologist Leonhard Schultze-Jena (1872-1955). Reached 141° meridian in Central Range from Sepik River. Incl. report of Nummulites Limestone boulder)

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(On the Astrolabe Au-Cu mineral deposit E of Port Moresby)

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Siedner, G. (1958)- A geological reconnaissance of the Nambayat Creek area, Finisterre Range, New Guinea. Bureau Mineral Resources Geology Geophysics, Records 1958/037, p. 1-6.
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(Survey Nambayat Creek area of S slopes of Finisterre Range, N PNG, to verify reported gold find (none found). Sediments thick series of NE dipping, probably Miocene age clastics, intruded by basic igneous rocks)

Silver, E.A., L.D. Abbott, K.S. Kirchoff-Sten, D.L. Reed, B. Bernstein-Taylor & D. Hilyard (1991)- Collision propagation in Papua New Guinea and the Solomon Sea. Tectonics 10, 5, p. 863-874.
(PNG mountain system grow by accretion of Australian margin strata to front of Papuan fold-and-thrust belt in S and by accretion of exotic terranes along NE margin. Finisterre Terrane accreting onto NE margin, with collision point migrating E within Solomon Sea. Rate of progression of collision ~212 km/ My in last My))

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(online at: https://www.j-micropalaeontol.net/9/239/1991/jm-9-239-1991.pdf)
(New species of gymnocodiacean alga from reefal E Miocene Darai Lst Fm of Papuan Fold Belt S of Tari, PNG. Previously only known from Permian and Cretaceous. Associated microfauna Austrotrillina, Flosculinella bontangensis, Miogypsinoides, Miogypsina kotoi, etc.)

Skwarko, S.K. (1963)- Mesozoic fossils from Ramu 1:250,000 Sheet area, Territory of New Guinea. Bureau Mineral Resources Geology Geophysics, Record 1963/031, p.
(online at: www.ga.gov.au/corporate_data/11113/Rec1963_031.pdf)
(Macrofossils collected by Dow & Dekker from 5 units in U Triassic- U Jurassic S of Ramu River: (1) Jimi greywacke (M-U Triassic molluscs Costatoria, Gervillia, Spiriferina, Myophoria and ammonite Sirenites malayicus Welter, originally described from Timor); (2) Kana Fm detritus from acid volcanics (with Triassic Costatoria, Spiriferina); (3) Balimbu greywacke (Lower Jurassic Tropidoceras?); (4) Jurassic Mangum volcanics; (5) Maril Shale (U Jurassic Buchia malayomaorica, Inoceramus cf. haasti))

Skwarko, S.K. (1967)- Mesozoic Mollusca from Australia and New Guinea, 2, Mesozoic fossils from eastern New Guinea; (a) First Upper Triassic and ?lower Jurassic marine Mollusca from New Guinea. Bureau Mineral Resources Geology Geophysics, Bull. 75, p. 40-82.
(online at: https://d28rz98at9flks.cloudfront.net/161/Bull_075.pdf)
(Mesozoic of Jimi River, Bismarck Mts and Central Highlands five sedimentary units, 21 genera and species, half of them new. Highly provincial Late Triassic molluscs in thick Jimi Greywacke series. Overlain by Upper Triassic Kana Fm acid volcanoclastics, probably Lower Jurassic Balimbu greywacke, ?M Jurassic Mongum volcanics and Upper Jurassic Maril shale with Malayomaorica and Inoceramus haasti)

Skwarko, S.K. (1967)- Mesozoic Mollusca from Australia and New Guinea, 2, Mesozoic fossils from eastern New Guinea; (b) Lower Cretaceous Mollusca from the Sampa beds near Wau. Bureau Mineral Resources Geology Geophysics, Australia, Bull. 75, p. 85-98.
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(Eleven mollusc species from Lower Cretaceous Sampa beds of Lake Trist area, PNG)

Skwarko, S.K. (1973)- Middle and Upper Triassic mollusca from Yuat River, Eastern New Guinea. Palaeontological papers 1969, Bureau Mineral Resources Geology Geophysics (BMR), Bull. 126, p. 27-50.
(online at: https://d28rz98at9flks.cloudfront.net/101/Bull_126.pdf)
(M and U Triassic molluscs from Yuat River gorge in E PNG Highlands (= part of 'Jimi Terrane', outboard of Kubor Block?; JTvG). Yuat Fm black shale with Late Anisian ammonites, incl. Paraceratites cf. trinodosus, Ptychites, Beyrichites, Parapopanoceras, etc. Nearby Jimi River Ladinian- Carnian sandstones-shales with halobiid bivalves, Myophoria, etc. Associated with volcanics. U Anisian fauna is Tethyan in character and Circum-Pacific in distribution)

Skwarko, S.K. (1973)- On the discovery of Halobiidae (Bivalvia, Triassic) in New Guinea. Palaeontological papers 1969, Bureau Mineral Resources Geology Geophysics (BMR), Bull. 126, p. 51-54.
(online at: https://d28rz98at9flks.cloudfront.net/101/Bull_126.pdf)
(First report of M-U Triassic Halobiidae molluscs from mainland New Guinea: Carnian-Norian (U Triassic) of Yuat River gorge, PNG Highlands, and from Ladino-Carnian in Jimi River area NE of Tabibuga, 80 km to ESE. New species, Daonella novoguineana described Jimi River area is closely related to Daonella indica Bittner 1899, known from Himalayas and Timor. Associated with Costatoria, Spiriferina, etc.)

Skwarko, S.K. (1973)- First report of Domerian (Lower Jurassic) marine mollusca from New Guinea. Palaeontological Papers 1970-1971, Bull. Bureau Mineral Resources Geology Geophysics 140, p. 105-112.
(online at: www.ga.gov.au/corporate_data/107/Bull_140.pdf)
(S Sepik region Yuat River occurrence of marine Pliensbachian in 'Balimbu Greywacke/ Kana Fm', with Arieticeras ammonite and some bivalves)

Skwarko, S.K. (1978)- Stratigraphic tables, Papua New Guinea. Bureau Mineral Resources Geology Geophysics, Report 193, p. 1-137.
(online at: www.ga.gov.au/products-services/legacy-publications/reports.html)
(Tables of descriptions of stratigraphic units used in PNG)

Skwarko, S.K. (1981)- A new upper Mesozoic trigoniid from western Papua New Guinea. Palaeontological Papers 1981, Bureau Mineral Resources Geology Geophysics Aust., Bull. 209, p. 53-55.
(online at: www.ga.gov.au/corporate_data/59/Bull_209.pdf)
(First report of U Jurassic or Lower Cretaceous genus Eselaevitrigonia from western Central Range, PNG)

Skwarko, S.K. (1981)- First report of Megatrigoniinae (Bivalvia, Cretaceous) from Papua New Guinea. Palaeontological Papers 1981, Bureau Mineral Resources Geology Geophysics (BMR), Bull. 209, p. 57-58.
(online at: www.ga.gov.au/corporate_data/59/Bull_209.pdf)
(First report of Neocomian Iotrigonia (Zaletrigonia?) telefominiana n.sp. from western Central Range, PNG)

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(online at: www.ga.gov.au/corporate_data/59/Bull_209.pdf)

Skwarko, S.K. (1981)- *Spia*, a new Triassic bakevellid bivalve from Papua New Guinea. Palaeontological Papers 1981, Bureau Mineral Resources Geology Geophysics, Bull. 209, p. 63-64.
(online at: www.ga.gov.au/corporate_data/59/Bull_209.pdf)
(Spia janeki new species of bivalve Bakevellia (Spia) from U Triassic Jimi Greywacke, west-C PNG. Only two known species referable to Spia, both from Carnian-Norian of PNG. Spia viewed as subgenus of Bakevellia by Ros-Franch et al. 2014))

Skwarko, S.K. (1983)- *Somareoides hastatus* (Skwarko) a new Late Triassic bivalve from Papua New Guinea. Palaeontological Papers 1983, Bureau Mineral Resources Geology Geophysics, Bull. 217, p. 67-72.
(On systematic position of new Upper Triassic bivalve from Jimi Greywacke, central PNG, first described by Skwarko 1967. Initially assigned to Permophorus?, this Carnian genus is viewed as endemic of 'Australian fauna' by Damborenea et al. 2002, Southern Tethys by Ros-Franch et al. 2014)

Skwarko, S.K. & B. Kummel (1974)- Marine Triassic molluscs from Australia and Papua New Guinea. Bureau Mineral Resources Geology Geophysics, Bull. 150, p. 111-127.
(Mainly on Australian material. Skwarko (1973) Jimi River sandstones and shales with Ladinian-Carnian halobiids and Carnian-Norian ammonite Sirenites cf. malayicus. Yuat River gorge in W Highlands with Anisian cephalopods (Beyrichites, Paraponanoceras, Paraceratites, etc.))

Skwarko, S.K., R.S. Nicoll & K.S.W. Campbell (1976)- The Late Triassic molluscs, conodonts and brachiopods of the Kuta Formation, Papua New Guinea. BMR J. Australian Geology Geophysics 1, p. 219-230.
(online at: www.ga.gov.au/corporate_data/80882/Jou1976_v1_n3_p219.pdf)
(30-250m thick Kuta Limestone with Rhaetian brachiopods (Clavigera, Zugmayerella), cephalopods (Arcestes cf. sundaicus), bivalves and conodonts (Misikella posthernsteini), E of Mt Hagen. Faunas of Tethyan Province aspect, except 'Maorian' Clavigera, previously known only from New Zealand and New Caledonia Kuta Fm grades laterally into calcareous breccia with metamorphic rocks. Limestone unconformably overlain by Upper Jurassic or Cretaceous)

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(Marine seismic data off Kerema gives rel. good imaging of PNG foldbelt. Shows common S-dipping backthrusts, frontal folds detached in Mesozoic shales, episodic SW-ward progression of foldbelt compression with younger stratigraphic sequences less tightly folded, etc.)

Slater, A. & F. Dekker (1993)- An overview of the petroleum geology of the Eastern Papuan fold belt, based on recent exploration. In: G.J. & Z. Carman (eds.) Petroleum exploration in Papua New Guinea, Proc. 2nd PNG Petroleum Convention, Port Moresby, p. 499-516.
(On- and offshore Aure Trough/ E Papuan foldbelt abundance of oil and gas seeps onshore suggest prolific hydrocarbon system. Cretaceous- Paleogene sediments part of Australian passive continental margin sequence. With map of potential Campanian Pale Sst fairway. Oligo-Miocene Puri Lst also good reservoir potential)

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(On Townsville gold prospect 4 km N of Ok Tedi copper-gold mine in W Province, PNG. Townsville gold deposits in breccia in older Darai Lst)

Smith, I.E.M. (1970)- Late Cainozoic uplift and geomorphology in south-eastern Papua. Search 1, p. 222-225.

Smith, I.E.M. (1972)- High-potassium intrusives from southeastern Papua. Contributions to Mineralogy and Petrology 34, p. 167-176.
(Miocene high-K 'shoshonitic' rocks intrude Eocene submarine basalts in SE Papua. Two groups: 'near-saturated' gabbro to syenite, and nepheline normative 'undersaturated' group. Intrusion of shoshonitic rocks at start of period of major tectonic activity in SE Papua and may form part of island arc magmatic association)

Smith, I.E.M. (1976)- Volcanic rocks from southeastern Papua: the evolution of volcanism at a plate boundary. Ph.D. Thesis, Australian National University, Canberra, p. 1-290.
(online at: https://openresearch-repository.anu.edu.au/bitstream/1885/138569/2/b10169726_Smith_I_E.pdf)
(Cenozoic volcanism in SE Papuan Peninsula. Oldest volcanics in SE Papua are U Cretaceous and Eocene submarine basalts, forming main ranges at E tip of peninsula; probably mid-ocean ridge basalts associated with sea floor spreading in Coral Sea. Major episode of volcanic activity in SE Papua began in Miocene, with S volcanic belt characterised by high-K basalts and N belt with mainly island arc andesites, basalts and rhyolites)

Smith, I.E.M. (1977)- Peralkaline rhyolites from the D'Entrecasteaux islands, Papua New Guinea. In: R.W. Johnson (ed.) Volcanism in Australasia, Elsevier, Amsterdam, p. 275-285.
(Mildly peralkaline rhyolites (comendites) most abundant lavas in Quaternary volcanic province centered around Dawson Strait in D'Entrecasteaux islands, E PNG, associated with minor basaltic rocks. Tied to crustal extension and rifting)

Smith, I.E.M. (1982)- Volcanic evolution in Eastern Papua. Tectonophysics 87, p. 315-333.
(Basement formations of U Cretaceous and Eocene submarine basalt comparable to sea floor spreading centers and thought to be associated with Coral Sea basin spreading. Arc-trench type andesitic volcanism prominent during Late Cenozoic but no clear relationship to subduction event. Tectonic environment of E Papua during Late Cenozoic was one of block faulting and uplift associated with crustal tension. Quaternary peralkaline rhyolites suggests this environment now being replaced by active rifting)

Smith, I.E.M. (2013)- The chemical characterization and tectonic significance of ophiolite terrains in southeastern Papua New Guinea. Tectonics 32, 2, p. 159-170.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1002/tect.20023)

(Papuan Ultramafic Belt marks collision between continental crust and subduction system. However, in SE Milne Terrain extensive problematic sequence of U Cretaceous and Eocene basaltic rocks with MORB affinities. Probably associated with opening of Coral Sea Basin. Milne Terrain rocks represent lower plate in obduction system along which Papuan Ultramafic Belt was emplaced, and thus equivalent of continental crust which was separated from Australian continental block by opening of Coral Sea. Uplift (>4 km) of Milne Terrain may be due presence of underplated material associated with Late Miocene-Pliocene subduction immediately prior to encroachment of Woodlark spreading center into Papuan area)

Smith, I.E.M. (2014)- High-magnesium andesites: the example of the Papuan volcanic arc. In: A. Gomez-Tuena et al. (eds.) Orogenic Andesites and crustal growth, Geological Society, London, Special Publ. 385, p. 117-135.
(Late Cenozoic volcanic arc in SE PNG developed in environment of complex tectonic processes including obduction, subduction, rifting and sea floor spreading. Volcanic arc extends from Papuan Peninsula SE-ward through D'Entrecasteaux Islands into Louisiade Archipelago. Mainly basaltic andesite and andesite, but also basalt, dacite and rhyolite. Unusual abundance of high-Mg lavas in SE Papua related to extensional tectonics which allowed deep sourced magmas to rise without significant modification)

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(Geology of area of Papuan Peninsula/ Owen Stanley Range. E of 148°30'. Mostly U Cretaceous and M Eocene submarine basalts, with minor limestone and chert (incl. Upper Cretaceous (w. Globotruncana) and Eocene pelagic rocks with good planktonics and skeletal Eocene carbonates with Discocyclina, Nummulites). Also localized E-M Miocene reefal carbonates on Kutu Volcanics, commonly with reworked Eocene LBF. Some basalt metamorphosed to low greenschist facies. In NW peridotites of Papuan ultramafic belt are faulted against basalt, probably Eocene thrusting. Emergence of SE Papua started in Oligocene. With extensive appendix on foraminifera by Belford)

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(Sea floor around E PNG deep basins and submarine ridges with islands of metamorphic, volcanic or coralline rock. Extension phases since at least Paleocene, when Coral Sea basin formed. Compressive events include emplacement of Papuan Ultramafic Belt ophiolite in Oligocene. Extension-related volcanic rocks include low-K tholeiites and peralkaline rhyolite. Two Neogene phases of extension (1) M- Late Miocene, with formation of

marginal basins related to subduction and (2) M Pliocene- today, response to changes in relative motions of surrounding plates. Active sea-floor spreading in Woodlark Basin today, and post-Miocene calc-alkaline and shoshonitic rocks of Papuan Peninsula and offshore islands reflect reactivation of subduction-modified mantle under this tensional regime, not renewed subduction)

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(Uplifted Late Plio- E Pleistoce erosional surface(s) up to 185m asl on Miocene- Pliocene volcanic rocks along Milne Bay on SE tip of PNG main island. Nearby uplifted coral reefs at >500m above sea level)

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(Four main phases in diastrophic evolution of PNG: (1) Mesozoic phase of fragmentation of pre-Mesozoic cratonic platform into troughs and geanticlines which constituted Papuan geosynclinal system, accompanied by basic volcanism and ultrabasic plutonism; (2) Paleogene temporary stabilization and development of extensive quasi-platform regime; (3) Lower and M Miocene remobilization of earlier geosynclinal terrain and again by important volcanism. (4) Upper Miocene- Recent orogenic phase: uplift of Papuan geosynclinal system to form New Guinea cordillera, associated with formation of 'exogeosynclinal trough', foreland folding and andesitic volcanism. Foreland folded structures of Papuan foothills result of gravity sliding off flank of rising orogen)

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(BP review of PNG tectonics. Six tectono-stratigraphic provinces. Four main plate tectonic events: (1) Paleo cene- E Eocene onset of rapid N drift of Australian Plate, short-lived spreading in Coral Sea; (2) M Eocene- E Oligocene Solomon Sea Plate evolved in back-arc of Melanesian Arc; (3) Late Oligocene- M Miocene obduction of S edge Solomon Sea Plate onto N margin of Australian Plate (Sepik and Owen Stanley obduction complexes, Papuan Basin foreland basin evolution); (4) Late Miocene- Recent collision of Melanesian Arc with PNG, resulting in compression of Papuan Thrust belt)

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(online at: www.searchanddiscovery.com/pdfz/documents/2020/11323swift/ndx_swift.pdf.html)
(First oil seep in Torres Basin in N Papuan Plateau. Found in 2017 at Imila Village in foothills of Aure Thrust Belt, near front of Bogoro Shear Zone with obducted oceanic rocks. Oil light (API 46.4; almost condensate), of Late Cretaceous-Paleogene age, terrestrial kerogen source, different from previously known PNG oils. Maturation indicates 4km deep source. Torres Basin petroleum systems comparable with Papuan Basin)

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(online at: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.513.3434&rep=rep1&type=pdf)
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(preprint online at: https://users.monash.edu.au/~weinberg/PDF_Papers/VanDongen_LITHOS.pdf)
(Zircon from monzonite with U-Pb crystallisation ages of 1.16 Ma, making Ok Tedi youngest known giant porphyry copper-gold deposit. Mineralisation lasted <~0.5 Myr. Pleistocene zircons with inherited Proterozoic component of ~1.8-1.9 Ga. Cores with crustal oxygen isotopic signature, suggesting assimilation of Proterozoic continental crust by mantle-derived magma, similar to Pliocene Porgera Au deposit. Proterozoic ages compare to felsic magmatic rocks on mainland N Australia, in particular Mount Isa inlier)

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Van Wyck, N. & I.S. Williams (2002)- Age and provenance of basement metasediments from the Kubor and Bena Bena blocks, central Highlands, Papua New Guinea: constraints on the tectonic evolution of the northern Australian cratonic margin. Australian J. Earth Sciences 49, p. 565-577.
(Metamorphics in Kubor/ Bena Bena blocks in PNG Central Highlands with old detrital zircons, suggesting N Australian provenance. Ages of ~1.8 Ga (10%), ~1.55 Ga (10%), 470-440 Ma (Late Ordovician; 15%), ~340 Ma (E Carboniferous; 10%) and 290-260 Ma (E-M Permian; 40%) match zircons from Coen Inlier, NE Queensland, but contrast with ages from terranes further S, E and W. Omong Metamorphics protolith probably deposited in M-L Permian, deformed in Late Permian- E Triassic, intruded by E Triassic Kubor Intrusive Complex at ~245, 239 Ma)

Varney, T.D. & A.C. Brayshaw (1993)- A revised sequence stratigraphic and depositional model for the Toro and Imburu Formations, with applications for reservoir distribution and prediction. In: G.J. & Z. Carman (eds.) Petroleum exploration and development in Papua New Guinea, Proc. 2nd PNG Petroleum Convention, Port Moresby, p. 139-154.
(BP sequence stratigraphic model and facies maps of latest Jurassic sandstones (Late Kimmeridgean- Tithonian Iagafu, Hedinia sst; (Valanginian Digimu, Toro Sst) in Papuan foldbelt. Five genetic sequences)

Vigar, A.J., B. Lueck, I. Taylor, K. Prendergast & P. Dale (2015)- Kainantu gold-copper system, Papua New Guinea. Proc. PACRIM 2015 Congress, Hongkong, Australasian Institute of Mining and Metallurgy (AusIMM), Melbourne, Publ. Ser. 2/2015, p. 601-608. *(Extended Abstract)*
(Kainantu Project in NE part of New Guinea Thrust Belt, PN, in area with long mining history. Discovery of alluvial gold in 1928, followed by vein deposits of gold-copper at Kora in 1950s and current Irumafimpa vein gold mine Mineralisation includes gold, silver and copper, associated with M Miocene intrusions)

Volk, H., S.C. George, H. Middleton & S. Schofield (2005)- Geochemical comparison of fluid inclusion and present-day oil accumulations in the Papuan Foreland- evidence for previously unrecognised petroleum source rocks. Organic Geochemistry 36, 1, p. 29-51.
(Suggest Cretaceous- Tertiary source rocks from Bosavi Arch fluid inclusion oils. Not clear how these ended up in Jurassic and E Cretaceous Toro reservoirs)

Wacaster, S. (2015)- The mineral industry of Papua New Guinea. In: 2013 Minerals Yearbook, Indonesia, U.S. Geological Survey, p. 22.1-22.7.
(online at: https://minerals.usgs.gov/minerals/pubs/country/2013/myb3-2013-pp.pdf)
(Listing of 2013 mineral production in PNG, No geology)

Wade, A. (1914)- Report on petroleum in Papua. Government of the Commonwealth of Australia, Melbourne, p. 1-45.
(online at: https://nla.gov.au/nla.obj-2722625441/view?partId=nla.obj-2724974539page/n0/mode/1up)
(Includes evidence of oil along coastal belt 8-12 miles wide between Purari River Delta and Yule Island.)

Wade, A. (1927)- The search for oil in New Guinea. American Assoc. Petroleum Geol. (AAPG) Bull. 11, 2, p. 157-176.
(Early overview of geography, geology, oil seeps and oil exploration activity in W and E New Guinea, where at that time no commercial production had yet been established. First gas seeps discovered at Upoia/ Opa, 30 miles from mouth of Vailala River, also site of first hydrocarbon exploration well drilled in PNG side in 1915, which produced a few 1000 gallons of light oil from a shallow well in the Vailala area)

Wai, K.M., M.J. Abbott & A.E. Grady (1994)- The Sadowa Igneous Complex, eastern Papua: ophiolite or not. Mineralogical Magazine 58, p. 949-950.
(online at: http://rruff.info/doclib/MinMag/Volume_58A/58A-2-949.pdf)
(Extended Abstract Goldschmidt Conference 1994. Late Cretaceous- Eocene Sadowa Igneous Complex, E PNG, obducted onto Owen Stanley metamorphics in Late Eocene- M Oligocene to form E Papuan Composite Terrane. With plagiogranites similar to those from back arc basin rather than oceanic ridge. Sadowa Igneous Complex not complete ideal ophiolite sequence, but still similar to ophiolites elsewhere)

Walker, D.A. & W.E. Cameron (1983)- Boninite primary magmas: evidence from the Cape Vogel Peninsula, PNG. Contributions to Mineralogy and Petrology 83, p. 150-158
(Boninites from Cape Vogel, PNG, mainly pyroxene-glass rocks, but many contain olivine. Parental magma probably formed at 1250- 1300° C and low P (<?10kB), similar to olivine-clinoenstatite phyric boninites from New Caledonia and Howqua, Australia)

Walker, D.A. & I. McDougall (1982)- ^{40}Ar ^{39}Ar and K-Ar dating of altered glassy volcanic rocks: the Dabi Volcanics, P.N.G. Geochimica Cosmochimica Acta 46, 11, p. 2181-2190.
(Ar/Ar adiometric ages for altered submarine tholeiitic and boninite (high-Mg andesite) lavas from Dabi Volcanics, Cape Vogel Peninsula, Papua New Guinea, suggest Late Paleocene age (~59 Ma) for tholeiitic and boninitic lavas, while apparent K/Ar ages for same samples range from ~27.2- 64 Ma, probably due to variable radiogenic 40Ar loss)

Wang, S., C. Xu, Z. Li, Y. Wen & C. Song (2020)- The 2018 Mw 7.5 Papua New Guinea Earthquake: A possible complex multiple faults failure event with deep-seated reverse faulting. Earth and Space Science 7, 3, e2019EA000966, p. 1-9.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1029/2019EA000966)
(25 February 2018 devastating Mw 7.5 earthquake across S area of Papuan fold-thrust belt. Involved multiple faults, dominated by reverse fault motion, and slip of up to ~0.7 m on faults extending to >25 km depth)

Waples, D.W. & K.J. Wulff (1996)- Genetic classification and exploration significance of oils and seeps of the Papuan Basin. In: P.G. Buchanan (ed.) Petroleum exploration and production in Papua New Guinea, Proc. 3rd PNG Petroleum Convention, Port Moresby, p. 417-430.
(137 oil samples classified into 5 families from different Mesozoic- Tertiary sources. Four of the oil families in linear trends in Papuan Fold Belt. Family 3 oils tied to oil in Oxfordian sands. Family 1 oils with oleanane and bicadanes probably from Oligocene or younger rocks (only in seeps in SE). Family 2 oils with oleanane but no bicadanes probably from U Cretaceous or Paleogene source. Families 3-4 no oleananes, analogous to NW Shelf Mesozoic sources (in Papuan fold belt oil-gas fields))

Warburton, J., J. Iwanec, J. Lamb, D. Waples & K. Wulff (2017)- Potential for future petroleum resource growth in PNG. Proc. SE Asia Petroleum Exploration Society (SEAPEX) Exploration Conference 2017, Singapore, Session 6, p. 1-24. *(Abstract + Presentation)*
(Oil Search 2015 assessment determined ~4.8 GBOE recoverable resources discovered in PNG to date (85% gas). Additional 7 GBOE still to be discovered (40 TCF gas + 550 MMbarrels). In parts of interior PNG petroleum generated in Late Cretaceous, predating foldbelt. In other areas petroleum generated during Mio-Pliocene foldbelt formation near present-day mountain front where it continues to be generated today)

Warren, R.G. (1972)- A commentary on the metallogenic map of Australia and Papua New Guinea. Bureau Mineral Resources (BMR), Canberra, Bull. 145, p. 1-85.
(online at: https://www.ga.gov.au/products/servlet/controller?event=GEOCAT_DETAILS&catno=99)
(Includes 1:1.5M scale map and brief review (p. 69-73) of PNG mineral occurrences)

Waterhouse, H.K. (1996)- Potential of palynostratigraphy for Neogene basin analysis in Papua New Guinea. In: P.G. Buchanan (ed.) Petroleum exploration, development and production in Papua New Guinea, Proc. 3rd PNG Petroleum Convention, Port Moresby, p. 329-343.
(Palynostratigraphy of U Miocene- Lower Pliocene Orubadi Fm in Puri anticline of Papuan foreland basin. Several episodes of reworking of M Cretaceous- Miocene dinoflagellates from New Guinea Highlands)

Waterhouse, H.K. (1998)- Palynological fluorescence in hinterland reconstruction of a cyclic shallowing-up sequence, Pliocene, Papua New Guinea. Palaeogeogr. Palaeoclim. Palaeoecology 139, 1-2, p. 59-82.
(Variations in fluorescence of contemporaneous Pliocene and lower-fluorescent reworked palynological particles in shallowing-upward sequence of Lower Pliocene Orubadi Fm in Puri Anticline of Papuan Foreland Basin. Episodes of reworking in Puri Creek shown by nannofossils (Late Cretaceous, Late Paleocene, Oligocene-Miocene boundary, M-L Miocene) and palynomorphs (Cenomanian, Senonian), result of episodes of thrusting in New Guinea foldbelt)

Watmuff, G. (1978)- Geology and alteration-mineralization zoning in the central portion of the Yandera porphyry copper prospect, Papua New Guinea. Economic Geology 73, p. 829-856.
(Copper mineralization at Yandera in PNG central highlands associated with low-K tholeiite-calc-alkaline porphyry intrusives into M Miocene (13.5 Ma) Bismark Intrusive Complex. Three episodes of porphyry emplacement. Oldest and largest porphyry emplaced ~1 Myrs after intrusion of host Bismarck batholith)

Webb, P.K. & P. Woyengu (1999)- The internal fold and thrust belt play, Papua New Guinea. In: C.A. Caughey & J.V.C. Howes (eds.) Proc. Conference Gas habitats of SE Asia and Australasia, Jakarta 1998, Indonesian Petroleum Association (IPA), Jakarta, p. 213-224.
(Brief overview of 600 km long x 230 km wide PNG foldbelt. Three segments, two trending NNW, middle one NW. Folding, thrusting, and uplift since Late Miocene)

Webber, S., K.P. Norton, T.A.Little, L.M. Wallace & S. Ellis. (2018)- How fast can low-angle normal faults slip? Insights from cosmogenic exposure dating of the active Mai'iu fault, Papua New Guinea. Geology (GSA) 46, 3, p. 227-230.

Webber, S., T.A. Little, C. Boulton, J. Biemiller & M. Mizera (2022)- Regional-scale low-angle normal fault friction and cohesion constrained from Mohr-Coulomb models of active and abandoned Range-Front faults in Papua New Guinea. J. of Geophysical Research: Solid Earth 127, e2021JB023553, p. 1-23.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2021JB023553)
(Modeling of Gwoira rider block, located atop fast-slipping Mai'iu low-angle normal fault (LANF), Woodlark Rift, SE PNG, indicates fault segment is frictionally weak. Model for initiation and evolution of rider blocks: (1) LANF initiates at moderately steep dip; (2) exhumed LANF footwall uplifted and back-rotated (rolling-hinge); (3) at some point upper part of LANF dips at such shallow angle that new high-angle fault cuts LANF hanging-wall, creating new rider block. (4) rider block uplifted and back rotated with further slip on LANF))

Webber, S., T. Little, K. Norton, J. Osterle, M. Mizera, D. Seward & G. Holden (2020)- Progressive back-warping of a rider block atop an actively exhuming, continental low-angle normal fault. J. Structural Geology 130, 103906, p. 1-15.
(Although Mai'iu fault in SE PNG still active in W, to E it dips 15-22° at surface, and has been abandoned in favor of younger, ~42° dipping Gwoira fault. Fault abandonment caused part of former hanging wall to be captured by footwall. Rider block structure records progressive shallowing of Mai'iu fault concurrent with slip. inception of Mai'iu fault before 3-6 Ma, and inception of Gwoira fault between 2.3 and 5.6 Ma.Continental Low Angle Normal Faults initiate at moderate dips, and evolve according to 'rolling-hinge' process)

Webber, S., K.P. Norton, T.A. Little, L.M. Wallace & S. Ellis (2018)- How fast can low-angle normal faults slip? Insights from cosmogenic exposure dating of the active Mai'iu fault, Papua New Guinea. Geology (GSA) 46, 3, p. 227-230.
(Mai'iu fault in rapidly extending Woodlark Rift is one of few active continental low-angle normal faults globally. Such faults may slip at >10-20 mm/yr faster than high-angle normal faults. Cosmogenic nuclide exposure dating (10Be in quartz) of Mai'iu fault scarp indicates slip at 11.7 ± 3.5 mm/yr over past ~5.5 k.y.)

Weiler, P.D. (1999)- Paleomagnetic study of an active arc-continent collision, Finisterre Arc Terrane, Papua New Guinea. Ph.D. Thesis University of California, Santa Cruz, p. 1-183.
(Larger scale paleomagnetic results from colliding Finisterre Arc: hemipelagic rocks indicate CW rotation of colliding terrane of ~40° in post-Miocene time. Decreasing paleomagnetic declination anomalies along strike in Finisterre Terrane, suggesting rotation results from rigid-body rotation of FT rather than sequential docking of colliding blocks)

Weiler, P.D. & R.S. Coe (1997)- Paleomagnetic evidence for rapid vertical-axis rotations during thrusting in active collision zone, northeastern Papua New Guinea. Tectonics 16, 3, p. 537-550.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/97TC00493)
(Three thrust sheets of foldbelt N of Ramu-Markham fault zone rapid CCW rotations in last 1 My, related to tectonic transport)

Weiler, P.D. & R.S. Coe (2000)- Rotations in the actively colliding Finisterre Arc Terrane: paleomagnetic constraints on Plio-Pleistocene evolution of the South Bismarck microplate, Northeastern Papua New Guinea. Tectonophysics 316, p. 297-325.
(Paleomagnetic results from actively colliding Finisterre Arc Terrane in N PNG indicate ~40° post-Miocene clockwise rotation of colliding terrane. Rotation reflects coherent rigid rotation of Finisterre Terrane rather than sequential docking of independently colliding blocks. S Bismarck/ Australia relative motion highly oblique collision in early stages, with Finisterre Arc Terrane converging along left-lateral Ramu-Markham suture, gradually changing to nearly orthogonal convergence observed today)

Weiser, T.W. & H.G. Bachmann (1999)- Platinum-group minerals from the Aikora River area, Papua New Guinea. The Canadian Mineralogist 37, p. 1131-1145.
(online at: http://rruff.info/doclib/cm/vol37/CM37_1131.pdf)
(Platinum-group minerals discovered in placers in Aikora River, derived from ophiolites of Papuan Ultramafic Belt of E PNG. Mainly Os-Ir-Ru alloys (88%) and minor Pt-Fe alloy)

Wells, M.L., G.K. Vallis & E.A. Silver (1999)- Tectonic processes in Papua New Guinea and past productivity in the eastern equatorial Pacific Ocean. Nature 398, p. 601-604.
(On relation between paleoproductivity and opal accumulation in Equatorial Pacific in last 12 My and tectonics of N New Guinea)

Welsh, A. (1990)- Applied Mesozoic biostratigraphy in the Western Papuan Basin. In: G.J. & Z. Carman (eds.) Petroleum exploration in Papua New Guinea, First PNG Petroleum Convention, Port Moresby, p. 369-380.
(BP Jurassic-Cretaceous palynology zonation of PNG LateJurassic- mid-Cretaceous section. A modified version of Helby et al. 1987 and Davey 1987 zonations. With PNG chronostratigraphic diagram)

Whalen, J.B., R.M. Britten & I. McDougall (1982)- Geochronology and geochemistry of the Frieda River prospect area, Papua New Guinea. Economic Geology 77, 3, p. 592-616.
(Intrusive and volcanic rocks of Frieda River prospect between Frieda and Lagaip fault zones of New Guinea Mobile Belt in W Sepik District all of andesitic composition and belong to normal K calc-alkaline suite. Frieda Complex is remnant edifice of island stratovolcano interstratified in M Miocene Wogamush Fm. with copper-gold and porphyry copper deposits along central axis of complex. Mianmin area is separate, unmineralized volcanic center. Nena Diorite N of Frieda Complex intrudes Upper Cretaceous- Eocene basement rocks, with igneous activity dated between ~17.3- 11.2 Ma)

Whattam, S.A., J. Malpas, J.R. Ali & I.E.M. Smith (2008)- New SW Pacific tectonic model: cyclical intra-oceanic magmatic arc construction and near-coeval emplacement along the Australia-Pacific margin in the Cenozoic. Geochem. Geophysics Geosystems G3 9, 3, p. 1-34.
(NE dipping subduction established off PNG by at least 65-60 Ma which resulted in emplacement of Papuan Ultramafic Belt (PUB) ophiolite at 59-58 Ma. PUB formed above NE dipping Cenozoic intraoceanic arc system which diachronously propagated (N-S) along E margin of Australian Plate. These 'infant arc' ophiolites represent fragments of supra-subduction zone lithosphere generated in earliest stages of magmatic arc formation, emplaced shortly after (<20 My) as result of forearc-Australian Plate collision. Subduction inception result of subsidence of older MORB-like lithosphere generated in extensive back arc basin. During emplacement of each ophiolite, a crustal fragment of older lithosphere was scraped off NE dipping slab and subsequently back-thrust beneath each ophiolite during emplacement)

Whitford, D.J, T.L. Allan, A.S. Andrew, S.J. Craven, P.J. Hamilton, M.J. Korsch et al. (1996)- Strontium isotope chronostratigraphy and geochemistry of the Darai Limestone: Juha 1X well, Papua New Guinea. In: P.G. Buchanan (ed.) Petroleum exploration, development and production in Papua New Guinea, Proc. 3rd PNG Petroleum Convention, Port Moresby, p. 369-380.
(Sr ages in 1600m thick Darai Lst of Juha 1X well show age range of 7.7- 28.9 Ma (Oslick et al. 1994 calibration), in good agreement with foram ranges. Top Te1-4 (Top Borelis pygmaeus) = 24 Ma, Top Te5 (Top Spiroclypeus) near 21 Ma, Top Tf1= 14 Ma (but picked horizon above observed tops Austrotrillina, Miogypsina; JTvG), Tf2 = ~11-12 Ma. Consistent Sr-isotope ratio trend, but also number of anomalous values)

Whitford, D.J., T.L. Allan, M.J. Korsch, H. Middleton & J.A.Trotter (2003)- Strontium isotope chronostratigraphy and the carbonate sedimentation history of the Papuan Basin, Papua New Guinea Proc. 5th International Symposium Applied Isotope Geochemistry, AIG-5. Int. Association of Geochemistry Cosmochemistry (IAGC), p. 265-268.

Williams, P.W. (1971)- Illustrating morphometric analysis of karst with examples from New Guinea. Zeitschrift fur Geomorphologie 15, p. 40-61.

Williams, P.W. (1972)- Morphometric analysis of polygonal karst in New Guinea. Geological Society of America (GSA) Bull. 83, p. 761-796.

Williamson, A. (1983)- Geology of Laloki deposit, Central Province. Geological Survey Papua New Guinea, Report 83/220, p. *(Unpublished)*

Williamson, A. & G. Hancock (eds.) (2005)- The geology and mineral potential of Papua New Guinea. PNG Department of Mining, Port Moresby, p. 1-152.
(online at: www.infomine.com/publications/docs/PapuaNewGuinea2005.pdf)
(Well-illustrated review of geology and mineral deposits of PNG, compiled from initial report by G. Corbett, with contributions from H. Davies, etc.)

Wilson, C., R. Barrett, R. Howe & L.K. Leu (1993)- Occurrences and character of outcropping limestones in the Sepik Basin: implications for hydrocarbon exploration. In: G.J. & Z. Carman (eds.) Petroleum exploration and development in Papua New Guinea, Proc. Second PNG Petroleum Convention, Port Moresby, p. 111-124.
(Carbonates in and around Sepik Basin, mainly at N margin (= 'Idenburg Terrane'?; JTvG): (1) shallow marine, recrystallized Late Cretaceous Orbitoides limestone, overlying metamorphic rocks; (2) M-L Eocene Nummulites limestone at N side of Sepik basin associated with Bliri island arc volcanics, unconformably overlain by (3) >300m thick Late Oligocene- earliest M Miocene Puwani Lst., which form basal transgressive part of Sepik basin fill. With Sepik Basin Miocene paleogeographic maps)

Wilson, M.E.J., D. Lewis, O. Yogi, D. Holland, L. Hombo & A. Goldberg (2013)- Development of a Papua New Guinean onshore carbonate reservoir: a comparative borehole image (FMI) and petrographic evaluation. Marine and Petroleum Geology 44, p. 164-195.

(Borehole image and petrographic study of Elk- Antelope gas fields in Miocene reefal, platformal and associated deepwater carbonates in present day foothills region of Fold and Thrust Belt in Gulf Province of PNG (~6 TCF recoverable gas in Miocene buildup))

Winn, R.D., R.C.H. Perembo, H.L. Davies & P. Pousai (1997)- Tectonic and stratigraphic evolution of the Tertiary Aure Trough, Papua New Guinea: foreland basin over microplate-craton suture. In: J.V.C. Howes & R.A. Noble (eds.) Proc. International Conference Petroleum Systems of SE Asia and Australasia, Jakarta 1997, Indonesian Petroleum Association (IPA), p. 307-318.
(Aure Trough formed over suture between E Papua composite terrane and Australian craton, which represents Oligocene docking event. Started as Oligocene foreland basin. Thick, mostly deep-marine clastics in M Miocene-Pliocene. Pliocene Aure fold-thrust belt deformation probably far-field response to collision of Bismarck-New Britain volcanic arc with N edge of New Guinea)

Winn, R.D. & P. Pousai (2010)- Synorogenic alluvial-fan- fan-delta deposition in the Papuan foreland basin: Plio-Pleistocene Era formation, Papua New Guinea. Australian J. Earth Sciences 57, 5, p. 507-523.
(Synorogenic Pliocene- ?Pleistocene U Orubadi and Era Fms at SW margin of Papuan Peninsula interpreted as alluvial-fan, fan-delta and shallow-marine sediments, deposited in foreland basin formed from loading of Papuan-Aure fold-thrust Belt, where folding-thrusting related to docking and compression of Finisterre Terrane-Bismarck Arc against New Guinea Orogen. Era Fm siliciclastics sourced from volcanic, metamorphic and sedimentary rocks uplifted in orogen to NE. Volcanic sediment derived mostly from active volcanic arc likely related to SW subduction at Trobriand Trough)

Winn, S., J. Wilmot, J. Noonan, J. Bradshaw, M. Bradshaw, C. Foster, A. Murray, J. Vizy & G. Zuccaro (1994)- Australian Petroleum Systems Papuan basin module, Australian Geological Survey Organisation (AGSO), Canberra, Record 1994/13, vol. 1, p. 1-76.
(online at: www.ga.gov.au/corporate_data/37165/Rec1994_013_vol1.pdf)
(Review of PNG Central Range and foreland geology, with well data, biostrat, paleogeographic maps, etc.)

Winn, S., J. Wilmot, J. Noonan, J. Bradshaw, M. Bradshaw, C. Foster, A. Murray, J. Vizy & G. Zuccaro (1994)- Australian Petroleum Systems Papuan Basin Module, Australian Geological Survey Organisation (AGSO), Canberra, Record 1994/13, vols. 2-3.
(online at: www.ga.gov.au/corporate_data/37165/Rec1994_013_vol2.pdf and: ....vol3.pdf)
(Appendices to Volume 1, with data on (bio-)stratigraphy porosity-permeability, geochemistry, etc.)

Wonders, A.A.H. & C.G. Adams (1991)- The biostratigraphical and evolutionary significance of *Alveolinella praequoyi* sp. nov. from Papua New Guinea. Bull. British Museum (Natural History), Geology, 47, p. 169-175.
(online at: https://ia600206.us.archive.org/2/items/biostor-118556/biostor-118556.pdf)
(Primitive Alveolinella, transitional between Flosculinella bontangensis and Alveolinella praequoyi, from M Miocene Tf1-2 Darai Limestone at Hides Anticline, PNG)

Wood, S. (2010)- Oil potential of the Upper Turama River and Fly River delta areas, Papua New Guinea foreland. M.Sc. Thesis University of Adelaide, p. 1-332. *(Unpublished)*
(online at: http://digital.library.adelaide.edu.au/dspace/bitstream/2440/78636/3/02whole.pdf)
(Petroleum potential study of two areas in Papuan foreland. Geochemical study of 35 oils from 10 wells and 2 seeps suggest five oil families: L (lacustrine; probably from Late Triassic synrift mudstones as drilled in Kanau 1 well), MC (marine carbonate; Late Triassic?), LJ (Late Jurassic), O (Cretaceous-Tertiary) and C (coal))

Wood, S., H. Volk, N. Sherwood & C.J. Boreham (2008)- Lacustrine petroleum systems in the Papua New Guinea foreland. In: J.E. Blevin et al. (eds.) Eastern Australasian Basins Symposium III- Energy security for the 21st century, Sydney, Petroleum Exploration Society Australia (PESA), Special Publ., p. 543. *(Abstract only)*
(Oil shows with lacustrine signature in PNG at Bujon-1 well (Philips Petroleum 1994), and biodegraded oil column at Koko-1 (Oil Search 1999): presence of β carotane, abundant gammacerane, C26/C25 tricyclic terpane ratios >1, abundant 3β-methyhopanes and tetracyclic polyprenoids. Adiba-1 in S part of foreland similar oil geochemistry. Early Jurassic or Triassic source rock?)

Worthing, M.A. (1987)- Deerite from Papua New Guinea. Mineralogical Mag. 51, p. 689-693.
(online at: www.minersoc.org/pages/Archive-MM/Volume_51/51-363-689.pdf)
(Deerite (=hydrous iron silicate) occurrence appears to be limited to glaucophane-lawsonite schist and associated transitional facies. First occurrence in PNG in two meta-ironstones from NE PNG, near Kokoda)

Worthing, M.A. (1988)- Petrology and tectonic setting of blueschist facies metabasites from the Emo Metamorphics of Papua New Guinea. Australian J. Earth Sciences 35, p. 159-168.
(Emo Metamorphics metabasites in Kokoda area, SE PNG, contain quartz-albite-phengite- stilpnomelane-ferroglaucophane- chlorite-almandine-epidote-sphene-apatite. Similar to lawsonite-epidote transition zone on New Caledonia. Suggests P-T conditions of metamorphism of ~7.0 kbar and 320°C. Emo Metamorphics may be sliver of oceanic crust caught up in thrusting that accompanied obduction of Papuan ophiolite)

Worthing, M.A. & M.A. Bennett (1988)- Geochemistry, mineralogy and tectonic setting of deerite-bearing meta-ironstones from the Emo Metamorphics of Papua New Guinea. Australian J. Earth Sciences 35, p. 29-38.
(Deerite-bearing meta-ironstones from Emo Metamorphics of SE PNG suggests deposition as metalliferous cherts enriched in manganese and iron by hydrothermal exhalative activity in ocean ridge system)

Worthing, M.A. & A.J. Crawford (1996)- The igneous geochemistry and tectonic setting of metabasites from the Emo Metamorphics, Papua New Guinea; a record of the evolution and destruction of a backarc basin. Mineralogy and Petrology 58, p. 79-100.
(Papuan ophiolite outcrops in 400km x 40km wide belt on NE side of Owen Stanley Range in Papuan Peninsula. Ophiolite complex, dipping NE at ~20° and is continuous with mantle and crust underlying SW Solomon Sea. Metabasites from Emo Metamorphics in thrust sheets below Papuan ophiolite, and derived mainly from basalt, gabbro, etc. (tholeiitic and back-arc basaltss). Four groups: garnet blueschists with glaucophane, amphibolites, lawsonite blueschists and greenschists. Most samples polymetamorphic history. Two new 39Ar-40Ar isochron ages of amphibolites: ~32-35Ma (= E Oligocene age of obduction of opholite after collision with Owen Stanley microcontinental terrane) and ~14.8 Ma (=M-Miocene arc-continent collision with continental crust of E and Papuan Plateaus of N Australian plate?))

Worthing, M.A., C.K. Midobatu & P.H. Nixon (1992)- Structural setting, petrology and emplacement of serpentinites in the Koki Fault Zone, Port Moresby, Papua New Guinea. J. Southeast Asian Earth Sciences 7, 2-3, p. 147-158.
(Serpentinites from Koki Fault Zone chemically comparable with cumulate members of ultramafic ophiolite sequence. Mapping showed presence of three structural domains: imbricate thrust stack, the KFZ and possible passive roof duplex structure, suggesting deformation occurred close to front of foreland thrust belt)

Xu, M., D. Hou, X. Lin, J. Liu, W. Ding & R. Xie (2022)- Organic geochemical signatures of source rocks and oil-source correlation in the Papuan Basin, Papua New Guinea. J. Petroleum Science Engineering 210, 109972, p. 1-13.
(Papuan Basin, PNG, three oil families and three source rock groups, Jurassic, Cretaceous and Neogene. Family A oils mainly in Neogene limestone of Papuan Bay and neighboring South Fly Platform, likely from autochthonic Paleogene-Neogene mature marine shales. Family B mainly in Jurassic-Cretaceous Imburu and Toro Fm reservoirs in Papuan Fold Belt, derived from autochthonous Jurassic source. Family C mainly in Mendi-Puri Limestone reservoirs in EPFB; underlying Lower Cretaceous source most likely sources of Type C1 oils. Etc.)

Yang Lei & Kang An (2011)- Geological characteristics and reef-forming pattern of Antelope Reef gas field in Papua Basin. Xinjiang Petroleum Geol. 2011, 2, p.
(Papua Mesozoic- Cenozoic basin on margin of Australian continental plate with large Antelope gas field. Antelope field is Miocene pinnacle reef, developed on carbonate platform, with great thickness of reef)

Yates, K.R. & R.Z. de Ferranti (1967)- Geology and mineral deposits Port Moresby/ Kemp Welch area, Papua. Bureau Mineral Resources Geology Geophysics, Report 105, p. 1-117.
(online at: www.ga.gov.au/products-services/legacy-publications/reports.html)

(Mainly geological-geochemical investigation of Astrolabe copper-gold field, SE PNG. Oldest rocks in area U Cretaceous pink sheared limestone, unconformably overlain by unsheared Eocene (or Paleocene?; with Distichoplax; JTvG) glauconitic limestone, indicating ~Paleocene deformation event. Sadowa Oligocene gabbro, overlain by Dokuna Tuff and 50-100' thick Bootless Inlet Limestone with Te larger foraminifera (called E Miocene, but more likely Late Oligocene with Eulepidina and Heterostegina borneensis; JTvG), including reworked Eocene Nummulites-Pellatispira. E-M Miocene Globada Lst with Miogypsina unconformably over Eocene-Oligocene. Astrolabe agglomerate Pliocene pyroclastics (more likely Late Miocene age; Pain 1983))

Yokoyama, Y., T.M. Esat & K. Lambeck (2001)- Coupled climate and sea-level changes deduced from Huon Peninsula coral terraces of the last ice age. Earth Planetary Science Letters 193, p. 579-587.
(Huon Peninsula of NE PNG, is uplifting shoreline ringed by emergent coral terraces, formed during episodes of rapid sea-level rise, and constructing coral platforms that were subsequently uplifted. Last glacial (OIS 3) coral terraces coincide with timing of major N Atlantic climate reversals between 30- 60 ka.Growth of terraces tied to sea-level rises arising from ice-calving episodes from major N Atlantic and Antarctic ice-sheets that precipitated extremes of cold climate called Heinrich events. Sea-levels at this time 60-90m lower than present)

Young, G.A. (1963)- Northern New Guinea Basin reconnaissance aeromagnetic survey 1961. Bureau Mineral Resources Geology Geophysics (BMR), Record 1963/117, p. 1-7.
(online at: https://www.ga.gov.au/products/servlet/controller?event=GEOCAT_DETAILS&catno=11200)
(Three reconnaissance profiles across N New Guinea Basin indicate pronounced regional geological structures parallel to known structural trends)

Zahirovic, S. & D. Garrad (2020)- Tectonics and geodynamics of the New Guinea Region since the Triassic. Proc. 1st AAPG/EAGE Papua New Guinea Geoscience Conference Exhib., Port Moresby 2020, AAPG Search and Discovery Article 30670, p. 1-5. *(Extended Abstract)*
(online at: www.searchanddiscovery.com/pdfz/documents/2020/30670zahirovic/ndx_zahirovic.pdf.html)
(New global plate tectonic reconstruction since Triassic, incorporating long-lived Andean-type subduction along New Guinea margin during (Permian?-) Triassic, transitioning to back-arc opening from slab roll-back in M Jurassic. This event detached Sepik terrane, with seafloor spreading initiated by ~170-160 Ma in Sepik back-arc basin. Spatial origin of Sepik terrane along margin remains unknown. Roll-back and arc evolution likely represent origin of Philippine Arc. N-dipping subduction along Sepik terrane initiated in M-L Cretaceous. Sepik terrane accretion likely collision in E Eocene, but was likely diachronous along margin)

Zeng, Y. & B.A. McConachie (2000)- Application of integrated magnetic and seismic interpretation to identify petroleum prospects in Papua New Guinea. In: P.G. Buchanan et al. (eds.) Papua New Guinea's petroleum industry in the 21st century, Proc. 4th PNG Petroleum Convention, Port Moresby, p. 239-250.

Zhang, J., J.P. Davidson, M.C.S. Humphreys, C.G. Macpherson & I. Neill (2015)- Magmatic enclaves and andesitic lavas from Mt. Lamington, Papua New Guinea: implications for recycling of earlier-fractionated minerals through magma recharge. Journal of Petrology 56, 11, p. 2223-2256.
(online at: http://petrology.oxfordjournals.org/content/56/11/2223.full.pdf+html)
(Mt. Lamington composite volcano in PNG, on Papuan Ultramafic Belt (PUB) ophiolite. 1951 eruption produced andesitic dome lavas with basaltic-andesitic enclaves and few PUB ultramafic xenoliths. Presence of olivines in enclaves represents recycling of earlier-fractionated components through magma recharge)

Zhou, X. P. Peng, J. Zhang & C. Wang (2021)- In-situ chemistry of plagioclase and amphibole phenocrysts of Mt. Lamington volcano in Papua New Guinea: evidence for influence of Woodlark spreading ridge to Papuan arc. Lithos 396-397, 106242, p. 1-18.
(Isotope geochemistry of Quaternary Mt. Lamington, Papuan Peninsula, 1951 and older volcanics mix of three melt sources, and suggesting Lamington volcano represents western extension of Woodlark spreading ridge onto Papuan arc, which in turn was result of subduction to N)

Zhu, Z. & Z. Yang (2008)- Cenozoic adakites in Papua New Guinea and metallogetic significance. Jilin Daxue Xuebao (J. Jilin University), Earth Science Edition, 38, 4, p. 618-623.

(Adakites of PNG characterized by high Sr content, positive Sr anomaly peaks (average Sr/Y ratio >41.7) and negative Nb and Th anomalies. Y and Yb contents very low. 87Sr/86Sr values generally <0.704 5. Adakites of PNG located in both oceanic island arc and continental margin orogens in arc-continent collision setting. Some contain both world-class porphyry copper-gold deposits)

Zwingmann, H., T. Allan, K. Liu, D. Holland & D. Leech (2008)- Glauconite ages from Late Cretaceous reservoir sandstones of the Papuan Basin. In: J.E. Blevin et al. (eds.) Eastern Australasian Basins Symposium III, Sydney, Petroleum Exploration Society Australia (PESA) Special Publ., p. 259-262.
(Coniacian- Campanian glauconite ages of sandstones)

IX. QUATERNARY VOLCANISM- INDONESIA

IX.1. Quaternary Volcanism: General and Outside Java

(This listing is a selection of the extensive body of literature on Indonesia volcanic activity and its products. Many additional titles on volcanism specific to one region are included under these regions. Also, papers on Java volcanoes and volcanics are in a separate chapter, III.3)

Abrams, L.J. & H. Sigurdsson (2007)- Characterization of pyroclastic fall and flow deposits from the 1815 eruption of Tambora volcano, Indonesia using ground-penetrating radar. J. Volcanology Geothermal Research 161, p. 352-361.
(online at: https://people.uncw.edu/abramsl/abrams-sigurdsson-volgeo-07.pdf)
(Ground-penetrating radar helps image and characterize fall and pyroclastic flow deposits from Tambora 1815 eruption. Reflection of interface between pre-eruption clay-rich soil and pyroclastics reaches maximum thickness of 4m. Soil surface terraced and used for agriculture and buildings)

Abdul-Jabbar, G., H. Rachmat & M. Nakagawa (2019)- Temporal change of Barujari Volcano magmatic process: inferred from petrological study of erupted products since AD 1944. Proc. 1st Workshop on Environmental Science, Society, and Technology, Medan 2018, Journal of Physics: Conference Series 1363, 012030, p. 1-6.
(online at: https://iopscience.iop.org/article/10.1088/1742-6596/1363/1/012030/pdf)
(Active Barujari volcano in Lombok Island is part of post caldera stage of Rinjani volcano. Strombolian to vulcanian type eruptions with mainly basaltic-andesitic lavas(54-56 wt% SiO_2). Minor petrological changes in erupted material through time from 1944 to 2015)

Ahmady. F.N. &, D. Santoso (2024)- The interpretation of subsurface structure beneath Banda Api Volcano inferred from gravity data. Proc. 5th Int. Conference Geoscience and Earth Resources Engineering, Bandung 2023, IOP Conference Series: Earth and Environmental Science 1437, 012017, p. 1-4.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1437/1/012017/pdf)
(Bouguer anomaly range over Mount Banda Api- Neira complex is 130-200 mgal. Low gravity anomaly at center of Banda Api Volcano, likely response to presence of magma. Low gravity pocket also near hot spring area and ancient caldera of Neira, also indicating location of Neira magma chamber that has not cooled off)

Andreastuti, S., A. Budianto & E.T. Paripurno (2018)- Integrating social and physical perspectives of mitigation policy and practice in Indonesia. In: C.J. Fearnley et al. (eds.) Observing the volcano world- Volcano crisis communication, Advances in Volcanology, Springer Open, p. 307-320.
(online at: https://link.springer.com/content/pdf/10.1007/978-3-319-44097-2.pdf)

Andreastuti, S. D., N. Haerani, K. Kristianto, A.S. Prayoga, R. Putra, H.Y. Mboro et al.(2025)- Insight into the 2024-2025 eruption of Lewotobi Laki-Laki Volcano in Flores Island, Indonesia: an overview Indonesian J. on Geoscience (IJOG) 12, 3, p. 1-9.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/1318/516)

Ardianto, A.D. Nugraha, H. Afif, D.K. Syahbana, D.P. Sahara, Zulfakriza, S. Widiyantoro et al. (2021)- Imaging the subsurface structure of Mount Agung in Bali (Indonesia) using volcano-tectonic (VT) earthquake tomography. Frontiers in Earth Science 9, 619587, p. 1-13.
(online at: https://www.frontiersin.org/articles/10.3389/feart.2021.619587/full)
(Tomography from volcano-tectonic events in late 2017. Low seismicity zone at 2-5 km below Mt. Agung summit may be related to shallow magma reservoir.Anomalous region between Mt. Agung and Batur where most earthquakes before 2017 eruption originated, may be related to dyke complex between 8-14 km)

Arif, A.K.D., I.B.O. Agastya, R. Permadi, R. Marsaoly & I.K. Waliyanti (2024)- Utilization of geodiversity of Mount Gamalama eruption products as geotourism activities on the Batu Angus Geotrail, aspiring Ternate Geopark. Proc. The 5th Geotourism Festival & International Conference, 2024, 16p. *(online at: www.academia.edu/122039752/UTILIZATION_OF_GEODIVERSITY_OF_MOUNT_GAMALAMA etc.)*

(Mt Gamalama active stratovolcano on Ternate island in W Halmahera island arc, with geotourism potential. 1715m high, with lava, pyroclastics and lahars. First known eruption in historical times in 1538, then in 1687, 1772, 1775, 1839, 1843, 1864 and 1907)

Asrafil, A. Mukaddas, T. Hilmansyah, M.U. Botjing & E. Yuliastri (2020)- Mineralization study of volcanic rocks in Colo Volcano Tojo Una-Una Central Celebes. Jurnal Geomine, 8, 3, p. 171-180.
(online at: https://jurnal.teknologiindustriumi.ac.id/index.php/JG/article/download/705/pdf)
(Colo volcano on Una Una island, Gulf of Tomini, C Sulawesi, dominated by pyroclastic deposits, also some andesites. Hydrothermal alteration minerals present)

Bahar, I. & M. Girod (1983)- Controle structural du volcanisme indonesien (Sumatra, Java-Bali); application et critique de la method de Nakamura. Bull. Societe Geologique France (7), 25, 4, p. 609-614.
('Structural control on Indonesian volcanism (Sumatra, Java-Bali); application and critique of the Nakamura method')

Bani, P., Kristianto, S. Kunrat & D.K. Syahbana (2020)- Insights into the recurrent energetic eruptions that drive Awu, among the deadliest volcanoes on Earth. Natural Hazards Earth System Sciences 20, 8, p. 2119-2132.
(online at: https://nhess.copernicus.org/articles/20/2119/2020/nhess-20-2119-2020.pdf)
(Little known Awu volcano largest and northermost active volcano of Sangihe arc and among most deadliest. Regional geodynamic setting controlled by divergent-double-subduction collision and arc-arc collision, causing stalling of slab in mantle, increasing temperature, and becoming prone to melting. Awu also hosted lava dome and crater lake throughout its activity, creating hazardous situation (no mention of work by Kemmerling (1923))

Bani, P., F. Nauret, C. Oppenheimer, A. Aiuppa, B.U. Saing, N. Haerani, H. Alfianti, M.Marlia & V.Tsanev (2021)- Heterogeneity of volatile sources along the Halmahera arc, Indonesia. J. Volcanology Geothermal Research 418, 2, 107342, p. 1-12.
(Gas measurements and geochemical analyses of lavas for Dukono, Ibu, Gamkonora, Gamalama and Makian volcanoes of W Halmahera arc. Dukono greatest source of SO_2 and H_2; Ibu emits most H_2O and H_2S. Gamalama and Ibu significant CO_2 sources; Dukono (farthest from trench) CO_2-poor gas. Volcanic rocks composition variability along Halmahera arc indicates decreasing subducted sediment contribution from S (Makian, Gamalama) to N (Gamkonora, Ibu, Dukono))

Bani, P., C. Oppenheimer, V. Tsanev, B. Scaillet, S. Primulyana, U.B. Saing, H. Alfianti & M. Marlia (2022)- Modest volcanic SO_2 emissions from the Indonesian archipelago. Nature Communications 13, 3366, p. 1-15.
(online at: https://www.nature.com/articles/s41467-022-31043-7)
(New gas measurements from Indonesian volcanoes suggest rel. modest volcanic SO_2 emissions. Sulfur-rich eruptions reflect long-term accumulation of volatiles in reservoirs. Wit useful map of 126 active volcanoes)

Bani, P., G. Tamburello, E.F. Rose-Koga, M. Liuzzo, A. Aiuppa, N. Cluzel, I. Amat, D.K. Syahbana, H. Gunawan & M. Bitetto (2018)- Dukono, the predominant source of volcanic degassing in Indonesia, sustained by a depleted Indian-MORB. Bulletin of Volcanology 80, 5, p. 1-14. *(online at: www.researchgate.net/profile/Philipson-Bani/publication/321627294_Dukono_the_predominant_so Etc.)*
(Little known Dukono volcano on N Halmahera island regularly erupting since 1933. Gas emissions show huge magmatic volatile contribution into atmosphere, with annual output of ~290 kt SO_2, 5000 kt H2O, 88 kt CO_2, 5 kt H_2S and 7 kt H2 (in top 10 volcanic SO_2 sources on Earth). Degassing sustained by depleted Indian-MORB mantle source, currently undergoing lateral pressure from steepening of subducted slab, downward force from Philippine Sea plate and W-ward motion of continental fragment along Sorong fault)

Behringer, W. (2015)- Tambora und das Jahr ohne Sommer: Wie ein Vulkan die Welt in die Krise sturzte. Verlag C.H. Beck, Munich, p. 1-398.
('Tambora and the year without summer. How one volcano dragged the world into crisis')

Bennett, D., T. Ubide, J.F Ward, A. MacDonald, G. Rosenbaum, F.M.H. Sihombing, R.P. Nugroho, G.A. Jabbar & A.T. Tapu (2025)- Magmatic architecture of a potassic arc volcano: Batu Tara, Eastern Sunda Arc, Indonesia. Journal of Petrology 66, 9, egaf071, p. 1-24.
(online at: https://academic.oup.com/petrology/article/66/9/egaf071/8234243)
(Batu Tara volcano, 50 km N of Flores, is located off-axis to main E Sunda arc, where the slab reaches depths of ~230 km. Base of volcano ~3000m below sea level, with additional 630m above sea level. Ultrapotassic mafic plagioclase-free magmas with abundant clinopyroxene, leucite and olivine. Batu Tara, and possibly other anomalous arc volcanoes with mafic compositions, fed by relatively direct transfer of mafic melts from depth)

Blumenthal, M. (1921)- Bergwanderungen und Bergstudien auf der Insel Lombok. Jahrbuch der Schweizer Alpenclub 55 (1920), p. 55-
('Mountain hikes and mountain studies on Lombok Island'. Well illustrated account of a 1918 ascent of the Rinjani volcano complex, during a private trip by Swiss BPM geologist). The current active Rinjani volcano is located within large a caldera lake named Segara Anak (formed during explosive eruption of Mount Samalas volcano in 1257; HvG). Highest part of Rinjani calder rim is at 3795m above sea level)

Bouvet de Maisonneuve, C. & O. Bergal-Kuvikas (2020)- Timing, magnitude and geochemistry of major Southeast Asian volcanic eruptions: identifying tephrochronologic markers. J. Quaternary Science 35, 1-2, p. 272-287.
(online at: https://onlinelibrary.wiley.com/doi/pdfdirect/10.1002/jqs.3181)
(20 well-dated Quaternary VEI 6-8 eruptions with widespread tephra deposits in Indonesia and Philippines. Three oldest events: Toba Tuffs at 1.2 Ma, 0.79 Ma and 0.50 Ma. Youngest Pinatubo eruptin in 1991)

Bronto, S. (2003)- Kendala penerapan satuan stratigrafi gunungapi. Majalah Geologi Indonesia 18, p. 23-37.
('Obstacles in the application of volcanic stratigraphic units')

Bronto, S. (2006)- Fasies gunung api dan aplikasinya. Jurnal Geologi Indonesia 1, 2, p. 59-71.
(online at: http://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/9/9)
('Volcanic facies and its applications'. Composite volcanic cones can be divided into (1) central facies (subvolcanic intrusions, lava domes, hydrothermally altered rocks), (2) proximal facies (alternating lava flows and pyroclastic breccias), (3) medial facies (pyroclastic breccias, laharic breccias) and (4) distal facies (fine epiclastic rocks). Tuff can be widely distributed)

Bronto, S. (2013)- Geologi gunung api purba. Badan Geologi, Bandung, p. 1-184.
(online at: https://www.academia.edu/40346127/Geologi_Gunung_Api)
('Geology of ancient volcanoes'. General overview of volcanic processes and volcanic deposits, with examples from Indonesia (Second edition of initial 2010 publication))

Bronto, S., E. Budiadi & H.G. Hartono (2004)- Permasalahan geologi gunungapi di Indonesia. Majalah Geologi Indonesia (IAGI) 19, 2, p. 91-105.
(online at: https:// repository.itny.ac.id/id/eprint/2590/1/2_Permasalahan%20Geologi%20Gunungapi%20di%20Indonesia.pdf)
('Problems in volcanic geology in Indonesia')

Bronto, S., R.D. Hadisanto & J.P. Lockwood (1982)- Peta geologi Gunungapi Gamalama, Ternate, Maluku Utara 1:50,000. Direktorat Vulkanologi Indonesia, Bandung.
(online at: https://vsi.esdm.go.id/gallery/picture.php?/86/category/9)
('Geologic map of the Gamalama volcano, Ternate, North Moluccas'. Active Quaternary stratovolcano, qhich formed Ternate island, W of Halmahera. Historic eruptions with lava flows in 1737, 1763 and 1907. Young pyroclastics in 1980)

Bronto, S., J.Y. Sianipar & A.K. Pratopo (2016)- Volcanostratigraphy for supporting geothermal exploration. Proc. 5th ITB Int. Geothermal Workshop (IIGW2016), Bandung 2016, IOP Conference Series: Earth and Environmental Science 42, 012014, p. 1-11.

(online at: https://iopscience.iop.org/article/10.1088/1755-1315/42/1/012014/pdf)
(Brief general review of volcanoes and volcanic deposits)

Bronto, S. & Surono Martosuwito (eds.) (2014)- Indonesian arc magmatism- a collection of papers by Professor Udi Hartono. Center for Geological Survey (CGS), Geological Agency, Bandung, p. 1-623.
(Reprint collection of 39 papers, originally published between 1987-2011)

Broom-Fendley, S. (2014)- Chemistry and tectonic setting of Una-Una Volcano. M.Sc. Thesis, London University, p. . *(Unpublished)*
(On Una-Una isolated volcano in Gorontalo Bay, North Sulawesi, in complex tectonic setting)

Broom-Fendley, S., M. Thirlwall, M. Cottam & R. Hall (2011)- Geochemistry and tectonic setting of Una-Una Volcano, Sulawesi, Indonesia. Proc. Goldschmidt Conference Abstracts, Prague 2011, Mineralogical Magazine 75, 3, p. 585. *(Abstract only)*
(online at: https://goldschmidtabstracts.info/abstracts/abstractView?id=2011005729)
(Volcanic rocks from Una-Una (<~100 Ka) and nearby Togian islands (~2 Ma) both alkaline or high-K calc-alkaline trachyte. Elevated isotopic values and geochemistry indicate ancient continental contribution to magma source. Una-Una and Togian Islands products of young extension of Gorontalo Bay, due to slab rollback providing mechanism for upwelling of premetasomatised mantle)

Bronnimann S. & D. Kraemer (2016)- Tambora und das «Jahr ohne Sommer» 1816. Klima, Mensch und Gesellschaft. Geographica Bernensia, Bern, G90, p. 1-48.
(online at: https://boris.unibe.ch/83607/2/tambora_d_webA4.pdf)
('Tambora and the "year without summer" 1816, climate, humanity and society'. Elegant review)

Bronto, S. (1982)- Fasies Gunungapi Gamalama. Volcanological Survey (PVMBG).
('Volcanic facies of Gamalama', Ternate Island, Moluccas)

Bronto, S., R. Hadisantono & J. Lockwood (1982)- Peta geologi Gunungapi Gamalama, Ternate, Maluku Utara, 1:25,000. Direktorat Vulkanologi, Bandung.
('Geological map of the Gamalams volcano, Ternate, North Moluccas. 1:25,000 scale)

Brouwer, H.A. (1916)- Het vulkaaneiland Roeang (Sangi eilanden) na de eruptie van 1914. Tijdschrift Kon. Nederlandsch Aardrijkskundig Genootschap 33, p. 89-94.
(online at: www.delpher.nl/nl/tijdschriften/...)
('The volcanic island Ruang (Sangi Islands) after the eruption of 1914'. Report of changes several months after the May 1914 eruption)

Brouwer, H.A. (1921)- Het vulkaaneiland Roeang. Jaarboek Mijnwezen Nederlandsch Oost-Indie 49 (1920), Verhandelingen 2, p. 6-30.
('The volcano island Raung'. Active volcano in Sangi islands group)

Brouwer, H.A. (1921)- Sur les domes volcaniques des volcans actifs de l'archipel Malais. Zeitschrift fur Vulkanologie, 1921, 6, 2, p. 37-46.
(online at: https://books.google.com/books?id=kBw0AQAAMAAJ&pg=PA1&lpg=PA1&dq=Die+Vulka etc.)
('On the lava domes of the active volcanoes in the Malay Archipelago' (= Indonesia). Lava domes known from Merapi (1836), Galunggung (1918) and Raung (1914; Sanggi islands). Unusual Recent andesite lava from submarine volcano W of Mahengetang in Sangi islands with hornblende instead of usual pyroxene (augite))

Brouwer, H.A. (1921)- Sur l'eruption d'une andesite a hornblende dans l'Archipel malais. Comptes Rendus Academie Sciences, Paris 173, p. 240-242.
('On the eruption of an andesite with hornblende in the Malay Archipelago')

Brouwer, H.A. (1939)- Leucite rocks of the active volcano Batoe Tara (Malay Archipelago). Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 42, 1, p. 23-29.
(online at: https://dwc.knaw.nl/DL/publications/PU00017280.pdf)
(Batoe Tara or Komba ~50 km N of Lomblen, E of Flores, rises from deep sea to nearly 750m above sea-level. Active volcano with different types of leucite rocks: leucite basanite, biotite-leucite tephrites, etc.)

Brouwer, H.A. (1946)- Vulkanen. Servire's Encyclopedie in Monografieen, Servire, The Hague, 1-154.
(online at: https://www.delpher.nl/nl/boeken/)
(Popular general review of volcanonoes and volcanism. With many examples from the Indonesia, including descriptions of volcanoes Raung, Merapi and Krakatau)

Budd, D.A., V.R. Troll, F.M. Deegan, E.M. Jolis, V.C. Smith, M.J. Whitehouse, C. Harris, C. Freda, D.R. Hilton, S.A. Halldorsson & I.N. Bindeman (2017)- Magma reservoir dynamics at Toba caldera, Indonesia, recorded by oxygen isotope zoning in quartz. Nature Scientific Reports 7, 40624, p. 1-11.
(online at: https://www.nature.com/articles/srep40624.pdf)
(Quartz crystals from 75ka Toba tuffs rel. high δ18O values (up to 10.2‰), due to magma residence within and assimilation of local granite basement. Decrease in δ18O values in outer growth zones suggests assimilation of altered roof material and may represent eruption trigger in large Toba-style magmatic systems)

Budianto, A., M.N. Kartadinata & Kusdaryanto (1993)- Peta geologi Gunungapi Karangetan, Sulawesi Utara, 1:50,000. Direktorat Vulkanologi Indonesia, Bandung.
(online at: https://vsi.esdm.go.id/gallery/picture.php?/87/category/9)
('Geologic map of the Karangetan Volcano, North Sulawesi'.1827m-high Quaternary active volcano on Siau island; Sangihe Arc)

Buhring, C., M. Sarnthein & Leg 184 Shipboard Scientific Party (2000)- Toba ash layers in the South China Sea: evidence of contrasting wind directions during eruption ca. 74 ka. Geology (GSA) 28, 3, p. 275-278.
(online at: https://pages.mtu.edu/~raman/papers2/Buhring.pdf)
(Cores from southern S China Sea with up to 3.5 cm thick ash layers with rhyolithic glass shards. Dated at ~74 ka (O-isotope Stage 4-5 boundary), same age as youngest Toba eruption in N Sumatra. Composition of glass similar to Toba ash. Youngest Toba ash layers in S China Sea expand previously known ash-fall zone over >1800 km to E and increased volume estimates of erupted Toba ash (see also comments by Chen et al. 2000))

Carey, S. & H. Sigurdsson (1992)- Generation and dispersal of tephra from the 1815 eruption of Tambora volcano, Indonesia. In: E.T. Degens, H.K. Wong & M.T. Zen (eds.) The sea off Mount Tambora, Mitteilungen Geologisch-Palaontologisch Institut, Universitat Hamburg 70, p. 207-226.

Caron, B., G. Del Manzo, B. Villemant, A. Bartolini, E. Moreno, A. Le Friant, F. Bassinot, F. Baudin & A. Alves (2023)- Marine records reveal multiple phases of Toba's last volcanic activity. Nature Scientific Reports 13, 11575, p. 1-11.
(online at: https://www.nature.com/articles/s41598-023-37999-w)
(Young Toba Tuff (YTT), dated around 74 ka BP, considered as a short-lived explosive cataclysmic super-eruption. Marine core BAR94-25 off NW tip of Sumatra shows Toba complex volcanic succession of at least 17 layers of tephra and cryptotephra, subdivided in 3 main phases over ~ 50 kyr. Main volcanic activity during phase two, including YTT, likely composed of 6 eruptive events within ~ 10 ka)

Carr, B.B., E. Lev, L. Vanderkluysen, D. Moyer, G.I. Marliyani & A.B. Clarke (2022)- The stability and collapse of lava domes: Insight from photogrammetry and slope stability models applied to Sinabung Volcano (Indonesia). Frontiers in Earth Science 10, 813813, p. 1-17.
(online at: https://www.frontiersin.org/articles/10.3389/feart.2022.813813/full)
(Lava domes form by eruption of high-viscosity lava and are unstable and prone to collapse. Active collapses are driven directly by lava effusion. Passive collapses not correlated with effusion rate, and more difficult to assess and forecast. New workflow for using topographic models derived at Sinabung by photogrammetry)

Carter, N.L., C.B. Officer, C.A. Chesner & W.I. Rose (1986)- Dynamic deformation of volcanic ejecta from the Toba caldera: possible relevance to Cretaceous/Tertiary boundary phenomena. Geology (GSA) 14, 5, p. 380-383.
(Plagioclase and biotite phenocrysts in ignimbrites erupted from Toba caldera show microstructures and textures indicative of shock stress levels >10 GPa)

Casadevall, T.J., L. Pardyanto, H. Abas & Tulus (1989)- The 1988 eruption of Banda Api volcano, Maluku, Indonesia. Geologi Indonesia 12, p. 603-635.

Caudron, C., A. Bernard, S. Murphy, S. Inguaggiato & H. Gunawan (2018)- Volcano-hydrothermal system and activity of Sirung volcano (Pantar Island, Indonesia). J. Volcanology Geothermal Research 357, p. 186-199.
(Sirung 862m high, frequently active volcano on S Pantar island (Lesser Sunda Islands arc, N of W Timor). With 2 km wide caldera and active crater with several hydrothermal features including crater lake).

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(Interferometric Synthetic Aperture Radar data across Sumatra-Java- Bali arc provided evidence of inflation at six volcanoes (Sinabung and Kerinci in Sumatra; Slamet, Lawu, and Lamongan in Java; Agung in Bali), three of which erupted after observation period (Sinabung, Kerinci, Slamet). These volcanoes have shallow magma reservoirs. Globally, arc volcanoes in extensional and strike-slip settings (W Sunda) can develop shallow reservoirs, whereas volcanoes in compressional settings may lack them)

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(online at: https://digital.library.adelaide.edu.au/items/118176fa-d4ec-477a-aec9-bb69e7a306c4)
(Study of active volcano Sangeang Api volcano off NE Sumbawa, which erupts co-magmatic suites of lavas and mafic-ultramaficcumulate xenoliths (silica-undersaturated alkalic shoshonitic basalts to basaltic trachy-andesites) and previously unstudied extinct volcanoes from adjacent sectors of E Sunda Arc. Doro Kota and Doro Kuta (E Sumbawa; ~2 Ma) lavas similar to Sangeanng Api. Wai Sano (W Flores) with adakites, unique in Sunda Arc, possibly from melting of underplated basalts. Ultrapotassic magmatism in Sunda Arc confined to rear-arc and with trace-element and isotopic evidence of mantle metasomatism and influence of slab tear windows).

Cooke, R.J.S., J.T. Baldwin & T.J. Sprod (1976)- Recent volcanoes and mineralization in Papua New Guinea. 25th International Geological Congress, Sydney, Excursion Guide 53AC, p. 1-32.
(Fieldtrip guide to young volcanoes of SE PNG Peninsula, Bougainville and New Britain)

Costa, A., V.C. Smith, G. Macedonio & N.E. Matthews (2014)- The magnitude and impact of the Youngest Toba Tuff super-eruption. Frontiers in Earth Science 2014, 2, 16, p. 1-8.
(online at: http://journal.frontiersin.org/article/10.3389/feart.2014.00016/full)
(Model of ash distribution and volume of Youngest Toba Tuff, erupted 75,000 years ago. Eruption dispersed ~8600 km^3 of ash (= ~3800 km^3 dense rock equivalent/ DRE), covering ~40 million km^2 with >5 mm of ash. Total volume (incl. 1500 km^3 DRE pyroclastic density current deposits on Sumatra) was ~5300 km^3 DRE)

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(online at: https://www.frontiersin.org/articles/10.3389/feart.2015.00025/full)
(Samosir Island in Lake Toba caldera was submerged below lake level (~900m above s.l.) at 33 ka. Since then uplifted 700m as tilted block dipping to W. 14C ages and elevations of sediment reveal minimum uplift rates of ~4.9 cm/yr from ~33.7-22.5 ka, but diminished to ~0.7 cm/yr after 22.5 ka)

De Hoog, J.C.M. (2001)- Behavior of volatiles in arc volcanism. Geochemical and petrologic evidence from active volcanoes in Indonesia. Doct. Thesis University of Utrecht, Geologica Ultraiectina 204, p. 1-220.
(online at: http://igitur-archive.library.uu.nl/dissertations/1954688/full.pdf)
(Extensive review of volatile elements in Indonesian arc volcanoes (Galunggung, Lewotolo, etc.)

De Hoog, J.C., G.W. Koetsier, S. Bronto, T. Sriwana & M.J. van Bergen (2001)- Sulfur and chlorine degassing from primitive arc magmas: Temporal changes during the 1982-1983 eruptions of Galunggung (West Java, Indonesia). J. Volcanology Geothermal Research 108, p. 55-83.
(The 1982–1983 eruptions of Galunggung represent a 9-month period of intermittent volcanic activity with significant changes in explosivity (Vulcanian explosions changing gradually to Strombolian activity) and emission of volatiles (sulfur, chlorine. Compositions of juvenile material changed from basaltic andesite to high-Mg basalt, which are among the most primitive rock types known in the Indonesian arc system. Etc.))

De Hoog, J.C., B.E. Taylor & M.J. van Bergen (2001)- Sulfur isotope systematics of basaltic lavas from Indonesia: implications for the sulfur cycle in subduction zones. Earth Planetary Science Letters 189, p. 237-252.
(Sulfur isotope compositions of basaltic and basaltic andesite lavas from 7 modern volcanoes of Java and Lesser Sunda islands range in d14S from +2.0 to +7.8, average +4.7. Magmas in Indonesian arc system originate from mantle sources enriched in 34S relative to MORB and OIB sources. Enrichment in 34S reflects addition of slab-derived material, presumably from sediments rather than altered oceanic crust)

De Hoog, J.C.M., B.E. Taylor & M.J. van Bergen (2009)- Hydrogen-isotope systematics in degassing basaltic magma and application to Indonesian arc basalts. Chemical Geology 266, 3, p. 256-266.
(Predictive model for hydrogen-isotope shifts during degassing of basaltic-andesitic magma, from samples from 7 volcanoes along Sunda and Sangihe arcs (Batur, Rinjani, Guntur, Galunggung, Krakatau, Soputan, etc.))

De Jong Boers, B. (1995)- Mount Tambora in 1815: a volcanic eruption in Indonesia and its aftermath. Indonesia (Cornell University) 60, p. 37-59.
(online at: https://ecommons.cornell.edu/handle/1813/54071)
(Detailed historic account of Tambora 1815 eruption and its consequences. No geology)

De Neve, G.A. (1951)- Luchtverkenningen boven de vulkanen van Sumatra, Java en de Kleine Sunda Eilanden. De Ingenieur in Indonesie 3, 2, p. IV.13- IV.22.
(online at: http://colonialarchitecture.eu/islandora/object/uuid%3A06ae693a-f6c5-4059-b67b-6a508aba5680/datastream/PDF/view)
('Aerial reconnaissance above the volcanoes of Sumatra, Java and the Lesser Sunda Islands')

De Neve, G.A. (1952)- Volcanological investigations in co-operation with the AURI (1950-1952). Berita Gunung Berapi, Volcanological Survey Indonesia, Bandung, 1, 1-2, p. 34-65.
(With assistence of Indonesian Air Force the number of known active volcanoes in Indonesia increased to 167. 15 new centers of volcanic activity identified in Sumatra, N Sulawesi and Flores since count of 152 by Stehn (1940))

De Neve, G.A. (1953)- Rapport concernant l'activite volcanique en Indonesie pendant le premier trimestre del'annee 1953. Berita Gunung Berapi 3-4, Volcanological Survey Indonesia, Bandung, p. 3-16.
('Report on the volcanic activity in Indonesia during the first trimester of the year 1953' (in French!?))

Della-Pasqua, F.N., V.S. Kamenetsky, M. Gasparon, A.J. Crawford & R. Varne (1995)- Al-spinels in primitive arc volcanics. Mineralogy and Petrology 53, p. 1-26.
(Al-rich spinels common in alpine peridotites and in certain metamorphic rocks, but rare in terrestrial volcanic rocks. Descriptions of occurrences of Al-rich spinel inclusions in olivine phenocrysts in island arc volcanics from five localities, including basaltic andesites of Bukit Mapas (S Sumatra) and high-K shoshonitic ankaramites of SE Bali)

Dewanto, B.G., H. Rachmat, E. Kriswati, M. Yanis, A.F. Shomim & A.M. Julius (2023)- Study of geothermal and volcanic activity at Mount Awu, the deadliest active volcano in North Sulawesi Province, Indonesia using Optical Satellite Imagery. J. Volcanology Geothermal Research 438, 107811, p.
(Awu volcano in N part of Sangihe Island, with eruptions in 1964, 1994, 2004, etc.))

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('The shadow of Tambora. The greatest natural disaster in human memory'. Review of the severe impacts of the April 1815 eruption of Tambora on Sumbawa in 1815 on humans across the world ('the year without a summer'))

Dvorak, J.J., H. Said, R.D. Hadisantono, N. Rahardja, D. Mulyadi, D. Reksowirogo & K. Restikadjaja (1987)- Geodetic measurements at Indonesian volcanoes. U.S. Geological Survey (USGS) Report OF 87-0130, p. 1-40.
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(Unpublished) (Incl. volcanic rock chemistry of Gunung Guntur, Ringgit-Besar, Muriah, Flores, etc.)

Edwards, C.M.H., J.D. Morris, M.F. Thirlwall (1993)- Separating slab from mantle signatures in arc lavas using B/Be and radiogenic isotope systematics. Nature 362, 6420, p. 530-533.
(Combining B/Be with Sr, Nd and Pb isotopes of alkaline, calk-alkaline and tholeiitic lavas of young volcanoes from Java (Guntur, Ringgit) and Flores (Kelimutu, Lewitobi, Mandiri). High B/Be and 10Be/9Be ratios in tholeiitic and calk-alkaline lavas are partial melts of mantle produced by fluxing by fluids from subducted slabs. Alkaline lavas always low B/Be and derived from mantle not modified by recent subduction)

Ehrat, H. (1929)- Die tatigen Vulkane des Gunung Api (Sangean) bei Bima, Niederl. Indien. Zeitschrift fur Vulkanologie 12, 1, p. 8-14.
('The active volcanoes of the Gunung Api (Sangean) near Bima, Netherlands Indies'. Gunung Sangeang Api complex volcanic island in Lesser Sunda Islands, 8 km off NE coast of Sumbawa. (Not same as Gunung Api in Banda Sea). Description by geologist Ehrat of ~1950m high, highly active volcanic centers on Sangeang island (also visited by Verbeek (1908) and Elbert (1912)). Two main craters (Solia, Branno), each ~1500m in diameter, and 8 smaller eruption points. Last lava flow in 1911 Andesitic and olivine-basalt lavas, with common inclusions of diorite and granodiorite (recent significant recent eruptions in 2012m 2014; JTvG))

Ehrenberg, C.G. (1855)- Nahere Bestimmung der Mischung des frischen Auswurfs des Schlammvulkans von Poerwodadi auf Java. Bericht Bekanntmachung koniglichen Preussische Akademie Wissenschaften Berlin, p. 570-576.
(online at: www.biodiversitylibrary.org/item/41576#page/584/mode/1up)
('Determination of the mixture of fresh eruptive products of the mud volcano of Purwodadi on Java'. Muds with mix of marine and non-marine foraminifera and diatoms)

Elburg, M., J.D. Foden, M.J. van Bergen & I. Zulkarnain (2004)- Along- and across-arc geochemical constraints on sources and transfer processes in the Sunda-Banda Arc, Indonesia. 4p.
(online at: www.geophysics.rice.edu/sota/papers)

Elburg, M.A., J.D. Foden, M.J. van Bergen & I. Zulkarnain (2005)- Australia and Indonesia in collision: geochemical sources of magmatism. J. Volcanology Geothermal Research 140, p. 25-47.
(Alor, Lirang, Wetar and Romang in extinct section of Sunda-Banda arc, where collision with Australia brought subduction to halt. Pb isotopes reflect mixing from subducting Australian crust)

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(online at: www.academia.edu/3247319/Limited_influence_of_subducted_continental_material_on_mi Etc.)
(Two basalt-andesite samples from Alor Island. Sr, Nd and Pb isotope data show influence of subducted continental material, but major and trace element compositions not very different from typical subduction-related magmas)

Escher, B.G. (1919)- Programma van werkzaamheden voor een te stichten afdeeling/commissie voor Vulkanologie van de Koninklijke Natuurkundige Vereeniging. Natuurkundig Tijdschrift voor Nederlandsch-Indie 78, p. 99-118.
('Work program for a proposed department/ committee for Volcanology of the Koninklijke Natuurkundige Vereeniging (Royal Natural Science Society)'. BPM geologist and future geology professor in Leiden Berend G. Escher arguing for the creation of new organization for volcano studies and co-ordination of hazard risks. This resulted in creation of the Volcanology Department within the Dienst van het Mijnwezen in 1920)

Escher, B.G. (1931)- Gloedwolken en lahar's, Vulkanische catastrophes in Nederlandsch-Indie. Tropisch Nederland 3, 19, p. 291-320.
(online at: https://resolver.kb.nl/resolve?urn=MMKB26:001268021:pdf)
('Incandescent clouds and lahars'. Part 1 of popular review of volcanic catastrophes and volcano monitoring, with examples mainly from Indonesia: Types of volcanism and volcanic catastrophes)

Escher, B.G. (1931)- Gloedwolken en lahar's, Vulkanische catastrophes in Nederlandsch-Indie, II. Slot. Tropisch Nederland 3, 20, p. 307-320.
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('Incandescent clouds and lahars'. Part 2 of popular review of volcanic catastrophes and volcano monitoring, with examples mainly from Indonesia)

Escher, B.G. (1935)- Het vulkanisme in Ned. Indië en zijn oorzaak. Natuurkundige Voordrachten, Nieuwe Reeks 13, Maatschappij Diligentia, Van Stockum, The Hague, p. 103-112.
(online at: https://natuurwetenschappen-diligentia.nl/wp-content/uploads/2020/02/Diligentia_jaarboek_13.pdf)
(The volcanism in the Netherlands Indies and its cause'. Summary of a lecture at the Royal Society for Natural Sciences 'Diligentia' in The Hague. One of first papers attempting to link volcanic arcs in Indonesia to paralel belts of negative gravity anomalies ('axis of Vening Meinesz'))

Escher, B.G. (1937)- Rapport sur les phenomenes volcanologiques dans l' Archipel Indien pendant les annees 1933, 1934 et 1935 et sur les ouvrages de volcanologique publies durant ces annees, concernant les volcans des Indes Neerlandaises. Bulletin of Volcanology (Bulletin Volcanologique) 1937, 1, p. 127-177.
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(online at: https://resolver.kb.nl/resolve?urn=MMSHCL02:017136006:pdf)
('The problem of the calderas and the moon craters'. Discussion of origin of volcanic calderas, following earlier discussions on the subject by Akkersdijk (1928), Van Bemmelen (1929) and Wing Easton (1930), and mainly based on Indonesia examples. Viewed as post-eruption collapse structures. Moon craters about 10 times larger than Earth calderas and probably not of volcanic origin)

Foden, J.D. (1979)- The petrology of some young volcanic rocks from Lombok and the Lesser Sunda islands. Ph.D. Thesis University of Tasmania, Hobart, p. 1-306.
(online at: http://eprints.utas.edu.au/17675/1/Foden_Thesis.pdf)
(Study of 5 modern volcanoes in E Sunda arc: Rindjani (Lombok) and G. Sangenges, Tambora, Soromundi and Sangeang Api (Sumbawa) island. All occur 165-190 km above active, N dipping Benioff Zone. Volcanoes of this sector of arc erupted diverse range of lavas, ranging from ankaramite-high-Al basalt-andesite-dacite suite of Rindjani, through moderately potassic ne-trachybasalt- trachyandesite suites from Tambora and Sangeang Api,

to highly undersaturated, leucite-bearing types from G. Sangenges and Soromundi. The K20-content of these suites shows no correlation with depth to Benioff Zone)

Foden, J.D. (1983)- The petrology of the calcalkaline lavas of Rindjani Volcano, East Sunda Arc: a model for island arc petrogenesis. Journal of Petrology 24, 1, p. 98-130.
(Rindjani large, active compound strato-volcano on Lombok, in W part of E Sunda Arc. Pleistocene-Recent calcalkaline suite composed of diverse lavas, including ankaramite, high-Al basalt, andesite, high-K andesite and dacite. Sr-isotopic and geochemical constraints suggest derivation from sub-arc mantle)

Foden, J.D. (1986)- The petrology of Tambora volcano, Indonesia: a model for the 1815 eruption. J. Volcanology Geothermal Research 27, p. 1-41.
(online at: www.researchgate.net/publication/223441162_The_petrology_of_Tambora_volcano_Indonesia_A_model_for_the_1815_eruption)
(Lavas of Tambora volcano on Sumbawa of unusual, moderately undersaturated, K_2O-rich types, ranging from ne-trachybasalt to ne-trachyandesite. Products of 1815 eruption black, glassy, biotite-bearing, ne-trachyandesites with scoria, pumice and tuff of same composition. 1815 eruption followed long period of inactivity)

Foden, J.D. & R. Varne (1980)- The petrology and tectonic setting of the Quaternary- Recent volcanic centers of Lombok and Sumbawa. Chemical Geology 30, p. 201-226.
(online at: https://www.academia.edu/58486973/The_petrology_and_tectonic_setting_of_Quaternary_Recent_volcanic_centres_of_Lombok_and_Sumbawa_Sunda_arc)
(Bali-Lombok-Sumbawa sector of Sunda arc flanked in N and S by oceanic crust. Oldest rocks from Lombok and Sumbawa islands Lower Miocene- Pliocene sediments and volcanics beneath Quaternary volcanic centers. Three large active volcanoesin N parts of Lombok (Rindjani; basalt-andesite-dacite) and Sumbawa (Tambora and Sangeang Api; trachybasalt-trachyandesite), all ~150-190 km above N-dipping Benioff zone. Extinct Quaternary centers S of active volcanoes on Sumbawa (Soromundi, Sangenges). Volcanic composition-space-time relations in Lombok-Sumbawa sector not in accordance with general island-arc schemes)

Foden, J.D. & R. Varne (1981)- The geochemistry and petrology of the basalt-andesite-dacite suite from Rinjani volcano, Lombok: implications for the petrogenesis of island arc, calcalkaline magmas. In: A.J. Barber & S. Wiryosujono (eds.) The geology and tectonics of Eastern Indonesia, Proc. CCOP-IOC SEATAR Working Group Meeting, Bandung 1979, Geological Research Development Centre (GRDC), Bandung, Special Publ. 2, Bandung, p. 115-134.
(Rinjani lavas compositionall diverse, from ankaramites and high-Al basalts to andesites and dacites, representing typical calkalkaline association erupted by many Circum-Pacific volcanoes)

Foden, J.D. & R. Varne (1981)- Petrogenetic and tectonic implications of near coeval calk-alkaline volcanism on Lombok and Sumbawa islands in the eastern Sunda Arc. In: A.J. Barber & S. Wiryosujono (eds.) The geology and tectonics of Eastern Indonesia, Proc. CCOP-IOC SEATAR Working Group Meeting, Bandung 1979, Geological Research Development Centre (GRDC), Bandung, Special Publ. 2, Bandung, p. 135-152.
(Quaternary volcanoes of Lombok- Sumbawa sector of E Sunda Arc occur 165-190km above N-dipping Benioff zone. Diverse range of lavas. No correlation between K2) content and depth to Benioff zone. Between-volcano variations reflect mantle source heterogeneity)

Fontijn, K., F. Costa, I. Sutawidjaja, C.G. Newhall & J.S. Herrin (2015)- A 5000-year record of multiple highly explosive mafic eruptions from Gunung Agung (Bali, Indonesia); implications for eruption frequency and volcanic hazards. Bulletin of Volcanology 77, 59, p. 1-15.
(Mt. Agung has an average eruptive frequency of one VEI ≥2–3 eruptions per century)

Gao, M.H. & P.P. Liu (2023)- Mixing and eruption of mafic magmas of the Sipisupisu volcano, the Toba volcanic system, Indonesia. Contributions to Mineralogy and Petrology 178, 65, p.
(Sipisupisu volcano stratocone on NW tip of Toba Caldera produced two super-eruptions in Quaternary. Mineralogy of basalts and basaltic andesites indicates open-system processes with multiple episodes of magma

recharge and mixing. Melts ascended from large basaltic magma reservoir at Moho and resided in at least three staging magma reservoirs within crust. Etc.)

Gardner, J.E., P.W. Layer & M.J. Rutherford (2001)- Phenocrysts versus xenocrysts in the youngest Toba Tuff: implications for the petrogenesis of 2800 km^3 of magma. Geology (GSA) 30, 4, p. 347-350.
(40Ar/39Ar dating of biotite, sanidine, hornblende, and plagioclase from youngest Toba Tuff of 75 ka suggests hornblende and some plagioclase are xenocrysts and came from at least 1.5 Ma old source)

Gasparon, M., D.R. Hilton & R. Varne (1994)- Crustal contamination processes traced by helium isotopes: examples from the Sunda arc, Indonesia. Earth Planetary Science Letters 126, p. 15-22.
(Helium He-3/He-4 isotope data from olivine and clinopyroxene from 13 volcanic centers between C Sumatra and Sumbawa in Sunda arc indicate crustal contamination unrelated to subduction in Sunda arc)

Gasparon, M. & R. Varne (1998)- Crustal assimilation versus subducted sediment input in west Sunda arc volcanics: an evaluation. Mineralogy and Petrology 64, p. 89-117.
(Geochemical analyses of Quaternary-Cretaceous sediments from NE Indian Ocean used to estimate composition of sedimentary material subducted along Sunda Trench. Post-Miocene siliceous clastic sediments near Sunda arc largely derived from arc itself, largely accreted and not subducted. The least contaminated arc volcanics in W section of W Sunda arc, where sediment flux highest. Assimilation of crustal material by uprising melts from Indian Ocean-type mantle wedge better accounts for isotope changes of arc volcanics, and ties to variations in crustal thickness and composition along arc)

Gatti, E. (2012)- Geochemical and sedimentological investigations of Youngest Toba Tuff ashfall deposits. Ph.D. Thesis University of Cambridge, p. 1-181. *(Unpublished)*
(online at: https://www.repository.cam.ac.uk/handle/1810/244398)
(Study of Youngest Toba Tuff (YTT), a rhyolitic co-ignimbrite ashfall from ~73 ka 'super-eruption' of Toba caldera in Sumatra, the largest known eruption of Quaternary time. In proximal (Lake Toba) and more distal (Malaysia, India) settings)

Gatti, E & C.Oppenheimer (2012)- The utilization of distal tephra records for understanding climatic and environmental consequences of extreme eruptions: a case study from the Youngest Toba Tuff. In: L. Giosan et al. (eds.) Climates, landscapes, and civilizations, American Geophysical Union (AGU) Geophysical Monograph Series 198, p. 63-73.
(online at: www.researchgate.net/publication/264672488_Utilization_of_Distal_Tephra_Records_for Etc.)

Gatti, E., I.M. Villa, H. Achyuthan, P.L. Gibbard & C. Oppenheimer (2014)- Geochemical variability in distal and proximal glass from the Youngest Toba Tuff eruption. Bulletin of Volcanology 76, 9, 859, p. 1-16.
(online at: https://boris.unibe.ch/58640/1/Villa_Gatti.pdf)
(Youngest Toba Tuff eruption, dated to ~74 ka, produced est. 800 km^3 dense rock equivalent of co-ignimbrite fallout and may largest volcanic eruption of last 2 Ma. Chemical composition of YTT ash variable, as result of internal processes during magma formation and partly related to depositional environment)

Geiger, H., V.R. Troll, E.M. Jolis, F.M. Deegan, C. Harris, D.R. Hilton & C. Freda (2018)- Multi-level magma plumbing at Agung and Batur volcanoes increases risk of hazardous eruptions. Nature Scientific Reports 8, 10547, p. 1-14.
(online at: www.nature.com/articles/s41598-018-28125-2.pdf)
(Bali active stratovolcanoes Agung and Batur magma storage at crust-mantle boundary, also plagioclase crystallisation in upper crustal storage reservoirs.Multi-level plumbing architecture could drive replenishing magma to rapid volatile saturation, thus increasing likelihood of explosive eruptions)

Gertisser, R. & S. Self (2015)- The great 1815 eruption of Tambora and future risks from large-scale volcanism. Geology Today 31, 4, p. 132-136.

Gertisser, R., S. Self, L.E. Thomas, H.K. Handley, P. van Calsteren & J.A. Wolff (2012)- Processes and timescales of magma genesis and differentiation leading to the Great Tambora Eruption in 1815. Journal of Petrology 53, 2, p. 271-297.
(online at: https://academic.oup.com/petrology/article/53/2/271/1534863)
(Eruption of Tambora volcano (Sumbawa) in 1815 one of largest explosive eruptions in historical time. Extensive pyroclastic deposits from emptying of 30-33 km^3 trachyandesite magma body. Parental trachybasalt magma can be produced by ~2% partial melting of garnet-free, Indian-type mid-ocean ridge basalt-like mantle source contaminated with ~3% fluids from altered oceanic crust and <1% sediment. Differentiation from primary trachybasalt to trachyandesite in two-stage polybaric differentiation)

Gill, J.B. & R.W. Williams (1990)- Th isotope and U-series studies of subduction-related volcanic rocks. Geochimica Cosmochimica Acta 54, 5, p. 1427-1442.
(On U, Th, Po, Ra isotopes in volcanic arc rocks, incl. data from Sunda, Banda and Sangihe Arcs, Indonesia)

Godang, S., B. Priadi, Fadlin, T. van Leeuwen & A. Idrus (2021)- Geochemistry study of cross-castic magma alkalinity evolution. Indonesian J. on Geoscience (IJOG) 8, 2, p. 177-196.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/635)
(With example of Salak volcanics (W Jawa) showing magma evolution from Mg-series to Fe-series)

Gogarten, E. (1917)- Der Vulkan 'Tolo' auf Halmahera (Molukken). Petermann's Mitteilungen, Gotha, 63, p. 242-246 and p. 273-277.
(online at: https://zs.thulb.uni-jena.de/receive/jportal_jpvolume_00154185)
(Mainly geographic discussion by Swiss geologist/bergingenieur Emil Gogarten. Little known Tolo volcano commonly confused with other Moluccas volcanoes in historic documents, and often wrongly located on Morotai Island. Wichmann (1897) reported on a recent eruption. Locals call it Duko or DukoMa Tala (now called Dukono))

Gogarten, E. (1918)- Die Vulkane der nordlichen Molukken. Zeitschrift fur Vulkanologie 4, 4, p. 211-305.
(online at: google books, but without maps)
('The volcanoes of the northern Moluccas'. Brief descriptions and earlier visits and eruption histories volcanoes and some geology of Halmahera and Ternate, based on 1911 field work by Swiss mining engineer-geologist Emil Gogarten)

Guillet, S., C. Corona, M. Stoffel, M. Khodri, F. Lavigne, P. Ortega, N. Eckert, P.D. Sielenou, V. Daux et al. (2017)- Climate response to the Samalas volcanic eruption in 1257 revealed by proxy records. Nature Geoscience 10, p. 123-128. *(manuscript online at: https://hal.science/hal-01497225v1/file/Guillet_et_al_1257_1258_Nature_Geoscience_Format_Final.pdf*
(Eruption of Samalas (= Old Rinjani) volcano on Lombok in 1257 with sulfur in ice cores twice volume of 1815 Tambora eruption. >40 km^3 of dense magma expelled; eruption column up to 43 km altitude. Years 1258 and 1259 some of coldest N Hemisphere summers of past millennium. Eruption aggravated existing famine crises)

Gunawan, H., Surono, A. Budianto, Kristianto, O. Prambada, W. McCausland, J. Pallister & M. Iguchi (2019)- Overview of the eruptions of Sinabung eruption, 2010 and 2013- Present and details of the 2013 phreatomagmatic phase. J. Volcanology Geothermal Research 382, p. 103-119.
(online at: www.sciencedirect.com/journal/journal-of-volcanology-and-geothermal-research/vol/382/suppl/C)
(Small phreatic eruption of Sinabung Volcano, N Sumatra, in August 2010 marked first eruption in last ~1200 years. New eruption began on 15 September 2013 and continues to present. Ongoing eruption 5 major phases)

Gunawan, R.M.P.P. & I. Suhendro (2023)- Chemical and textural studies of the youngest pyroclastic deposits at Mt. Seminung (South Sumatra, Indonesia): a window for understanding the explosive behavior of a post-caldera volcano. Rudarsko-Geolosko-Naftni Zbornik, Zagreb 38, 5, p. 61-77.
(online at: https://hrcak.srce.hr/en/file/448542)

(Study of youngest tephra deposits of Seminung Volcano (post-eruptive volcano of Ranau Caldera) in South Sumatra. Explosive event of unidentified age) deposited ~3.7m thick sequence of pumice- and scoria-bearing pyroclastic deposits at ~3.8 km NE from vent)

Hadikusumo, D. (1961)- Report on the volcanological research and volcanic activity in Indonesia for the period 1950-1957. Bull. Volcanological Survey of Indonesia, Bandung, 100, p. 1-122.

Hadikusumo, D. (1961)- On the classification of dangerous volcanoes in Indonesia: Indonesia Madjelis Ilmu Penget 2, p. 177-182.

Halldorsson, S.A., D.R. Hilton, V.R. Troll & T.P. Fischer (2013)- Resolving volatile sources along the western Sunda arc, Indonesia. Chemical Geology 339, p. 263-282.
(online at: https://www.vrtroll.com/onewebmedia/Halldarsson%20et%20al%202013.pdf)
(Chemical and isotope (He-C-N) data of fumaroles and hydrothermal fluids from 19 volcanic centers along W Sunda arc suggest subducting slab is principal provider of volatiles. Increased contribution of CO_2 in N Sumatra suggest subducted sediment (particularly Nicobar Fan Himalayan-derived sediment) strong control on magmatic CO_2 characteristics, suggesting significant part must enter trench)

Harington, C.R. (ed.) (1992)- The year without a summer? World climate in 1816. Canadian Museum of Nature, Ottawa, p, 1-576. *(online at: https://ia600203.us.archive.org/18/items/yearwithoutsumme1992hari/yearwithoutsumme1992hari.pdf)*
(Series of papers describing the 1815 Tambora eruption on Sumbawa, the largest known volcanic eruption in human history and its global impact. The unusual, cool summer of 1816 that followed is commonly attributed to increase in atmospheric turbidity that followed the eruption of Mt Tambora (Stommel and Stommel 1979))

Hariyono, E. & Liliasari S (2018)- The characteristics of volcanic eruption in Indonesia. In: G. Aiello (Ed.) Volcanoes- geological and geophysical setting, Theoretical aspects and numerical modeling, Applications to industry and their impact on the human health, Intechopen, Chapter 5, p. 73-92.
(online at: https://scispace.com/pdf/the-characteristics-of-volcanic-eruption-in-indonesia-3hziuwdjud.pdf)
(General review. Indonesia has 147 volcanoes, 76 of them are active. Etc.)

Hartmann, M. (1935)- De werkende vulkanen van het eiland Lomblen (Solor Archipel). Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2), 52, p. 817-836.
(online at: http://resolver.kb.nl/resolve?urn=MMUBA13:001683001:pdf)
('The active volcanoes of Lomblen Island (Solor Archipelago)'. Lomblen in Banda volcanic arc, E of Flores, surveyed while employed by Dienst van den Mijnbouw in late 1931. Lomblen island SW-NE trending volcanic mountain chain with 3 active (Lewotolo, Labalekan, Ili Weroeng) and 2 recently active (Kedang, Mingar) volcanoes. All Lomblen volcanoes characterized by ~SE-NW trending faults)

Hartmann, M. (1935)- Der Vulkan Batoe Tara. Zeitschrift fur Vulkanologie 16, p. 180-191.
('The Batu Tara volcano'. Uninhabited active volcano, ~743m high, in Banda (Flores) Sea, NE of Flores, 50km N of Lembata (Lomblen) island (described by Verbeek (1908) as Poeloe Kambing 2). Known for its potassic leucite-bearing basanitic and tephritic rocks (see also Stolz et al. 1988, Van Bergen et al. 1992, etc.))

Hartmann, M. (1936)- Der tatige Feuerberg Siroeng auf Pantar. Natuurkundig Tijdschrift voor Nederlandsch-Indie 96, p. 89-121.
(online at: https://resolver.kb.nl/resolve?urn=MMTEY01:179532002:pdf)
('The active fire mountain (volcano) Sirung on Pantar'. Sirung mountains along S coast of Pantar island (Banda Arc between Lomblen and Alor) surveyed by author on behalf of government in November 1931. With multiple little-known, sulphurous active craters at Siroeng. Possible eruption 1852, 1934, etc.))

Hartono, U. (2000)- Island arc magmatism: a general review on petrogenetic models. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 10, 110, p. 16-23.

(General discussion of genesis of island arc magmas. Three potential sources, mantle wedge above subducting slab, subducted slab of oceanic crust and possibly sediments and arc crust)

Hartono, U. (ed.) (2001)- Ofiolit di Sulawesi, Halmahera dan Kalimantan: genesa, alih tempat dan mineral ekonomi. Badan Penelitian dan Pengembangan Energi dan Sumber Daya Mineral, Special Publ. 28, p. 1-88.
('Ophiolites in Sulawesi, Halmahera and Kalimantan: genesis, displacement and economic minerals')

Hartono, U. (2009)- Contribution of arc magmatism studies in early stage mineral exploration. Jurnal Sumber Daya Geologi (JSDG) 19, 5, p. 287-296.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/213/203)
(Indonesia has 15 or more volcanic arcs with total length of ~9000 km. Eight arcs contain known mineral deposits, while rest may be prospective. Mainly general discussion on arc magmatism and mineral deposits No correlation between porphyry-Cu or epithermal mineralizations and single petrological/ geological factor)

Hartono, U. & R.I.H. Sulistyawan (2011)- An overview of arc magma petrogenesis. Jurnal Sumber Daya Geologi (JSDG) 21, 4, p. 179-190.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/145/141)
(Review of subduction-related magmas. Most arc magmas derived from melting of upper mantle induced by released fluids and incompatible elements from subducted oceanic crust. Crustal-derived magmas, from melting of either subducted slab or lower crust, also present in some arcs)

Hartono, U. & R.I.H. Sulistyawan (eds.) (2011)- Indonesian arc magmatism: petrology, tectonics, and mineralization. Geological Agency, Bandung, Special Publ., p. 1-278.

Hasibuan, R.F. (2020)- The evolution of magma plumbing system in Tangkil and Rajabasa volcanoes, Indonesia. Ph.D. Thesis, Department of Geoscience, Akita University, Japan, p. 1-112.
(online at: https://air.repo.nii.ac.jp/)

Hasibuan, R.F., T. Ohba, M. Abdurrachman & T. Hoshide (2017)- Magmas characteristics of Rajabasa volcanic complex inferred by petrological approach. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, p. 1-5. *(online at: https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_Magmas-Characteristics-of-Rajabasa-Volcanic.pdf)*
(Rajabasa dormant Quaternary volcano at S tip of Sumatra. Volcanics mainly basaltic andesite, with K-Ar ages of volcanics 0.31-0.12 Ma (Pleistocene). Older volcanics SE of Rajabasa at nearby Tangkil (4.33 Ma; Pliocene). Two distinct type of magmas in Tangkil, calc-alkaline dacite and tholeiitic basalt)

Hasibuan, R.F., T. Ohba, M. Abdurrachman & T. Hoshide (2020)- Temporal variations of petrological characteristics of Tangkil and Rajabasa volcanic rocks, Indonesia. Indonesian J. on Geoscience (IJOG) 7, 2, p. 135-159.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/651)
(Petrography and chemistry of Pliocene and Pleistocene lavas from Tangkil and Rajabasa volcanoes at SE tip of Sumatra, with basaltic and felsic end-members. Volcanism at Tangkil started earlier (~4.3 Ma) than Rajabasa (0.3- 0.1 Ma))

Haslam, M. (2013)- Climate effects of the 74 ka Toba super-eruption: multiple interpretive errors in 'A high-precision 40Ar/39Ar age for the Young Toba Tuff and dating of ultra-distal tephra' by D. Mark, et al. Quaternary Geochronology 18, p. 173-175.
(Critique of Mark et al. 2013 paper)

Hatherton, T. & W.R. Dickinson (1969)- The relationship between andesitic volcanism and seismicity in Indonesia, the Lesser Antilles, and other island arcs. J. of Geophysical Research 74, p. 5301-5310.
(Early paper documenting increase in K-content with depth to seismic Benioff zone)

Heim, A. (1930)- Beobachtungen auf dem Merapi Sumatras im August 1928. Zeitschrift fur Vulkanologie 12, p. 322-326.
('Observations on the Merapi volcano in Sumatra in August 1928'. Brief report of (low) activity of Merapi volcano with multiple craters in the Padang Highlands around an August 1928 visit)

Heyckendorf, K. & D. Jung (1992)- Tambora volcano, Sumbawa Island, Indonesia; a comparison of ancient and modern volcanic products. Mitteilungen Geologisch-Palaontologisch Institut, Universitat Hamburg 73, p. 1-35.

Hidayat, A., M.A. Marfai & D.S. Hadmoko (2020)- Eruption hazard and challenges of volcanic crisis management on a small island: a case study on Ternate Island -Indonesia. Int. J. of GEOMATE (Japan) 18, 66, p. 171-178.
(online at: https://geomatejournal.com/geomate/article/view/462/1280)
(Ternate Island, W of Halmahera, is volcanic island formed by products of active Gamalama volcano. Altitude 1715m. Well-recorded history of 15 eruptions since 16th century. Rel. densely populated and vulnerable to volcanic hazards)

Hidayat, A., M.A. Marfai & D.S. Hadmoko (2020)- Eruption on Indonesia's volcanic islands: a review of potential hazards, fatalities, and management. Proc. 2nd Int. Conference Environmental Geography and Geography Education (ICEGE), East Java 2019, IOP Conference Series: Earth and Environmental Science 485, 012061, p. 1-11.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/485/1/012061/pdf)
(Brief review of Indonesia's 22 volcanic islands with records of eruptions during Holocene (not including volcanpes on Sumatra, Java, Bali, Lombok, etc.; JTvG))

Hidayati, S. & C. Sulaeman (2013)- Magma supply system at Batur Volcano inferred from volcano-tectonic earthquakes and their focal mechanism. Indonesian J. on Geoscience (IJOG) 8, 2, p. 97-105.
(online at: http://ijog.bgl.esdm.go.id/index.php/IJOG/article/view/159/159)
(Volcano-tectonic earthquakes in September- November 2009 show epicenters aligning in NE- SW direction, coinciding with weak zone of Batur Volcano Complex, Bali. Focal zone depths ~1.5- 5.5 km beneath summit)

Hilton, D.R. & H. Craig (1989)- A Helium isotope transect along the Indonesian archipelago. Nature 342, 6252, p. 906-908.
(Banda arc 3He/4He ratios significantly lower than normal in mid-ocean-ridge basalts (MORB). 80% of radiogenic Helium is from subducting continental material. Measurements along Sunda arc show MORB-like ratios from W Java to sharp transition zone at Lomblen Island (N/NW of Timor), where low ratios of Banda arc begin)

Hilton, D.R., J.A. Hoogewerff, M.J. van Bergen & K. Hammerschmidt (1992)- Mapping magma sources in the east Sunda-Banda arcs, Indonesia: constraints from Helium isotopes. Geochimica Cosmochimica Acta 56, p. 851-859.
(He isotope analyses from 11 volcanoes from Flores (E Sunda arc) through inactive segment between arcs to Banda Island. Results consistent with involvement of crustal material in magma genesis throughout E Sunda/ Banda arcs, as far W as Iya in C Flores. Source of He in crustal component unlikely to be terrigenous sediments derived from Australian continent; rather, degassing of Australian continental crust)

Hoogewerff, J.A. (1999)- Magma genesis and slab-wedge interaction across an island-arc collision zone, East Sunda Arc, Indonesia. Geologica Ultraiectina 178, p. 1-199. (*Ph.D. Thesis University of Utrecht*)
(online at: http://dspace.library.uu.nl/handle/1874/272287)
(Study of Sr, Nd, Pb, Ra, Th and U isotopes and major and trace elements from five active and >10 inactive volcanic centers in Adonara-Lomblen-Pantar Sector of E Sunda Arc (E of Flores and W of volcanically inactive Alor-Wetar sector). Both mantle components (depleted Indian Ocean mantle) and subduction-related components (subducted continental material, which changes in composition from E to W (Indian Ocean pelagic sediment and detrital Australian shelf sediment?, and crystalline Australian continental crust) contribute to magma generation. Active Adonara-Pantar Sector volcanoes display strongest sedimentary or even 'continental' signal of Sunda-

Banda Arcs volcanoes. Volcanic activity in Alor-Wetar sector started at least 12 Ma ago as intra-oceanic are, and ceased about 3 Ma ago)

Hoogewerff, J.A., M.J. van Bergen, P.Z. Vroon, J. Hertogen, R. Wortel et al. (1997)- U-series, Sr-Nd-Pb isotope and trace-element systematics across an active island arc-continent collision zone: implications for element transfer at the slab-wedge interface. Geochimica Cosmochimica Acta 61, 5, p. 1057-1072.
(Isotopic and trace element data consistent with three-component mixing whereby slab-derived hydrous fluid and siliceous melt both added to sub-arc mantle source. Hydrous fluid largely controls input in shallow part of subduction zone, siliceous melt dominates flux at deeper levels. Sedimentary material primary source of both)

Hoppe, H. (1903)- Uber Andesite der Vulkane Sago, Merapi, Manindjau und Kaba auf Sumatra. Inaugural Dissertation Koningliche Universitat Breslau (now Wroclaw University, Poland), p. 1-63.
(online at: https://bibliotekacyfrowa.pl/en/dlibra/publication/106315/edition/107931/uber-andesite-der-vulkane-sago-merapi-manindjau-und-kaba-auf-sumatra-hoppe-hugo-1880)
('About andesites of the volcanoes Sago, Merapi, Manindjau and Kaba on Sumatra'. Descriptions and chemical analyses of pyroxene andesites and hornblende-pyroxene andesites from four active volcanoes in W Sumatra, collected in 1900, by W. Volz))

Hutchison, C.S. (1975)- Correlation of Indonesian active volcano geochemistry with Benioff zone depth. Geologie en Mijnbouw 54, 3-4, p. 157-168.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0ak95aEQ5THJ5TWc/view)
(Indonesian arc >6000 km long from N Sumatra to the Molucca Sea. Majority of products augite-hypersthene andesite or basalt. Leucite in volcanoes over deepest seismic contours. Overall increase in K and alkali % with Benioff zone depth, but rather high variability)

Hutchison, C.S. (1976)- Indonesian active volcanic arc: K, Sr, and Rb variation with depth to the Benioff zone. Geology (GSA) 4, p. 407-408.
(K, Sr, and Rb vary with depth to Benioff zone. K2O increase most useful for Benioff zone depth prediction)

Hutchison, C.S. (1977)- Banda Sea volcanic arc: some comments on the Rb, Sr and cordierite contents. Warta Geologi (Newsletter Geological Society Malaysia) 3, 2, p. 27-35.
(online at: https://gsmpubl.files.wordpress.com/2014/09/ngsm1977002.pdf)
(Unusually high Rb/Sr ratios in volcanic rocks and cordierite in rhyolite at Tanjong Illipoi (Wetar) indicate of strong continental crustal influence in source of volcanic rocks. Romang also higher Rb/Sr ratios than active volcanic arc. Wetar very different from other islands of Banda Arc because of abundant light grey rhyolite and dacite. This extinct, eroded and uplifted portion of Banda volcanic arc N of Timor affected by subducted Australian continental Plate. Presence of cordierite in Ambon volcanics also imply involvement of continental crustal basement in N part of Banda Arc)

Hutchison, C.S. (1981)- Review of the Indonesian volcanic arc. In: A.J. Barber & S. Wiryosujono (eds.) The geology and tectonics of Eastern Indonesia. Proc. CCOP-IOC SEATAR Working Group Meeting, Bandung 1979, Geological Research Development Centre (GRDC), Bandung, Special Publ. 2, p. 65-80.
(Indonesian volcanic arc extends for 6000km from N Sumatra to Molucca Sea. Volcanism mainly calk-alkaline-high-K calc-alkaline with minor tholeiite and shoshonite. Lavas predominantly andesitic. Good correlation between depth of underlying Benioff zone of subduced Indian Ocean Plate and K2O content and Sr isotopes, indicating magma is of mantle origin. E-ward increase of 87Sr/86Sr from W Java to Bali suggests transition from continental to oceanic basement. Volcanoes above deep seismic contours are shoshonitic. Extinct arc of W Sulawesi also shoshonitic. Pliocene cordierite dacite-granites very high Sr ratios, consistent with continental origin. And much more; JTvG)

Hutchison, C.S. (1982)- Indonesia. In: R.S. Thorpe (ed.) Andesites. John Wiley, New York, p. 207-224.
(Review of Indonesian volcanic arc, similar to Hutchison (1981))

Iguchi, M., Surono, T. Nishimura, M. Hendrasto, U. Rosadi, T. Ohkura, H. Triastuty, A. Basuki et al. (2012)- Methods for eruption prediction and hazard evaluation at Indonesian volcanoes. J. Disaster Research (Tokyo) 7, 1, p. 26-36.
(online at: https://www.fujipress.jp/jdr/dr/dsstr000700010026/)
(On geophysical observations and geological surveys gathered at four volcanoes in Indonesia (Semeru, Guntur, Kelud and Sinabung), which may be applied in prediction of future eruptions and nature of activity With geological map showing activity stages and deposit types of Mt Sinabung, North Sumatra)

Indrastuti, N., A.D. Nugraha, W.A. McCausland, M. Hendrasto, H. Gunawan, R. Kusnandar et al. (2019)- 3-D seismic tomographic study of Sinabung Volcano, Northern Sumatra, Indonesia, during the inter-eruptive period October 2010-July 2013. J. Volcanology Geothermal Research 382, p. 197-209.
(online at: https://www.sciencedirect.com/science/article/pii/S0377027319301507)

Isnawan, D. & S. Bronto (1997)- Penentuan sumber erupsi batuan gunungapi Tersier dan implikasinya terhadap bahan tambang. Proc. 26th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 226-236.
(online at: https://www.iagi.or.id/web/digital/64/19.pdf)
('Determination of source of eruption of Tertiary volcanic rocks and their implications for minerals'. Volcano model, with example of evolution of Kulon Progo volcano complex in S Java)

Ipranta & R. Irzon (2019)- Fraksionasi plagioklas pada pembentukan batuan gunungapi Holosen di Kabupaten Halmahera Barat. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 20, 3, p. 165-174.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/468)
('Plagioclase fractionation on the Holocene volcanic rocks evolution in West Halmahera Regency'. Study of origin of origin of andesitic volcanic rocks from Jailolo, Sahu, Gamkonora and Ibu volcanoes in W Halmahera)

Ito, H. (2020)- Magmatic history of the Oldest Toba Tuff inferred from zircon U-Pb geochronology. Nature Scientific Reports 10, 17506, p. 1-8.
(online at: https://www.nature.com/articles/s41598-020-74512-z)
(Oldest Toba Tuff (OTT) second largest volume after Youngest Toba Tuff (YTT). Zircon dates from surface and interior sections with ages of 0.84 Ma and 0.97 Ma, respectively. Youngest OTT ages similar to 40Ar/39Ar eruption age of ~ 0.8 Ma. Oldest zircon ages ~ 1.2 Ma, interpreted as protracted crystallization for >400,000 years before eruption. Caldera collapse that generated OTT may be larger than previously interpreted)

Jaxybulatov, K., N.M. Shapiro, I. Koulakov, A. Mordret, M. Landes & C. Sens-Schonfelder (2014)- A large magmatic sill complex beneath the Toba caldera. Science 346, 6209, p. 617-619.
(online at: http://users.clas.ufl.edu/prwaylen/GEO2200%20Readings/Readings/Convergent%20boundaries/Large%20bsill%20beneath%20Toba%20caldera.pdf)
(Size and level of maturity of large volcanic reservoir estimated from radial seismic anisotropy (ambient-noise tomography) below Toba caldera, N Sumatra. Many partially molten sills present in the crust below 7 km)

Jezek, P.A. (1978)- Submarine volcanoes in Banda and Celebes Seas. Berita Direktorat Geologi, Geosurvey Newsletter 10, 20, p. 254-256.

Jezek, P.A. & C. Hutchison (1978)- Banda arc of eastern Indonesia: petrology and geochemistry of the volcanic rocks. Bulletin of Volcanology 41, 4, p. 586-608.
(Banda Arc volcanics major geochemical discontinuity near S end of Weber Deep. Alkali contents and Sr isotope ratios suggest Nila-Teun-Damar volcanic group distinct from Banda-Manuk, and Serua transitional. Lavas generally typical of oceanic island arc, ranging from tholeiitic basalt- dacite on SW Ambon and Banda, low-K calc-alkaline andesites on Manuk-Serua, to high-K calc-alkaline andesites on Nila-Teun-Damar- Gunung Api-Romang. Increasing potassium from Banda to Manuk may be related to increasing Benioff Zone depth. Older cordierite dacites (ambonites) on N Ambon must be derived from continental crust, but younger tholeiitic lavas of SW Ambon and Banda may be related to subduction zone dipping S-wards from Seram)

Johnson, R.W. (ed.) (1976)- Volcanism in Australasia. Elsevier Scientific Publ. Co., Amsterdam, p. 1-422.

(Book with 28 papers on volcanism of Australia, Indonesia, PNG, Soloman Islands, Tonga, to New Zealand)

Jolis, E.M., V.Troll, F. Deegan, L. Blythe, C. Harris et al. (2012)- Tracing crustal contamination along the Java segment of the Sunda Arc, Indonesia. EGU General Assembly 2012, Vienna, p. 9291. *(Abstract only)*
(Arc magmas crustal contamination can take place in mantle source or as magma traverses upper crust. Source contamination generally considered dominant process, but Java segment of Sunda arc shows increase in 87Sr/86Sr and δ18O and decrease in 143Nd/144Nd values from Krakatau towards Merapi. Volcanoes E of Merapi, where upper crust is thinner, show less crustal input)

Justesen, P.Th. (1920)- De Goenoeng Merapi in de Padangse Bovenlanden. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2) 37, p. 181-194.
('Mount Merapi in the Padang Highlands', Sumatra)

Kaehlig, C.B., A. Wight & C. Smith (1996)- Volcanoes of Indonesia, creators and destroyers. Times Editions, Singapore, p. 1-144.

Kamenetsky, V.S., M. Elburg, R. Arculus & R. Thomas (2006)- Magmatic origin of low-Ca olivine in subduction-related magmas: co-existence of contrasting magmas. Chemical Geology 233, p. 346-357.
(Comparison of olivines in mafic, high-Ca subduction-related magmas from Indonesia (S Sulawesi), Solomon Islands, Kamchatka and Lau Basin. Two populations: (1) high-Ca; crystallized from melt that dominantly contributed to whole rock composition. (2) low-Ca; generally interpreted as mantle or lithospheric xenocrysts)

Kandlbauer, J., S. Carey & R. Sparks (2013)- The 1815 Tambora ash fall: implications for transport and deposition of distal ash on land and in the deep sea. Bulletin of Volcanology 75, 4, p. 1-11.

Kandlbauer, J. & R.S.J. Sparks (2014)- New estimates of the 1815 Tambora eruption volume. J. Volcanology Geothermal Research 286, p. 93-100.
(Volume estimates of 1815 Tambora eruption, Sumbawa, re-analysed. Total volume ~41 ± 4 km^3 Dense Rock Equivalent (23 ± 3 km^3 ash fall and 18 ± 6 km^3 pyroclastic flows))

Kaneda, Y., I. Suhendro, S. Shibata G.N.R. Bunga Naen, F.T. Aka & T. Hasegawa (2025)- Petrogenetic relationship of pre-caldera and caldera-forming magmas from Maninjau volcano, West Sumatera, Indonesia. Proc. 6th Int. Conference Environmental Resources Management in Global Region (ICERM 2024), Yogyakarta 2024, IOP Conference Series: Earth and Environmental Science 1443, 012008, p. 1-12.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1443/1/012008/pdf)
(Dormant Maninjau volcano in W Sumatra is Quaternary andesitic-rhyolitic volcano in Padang Volcanic Field. Caldera-forming eruption of ~52 Ma (VEI 7) produced ~240 km3 of ejecta, forming thick and widespread ignimbrite plateau (especially around Bukttinggi). Eruption also exposed pre-caldera 'somma lava', which are mostly classi fied as medium K andesite-dacite, and unlikely to produce caldera-forming silicic magmas)

Kartadinata, M.N., W. Irawan, A. Solihin & A.R. Mulyana (1998)- Peta geologi Gunungapi Soputan, Sulawesi Utara, 1:50,000. Direktorat Vulkanologi Indonesia, Bandung.
(online at: https://vsi.esdm.go.id/gallery/picture.php?/88/category/9)
('Geologic map of the Soputan Volcano, North Sulawesi'.Soputan is Quaternary volcano complex with 3-4 eruption centers, ~1500- 1809m high. Built on Tondano caldera which formed at ~1.25-2.0 Ma, with eruption of basaltic and basaltic-andesitic volcanics and pyroclastic flows. All built on basement of Miocene volcanics)

Kartadinata, M.N., A.R. Mulyana, E. Kriswati & N. Haerani (2008)- Peta geologi Gunungapi Tambora, Provinsi Nusa Tenggara Barat, 1:50,000. Pusat Vulkanologi dan Mitigasi Bencana Geologi (Center for Volcanology and Geological Hazard Mitigation), Bandung.
(online at: https://vsi.esdm.go.id/gallery/picture.php?/95/category/10)
('Geologic map of Tambora Volcano, Sumbawa, West Nusa Tenggara'. 19 lava flow units since ~190 ka and before major caldera-forming eruption of 1815. Partly overlie older volcanics of Doro Labumbum volcano (~690 ka) in SE, and Late Tertiary limestones that form 'basement' for volcanics on Sanggar Peninsula)

Kartadinata, M.N., D. Wahyudin & R. Taufiqurrahman (2009)- Peta geologi Gunungapi Sibayak, Provinsi Sumatera Utara, 1:50,000. Pusat Vulkanologi dan Mitigasi Bencana Geologi (Center for Volcanology and Geological Hazard Mitigation), Bandung.
(online at: https://vsi.esdm.go.id/gallery/picture.php?/98/category/11)
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(A single subduction zone can produce different magmatic system. Sunda Trench subduction zone produces calc-alkaline magma and potassic magmas. Potassic magma type calderas (Toba, Tambora) performed greater eruption than calc-alkaline type magma caldera (Krakatoa, Batur, Rinjani))

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Kushendratno, J.S. Pallister, Kristianto, F.R. Bina, W. McCausland, S. Carn, N. Haerani, J. Griswold & R. Keeler (2012)- Recent explosive eruptions and volcano hazards at Soputan volcano- a basalt stratovolcano in north Sulawesi, Indonesia. Bulletin of Volcanology 74, 7, p. 1581-1609.
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('Basic data of Indonesian volcanoes'. Descriptions of 67 Indonesian 'A-type' volcanoes, with eruptions in historical time: 10 in Sumatra/ Sunda Strait, 17 on Java, 5 in Bali/ W Nusateggara, 13 in E Nusatenggara, 7 in Banda Islands, 11 in Sulawesi/ Sangir islands and 4 in N Moluccas. Eight aditional known A-type volcanoes not yet described)

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(Mataram Hindu Kingdom of 7th-10th century in Central and East Java possibly collapsed as result of major volcanic disaster, most likely Merapi volcano)

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(online at: https://iopscience.iop.org/article/10.1088/1755-1315/103/1/012021/pdf)
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(Holocene volcanoes in Philippines and Indonesia studied to determine relationship between regional maximum horizontal stress and opening direction of volcanic amphitheatre craters. Opening of craters occurs at acute angle relative to max. stress direction)

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(Polar ice cores with evidence of colossal volcanic eruption in 1257 or 1258 A.D., most probably in tropics, which yielded largest volcanic sulfur release to stratosphere of the past 7000 yrs. Likely source is Samalas volcano, adjacent to Mt Rinjani on N Lombok Island, where >40 km^3 of tephra were deposited. Three principal pumice fallout deposits in region and thick pyroclastic flow deposits at coast, 25 km from source. Pre-caldera topography of Mt Samalas calculated as ~4200m above sea level. Glass geochemistry of pumice matches shards in Arctic and Antarctic ice cores (see also Vidal et al. 2015))

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(Analyses of volcanic gases released at Gendol and Woro fumarolic fields with radionuclides strongly altered by secondary processes. High-T gases collected in the summit gas plume of primary magmatic origin and likely directly tapped in degassing magma reservoir.Etc.)

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(online at: https://www.e-periodica.ch/digbib/view?pid=sgh-001:1938:15::7#8)
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(online at: https://www.pnas.org/doi/full/10.1073/pnas.2101695118)
(Caldera-forming eruptions at Toba are result of progressive thermal maturation of upper crustal magma reservoir, which grows and chemically homogenizes, by sustained magma influx over past 2.2 My. If rate of magma input was maintained since last supereruption at 75 ka, volume of potentially eruptible magma available today is minimum of ~315 km^3)

Liu, P.P., S.L. Chung, C.A. Chesner, M.H. Gao, Y.M. Lai, H.Y. Lee & Y.H. Yang (2022)- New insights into the petrogenesis of voluminous crustal-signature silicic volcanic rocks of the Toba eruptions (Indonesia). J. of Geophysical Research: Solid Earth 127, 12, e2022JB024559, p. 1-18.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2022JB024559)
(Toba example of large-volume silicic magmas in arc setting. Quaternary Toba eruptions and nearby pre-caldera Haranggaol Andesite on Sumatra significantly enriched Sr-Nd isotopes, similar to post-caldera (<74 ka) Sipisupisu basalts near Toba Caldera. Thermodynamic modeling shows Toba silicic rocks can be produced from mantle-derived basaltic melts. Binary modeling of Sr-Nd isotopes suggests Toba rocks can be produced by mixing of 5-10% of subducting Nicobar Fan sediments with depleted MORB mantle)

Liu, P.P., S.L. Chung, B. Ma, X.H. Li, Q.L. Li, H.Y. Lee & X.R. Zhang (2022)- Zircon Hf-O isotopic constraints on the origin and temporal evolution of the Toba volcanic system, Indonesia. Lithos 434-435, 106925, p. 1-7.
(Temporal evolution of Toba volcanic system from ~1.5 Ma up to now, including two super-eruptions, Young Toba (YTT) at ~74 ka and Pld Toba (OTT) at 790 ka. MTT erupted at ~501 ka. Zircon Hf-O isotopes of latest five Toba eruptions suggest enriched, heterogenous mantle source with significant crustal contamination (incl. subducted Nicobar Fan terrigenous sediments?, followed by crustal contamination during ascent or storage in shallow magma reservoirs. Two inherited zircon cores with U-Pb ages of ~154 and 197 Ma)

Liu, P.P., D.B. Wang, M.F. Zhou, X.H. Li, Q.L. Li, G.A. Gaetani, B. Monteleone & V. Kamenetsky (2023)- Constraints of boron and oxygen stable isotopes on dehydration fluids, sediment-derived melts, and crustal assimilation of the Toba volcanic system (Indonesia). Geology (GSA) 52, 3, p. 161-165.
(Arc magmas produced from mantle wedge, with possible addition of fluids and melts from serpentinites and sediments in subducting slab. Oxygen isotopic compositions of zoned olivines from post-caldera basalts and Boron contents and isotopes of basalts and glassy melt inclusions in silicic tuffs in Toba volcanic system, N Sumatra, reflect assimilation of high δ18O crustal materials during fractional crystallization, with >40% of fluids derived from serpentinites and others from altered oceanic crust and sediments)

Liu, Z., C. Colin & A. Trentesaux (2006)- Major element geochemistry of glass shards and minerals of the Youngest Toba Tephra in the southwestern South China Sea. J. Asian Earth Sciences 27, p. 99-107.
(4cm thick ash layer in Core MD01-2393 from SW S China Sea at Marine Isotope Stage 4-5 transition at ~74 ka. Morphology and geochemistry of glass shards confirm origin from Youngest Toba eruption, N Sumatra)

Luais, B. (1987)- Petrologie et geochimie (elements trace et rapports isotopiques du Sr) du magmatisme associe aux zones de subduction. Examples du Bassin Mediterraneen et des Isles de la Sonde (Merapi, Java). Thesis, Universite de Montpellier, Documents Travaux Centre Geologique Geophysique Montpellier, 9, p. 1-237.
('Petrology and geochemistry (trace elements and Sr isotopic ratios) of magmatism associated with subduction zones: examples from the Mediterraneen Basin and the Sunda Islands (Merapi, Java)')

Lubbers, J.E., A.J.R. Kent & S. de Silva (2024)- Constraining magma storage conditions of the Toba magmatic system: A plagioclase and amphibole perspective. Contributions to Mineralogy and Petrology 179, 12, p.
(74 ka Youngest Toba Tuff (YTT) is one of largest explosive eruptions in geologic record. Plagioclase crystals record decades-centuries of storage at T >750 °C, while hornblende records up to 6200 years at same Temp. YTT thermal history did not allow for large bodies of eruptible magma to be present for long periods (10^2–10^3 years). Magmas were stored for long durations at thermal conditions where they were uneruptible and only remobilized within few centuries prior to eruption)

Lundberg, J. & D.A. McFarlane (2012)- A significant middle Pleistocene tephra deposit preserved in the caves of Mulu, Borneo. Quaternary Research 77, 3, p. 335-343.
(Fluvially transported tephra in caves of Mulu, Sarawak, not Younger Toba Tephra, but older (before ~125 or before ~156 ka. Most likely location of volcanic source in Philippines)

MacLeod, N. (1989)- Sector-failure eruptions in Indonesia volcanoes. Geologi Indonesia (IAGI) 12, 1 (Prof. Dr. J.A. Katili 60 years Special Volume), p. 563-601.
(Study of 54 volcano craters that erupted with sector failures)

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(*online at: https://www.mdpi.com/2076-3263/11/3/109*)
(On impacts of volcanic eruptions at multiple scales and related-issues of disaster-risk reduction, with examples from Indonesia (Merapi, Krakatau, Samalas, Galunggung, Raung, Tambora, etc.)

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(Three written sources from Lombok provide descriptions of ancient landscape of Lombok and population's response to Samalas volcano eruption in 1257 CE. Lombok may have taken up to a century to recover and new kingdoms and principalities became established by the 14h century)

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(Report on active Mount Karangetang volcano (Api Siau) on Siau Island, Sangihe island arc, N Sulawesi)

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(online at: https://digilib.itb.ac.id/gdl/view/69959)
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('The ignimbrite and the Batur caldera (Bali, Indonesia)'. Batur caldera result of collapse of strato-volcano following outpouring of an ignimbritic unit (ash flow) covering N and S flanks of Batur ~22,000 years ago. Island of Bali tilted N-wards around its long axis. Outflow of ignimbrite followed long period of andesitic activity, preceded and followed by flows of 'bandaite', a leucocratic lava with highly basic plagioclase (~80-90% An), probably generated, at shallow dephts by assimilation of aluminous strata by basaltic magma)

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(Many volcanic chains worldwide show gaps in pattern of active volcanoes, often related to collisions of oceanic plateaus. Examples from Indonesia include Wetar gap of Banda Arc (due to Australia collision S of Timor region) and New Guinea)

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('On the activity of the Soputan (N Sulawesi volcano) in the years 1911-1912'.Brief 'after-the-fact' reconstruction)

Metrich, N., C.M. Vidal, J.C. Komorowski, I. Pratomo, A. Michel, N. Kartadinata, O. Prambada, H. Rachmat & Surono (2017)- New insights into magma differentiation and storage in Holocene crustal reservoirs of the Lesser Sunda Arc: the Rinjani-Samalas volcanic complex (Lombok, Indonesia). Journal of Petrology 58, 11, p. 2257-2284.
(online at: https://academic.oup.com/petrology/article/58/11/2257/4838192)
(Mineralogy and chemistry of magmas erupted over last ~12 kyr at Rinjani-Samalas volcanic complex on Lombok. Calc-alkaline series, moderately rich in K2O. Pre-caldera stage bimodality of magmas (basalt-trachydacite); post-caldera magmatism basaltic andesites. Possibly result of mixing between basalt and trachydacite melts. AD 1257 caldera-forming eruption large volume of trachydacitic magma)

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(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB21:040193000:00001)
('The Woerlali volcano on Damar Island'. Brief description of Recent but currently forest-covered and inactive andesitic Banda Arc volcano. From brief field survey by Brouwer and Molengraaff in March 1911, when sulfur mining was conducted at solfataros on S slope of Woerlali by French company)

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(Since ~74 ka YTT supereruption, Toba has been in state of resurgence. New 14C, zircon U-Th crystallization and (U-Th)/He ages show resurgence started at 69.7±4.5 ka and continued until at least ~2.7 ka, progressing westward across caldera, as reflected by post-caldera effusive lava eruptions and uplifted lake sediment. Zircons from recent eruption of Sinabung suggest Toba magma reservoir extends beneath Sinabung)

Mucek, A., M. Danisík, S.L. de Silva, D.P. Miggins, A.K. Schmitt, I. Pratomo, A. Koppers & J. Gillespie (2021)- Resurgence initiation and subsolidus eruption of cold carapace of warm magma at Toba Caldera, Sumatra. Nature Communications Earth & Environment 2, 185, p. 1-9.
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(About resurgence Toba Caldera since the YTT eruption of 74 ka, where recovery phase after climactic caldera-forming supereruption led to uplift of caldera floor as magma rebounds (i.e., viscous rebound) and new magma is intruded)

Mulyana, A.R., I.S. Sutawidjaja, D. Wahyudin, Pujowarsito & T. Setiawan (2004)- Geological map of Colo Volcano, Central Sulawesi. Centre of Volcanology and Geological Hazard Mitigation, Bandung.

(Map of active Colo volcano on Una Una island, Gulf of Tomini, C Sulawesi)

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(online at: https://iopscience.iop.org/article/10.1088/1755-1315/256/1/012023/pdf)
(Listing of 24 known volcanic eruption-induced tsunamis in Indonesia sine 1600s. Largest known tsunami in Indonesia from Krakatau in 1883, with run-up of 41m)

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(Four distinct pumice types distinguished in deposits of Youngest Toba Tuff (YTT; 74 ka) ignimbrite around Lake Toba, N Sumatra, suggesting eruptions from four distinct magma chambers, initiated by high supersaturation of pheno-vesicle-rich YtB magma, triggering subsequent eruptions of the YtA, YtB, YtC, and YtD magmas)

Naen, G.N.R.B., A. Toramaru, I. Suhendro, G. Agroli, I. Pratomo, E. Kriswati, H.E. Wibowo & N. Tsuchiya (2026)- Giant pumice deposit from the post-74 ka Youngest Toba Tuff (YTT) eruption: Insights into storage conditions and eruption dynamics of subaqueous eruption. J. Volcanology Geothermal Research 472, 108558, p.
(Toba Caldera Complex in N Sumatra has erupted four major ignimbrites since 1.2 Ma: Haranggaol Dacite Tuff (HDT), Old Toba Tuff (OTT), Middle Toba Tuff (MTT), and Young Toba Tuff (YTT). Giant pumice deposit preserved in lake sediments of Toba Caldera represents post-YTT activity and occurs as large clasts (>1 m). Etc.)

Nakada, S., F. Maeno, M. Yoshimoto, N. Hokanishi, T. Shimano, A. Zaennudin & M. Iguchi (2019)- Eruption scenarios of active volcanoes in Indonesia. J. of Disaster Research (Tokyo) 14, 1, p. 40-50.
(online at: https://www.fujipress.jp/jdr/dr/dsstr001400010040/)
('Event trees' of possible eruption sequences built from study of events at volcanoes Sinabung (N Sumatra) and , Guntur, Galunggung, Semeru, Kelud and Merapi (Java))

Nakada, S., A. Zaennudin, M. Yoshimoto, F. Maeno. Y. Suzuki, N. Hokanishi, H. Sasaki, M. Iguchi et al. (2019)- Growth process of the lava dome/flow complex at Sinabung Volcano during 2013-2016. J. Volcanology Geothermal Research 382, 15, p. 120-136.
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(Sinabung volcano in N Sumatra first erupted in 2010, starting with phreatic phase, changing to phreato-magmatic. Andesite lava dome appeared at summit crater in December 2013. Lava flows continued during collapses of lava complex, which generated pyroclastic density currents. Active until 2016 and later)

Nasution, A., M.S. Santoso, R. Chaniago & D. Mulyadi (2005)- Peta geologi Gunungapi Kerinci, Sumatera Barat dan Jambi, 1:50,000. Direktorat Vulkanologi dan Mitigasi Bencana Geologi (Directorate of Volcanology and Geological Hazard Mitigation), Bandung.
(online at: https://vsi.esdm.go.id/gallery/picture.php?/97/category/11)
('Geologic map of the Kerinci volcano, West Sumatera and Jambi'. Tallest volcano on Sumatra (3840m). Central eruption cone with 10 successive Quaternary lava flow units, 4 pyroclastic flow and 3 lahar units. Five parasitic cones. Built on older volcanic complex and meta-sediments)

Neumann van Padang, M. (1930)- Het vulkaaneiland Paloeweh en de uitbarsting van den Rokatinda in 1928. Vulkanologische en Seismologische Mededeelingen, Dienst Mijnbouw Nederlandsch-Indie, Bandung, 11, p. 1-92.
('The volcanic island Paluweh and the eruption of the Rokatinda in 1928'. Eruption of Rokatinda volcano on Paloeweh island N of Flores may have killed 1000 people. With petrographic descriptions by P. Esenwein)

Neumann van Padang, M. (1937)- Bestaat er verband tusschen den regenval op den top van de vulkanen Semeroe en Lamongan en hunne uitbarstingen? De Ingenieur in Nederlandsch-Indie (IV) 4, 1, p. IV.1- IV.7.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1937-01.pdf)

('Is there a relationship between rainfall on the tops of volcanoes Semeru and Lamongan and their eruptions?'. Junghuhn suggested possible increased number of small eruptions of Semeru, East Java, during rainy season, but this is not supported by available data. With extensive listing of known volcanic acitivities of Semeru (since 1818) and Lamongan (since 1808))

Neumann van Padang, M. (1938)- Uber die Unterseevulkane der Erde. De Ingenieur in Nederlandsch-Indie (IV) 5, 5, p. IV.69- IV.83.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1938-05.pdf)
('On the submarine volcanoes on Earth'. Review of 158 submarine volcanoes worldwide, incl. 7 from Indonesia (Anak Krakatau, Nieuwerkerk, Emperor of China, Yersey Reef, Banua Wuhu and 3 unnamed features))

Neumann van Padang, M. (1938)- Uber die Unterseevulkane der Erde (Fortsetzung). De Ingenieur in Nederlandsch-Indie (IV) 5, 6, p. IV.85- IV.104.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1938-06.pdf)
(Continuation of paper above. Submarrine volcanoes of Japan, Taiwan, W Pacific, New Zealand, Melanesia, Hawaii, etc.))

Neumann van Padang, M. (1940)- Shifting craters of the Talakmau volcano, Sumatra. J. of Geomorphology (New York) 3, p. 218-226.
(Talakmau (also called Talamau, Ophir) in W Central Sumatra is composite volcano, with progressive shift of younger eruptive centers from NE to SW. With 19937 eruption)

Neumann van Padang, M. (1950)- Dertig jaren vulkanologisch onderzoek in Indonesie. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2) 67, 5, p. 541-565.
('Thirty years of volcanological research in Indonesia'. History of Bandung Volcanological Survey in 1920-1950. Founded in September 1920 as 'Vulkaanbewakingsdienst', as department within 'Dienst van het Mijnwezen' (Bureau of Mines), after the 1919 catastrophic eruption of Kelud volcano, E Java. Etc.)

Neumann van Padang, M. (1951)- Catalogue of the active volcanoes of the world including solfatara fields. Part 1: Indonesia. Int. Volcanological Association, Napoli, p. 1-271.
(Encyclopedic overview of all 128 known volcanoes in Indonesia. Three categories: A. Volcanoes with eruptions in historical time (78), B. Volcanoes in solfatara and fumarole stage (29) and C. Solfatara and fumarole fields (21). Geographically subdivided by Sumatra (1-29), Sunda Straits (1), Java (35), Lesser Sunda Islands (28), Banda Sea (9), Celebes (13), Sangihe islands (5), Halmahera (7) and New Guinea (1). (for updated and expanded version see by K. Kusumadinata (1979), Direktorat Vulkanologi Indonesia; JTvG))

Neumann van Padang, M. (1960)- Measures taken by the authorities of the Vulcanological Survey to safeguard the population from the consequences of volcanic outbursts. Bulletin of Volcanology (Bulletin Volcanologique) 23, p. 181-192.

Neumann van Padang, M. (1963)- The temperatures in the crater region of some Indonesian volcanoes before the eruption. Bulletin of Volcanology 26, 1, p. 319-336.
(Temperature variations in tops of volcanoes as measured by personnel of the Volcanological Survey in the former Dutch East Indies in the 1920s-1930s at Merapi, Papandayan, Slamet and Anak Krakatau, proved to be poor indicators of imminent eruptions)

Neumann van Padang, M. (1971)- Two catastrophic eruptions in Indonesia, comparable with the Plinian outburst of the volcano of Thera (Santorini) in Minoan time. Acta First International Scientific Congress on the volcano of Thera, Athens 1969, Archaeological Services of Greece, p. 51-63.
(Comparison of Plinian eruption with enormous volumes of pumice of Santorini island, Greece, with those of Tambora (Sumbawa, 1815) and Krakatoa (W of Java, 1883). Krakatoa and Tambora eruptions lasted only two days and led to collapse of tall volcanic edifices)

Neumann van Padang, M. (1983)- History of the volcanology in the former Netherlands East Indies. Scripta Geologica 71, p. 1-76.
(online at: https://repository.naturalis.nl/document/148698)
(Frequently cited paper on the history of volcano research in Indonesia, with listing of active volcanoes/ activity from late 1800's to ~1930)

Neumann van Padang, M., R.J. Fryer & C. Titulaer (1970)- Catalogue of terrestrial crateriform structures, Part 2, Indonesia. European Space Research Organisation, Neuilly, S.P. 93, p. 1-74.
(Catalogue of calderas in Indonesia)

Neumann van Padang, M. & T.W. Gevers (1925)- Ubersicht uber die Vulkane Niederlandisch Indien nach der Litratur der letzten funf Jahre. Zeitschrift fur Vulkanologie 9, 3, p. 79-126.
(read online at: https://babel.hathitrust.org/cgi/pt?id=uc1.b2931138&seq=119)
('Overview of the volcanoes of the Netherlands Indies based on the literature of the last five years'. Rel. extensive review, mainly based on reports by G. Kemmerling, N.Taverne, H. Witkamp, H. Brouwer, C.E. Stehn, etc., in 1919-1924)

Newhall, C.G. & D. Dzurisin (1988)- Historical unrest at large calderas of the world. U.S. Geological Survey (USGS) Bull. 1855, p. 1-1108. (2 volumes)
(online at: http://pubs.usgs.gov/bul/1855/report.pdf)
(Global review of Recent activity of volcanoes with large calderas. With sizeable chapters on Indonesia (p. 255-351) and Papua New Guinea (p. 197-244))

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(Estimates of emission of volatile metals in volcanic sources of Indonesian Arc. SO_2 emission 3.5 × 106 tons/ year, or ~20% of annual worldwide volcanic flux of SO2. Trace metal (210Po, Pb, Bi, Cd, Zn and Cu) fluxes ~5-30% of global volcanic flux, i.e. low relatively low)

Nicholls, I.A. & D.J. Whitford (1976)- Primary magmas associated with Quaternary volcanism in the western Sunda arc. In: R.W. Johnson (ed.) Volcanism in Australasia, Elsevier, Amsterdam, p. 77-90.
(Pleistocene- Recent lavas of W Sunda Arc dominated by basaltic andesite and andesite, with average 55% silica. Most lavas have Mg/Mg +Fe2 values, too low to be unmodified products of partial melting of peridotitic mantle. Further differentiation to produce andesitic- dacitic magmas probably at rel. low pressure)

Nicholls, I.A. & D.J. Whitford (1978)- Geochemical zonation in the Sunda volcanic arc, and the origin of K-rich lavas. Bull. Australian Soc. Exploration Geophysicists (ASEG) 9, p. 93-98.
(*Sunda volcanic arc good example of variation in geochemistry of lavas across island arc. In addition to correlation between K2O/SiO2 ratios and depths to Benioff Zone in Pleistocene-Recent-lavas of Java, there are well-defined relationships for 'incompatible' elements (Rb, Cs, Ba) and light rare earth elements. Volcanic centers of Java indicate progressive change in conditions of primary basaltic magma production across arc)*

Nicholls, I.A., D.J. Whitford, K.L. Harris & B. Taylor (1980)- Variation in the geochemistry of mantle sources for tholeiitic and calc-alkaline mafic magmas, western Sunda volcanic arc, Indonesia. Chemical Geology 30, p. 177-199.
(online at: https://www.academia.edu/47138931/Variation_in_the_geochemistry_of_mantle_sources_for_tholeiitic_and_calc_alkaline_mafic_magmas_Western_Sunda_volcanic_arc_Indonesia)
(Quaternary lavas of normal island-arc basalt-andesite-dacite association in Java-Bali range from tholeiitic series over Benioff-zone depths of ~150 km to high-K calc-alkaline series over Benioff-zone depths of 250km. More abundant and diverse calc-alkaline lavas over intermediate Benioff-zone depths. Basaltic lavas become slightly more alkaline with increasing depth to the Benioff zone. Levels of incompatible minor and trace elements (K, Rh, Cs, Ba, Nb, U, Th, light REE) show increase of almost order of magnitude)

Ninkovich, D. (1979)- Distribution, age and chemical composition of tephra layers in deep-sea sediments off western Indonesia. J. Volcanology Geothermal Research 5, p. 67-86.
(Volcanic ash layers in deep-sea sediments of NE Indian Ocean, adjacent to W Indonesian range in age from Late Miocene- Recent. Three provinces: (1) large Late Miocene and younger rhyolitic tephra province off Sumatra; (2) restricted dacitic province off Sunda Strait and W Java; and (3) andesitic province off E Java and Lesser Sunda Islands. Chemical composition of tephra layers in each province remains constant with time. E-ward decrease in silica content in tephras coincides with similar decrease in Indonesian arc lavas. High silica content in Sumatra linked to thick pre-Cenozoic crust. E of Sumatra crust is Cenozoic and thin)

Ninkovich, D. & W.L. Donn (1976)- Explosive Cenozoic volcanism and climatic implications. Science 194, 4268, p. 899-906.
(Study of volcanogenic material in DSDP and other cores from E and SE Asia. Indonesia Cenozoic magmatic history two major phases: first extended into E Miocene, second began in Late Miocene and lasted until today. With map of Indian Ocean areas covered with rhyolitic and andesitic ash layers SW of Sumatra and S of Java)

Ninkovich, D. & W.L. Donn (1977)- Cenozoic explosive volcanism related to East and Southeast Asian arcs. In: M. Talwani & W. Pitman (eds.) Island arcs, deep sea trenches and back-arc basins, American Geophysical Union (AGU), Maurice Ewing Series 1, p. 337-347.
(Study of history of Cenozoic explosive volcanism using DSDP and piston core data from Indian Ocean off Indonesia and W Pacific Ocean)

Nossin, J.J. (2005)- Volcanic hazards in Southeast Asia. In: A. Gupta (ed.) The physical geography of Southeast Asia, Oxford University Press, p. 250-274.

Nugraha, A.D., N. Indrastuti, R. Kusnandar, H. Gunawan, H. Triastuty & W. McCausland (2019)- Joint 3-D tomographic imaging of Vp, Vs and Vp/Vs and hypocenter relocation at Sinabung volcano, Indonesia from November to December 2013. J. Volcanology Geothermal Research 382, p. 210-223.
(online at: https://www.sciencedirect.com/science/article/pii/S0377027316303250)
(Travel time tomography from volcanic-tectonic events between November and December 2013)

Nurfiani, D., X. Wang, H. Gunawan, H. Triastuty, D. Hidayat, S.J. Wei, B. Taisne & C. Bouvet de Maisonneuve (2021)- Combining petrology and seismology to unravel the plumbing system of a typical arc volcano: an example from Marapi, West Sumatra, Indonesia. Geochem. Geophysics Geosystems 22, 4, e2020GC009524, p. 1-25.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2020GC009524)
(Marapi volcano in Sumatra characterized by frequent short-lived, small eruptions (VEI 1-2. In past 250 years, volcano erupted >60 times. Petrologic study of summit bombs uses pyroxene, plagioclase and glass compositions for P and T of magma storage estimates of 4-7 kbar (~15-26 km). Inversion reveals low velocity zone at 15-21 km depth and is likely magma storage)

Oppenheimer, C. (2002)- Limited global change due to the largest known Quaternary eruption, Toba ~74kyr BP?. Quaternary Science Reviews 81, p. 1593-1609.
(≈74 kyr BP 'super-eruption' of Toba volcano in Sumatra is largest known Quaternary eruption. A possible 6 year long 'volcanic winter' following eruption has been proposed, but previous estimates of globally averaged surface cooling of 3-5°C after eruption probably too high; closer to 1°C)

Oppenheimer, C. (2003)- Climatic, environmental and human consequences of the largest known historic eruption; Tambora Volcano (Indonesia) 1815. Progress in Physical Geography 27, 2, p. 230-259. *(online at: www.researchgate.net/publication/233720521_Climatic_environmental_and_human_consequences_of_the_largest_known_historic_eruption_Tambora_volcano_Indonesia_1815)*
(1815 eruption of Tambora volcano (Sumbawa) expelled around 140 gt of magma (equivalent to ≈50 km^3 of dense rock), making it largest known historic eruption. More than 95% erupted as pyroclastic flows, but 40% of material ended up as ash fallout from 'phoenix' clouds that lofted above flows during emplacement. Short-lived plinian explosions preceded main eruption and caldera collapse, propelling plumes up to 43 km altitude. Over

71,000 people died on Sumbawa and Lombok. Eruption injected ≈60 mt of sulfur into stratosphere, forming global sulfate aerosol veil in stratosphere, resulting in anomalously cold weather in N Hemisphere)

Pacey, A., C.G. Macpherson & K.J.W. McCaffrey (2013)- Linear volcanic segments in the central Sunda Arc, Indonesia, identified using Hough Transform analysis: implications for arc lithosphere control upon volcano distribution. Earth Planetary Science Letters 369-370, p. 24-33.
(manuscript online at: https://dro.dur.ac.uk/11833/1/11833.pdf)
(In Sunda Arc most volcanoes define four en echelon, linear segments, each of 500-700 km length. Volcanoes of Java that do not lie on these segments either formed at early stage in history of arc and erupted anomalous magma, or lie along other mapped structures)

Palfreyman, W.D., R.W. Johnson, R.J.S. Cooke & R.J. Bultitude (1986)- Volcanic activity in Papua New Guinea before 1944: an annotated bibliography of reported observations. Bureau Mineral Resources Geology Geophysics, Canberra, Report 254, p. 1-194.
(online at: https://d28rz98at9flks.cloudfront.net/15175/Rep_254.pdf)
(Annotated bibliography of 750 references on volcanoes and volcanic activity in PNG before 1944)

Pallister, J. with USGS and CVGHM (2013)- Impromptu guide to the volcanology of the North Sulawesi - Sangihe region and fieldtrip guide for the Tomohon area. p. 1-21.
(online at: http://earth.leeds.ac.uk/esc_wg/Oldwork/Indonesia/workshop2013_files/fieldguide.pdf)
(Handy overview of 10 active volcanoes and a 20x30km caldera in N Sulawesi, at S end of Sangija Arc system, compiled from Lecuyer (1998) and CVGHM (Indonesian Center for Volcanology and Geologic Hazard Mitigation) and VDAP (USGS-USAID Volcano Disaster Assistance Program) work)

Paris, R., A.D. Switzer, M. Belousova, A. Belousov, B. Ontowirjo, P.L. Whelley & M. Ulvrova (2014)- Volcanic tsunami: a review of source mechanisms, past events and hazards in Southeast Asia (Indonesia, Philippines, Papua New Guinea). Natural Hazards 70, 1, p. 447-470.
(online at: http://repo.kscnet.ru/1328/1/tsun-2014.pdf)
(Many volcanoes in SE Asia potentially cause tsunamis in oceans and present hazard to rapidly developing coasts)

Pearce, N.J.G., J.A. Westgate, E. Gatti, J.N. Pattan, G. Parthiban & H. Achyuthan (2014)- Individual glass shard trace element analyses confirm that all known Toba tephra reported from India is from the c. 75-ka Youngest Toba eruption. J. Quaternary Science 29, 8, p. 729-734.
(Glass shards from all Toba tephra samples from India thus far analysed, same multi-population composition as Young Toba Tuff and are products of ~75-ka Youngest Toba eruption. Composition different from Oldest Toba Tuff (OTT) in Layer D from ODP site 758 (~800 ka))

Pearce, N.J.G., J.A. Westgate, G.A.R. Gualda, E. Gatti & R.F. Muhammad (2019)- Tephra glass chemistry provides storage and discharge details of five magma reservoirs which fed the 75 ka Youngest Toba Tuff eruption, northern Sumatra. J. Quaternary Science 35, 1-2, p. 256-271.
(online at: www.researchgate.net/publication/336557616_Tephra_glass_chemistry_provides_storag Etc.)
(Youngest Toba Tuff contains five distinct glass populations, representing five compositionally distinct pre-eruptive magma batches that fed eruption. Glass population proportions in distal tephra and proximal material describe eruption starting by emptying deepest reservoirs. Later, shallower magma reservoirs erupted)

Petroeschevsky, W.A. (1949)- A contribution to the knowledge of the Gunung Tambora (Sumbawa). Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (TKNAG), Amsterdam, 66, p. 688-703.
(Description of Tambora volcano on Sumbawa, based on visit in May 1947. Previous surveys by H. Zollinger (1847) and J. Pannekoek van Rheden (1913). Volcano thought to be extinct, until major 1815 eruption, which reduced its height from ~4000 to 2850m, produced ~150 km^3 of ash, and directly and indirectly killed 92,000 people. Rocks described as olivine basalts, leucite tephrites/ leucite basanites, and glassy lava bombs with biotite)

Petroeschevsky, W.A. (1952)- The volcanic activity in Indonesia during the period 1942-1948. Berita Gunung Berapi, Volcanological Survey Indonesia, Bandung, 1, 1-2, p. 9-31.
(in both English and Indonesian. Activity of volcanoes of Sumatra and Java. Volcano observation work during this period much hampered by poliical developments (the former Head of the Volcanological Survey in Bandung, W. Petroeschevsky, retired to Sydney, Australia in 1950))

Petroeschevsky, W.A. (1953)- The volcanic activity in Indonesia during the period 1942-1948, Part II, The volcanoes of the Lesser Sunda Islands and the Southern Moluccas. Berita Gunung Berapi 3-4, Volcanological Survey Indonesia, Bandung, p. 17-30.
(Part 2 of 3-part series. On volcanic activity of Rinjani (Lombok), volcanoes on Flores, Adonara, Pantar, etc.))

Petroeschevsky, W.A. & T.H.F. Klompe (1950)- Het vulkanologisch onderzoek in Indonesia. In: Een eeuw natuurwetenschap in Indonesia 1850-1950, Gedenkboek Koninklijke Natuurkundige Vereeniging (KNV), Chronica Naturae 106, 5, Vorkink, Bandung, p. 187-206.
(online at: https://resolver.kb.nl/resolve?urn=MMTEY01:179539012:pdf)
('History of volcanological investigations in Indonesia', in 'A century of natural sciences in Indonesia 1850-1950' book. With listings of 130 active volcanoes and years of eruptions)

Petroeschevsky, W.A. & T.H.F. Klompe (1951)- Vulcanological investigations in Indonesia. O.S.R. (Organization Scientific Research in Indonesia) Publ. 23, Bandung, p. 1-16.
(English version of Petroeschevsky & Klompe (1950), above)

Phua, M., F. Forni, S. Eisele, H. Rifai, M. Mohtadi, A. Luckge & C. Bouvet de Maisonneuve (2025)- A late Pleistocene-Holocene record of explosive eruptions from Central Sumatra (Indonesia) in the western Sunda volcanic arc. Bulletin of Volcanology 87, 31, p. 1-24.
(online at: https://link.springer.com/article/10.1007/s00445-025-01813-4)
(Sumatra island home to>130 active or potentially active volcanoes wita history of explosive eruptions. Several highly explosive eruptions (VEI) ≥ 6) are known (Toba caldera, etc.), but moderately explosive eruptions (VEI 3–5) less well studied. New data from C Sumatra (rhyolitic Malintang, Tandikat, Marapi, Ranau pyroclastic eruptions) and distal marine tephra ash layers provides improved tephrochronological framework for late Pleistocene-Holocene explosive volcanism in Sumatra (13 ash layers identified for last 5 kyrs))

Prambada, O., A. Zaennudin, Iryanto, I. Santosa, N. Nakada & M. Yoshimoto (2011)- Peta geologi Gunungapi Sinabung, Provinsi Sumatera Utara, 1:50,000. Pusat Vulkanologi dan Mitigasi Bencana Geologi (Center for Volcanology and Geological Hazard Mitigation), Bandung.
(online at: https://vsi.esdm.go.id/gallery/picture.php?/100/category/11)
('Geologic map of the Sinabung Volcano, North Sumatra Province'. Major active Quaternary volcano, with 17 lava flows and 8 pyroclastic flows units distinguished, all from single crater. Surrounded by Toba pyroclastic pumice-rich flow unit. Built on a.o. Permian limestone))

Prata, A.T., A. Folch, A.J. Prata, R. Biondi, H. Brenot, C. Cimarelli, S. Corradini et al. (2020)- Anak Krakatau triggers volcanic freezer in the upper troposphere. Nature Scientific Reports 10, 3584, p. 1-13.
(online at: https://www.nature.com/articles/s41598-020-60465-w)
(Discussion of short-lived volcanically-triggered tropospheric cooling caused by eruption(s) of Anak Krakatau in 22-28 December 2018, which formed convective anvil cloud, reaching 16-18km above sea level, and was ice-rich and ash-poor)

Pratama, A., M. Aufaristama, A. Luthfian, M.Z. Tuakia, R.B. Nareswari, P.B. Suryanata, G.N.R.B. Naen, A. Fadhilah & Nurhidayat (2025)- Morphological and magnetic analysis of Nieuwerkerk Volcano, Banda Sea, Indonesia: Preliminary hazard assessment and geological interpretation. Geosciences(MDPI) 5, 9, 353, p. 1-27.
(online at: https://www.mdpi.com/2076-3263/15/9/353)
(Nieuwerkerk submarine volcano is 50 km E of Emperor of China volcano in S Banda Sea. One of largest submarine volcanic edifices in Banda Sea (diameter 80x 30 km, height above seafloor 3460 m). With twin peaks

and indications of sector collapse and landslide deposits. Most recent historical unrest recorded in 1925 and 1927 (Neumann van Padang 1983). Potential forgeneration of volcanic tsunamis, more study required)

Pratomo, I. (2006)- Klasifikasi gunung api aktif Indonesia, studi kasus dari beberapa letusan gunung api dalam sejarah. Jurnal Geologi Indonesia 1, 4, p. 209-227.
(New classification of Indonesian active volcanoes: Tambora (caldera formation), Merapi (lava dome), Agung (open crater), Papandayan (sector failure), Batur (post-caldera activities), Sangeangapi (lava flows) and Anak Krakatau types (volcano islands and submarine volcano))

Primulyana, S., I.S. Sutawidjaja, O. Prambada & A. Zaenuddin (1993)- Peta geologi Gunungapi Sibual Buali, Provinsi Sumatera Utara, 1:50,000. Pusat Vulkanologi dan Mitigasi Bencana Geologi (Center for Volcanology and Geological Hazard Mitigation), Bandung.
(online at: https://vsi.esdm.go.id/gallery/picture.php?/99/category/11)
('Geologic map of the Sibual Buali volcano, North Sumatra Province'. Quaternary volcano with 14 andesitic and basalt-andesitic lava flow units, 1819m high, built on older volcanics)

Prothero, D.R. (2018)- When humans nearly vanished: the catastrophic explosion of the Toba volcano. Smithsonian Books, p. 1-187.

Purbo-Hadiwidjoyo, M.M., M.L. Sjachrudin & S. Suparka (1979)- The volcano-tectonic history of the Maninjau caldera, western Sumatra, Indonesia. In: W.J.M. van der Linden (ed.) Fixism, mobilism or relativism: Van Bemmelen's search for harmony, Geologie en Mijnbouw 58, 2, p. 193-200.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0T3BxRWpTaFRPUlU/view)
(Mt. Maninjau 15km W of Bukittinggi, W Sumatra, three stages:(1) pre-volcanic edifice stage, (2) pre-caldera stage (number of strato-volcanoes forming N-S oriented Maninjau volcanic complex) and (3) caldera-formation stage. Caldera-formation stage preceded by ejection of ~220-250 km^3 of pumiceous tuff, followed by collapse of top part of volcano, and radial failure of W flank. Two eruptions of acid magma: (1) unwelded and (2) welded tuff. Since then obvious volcanic activity ceased)

Rachmat, H. (2016)- Magmatic evolution Rinjani volcano complex based on eruption product analysis. Ph. D. Thesis Padjajaran University, Bandung, p. *(Unpublished)*

Rachmat, H. & U. Kurdiawan (2018)- Rinjani: dari evolusi hingga geopark. Museum Geologi-Badan Geologi, Bandung, p. 1-209.
(History of Mount Rinjani volcano on Lombok island, from caldera formation by a massive, globally impactful eruption in 1275, to its recognition as world geological heritage site and UNESCO Global Geopark in 2018)

Rachmat, H. & I. Mujitahid (2003)- Gunungapi Nusa Tenggara Barat. Indonesian Association Geologists (IAGI), Special Publ. 1, p. 1-141.
('Volcanoes of West Nusa Tenggara')

Rachmat, H. & U. Kurdiawan (2018)- Rinjani: dari evolusi hingga Geopark. Museum Geologi, Badan Geologi, Bandung, p. 1-227.
('Rinjani: from its evolution to Geopark'. Lombokvolcano study)

Rachmat, H., M.F. Rosana, A.D. Wirakusumah & G. Abdul-Jabbar (2016)- Petrogenesis of Rinjani post-1257-caldera-forming-eruption lava flows. Indonesian J. on Geoscience (IJOG) 3, 2, p. 107-126.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/311/209)
(Catastrophic 1257 caldera-forming eruption of Old Rinjani on Lombok followed by appearance of new Rombongan and Barujari Volcanoes within caldera, composed of calc-alkaline and high K calc-alkaline porphyritic basaltic andesite)

Rachmat, H. & A.D. Wirakusumah (2017)- The magmatic evolution of lava flows post Rinjani caldera formation. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, Art. 11, p.

(Rinjani Caldera on Lombok Island with caldera of 6 x 7 km, formed after catastrophic eruption and collapse of the old Rinjani volcano in 13th century. Study of post caldera lava formations).

Rahmanto, R., A. Saepuloh, E. Kriswati & H.D. Purnamasar (2025)- Volcanoes segmentation at the western Sunda Arc based on satellite-derived geological lineaments and land surface temperatures. J. Engineering and Technological Sciences (JETS) (ITB) 57, 3, p. 327-342.
(online at: https://jets.itb.ac.id/jets/article/view/155/183)
(Western Sunda volcanic arc stretches across Sumatra and Java, and hosts 83 active volcanoes, including Mts. Sinabung, Krakatau, Tangkuban Parahu, Merapi, Semeru, etc.). Study of surface lineaments and temperature allows subdivision of W Sunda Arc into nine zones, 5 in Sumatra, 4 in Java)

Raible, C.C., S. Bronnimann, R. Auchmann, P. Brohan, T.L. Frolicher, H.F. Graf, P. Jones et al. (2016)- Tambora 1815 as a test case for high impact volcanic eruptions: Earth system effects. WIREs Climate Change 7, 4, p. 569-589.
(online at: www.ncbi.nlm.nih.gov/pmc/articles/PMC6686350/pdf/WCC-7-569.pdf)
(Good review of climate impacts from the 1815 Tambora eruption on Sumbawa, incl. likely strengthening of wintertime stratospheric polar vortex, global cooling, slowdown of water cycle, weakening of summer monsoon circulations,strengthening of Atlantic Meridional Overturning Circulation, and decrease of atmospheric CO_2)

Rampino, M.R. & S.H. Ambrose (2000)- Volcanic winter in the Garden of Eden: the Toba supereruption and the late Pleistocene human population crash. In: F.W. McCoy & G. Heiken (eds.) Volcanic hazards and disasters in human antiquity, Geological Society of America (GSA), Special Paper 345, p. 71-82.
(online at: www.researchgate.net/publication/279723381_Volcanic_winter_in_the_Garden_of_Eden_ Etc.)
(Toba eruption in N Sumatra at ~73,500 B.P. largest explosive eruption of last few 100k years.Produced abundant dust and H2SO4 aerosols, and ice-core data indicate ~6-yr residence time for global aerosol cloud. Aerosol loading probably caused 'volcanic winter' with possible regional coolings of 15° C and global cooling of 3-5° C for several years.Tropical vegetation probably destroyed.Genetic studies indicate humans suffered severe population bottleneck sometime before ~60,000 yrs ago, followed by rapid population increase and migrations. Possible connection between Toba event and human population bottleneck)

Rampino, M.R. & S. Self (1982)- Historic eruptions of Tambora (1815), Krakatau (1883) and Agung (1963), their stratospheric aerosols, and climatic impact. Quaternary Research 18, 2, p. 127-143.
(Decreases in surface temperatures after eruptions of Tambora, Krakatau and Agung were of similar magnitude, although amounts of dust and volatiles injected into stratosphere differed greatly. Large amounts of fine ash and volatiles dispersed into upper atmosphere by Krakatau and Tambora; Agung eruption in 1963 was smaller, but injected dust and volatiles into stratospheric aerosol layer more directly. Agung eruption relatively rich in SO_2 and Cl. Relative amounts of fine ash produced by Tambora, Krakatau and Agung eruptions estimated at 150: 20: 1, atmospheric sulfate aerosols ~7.5: 3: 1. Decreases in surface T after volcanic eruptions mainly result of sulfate aerosols, rather than silicate dust)

Rampino, M.R. & S. Self (1992)- Volcanic winter and accelerated glaciation following the Toba super- eruption. Nature 359, 6390, p. 50-52.
(Eruption of Toba in Sumatra 73,500 years ago largest known explosive volcanic event in Late Quaternary. Model calculations of climatic effects of volcanic cloud suggest it may have produced 'volcanic winter', followed by few years surface-temperature decreases of 3-5 °C. Eruption during Stage 5a-4 transition of oxygen isotope record may have accelerated shift to glacial conditions that was already underway)

Rampino, M.R. & S. Self (1993)- Climate- volcanism feedback and the Toba eruption of ~74000 years ago. Quaternary Research 40, p. 269-280.
(online at: https://zenodo.org/record/1229950/files/article.pdf)
(Toba eruption (~74,000 yrs ago) during δ18O Stage 5a-4 transition period of rapid ice growth and falling global sea level, which may have been a factor in creating stresses that triggered volcanic event. Stratospheric dust and sulfuric acid aerosol clouds may have created brief cooling ('volcanic winter'), with N Hemisphere surface T

decreases of ~3°-5°C. Summer T decreases of >10°C at high N latitudes adjacent to regions already covered by snow may have increased snow/ sea-ice extent, accelerating cooling already in progress)

Ranneft, T.S.M. (1979)- Segmentation of island arcs and application to petroleum geology. J. Petroleum Geology 1, 3, p. 35-53.
(Island arcs commonly depicted as curved or sinuous, but most are composed of straight segments whose trend changes suddenly at hinge or boundary zones (multiple transverse faults). Fracture system may be related to structural, morphological, or movement of underthrusting slab, or movement in backdeep or overthrusting sheet. Transverse structural systems had effect on petroleum accumulations of island arc regions, both from stratigraphic and structural viewpoint. Examples of modern Indonesian arc system)

Reid, M.R. & J.A. Vazquez (2017)- Fitful and protracted magma assembly leading to a giant eruption, Youngest Toba Tuff, Indonesia. Geochem. Geophysics Geosystems 18, 1, p. 156-177.
(online at: http://onlinelibrary.wiley.com/doi/10.1002/2016GC006641/epdf)
(Eruption of 74 ka Youngest Toba Tuff of N Sumatra produced 2800 km^3 of ignimbrite and coignimbrite ashfall. Relatively many zircons nucleated before earlier eruption at 501 ka, but most zircons yielded interior dates 100-300 ka thereafter. Zircon growth likely episodic over protracted time intervals of >100- >500 ka. Repeated magma recharge may have contributed to development of compositional zoning in YTT, but perturbations to magma reservoir over >400 ka did not lead to eruption until 74 ka)

Reubi, O. & A. Nicholls (2004)- Variability in eruptive dynamics associated with caldera collapse: an example from two successive eruptions at Batur volcanic field, Bali, Indonesia. Bulletin of Volcanology 66, 2, p. 134-148.
(Batur volcanic field in Bali two caldera-forming eruptions, at 29,300 and 20,150 years BP., resulting in deposition of dacitic ignimbrites. Ubud Ignimbrite covers most of S Bali and consists dominantly of pyroclastic flow with minor pumice fall deposits. Gunungkawi Ignimbrite more limited extent, occurs only in central S Bali)

Reubi, O. & A. Nicholls (2004)- Magmatic evolution at Batur volcanic field, Bali, Indonesia: petrological evidence for polybaric fractional crystallization and implications for caldera-forming eruptions. J. Volcanology Geothermal Research 138, p. 345-369.
(Batur volcanic field in Bali underwent complex evolution that comprised three periods of building and two major caldera-forming eruptions)

Reubi, O. & A. Nicholls (2005)- Structure and dynamics of a silicic magmatic system associated with caldera-forming eruptions at Batur Volcanic Field, Bali, Indonesia. Journal of Petrology 46, 7, p. 1367-1391.
(online at: http://petrology.oxfordjournals.org/content/46/7/1367.full.pdf+html)
(Quaternary Batur volcanic field in Bali ~150 km above Benioff zone and adjacent to active Agung volcano and extinct or dormant Bratan caldera. Two caldera-forming eruptions and broad range of compositions from low-SiO2 andesite to high-SiO2 dacite. Earliest volcanism was building of Penulisan basaltic-dacitic stratovolcano starting at least at ~510 ka. Collapse of first caldera associated with eruption of dacitic Ubud ignimbrite at 29,300 yrs BP. After formation of Bunbulan lava-dome complex collapse of second caldera, with eruption of Gunungkawi Ignimbrite at 20,150 yrs BP. Followed by 1700 m high, basaltic andesite Batur stratovolcano)

Rittmann, A. (1953)- Magmatic character and tectonic position of the Indonesian volcanoes. Bulletin of Volcanology 14, p. 45-58.
(Review of chemical compositions of magmas of Indonesian active volcanoes. Volcanoes classified as (1) Calc-alkaline (= Pacific; 30/ 91%), (2) Alkaline (= Atlantic; 2; 6%) and Potassic (= Mediterranean; 1/ 3%). Calc-alkaline character of magmas of active volcanoes decreases regularly in direction from foredeep to hinterland, becoming alkaline in hinterland itself. Also, at single volcanoes calc-aIkaline character decreases with time, 'confirming migration of axis of orogen towards foredeep')

Romeur, M. (1991)- Series magmatiques arc et arriere-arc de la Sonde: nature des sources impliquees (elements en trace et isotopes Sr-Nd-Pb). Doct. Thesis Universite de Bretagne Occidentale, Brest, p. 1-451.
(online at: https://archimer.ifremer.fr/doc/00034/14540/11815.pdf)

('Arc and back-arc magmatic series of Sunda arc: nature of involved sources'. Three geochemical zones: arc, backarc and an intermediate zone. Focus on back-arc potassic basalts of Sumatra (Jambi, Sukadana) and Karimunjawa islands in Java Sea)

Roothaan, H.P. (1929)- Notities omtrent eenige jonge Nederlandsch-Indische eruptiefgesteenten. Natuurkundig Tijdschrift voor Nederlandsch-Indie 89, 3, p. 506-516.
(online at: https://resolver.kb.nl/resolve?urn=MMTEY01:179529004:pdf)
('Notes on some young Netherlands Indies eruptive rocks'. Petrographic descriptions and chemical analyses (conducted at ETH Zurich) of selected recent volcanic rocks from S Sumatra, Java and N Sulawesi, No specific conclusions)

Rubin, K.H., G.E. Wheller, M.O. Tanzer, J.D. MacDougall, R. Varne & R. Finkel (1989)- 238U decay series systematics of young lavas from Batur volcano, Sunda Arc. J. Volcanology Geothermal Research 38, p. 215-226.

Ryu, S., H. Kitagawa, E. Nakamura, T. Itaya & K. Watanabe (2013)- K-Ar analyses of the post-caldera lavas of Bratan volcano in Bali Island, Indonesia- Ar isotope mass fractionation to light isotope enrichment. J. Volcanology Geothermal Research 264, 4, p. 107-116.
(online at: https://www.researchgate.net/profile/Eizo-Nakamura/publication/260972302_K-Ar_analyses_of_the_post-caldera_lavas_of_Bratan_volcano_in_Bali_Island_Indonesia_-_Ar_isotope_mass_fractionation Etc.)
(Post-caldera lavas of Bratan volcano on Bali are basalts to andesites and typical of subduction-related tectonic setting. K-Ar ages ~14, 31, 55, 66, 94 and 125 ka)

Saing, U.B., P. Bani, N. Haerani, A. Aiuppa, S. Primulyana, H. Alfianti, D.K. Syahbana & Kristianto (2020)- First characterization of Gamkonora gas emission, North Maluku, East Indonesia. Bulletin of Volcanology 82, 5, 37, p. 1-11.
(manuscript online at: www.researchgate.net/publication/340847611_First_characterization_of_Gamk Etc.)
(Gamkonora little-studied active volcano of W Halmahera arc. Most extreme eruption in May 1673 (VEI 5 event). First magmatic gas analyses in range of high-T gas emissions from Indonesian volcanoes. Rock analyses indicate basaltic andesite to andesite source)

Saing, U.B., P. Bani & Kristianto (2014)- Ibu volcano, a center of spectacular dacite dome growth and long-term continuous eruptive discharges. J. Volcanology Geothermal Research 282, p. 36-42.
(online at: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.872.6550&rep=rep1&type=pdf)
(Ibu volcano on NW Halmahera one of most active volcanoes in Indonesia. Resumed activity in 1998. Lava dome of dacite composition is developing at rate of 3182 m^3/ day)

Sandberg, C.G.S. (1914)- Batoer-Agoeng massief met den Molengraaff-ketel op Bali. Verslagen Geologische Sectie, Geologisch-Mijnbouwkundig Genootschap, The Hague, 1914, p. 161-.
(Early description of active Batur-Agung volcano complex on Bali. Located in large caldera ~12 km in diameter, here named 'Molengraaff-kettle')

Schrikker, A. (2016)- Disaster management and colonialism in the Indonesian Archipelago, 1840-1920. In: G. Bankoff & J. Christensen (eds.) Natural Hazards and Peoples in the Indian Ocean World, Palgrave Macmillan, New York, p. 225-254.
(Discussion of three historic volcanic disasters in Indonesia: (1) eruption and earthquake on Ternate island in Eastern Indonesia in 1840; (2) eruption, earthquake and tidal wave on Sangihe Besar island, N of Menado, in 1856; and (3) eruption of Gunung Kelud in 1919 in E Java. Kelud disaster of 1919 marked the beginning of a new, prevention-oriented, colonial policy towards volcanic hazards)

Schroder, W. (2002)- The Krakatoa event and associated phenomena: a historical review. Earth Sciences History 21, 2, p. 199-206.
(Mainly on global atmospheric phenomena in 1883-1886 related to the world-wide atmospheric pollution of volcanic dust and volatiles from the Krakatau eruption of 1883)

Schulz, H., K.C. Emeis, H. Erlenkeuser, U. von Rad & C. Rolf (2002)- The Toba volcanic event and interstadial/stadial climates at the marine isotopic stage 5 to 4 transition in the northern Indian Ocean. Quaternary Research 57, 1, p. 22-31.
(Toba volcanic event documented in marine sediment cores from NE Arabian Sea. Distinct concentration spikes and ash layers of rhyolithic volcanic shards near marine isotope stage 5-4 boundary with chemical composition of 'Youngest Toba Tuff'. Toba event between two warm periods lasting few millennia. Toba had only minor impact on evolution of low-latitude monsoonal climate on centennial to millennial time scales)

Self, S., R. Gertisser, T. Thordarson, M.R. Rampino & J.A. Wolff (2004)- Magma volume, volatile emissions, and stratospheric aerosols from the 1815 eruption of Tambora. Geophysical Research Letters 31, L20608, p. 1-4.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/2004GL020925/epdf)
(New estimates for mass of magma and aerosol generated by Tambora in 1815: 30 -33 km^3 magma, 53-58 Tg SO2, and 93-118 Tg sulfate aerosols. Aerosol cloud distributed globally, but more in S than in N Hemisphere)

Self, S. & M.R. Rampino (2012)- The 1963-1964 eruption of Agung Volcano (Bali, Indonesia). Bulletin of Volcanology 74, 6, p. 1521-1536.
(online at: https://www.researchgate.net/publication/257428344_The_1963-1964_eruption_of_Agung_volcano_Bali_Indonesia)
(On largest volcanic eruption in Indonesia since Krakatoa in 1883. Early lava flow followed by two explosive phases and deadly lahars. Two related but distinctly different magma types: porphyritic basaltic andesite and andesite. (Agung 1963 released enough SO2 to form a global stratospheric sulphate aerosol layer that led to vivid sunsets, and briefm global cooling)

Senduk, K.G. & M. Abdurrachman (2023)- Volcanostratigraphy in the Lokon Volcano area and its surroundings, North Sulawesi. Bulletin of Geology (ITB) 7, 2, p. 1144-1154.
(online at: https://buletingeologi.com/index.php/buletin-geologi/article/view/279/88)

Shibata, S., G.N.R. Bunga Naen, Y. Kaneda, I. Suhendro, C. Kusu & T. Hasegawa (2025)- Cooling timescale and process of welded facies of Youngest Toba Tuff, North Sumatra, Indonesia. Proc. 6th Int. Conf. Environmental Resources Management in Global Region (ICERM 2024), Yogyakarta, IOP Conference Series: Earth and Environmental Science 1443, 012016, p. 1-12.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1443/1/012016/pdf)
(The 74 ka Youngest Toba Tuff (YTT) super-eruption is one of argest caldera-forming eruptions on Earth. Analysis of ~100m thick welded facies of YTT exposed at 30km from caldera, suggests interior part of ignimbrite remained hot at ~ 600 °C for 30 years after deposition)

Sigurdsson, H. & S. Carey (1989)- Plinian and co-ignimbrite tephra fall from the 1815 eruption of Tambora volcano. Bulletin of Volcanology 51, p. 243-270.
(Deposits of April 1815 Tambora eruption sequence start with four widespread ash fall layers, locally overlain by up to eight pyroclastic flow deposits. With isopach maps of F1, F2, F3 and F4 Plinian tephra layers. F-5 deposit is co-ignimbrite ash fall, generated largely during entrance of pyroclastic flows into ocean. Large volume of F-5 ash requires eruption of 50 km^3)

Sigurdsson, H. & S. Carey (1992)- Eruptive history of Tambora volcano, Indonesia. In: E.T. Degens, H.K. Wong & M.T. Zen (eds.) The sea off Mount Tambora. Mitteilungen Geologisch-Palaontologisch Institut, Universitat Hamburg 70, p. 187-206.

Sigurdsson, H. & S. Carey (1992)- The eruption of Tambora in 1815: environmental effects and eruption dynamics. In: C.R. Harington (ed.) The year without a summer? World climate in 1816. Canadian Museum of Nature, Ottawa, p. 16-45.

Singh, A. & A.K. Srivastava (2022)- Had Youngest Toba Tuff (YTT, ca. 75 ka) eruption really destroyed living media explicitly in entire Southeast Asia or just a theoretical debate? An extensive review of its catastrophic event. J. Asian Earth Sciences X, 7, p. 1-11.

(online at: https://www.sciencedirect.com/science/article/pii/S2590056022000044)
(Pleistocene Young Toba eruption estimated to be 3,500 times bigger than historic Tambora eruption. Eruption often viewed as catastrophic event that resulted in deforestation and human bottlenecks, but 'a thoroughly carried out literature review' suggests diversified vegetation and animals persisted)

Situmorang, T. & K.A.S. Astadiredja (1983)- Volkanistratigrafi suatu konsep pemetaan geologi gunungapi Kuarter. Proc. 12th Annual Conv. Indonesian Association Geologists (IAGI), p. 189-199.
('Volcanostratigraphy, some mapping concepts of the geology of Quaternary volcanoes.)
(Lake Toba ash event (75 ka; ~20 cm thick) and Australasian tektite layer (0.7 Ma; near Brunhes/Matuyama magnetic reversal) identified in Hole 758C, Indian Ocean W of N Sumatra)

Smit, J., A.J.M van Eijden & S. Troelstra (1991)- Analysis of the Australasian microtektite event, the Toba Lake event, and the Cretaceous/Paleogene boundary, eastern Indian Ocean. In: J. Weissel et al. (eds.) Proc. Ocean Drilling Program (ODP), Scientific Results, College Station, 121, p. 489-503.
(online at: www-odp.tamu.edu/publications/121_SR/VOLUME/CHAPTERS/sr121_25.pdf)
(Lake Toba ash event (75,000 yrs ago) recovered in Hole 758C, had minor influences on foraminiferal populations. Australasian tektite event (just below Brunhes/Matuyama magnetic reversal at ~0.7 Ma) probably had some influence on foraminiferal ecology, because larger specimens become scarce just above microtektite layer. Cretaceous-Paleogene boundary of Hole 752B does not show obvious anomalous trace-element concentrations)

Smith, J. (2006)- Climactic effects of the 1815 eruption of Tambora. Hohonu J. of Academic Writing, Hawaii, 5, 7, p. 26-32.
(online at: https://hilo.hawaii.edu/campuscenter/hohonu/volumes/volume5-2007)
(Review of effects of the 1815 Tambor eruption on global climate)

Soeria-Atmadja, R., R.C. Maury, H. Bellon, J.L. Joron, Y. Cyrille, H. Bougault & Hasanuddin (1985)- The occurrence of back-arc basalts in Western Indonesia. Proc. 14th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 125-132.
(online at: https://www.iagi.or.id/web/digital/40/PIT_IAGI_1985_paper12.pdf)
(Back-arc volcanics, behind Sunda Arc and different composition: primitive basalts resembling basalts from extensional environments at Sukadana (S Sumatra, Quaternar) and Karimunjawa islands (C Java Sea, latest Miocene- Pliocene 6.5- 1.8 Ma))

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(K-rich alkaline leucite basanite and leucite tephrite eruptives and dykes from Batu Tara volcano (50 km N of Lembata (Lomblen) in Flores Sea) reflect variable amounts of phenocrysts in melts with different compositions. Uninhabited volcano, 748m high, ~230 km above Benioff zone in region of relatively young and thin arc crust)

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(Trace-element and isotope data for 12 active volcanoes from Flores, Adonara, Lembata and Batu Tara in E Sunda arc suggest mantle beneath E Sunda arc is heterogeneous mixture of 3 or 4 major source components: MORB-source or depleted MORB-source, OIB-source and subducted Indian Ocean sediment)

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(Bajawa complex 78 cinder cones, grouped into five morphometric ages. Oldest group 0.53-0.73 Ma, Bajawa 02 (0.41- 0.51 Ma), 03 (0.32- 0.40 Ma) and 04 (0.22-0.31 Ma), youngest group 0- 0.20 Ma)

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(Mount Raung (N Sulawesi) explosive sub-Plinian eruption of April 2024 fed by extremely crystal-rich basaltic-andesite magma reservoir)

Suhendro, I. (2024)- Evidence of the weakly stratified crystalline magma feeding an explosive Plinian eruption: A case study of the Holocene 'Malalak Tephra' deposit Tandikat volcano, West Sumatra, Indonesia. J. Asian Earth Sciences 262, 106002, p.
(Malalak Tephra layer in W Sumatra up to 5 m thick at 5 km from Plinian-type eruption vent at Tandikat volcano (2348m) in Padang Volcanic Field. Grey and white pumice fall deposits, consisting of one initial ash layer and

five main lapilli layers (F0-F5), composed of glass, plagioclase, and amphibole phenocrysts. Overlies Maninjau Ignimbrite. Likely eruption age of deposit ~4,860 yrs BP, volume ~7.5-16 km3)

Suhendro, I., D.S. Hadmoko, E. Haryono & A.L. Permatasari (2025)- On the possible role of potassium enrichment for controlling the morphological evolution of stratovolcanoes into compound or caldera (Java Island, Indonesia). Geomorphology 486, 109898, p.
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(Volcanostratigraphy, petrography and whole-rock geochemistry data of Merbabu volcano in Cl Java, Indonesia. Identified 22 pyroclastic layers, five lava flows and three lava domes. All lavas are porphyritic and pyroxene-rich, with composition from basalt to andesite. Lava domes all andesite. Etc.)

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(online at: https://catalog.lib.kyushu-u.ac.jp/opac_download_md/7161061/7161061.pdf)
(The 52 ka eruption of Maninjau caldera in Sumatra produced stratified ignimbrite with transparent and non-transparent pumices)

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(Maninjau eruption at 52 ka in W Sumatra was third-known largest caldera-forming event in Indonesia, after 74 ka Youngest Toba Tuff and 510 ka Middle Toba Tuff. Previously included in Padang Volcanic Field, together with Sirabungan, Tandikat, Singgalang, and Marapi volcanoes. Fed by 4 rhyolitic magma reservoirs)

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(Eruption of Tambora volcano in 1815 initiated by two precursory Plinian falls and formed two generations of pyroclastic density current deposits. Plinian fall units characterized by lower phenocryst abundance and higher silica content. PDC deposits relatively high crystal abundance, larger phenocrysts and lower silica. Deposit stratigraphy suggests phenocryst stratification in magma chamber prior to 1815 eruption)

Suhendro, I., E. Yuliawan, R.F. Zen, Z.Y. Rahmawati, P.E. Priyana, S. Diwijaya et al. (2024)- Petrology, geochemistry, and crystal size distribution of the basaltic andesite–dacite association at Mt. Sumbing, Central Java, Indonesia: insights to magma reservoir dynamics and petrogenesis. Acta Geochimica 43, p. 838-855.
(online at: https://link.springer.com/article/10.1007/s11631-024-00673-7)
(Active Sumbing stratovolcano in C Java with last major eruption in 1730 CE, creating prominent lava domes in crater. Volcanic rocks mainly lava flows but also pyroclastic deposits. Two types: (I; oldest) derived from Altered oceanic crust that underwent significant crustal assimilation; (II) from mantle-rich melts with less significant crustal assimilation and evolving from basaltic andesite into andesite and final stage of dacitic magma with abundant phenocrysts)

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(Geochemical and petrographic characterizations of five eruption periods of Batur Volcano on Bali reveal lavas are basaltic to andesitic in composition)

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(Eruption of Tambora on Sumbawa on 5-11 April 1815 generally considered as largest volcanic event in recorded history, leaving caldera 7 km in diameter and 1100m deep. Cataclysmic eruption initiated by Plinian eruption on 5 April, killing >90,000 people on Sumbawa and nearby Lombok, and depositing 40-150 cm of gray pumice and ash on slopes mainly over district W of volcano. On 11 April 8 pyroclastic surges and flows, burying ancient villages to N)

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Sutawidjaja, I.S. (2009)- Ignimbrite analyses of Batur Caldera, Bali, based on 14C dating. Jurnal Geologi Indonesia (Indonesian J. on Geoscience (IJOG)) 4, 3, p. 189-202.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/80)
(Batur caldera, NE Bali, is 10 x 7.5 km wide caldera, a collapse structure. Two stages of collapse: (1) Ubud Ignimbrite, at 29.3 ka; and (2) Gunungkawi Ignimbrite at 20.1 ka. Caldera-forming eruptions interrupted by silicic andesite welded ignimbrites and domes)

Sutawidjaja, I.S. (2013)- Batur global geopark, Bali. Proc. Joint ConventionHAGI-IAGI, Medan 2013, p. 1-12.
(online at: https://www.iagi.or.id/web/digital/8/2013_IAGI_Medan_Batur-Global-Geopark.pdf)
(Review of lava flows and other sites of geological interest in area of active Batur caldera and stratovolcano on Bali island)

Sutawidjaja, I.S., R. Chaniago & S. Kamal (1992)- Peta geologi kaldera Batur, Bali, Indonesia. Volcanological Survey of Indonesia. Bandung.
('Geologic map of Batur caldera, Bali, Indonesia', scale 1:50,000)

Sutawidjaja, I.S., M.F. Rosana, K. Watanabe (2015)- Magma chamber model of Batur Caldera, Bali, Indonesia: compositional variation of two facies, large-volume dacitic ignimbrites. Indonesian J. on Geoscience (IJOG) 2, 2, p. 111-124.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/224/196)
(Large Batur caldera is source of two major ignimbrite eruptions of similar dacitic-rhyodacitic composition, with combined volumes of ~84 and 19 km^3. Batur magma equilibrated at T of 1100- 1300° C and P of 20 kbar)

Syafitri, A., I.G.B.E. Sucipta, A.N. Arifa, A. Saepuloh & S. Widiyantoro (2021)- Pre-1963 Mount Agung eruption history and magma evolution based on petrological, mineralogical, and geochemical analyses. IAGI Journal 1, 3, p. 121-136.
(online at: https://journal.iagi.or.id/index.php/IAGIJ/article/view/375/356)
(Eruption of Mt Agung, Bali, in 1963 largest eruption after Krakatoa in 1883. Pre-1963 volcanic activity four eruption periods: pre-3200 BP, 3200-1870 BP, 1870-1040 BP and post-1040 BP. Initially mainly basalt to basaltic andesite lavas. In 1870-1040 BP common pyroclastic units formed. Etc.)

Syafitri, A., I.G.B.E. Sucipta, A.N. Arifa, A. Saepuloh & S. Widiyantoro (2022)- Tectonic setting of Mount Agung, Bali: insight from petrology and geochemistry analysis. Proc. 1st Int. Seminar on Earth Sciences and Technology (ISEST 2021), Bandung, IOP Conference Series: Earth and Environmental Science 1047, 012005, p. 1-18.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1047/1/012005/pdf)

(Mt Agung controlled by three cogenetic magmas and can be divided into 4 eruption periods since 3200 BP. Calc-alkaline magmas derived from subduction of Indo-Australian Plate, producing basalt to dacite rocks. Analyses suggest Bali Island has continental basement (micro-continent or E end of Sundaland)

Syahbana, D.K., K. Kasbani, G. Suantika, O. Prambada, A.S. Andreas, U.B. Saing, S.L. Kunrat, S. Andreastuti et al. (2019)- The 2017-19 activity at Mount Agung in Bali (Indonesia): intense unrest, monitoring, crisis response, evacuation, and eruption. Nature Scientific Reports 9, 8848, p. 1-17.
(online at: https://www.nature.com/articles/s41598-019-45295-9)
(After 53 years of quiescence, Mt Agung in E Bali awoke in August 2017 with intense seismicity. First eruption on 21 November, with most intense explosive eruptions with lava effusion on 25-29 November. Smaller infrequent explosions and extrusions continued for years.Magma intruded into mid-crust in early 2017, and again in August 2017, prior to intrusion of inferred dike between Mt Agung and Batur Caldera)

Szymanowski, D., F. Forni, M. Phua, B. Jicha, D.W.J. Lee, Y.J. Hsu, H. Rifai, B. Schoene & C. Bouvet de Maisonneuve (2023)- A shifty Toba magma reservoir: improved eruption chronology and petrochronological evidence for lateral growth of a giant magma body. Earth Planetary Science Letters 622, 118408, p. 1-12.
(online at: https://www.sciencedirect.com/science/article/pii/S0012821X23004211)
(Toba caldera complex in N Sumatra produced at least four caldera-forming eruptions in the last 1.6 My. New attempts to determine eruption ages seem to vary considerably, depending on methods used (JTvG)).

Takada, A. (2010)- Caldera-forming eruptions and characteristics of caldera volcanoes in the Sunda Arc, Indonesia. J. Geological Society Japan 116, 9, p. 473-483. *(in Japanese, with English abstract)*
(online at: www.jstage.jst.go.jp/article/geosoc/116/9/116_9_473/_pdf)
(Discussion of caldera-formining eruptions in Sunda Arc (Krakatau, Tambora, Rinjani, etc. Small to intermediate-scale eruptions occurred several months before climactic eruptions. Distribution of eruption sites or fumarole sites expanded by several km during precursor period. Larger pre-caldera volcano edifices tend to result in larger calderas. Etc.))

Takada, A., T. Yamamoto, N. Kartadinata, A. Budianto, A. Munandar, A. Matsumoto, S. Suto & M.C. Venuti (2000)- Eruptive history and magma plumbing system of Tambora volcano, Indonesia. Report of International Research and Development Cooperation ITIT Project, Volcanic Hazard Assessment in Asia, p. 42-79

Taneda, S. (1961)- Petrochemical study on the volcanic rocks of Indonesia. Science Reports Faculty of Science, Kyushu University, Geology, 5, 4, p. 181-195.

Taneda, S. (1963)- Petrochemical studies on the active volcanoes in Eastern and Southeastern Asia. Bulletin of Volcanology 26, 1, p. 415-430.
('Alkali-lime index' decreases inward from outer zone of the arcuate zone in volcanic arcs of Kamchatka, Kurile Islands, Japan and Indonesia Islands)

Tang, G.R., W. Dan, A. Maulana, J. Wang, X.Z. Zhang, Y.Y. Zhang, X. Ma, Q. Wang et al. (2024)- Arc building and maturation of the Lombok Island, East Sunda Arc. Chemical Geology 663, 122265, p.
(Study of Cenozoic volcanic rocks on Lombok island in East Sunda intra-oceanic arc suggests three distinct magmatic periods. Three lava age groups: I (Late Eocene; tholeiitic basalts with low K2O); II (E Oligocene; ~30 Ma in S Lombok; low-K basaltic andesites-dacites), and III (Pliocene- Recent, ~3–0 Ma; medium- to high-K calc-alkaline basalt to andesite, in N Lombok). Also increasing maturation of island arc volcanism (progressive enrichment in K2O, incompatible elements and Nd-Hf isotopic compositions with time))

Tang, G.R., W. Dan, A. Maulana, J. Wang, X.Z. Zhang, X. Ma, Q. Wang, X.J. Liu & G.J. Tang (2026)- Low-δ18O magmas at Batur, Indonesia: Evidence for slab-window melting beneath arc volcanoes. Chemical Geology 702, 123224, p. 1-13.
(online at: https://www.sciencedirect.com/science/article/pii/S000925412500614X)
(Low δ18O values in olivines of Bali volcanoes Agung and Batur suggest assimilation of recycled altered oceanic crustal materials, possibly partial melting of low-δ18O lower oceanic crust, induced by hot asthenospheric flow

through a slab window. Slab windows may facilitate not only formation of rear-arc ultrapotassic lavas but also influence magmatism at volcanic front)

Taverne, N.J.M. (1923)- Vulkanologie in Nederlandsch Indie. De Mijningenieur 4, p. 69-98.
('Volcanology in the Netherlands Indies'. Hard-to-find paper)

Taverne, N.J.M. (1924)- Chemische en physische waarnemingen in de Vulkanologie. In: Handelingen 3e Nederlandsch-Indische Natuurwetenschappelijk Congres, Buitenzorg, September 1924, p. 1-23.
(online at: https://resolver.kb.nl/resolve?urn=MMKB31:037731000:pdf)
(Chemical and physical observations in volcanology'. Review of chemical and analyses and physical properties (temperatures, seismicity) measured on volcanoes, with examples mainly from Java)

Tennant, E., S.F. Jenkins, A. Winson, C. Widiwijayanti, H. Gunawan, N. Haerani, N. Kartadinata et al. (2021)- Reconstructing eruptions at a data limited volcano: a case study at Gede (West Java). J. Volcanology Geothermal Research 418, 107325, p. 1-18.
(online at: https://www.sciencedirect.com/science/article/pii/S0377027321001542)

Ter Braake, A.L. (1945)- Volcanology in the Netherlands Indies. In: P. Honig & F. Verdoorn (eds.) Science and scientists in the Netherlands Indies, Board for Netherlands Indies, Surinam and Curacao, New York, p. 22-35.
(online at: https://archive.org/details/in.ernet.dli.2015.183759)
(Brief review of active volcanism in Indonesia until 1945)

Tierney, C.R. & M.R. Reid (2021)- Quartz-hosted melt inclusions as windows into magma assembly and storage processes in the Youngest Toba Tuff. Geochem. Geophysics Geosystems 22, e2020GC009564, p. 1-19.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/full/10.1029/2020GC009564)
(Quartz-hosted melt inclusions are windows into assembly and storage of magma systems like the giant body responsible for 2,800 km^3 Youngest Toba Tuff (YTT). Chemical zoning of YTT appears to have developed prior to most quartz growth, likely "bottom-up" due to mush-derived melt heterogeneity)

Tierney, C.R., M.R. Reid, J.A. Vazquez & C.A. Chesner (2019)- Diverse late-stage crystallization and storage conditions in melt domains from the Youngest Toba Tuff revealed by age and compositional heterogeneity in the last increment of accessory phase growth. Contributions to Mineralogy and Petrology 174, 31, p. 1-21.
(Study of final increment of growth on crystals to reveal dynamics and time scales of magma assembly and storage before eruption of the cataclysmic 2800 km3 Youngest Toba Tuff, N Sumatra)

Tjia, H.D. (1964)- Nature of some volcanic lineaments. Institute of Technology Bandung, Contributions Department of Geology, Institute of Technology Bandung (ITB) 54, p. 5-18.

Tjia, H.D. (1967)- Volcanic lineaments in the Indonesian island arcs. 11th Pacific Science Congress, Tokyo 1966, Bulletin of Volcanology (Bulletin Volcanologique) 31, 1, p. 85-96.
(More than 400 linear arrangements of active volcanic centers of Indonesia. Subdivided into small (on the same volcano), medium (same volcanic range), and large (connections between volcanic loci on separate cones or ranges). >70% of lineaments classified as first and second order shear, tension, and extension directions. Most volcanic lineaments along narrow zones of weakness, related to regional structure)

Tjia, H.D. (1968)- Volcanic lineaments in the Indonesian island arcs. Pacific Geology 1, p. 175-182.
(Same paper as Tjia 1967, above)

Tjia, H.D. (1969)- Breaks in slope on strato-volcanoes. Bull. of National Institute Geology and Mining (NIGM), Bandung, 2, 3, p. 35-40.
(Many stratovolcanoes of Indonesia have two slope breaks, separating three slope segments: uppermost slope of 27-30° (angle of repose of young pyroclastics), middle slope 7-11° (area of common lahars) and lower slopes 3-4° (flood-laid sediments))

Tjia, H.D. & R.F.H. Muhammad (2008)- Blasts from the past impacting on Peninsular Malaysia. Bull. Geological Society Malaysia 54, p. 97-102.
(online at: https://gsm.org.my/wp-content/uploads/gsm_file_2/702001-100478-PDF.pdf)
(At Plio-Pleistocene transition 3 large volcanic centers in Barisan Mts. (Sumatra) began producing large amounts of felsic tephra and pyroclastic flows. At Toba perhaps 4 paroxysmal events between 1.9 Ma- ~30 ka. Centers marked by 100's of m of ignimbrite, pyroclastic tuffs and air-fall tephra. Air-fall tuff identified throughout Peninsular Malaysia, up to 1m thick. Generally attributed to single 'Toba eruption' at 70-75 ka, but possibly multiple eruptions, also from other Sumatra volcanoes)

Turner, S. & J. Foden (2001)- U, Th and Ra disequilibria, Sr, Nd and Pb isotope and trace element variations in Sunda arc lavas: predominance of a subducted sediment component. Contributions to Mineralogy and Petrology 142, 1, p. 43-57.
(Isotope and major and trace element data from 19 lavas along Sunda arc. Lavas range in SiO2 from 49-75%. Important shallow-level contamination by ancient crustal materials in Sumatra. Little evidence for any effect of Australia-Indonesia collision on composition of lavas. Across-arc trends in lava composition indicate increasing relative contribution from subducted sediment (also suggested by Gao et al., 2022;JTvG)

Turner, S., J. Foden, R. George, P. Evans, R. Varne, M. Elburg & G. Jenner (2003)- Rates and processes of potassic magma evolution beneath Sangeang Api volcano, East Sunda arc, Indonesia. Journal of Petrology 44, 3, p. 491-516. *(online at: https://www.researchgate.net/publication/235223050_Rates_and_Processes_of_Potassic_Magma_Evolution_beneath_Sangeang_Api_Volcano_East_Sunda_Arc_Indonesia)*
(Sangeang Api active volcano off NE corner of Sumbawa Island. High K, silica-undersaturated, with mafic-ultramafic (pyroxenite)and gabbroic xenoliths)

Umbgrove, J.H.F. (1930)- Het vulkaaneiland Oena-Oena (Noord Celebes). Leidsche Geologische Mededelingen 3, 5, p. 249-258.
(online at: www.repository.naturalis.nl/document/549452)
('The volcanic island Una Una (North Sulawesi)'. Profile looks like an 'older' volcano. Erupted in 1898. Typical lahars present. Crater floor flat with lava dome. Some coral growth on submarine slope, but no true reefs)

Umbgrove, J.H.F. (1945)- Different types of island-arcs in the Pacific. The Geographical Journal 106, p. 198-209.
(W Pacific- Indonesia island arcs associated with deep continent-ward dipping shear plane and deep trench along outer sides (came very close to characterizing a subduction zone, long before plate tectonic theory was formulated; JTvG). Three types island arcs: double arcs (Indonesia), pseudo-single arcs (Kurile-Aleutian) and single (Marianas- Bonin) arcs)

Van Bemmelen, R.W. (1929)- Het caldera probleem. De Mijningenieur 10, 5, p. 101-112.
('The caldera problem'. Model for creation of calderas by volcano collapse after major explosive 'emptying-out' eruption, with reference to mainly Indonesian volcanoes (Toba, Tengger, Krakatau, etc.))

Van Bemmelen, R.W. (1931)- Positieve en negatieve vulkaanvormen. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap, Amsterdam, 2, 48, p. 1-9.
(online at: https://resolver.kb.nl/resolve?urn=MMUBA13:001675001:pdf)
('Positive and negative volcano forms'. No figures)

Van Bemmelen, R.W. (1932)- Over de genetische classificatie van negatieve vulkaanvormen. Geologie en Mijnbouw 10,19, p. 187-193.
(online at: https://drive.google.com/file/d/1jRqaykbyXVsMRHh3XHXChtFN7HbN4pCo/view)
('On the genetic classification of negative volcano forms'. Discussion of earlier papers on the 'caldera problem' by Escher, Sandberg, Tanakadate, van Bemmelen, Neumann van Padang and Van den Bosch. No figures)

Van Bemmelen, R.W. (1938)- On the origin of the Pacific magma types in the volcanic inner arc of the Soenda Mountain System. De Ingenieur in Nederlandsch-Indie (IV) 5, 1, p. IV.1- IV.15.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1938-01.pdf)
(Discussion on origin of Miocene and younger calc-alkaline or Pacific magmatism on S Sumatra (Barisan Mts.) and Java (Bantam intrusions and Merawan granite batholith))

Van Bemmelen, R.W. (1943)- Register of the localities of volcanic activity in the East Indian Archipelago. Bull. East Indian Volcanological Survey 95-98 (1941), p. 5-14.
(Inventory of 130 active volcanoes in Indonesia)

Van Bemmelen, R.W. (1949)- Volcanism. Chapter III in Van Bemmelen (1949)- The geology of Indonesia, vol. 1A, The Hague, p. 188-256.
(Review of active volcanism (177 volcanoes), products volcanic eruptions, composition of volcanic products and distribution and composition of associated igneous rocks)

Van Bemmelen, R.W. (1949- Report on the volcanic activity and volcanological research in Indonesia during the period 1936-1948. Bulletin of Volcanology 9, p. 3-29.

Van Bemmelen, R.W. (1949)- Report on the volcanic activity and volcanological research in Indonesia during the period 1936-1948. Bulletin of Volcanology (Bulletin Volcanologique), ser. 2, 9, 1, p. 3-28.
(Summary of activity of Indonesia's 130 active volcanoes from 1936-1948. Detailed records collected by Netherlands Indies Volcanological Survey until Japanese occupation in 1942; after that limited information, and mainly from Java)

Van Bemmelen, R.W. (1951)- De vulkanen op Java. N.V. Moderne Boekhandel Indonesie, Jakarta, p. 1-32.
(Well-illustrated children's book on volcanoes on Java, illustrated by L.J. Eland)

Van Bemmelen, R.W. (1961)- Volcanology and geology of ignimbrites in Indonesia, North Italy, and the USA. Geologie en Mijnbouw 40, 12, p. 399-411.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0U2R2R3pNcmtqcWM/view)
(Same title as Van Bemmelen 1963. On Java- Sumatra three Cenozoic pulses of uplift with intrusions and extrusions of acid magmas. Cenozoic deposits start with deposition of Eocene quartz sandstones and marine sediments without tuffaceous components. This was followed by Oligocene- E Miocene 'Old-Andesite' volcanoes, which are largely submarine and represent first cycle of andesitic, calc-alkaline Pacific volcanism. M Miocene second pulse of uplift with formation of proto-Semangko rift with acid magma on Sumatra (between E Miocene Telisa and M Miocene Lower Palembang beds. In Mio-Pliocene time subsidence again prevailed in Sumatra-Java belt. Andesitic volcanism resumed, forming 2nd Andesite Fm (M Palembang Beds of Sumatra, Bentang Beds, etc of Java). At end Tertiary a third pulse of orogenic uplift, creating present Sumatra-Java geanticline, again accompanied by rifting and voluminous outbursts of acid pumiceous tuffs on Sumatra)

Van Bemmelen, R.W. (1963)- Volcanology and geology of ignimbrites in Indonesia, North Italy, and the U.S.A. Bulletin of Volcanology (Bulletin Volcanologique), ser. 2, 25, 1, p. 151-173.
(Same as Van Bemmelen 1961. Sumatra -Java arc of Indonesia three pulses of orogenic uplift after its Mesozoic geosynclinal subsidence. All three accompanied by rise and occasional ignimbritic eruptions of acid magma. 'Normal' igneous rocks of intermediate composition erupted during intervening periods)

Van Bemmelen, R.W. (1971)- Four volcanic outbursts that influenced human history. Toba, Sunda, Merapi and Thera. In: Acta First Int. Scientific Congress on the Volcano of Thera, Archaeological Service of Greece, Athens 1971, p. 5-50.

Van Bergen, M.J., R.D. Erfan, T. Sriwana, K. Suharyono, R.P.E. Poorter, J.C. Varekamp et al. (1989)- Spatial geochemical variations of arc volcanism around the Banda Sea. In: J.E. van Hinte et al. (eds.) Proc. Snellius II Symposium, Jakarta 1987, Netherlands J. of Sea Research 24, 2-3, p. 313-322.

(Active volcanoes of E Sunda Arc and Banda Arc 100-250 km above Benioff zone. Wide range of lavas, from are-tholeiitic (low-K) to leucite-bearing (alkaline) suites. Variations along and across arc. For volcanoes with similar distance to Benioff zone potassium and other incompatible elements progressively increase towards collision area near Timor, and close to Timor also increasing with increasing distance to Benioff zone)

Van Bergen, M.J., P.Z. Vroon & J.A. Hoogewerff (1993)- Geochemical and tectonic relationships in the east Indonesian arc-continent collision region: implications for the subduction of the Australian passive margin. Tectonophysics 223, 1-2, p. 97-116.
(Variations in isotope signatures along E Sunda Arc show maximum magma source contamination near extinct sector N of Timor. Increasing contribution of subducted continental material in direction of collision. Leading part of Australian continental margin reached magma generation zone in E Sunda- W Banda arc, implying subduction of continental margin deeper than 100 km)

Van Bergen, M.J., P.Z. Vroon, J.C. Varekamp & R.P.E. Poorter (1991)- Subduction of continental material in East Indonesia; a review of evidence from the geochemistry of volcanic rocks. In: E.P. Utomo et al. (eds.) Proc. The Silver Jubilee LIPI- Symposium on the Dynamics of subduction and its products, Yogyakarta-Karangsambung 1991, Research and Development Center for Geotechnology, Indonesian Institut of Sciences (LIPI), Bandung, p. 38-41.

Van Bergen, M.J., P.Z. Vroon, J.C. Varekamp & R.P.E. Poorter (1992)- The origin of the potassic rock suite from Batu Tara volcano (East Sunda arc, Indonesia). Lithos 28, p. 261-282. *(online at: www.academia.edu/20632659/The_origin_of_the_potassic_rock_suite_from_Batu_Tara_volcano Etc.)*
(Batu Tara is active potassic volcano in E Sunda arc. Leucite-bearing rock suite two groups, suggesting parental magmas with different mantle origins. Trace element and isotopic compositions consistent with involvement of subducted sedimentary/crustal component as well as MORB and OIB mantle)

Van der Boon Mesch, A.H. (1826)- Disputatio geologica inauguralis de incendiis montium igni ardentium insulae Javae eorumdemque lapidibu. Doctor's Thesis Academy of Leiden, p. 1-126.
(online at: https://books.google.de/books?id=6y9TAAAAcAAJ&hl=en)
('Inaugural geological discussion on the fires of the burning mountains of the island of Java and their stones'. First or one of the first scientific studies of volcanoes on Java, adding mineralogy and chemical analyses to notes and samples from his thesis advisor, Prof. Carl Reinwardt)

Van Ijzendoorn, M.J. (1953)- The eruption of Gunung Kelud on August 31, 1951, proved the utility of the Kelud tunnelworks. Berita Gunung Berapi 3-4, Volcanological Survey Indonesia, Bandung, p. 62-73.
(Sudden eruption of Gn. Kelud in August 1951, the first since the disastrous 1919 eruption and first since completion of the tunnel lake drainage system in 1928. Due to controlled low crater lake level, hot lahars did not form. Hot volcanic eruption products limited to 6.5 km around crater, killing 7 persons (including three Volcanological Survey personnel. Tunnel system now partly clogged and needs to be repaired))

Van Tongeren, W. (1938)- Contributions to the knowledge of the chemical composition of the Earth's crust in the East Indian Archipelago. I. The spectrographic determination of the elements according to arc methods in the range 3600-5000A., II. On the occurrence of rarer elements in the Netherlands East Indies. Doct. Thesis, University of Utrecht, Centen, Amsterdam, p. 1-181. *(Unpublished)*
(Incl. observation that Tin Islands granites are rel. rich in Rare Earth Elements)

Van Tongeren, W. (1941)- Chemical characteristics of East Indian rocks. De Ingenieur in Nederlandsch-Indie (IV) 8, 9, p. IV.77- IV.81.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1941-09.pdf)
(Introduction to geochemistry of rocks from the Netherlands Indies/Indonesia)

Varekamp, J.C., M.J. Van Bergen, P.Z. Vroon, R.P.E. Poorter, A.D. Wirakusumah, R. Erfan, K. Suharyono & T. Sriwana (1989)- Volcanism and tectonics in the Eastern Sunda Arc, Indonesia. In: J.E. van Hinte et al. (eds.) Proc. Snellius II Symposium, Jakarta 1987, Netherlands J. of Sea Research 24, p. 303-312.

(Four segments distinguished by Sr isotopes in Java-Sunda-Banda volcanic arc. Adonara-Pantar segment between Flores and Alor studied here, transition between W Banda Arc volcanics (in E) with clear 'continental' signature and Sunda Arc volcanics (in W) with little evidence of subduction of continental material)

Varekamp, J.C. & R. Kreulen (2000)- The stable isotope geochemistry of volcanic lakes, with examples from Indonesia. J. Volcanology Geothermal Research 97, 1-4, p. 309-327.

Varne, R. (1985)- Ancient subcontinental mantle; a source for K-rich orogenic volcanics. Geology (GSA) 13, 6, p. 405-408.
(Mafic volcanics, ranging from calc-alkaline basalts through shoshonitic trachybasalts to leucitites, along E Sunda Arc arc from Bali (Agung) to Flores. With 3-fold enrichment in K, Rb, Sr, Ba, La and Nb, increasing toward collision zone, correlating with increasing 87Sr/86Sr and decreasing 143Nd/144Nd values. K-rich material derived from ancient subcontinental mantle. E Sunda K-rich mafic volcanism first appeared after collision began. Before collision, ancient NW Australian mantle erupted K-rich, diamond-bearing ultramafics with high Sr and low Nd ratios, part of ultrapotassic continental volcanic association)

Varne, R. & J.D. Foden (1986)- Geochemical and isotopic systematics of Eastern Sunda Arc volcanics: implications for mantle sources and mantle mixing processes. In: F.C. Wezel (ed.) The origin of arcs, Developments in Geotectonics 21, Elsevier, p. 159-189.
(E Sunda-Banda arc system erupting mafic volcanics that range from calc-alkaline basalts, through shoshonitic trachybasalts, to leucite tephrites and olivine leucitites. All typical arc-like geochemistry. K, Rb, Sr, Ba, La, and Nb contents increase threefold along arc towards collision zone. Systematic geochemical and Sr, Nd, Pb isotope changes reflect involvement of at least two sources poor in K-group elements, etc. No strong evidence that either is recently subducted upper crustal sialic material. Isotopic data suggest subcontinental mantle may be source of K-rich arc component; suboceanic mantle may be source of K-poor component)

Verstappen, H.T. (1963)- Geomorphological observations on Indonesian volcanoes. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2), 80, 3, p. 237-251.
(Well-illustrated discussion of volcanic landforms developed in loose volcanic products (= most Indonesian stratovolcanoes), landforms related to lava flows, and more complex developments (major landslides, calderas, etc.))

Verstappen, H.Th. (2005)- Volcanic islands. In: A. Gupta (ed.) The physical geography of Southeast Asia, Oxford University Press, p. 142-156.
(Brief review of distribution of volcanic islands and volcanic landforms in SE Asia)

Vidal, C.M., J.C. Komorowski, N. Metrich, I. Pratomo, N. Kartadinata, O. Prambada, A. Michel, G. Carazzo, F. Lavigne, J. Rodysill, K. Fontijn & Surono (2015)- Dynamics of the major plinian eruption of Samalas in 1257 A.D. (Lombok, Indonesia). Bulletin of Volcanology 77, 73, p. 1-24.
(online at: https://www.researchgate.net/publication/280739917_Dynamics_of_the_major_plinian_eruption_of_Samalas_in_1257_AD_Lombok_Indonesia)
(Caldera-forming eruption of Samalas (near modern Rinjani, Lombok) in 1257 AD associated with largest sulphate spike of last 2 ky recorded in polar ice cores. Four-phase continuous eruption produced 33-40 km^3 dense rock equivalent of deposits, mainly pumiceous plinian fall products, pyroclastic density current deposits and ash that could be identified 660 km from source. Eruption dynamics consistent with efficient dispersal of sulphur-rich aerosols across globe)

Vidal, C.M., N. Metrich, J.C. Komorowski, I. Pratomo, A. Michel, N. Kartadinata, V. Robert & F. Lavigne (2016)- The 1257 Samalas eruption (Lombok, Indonesia): the single greatest stratospheric gas release of the Common Era. Nature Scientific Reports 6, 34868, p. 1-13.
(online at: https://www.nature.com/articles/srep34868.pdf)
(Great 1257 eruption of Samalas (Rinjani, Lombok) released enough sulfur and halogen gases into stratosphere to produce reported global cooling during second half of 13th century)

Von Karacson, A.A. (1897)- De vulkaan Kaba op Sumatra. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2), 14, p. 555-570.
('The Kaba volcano on Sumatra'. Near Bengkulu. With introduction by R. Fennema. Surveyed in 1883. Three main craters in Kaba complex. Ash from this volcano supports the rich local coffee plantations. Two maps)

Von Komorowicz, M. (1915)- Vulkanoseismische Studien im Norden Australiens. I. Das Vulkangebirge Soepoetan in der Minahassa (Nord Celebes). Zeitschrift fur Vulkanologie 2, 3, p. 99-128 + figs. *(online at: https://books.google.com/books?id=LBw0AQAAMAAJ&pg=PA151&lpg=PA151&dq=komorowicz++Nord-Celebes+uber+die+Sangir-Inseln+und+Talaud& Etc.)*
('Volcano-seismic studies North of Australia I. The volcanic Soepoetan (Soputan) Mountains in the Minahassa (North Celebes'. Results of a survey in summer of 1913 by Swiss volcanologist, for the Netherlands Indies government to North Sulawesi and the Sangir islands. to investigate seismic events of March 1913)

Von Komorowicz, M. (1916)- Vulkanoseismische Studien im Norden Australasiens. II. Zusammenfassende Darstellung des Erdbebengebiets, das sich von Nord-Celebes uber die Sangir-Inseln und Talaud nach den Philippinen erstreckt. Zeitschrift fur Vulkanologie 2, 4, p. 151-185. *(wrong title?*
(online at: https://babel.hathitrust.org/cgi/pt?id=uc1.31822009759531&seq=221)
(Volcano-seismic studies North of Australia II: Review of the earthquake zone that extends from North Sulawesi across the Sangir islands and Talaud to The Philippines'. 1500 km long earthquake belt with active volcanoes)

Von Rad, U., K.P. Burgath, M. Pervaz & H. Schulz (2002)- Discovery of the Toba Ash (c. 70 ka) in a high-resolution core recovering millennial monsoonal variability off Pakistan. In: P.D. Clift et al. (eds.) The tectonic and climatic evolution of the Arabian Sea region, Geological Society, London, Special Publ. 195, p. 445-461.
(Toba Ash layer in NE Arabian Sea SW of Pakistan near base of 20.2m piston core. Also two younger ash layers, presumably from Indonesian volcanoes. Toba event (70 ±4 ka BP) well documented in Arabian Sea and Bay of Bengal records at end of Oxygen Isotope Stage 20. With map of known Toba ash distribution)

Vroon, P.Z. (1992)- Subduction of continental margin material in the Banda Arc, Eastern Indonesia. Sr-Nd-Pb isotope and trace-element evidence from volcanics and sediments. Ph.D. Thesis University of Utrecht, Geologica Ultraiectina 90, p. 1-205.
(online at: http://dspace.library.uu.nl/handle/1874/316569)
(Isotope and trace element geochemistry study of eastern part of Banda Arc, in area of active arc-continent collision (Romang, Damar, Teon, Nila, Serua, Manuk, Banda). Composition of samples from 7 volcanoes suggests subducted continental sedimentary material in magma increases from <1% in NE to 5-10% in SW)

Vroon, P.Z., D. Lowry, M.J. van Bergen, A.J. Boyce & D.P. Mattey (2001)- Oxygen isotope systematics of the Banda Arc: low d18O despite involvement of subducted continental material in magma genesis. Geochimica Cosmochimica Acta 65, 4, p. 589-609.
(Oxygen isotope data for 60 volcanic rocks and 15 sediments along entire Banda Arc. Generally low d18O values (excluding Serua, Ambon) compatible with 1-5% addition of subducted continental material to depleted MORB-type source in sub-arc mantle. Assimilation of up to 20% and 80% arc-crust material thought to be cause of high d18 O values of Serua and Ambon)

Vroon, P.Z. & M.J. van Bergen (2000)- Geochemical evidence for two subducting plates beneath North Sulawesi (Indonesia). Goldschmidt. Conf. 2000, J. of Conference Abstracts 5, 2, p. 1060.
(online at: https://goldschmidtabstracts.info/abstracts/abstractView?id=2000001060)
(Geochemical data for three active volcanoes from Sangihe Arc (Awu, Karangetang, Lokon, Ruang; in range of oceanic island arcs) and one from Gorontalo Bay (Colo (Una), with adakite characteristics))

Vroon, P.Z., M.J. van Bergen & E.J. Forde (1996)- Pb and Nd isotope constraints on the provenance of tectonically dispersed continental fragments in East Indonesia. In: R. Hall & D. Blundell (eds.) Tectonic evolution of Southeast Asia, Geological Society, London, Special Publ. 106, p. 445-453.
(Pb-Nd isotopes of igneous rocks on microcontinents are indicators of provenance: Ambon-Seram= S. New Guinea, Bacan= N Australia or W New Guinea, Banda Ridges= Pacific New Guinea, Sumba= Sundaland)

Vroon, P.Z., M.J. van Bergen, G.J. Klaver & W.M. White (1995)- Strontium, Neodymium and lead isotopic and trace-element signatures of the East Indonesian sediments: provenance, and implications for Banda Arc magma genesis. Geochimica Cosmochimica Acta 59, 12, p. 2573-2598.
(Trace elements and Sr-Nd-Pb isotopes show 4 major provenance areas: N New Guinea + Seram, S New Guinea, Timor, North Australia)

Vroon, P.Z., M.J. van Bergen, W.M. White & J.C. Varekamp (1993)- Sr-Nd-Pb isotope systematics of the Banda Arc, Indonesia: combined subduction and assimilation of continental material. J. of Geophysical Research: Solid Earth 98, B12, p. 22349-22366.
(Isotope datas for six active and one extinct volcano over Banda Arc. Rock types low-K tholeiitic in NE, high-K calc-alkaline in SW. Volcanoes in NE 'normal' arc signatures, in SW extreme values. Evidence for contribution of subducted continent-derived material to magma sources. Addition of 0.1-2% local sediment in NE Banda arc, and 1-3% in SW Banda Arc to Indian Ocean MORB source explain isotope trends. Serua and Romang require >5% sediment)

Wahyudin, D., M.N. Kartadinata, R. Taufiqurrahman, O. Prambada, E. Lusy, A.S. Purwoto & I. Ridwan (2009)- Peta geologi Gunungapi Banda Api, Provinsi Maluku, 1:50,000. Pusat Vulkanologi dan Mitigasi Bencana Geologi (Center for Volcanology and Geological Hazard Mitigation), Bandung.
(online at: https://vsi.esdm.go.id/gallery/picture.php?/85/category/9)
('Geologic map of the Banda Api volcano, Maluku Province'. Major Quaternary volcano complex of Banda islands group (Banda Api, Banda Neira and Lonthor islands), composed of pre-caldera (Lonthor, Neira) and post-caldera (Banda Api) deposits)

Wasmund, E. (1934)- Vulkano-telmatischer Melanientuff am Caldera-See Danau Batur auf Bali (Insulinde). Archiv fur Hydrobiologie, Supplement-Band 13, p. 292-315.
('Vulkano-telmatic melanien tuff at the Danau Batur caldera lake on Bali (Indonesia)'. Recent tuffs of Batur)

Watanabe, K., T. Yamanaka, A. Harijoko, C. Saitra & I.W. Warmada (2010)- Caldera activities in North Bali, Indonesia. J. Southeast Asian Applied Geology (UGM) 2, 3, p. 283-291.
(online at: http://geologic-risk.ft.ugm.ac.id/fresh/jsaag/vol-2/no-3/jsaag-v2n3p283.pdf)
(Two Quaternary caldera systems on Bali: Batur caldera and Buyan-Bratan caldera)

Westerveld, J. (1954)- Radioactivity and chemistry of some Indonesian eruptive rocks. Verhandelingen Koninklijke Akademie van Wetenschappen, Amsterdam, Ser. 1, 20, 4, p. 1-52.
(online at: https://dwc.knaw.nl/DL/publications/PU00010947.pdf)
(Four Mesozoic- Tertiary concentric belts of fold structures and plutonic rocks in Indonesia, connecting Burma with Philippines, each with own types of plutonic rocks and ore deposits: (1) Jurassic Malayan orogen of Malay Peninsula, Tin islands, possibly W, SW and C Kalimantan; (2) Late Cretaceous Sumatra orogen of Sumatra, C Java, Meratus; (3) M Miocene Soenda orogen (should be E Miocene; 'Old Andesites'; JTvG) of SW Sumatra, Java S Mountains, volcanic Lesser Sunda islands) and (4) the active Moluccan orogen. Late Quaternary volcanics two groups, 'Pacific' calc-alkaline and 'Mediteranean' potassic. Analyzed 157 samples for radioactivity and bulk chemical composition. Mesozoic granites from Tin islands very different petrochemistry from Kalimantan (Schwaner Mts, etc.) granites)

Westgate, J.A., P.A.R. Shane, N.J.G. Pearce, W.T. Perkins, R. Korisettar, C.A. Chesner, M.A.J. Williams & S.K. Acharyya (1998)- All Toba tephra occurrences across Peninsular India belong to the 75,000 yr B.P. eruption. Quaternary Research 50, 1, p. 107-112.
(online at: www.researchgate.net/publication/223750339_All_Toba_Tephra_Occurrences_across_P Etc.)
(All presently known Toba tephra occurrences in peninsular India belong to 75,000 yr B.P. Toba eruption. Tephra bed can be used as effective tool in correlation and dating of late Quaternary sediments across India)

Wetzel, A. (2009)- The preservation potential of ash layers in the deep-sea: the example of the 1991-Pinatubo ash in the South China Sea. Sedimentology 56, p. 1992-2009.

(After 1991eruption of Mount Pinatubo volcano, Philippines, volcanic ash transported W to S China Sea in atmospheric plume, formed up to 10cm thick graded layer over >400,000 km^2. Immediately after deposition surviving deep- burrowing animals re-opened connection to sea floor. Later, small meiofauna and macrofauna recolonized sea floor, mixing newly deposited organic material with underlying ash. Ash deposits <1mm thick not often observed as continuous layer when cored 6 years after eruption; ash ~2mm thick now patchily bioturbated. Areas affected by deposition of turbidites ash layer often preserved due to rapid burial)

Wheller, G.E. (1986)- Petrogenesis of Batur caldera, Bali, and the geochemistry of Sunda-Banda arc basalts. Ph.D. Thesis, University of Tasmania, Hobart, p. 1-156. *(Unpublished) (online at: https://figshare.com/articles/thesis/Petrogenesis_of_Batur_caldera_Bali_and_the_geochemistry_of_Sunda-Banda_arc_basalts/23241779?file=40959071)*
(Batur active volcano s produced a wide variety of basaltic (incl. leucititic magmas) to dacitic volcanic rock types during its evolution and now possesses a large double caldera. New basaltic stratovolcano forming within caldera. Etc (remarkably, no mention of the C.E. Stehn (1928) monograph on Batur/Batoer; JTvG))

Wheller, G.E. & R. Varne (1986)- Genesis of dacitic magmatism at Batur volcano, Bali, Indonesia: Implications for the origin of stratovolcano calderas. J. Volcanology Geothermal Research 28, p. 363-378.
(Batur active stratovolcano on Bali, Indonesia, with large caldera correlated with eruption at ~23,700 years ago that formed thick Bali ignimbrite sheet, covering 450 km^2. Formation of caldera due to change in lava composition from basaltic- andesitic to dacitic. Dacitic rocks characteristics consistent with origin by crystal-liquid fractionation from more mafic parent magmas in shallow chamber, possibly at 1.5 km depth and 1000-1070°C)

Wheller, G.E., R. Varne, J.D. Foden & M.J. Abbott (1987)- Geochemistry of Quaternary volcanism in the Sunda-Banda arc, Indonesia, and three-component genesis of island-arc basaltic magmas. J. Volcanology Geothermal Research 32, 1-3, p. 137-160.
(online at: https://www.academia.edu/110578826/Geochemistry_of_quaternary_volcanism_in_the_Sunda_Banda_ arc_Indonesia_and_three_component_genesis_of_island_arc_basaltic_magmas)
(Excluding Sumatra and Wetar (mainly dacitic and rhyolitic volcanics), four geochemical arc sectors in Sunda-Banda arc: W Java, Bali, Flores (each more K-rich eastwards, culminating in leucitite volcanoes Muriah, Soromundi, Sangenges and Batu Tara). Dominant source component common to all sectors probably peridotitic mantle. Second component, with high 87Sr/86Sr value, may be crustal material, most apparent in Banda sector, but also present to lesser extents in W Java and Flores sectors)

Whelley, P.L., C.G. Newhall & K.E. Bradley (2015)- The frequency of explosive volcanic eruptions in Southeast Asia. Bulletin of Volcanology 77, 1, p. 1-11.
(online at: http://link.springer.com/article/10.1007/s00445-014-0893-8?view=classic)
(~733 active and potentially active volcanoes in SE Asia region, of which 70 have erupted in last 100 years)

Whitford, D.J. (1975)- Strontium isotopic studies of the volcanic rocks of the Sunda arc, Indonesia, and their petrogenetic implications. Geochimica Cosmochimica Acta 39, p. 1287-1302.
(Pleistocene-Recent lavas from Sunda arc range from island arc tholeiitic series, through calc-alkaline to high-K alkaline rocks. Calc-alkaline suite decrease in 87Sr/86Sr from W Java to Bali with some evidence for increasing 87Sr/86Sr with increasing depth to Benioff zone. 87Sr enrichment due to isotopic equilibration of oceanic crust with sea water and disequilibrium melting in slab. Calc-alkaline lavas with high ratios best explained by sialic contamination, or presence of alkali basalt as component of downgoing slab. Sr isotopic data for high-K alkaline lavas suggest mantle origin. High ratio in Lake Toba rhyolite implies crustal origin)

Whitford, D.J., W. Compston, I.A. Nicholls & M.J. Abbott (1977)- Geochemistry of Late Cenozoic lavas from Eastern Indonesia: role of subducted sediments in petrogenesis. Geology (GSA) 5, p. 571-575.
(Late Cenozoic basalts N of Timor from Solor to Serua primitive tholeiitic, but associated more silicic rocks suggest involvement of continental crust or sediment)

Whitford, D.J. & P.A. Jezek (1979)- Origin of Late Cenozoic lavas from the Banda arc, Indonesia: trace element and Sr isotope evidence. Contributions to Mineralogy and Petrology 68, p. 141-150.

(Active arc located on what appears to be oceanic crust whereas associated subduction trench is underlain by continental crust. Recent lavas predominantly andesitic, tholeiitic in N to calc-alkaline varieties in S islands. High 87Sr/86Sr ratios in calc-alkaline lavas interpreted to result from mixing of sialic component with mantle derived component. Likely cause is subduction and melting of sea-floor sediments or continental crust)

Whitford, D.J. & P.A. Jezek (1982)- Isotopic constraints on the role of subducted sialic material in Indonesian island-arc magmatism. Geological Society of America (GSA) Bull. 93, 6, p. 504-513.
(In Banda Arc continental material (probably subducted sediments) appears to be subducting beneath volcanic arc that is underlain by oceanic crust)

Whitford, D.J. & I.A. Nicholls (1975)- Geochemistry of the volcanic rocks of the Sunda island arc of Indonesia. Exploration Geophysics 6, 2/3, p. 76-77. *(Abstract only)*
(Sunda volcanic arc from N of Sumatra, through Java, Bali, Lombok, Sumbawa, Flores, Lesser Sunda Islands, after which becomes Banda arc. Variety of tectonic environments. Sumatra crust ~40 km thick with Paleozoic granites. Benioff zone only to ~200 km. Beneath Java crust thinner and younger; oldest exposed rocks Mesozoic, and Benioff zone to ~600km beneath Java Sea to N. Further E, crust thinner (~15 km), oceanic in velocity structure and Benioff zone to great depths)

Whitford, D.J. & I.A. Nicholls (1976)- Potassium variation in lavas across the Sunda arc in Java and Bali. In: R.W. Johnson (ed.) Volcanism in Australasia, Elsevier, Amsterdam, p. 63-75.
Sunda arc of Java-Bali relatively simple tectonic setting above N-dipping Benioff seismic zone. Quaternary lavas of 'normal island arc association' (tholeiites to high-K calc-alkaline lavas) over Benioff zone depths from 120-250 km. High-K alkaline lavas above Benioff zone depths >300 km. Magmas derived mainly from mantle wedge above Beioff zone, where modified by water and/or melt from the subducted oceanic crust)

Whitford, D.J., I.A. Nicholls & S.R. Taylor (1979)- Spatial variations in the geochemistry of Quaternary lavas across the Sunda arc in Java and Bali. Contributions to Mineralogy and Petrology 70, 3, p. 341-356.
(online at: https://www.academia.edu/62507852/Spatial_variations_in_the_geochemistry_of_Quaternary_lavas_across_the_Sunda_arc_in_Java_and_Bali)
(Island arc lavas range from tholeiites to high-K calc-alkaline lavas over Benioff zone depths 120 to 250 km. More abundant calc-alkaline lavas between these extremes. High-K alkaline lavas over Benioff zone depths over 300 km. Incompatible elements increase with depth to seismic zone. Java and Bali lavas geochemistry best explained by combination of mantle source melting and partial melting of that material at progressively greater depths. Primary tholeiitic magmas may form by 20-25% melting at 30-40 km, primary high-K calc-alkaline magmas by 5-15% melting at 40-60 km, and primary alkaline magmas by 5% melting at 80-90 km)

Whitford, D.J. & W.M. White (1981)- Neodymium isotopic composition of Quaternary island arc lavas from Indonesia. Geochimica Cosmochimica Acta 45, p. 989-995.
(143Nd/144Nd ratios in Quaternary lavas from Java and Banda arc exhibit inverse correlation with 87Sr/86Sr. Indonesian samples resemble Andean rather than island arc lavas)

Wichmann, A. (1897)- Der Ausbruch des Vulkans ´Tolo´ auf Halmahera. Zeitschrift Deutschen Geologischen Gesellschaft, Berlin, 49, p. 152-159.
(online at: https://www.biodiversitylibrary.org/item/150431#page/172/mode/1up)
('The eruption of the Tolo volcano on Halmahera'. On what is known about historic eruptions of Tolo volcano on Morotai island, off N Halmahera, specifically an eruption in the year 1550)

Wichmann, A. (1902)- Der Vulkan der Insel Una Una (Nanguna) im Busen von Tomini, Celebes. Zeitschrift Deutschen Geologischen Gesellschaft, Berlin, 54, p. 144-158.
(online at: https://www.zobodat.at/pdf/Z-dtsch-Geol-Ges_54_0144-0158.pdf)
('The volcano of Una-Una island in Tomini Bay, Sulawesi'. Erupted in 1898, with ash reaching W into E Kalimantan)

Wichmann, C.E.A. (1910)- Uber den Vulkan Soputan in der Minahassa. Zeitschrift Deutschen Geologischen Gesellschaft, Monatsberichte 62, 8, p. 589-595.
(online at: https://www.e-rara.ch/zut/content/zoom/29137020)
('On the Soputan volcano in the Minahasa', NE Sulawesi. Critique of J. Ahlburg (1910) description of Soputan eruption history on date of last major eruption (1828 or 1838), etc. First European to climb Soputan was C.G.C. Reinwardt in 1821)

Wichmann, C.E.A. (1911)- Uber die Ausbruche des Soputan in der Minahassa. Zeitschrift Deutschen Geologischen Gesellschaft, Monatsberichte 63, 4, p. 228-232.
(online at: https://www.biodiversitylibrary.org/item/182872#page/926/mode/1up)
('On the eruptions of the Soputan in the Minahasa', NE Sulawesi'. Continuation of unusually harsh critique of Ahlburg 1910 papers. Nothing new here)

Wichmann, C.E.A. (1918)- Over de vulkanen van het eiland Tidore (Molukken). Verslagen Koninklijke Akademie van Wetenschappen, Amsterdam 27, p. 1-9.
('On the volcanoes of Tidore island (Moluccas)')

Wichmann, C.E.A. (1918)- On the volcanoes in the island of Tidore island. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam 21, p. 983-990.
(online at: https://dwc.knaw.nl/DL/publications/PU00012167.pdf)
(English version of Wichmann (1918). Tidore Island composed of several andesitic volcanic centers, the tallest Matubu ~1730m high, others ~400-800m high)

Wichmann, A. (1921)- Die Vulkane der Sangi-Inseln. Verhandelingen Koninklijke Akademie van Wetenschappen, Amsterdam (2), 22, 1, p. 3-52.
(online at: https://dspace.library.uu.nl/handle/1874/298342)
('The volcanoes of the Sangi Islands'. Active volcanoes in double arc between Molucca Sea and Celebes Sea)

Wickman, F.E. (1966)- Repose-period patterns of volcanoes. II. Eruption histories of some East Indian volcanoes. Arkiv for Mineralogi och Geologi 4, 4, p. 303-317.

Wijaya M.E.J. & L. D. Setijadji (2022)- A preliminary volcanological study of North Eastern Kaba Volcano, Bengkulu Province, Indonesia. Proc. 13th AUN/SEED-Net Reg. Conference Geological and Geo-Resource Engineering (RCGeoE 2021), IOP Conference Series: Earth and Environmental Science 1071, 012018, p. 1-10.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1071/1/012018/pdf)
(Six geomorphological units in NE part of Kaba Volcano, Sumatra. Rocks andesites and some basalt. No mention of early work on Kaba by Von Karacson (1897))

Wille, M., O. Nebel, T. Pettke, P.Z. Vroon, S. Konig & R. Schoenberg (2018)- Molybdenum isotope variations in calc-alkaline lavas from the Banda arc, Indonesia: assessing the effect of crystal fractionation in creating isotopically heavy continental crust. Chemical Geology 485, p. 1-13.
(Samples from lavas of modern volcanoes of eastern Banda Arc show wide Mo isotope variability)

Willems, H.W.V. (1939)- Over de magmatische provincien in Nederlandsch Oost-Indien. Geologie en Mijnbouw 1, 3, p. 47-55.
(online at: https://drive.google.com/file/d/1OPkJAkiygxWc4S32mpkzBjgyUQxhm_ef/view)
('On the magmatic provinces in the Netherlands East Indies'. Not overly useful)

Willems, H.W.V. (1940)- On the magmatic provinces in the Netherlands East Indies. Verhandelingen Kon. Nederlands Geologisch Mijnbouwkundig Genootschap, Geologische Serie 12, 3, p. 289-477.
(Mainly listings of chemical analyses of 1220 volcanic rock samples)

Williams, M. (2012)- The ~73 ka Toba super-eruption and its impact: history of a debate. Quaternary International 258, p. 19-29.

(Toba volcano in N Sumatra located at intersection of two major tectonic lineaments. Caldera considered the largest Quaternary caldera on earth. Most recent explosive eruption at ~73 ka was order of magnitude larger than Tambora in 1815. Extent of the impact remains unclear)

Williams, M. (2012)- Did the 73 ka Toba super-eruption have an enduring effect? Insights from genetics, prehistoric archaeology, pollen analysis, stable isotope geochemistry, geomorphology, ice cores, and climate models. Quaternary International 269, p. 87-93.
(Still ongoing debates on potential impact of ~73 ka Toba eruption (which probably produced almost 100 times more pyroclastic ejecta than Tambora in 1815))

Williams, M.A.J., S.H. Ambrose, S. van der Kaars, C. Ruehlemann, U. Chattopadhyaya, J. Pal & P.R. Chauhan (2009)- Environmental impact of the 73 ka Toba super-eruption in South Asia. Palaeogeogr. Palaeoclim. Palaeoecology 284, p. 295-314.
(Eruption of Toba volcano in N Sumatra at 73 ka was largest explosive eruption of past 2 My and caused cooling and deforestation in S Asia. Analysis of pollen from core in Bay of Bengal with stratified Toba ash suggest eruption was followed by cooling and prolonged desiccation, reflected in decline in tree cover in India and adjacent region. Carbon isotopic composition of soil carbonates above and below ash in three sites across C India show that C3 forest was replaced by wooded to open C4 grassland)

Wilson, M. & J.P. Davidson (1984)- The relative roles of crust and upper mantle in the generation of oceanic island arc magmas. Philosophical Transactions Royal Society London, A, 310, 1514, p. 661-674.
(Oceanic island arcs should represent least complicated type of subduction related magmatism, in which contamination by continental crustal materials does not occur. However, a range of basic-intermediate lavas from Sunda-Banda arc of Indonesia and Lesser Antilles island arc have significant continental fingerprint to their isotopic compositions, etc.. Could be explained by involvement of terrigenous sediment component in genesis of slab derived fluids. or could reflect high level contamination of ascending magmas by sediments at base of island arc crust)

Wilson, N., V. Valler, M. Cassidy, M. Boyd, L. Mani & S. Bronnimann (2023)- Impact of the Tambora volcanic eruption of 1815 on islands and relevance to future sunlight-blocking catastrophes. Nature Scientific Reports 13, 3649. p. 1-13.
(online at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9985606/pdf/41598_2023_Article_30729.pdf)
(31 large islands worldwide experienced smaller climatic impacts of 1815 Tambora eruption than latitudinally equivalent continental sites)

Wing Easton, N. (1916)- Het caldeira-probleem. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 3 (Molengraaff volume), p. 65-77.
(Normal volcanic craters have diameter of several 100s of meters. Some are calderas with diameters of multiple kilometers: Old Idjen 16 km, Ringgit 21 km, Tengger, Krakatau, etc. Verbeek and Von Hochstetter favor origin as collapse features)

Wing Easton, N. (1916)- Wat wij van onze Indische vulkanen weten en niet weten. Verslagen Geologische Sectie, Geologisch-Mijnbouwkundig Genootschap 2, p. 101-106.
('What we do and do not know about our volcanoes in the Indies'. 18 December 1915 presentation in The Hague, in which he pleaded for the establishment of a permanent Volcanological Survey in the Netherlands Indies)

Wing Easton, N. with G.L.L. Kemmerling (1923)- Vulcanology. In: The history and present state of scientific research in the Dutch East Indies, Koninklijke Akademie van Wetenschappen, Amsterdam De Bussy, p. 1-11.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB24:077104000:00001)
(Overview of volcano studies in Indonesia until early 1920s. No figures)

Wing Easton, N. (1929)- Volcanic science in past and present. In: L.M.R. Rutten (ed.) Science in the Netherlands Indies, Koninklijke Akademie van Wetenschappen, Amsterdam, p. 80-100.
(online at: https://resolver.kb.nl/resolve?urn=MMKB18A:026088000:pdf

(Another brief overview of volcano studies in Indonesia until 1929)

Wirakusumah, A.D. (ed.) (2012)- Gunung api, ilmu dan aplikasinya. Centre for Geological Survey, Bandung, Special Publ., p. 1-203.
('Volcanoes, science and its applications'. Collection of articles)

Wirakusumah, A.D. & R. Bacharudin (1999)- Volcanic hazard mapping in Indonesia. In: G.H. Teh (ed.) Proc. 9th Regional Congress Geology, Mineral Energy Resources of SE Asia (GEOSEA '98), Kuala Lumpur 1998, Bull. Geological Society Malaysia 43, p. 205-213.
(online at: https://gsmpubl.wordpress.com/wp-content/uploads/2014/09/bgsm1999022.pdf)
(Review of status of volcanoes hazard mapping and brief history of volcano monitoring by the Volcanological Survey of Indonesia. With example map of Semeru volcano in E Java)

Wirakusumah, A.D. & H. Rachmat (2017)- Impact of the 1815 Tambora eruption to global climate change. In: 2nd Int. Conf. Transdisciplinary research on environmental problems in Southeast Asia (TREPSEA), Bandung 2016, IOP Conference Series: Earth and Environmental Science, 71, 012007, p. 1-9.
(online at: http://iopscience.iop.org/article/10.1088/1755-1315/71/1/012007/pdf)
(April 1815 paroxysmal destructive eruption of Tambora formed caldera and emitted 60-80 megatons of SO2 to stratosphere. SO2 circled world and oxidized to form H2SO4, an aerosol limiting sunlight to reach Earth surface. 1816 was 'year without summer' in Europe, with epidemic diseases in Benggal, etc.)

Wood, G.D. (2014)- Tambora: the eruption that changed the world. Princeton University Press, p. 1-312.
(Review of 1815 eruption of Tambora volcano on Sumbawa island and its global impact)

Yokoyama, I. & Siswowidjojo Supara (1970)- Volcanological Survey of Indonesia Volcanoes, Part 5. A gravity survey on and around Batur Caldera, Bali. Bull. Earthquake Research Institute (University of Tokyo) 48, 2, p. 317-329.
(online at: https://repository.dl.itc.u-tokyo.ac.jp/record/33331/files/ji0482011.pdf)
(Quaternary Batur caldera in NE Bali) with two rims, and more recent central eruption cone Batur (1717m). 74 graviity stations recorded in 1968. Bouguer gravity anomalies increase to E (regional feature))

Zaennudin, A. (2010)- The characteristic of eruption of Indonesian active volcanoes in the last four decades. J. Lingkungan dan Bencana Geologi (JLBG) 1, 2, p. 113-129.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/287)
(Indonesia has 129 active volcanoes (~13% of world). Three types: A (79) with recorded eruptions since 1600; B (29) with solfataric and or fumarolic activity and crater; C (21) in solfataric stage, but volcanic edifice not clear)

Zelenov, K.K. (1964)- The submarine volcano Banua Wuhu, Indonesia. Institute of Technology Bandung (ITB), Contributions Department of Geology, Institute of Technology Bandung (ITB) 55, p. 19-34.
(Submarine volcano, rising >400m from sea floor in Sangihe Islands, Moluccas Sea. Erupted in 1918)

Zen, M.T. (1963)- On the roots of volcanoes. Contributions Department of Geology, Institute of Technology Bandung (ITB) 53, p. 49-72.

Zen, M.T. (1964)- The volcanic calamity in Bali in 1963. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 81, p. 92-100.

Zen, M.T. (1966)- The formation of various ash flows in Indonesia. Bulletin of Volcanology (Bulletin Volcanologique) 29, 1, p. 77-78.
(Abstract and discussion from IAV Int. Symposium on Volcanology, New Zealand 1965. Important difference in mechanism of formation between ash-flow tuff sheets common on Sumatra and minor ash flows of nuee ardentes type likeMerapi and Mt Agung in Java and Bali. Sumatra 'welded tuffs' are collapsed froth flows emitted from fissures and related to emplacement of granite batholiths during orogenic uplift in Plio-Pleistocene time)

Zen, M.T. (1968)- On the possible relationship between the origin of andesitic rocks and the growth of continents. Contributions Department of Geology, Institute of Technology Bandung (ITB) 6, p. 23-41.

Zen, M.T. (1969)- The occurrence of hill swarms and wave-like undulations around some Indonesian volcanoes. Bull. of National Institute Geology and Mining (NIGM), Bandung 2, 3, p. 41-49.
(Three types of hills around Indonesian volcanoes: (1) parasitic volcanic cinder cones (Slamet, Lamongan, etc.), (2) hillocks formed by lahar deposits (e.g. Galunggung, Raung, etc.), and (3) anticlinal structures resulting from collapse of volcanic cones or squeezing of soft sediment by weight of volcano itself (N floor Ungaran, Gendol SW of Mt Merapi, N of Tangkuban Perahu, N of Arjuna, etc.))

Zen, M.T. (1972)- Geothermy and its future in Indonesia. Proceedings Institut Teknologi Bandung (ITB) 7, 1, p. 27-40.
(online at: https://journals.itb.ac.id/index.php/jmfs/article/view/9714/3689)
(At least 24 areas in Indonesia.prospective for geothermal energy. Greatest potentials along Semangko Rift Zone in Sumatra, Java, C Flores, S and N Sulawesi, Halmahera, etc. With map of volcanoes and hyperthermal fields. Areas with adequate heat sources: (1) areas with relatively shallow intrusions, (2) areas of recently extinct volcanoes, and (3) areas around active volcanoes)

Zen, M.T. & D. Hadikusumo (1964)- Preliminary report on the 1963 eruption of Mt Agung in Bali (Indonesia). Bulletin Volcanologique 27, 269-299.
(After 127 years of dormancy, Mount Agung on Bali had two major eruption in 1963, on March 17 and May 16, accompanied by nueees ardentes that killed 1500-1700 people. Subsequennt cold lahars killed 200 more)

Zielinski, G.A., P.A. Mayewski, L.D. Meeker, S. Whitlow, M. Twickler & K. Taylor (1996)- Potential atmospheric impact of the Toba mega-eruption. Geophysical Research Letters 23, 8, p. 837-840.
(~6-year long period of volcanic sulfate recorded in Greenland GISP2 ice core at ~71.1 ± 5 ka may reflect Toba mega-eruption. Deposition of these aerosols at beginning of ~1000-year long stadial event, but not immediately before longer glacial period beginning ~67.5 ka. Toba aerosols may be responsible for enhanced cooling during initial 200 yrs of ~1000-year cooling event ('volcanic winter'))

Zollinger, H. (1855)- Besteigung des Vulkanes Tambora auf der Insel Sumbawa und Schilderung der Eruption desselben im Jahre 1815. J. Wurster & Co., Winterthur, p. 1-21.
(online at: https://www.e-rara.ch/zut/doi/10.3931/e-rara-10991)
('The ascent of the Tambora volcano on Sumbawa Island and an account of its eruption in the year 1815'. Probably the first study of Tambora volcano in 1847, 32 years after its enormous eruption, by Swiss botanist and former Netherlands Indies government naturalist Heinrich Zollinger)

Zollinger, H. (1866)- Togt naar het gebergte Bator, uit Zollinger's schriftelijke nalatenschap. Bijdragen Taal Land en Volkenkunde van Nederlandsch-Indie 3, 1, p. 497-535.
(online at: https://brill.com/view/journals/bki/13/1/article-p497_39.xml)
('A trip to the Batur mountains, from Zollinger's posthous notes' Early description of area of Batur volcano complex on Bali, which at that time (August-September 1856) was very litle known. Posthumous paper by H. Zollinger, who died in 1859. Originally published in German, in Petermanns Geographische Mittheilungen, 1864. Batur Mountains with outer ring (caldera rim?) of volcanic trachyte blocks and thick tuff stone deposits. Rel. common lava flows, the most recent from 1849. Upper part of Batur rel. steep (40°). Zollinger already in lesser physical condition due to a liver disease (p. 527). No figures (see also Batur reports by Kemmerling 1917 and Stehn 1928))

Zulfakriza, Z., A.D. Nugraha, S. Widiyantoro, P.R. Cummins, D.P. Sahara, S. Rosalia, A. Priyono et al. (2020)- Tomographic imaging of the Agung-Batur Volcano Complex, Bali, Indonesia, From the ambient seismic noise field. Frontiers in Earth Science 8, 43, p. 1-11.
(online at: https://www.frontiersin.org/journals/earth-science/articles/10.3389/feart.2020.00043/full)

Zwierzycki, J. (1923)- Kilka uwag o wulkanach Archipelagu Malajskiego. Kosmos 48. Krakow, p.

('Some notes about the volcanoes of the Malay Archipelago'. In Polish)

IX.2. Quaternary Volcanism: Java (incl. Krakatau)

Abdillah & M. Abdurrachman (2023)- Interpretation of tectonic setting and magmatism for education and geotourism in Ijen Unesco Global Geopark, East Java, Indonesia Bulletin of Geology (ITB) 7, 3, p. 1248-1254.
(online at: https://buletingeologi.com/index.php/buletin-geologi/issue/view/20/PR73-4)
(Brief literature review of geology and magmatism of Late Pliocene-Quaternary Ijen Volcanic Complex, E Java)

Abdillah, H., W.A. Nugraha & F. Hakim (2021)- Study of active and fossil hydrothermal systems in Ijen caldera complex and Merubetiri Mountains, East Java. Indonesian J. of Economic Geology (IJEG) 1, 1, p. 39-48.
(online at: https://journal.iagi.or.id/index.php/IJEG/article/view/341/349)

Abdurachman, E.K., J.L Bourdier & B. Voight (2000)- Nuées ardentes of 22 November 1994 at Merapi volcano, Java, Indonesia. J. Volcanology Geothermal Research 100, p. 345-361.
(manuscript online at: https://insu.hal.science/hal-00091175/document)
((Nuées ardentes (pyroclastic flows) on 22 November 1994 at Merapi volcano traveled 6.5 km to SW and accumulated ~2.5–3 Mm^3 of deposits. Damaged area 9.5 km^2. Associated with one of several collapses of 1994 lava dome extrusion. Two nuée ardente facies: conventional "Merapi-type", valley-fill block-and-ash flow facies and pyroclastic surge facies)

Abdurahman, O., A. Zaennudin & W. Alifah S.P. (2022)- Reviewing of Kromong volcanic complex, Cirebon Regency and its resource as geological heritage. Proc. 51st Annual Conv. Indonesian Association Geologists (IAGI), Makassar, p. 1-6.
(online at: https://www.iagi.or.id/web/digital/71/PITIAGI-22-P-Abs-165.pdf)
(Volcanic rocks exposed in Arjawinangun to Jagapura Lor and domes/hills around Kromong, all referred to as the "Kromong Complex" (SW of Cirebon and N of Ciremai volcano). These are remnants of paleo-volcano including andesitic lava domes, lava flows, and andesite intrusions, possibly as old as Eocene and related to volcanic deposits of subsurface Jatibarang Fm. Associated with Miocene Kromong Limestone (E-M Miocene?; Praptisih et al., 2012), but no known contact metamorphism)

Abdurrachman, M. (2012)- Geology and petrology of Quaternary volcano and genetic relationship of volcanic rocks from the Triangular Volcanic Complex around Bandung Basin, West Java, Indonesia. Doctoral Thesis, Akita University, Japan, p. 1-131.

Abdurrachman, M., E. Suparka, R. Chrysant, H. Handley, D.P. Adli & J.N. Indriyanto (2017)- Subducted components and lithospheric contributions to arc magmatism in Java: insight from the distribution of major and trace elements of Quaternary volcanic rocks. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, p. 1-4. *(online at: https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_Subducted-Components-and-Lithospheric.pdf)*
(Major and trace elements of Papandayan and Merapi volcanoes significantly above other Java volcanoes of similar depth above Wadati-Benioff zone)

Abdurrachman, M., S. Widiyantoro, B. Priadi & T. Ismail (2017)- Geochemistry and seismic tomogram beneath Krakatoa volcano, Sunda Strait, Indonesia. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI, Malang (JCM 2017), p. 1-3.
(online at: https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_Geochemistry-and-Seismic-Tomogram.pdf)
(S-wave tomographic image and geochemical data of Krakatoa area lavas suggests subducted slab intruded by hot material of mantle upwelling. Partial melting of mantle wedge and mantle upwelling in upper mantle may be caused by thinning and possible tearing of subducted slab under Krakatoa Volcano)

Abdurrachman, M., S. Widiyantoro, B. Priadi & T. Ismail, (2018)- Geochemistry and structure of Krakatoa Volcano in the Sunda Strait, Indonesia. Geosciences (MDPI), 8, 4, 111, p. 1-10.
(online at: https://www.mdpi.com/2076-3263/8/4/111)
(Krakatoa Volcano eruptive products of 1883and later present volcanic rocks derived from partial melting of mantle wedge and mantle upwelling beneath volcano. Mante upwelling may be controlled by thinning in

subducted slab as depicted by S-wave tomogram, due to strong slab pull in E part of Sunda Arc. May also be related to change in subduction style between Sumatra and Java)

Abdurrachman, M. & M. Yamamoto (2011)- Geochemistry of Papandayan and Cikuray volcanoes: mapping the extent of Gondwana continental fragment beneath Java, Indonesia. American Geophysical Union (GSA), Fall Meeting 2011, Abstract V43C-2599, 1p. *(Poster presentation)*
(Geochemistry of contiguous volcanoes Papandayan (medium-K basaltic andesite (Early Stage), andesite (Middle Stage) and dacite (Late Stage); high 87Sr/86Sr) and Cikuray (low-K, low 87Sr/86Sr, etc.) suggests mixing of low-K Cikuray-type magma with Gondwanan continental fragment material (Pre-Cambrian-Devonian Australian granites) at Papandayan. Two volcanoes reflect change in underlying basement type in West Java: Sunda Land in N, Gondwana continent fragment in S. Papandayan volcano probably only Quaternary volcano underlain by Gondwana continental fragment)

Abdurrachman, M. & M. Yamamoto (2012)- Geochemical variation of Quaternary volcanic rocks in Papandayan area, West Java, Indonesia: a role of crustal component. Proc. 12th Regional Congress Geology Mineral Energy Resources of SE Asia (GEOSEA 2010), Bangkok, J. Geological Society Thailand, Special Issue, p. 40-57.
(online at: https://www.researchgate.net/publication/291973522_Geochemical_variation_of_Quaternary_volcanic_rocks_in_Papandayan_area_West_Java_Indonesia_A_role_of_crustal_component)
(Papandayan and adjacent Cikuray volcanoes S of Bandung, W Java. Rel. high K2O and isotopic ratios of Papandayan magmas due to contamination from underlying Gondwana continental fragment)

Abdurrachman, M. & M. Yamamoto (2023)- Crustal contamination versus subducted components: an example from the West Java Arc, Indonesia and its implications in magma genesis. Indonesian J. on Geoscience (IJOG) 10, 1, p. 97-107.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/460)
(New Sr isotope and K2O data from Papandayan and Cikuray Volcanoes in W Java help constrain crustal assimilation and subducted input of crustal material in magma genesis beneath W Java Arc. No systematic across arc variation of K2O and Sr isotopic ratios in W Java; variations in magma chemistry attributed to crustal assimilation and involvement of subducted sediments and slab fluids from altered oceanic crust)

Abdurrachman, M., M. Yamamoto, E. Suparka, I.G.B.E. Sucipta, I.A. Kurniawan & R.F. Hasibuan (2015)- Across arc variation of strontium isotope and K2O composition in the Quaternary volcanic rocks from West Java: Evidence for crustal assimilation and the involvement of subducted components. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI, Balikpapan 2015, JCB2015-138p. 1-5.
(online at: https://www.iagi.or.id/web/digital/3/2015_IAGI_Balikpapan_Across-arc-variation.pdf)
(Increasing K2O and decreasing of 87Sr/86Sr ratios with distance from trench have been found in NE Japan Arc, but more variablity in W Java Arc, where across arc variations of magma chemistry can be explained by crustal assimilation and involvement of subducted components

Abdurrachman, M., M. Yamamoto, E. Suparka, Y.S. Yuwono & B. Sapiie (2012)- Sr-Nd isotopic study of Papandayan area, West Java: a window into the past magmatism and tectonic event. Proc. 41st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2012-GD-31, p. 1-7. *(online at: https://www.iagi.or.id/web/digital/9/2012_IAGI_Yogyakarta_Sr-Nd-Isotopic-Study-of-Papandayan-Area.pdf)*
(Sr-Nd isotopic ratios of young volcanics of Papandayan and Cikuray (to E) volcanoes, located at Cretaceous suture zone. Papandayan comprises medium-K series with high 87Sr/ 86Sr and low 143Nd/ 144Nd; Cikuray volcanics low-K series, with low 87Sr/86Sr and high 143Nd/144Nd ratios. Contrasting isotopic ratios explained by mixing of mantle wedge with Australian granites at Papandayan, perhaps parts of sudducted 'Argoland')

Adikusuma, R., D.N. Sahdarani, F.M.H Sihombing, Supriyanto & G.T.M Kadja (2020)- Petrology and petrogenesis of igneous rock in Mount Endut, Banten Province. In: Life and Environmental Sciences Academics Forum, Depok 2019, IOP Conference Series: Earth and Environmental Science 538, 1, 012026, p. 1-8.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/538/1/012026/pdf)
(Quaternary Mt Endut volcano in E part of Banten Province. Three types of igneous rocks, andesite porphyry, diorite porphyry, and dacite porphyry. Calcalkaline magma series, in island arc or continental margin)

Adimedha, T.B., R.C. Ciputra, I. Rosianna, I.G. Sukadana, A. Harijoko, E. Handini et al. (2024)- Characteristics and genesis of Mount Pengki: a scoria cone of Dago Volcano, West Java, Indonesia. Eksplorium 45, 2, p. 57-66.
(online at: https://ejournal.brin.go.id/eksplorium/article/view/11258/8813)
(Dago volcano was Late Miocene volcano SW of Jakarta in W Java, overlying Miocene sediments of Rengganis and Bojongmanik Fms. Mount Pengki youngest product of Dago Volcano; interpreted as flank eruption product)

Adimetha, T.B., A. Harijoko, E. Handini, I.G. Sukadana, H. Syaeful, R.C. Ciputra, I. Rosiana et al. (2023)- Magmatic evolution of Dago Volcano, West Java, Indonesia. Eksplorium 44, 1, p. 13-24.
(online at: https://ejournal.brin.go.id/eksplorium/article/view/8158/6255)
(Late Miocene (~6 Ma) Dago volcano remnants SW of Jakarta (SW of Serpong) with two eruption centers. Mainly basaltic andesite- trachyandesite)

Agangi, A. & S.M. Reddy (2016)- Open-system behaviour of magmatic fluid phase and transport of copper in arc magmas at Krakatau and Batur volcanoes, Indonesia. J. Volcanology Geothermal Research 327, p. 669-686.
(manuscript online at: https://espace.curtin.edu.au/bitstream/handle/20.500.11937/10368/246119.pdf)
(Study of base metal distribution in sulfide and silicate melts at Krakatau and Batur indicates that Cu was separated during two stages of sulfide formation)

Akkersdijk, M.E. (1928)- Het Tengger caldera probleem. De Mijningenieur 9, p. 117-124.
('The Tengger caldera problem", East Java)

Akkersdijk, M.E. (1929)- Caldera of the Tengger-Mountain. Fourth Pacific Science Congress, Java 1929, Excursion Guide E 2, p. 1-12.

Akkersdijk, M.E. & R.W. van Bemmelen (1941)- Volcanic phenomena during the months of October, November and December 1939. Bull. Netherlands Indies Volcanological Survey, Bandung, 90, p. 55-71.

Alfianti, H., P. Bani, M. Sumaryadi, S. Primulyana, M. Marlia, U.B. Saing, N. Haerani & H. Gunawan (2022)- Bromo activity over the last decade: consistent passive degassing and source magma evolution. Geoscience Letters 9, 15, p. 1-9.
(online at: https://geoscienceletters.springeropen.com/track/pdf/10.1186/s40562-022-00221-2.pdf)
(Over past decade, Bromo released 0.7 Tg of SO2 into atmosphere (3% of volcanic degassing budget of Indonesia and 0.3% of global volcanic SO2 emission budget outside eruptive periods). Activity sustained by basaltic-andesite to basalt trachy-andesite magma source, transitional from medium-K to high-K composition)

Alfin, A S., H.E. Wibowo & A. Harijoko (2022)- Morphometric characteristic and distribution of hummocky hills in debris avalanche deposit of Galunggung Volcano, West Java, Indonesia. Proc. 13th AUN/SEED-Net Regional Conference Geological and Geo-Resource Engineering (RCGEOE), Yogyakarta 2021, IOP Conference Series: Earth and Environmental Science 1071, 012012, p. 1-10.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1071/1/012012/pdf)
(Statistics on block sizes of volcano collapse deposits in the ~32 km^2 block field at SE side of Galunggung volcano. Hummocky hills 500-700,000 m2 in size, distributed 0.5-20 km from summit of volcano. No mentions of age of collapse and of original work on this Tasikamalaya block field by Escher (1925))

Alloway, B.V., S. Andreastuti, R. Setiawan, J. Miksic & Q. Hua (2017)- Archaeological implications of a widespread 13th century tephra marker across the central Indonesian Archipelago. Quaternary Science Reviews 155, p. 86-89.
(Widespread mid-13th century tephra identified across central Indonesia, can be correlated to eruption of Samalas volcano (near Rinjani, Lombok) in 1257 A.D. No archeological evidence yet indicating catastrophic disruption in mid-13th Century Indonesia)

Alves, S., P. Schiano & C.J. Allegre (1999)- Rhenium-Osmium isotopic investigation of Java subduction zone lavas. Earth Planetary Science Letters 168, p. 65-77.

(Java arc lavas low in Osmium. Mixing between unradiogenic Os from peridotitic upper mantle and two different radiogenic Os components, reflecting two crustal contaminants or different proportions of subducted oceanic crust and sediments)

Alzwar M, (1985)- Gunung Kelut. Berita Berkala Vulkanologi, Special Edition 108, Direktorat Vulkanologi, (Volcanological Survey of Indonesia), Bandung, p. 1-60.
(Monograph on Kelud active volcano, East Java)

Alzwar, R., M. Kamid, A.J.T. Sihombing & Y.S.H. Simatupang (1983)- Magma types and peculiarity of the 1883 Krakatau eruption, Sunda Strait, Indonesia. Symposium Centennial Commemoration Krakatau eruption, LIPI, Jakarta 1983, p. 1-21.

Anderson, T. (1914)- The volcanoes Bromo and Krakatau: a brief account of a visit to them. Alpine Journal 28 (204), p. 178-182.
(Report on journey to Bromo and Krakatau by British eye surgeon and well-known amateur volcanologist Dr. Tempest Anderson in 1913, in the company of Geological survey geologist H.A. Brouwer, during Anderson's final voyage to Indonesia and the Philippines in 1913. On return journey home he died of illness on ship in Red Sea, and was buried at Suez, Egypt)

Andreastuti S.D. (1999)- Stratigraphy and geochemistry of Merapi Volcano, Central Java, Indonesia: implication for assessment of volcanic hazards. Ph.D. Thesis, University of Auckland, New Zealand, p. 1-910.
(Study of tephra deposits on flanks of Merapi showed 20 formations, two of which products of Merbabu. Oldest unit Sumber (~3000 yrs) and youngest Pasarbubar (~1800 AD?). Magma evolved from medium-K to high-K with time. Post-1800 AD eruptions mainly of open vent type, related to dome collapse events. Pre-1800 AD eruptions mainly controlled by deeper magmatic processes, with hornblende more abundant)

Andreastuti, S.D. (2007)- The 2006 eruption of Merapi, petrography and geochemistry of the June 14, 2006 pyroclastic flows. Proc. Joint Convention 32nd HAGI, 36th IAGI and 29th IATMI, Bali 2007, p. 662-668.
(Pyroclastic flows generated during collapse of lava dome in 2006. Collapse of part of older dome added common older lithic blocks to pyroclastic flow deposits. SiO2 content 55.5-55.9 wt %)

Andreastuti, S.D., B.V. Alloway & I.E.M. Smith (2000)- A detailed tephrostratigraphic framework at Merapi volcano, Central Java, Indonesia: implications for eruption predictions and hazard assessment. J. Volcanology Geothermal Research 100, p. 51-67. *(online at: https://www.researchgate.net/publication/223612451_A_detailed_tephrostratigraphic_framework_at_Merapi_Volcano_Central_Java_Indonesia_Implications_for_eruption_predictions_and_hazard_assessment)*
(Merapi Volcano episodes of dome growth usually resulted in partial dome collapse events that generated pyroclastic flows. Eruptive record back to mid-Holocene, deduced from volcaniclastic fans of lower flanks, show most eruptions from 3000-250 years ago of different style from present period. Numerous coarse ash and lapilli beds interbedded with soil material, pyroclastic flow and surge deposits. In deeper parts of succession pyroclastic products from adjacent Merbabu Volcano, evidence of concurrent activity at both volcanoes)

Angkasa, S.S. (2019)- Geology, mineralogy, and sulfur isotopic studies of proximal volcanic products at the Tangkuban Parahu Volcano, Indonesia. Doct. Thesis, Akita University, p. 1-81.
(online at: https://air.repo.nii.ac.jp/?action=repository_action_common_download&item_id=3845&item_no=1&attribute_id=46&file_no=2)
(Proximal volcanic succession of Tangkuban Perahu volcano near Bandung mainly composed of fine-clay and coarse ash, lapilli tuff, and pyroclastic breccia within 10 tephra units)

Angkasa, S.S., T. Ohba, T. Imura, I. Setiawan & M. Rosana (2019)- Tephra-stratigraphy and ash componentry studies of proximal volcanic products at Mount Tangkuban Parahu, Indonesia: an insight to Holocene volcanic activity. Indonesian J. on Geoscience (IJOG) 6, 3, p. 235-253.
(online at: http://ijog.bgl.esdm.go.id/index.php/IJOG/article/view/590/289)

Ardian, D.N., H. Darmawan, Wahyudi, B.W. Mutaqin, Suratman, N. Haerani & Wikanti (2022)- Grain size, mineralogical, and geochemistry of the 1996-2018 volcanic products of Anak Krakatau Volcano, Indonesia. Proc. 13th AUN/SEED-Net Reg. Conf. Geological and Geo-Resource Engineering (RCGeoE 2021; online), IOP Conference Series: Earth and Environmental Science 1071, 012017, p. 1-11.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1071/1/012017/pdf)
(Anak Krakatau post-1996 products shows eruption type strombolian to vulcanian. Pyroclastic falls and flows. Lava is basaltic andesite)

Asmoro, P., D. Wahyudin & E. Mulyadi (1989)- Geological map of Papandayan volcano, Garut, West Java. Direktorat Vulkanologi (Volcanological Survey of Indonesia), Bandung.

Assiddiqy, M.H., R. Gati, B. Sibarani & Suryantini (2021)- Volcanostratigraphy study of Slamet volcano and the implication to its early stage of geothermal exploration. Proc. ITB Int. Geothermal Workshop, Bandung 2020, IOP Conference Series: Earth and Environmental Science, 732, 012009, p. 1-7.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/732/1/012009/pdf)
(Eight volcanostratigraphic units identified in Quaternary Slamet Volcanic Complex area and its surroundings. Two main phases of volcanism, Old Slamet and New Slamet)

Baak, J.A. (1943)- A comparative study on recent ashes of some Java volcanoes. Chuo Noozi Sikenzyoo, Contribution 4, p. 1-57.
(Distributution of ashes from Semeru. Kelut and Merapi, and chemical analyses of ash samples. Published during the Japanese occupation in Bogor, in the Japanese year 2603 (1943?). Probably same as Baak (1949), below)

Baak, J.A. (1949)- A comparative study on recent ashes of the Java volcanoes Smeru, Kelut, and Merapi. Mededelingen Algemeen Proefstation Landbouw, Buitenzorg (Bogor), 83, p. 1-60.

Bahar, I. (1984)- Contribution a la connaissance du volcanisme indonesien: le Merapi (Centre Java), cadre structural, petrologie, geochimie et implications volcanologiques. Ph.D. Thesis Universite de Montpellier, p. 1-213. *(Unpublished)*
('Contribution to the knowledge of Indonesian volcanism: the Merapi (C Java), structural setting, petrology, geochemistry and volcanological implications')

Banggur, F.S., M.Z. Tuakia, M. Abdurrachman, M.N Kartadinata, A.E.P. Muhammad, F. Novico & C. Patria (2025)- Volcanostratigraphy and geological hazard potential of the Karaha-Sadakeling Volcano Complex, West Java, Indonesia. J. Riset Geologi dan Pertambangan (BRIN) 35, 2, p. 1-22.
(online at: https://jrisetgeotam.brin.go.id/index.php/jrisgeotam/article/view/1397/pdf_1)
(Karaha-Sadakeling Volcanic Complex in Tasikmalaya Regency, W Java, characterized by ridge of hills extending north from Mount Galunggung (with Karaha and Talagabodas geothermal systems). Evolution from old to young: Cakrabuana, Sadakeling, Ewaranda and Talagabodas. N-S oriented volcanic cone morphology parallels major fault between Cakrabuana Complex to NE and Karaha-Sadakeling Complex)

Barber, N.D. S.L. Baldwin, M. Edmonds, F.O. Boschetty, H.E. Wibowo & A. Harijoko (2023)- Monogenetic volcanoes as windows into transcrustal mush: A case study of Slamet and Loyang volcanoes, Central Java. J. Volcanology Geothermal Research 444, 107945, p. 1-18.
(online at: https://www.sciencedirect.com/science/article/pii/S0377027323002020)
(Basaltic lava samples from Gunung Slamet in C Java and its most distal scoria cone, Gunung Loyang. Slamet is composed of calc-alkaline basalts. Olivines in both volcanoes cluster in five groups, defined by presence or lack of zoning, resorption, etc.. Loyang olivines from similar petrological system as Slamet, but from deeper mid-crustal levels (12 km), and more mafic source. Monogenetic volcanoes like Loyang can be used as "petrological windows" into deeper crustal levels of mush reservoirs at composite stratovolcanoes)

Bardintzeff, J.M. (1984)- Merapi volcano (Java, Indonesia) and Merapi-type nuee ardente. Bulletin of Volcanology (Bulletin Volcanologique) 47, 3, p. 433-446.

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(online at: www.ipgp.jussieu.fr/~beaudu/download/ecrit.pdf)
('Structures and mechanical behaviour of the Merapi volcano (Java)'.)

Beauducel, F., F.H. Cornet, E. Suhanto, T. Duquesnoy & M. Kasser (2000)- Constraints on magma flux from displacements data at Merapi volcano, Java Indonesia. J. of Geophysical Research: Solid Earth 105, B4, p. 8193-8203.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1029/1999JB900368)

Belousov, A., M. Belousova, D. Krimer, F. Costa, O. Prambada & A. Zaennudin (2015)- Volcaniclastic stratigraphy of Gede Volcano, West Java, Indonesia: how it erupted and when. J. Volcanology Geothermal Research 301, p. 238-252.
(online at: http://repo.kscnet.ru/2221/1/gede-paper.pdf)
(Holocene volcaniclastic deposits. Major part of volcanic edifice of Gede Volcano, 60 km S of Jakarta, formed in Pleistocene with high-silica basalts. After inactive period of >30,000 years volcanic activity resumed at Pleistocene- Holocene boundary, with explosive basaltic andesite to rhyodacites. Four major Holocene eruptive episodes ~10,000, 4000, 1200, and 1000 yr BP. Most of erupted products transported as pyroclastic flows. Voluminous lahars common between eruptions. Recent eruptive period of volcano started ~800 years ago with frequent, weak explosive Vulcanian-type eruptions and rare small extrusions of viscous lava)

Belyanin, P.S. (2021)- The landscape structure of the Gede-Pangrango stratovolcano (West Java, Indonesia). Geography and Natural Resources 42, 4, p. 395-401.
(online at: www.researchgate.net/publication/359345447_The_Landscape_Structure_of_the_Gede Etc.)
(Review of geomorphology and plant communities of ~3000m high Gede-Panggrango volcano complex (G-P is not even close to being the highest volcano on Java, as stated by this author; JTvG))

Berlo, K., V.J. van Hinsberg, Suparjan, B.H. Purwanto & H. Gunawan (2014)- Using the composition of fluid seepage from the magmatic-hydrothermal system of Kawah Ijen volcano, Indonesia, as a monitoring tool. J. Volcanology Geothermal Research 399, 106899, p. 1-11.
(open manuscript at: https://www.sciencedirect.com/science/article/abs/pii/S0377027319306353)
(On lake waters of Kawah Ijen volcano, with concentrated hyperacidic brines from volcanic gases and water-rock interaction. Lake water and hydrothermal fluids seep through W flank of volcano where they precipitate gypsum and form hyperacid Banyu Pahit river)

Berlo, K., V.J. van Hinsberg, N. Vigouroux, J.E. Gagnon & A.E. Williams-Jones (2014)- Sulfide breakdown controls metal signature in volcanic gas at Kawah Ijen volcano, Indonesia. Chemical Geology 371, p. 115-127.
(Deep (>200 MPa) basalt-hosted melt inclusions at Kawah Ijen volcano track progressive decomposition of sulfide liquid upon magma ascent and degassing. Sulfide liquid is important, and for most metals their dominant reservoir, and its breakdown therefore leads to strong increase in metal concentrations in melt)

Bernard, O., C. Bouvet de Maisonneuve, L. Arbaret, K. Nagashima, J. Oalmann, A. Prabowo & A. Ratdomopurbo (2022)- Varying processes, similar results: How composition influences fragmentation and subsequent feeding of large pyroclastic density currents. Frontiers in Earth Science 10, 979210, p. 1-21.
(online at: https://www.frontiersin.org/articles/10.3389/feart.2022.979210/full)
(Large mafic Plinian eruptions sometimes generate ignimbrites. Study includes analyses of andesite of Merapi, Java, and Gunungkawi ignimbrite, Batur, Bali)

Berthommier, P.C. (1990)- Etude volcanologique du Merapi (Centre-Java). Tephrostratigraphie et chronologie. Produits eruptifs. Ph.D. Thesis, Universite Blaise Pascal, Clermont-Ferrand, France, p. 1-216.
('Volcanological study of the Merapi (Central Java). Tephrostratigraphy and chronology. Eruptive products.' Merapi arc volcano rests on remains of ancient basement (Pre-merapi, >400,000 years old). Current Merapi very young, rapidly building volcano. Four units: (1) Old Merapi (>60,000- 8,000 yrs old); (2) Middle Merapi (8000- 2000 yrs) (3) Recent Merapi (2000 - 600 ys); (4) Historic Merapi (continuous extrusion of andesite in

form of domes and destruction of these domes generating fiery clouds; most recent in 1984). Three processes in magmatic evolution of Merapi lavas: fractional crystallization in shallow reservoir; continuous injection of more basic magma into reservoir, etc.)

Berthommier, P.C., G. Camus, M. Condomines & P.M. Vincent (1990)- Le Merapi (centre Java): elements de chronologie d'un stratovolcan andesitique. Comptes Rendus Academie Sciences, Paris, 311, 1, p. 213-218.
('Merapi, central Java: elements of chronology of an andesitic stratovolcano')

Blanke, W. (1939)- Vulkaan-ruines bij Plered. De Tropische Natuur 28, p. 114-117.
(online at: https://natuurtijdschriften.nl/pub/511497/TN1939028007002.pdf)
('Volcano ruins near Plered'. Brief description of ruins of large extinct volcano complex with about a dozen steep remants of intrusive feeder pipes between Jakarta and Bandung, W Java. Largest peaks Gunung Bongkok and G. Parang. The latter is elongate with three peaks, presumably representing three crater feeder pipes. At W side of G. Parang still remnants of old, uneconomic gold mine entrance, operated by VOC around 1722-1742)

Blattmann, S. (1938)- Basaltisch-andesitische Gesteine des Salak-Gebirges in West Java. Neues Jahrbuch Mineralogie Geologie Palaontologie, Beilage Band 73, Abhandlungen A, 3, p. 352-374.
('Basaltic-andesitic rocks of the Salak mountains in West Java')

Blume, C.L. (1832)- Vulkane auf Java. Annalen Erd Volker- und Staatenkunde ('Berghaus Annalen') 6, p. 400.
('Volcanoes on Java'. Brief note on 40 volcanoes and mud eruptions in Java, by German health officer and pioneering botanist-naturalist of Java, Carl Ludwig Blume)

Blumenthal, M.M. (1927)- Der Klut (Ost-Java), sein Eruptions- und Katastrophentypus und die getroffenen Praventivmassnahmen. Jahresbericht Naturforschenden Gesellschaft Graubunden, Year 1926/27, 65, p. 29-59.
(online at: https://www.e-periodica.ch/digbib/view?pid=ngg-002:1926:65#6)
('The Kelud (East Java), its eruption and catastrophe-type and the preventive measures taken'. See also work by Kemmerling (1921))

Bogie, I., Y.I. Kusumah & M.C. Wisnandary (2008)- Overview of the Wayang Windu geothermal field, West Java, Indonesia. Geothermics 37, 3, p. 347-365.
(Wayang Windu geothermal field 35 km S of Bandung, associated with Gambung, Wayang, Windu Pleistocene volcanic centers)

Bogie, I. & K.M. MacKenzie (1998)- The application of volcanic facies models to an andesitic stratovolcano hosted geothermal system at Wayang Windu, Java, Indonesia. Proc. 20th New Zealand Geothermal Workshop, Auckland 1998, p. 265-276.
(online at: https://www.researchgate.net/publication/283056119_The_application_of_a_volcanic_facies_model_to_an_andesitic_stratovolcano_hosted_geothermal_system_at_Wayang_Windu_Java_Indonesia)
('Volcanic facies model' of Wayang Windu geothermal project 40 km S of Bandung, W Java, at S slope of active Malabar volcano. Wayang Windu is one of three small Pleistocene (0.10- 0.49 Ma) eruptive centers)

Boomgaart, L. (1947)- Some data on the Muriah volcano (Java), and its leucite-bearing rocks. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 50, 6, p. 649-652.
(online at: https://dwc.knaw.nl/DL/publications/PU00018361.pdf)
(Brief survey of Muriah volcano complex, NE Java. N slope built up mainly of breccias of leucite-bearing rock fragments with intercaled basaltic and leucitite flows. Columnar leucite tephrite on E side of N slope)

Borisova, A.Y., A.A. Gurenko, C. Martel, K. Kouzmanov & S. Sumarti (2016)- Oxygen isotope heterogeneity of arc magma recorded in plagioclase from the 2010 Merapi eruption (Central Java, Indonesia). Geochimica Cosmochimica Acta 190, p. 13-34.

Bosch, C.J. (1858)- Uitbarstingen der vulkanen Idjin en Raun (Banjoewangi). Tijdschrift Indische Taal Land en Volkenkunde 7, p. 265-286. *(online at: https://kitlv-docs.library.leiden.edu/open/Metamorfoze/TBG/MMKITLV01_PDF_TS2332_1858_07.pdf)*
('Eruptions of the volcanoes Ijen and Raung (Banywangi)', East Java. Brief descriptions of the Ijen volcano eruption in 1817 and Raun around 1638, two in the 1700s and one around 1815.No figures)

Boudon, G., G. Camus, A. Gourgaud & J. Lajoie (1993)- The 1984 nuee-ardente deposits of Merapi volcano, Central Java, Indonesia: stratigraphy, textural characteristics and transport mechanisms. Bulletin of Volcanology 55, 5, p. 327-342.
(For many centuries Merapi volcano generated hot avalanches with mix of large blocks, lapilli and ashes, derived from destruction of partially solidified, viscous lava domes (Merapi-type nuees ardentes). On 15 June 1984, at least four nuees ardentes traveled down SW slope of Merapi; the first travelled 7 km from crater, leaving 2.7 m-thick deposit at 4 km from crater (near upper depositional limit), increasing to thickness of 12 m at front of deposit. Lower contact is sharp, non-erosive. Deposits 50% ash, 33% lapilli, 17% blocks)

Bourdier, J.L. & E. K. Abdurachman (2001)- Decoupling of small-volume pyroclastic flows and related hazards at Merapi volcano, Indonesia. Bulletin of Volcanology 63, p. 309-325.
(manuscript online at: https://insu.hal.science/hal-00089708/document)
(About large-scale detachment of an ash-cloud surge component from 'normal' Merapi-type basal block-and-ash flow pyroclastic ash flow following lava dome collapses during November 1994 eruptions at Merapi volcano, C Java)

Bourdier, J.L., I. Pratomo, J.C. Thouret, G. Boudon & P.M. Vincent (1997)- Observations, stratigraphy and eruptive processes of the 1990 eruption of Kelut volcano, Indonesia. J. Volcanology Geothermal Research 79, p. 181-203.

Bourdier, J.L., J.C. Thouret, l. Pratomo, P.M. Vincent & G. Boudon (1997)- Menaces volcaniques au Kelut (Java, Indonesie): les enseignements de l'eruption de 1990. Comptes Rendus Academie Sciences, Paris, ser. IIa, 324, 12, p. 961-968.
(online at: https://www.researchgate.net/publication/291815459_Volcanic_hazards_at_Kelut_volcano_Java_island_Indonesia_Lessons_learned_from_the_1990_eruption)
('Volcanic hazards at Kelut volcano (Java island, Indonesia): lessons learned from the 1990 eruption')

Bronto, S. (1982)- Geologi G. Galunggung. Proc. 11th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 7-18.
(online at: https://www.iagi.or.id/web/digital/35/PIT-IAGI-1982-Paper-2.pdf)
('Geology of Mount Galunggung'. Active volcano NW of Tasikmalaya, W Java)

Bronto, S. (1989)- Volcanic geology of Galunggung, West Java, Indonesia. Ph.D. Thesis University of Canterbury, New Zealand, p. 1-490.
(online at: http://ir.canterbury.ac.nz/bitstream/10092/5667/1/bronto_thesis.pdf)
(Study of active Galunggung volcano, 100km SE of Bandung, W Java. Age of 'Old Galunggung' stratovolcano rocks mainly pyroclastic flows, pyroclastic fall and lahar deposits and lava flows, ~50ka- 10ka old. Younger formations erupted during caldera formation (4200 ±150 yrs BP) and in 1822, 1894, 1918, 1982-83)

Bronto, S. (1990)- Galunggung 1982-83 high-Mg basalt: Quaternary Indonesian arc primary magma. Proc. 19th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 126-143.
(1982-1983 eruption of Galunggung volcano, W Java, began with Peleean activity, followed by Vulcanian and Strombolian eruptions, ending with extrusion of lava. Lava composition more basic with time. Rel.' primitive' high-Mg basalts probably derived from spinel peridotite source by 15% melting at ~45km depth)

Bronto, S. (1990)- G. Krakatau. Berita Berkala Vulkanologi, Edisi Khusus No. 133. Direktorat Vulkanologi, Bandung, p. 1-5.

Bronto, S., P. Asmoro, G. Hartono & Sulistiyono (2012)- Evolution of Rajabasa volcano in Kalianda area and its vicinity. Jurnal Geologi Indonesia 7, 1, p. 11-25.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/363
(Quaternary Rajabasa volcano in Lampung, SE tip of Sumatra formed in 25 km wide Pre-Rajabasa Caldera)

Bronto, S. & & S. Mulyaningsih (2007)- Gunung api maar di semenanjung Muria. Jurnal Geologi Indonesia (Indonesian J. on Geoscience; IJOG) 2, 1, p. 43-54
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/27/27)
('Maar volcanoes on the Muria Peninsula'. Three 'maars' (volcano lakes) identified on Muria Peninsula, C Java: Bambang, Gunungrowo, and Gembong. Formed by single volcanic eruptions due to interaction between magma source, groundwater and calcareous basement rocks, producing very high gas and steam pressure, causing phreatic explosions, and ending with lava extrusion. Satellite image show12 additional circular features surrounding Muria volcano)

Bronto S., T. Situmorang & W. Effendi (1986)- Geologic map of Lamongan volcano, Lumajang, East Java. Volcanological Survey of Indonesia, Bandung, 1:50,000.
(Lamongan in E Java unique volcano with 3 main craters, 61 cinder cones and 29 maar (ranu) lakes)

Bronto S., A. Zaennudin & R.D.Erfan (1985)- Geologic map of Arjuno-Welirang volcanoes, East Java. Volcanological Survey of Indonesia, Bandung, 1:70,000.

Brouwer, H.A. (1913)- Leucite-rocks of the Ringgit (East-Java) and their contact metamorphosis. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 15, 2, p. 1238-1245.
(online at: https://dwc.knaw.nl/DL/publications/PU00013056.pdf)
(Ultra-potassic leucite-bearing volcanic rocks from active Ringgit volcano, E Java, S of Madura Straits))

Brouwer, H.A. (1913)- Over een verhoogde werking van de Tangkoeban Prahoe in Juli 1913. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (II), 30, p. 782-785.
(online at: https://resolver.kb.nl/resolve?urn=MMUBA13:001659001:pdf)
('About increased activity of the Tangkuban Prahu in July 1913'. Minor rumblings on 9 July 1913)

Brouwer, H.A. (1913)- Over een bezoek aan Krakatau in Mei 1913. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (II), 30, p. 657-.
(online at: https://resolver.kb.nl/resolve?urn=MMUBA13:001659001:pdf)
('About a visit to Krakatau in May 1913'. Brief not about visit to Krakatau in early May 1913, with American volcanologist Dr. Tempest Anderson.No notable changes since topographic survey of 1908)

Brouwer, H.A. (1913)- De Raoeng en zijn jongste eruptie. Natuurkundig Tijdschrift voor Nederlandsch-Indie 73, 1, p. 84-97.
('The Raung and its latest eruption'. Presentation for KNV. Few figures. Raung in E Java one of highest volcanoes in Indonesia (3332m). Part of the Ijen complex. Rel. little activity in recent time. Most recent eruption in May-July 1913 For more complete version see Brouwer (1915))

Brouwer, H.A. (1914)- Uber leucitreiche bis leucitfreie Gesteine von G. Beser. Centralblatt Mineralogie Geologie Palaontologie 1914, p. 1-7.
(online at: https://babel.hathitrust.org/cgi/pt?id=uc1.b4291847;view=1up;seq=27)
('On leucite-rich to leucite-free rocks from Gunung Beser'. Extinct volcano N of Bondowoso in E Java, with transitions from leucite basalts to leucite-free rocks)

Brouwer, H.A. (1915)- De vulkaan Raoeng (Oost Java) en zijne erupties. Jaarboek Mijnwezen Nederlandsch Oost-Indie 42 (1913), Verhandelingen, p. 51-87.
('The Raung volcano (East Java) and its eruptions'.Investigation of poorly studied volcano Raung in Ijencomplex, E Java, after reports of increased activity in May 1913. Large (>2km wide) crater, with flat bottom and small cone near center, formed in mid-1913, also basaltic ash. All recent eruptions small. See also J.J. Richard (1935))

Brouwer, H.A. (1920)- Studien uber Kontaktmetamorphose in Niederland.-Ostindien. VI. Ein Kalksilikatwurfling des Vulkans Semeru (Java). Centralblatt Mineralogie Geologie Palaontologie 1920, p. 37-38.
(online at: https://ia801209.us.archive.org/18/items/centralblattfrm1920unse_0/centralblattfrm1920unse_0.pdf)
('Studies on contact-metamorphism in the Netherlands East Indies, VI. A calc-silicate ejecta of the Semeru volcano (Java) (calc-silicate hornfels with garnet, augite and wollastonite, ejected during November 1911 eruption, interpreted as altered Tertiary limestone fragment; see also Brouwer, 1915))

Brouwer, H.A. (1920)- Studien uber Kontaktmetamorphose in Niederland.-Ostindien. VII. Pneumatolytisch metamorphosierte Andesiteinschlusse in Leucititen des Vulkans Ringgit (Java). Centralblatt Mineralogie Geologie Palaontologie 1920, p. 38-40.
(online at: https://ia801209.us.archive.org/18/items/centralblattfrm1920unse_0/centralblattfrm1920unse_0.pdf)
('Studies on contact-metamorphism in the Netherlands East Indies, VI. Pneumatolitically metamorphosed andesite inclusions in leucitites of the Ringgit volcano (Java)'. Common contact-metamorphic andesite inclusions in Recent basic leucitite lavas from Ringgit volcano along N coast of E Java)

Brouwer, H.A. (1920)- On the composition and the xenoliths of the lava dome of the Galunggung (West-Java). Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 23, 8, p. 1234-1240.
(online at: https://dwc.knaw.nl/DL/publications/PU00014780.pdf)
(On earlier recrystallization products in 1918 lava dome of Galunggung volcano, W Java)

Brouwer, H.A. (1928)- Alkaline rocks of the volcano Merapi. (Java) and the origin of these rocks. Proc. Koninklijke Nederlandse Akademie van Wetenschappen 31, 4-5, p. 492-498.
(online at: https://dwc.knaw.nl/DL/publications/PU00015607.pdf)
(Nearly all Java volcanoes produced pyroxene andesites and basalts. Xenoliths in volcanic rocks of Merapi volcano include metamorphic limestones with wollastonite and diopside, sandstones and arkose)

Brouwer, H.A. (1945)- The association of the alkali rocks and metamorphic limestone in a block ejected by the volcano Merapi. (Java). Proc. Koninklijke Nederlandse Akademie van Wetenschappen 47, p. 166-189.
(online at: https://dwc.knaw.nl/DL/publications/PU00018161.pdf)
(Another description of large block of metamorphosed limestone from lahar derived from pyroxene-andesite flow in Kali Batang at SW slope of Merapi. Originally described as lenses of limestone in green 'schist', but is limestone transformed into wollastonite, gehlenite, leucite-bearing minerals, etc. No fossil evidence reported from limestone)

Brun, A. (1909)- Quelques recherches sur le volcanisme aux volcans de Java (quatrieme partie), 4. Archives Sciences Physiques Naturelles, Geneve 27, p. 113-150.
(online at: https://archive-ouverte.unige.ch/unige:144297)
('Some investigations of the volcanism at the volcanoes of Java-part 4'. Based on Brun's viisits to Java volcanoes in 1908. Brief descriptions of activity of Semeru, Bromo, with photos)

Brun, A. (1909)- Quelques recherches sur le volcanisme aux volcans de Java, 5: le Krakatau. Archives Sciences Physiques Naturelles, Geneve (4) 28, p. 45-60.
(online at: https://archive-ouverte.unige.ch/unige:143403)
('Some investigations of the volcanism at the volcanoes of Java- part 5: the Krakatau'. Brief review, based on Verbeek books and Brun's own visit to Krakatau in 1908)

Byrdina, S., S. Friedel, J. Vandemeulebrouck, A.B.-Santoso, Suhari, W. Suryanto, M.H. Rizal, E. Winata & Kusdaryanto (2017)- Geophysical image of the hydrothermal system of Merapi volcano. J. Volcanology Geothermal Research 329, p. 30-40.

Byrdina, S., H. Grandis, P. Sumintadireja, C. Caudron, D.K. Syahbana, E. Naffrechoux, H. Gunawan et al. (2018)- Structure of the acid hydrothermal system of Papandayan volcano, Indonesia, investigated by geophysical methods. J. Volcanology Geothermal Research 358, p. 77-86.

(Papandayan (2665m asl) stratovolcano 50 km from Bandung, W Java, characterized by intense hydrothermal activity. Acid hydrothermal plume delineated with Electrical Resistivity Tomography, etc. Main degassing zones in 1772 crater (Kawah Emas, Manuk, Kawah Baru) all connected to common reservoir at 100m depth (acid hydrothermal plume))

Camus, G., M. Diament, M. Gloaguen, A. Provost & P. Vincent (1992)- Emplacement of a debris avalanche during the 1883 eruption of Krakatau (Sunda Straits, Indonesia). GeoJournal 28, 2, p. 123-128.
(online at: https://www.researchgate.net/publication/226657987_Emplacement_of_a_Debris_Avalanche_during_the_1883_Eruption_of_Krakatau_Sunda_Straits_Indonesia)
(As argued by Camus & Vincent (1983), only a Mount St. Helens-type volcano collapse during eruption can account for all characteristics of 1883 Krakatau eruption and its deposits. Indonesian-French 1990 'Mentawai' marine survey confirms that sea bottom around Krakatau is covered by thick ignimbritic deposit, but also likely debris-avalanche deposit under ignimbrites, characterized by hummocky morphology to N, NW and E)

Camus, G., A. Gourgaud, P.C. Mossand-Berthommier & P.M.Vincent (2000)- Merapi (Central Java, Indonesia): an outline of the structural and magmatological evolution, with a special emphasis to the major pyroclastic events. J. Volcanology Geothermal Research 100, p. 139-163.
(Merapi Volcano history four periods: Ancient (40,000- 14,000 yrs BP), Middle, Recent (starting at 2200 yrs BP) and Modern Merapi (since eruption of 1786). Mount St. Helens-type edifice collapse during Middle Merapi stage between 6700- 2200 y BP. During Recent Merapi stage, violent magmatic to phreatomagmatic eruptions twice interrupted growth of volcano. Modern Merapi characterised by persistent growth of summit dome, y interrupted by collapses of dome to generate frequent Merapi-type nuees ardentes (blocks-and-ash flows and associated surges). Previous stages characterised by long lava flows, alternating with violent explosive phases. Merapi lavas calc-alkaline, with ~50-60% SiO2. 90% of Merapi lavas high-K basaltic andesites)

Camus, G., A. Gourgaud & P.M. Vincent (1987)- Petrologic evolution of Krakatau (Indonesia): implications for a future activity. J. Volcanology Geothermal Research 33, p. 299-316.
(Krakatau Volcano in Sunda straits characterized by phases, each beginning with construction of cone and ending with destruction and formation of caldera. Two last (pre- and post-1883) cycles well known, but older ones not clearly defined. Lava evolution shows cyclicity tied structural evolution, from basalts to basic andesites, acid andesites to dacites. Destructive stages correspond to dacitic terms. Anak Krakatau from 1927-1979 characterized by basalts and basic andesites, 1981 eruption close to dacitic)

Camus, G. & P.M. Vincent (1983)- Discussion of a new hypothesis for the Krakatau volcanic eruption in 1883. J. Volcanology Geothermal Research19, 1-2, p. 167-173.
(Discussion of Krakatau 1983 eruption, interpreted to be Mount St. Helens-type collapse event)

Carey, S., D. Morelli, H. Sigurdsson & S. Bronto (2001)- Tsunami deposits from major explosive eruptions: an example from the 1883 eruption of Krakatau. Geology (GSA) 29, 4, p. 347-350.
(Inundation of coastal areas by tsunamis during 1883 eruption of Krakatau volcano led to deposition of pumice-enriched deposits, some with significant coral fragments and non-volcanic beach sediment. Source of pumice widespread pumice rafts on surface of Sunda Straits, formed by fallout and pyroclastic flow activity)

Carey, S., H. Sigurdsson, C. Mandeville & S. Bronto (1996)- Pyroclastic flows and surges over water: an example from the 1883 Krakatau eruption. Bulletin of Volcanology 57, p. 493-511.
(Pyroclastic deposits from 1883 eruption of Krakatau described from Sebesi, Sebuku, and Lagoendi islands and SE coast of Sumatra. Massive and poorly stratified units formed from pyroclastic flows and surges that traveled over sea for distances up to 80 km. Decreasing sorting grain size and thickness with increasing distance from Krakatau. Deposits correlated to major pyroclastic flow phase on 27 August)

Carey, S., H. Sigurdsson, C. Mandeville & S. Bronto (2000)- Volcanic hazards from pyroclastic flow discharge into the sea: examples from the 1883 eruption of Krakatau, Indonesia. In: F.W. McCoy et al. (eds.) Volcanic hazards and disasters in human Antiquity, Geological Society of America (GSA), Special Paper 345, p. 1-14.

Carn, S.A. (1999)- Application of synthetic aperture radar (SAR) imagery to volcano mapping in the humid tropics; a case study in East Java, Indonesia. Bulletin of Volcanology 61, p. 92-105.

Carn, S.A. (2000)- The Lamongan volcanic field, East Java, Indonesia: physical volcanology, historic activity and hazards. J. Volcanology Geothermal Research 95, p. 81-108.
(Lamongan volcanic field in SE Java 61 basaltic cinder or spatter cones, >29 prehistoric maars, and central compound complex comprising three main vents including historically active Lamongan volcano. Persistently active between 1799-1898 and discharged up to 15 lava flows of basaltic to basaltic andesite composition, which is probably more than what was erupted by any other Indonesian volcano in that period)

Carn, S.A. & D.M. Pyle (2001)- Petrology and geochemistry of the Lamongan volcanic field, East Java, Indonesia: primitive Sunda Arc magmas in an extensional tectonic setting? Journal of Petrology 42, 9, p. 1643-1683.
(online at: https://academic.oup.com/petrology/article/42/9/1643/1408931)
(Lavas of Lamongan volcano (E Java) include medium-K basalts and basaltic andesites, along with high-K suite. Least evolved lavas lowest SiO2 contents (43 wt % SiO2) in Sunda arc volcanics. Extensional tectonics, possibly related to arc segmentation created conditions promoting rapid ascent of parental magmas, probably responsible for this and other features of complex)

Caron, M.H. (1916)- Het zwavelvoorkomen van de Kawah Idjen. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 3 (Molengraaff 25-year jubilee issue), p. 57-63.
(online at: https://ia601908.us.archive.org/30/items/verhandelingenva3191geol/verhandelingenva3191geol.pdf)
('The sulfur occurrence of Kawah Idjen'. Several 5-8m thick horizontal beds with up to 60% sulfur in the east part of crater wall of Idjen volcano, E Java, are deep crater lake deposits. Sulfur beds separated by volcanic agglomerates and tuffs. Additional sulfur around active solfatara)

Carr, B.B., A.B. Clarke & L. Vanderkluysen (2016)- The 2006 lava dome eruption of Merapi Volcano (Indonesia): detailed analysis using MODIS TIR. J. Volcanology Geothermal Research 311, 1, p. 60-71.

Carr, B.B., A.B. Clarke & M.de Michieli Vitturi (2020)- Volcanic conduit controls on effusive-explosive transitions and the 2010 eruption of Merapi Volcano (Indonesia). J. Volcanology Geothermal Research 392, 15, 106767, p. 1-12.
(online at: https://par.nsf.gov/servlets/purl/10137468)

Cassidy, M., S.K. Ebmeier, C. Helo, S.F.L. Watt, C. Caudron, A. Odell et al. (2019)- Explosive eruptions with little warning: experimental petrology and volcano monitoring observations from the 2014 eruption of Kelud, Indonesia. Geochem. Geophysics Geosystems 20, 8, p. 4218-4247.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2018GC008161)
(At Kelud volcano, E Java, explosive and effusive eruptions at sourced from magma storage system at 2-4 km. Explosive eruptions fed by magma stored under relatively cool (~1000 °C) and water-saturated conditions, effusive eruptions fed by hotter (~1050 °C), water-undersaturated magmas)

Cassidy, N.J., R. Gertisser, L. Nuzzo, S. Charbonnier & K. Preece (2009)- Evaluating block-and-ash flows: a GPR facies approach from Merapi Volcano, Central Java, Indonesia, 2009. Proc. 5th Int. Workshop on Advanced Ground Penetrating Radar, Granada, p 78–82.
(online at: www.researchgate.net/publication/292756710_Evaluating_block-and-ash_flows_a_GPR_facies_approach_from_Merapi_Volcano_Central_Java_Indonesia_2009)

Caudron, C., D.K. Syahbana, T. Lecocq, V. Van Hinsberg, W. McCausland, A. Triantafyllou, T. Camelbeeck, A. Bernard & Surono (2015)- Kawah Ijen volcanic activity: a review. Bulletin of Volcanology 77, 16, p. 1-39.
(online at: https://link.springer.com/content/pdf/10.1007%2Fs00445-014-0885-8.pdf)
(Historic activity since 1770 of Kawah Ijen (2386 m) easternmost Java, an active composite volcano within the Pleistocene Ijen caldera complex. Caldera 18x15 km in diameter and contains >15 post caldera volcanic cones. Major eruption in 1817)

Chadwick, J.P., V.R. Troll, C. Ginibre, D. Morgan, R. Gertisser, T.E. Waight & J.P. Davidson (2007)- Carbonate assimilation at Merapi Volcano, Java, Indonesia: insights from crystal isotope stratigraphy. Journal of Petrology 48, 9, p. 1793-1812.
(online at: https://academic.oup.com/petrology/article/48/9/1793/1580168)
(Recent Merapi andesite lavas with abundant, complexly zoned, plagioclase phenocrysts. Sr isotopes require source or melt with elevated radiogenic Sr, rich in Ca and lower Mg and Fe. Abundant xenoliths, including metamorphosed volcanoclastic sediment and carbonate country rock. Mineralogy and geochemistry indicate magma-crust interaction at Merapi more significant than previously thought. Sr isotopes in plagioclase compared to Wonosari Lst from Parangtritis)

Chadwick, J.P., V.R. Troll, T.E. Waight, F.M. van Der Zwan & L.M. Schwarzkopf (2013)- Petrology and geochemistry of igneous inclusions in recent Merapi deposits: a window into the sub-volcanic plumbing system. Contributions to Mineralogy and Petrology 165, 2, p. 259-282.
(Common igneous inclusions in basaltic-andesite lavas of Merapi, C Java, suggesting complex sub-volcanic magmatic system. Four main types: (1) highly crystalline basaltic-andesite inclusions, (2) co-magmatic enclaves, (3) plutonic crystalline inclusions and (4) amphibole megacrysts)

Charbonnier, S.J. & R. Gertisser (2008)- Field observations and surface characteristics of pristine block-and-ash flow deposits from the 2006 eruption of Merapi Volcano, Java, Indonesia. J. Volcanology Geothermal Research 177, 4, p. 971-982.
(Observations of internal archtecture of 2006 block-and-ash flow at S flank of Merapi volcano, C. Java)

Charbonnier, S.J. & R. Gertisser (2011)- Deposit architecture and dynamics of the 2006 block-and-ash flows of Merapi Volcano, Java, Indonesia. Sedimentology 58, 6, p. 1573-1612.
(Internal archtecture of rel. small 2006 block-and-ash flows at S flank of Merapi volcano, C. Java, generated by gravitational lava-dome collapses over period of two months. Variations in distribution, surface morphology and lithology related to source materials involved during individual events and to effects of changing slope, channel morphology and local topographic features on flow dynamics)

Claproth, R. (1988)- Petrography and geochemistry of volcanic rocks from Ungaran, Central Java, Indonesia. Ph.D. Thesis, University of Wollongong, p. 1-500.
(online at: http://ro.uow.edu.au/theses/1398/)
(Ungaran volcano, C Java, forms part of second of three cycles of volcanism recognized on Java and was active between Late Pliocene- Late Pleistocene. Three stages of growth, interrupted episodes of cone collapse. Lavas are basalts, basaltic andesites and andesites. Most basalts are shoshonites, andesites are high-K calcalkaline. Shoshonitic rocks dominated early stages of activity. Low Mg-numbers indicate basalts crystallized from derivative melts, and do not represent mantle-derived magma)

Claproth, R. (1989)- Magmatic affinities of volcanic rocks from Ungaran, Central Java. Geologi Indonesia (IAGI) 12, 1 (Prof. Dr. J.A. Katili 60 years Special Volume), p. 511-562.
(Lengthy paper on Late Pliocene- Late Pleistocene volcanic rocks of Ungaran volcano, C. Java. Early stages of Ungaran mainly shoshonitic rocks, later stages mostly high-K calk-alkaline andesites)

Cool, H. (1908)- Eenige mededelingen en beschouwingen naar aanleiding van een onderzoek aan den kraterwand van den Kloet in Mei 1907. Jaarboek Mijnwezen Nederlandsch Oost-Indie 36 (1907), p. 185-233.
('Some notes and observations from an investigation of the crater wall of the Kelud in May 1907'. Rel. detailed early decription of Kelud volcano in E Java. With maps, many photos)

Cool, H. (1910)- Krakatau in 1908. Jaarboek Mijnwezen Nederlandsch Oost-Indie 37 (1908), p. 183-195.
(Well-illustrated description of Krakatau volcano in Sunda Strait in May-August, 1908)

Cool, H. (1910)- Verslag omtrent een onderzoek aan den Semeroe in verband met de ramp van Loemadjang. Jaarboek Mijnwezen Nederlandsch Oost-Indie, 38 (1909), p. 297-331.

(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB18A:019506000:00045)
('Report of an investigation of the Semeru in connection with the disaster of Loeumadjang'. Lumajang town and area, 30km E of summit of Semeru, damaged by 'banjirs' and mudflows derived from Semeru volcano on 29-30 August 1909 and killed >200 people)

Cool, W. (1931)- Het Merapi-gebeuren in Midden-Java, bij de jaarwisseling 1930/31. De Ingenieur 46, 37, A, p. 342-357.
(online at: https://resolver.kb.nl/resolve?urn=dts:2958038:mpeg21:pdf)
('The Merapi events around New Year 1930/31'. Comprehensive, well illustrated report on the disastrous Merapi eruption(s) of December 1930, culminating in the major lahar/pyroclastic flows of December 18/19, which claimed numerous casualties, including mantri Bardi Kartodihardjo of the Vulcanological Survey (by eyewitness Wouter Cool, brother of Dienst van den Mijnbouw mining engineer Hugo Cool, who died during a Mijnwezen journey in Makassar in March 1910 at young age age 30). Partly based on observations of Ir. J.B. Grandjean and. Neumann van Padang)

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(2010 eruption of Merapi much larger and more explosive than most dome-forming eruptions of past century)

Cronin, S. J., G. Lube, D.S. Dayudi, Sri Sumarti, S. Subrandiyo & Surono (2013)- Insights into the October-November 2010 Gunung Merapi eruption (Central Java, Indonesia) from the stratigraphy, volume and characteristics of its pyroclastic deposits. J. Volcanology Geothermal Research 261, p. 244-259. *(online at: https://www.researchgate.net/publication/236974518_Insights_into_the_October-November_2010_Gu Etc.)*
(Merapi eruption of 2010 was second most deadly in historic record ofMerapi, claiming over 380 lives. Valley controlled block-and-ash flows spread farther than before (16 km in Kali Gendol) and widespread, energetic pyroclastic surges, destruction of dense forest on the upper southern slopes of the volcano, etc.)

Cutler, K.S., S.F. Watt, M. Cassidy, A.L. Madden-Nadeau, S. L. Engwell, M. Abdurrachman et al. (2022)- Downward-propagating eruption following vent unloading implies no direct magmatic trigger for the 2018 lateral collapse of Anak Krakatau. Earth Planetary Science Letters 578, 117332, p. 1-15.
(Characteristics of post-collapse tephra deposits imply downward propagating destabilisation of magma storage system as response to collapse, rather than pre-collapse magma ascent triggering failure)

Dahren, B., V.R. Troll, U.B. Andersson, J.P. Chadwick, M.F. Gardner, K. Jaxybulatov & I. Koulakov (2012)- Magma plumbing beneath Anak Krakatau volcano, Indonesia: evidence for multiple magma storage regions. Contributions to Mineralogy and Petrology 163, 4, p. 631-651.
(Petrological studies identified shallow magma storage 2-8 km beneath Krakatau, while seismic evidence pointed towards deeper crustal storage zones at 9 and 22 km. Clinopyroxene in Anak Krakatau lavas crystallized at of 7-12 km depth, plagioclase at shallow crustal (3-7 km) and sub-Moho (23–28 km) levels. New seismic tomography shows separate upper crustal (<7 km) and lower-mid-crustal magma storage regions)

Dalimin, R. (1988)- Some aspects of nature and origin of widespread pyroclastic flow deposits surrounding Tangkuban Perahu, Bandung, West Java. M.Sc. Thesis, Wellington University, New Zealand, p. 1-58.

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(online at: https://theses.hal.science/tel-00931862v1/file/de-belizal_edouard--these.pdf
('The lahar corridors of the Merapi volcano (Java, Indonesia): spaces between risk and resource. Contribution to the risk geography at Merapi')

Decker, R.W. (1959)- Renewed activity of Anak Krakatau. Contributions Institut Teknologi Bandung (ITB), Bagian Geologi, 34, p. 1-5.

Decker, R.W. & D. Hadikusumo (1961)- Results of the 1960 expedition to Krakatau. J. of Geophysical Research 66, 10, p. 3497-3511.
(Twelve-men ITB expedition to Anak Krakatau on January 12-13, 1960, witnessing explosive eruptions of pyroclastics with ejecta ranging from fine ash to blocks 2m in diameter, at 0.5 to 10-minute intervals. Twenty small, turbulent, explosion clouds of gas and ash rising 150-300 meters alternated with 4-6 larger eruptions of gas, ash, and lapilli clouds turbulently rising to 1200m, with larger blocks landing up to 600m from vent. Seismic records indicate eruptions begin at ~200m below sea level. Present composition of ejecta still basaltic)

Deegan, F.M., V.R. Troll, C. Freda, V. Misiti, J.P. Chadwick et al. (2010)- Magma- carbonate interaction processes and associated CO_2 release at Merapi Volcano, Indonesia: insights from experimental petrology. Journal of Petrology 51, 5, p. 1027-1051.
(online at: http://petrology.oxfordjournals.org/content/51/5/1027.full.pdf)
(Evidence for late-stage interaction between magmatic system and local limestone at Merapi volcano, C Java: calc-silicate xenoliths within Merapi basalts-andesites and feldspar phenocrysts frequently with crustally contaminated cores and zones)

Deegan, F.M., V.R. Troll, C. Freda, V. Misiti & J.P. Chadwick (2011)- Fast and furious: crustal CO_2 release at Merapi volcano, Indonesia. Geology Today 27, 2, p. 63-64. *(online at: www.academia.edu/124637380/Fast_and_furious_crustal_CO_2_release_at_Merapi_volcano_Indonesia)*
Experiments show that when Merapi magma interacts with limestone-rich crustal rock, CO2 bubbles form rapidly, which then rapidly expand and markedly increase explosivity of magma)

Deegan, F.M., V.R. Troll, R. Gertisser & C. Freda (2023)- Magma-carbonate interaction at Merapi Volcano, Indonesia. In: R. Gertisser at al. (eds.) Merapi volcano- geology, eruptive activity, and monitoring of a high-risk volcano. Springer Nature, Berlin, Chapter 10, p. 291-321.
(Merapi volcano, Java, built on crustal succession that includes thick carbonate sequences. Calcsilicate (skarn) xenoliths are frequently found in Merapi's erupted products. Xenoliths subdivided into two main groups: (1) magmatic skarns formed within the magma system and(2) exoskarns formed of metamorphosed wall-rocks. Carbonate assimilation in Merapi-type magma can rapidly produce a voluminous C–O–H gas phase)

Deegan, F.M., M.J. Whitehouse, V.R. Troll, H. Geiger, H. Jeon, P. le Roux, C. Harris, M. van Helden & O. Gonzalez-Maurel (2021)- Sunda arc mantle source δ18O value revealed by intracrystal isotope analysis. Nature Communications 12, 3930, p. 1-10.
(online at: www.nature.com/articles/s41467-021-24143-3.pdf)
(Magma plumbing systems under subduction zone volcanoes extend from mantle through overlying crust, facilitating assimilation and mixing, which obscures mantle source compositions. δ18O values in clinopyroxene from Merapi, Kelut, Batur, and Agung volcanoes (under which crustal thickness decreases from ca. 30 km at Merapi to ≤20 km at Agung) decrease with crustal thickness. Lavas from Agung with mantle-like He-SrNd-Pb isotope ratios and clinopyroxene δ18O indistinguishable from Mid Ocean Ridge Basalt)

De Hoog, J.C.M, P.R.D. Mason & M.J van Bergen (2001)- Sulfur and chalcophile elements in subduction zones: constraints from a laser ablation ICP-MS study of melt inclusions from Galunggung Volcano, Indonesia. Geochimica Cosmochimica Acta 65, p. 3147-3164.
(Mafic melt inclusions in olivine phenocrysts in high-Mg basalts of Galunggung volcano (Java). Sulfur in mantle beneath Galunggung significantly enriched relative to MORB source mantle, suggesting large-scale fluxing of sulfur into the mantle wedge during slab dehydration. Etc.)

Del Marmol, M.A. (1989)- The petrology and geochemistry of Merapi volcano, Central Java, Indonesia. Ph.D. Thesis, Johns Hopkins University, Baltimore, p. 1-384. *(Unpublished)*

Del Marmol, M.A. & B.D. Marsh (1988)- Merapi volcano, Central Java, Indonesia: petrology and geochemistry. Chemical Geology 70, 1-2, p. 86. *(Abstract only)*
(Merapi stratocone lavas are calc-alkaline hi-Al basalts and andesites ranging in Si02 from 49-56%)

Delmelle, P. & A. Bernard (1994)- Geochemistry, mineralogy, and chemical modeling of the acid crater lake of Kawah Ijen Volcano, Indonesia. Geochimica Cosmochimica Acta 58, 11, p. 2445-2460.

Delmelle, P., A. Bernard, Kusakabe, T. Fischer & B. Takano (2000)- Geochemistry of the magmatic-hydrothermal system of Kawah Ijen volcano, East Java, Indonesia. J. Volcanology Geothermal Research 97, p. 31-53.
(online at: https://www.academia.edu/12007408/Geochemistry_of_the_magmatic_hydrothermal_system_of_Kawah_Ijen_volcano_East_Java_Indonesia)
(Chemical and isotopic analyses of samples from Kawah Ijen crater lake and spring)

Dempsey, S.R. (2013)- Geochemistry of volcanic rocks from the Sunda Arc. Ph.D. Thesis Durham University, p. 1-279.
(online at: http://etheses.dur.ac.uk/6948/1/ScottDempsey_Thesis.pdf)
(Geochemistry and isotopic (Sr-Nd-Hf-Pb) examination of volcanoes from W Java (Papandayan, Patuha, Galunggung), C Java (Sumbing), E Java (Kelut) and Bali (Agung). Contamination in arc crust more extensive than previously recognised, particularly in W and C Java. Papandayan and Patuha significant enrichments in isotope ratios above mantle values, indicating terrigeneous crustal contamination. Magma compositions of Sumbing similar to Merapi and Merbabu, with strong evidence for assimilation of carbonate-rich lithologies)

De Neve, G.A. (1946)- The Semeroe volcano. Geologie en Mijnbouw 8, 7, p. 55.
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(Brief note reporting on May 1946 and later activity of Semeru volcano, after tranquil period since 1941)

De Neve, G.A. (1953)- Krakatau and Anak Krakatau with a communication on the latest investigation in Oct. 1953: Proc. 8th Pacific Science Congress, Philippines, 2, p. 178-179.

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(online at: https://www.iagi.or.id/web/digital/34/PIT-IAGI-1981-Vol-1-Paper-2.pdf)
(On historic eruption cycles and petrographic changes of Krakatau and Anak Krakatau volcano. Magmas typically progress from normal dioritic phase to quartz-diorite and finally to plagioclase granite composition which created optimum conditions for a new cataclysmic outburst. With series of detailed maps of Anak Krakatau from 1928-1981)

De Neve, G.A. (1981)- Historical notes on Krakatau's eruption of 1883, and activities in previous times. National Institute of Oceanology (LON-LIPI), Publ. No. LON/COAST/III-14, Jakarta, p. 1-45.

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De Neve, G.A. (1992)- Krakatau Bibliography: a comprehensive bibliography of Krakatau volcano in the Sunda Straits and its adjacent regions (Indonesia). Volcanological Survey of Indonesia, Bandung, p. 1-645.
(Very extensive bibliography of Krakatau volcano and geology of adjacent regions)

Deplus, C., S. Bonvalot, D. Dahrin, M. Diament, H. Harjono & J. Dubois (1995)- Inner structure of the Krakatau volcanic complex (Indonesia) from gravity and bathymetry data. J. Volcanology Geothermal Research 64, p. 23-52.
(online at: https://core.ac.uk/download/pdf/39854604.pdf)
(Study of inner structure of Krakatau volcano, Sunda straits, from bathymetry and gravity surveys. Krakatau characterized by flat sea bottom at -240 m and steep linear walls, suggesting caldera collapse controlled by pre-existing features. Build-up of Anak Krakatau on edge of caldera could lead to mechanically unstable conditions. 3-D gravity modelling reveals previously unknown geometry of dense substratum of proto-Krakatau and shows presence of collapsed structure beneath caldera filled with low-density material. Etc.)

Dirk, M.H.J. (2007)- Petrologi dan geokimia batuan gunung api di Gunung Mandalawangi dan sekitarnya. Jurnal Sumber Daya Geologi (JSDG) 17, Special Issue (163), p. 11-22.
('Petrology and geochemistry of volcanic rocks of Gunung Mandalawangi and surroundings'. Quaternary volcanics of Mandalawangi volcano ESE of Bandung, W Java, basaltic andesite, andesite, dacite and high-K rhyolite of calk-alkaline affinity, as typically formed in island arc environment)

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('Petrology of volcanic rocks of Kareumbi and surroundings, Sumedang, West Java'. Quaternary volcanics of Kareumi, E of Bandung, mainly basaltic andesite, andesite and dacite of calc-alkaline affinity)

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(online at: https://www.academia.edu/26431481/Evidence_from_Muriah_Indonesia_for_the_Interplay_of_Supra_Subduction_Zone_and_Intraplate_Processes_in_the_Genesis_of_Potassic_Alkaline_Magmas)
(High-K alkaline Muriah volcano in C Java has younger high-potassic series (HK) and older potassic series (K). Proposed model for Muriah lavas three source components: (1) asthenosphere of mantle wedge of Sunda arc, which has Indian Ocean MORB characteristics; (2) metasomatic layer at base of lithosphere, which has enriched mantle characteristics; (3) subducted pelagic sediments. Calc-alkaline magma contaminated by arc crust before mixing. Magmas show transition from intraplate to subduction zone processes in genesis)

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(Ringgit-Beser volcanic complex lavas of normal island arc calc-alkaline type and atypical potassic lavas, including high-Mg lavas. Incompatible trace element and Pb isotope data for calc-alkaline lavas indicate similar source to other calc-alkaline lavas in Java (Indian Ocean MORB mantle fluxed by fluids from subducted slab). Potassic lavas from enriched mantle sources within wedge not affected by recent subduction processes)

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(online at: https://academic.oup.com/petrology/article/57/3/535/1752840)
(Experiments on Merapi volcano basaltic andesites suggests pre-eruptive reservoir partially crystallizes at ~100-200 MPa (4.5- 9 km). Magmas are stored at ~925-950°C with melt H2O content of ~3-4 wt %. Pre-eruptive recharge magmas T 950-1000°C, and higher melt H2O content of ~4-5 wt %)

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('The Kelud volcano, considered from a geomorphological view'. Kelud volcano characterized by crater lake and rel. voluminous lahars during eruptions, probably for 1000s of years. This is probably reason why Kelud slopes less steep than other volcanoes. Not clear why Kelud crater walls appear to be less permeable than most other volcanoes in Indonesia. Escher was probably the first to propose drilling of tunnel to drain crater lake. No figures)

Escher, B.G. (1919)- Excursie-gids voor Krakatau. Fieldtrip guide for Eerste Nederlandsch-Indisch Natuurwetenschappelijk Congres, Batavia, October 1919, p. 1-7.
(Brief fieldtrip guidebook with same figures as Escher (1920))

Escher, B.G. (1920)- De Krakatau groep als vulkaan. Handelingen Eerste Nederlandsch-Indisch Natuurwetenschappelijk Congres, Batavia, October 1919, p. 28-35.
(Brief presentation summary of review on Krakatau volcano. No figures)

Escher, B.G. (1920)- Veranderingen in de Krakatau groep na 1908. Wijzigingen in de opvattingen van eenige geologische details en losse aanteekeningen. Handelingen Eerste Nederlandsch-Indisch Natuurwetenschappelijk Congres, Batavia, October 1919, p. 198-219.
(read online at: https://bosscha.itb.ac.id/id/tentang/koleksi-digital/?mivast=50015&miadt=50000&miaet Etc.)
('Changes in the Krakatau group after 1908: modifications of the views on some geologic details and miscellaneous notes'. Observations during a one-week survey of the remnants of Krakatau volcano in July 1919. With geologic map of the steep remnant cliff of Rakata at the caldera rim)

Escher, B.G. (1925)- L'eboulement prehistorique de Tasikmalaja et le volcan Galounggoung (Java). Leidsche Geologische Mededelingen 1, p. 8-21.
(online at: www.repository.naturalis.nl/document/549247)
('The prehistoric collapse at Tasikmalaya and the Galunggung volcano'. The area of ten thousand hills of Tasikmalaya is in front of large SE missing sector of Galunggung volcano, and probably formed as gravity collapse of volcano flank)

Escher, B.G. (1927)- Vesuvius, the Tengger Mountains and the problem of calderas. Leidsche Geologische Mededelingen 2, p. 51-88.
(online at: www.repository.naturalis.nl/document/549675)
(Includes discussion of Bromo Caldera, Tengger Mountains of East Java)

Escher, B.G. (1928)- Krakatau in 1883 en in 1928. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 45, 4, p. 715-743.
(online at: https://www.delpher.nl/nl/tijdschriften/ Etc.)
(On details and mechanism of Krakatoa eruptions of 1883 and 1928)

Escher, B.G. (1931)- Over het vulkanisme van Java in verband met de uitbarsting van den Merapi. De Ingenieur 46, 37, A, p. 357-373.
(online at: https://resolver.kb.nl/resolve?urn=dts:2958038:mpeg21:pdf)
('About the volcanism on Java, in relation with the eruption of the Merapi'. General discussion about processes that cause volcanism, magma types, eruption types, etc. Merapi characterized by formation of lava domes, followed by lava avalanches with pyroclastic flows after dome collapses)

Escher, B.G. (1933)- On the character of the Merapi eruption in Central Java. Leidsche Geologische Mededelingen 6, p. 51-58.
(online at: https://repository.naturalis.nl/document/549807)
(Mainly discussion of two paintings of 1865 Merapi eruption by Raden Saleh in 1865, acquired by the National Geological and Mineralogical Museum in Leiden in 1931)

Faber, F.J. (1964)- Modderkogels, mergelconcreties of askogels van Krakatau. Geologie en Mijnbouw 43, 11, p. 467-475.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0TFBuVUhtcWk2d2c/view)
('Mud bullets, marl concretions or ash bullets from Krakatoa'. Example of spherical mud balls or 'ash-balls' up to 7 cm in diameter. Origin somewhat unclear. Some shapes reminescent of billitonite/australite tektites)

Fennema, R. (1886)- De vulkanen Semeroe en Lamongan. Jaarboek Mijnwezen Nederlandsch Oost-Indie 15 (1886), Wetenschappelijk Gedeelte, p. 5-130.
('The volcanoes Semeru and Lamongan', East Java. Rel. detailed early descriptions of Semeru (Mahameru; incl. Tengger caldera) and Lamongan volcanoes in East Java, and their eruptive histories. Current survey triggered by April 1885 eruption of Semeru, the lahars of which killed 70 people and destroyed coffee estate with ash and rocks))

Fennema, R. (1895)- De uitbarsting van den vulkaan 'Galoenggoeng' op 18 en 19 October 1894. Jaarboek Mijnwezen Nederlandsch Oost-Indie 24 (1895), p. 58-84.
('The eruption of the volcano 'Galunggung' on 18 and 19 October'. West Java active volcano)

Fennema, R. (1912)- De uitbarsting van den Tangkoeban Prahoe in Mei 1896. Jaarboek Mijnwezen Nederlandsch Oost-Indie 39 (1910), p. 74-79.
('The eruption of the Tangkuban Perahu in May 1896')

Fermin, P.G.H.A. (1951)- Beknopt verslag van een voorlopig geologisch onderzoek in 1942, op de hellingen van de Gunung Muriah, naar het voorkomen van leuciet-houdende gesteenten. De Ingenieur in Indonesie, IV, 3, 5, p. 23-30.

('Brief report on a preliminary investigation in July-August 1942 on leucite-bearing rocks on the slopes of Gunung Muriah'. Investigation into potassium-rich volcanics of the large, extinct Muriah double volcano in NE Java. By interned Geological Survey-Bandung personnel, including G. ter Bruggen (with assistant geologist A.F. Lasoet (Lasut), L. Boomgaart (with Suno Sumosusastro) and P. Fermin (with Slamet), under Japanese supervision. Average K2O content 4.35%)

Fiantis, D., F.I. Ginting, Seprianto, F. Halfero, A.P. Saputra, M. Nelson, E. van Ranst & B. Minasny (2021)- Geochemical and mineralogical composition of the 2018 volcanic deposits of Mt. Anak Krakatau. Geoderma Regional 25, e00393, p. 1-9.
(Volcanic ash and lapilli from 22 December 2018 Anak Krakatau eruption of basalt to basaltic-andesite composition)

Francis, P.W. (1985)- The origin of the 1883 Krakatau tsunamis. J. Volcanology Geothermal Research 25, 3-4, p. 349-363.
(Three hypotheses proposed to explain causes of 1883 Krakatau tsunami: (1) collapse of N part of Krakatau island (Verbeek, 1884); (2) submarine explosion (Yokoyama, 1981), and (3) emplacement of pyroclastic flows (Latter, 1981). Most likely mechanism Mt. St. Helens-like scenario, close to hypothesis of Verbeek, in which collapse of part of original volcanic edifice propagated major explosion)

Franssen Herderschee, A. (1909)- De opneming van de Krakatau-groep in Mei 1908. Jaarverslag Topographische Dienst Nederlandsch-Indie 1908, Batavia, p. 1-57.
('Topographic survey of the Krakatau group in May 1908'. Report on a brief survey of the remnants of Krakatau volcano. With contributions on depth soundings by W. van Bemmelen (observed rel. flat crater floor at 250-280m water depth), geology by Ir. Hugo Cool (nothing new) and flora and fauna by C. Backer and E.R. Jacobson. With photos by J. Demmeni)

Fukashi, M. & F. Imamura (2011)- Tsunami generation by a rapid entrance of pyroclastic flow into the sea during the 1883 Krakatau eruption, Indonesia. J. of Geophysical Research: Solid Earth 116, 9, B09205, p. 1-24.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2011JB008253)

Furneaux, R. (1964)- Krakatoa. Prentice-Hall, Englewood Cliffs, N.J., p. 1-224.

Gardner, M.F., V.R. Troll, J.A. Gamble, R. Gertisser, G.L. Hart, R.M. Ellam, C. Harris & J.A. Wolff (2012)- Crustal differentiation processes at Krakatau Volcano, Indonesia. Journal of Petrology 54, 1, p. 149-182.
(online at: http://petrology.oxfordjournals.org/content/early/2012/10/31/petrology.egs066.full.pdf+html)
(Anak Krakatau is basaltic andesite cone that has grown following caldera-forming 1883 eruption of Krakatau. Since 1950s has been growing at rate of ~8 cm/ week. Anak Krakatau magmas have genetic relationship with 1883 eruption products. With granitic- dioritic and metasedimentary (with cordierite) xenoliths. Low levels of assimilation of quartzo-feldspathic sediment recorded)

Genareau, K., S.J. Cronin & G. Lube (2015)- Effects of volatile behaviour on dome collapse and resultant pyroclastic surge dynamics: Gunung Merapi 2010 eruption. Geological Society, London, Special Publ. 410, p. 199-218.

Gerbe, M.C., A. Gourgaud, O. Sigmarsson, R. Harmon, J.L. Joron & A. Provost (1992)- Mineralogical and geochemical evolution of the 1982-1983 Galunggung eruption (Indonesia). Bulletin of Volcanology 54, 4, p. 284-298.
(online at: www.researchgate.net/publication/227068263_Mineralogical_and_geochemical_evolution_of_the_1982-1983_Galunggung_eruption_Indonesia)
(Pyroclastic deposition of 1982-1983 eruption of Galunggung, W Java, lasted 9 months, with diversity of eruptive style, and progressive evolution from andesite (58 wt.% SiO2) to high-Mg basalt (47 wt.% SiO2). Galunggung basalts most primitive basalts known from W Java, with phenocrysts of olivine, diopside, etc.)

Gertisser, R. (2001)- Gunung Merapi (Java, Indonesien): Eruptionsgeschichte und magmatische Evolution eines Hochrisiko-Vulkans. Doktoral Dissertation, Albert-Ludwigs University, Freiburg in Breslau, p. 1-382.
(online at: https://core.ac.uk/download/pdf/43759112.pdf)
('Gunung Merapi (Java, Indonesia): eruption history and magmatic evolution of a high-risk volcano'))

Gertisser, R. N.J. Cassidy, S.J. Charbonnier, L. Nuzzo & K. Preece (2012)- Overbank block-and-ash flow deposits and the impact of valley-derived, unconfined flows on populated areas at Merapi volcano, Java, Indonesia. Natural Hazards 60, p. 623-648.
(online at: www.academia.edu/23620238/Overbank_block-and-ash_flow_deposits_and_the_impact_of_valley-derived_unconfined_flows_on_populated_areas_at_Merapi_volcano_Java_Indonesia)
(Pyroclastic block-and-ash flows are capable of transporting significant numbers of large blocks (>1-2 m) out of the valley confines)

Gertisser, R., S.J. Charbonnier, V.R. Troll, J. Keller, K. Preece, J.P. Chadwick, J. Barclay & R.A. Herd (2011)- Merapi (Java, Indonesia): anatomy of a killer volcano. Geology Today 27, 2, p. 57-62.
(Merapi is Indonesia's most dangerous volcano. Over past two centuries volcanic activity dominated by prolonged periods of basaltic andesite lava dome growth and intermittent dome failures to produce pyroclastic flows every few years. Explosive eruptions, such as in 2010, more common in pre-historic time. Calc-silicate xenoliths brought up by Merapi magmas indicate assimilation of carbonate rocks from sub-volcanic basement)

Gertisser, R., S.J. Charbonnier, J. Keller & X. Quidelleur (2012)- The geological evolution of Merapi volcano, Central Java, Indonesia. Bulletin of Volcanology 74, 5, p. 1213-1233. *(online at: www.academia.edu/23458168/The_geological_evolution_of_Merapi_volcano_Central_Java_Indonesia)*
(Eight main volcano stratigraphic units distinguished in Merapi volcano of C Java, linked to three main evolutionary stages:Proto-Merapi, Old Merapi and New Merapi. Construction of Merapi complex began after 170 ka. Proto-Merapi volcanic edifices Gunung Bibi (109±60 ka) in NE and Gunung Turgo and Gunung Plawangan (~138, 135 ka) in S. Old Merapi started to grow at ~30 ka as stratovolcano of basaltic andesite lavas and pyroclastic rocks and was destroyed by flank failure after 4.8±1.5 ka. Shift from medium-K to high-K character of volcanics at ~1900 years BP)

Gertisser, R., M.A. del Marmol, C. Newhall, K. Preece, S. Charbonnier, S. Andreastuti et al. (2023)- Geological history, chronology and magmatic evolution of Merapi. In: R. Gertisser at al. (eds.) Merapi volcano- geology, eruptive activity, and monitoring of a high-risk volcano. Springer Nature, Berlin, Chapter 6, p. 137-193.
(online at: https://ris.utwente.nl/ws/portalfiles/portal/311755333/978_3_031_15040_1_6.pdf)
(Synthesis of geological history and magmatic evolution of Merapi. Three main evolutionary stages and associated volcanic edifices (Proto-, Old and New Merapi), and eight main volcano-stratigraphic units)

Gertisser, R. & J. Keller (2003)- Temporal variations in magma composition at Merapi Volcano (Central Java, Indonesia): magmatic cycles during the past 2000 years of explosive activity. J. Volcanology Geothermal Research 123, p. 1-23.
(Merapi Volcano in C Java frequently active in M-Late Holocene, producing basalts and basaltic andesites of medium-K composition in earlier stages of activity and high-K magmas from ~1900 BP to present. Periods of high eruption rates alternate with shorter time spans of reduced eruptive frequency since first appearance of high-K volcanic rocks. Cyclic variations result from interplay of several magmatic processes)

Gertisser, R. & J. Keller (2003)- Trace element and Sr, Nd, Pb and O isotope variations in medium-K and high-K volcanic rocks from Merapi volcano, Central Java, Indonesia: evidence for the involvement of subducted sediments in Sunda Arc magma genesis. Journal of Petrology 44, 3, p. 457-489.
(online at: http://petrology.oxfordjournals.org/content/44/3/457.full.pdf+html)
(Merapi Holocene basalts-andesites medium-K affinity, high-K over past 1900 yrs, largely reflecting variable contributions from subducted sediment to mantle wedge which was similar to MORB-source mantle before subduction-related modification)

Gertisser, R., V.R. Troll & I.G.M.A. Nandaka (2023)- The scientific discovery of Merapi: from Ancient Javanese sources to the 21st century. In: R. Gertisser at al. (eds.) Merapi volcano- geology, eruptive activity, and monitoring of a high-risk volcano. Springer Nature, Berlin, p. 1-44.
(Extensive review of scientific discoveries on Merapi volcano in C Java, from records of ancient Javanese kingdoms until today)

Gertisser, R., V.R. Troll, T.R. Walter, I.G.M.A. Nandaka & A. Ratdomopurbo (eds.) (2023)- Merapi volcano- geology, eruptive activity, and monitoring of a high-risk volcano. Springer Nature, Berlin, p. 1-572.
(Collection of 18 review papers on Merapi volcano, C Java)

Giachetti, T., R. Paris, K. Kelfoun & B. Ontowirjo (2012)- Tsunami hazard related to a flank collapse of Anak Krakatau Volcano, Sunda Strait, Indonesia. In: J.P. Terry & J. Goff (eds.) Natural hazards in the Asia-Pacific region, Geological Society, London, Special Publ. 361, p. 79-90.
(Anak Krakatau volcano built on steep NE wall of 1883 Krakatau eruption caldera, and active on SW side, which makes edifice unstable. Hypothetical 0.280 km^3 flank collapse directed SW-wards would trigger initial wave 43m in height that would reach islands of Sertung, Panjang and Rakata in <1 min, with amplitudes from 15-30m. Waves would propagate across Sunda Strait, at 80-110/ hour. Tsunami would reach cities on Java W coast (Merak, Anyer, Carita) 35-45 min after onset of collapse, with amplitude from 1.5-3.4m)

Glicken, H., P. Asmoro, H. Lubis, D. Frank & T. Casadevall (1986)- The 1772 debris avalanche eruption of Papandayan Volcano, Indonesia, and hazard from future similar events. U.S. Geological Survey, Open File Report, p. 1-20. *(unpublished)*

Godang, S., S.P. Saputro & Huan Li (2024)- The slab failure in Central Java (Indonesia): New insight into its tectonic setting and origin. Solid Earth Sciences 9, 3, 100199, p. 1-15.
(online at: https://www.sciencedirect.com/science/article/pii/S2451912X24000370)
(Geochemistry of volcanic rocks of Sumbing-Slamet volcanoes, C Java, suggest involvement of subducted sediment input. Distinct geochemical signatures and magmatic interactions (supposedly) indicate link to slab tearing beneath C Java (as suggested by seismic tomography))

Gomez, C., M.A. Setiawan, N. Listyaningrum, S.B. Wibowo, D.S. Hadmoko, W. Suryanto, H. Darmawan et al. (2022)- LiDAR and UAV SfM-MVS of Merapi volcanic dome and crater rim change from 2012 to 2014. Remote Sensing (MDPI), 14, 5193. p. 1-10.
(online at: https://www.mdpi.com/2072-4292/14/20/5193/pdf?version=1666005978)
(Lidar and UAV datasets in 2012-2014 . Crater walls generally stable at 100–120 m above crater floor at N to ESE sector, and 40-80m in W and N. Opening of new vent on surface of lava dome displaced ~2 × 104 m3, corresponding to maximum −9 m vertically. Exploded material partly fallen within crater. Etc.)

Goode, L.R., H.K. Handley, S.J. Cronin & M Abdurrachman (2019)- Insights into eruption dynamics from the 2014 pyroclastic deposits of Kelut volcano, Java, Indonesia, and implications for future hazards. J. Volcanology Geothermal Research 382, p. 6-23.
(online at: https://www.sciencedirect.com/science/article/pii/S0377027318300623)
(Detailed review of pyroclastic deposits of 13 February 2014 explosive eruption of Kelut volcano, E Java)

Gourgaud, A., J.C. Thouret & J.L. Bourdier (2000)- Stratigraphy and textural characteristics of the 1982-1983 tephra of Galunggung volcano (Indonesia): implications for volcanic hazards. J. Volcanology Geothermal Research 104, p. 169-186.
(online at: https://hal-insu.archives-ouvertes.fr/hal-00093118/document)
(Galunggung volcano in W Java 9-month-long eruption in 1982-83 with phreatomagmatic phase with ash columns 20 km high. Magma composition evolved from andesite to primitive magnesian basalt, with progressive increase of ratio of xenoliths versus juvenile magma before increase of explosivity)

Grandjean, J.B. (1931)- Bijdrage tot de kennis der gloedwolken van den Merapi van Midden-Java. De Mijningenieur, Bandung, 1931, 12, p. 219-223.

('Contribution to the knowledge of pyroclastic flows of the Merapi of Central Java'. Eyewitnenss of 1931 pyroclastic flows from Merapi suggests not all are products of avalanching hot lava (as suggested by Kemmerling), but some are primary gas-rich eruptions)

Grilli, S.T., C. Zhang, J.T. Kirby, D.R. Tappin, S.F.L. Watt, J.E. Hunt, A. Novellino, S. Engwell et al. (2021)- Modeling of the Dec. 22nd 2018 Anak Krakatau volcano lateral collapse and tsunami based on recent field surveys: comparison with observed tsunami impact. Marine Geology 440, 106566, p. 1-26.
(manuscript online at: https://nora.nerc.ac.uk/id/eprint/531351/1/MARGO_AK_modeling_V9_lowres_drt.pdf)
(Dec. 22, 2018 lateral collapse of Anak Krakatau volcano in Sunda Straits discharged volcaniclastic material into 250m deep caldera SW of volcano and generated large tsunami, causing runups of up to 85m nearby and 13.5m on nearby coasts of Sumatra and Java. Tsunami caused 437 fatalities)

Gulyas, E. & P. Hederveri (1976)- Concentration of seismic energy within the two active domains beneath individual volcanoes and groups of volcanoes of Java, Indonesia. Tectonophysics 30, p. 129-140.
(Two seismically active domains under all individual active volcanoes of Java, separated by aseismic space)

Gunawan, H., C. Caudron, J. Pallister, S. Primulyana, B. Christenson, W. McCausland et al. (2017)- New insights into Kawah Ijen's volcanic system from the wet volcano workshop experiment. In: T. Ohba et al. (eds.) Geochemistry and geophysics of active volcanic lakes, Geological Society, London, Special Publ. 437, p. 35-56.
(online at: www.researchgate.net/publication/295907055_New_insights_into_Kawah_Ijens_volcanic_ Etc.)
(Volcanoes with crater lakes or extensive hydrothermal systems pose significant challenges for monitoring and forecasting eruptions. Lakes and hydrothermal systems serve as reservoirs for magmatic heat and fluid emissions. Experimental campaign/workshop at Kawah Ijen in 2014, designed to answer fundamental questions about how to improve monitoring and eruption forecasting at wet volcanoes)

Gunawan, R.M.P.P., G. Ikhwanushova, A. Harijoko, H.E. Wibowo & A. Setianto (2021)- Re-interpretation of distribution of Lautan Pasir caldera forming eruption products, Bromo-Tengger Caldera Complex, East Java. Proc. Int. Conf. Geological Engineering and Geosciences, Yogyakarta 2021, IOP Conference Series: Earth and Environmental Science 851, 012038, p. 1-8.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/851/1/012038/pdf)
(Distribution of scoria flow deposit related to caldera-forming eruption of Lautan Pasir caldera (youngest caldera in Bromo-Tengger caldera complex). Mainly distributed to NE, some also to S in Sapikerep valley, where two massive pyroclastic flow deposits are separated by lava flow)

Gurusinga, M.A., M. Abdurrachman, T. Ohba, T. Hoshide, W.N. Hamzah & I.A. Kurniawan (2025)- Lithofacies and juvenile clast variations at Ranu Grati Maar, East Java: Insights into eruptive transitions in monogenetic volcanoes. J. Volcanology Geothermal Research 467, 108426, p.
(Reconstruction of eruptive transitions and pre-eruptive magmatic condition of Ranu Grati in East Java, 60km SE of Surabaya and 24 km N of Tengger caldera-Semeru complex. One of largest maar volcanoes on Java.)

Gurusinga, M.A., T. Ohba, A. Harijoko & T. Hoshide (2023)- Characteristics of ash particles from the maar complex of Lamongan Volcanic Field (LVF), East Java, Indonesia: How textural features and magma composition control ash morphology. Volcanica (Strasbourg) 6, 2, p. 415-436.
(online at: https://www.jvolcanica.org/ojs/index.php/volcanica/article/view/213/326)
(Active Lamongan Volcanic Field, 145 km SE of Surabaya and E of Tengger caldera in E Java, surrounded by >30 'maar' calderas. Two distinct types of juvenile ash from maar eruptions: A (black and brown ash, heterogenous basaltic compositions) and B (orange-brown ash; fragmentation of basaltic andesite magma))

Habib, F., M. Abdurrachman & I. Setiawan (2018)- Vulcanostratigraphy and petrogenesis of Sundoro Volcano, Central Java. Proc. Annual Conv. Indonesian Association Geologists (PIT IAGI), Pekanbaru 2018, PIT18-0271, p. 1-7. *(Poster presentation)*, *(online at: https://www.researchgate.net/publication/328941517_VULCANOSTRATIGRAPHY_AND_PETROGEN Etc.)*
(Sundoro volcano with 28 units of lava flows and pyroclastic deposits, from five eruption centers. Similar magmatic series as nearby Sumbing Volcano, but less contaminated)

Hadikusumo, D. (1974)- The rise and drop of Mt. Kelut crater bottom after paroxysmal eruptions. Tectonophysics 23, 4, p. 341-347.
(Changes of Mt Kelut (E Java) crater bottom after last two eruptions: (1) 79m lowering after 1951 eruption; (2) 43m riset after 1966 eruption)

Hadisantono, R.Dalimin (1988)- Some aspects of the nature and origin of the widespread pyroclastic flow deposits (ignimbrite) surrounding Tangkubanparahu, Bandung, West Java. Thesis Diploma of Applied Science in Volcanology, Victoria University of Wellington, New Zealand, p. 1-62.

Hadisantono, R.Dalimin (1990)- The Sukapura and other ignimbrites in the Sapikerep valley and relationship to caldera formation of Bromo-Tengger volcanic complex, Probolinggo, East Java, Indonesia. M.Sc. Thesis Volcanology, Research School of Earth Science, Victoria University of Wellington, New Zealand, p. 1-207.
(online at: https://ir.wgtn.ac.nz/items/727054e7-77d7-4f55-b977-0fe53ecfc0cb)
(Bromo -Tengger caldera complex in E Java, with two calderas (Ngadisari 8x8 km, Sand Sea 6x7 km). Study of Sukapura ignimbrites, associated with caldera formation, and younger pyroclastic deposits and lava flows emplaced in Sapikerep valley. Pre caldera lavas ~265 ka and Sukapura Ignimbrite ~152ka. Other lava flows dated at 135 ka and 144ka. Geochemistry suggestive of island arc setting. Sukapura ignimbrite product of first caldera; pyroclastic flows from younger cone during post caldera period)

Hadisantono, R.D., S. Dirasutisna, A. Djuhara & A. Martono (1993)- Volcanic hazard map of Sundoro volcano, Central Java. Volcanological Survey of Indonesia, Bandung, 1:50,000.

Hammer, J.E., K.V. Cashman & B. Voight (2000)- Magmatic processes revealed by textural and compositional trends in Merapi dome lavas. J. Volcanology Geothermal Research 100, p. 165-192.

Hamzah, W.N., T Ohba, M.A. Gurusinga, M.L.A. Moktikanana, J.N. Indriyanto, T Hoshide, M. Abdurrahman et al. (2025)- Transition from magmatic to phreatomagmatic eruptions in Young Ciremai volcano, Indonesia: insights from stratigraphy, componentry, and textural analysis of tephra. Earth Planets and Space 77, 16, p. 1-25.
(online at: https://link.springer.com/content/pdf/10.1186/s40623-025-02143-7.pdf)
(Young Ciremai volcano, W Java,with phreatic–phreatomagmatic eruptions from 1698 to 1951, but previous eruptions likely exhibited both magmatic and phreatomagmatic fragmentations)

Handini, E., T. Hasenaka, N.D. Barber, T. Shibata & Y. Mori (2022)- Geochemistry of shield stage basalts from Baluran volcano, East Java, Sunda arc. J.Applied Geology (UGM) 7, 2, p. 64-82.
(online at: https://jurnal.ugm.ac.id/jag/article/view/76532/35746)
(Basaltic lava flows from shield stage of Baluran, a Quaternary volcanic center N of Ijen in rear of Sunda Arc in E Java, with abundant plagioclase, clinopyroxene, olivine, and minor magnetite. Resemble other medium-K calc-alkaline basalts from E Java's volcanoes but less enriched in light ion lithophile elements and Pb)

Handini, E., T. Hasenaka, N.D. Barber, T. Shibata, Y. Mori & A. Harijoko (2024)- Systematics of slab-derived components in Central Java, Sunda Arc: evidence for differential material transfer across the Southeast Asian convergent margin. Tectonophysics 873, 230229, p. 1-17.
(Modern volcanoes represent cycling of material and heat along subduction zone. C Java volcanoes in Sunda arc portion of SE Asian convergent system. C Java volcanoes inherit geochemistry from silicate melts that formed due to hydrous melting of subducting slab at depths of ~136-272 km. Across-arc variations for five volcanoes arranged in N-S lineament across C Java show decreasing ratio of sediment/ altered oceanic crust from volcanic front (Merapi volcano) to rear-arc (Muria). Farther from trench, signature of subducting oceanic plate increases, peaking at around ~160-170 km of slab depth)

Handini, E., T. Hasenaka, A. Harijoko & Y. Mori (2017)- Variation of slab component in ancient and modern Merapi products: a detailed look into slab derived fluid fluctuation over the living span of one of the most active volcanoes in Sunda Arc. J. Applied Geology (UGM) 2, 1, p. 1-14.
(online at: https://jurnal.ugm.ac.id/jag/article/view/30253/18263)

(Holocene eruptions of Merapi medium-K calc alkaline before 1900 years ago and high-K after that. Change attributed to increasing subducting sediment input as volcano matures. Ancient Merapi samples higher input of slab derived fluid (1.5 % of sediment derived fluid) than 2006 eruption of Modern Merapi (opposite of suggested trend))

Handini, E., I.W. Warmada, T. Hasenaka, N.D. Barber & T. Shibata (2022)- Geochemistry of arc alkaline magmatism of Java Island, Sunda Arc: a statistical review. Proc. 13th AUN/SEED-Net Regional Conference Geological and Geo-Resource Engineering (RCGEOE), Yogyakarta 2021, IOP Conference Series: Earth and Environmental Science 1071, 012013, p. 1-9.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1071/1/012013/pdf)
(Alkaline magmatism developed in back arc area of Java (Sunda Arc), at different slab depths:~270-580 km in central section and ~150 km in E. Geochemical data from 4 alkaline volcanoes (Muria, Lasem, Bawean, Ringgit-Beser) suggests C Java alkalines highest K_2O and total alkali. Potassium and LILE enrichment independent of slab depth and more affected by arc segmentation in Java subduction zone)

Handley, H. (2006)- Geochemical and Sr-Nd-Hf-O isotopic constraints on volcanic petrogenesis at the Sunda arc, Indonesia. Ph.D. Thesis Durham University, p. 1-289.
(online at: http://etheses.dur.ac.uk/2670/)
(Geochem work on Salak, Gede, Idjen volcanoes shows progressive E-ward increase in Sr isotope ratio of volcanic rocks across W and C Java, broadly correlating with inferred lithospheric thickness (W Java thicker crust and more terrigenous signal of subducted sediment; E Java thin crust/ pelagic sediment). C- E Java transition may represent SE boundary of Sundaland (pre-Tertiary arc basement).

Handley, H.K., J. Blichert-Toft, R. Gertisser, C.G. Macpherson, S.P. Turner, A. Zaennudin & M. Abdurrachman (2014)- Insights from Pb and O isotopes into along-arc variations in subduction inputs and crustal assimilation for volcanic rocks in Java, Sunda arc, Indonesia. Geochimica Cosmochimica Acta 139, p. 205-226.
(online at: www.researchgate.net/publication/262690353_Insights_from_Pb_and_O_isotopes_into_alo Etc.)
(New Pb isotope data for volcanoes across Java (Gede, Salak, Galunggung, Merbabu, Merapi, Ijen). Negative correlation between Pb isotopes and SiO2, combined with mantle-like δ18O values in Gede explained by assimilation of-primitive arc rocks and/or ophiolitic crust known to outcrop in West Java. Peak in δ18O whole-rock and mineral values in C Java volcanic rocks (Merbabu and Merapi) combined with along-arc trends in Sr isotope ratios suggest different or additional crustal assimilant of C Java volcanic rock, likely carbonate material. Strong E-to-W Java variations in Ba concentration attributed subducted source input)

Handley, H.K., J.P. Davidson, C.G. Macpherson & J.A. Stimac (2008)- Untangling differentiation in arc lavas: constraints from unusual minor and trace element variations at Salak Volcano, Indonesia. Chemical Geology 255, p. 360-376.
(online at: www.academia.edu/30316299/Untangling_differentiation_in_arc_lavas_Constraints_from Etc.)
(Volcanic rocks from Salak Volcano, W Java show different minor and trace element geochemistry between central vent group lavas and rocks erupted at side vents)

Handley, H.K., C.G. Macpherson & J.P. Davidson (2010)- Geochemical and Sr-O isotopic constraints on magmatic differentiation at Gede Volcanic Complex (GVC), West Java, Indonesia. Contributions to Mineralogy and Petrology 159, 6, p. 885-908.
(manuscript online at: https://dro.dur.ac.uk/7502/1/7490.pdf)
(Sr-O isotopic data provide constraints on relative importance of fractional crystallisation and magma mixing in petrogenesis, as well as on role and nature of arc crust. Geochemical character of W Java arc crust relatively immature compared to typical continental crust. Trace element ratios and Sr isotopes show magmatic source of older geographical units (Gegerbentang, Older Quaternary) distinct from other GVC groups)

Handley, H.K., C.G. Macpherson, J.P. Davidson and R. Gertisser (2006)- Along-arc heterogeneity in crustal architecture and subduction input at the Sunda arc in Java, Indonesia. Geochimica Cosmochimica Acta 70, 18, Suppl. 1 (Goldschmidt Conference Abstracts), p. A227.

(Sunda Arc lavas across Java. Sr ratios increase from Krakatau in W to Merapi in C Java, but lower further E. Correlation between Sr ratio and volcano summit elevation indicates relation to lithospheric thickness. Other isotope ratios for W Java volcanics consistent with incorporation of subducted sediment dominated by terrigenous component. E Java volcanics greater involvement of subducted pelagic sediment and stronger slab-fluid imprint. Along-arc variation reflects decreasing thickness of turbidite deposits on down-going Indian Ocean lithosphere from Sumatra to Java)

Handley, H.K., C.G. Macpherson, J.P. Davidson, K. Berlo & D. Lowry (2007)- Constraining fluid and sediment contributions to subduction-related magmatism in Indonesia: Ijen Volcanic Complex. Journal of Petrology 48, 6, p. 1155-1183.
(online at: https://academic.oup.com/petrology/article-pdf/48/6/1155/16668761/egm013.pdf)
(Ijen Volcanic Complex in E Java developed on thickened oceanic crust. Caldera complex 20 km wide with 22 post-caldera eruptive centers. 'Old Idjen' volcanics unconformable on Miocene limestone. Lavas geochemistry suggest Ijen is least contaminated mantle wedge source analysed in region. Indian-type mid-ocean ridge basalt (I-MORB) -like fertile mantle wedge first infiltrated by minor fluid from altered oceanic crust, prior to addition of <1% subducted Indian Ocean sediment (pelagic ooze and Mn-nodules))

Handley, H.K., M. Reagan, R. Gertisser, K. Preece, K. Berlo, L.E. McGee, J. Barclay & R. Herd (2018)- Timescales of magma ascent and degassing and the role of crustal assimilation at Merapi volcano (2006-2010), Indonesia: constraints from uranium-series and radiogenic isotopic compositions. Geochimica Cosmochimica Acta 222, p. 34-52.
(manuscript online at: http://eprints.gla.ac.uk/150854/7/150854.pdf)
(Isotopic data sets from 2006 and 2010 eruptions at Merapi volcano, C Java, indicate relatively rapid ascent of more undegassed magma responsible for more explosive behaviour in 2010)

Handley, H.K., S. Turner, C.G. Macpherson, R. Gertisser & J.P. Davidson (2011)- Hf-Nd isotope and trace element constraints on subduction inputs at island arcs: limitations of Hf anomalies as sediment input indicators. Earth Planetary Science Letters 304, p. 212-223.
(online at: www.researchgate.net/publication/251556907_Hf-Nd_isotope_and_trace_element_constr Etc.)
(New Nd-Hf isotope and trace element data for Javanese volcanoes, Hf anomaly variation may be controlled by fractionation of clinopyroxene or amphibole and does not represent magnitude or type of subduction input in some arcs)

Handyarso, A. (2022)- Ring-fault delineation of an ancient volcanic caldera based on 3-D gravity inverse modeling in Majenang Region, Indonesia. Kurvatek 7, 2, p. 103-114.
(online at: https://journal.itny.ac.id/index.php/krvtk/article/view/3197/1549)
(Circular anomaly pattern interpreted as ring-fault of ancient volcanic caldera, with eruption center around Majenang city)

Handyarso, A. (2023)- Caldera-like delineation and geological resources identification of Majenang Area, Indonesia by gravity and magnetic data inversions. Proc. 4th SE Asian Conference on Geophysics (SEACG 2022), Bandung, 2022, IOP Conference Series: Earth and Environmental Science 1227, 012027, p. 1-9.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1227/1/012027/pdf))
(Circular anomaly on gravity-magnetic data interpreted as ancient volcanic caldera in area of Majenang city, C Java. Several high gravity anomalies within caldera rim interpreted as lava domes or intrusions)

Harijoko, A., R.M.P.P. Gunawan, H.E. Wibowo, N.I. Setiawan, E. Handini, W. Suryanto & E.T.W. Mei (2018)- Formation of Mount Loyang: Easternmost scoria cone of Slamet stratovolcano, Central Java, Indonesia. Proc. 7th Annual Symposium on Earthquake and Related Geohazard Research for Disaster Risk Reduction, Bandung 2017, AIP Conference Proceedings 1987, 1, 020063, p.
(Mount Loyang furthest scoria cone of Slamet volcano, ~14 km E of recent active Slamet crater)

Harijoko, A., N.A.S. Mariska & F. Anggara (2018)- Estimated emplacement temperatures for a pyroclastic deposits from the Sundoro volcano, Indonesia, using Charcoal Reflectance analyses. Indonesian J. on Geoscience (IJOG) 5, 1, p. 1-11.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/386/247)
(Maximum emplacement temperature of pyroclastic flows based on charcoal reflectance is 487°C)

Harijoko, A., G.I. Marliyani, H.E. Wibowo, Y.R. Freski & E. Handini (2023)- The geodynamic setting and geological context of Merapi Volcano in Central Java, Indonesia. In: R. Gertisser at al. (eds.) Merapi volcano-geology, eruptive activity, and monitoring of a high-risk volcano. Springer Nature, Berlin, p. 89-109.
(Merapi Quaternary stratovolcano in C Java part of Sunda-Banda subduction system. Recurring pattern of eruptive events, with 1-2 minor eruptions approximately every 4-5 years, interrupted by more violent (VEI 3–4) eruption episodes every few decades. Basement of Merapi Mio-Pliocene Sentolo Fm limestones and Oligo-Miocene volcanics of Nglanggran and Semilir Fms. Region dissected by larger fault systems (Progo, Muria, Opak River). Merapi and Merbabu-Telomoyo-Ungaran volcanoes follow NW-SE-trend, similar in orientation to regional fault systems. Etc.)

Harijoko, A., A.N.Milla, H.E. Wibowo & N.I. Setiawan (2020)- Magma evolution of Slamet Volcano, Central Java, Indonesia based on lava characteristic.Proc. 3rd Conf. Environmental Resources Management in Global Region, Gadjah Mada University, Yogyakarta 2019, IOP Conference Series: Earth and Environmental Science, 451, 012092, p. 1-17.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/451/1/012092/pdf)
(Slamet volcano in C Java second highest of Java (3428m). Quaternary basaltic stratovolcano, with volcanic products divided into Old Slamet (basalt-andesite, on W flank) and Young Slamet (more mafic, basaltic-basaltic andesite; E flank, still active today).Probably from different magma chambers)

Harijoko, A., S.A. Sari, H.E. Wibowo, N.I. Setiawan, M.L.A. Moktikanana (2021)- Stratigraphy, chronology, and magma evolution of Holocene volcanic products from Mt. Slamet deposited in the Guci Valley, Central Java, Indonesia. J. Volcanology Geothermal Research 418, 107341, p.
(online at: https://www.sciencedirect.com/science/article/abs/pii/S0377027321001700)
(In Guci valley (7-9 km from Slamet summit), four massive lavas, seven pyroclastic density current deposits, one scoria fall, and one lahar deposit. Two pyroclastic density current deposits (3-15 m thick) dated to 8040 and 3910 BP; third overlain by 8040 BP deposit. Guci Valley exposed to future eruptive activity)

Harijoko, A., R. Uruma, Wibowo, E. Haryo, L.D. Setijadji, A. Imai, K. Yonezu & K. Watanabe (2016)- Geochronology and magmatic evolution of the Dieng volcanic complex, Central Java, Indonesia and their relationships to geothermal resources. J. Volcanology Geothermal Research 310, p. 209-224.
(Dieng volcanic complex three volcanic episodes: (1) pre-caldera (>1 Ma), (2) second (0.3-0.4 Ma) and (3) youngest (after 0.27 M). Each episode distinct differentiation trends, indicating multiple shallow magma chambers)

Harijoko, A., H.E. Wibowo, M.L. Alifcanta, Moktikana & M.Y. Abdilla (2022)- Magma evolution of Lasem and Senjong Volcanic Complex. Indonesian J. on Geoscience (IJOG) 9, 1, p. 131-145.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/673/361)
(Lasem-Senjong Volcanic Complex one of four Quaternary volcanic complexes with high-K magmatism along N coast of C Java. Lasem stratovolcano 4 lava domes, 12 pyroclastic density flows (mainly N and E flanks) and 9 lava flows (S flank). Senjong Volcano 1 lava flow, 4 lava domes. Calc-alkaline rocks basaltic trachyandesite to trachyte. Magmas can be grouped into High K/Rb (Lasem) and Low K/Rb type (Senjong Volcano))

Harloff, Ch.E.A. (1931)- De uitbarsting van den Merapi in December 1930. Haagsch Maandblad 26, p. 384-397.
('The eruption of the Merapi in December 1930'. Popular magazine article by Dienst van den Mijnbouw geologist C. Harloff, describing the disastrous 18 December 1930 eruption of Merapi)

Harmon, R.S. & M.C. Gerbe (1992)- The 1982-83 eruption at Galunggung Volcano, Java (Indonesia): oxygen isotope geochemistry of a chemically zoned magma chamber. Journal of Petrology 33, 3, p. 585-609.

(online at: https://www.researchgate.net/publication/31404477_The_1982-83_Eruption_at_Galunggung_Volcano_Java_Indonesia_Oxygen_Isotope_Geochemistry_of_a_Chemically_Zoned_Magma_Chamber)
(Mt Galunggung in SW Java erupted four times in last two centuries. During most recent event in 1982-1983 305 million m3 of medium-K, calc-alkaline magma s erupted. Composition changed gradually during eruption from initial plagioclase (An60-75) and two-pyroxene andesites with ~58% SiO2 to final plagioclase (An85-90), diopside, and olivine (Fo85-90) bearing primitive magnesium basalts with ~47% SiO2. Eruption progressively tapped and drained magma chamber chemically stratified through extensive crystal fractionation)

Harpel, C.J., Kushendratno, J. Stimac, C.F. Avendano Rodríguez de Harpel & S. Primulyana (2019)- The Orange Tuff: a Late Pleistocene tephra-fall deposit emplaced by a VEI 5 silicic Plinian eruption in West Java, Indonesia. Bulletin of Volcanology 81, 33, p. 1-19.
(online at: https://link.springer.com/content/pdf/10.1007/s00445-019-1292-y.pdf)
(Orange Tuff marker bed around Salak volcano, SW of Bogor, typically 15-30cm thick, but 1-4 m thick on Salak flanks. Formed by VEI 5 dacite eruption of Gunung Salak between ~34 and 17 ky BP)

Hartmann, M. (1933)- Merapi- Bijdrage tot de kennis van gassen, sublimatie- en inkrustatieprodukten en thermale wateren in de Merapi ladoe's. Vulkanologische en Seismologische Mededeelingen, Dienst Mijnbouw Nederlandsch-Indie, Bandung, 12, p. 117-135.
(Merapi- Contribution to the knowledge of gases, sublimation and incrustation products and thermal waters in the Merapi ladu's' (nuee ardente avalanches of gas and blocks cloud). Appendix to Neumann van Padang description of Merapi eruptions of late 1930-1931, mainly characterized by common 6-12km long nuees ardentes several weeks after the formation of lava dome and lava flows (Hartmann joined Volcanological Survey department in Bandung in February 1932 and left due to budget cuts in January 1934))

Hartmann, M.A. (1934)- Die vulkanische Tatigkeit des Merapi Vulkanes (Mittel Java) in seinem ostlichen Gipfelgebiete zwischen 1902 und 1908. De Ingenieur in Nederlandsch-Indie (IV) 1, 5, p. IV.60- IV.73.
('The volcanic activity of the Merapi volcano (Central Java) in the east top area between 1902 and 1908'. Investigation of the eastern top of Merapi, after the major 1930 eruption)

Hartmann, M. (1934)- Der grosse Ausbruch des Vulkanes G. Merapi (Mittel Java) im Jahre 1872. Natuurkundig Tijdschrift voor Nederlandsch-Indie 94, 3, p. 189-209.
(online at: https://resolver.kb.nl/resolve?urn=MMTEY01:179531004:pdf)
('The large eruption of the G. Merapi volcano (Central Java) in the year 1872'. Description of one of largest and previously poorly documented eruption in 1872, which created the current main crater of Merapi)

Hartmann, M. (1935)- Beobachtete Eruptionsregen wahrend vulkanischer Ausbruche in Niederlandisch-Indien. I. Krakatau. II. Merapi (M.J.). De Ingenieur in Nederlandsch-Indie (IV) 2, 3, p. IV.19- IV.22.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1935-03.pdf)
('Observed eruption rains during volcanic eruptions in the Netherlands Indies, I. Krakatau, II. Merapi (Central Java')

Hartmann, M. (1935)- Die gross Ausbruchsperiode des Merapi ins 2 Halbjahr 1934. Zeitschrift fur Vulkanologie 16, p. 199-205.
('The major eruption period of the Merapi into the second half of the year 1934'. After explosive phase of Merapi in Jan.-Febr. 1934, second and third phase followed in May and June. Significant lava dome formed, which partly collapsed in November, causing 7km long nuee ardente)

Hartmann, M. (1935)- Die Ausbruche des Gunung Merapi (Mittel-Java) bis zum Jahre 1883. Neues Jahrbuch Mineralogie Geologie Palaontologie, Beilage Band 75, B, 1, p. 127-162.
('The eruptions of Gunung Merapi (Central Java) until the year 1883'. With proposed classification of eruptions into 4 types, A, B, C and D, in order of increasing explosivity)

Hartmann, M. A. (1936)- Die Lavadomgebilde des Merapi (M. J.) nach dem grossen Ausbruch im Jahre 1930. Zeitschrift fur Vulkanologie 16, 4, p. 248-258.

('The lava dome formations of the Merapi (C Java) after the major eruption in the year 1930')

Hartmann, M. (1936)- Die Streitfrage uber die Ursachen, welche die beobachteten Eruptionsregen bei dem Ausbruch des Krakatau am 1. und 2. Mai 1933, sowie des G. Merapi (Mittel-Java) am 10. Juli 1934 ausgelost haben. De Ingenieur in Nederlandsch-Indie (IV) 3, 2, p. IV.29- IV.35.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1936-02.pdf)
('The debate on the causes of observed eruption rains at Krakatau (1933) and Merapi (1934)')

Hartmann, M.A. (1938)- Die Vulkangruppe im Sudwesten des Salak-Vulkans in West Java. Natuurkundig Tijdschrift voor Nederlandsch-Indie 98, 4, p. 215-249.
(online at: http://62.41.28.253/cgi-bin/...)
('The group of volcanoes SW of the Salak volcano in W Java'. Rel. detailed descriptions of 4 Recent volcanoes SW of Salak, from NE to SW: Perbakti, Endoet-Wajang, Kiaraberes and Gagak. Between 1935 and 1938 Hartmann climbed to the SW Salak crater areas several times (p. 237))

Hartmann, M.A. (1939)- De Goenoeng Salak in West Java. De Tropische Natuur 28, 11, p. 177-188.
(online at: https://natuurtijdschriften.nl/pub/511518/TN1939028011001.pdf)
(Popular, yet thorough description of Salak volcano complex near Bogor, W Java, by Swiss Max Hartmann, a chemist/ agrogeologist with Bandung Volcanological Survey in early 1930s. Last significant eruption of Salak was in 1699)

Hartono, U. (1994)- The petrology and geochemistry of the Wilis and Lawu volcanics, East Java, Indonesia. Ph.D. Thesis University of Tasmania, Australia, p. 1-441.
(online at: http://eprints.utas.edu.au/15767/2/1Hartono_whole_thesis.pdf)
(Eruptive products of Wilis Volcanic Complex in E Java five groups, from old to young: (1) pre-caldera Klotok basalt and basaltic andesite (K-Ar ages ~1.7-1.9 Ma), (2) pre-caldera Pawonsewu andesite, (3) the Ngebel Lake caldera high-Si andesite and dacite (pumice), (4) post-caldera Jeding basalt-andesite and (5) post-caldera Argokalangan crater andesite (mainly lahars). Lawu Volcanic complex 2 groups: (1) Old Lawu with hornblende-andesites, (2) Young Lawu with olivine-bearing andesites. Wilis more typical of 'Bali sector' of Sunda-Banda Arc (underlain by oceanic crust?); Lawu typical of W Java sector of Sunda-Banda arc)

Hartono, U. (1994)- Magma source characteristics in the Wilis Volcano, Eastern Sunda Arc: trace element and Sr and Nd Isotope constraints. Proc. 23rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 1, p. 250-270.
(online at: https://www.iagi.or.id/web/digital/62/24.pdf)
(Wilis Volcanic Complex in E Java medium-K arc volcanics, varying from basalts to andesites to dacites. Underlying mantle wedge with MORB characteristics. High Ba may be from sediments of subducting plate)

Hartono, U. (1994)- The olivine, pyroxene and amphibole chemistry from the Wilis volcano complex, East Jawa: implications for temperatures andpressures of the magma. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 4, 37, p. 7-19.
(Pyroxenes from Wilis basalt and andesite crystallized at T of 1150°C and 947°C respectively. Amphiboles from Wilis volcano dacite crystallized at pressure of ~5 kb)

Hartono, U. (1994)- Radiogenic and stable isotope data from the Wilis volcanic complex, East Java. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 4, 39, p. 8-15.
(Sr, Nd and O-isotope analyses of Quaternary volcanics of Wilis volcano, SE Java)

Hartono, U. (1995)- Oxygen isotope variations from the Wilis volcanic complex, East Java: evidence for assimilation and fractional crystallization. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 5, 43, p. 2-7.
(On 18O oxygen isotopes in Quaternary volcanics of Wilis Complex, E Java)

Hartono, U. (1995)- The major trace and rare earth elements geochemistry of the Lawu volcano, Central Java. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 5, 50, p. 12-29.

(Rocks from extinct Quaternary Lawu volcano typical calc-alkalic subduction volcanics (mainly andesites, minor dacites). Higher K2O and other incompatible elements in Young Lawu rocks may indicate crustal contamination)

Hartono, U. (1995)- Petrography and mineral chemistry of the Lawu volcano, Central Java. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 6, 52, p. 12-32.
(Quaternary lavas of Lawu volcano, C Java, mainly basaltic andesite to dacite. Mineralogical differences between 'Old Lawu' and Young Lawu': Young Lawu with olivine phenocrysts)

Hartono, U. (1996)- Stratigraphic geochemical trends of the Wilis volcanic complex, Eastern Sunda arc: implication for magma evolution. Bull. Geological Research Development Centre (GRDC) 19, p. 97-133.
(Wilis volcano, SE Java, five episodes of basaltic-andesitic volcanism, showing evolution from intitial poorly evolved basalts to more evolved andesitic magmas to finally dacitic magmatism)

Hartono, U. (1996)- Sr, Nd and O Isotope constraints on the petrogenesis of the island arc Wilis volcanics. Proc. 25th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, p. 233-249.

Hartono, U. (1997)- Petrogenesis of basaltic magmas from the Wilis volcano, Eastern Sunda Arc. Bull. Geological Research Development Centre (GRDC), Bandung, 21, p. 39-62.
(Wilis extinct Quaternary volcano at border C-E Java with basalts high in Al2O3, low MgO, enriched in K-group elements (Ba, Rb, K), etc. Probably fractionation product from primary magma resulting from melting of MORB-like mantle wedge above subducting slab. May have begun to crystallize at depth of ~30 km. Ba and Sr concentrations in Wilis basalts significantly higher than in avarage Java tholeiite and island arc tholeiite, possibly indicating involvement of young subducted terrigenous sediments)

Hartono, U. (1997)- Basaltic andesites resulted from the reaction between hydrous basaltic magmas and anhydrous ferromagnesian minerals: evidence from the Lawu volcano, Central Java. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 7, 69, p. 2-10.
(Lawu volcano two parts, Old Lawu and Young Lawu. Both dominated by basaltic andesites and andesites, but Young Lawu contains olivine. Crystallization of amphibole of Old Lawu at ~18km depth)

Hartono, U. (1999)- Fractional crystallization and the origin of compositional gap between basaltic andesite and silicic rocks in the Wilis magmatism. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 9, 90, p. 2-8.

Hartono, U. & A. Achdan (1993)- Possible sediment involvement in the Wilis magmatism: a preliminary study. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 3, 27, p. 2-7.
(Basalts from extinct Quaternary Wilis volcano, Central-East Java have high Ba50 and Ba/La ratios and Sr and Nd isotope ratios that suggest contribution to magma source from subducted slab sediments (1% of sediment added to Indian Ocean MORB source will give observed Sr and Nd anomalies))

Hartono, U. & Baharuddin (1986)- Morfostratigrafi batuan gunungapi Wilis. Proc.15th Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2, p. 1-26.
(online at: https://www.iagi.or.id/web/digital/44/PIT-IAGI-1986-Vol-2-Paper-31.pdf)
('Morphostratigraphy of the Wilis volcanics', East Java).

Hartung, M.A. (1938)- Die Vulkangruppe im Sudwesten des Salak-vulkans in West-Java. Natuurkundig Tijdschrift voor Nederlandsch-Indie 98, 4, p. 215-249.
(online at: http://colonial.library.leiden.edu/)
('The volcano group in the SW of the Salak volcano in W Java'. Descriptions of Recent volcanoes Perbakti, Endut, Kiaraberes, Gagak)

Heim, A. (1916)- Auf dem Vulkan Smeru auf Java. Neujahrsblatt Naturforschenden Gesellschaft Zurich 1916, 118, p. 1-15.
(online at: http://www.ngzh.ch/media/njb/Neujahrsblatt_NGZH_1916.pdf)

('On the Semeru volcano on Java'. Early report on ascent of Semeru volcano in E Java in November 1911, with Ir. F. van Gogh. Recorded several small eruptions with eruption cloud reaching 10km high. Active eruption center of Semeru shifting S-ward. First European to climb Semeru probably F. Junghuhn in September 1844)

Hidayati, S., A. Basuki, Kristianto & I. Mulyana (2009)- Emergence of lava dome from the crater lake of Kelud Volcano, East Java. Jurnal Geologi Indonesia 4, 4, p. 229-238.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_download/255)
(On volcanic activity of Kelud Volcano, E Java in 2007, with creation of lava dome in crater)

Hirawan, A., A.S.V. Bangun, R.B. Pratiwi & A.D. Titisari (2017)- Characteristics of basaltic pillow lava in Jarum Village, Bayat: magma evolution and petrogenetic model. Proc. Seminar Nasional Kebumian 10, Universitas Gadjah Mada, Yogyakarta, p. 1395-1413.
(online at: https://repository.ugm.ac.id/274252/1/OVK-08.pdf)
(Geochemistry of Oligocene basaltic pillow lavas in Jarum Village, Central Java, and Pendul Hill gabbroic-dioritic intrusion in Jiwo Hills 3 km to N suggests these are late and early stages of same magmatism)

Hirschi, H. (1925)- Die Radioaktivitat des Shoshonits von Bromo (Java) und Shonkinits vom Pik von Maros (Celebes). Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 8 (Gedenkboek Verbeek, memorial volume), p. 213-218.
(online at: https://books.google.com/books?id=Yy0RAAAAIAAJ&pg)
('The radioactivity of the shoshonite of Bromo (Java) and the shonkinite of Maros Peak (SW Sulawesi)'. Found relatively low contents of radioactive materials)

Horner, L. (1837)- Geologische gesteldheid van de vulkaan Gede op Java. Verhandelingen Bataviaasch Genootschap Kunsten Wetenschappen 17, 1, p. 3-28. *(online at: https://ia801900.us.archive.org/35/items/verhandelingenv171839bata/verhandelingenv171839bata.pdf)*
('Geological condition of the Gede volcano on Java'. Some of first elementary geologic observations of G. Gede volcano, by Swiss member of the Commission of Natural Sciences, Ludwig Horner)

Houwink, L. (1901)- Verslag van een onderzoek naar aanleiding van de uitbarsting van den vulkaan Keloet in den nacht van den 22e op den 23e Mei 1901. Jaarboek Mijnwezen Nederlandsch Oost-Indie 30 (1901), p. 122-136.
('Results of an investigation after the eruption of the Kelud volcano in the night of 22-23 May'. Much devastation of forest around volcano, with lahar flows towards Blitar fed by water from crater lake. Lake water still boiling. After eruption lake much reduced in size. With map of ash distribution across most of Java)

Hunt, J.E., D.R. Tappin, S.F.L. Watt, S. Susilohadi, A. Novellino, S.K. Ebmeier, M. Cassidy, S.L. Engwell et al. (2021)- Submarine landslide megablocks show half of Anak Krakatau island failed on December 22nd, 2018. Nature Communications 12, 2827, p. 1-15.
(online at: https://www.nature.com/articles/s41467-021-22610-5.pdf)
(Anak Krakatau lateral flank collapse on December 22, 2018, generated submarine blocky landslide deposit (0.214± 0.036 km^3), emplaced over 1.5 km into adjacent basin)

Hurlbut, G.C.& R.D.M. Verbeek (1887)- Krakatau, a narrative by George H. Hurlbut, from the study of R.D.M. Verbeek. J. American Geographical Society of New York 19, p. 233-253.
(online at: https://www.jstor.org/stable/196734)
(Elegant early English-language summary of 1883 Krakatau eruption, based on works of Verbeek (1885, 1886)

Ibrahim, K., S. Bijaksana, M. Abdurrachman, D.P. Sahara, P.B. Suryanata, S. Zulaikah et al. (2025)- Contrasting magmatic structures and tectonic controls from integrated gravity and magnetic data in the Bromo–Tengger–Semeru complex and the Lamongan Volcanic Field, East Java, Indonesia. J. Volcanology Geothermal Research 468, 108455, p.
(Gravity and magnetic study of Bromo-Tengger-Semeru complex and Lamongan Volcanic Field)

Indriyanto J.N. (2023)- Eruptive history, magma dynamic, and magmatic process of effusive-explosive transition at Kelud volcano, Indonesia. Doctoral Thesis Akita University, Japan, p. 1-214.
(online at: https://air.repo.nii.ac.jp/record/6122/files/shihakukou1440.pdf)
(Volcanic stratigraphy for last 1300 years of activity at Kelud volcano in E Java. Ten bedsets composed of pyroclastic density current and tephra fallout deposits identified. Focus on basaltic andesite products from effusive and explosive events in 2007-2008 and 2014)

Indriyanto J.N., T. Ohba, T. Hoshide, S.S. Angkasa & M. Abdurrachman (2022)- Eruptive history of the last-1300-years activity of Kelud volcano, Indonesia: Inferences from stratigraphy, chronology, sedimentology, componentry, and geochemistry. J. Volcanology Geothermal Research 433, 107723, p. 1-20.
(Kelud one of deadliest volcanoes in Indonesia. Volcanic stratigraphy for last 1300 years of activity subdivided into 10 bed-sets composed of Pyroclastic Density Current and Tephra Fallout deposits between ~1300 and 100 yrs B.P. One of units may be from 1481 C.E. eruption. Fallout layers generally thin, derived from short-sustained eruption columns. PDC deposits massive to stratified. Kelud capable of producing wide spectrum of eruptions. Increasing eruptive frequency over time)

Innocenti, S. (2006)- Lavas and tephras of Merapi Volcano, Java, Indonesia: insights from textural analyses and geochemistry. M.Sc. Thesis, Pennsylvania State University, p. 1-210. *(Unpublished)*
(online at: https://etda.libraries.psu.edu/paper/7396)
(Merapi volcano activity produces lava flows and viscous lava domes and explosive events. Evidence in support of multiple distinct plumbing systems. Varying proportions of subducted sediment and subducted crustal fluids can explain repeated shifts between medium- and high-K affinity (also displayed by other volcanoes in Java). Formation of viscous plug responsible for shift between effusive and explosive eruptions)

Innocenti, S., S. Andreastuti, T. Furman, M.A. del Marmol & B. Voight (2013)- The pre-eruption conditions for explosive eruptions at Merapi volcano as revealed by crystal texture and mineralogy. J. Volcanology Geothermal Research 261, p. 69-86.
(online at: www.researchgate.net/publication/260703169_The_pre-eruption_conditions_for_explosive_eruptions_at_Merapi_volcano_as_revealed_by_crystal_texture_and_mineralogy)
(Merapi tephra and lavas resided for similar lengths of time in mid-crustal reservoir, before ascending to surface and erupt explosively (tephra), or stagnate in shallow magma chamber before extrusion (lava))

Innocenti, S., M.A. del Marmol, B. Voight, S. Andreastuti, T. Furman (2013)- Textural and mineral chemistry constraints on evolution of Merapi Volcano, Indonesia. J. Volcanology Geothermal Research 261, p. 20-37.
(Textures of Merapi lavas, from Proto-Merapi through modern activity, suggests distinct histories for basalts and basaltic andesites, associated with different rheological behaviors and storage/transport systems)

Islamey, N.A.B., H.E. Wibowo & N.I. Setiawan (2024)- Xenolith petrography for identification of substratum lithology of an active volcano: a case study of Lava Kekep, Sundoro Volcano, Central Java. Proc. Int. Conf. Geological Engineering and Geosciences, Yogyakarta 2023, IOP Conference Series: Earth and Environmental Science 1373, p. 012069, p. 1-10.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1373/1/012071/pdf)
(xenoliths embedded in basaltic lava of the Kekep parasitic cone of Sundoro volcano, W of Merapi, C Java, include sedimentary (siltstone) and igneous rocks (dunite, pyroxenite and lherzolite). Substrate lithology likely composed of Tertiary sediments in upper part, with granitoid- gabbroic diorite crustal material in lower part, and with ultramafic crustal material. Similarities with rocks in Luk-Ulo melange complex)

Ismail, T, M. Abdurrachman, Y. Rizal & K. Hardjawidjaksana (2020)- Volcanostratigraphy of Krakatoa islands, South Lampung District, Lampung Province. Proc. 3rd Int. Conf. Transdisciplinary Research on Environmental Problems in SE Asia, Gorontalo 2018, IOP Conference Series: Earth and Environmental Science 589, 012010, p. 1-22.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/589/1/012010/pdf)
(Volcanostratigraphy of Krakatoa island shows 29 rock units, representing Old Krakatoa, Young Krakatoa and Anak Krakatoa. Krakatoa history of two caldera developments, in 416 AD and 1883 AD)

Ismail, T, M. Abdurrachman, Y. Rizal, K. Hardjawidjaksana & R. Arbie (2020)- The influence of rock resistance for geomorphology of Krakatau Islands, South Lampung District, Lampung Province. Proc. 3rd Int. Conf. Transdisciplinary Research on Environmental Problems in SE Asia, Gorontalo 2018, IOP Conference Series: Earth and Environmental Science 589, 012011, p. 1-12.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/589/1/012011)

Jaxybulatov, K., I. Koulakov, M. Ibs-von Seht, K. Klinge, C. Reichert, B. Dahren & V.R. Troll (2011)- Evidence for high fluid/melt content beneath Krakatau volcano (Indonesia) from local earthquake tomography. J. Volcanology Geothermal Research 206, p. 96-105.
(online at: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.727.4142&rep=rep1&type=pdf)
(Tomographic inversion for P and S velocities from 2005-2006 microseismic network shows zone of high Vp/Vs ratio beneath Krakatau complex, a probable indicator of partially molten or high fluid content material, with composition corresponding to deeper layers. Anomaly appears to be separated in two parts at depth of 5-6 km)

Jeffery, A.J., R. Gertisser, V.R. Troll, E.M. Jolis, B. Dahren, C. Harris et al. (2013)- The pre-eruptive magma plumbing system of the 2007-2008 dome-forming eruption of Kelut volcano, East Java, Indonesia. Contributions to Mineralogy and Petrology 166, p. 275-308.
(online at: https://www.academia.edu/75392094/The_pre_eruptive_magma_plumbing_system_of_the_2007_2008_dome_forming_eruption_of_Kelut_volcano_East_Java_Indonesia)
(Kelut 2007-2008 lava dome provides evidence for complex magma system that comprises deep crustal, mid-crustal storage and upper crustal storage zones)

Jhonny, B. Priadi & R. Mulyana (2006)- Continental characters on volcanism of Lamongan volcano, East Java. Proc. 35th Annual Conv. Indonesian Association Geologists (IAGI), Pekanbaru, 1 p. *(Abstract only)*
(online at: https://www.iagi.or.id/web/digital/15/2006_IAGI_Pekan-Baru_-Continental-Characters-On.pdf)
(Lamongan is small volcano between Bromo-Tengger and Iyang volcanic ranges in E Java. Basalt, basanite, basaltic-andesite, trachyandesite, absarokite and shosonite suggest magmatic affinity transitional between alkaline and calc-alkaline. Mix of subduction and continental magma character suggests basement of Lamongan Volcano may represent a microcontinent)

Joly, J. (1885)- XXXII- Notes on the microscopical character of the volcanic ash from Krakatoa. Scientific Proc. Royal Dublin Society, new series, 4, p. 291-299.
(Description of volcanic ash that fell on deck of Norwegian barque Borjild, anchored 75 miles NE of Krakatoa, from 6 am until 6 pm on 27 August 1883. Also fragments of floating pumice. Ash mainly fragments of pumice, also small crystals of magnetite, pyrite, pyroxene (hypertshene dominant over augite) and feldspar (mainly plagioclase))

Jousset, P., A. Budi-Santoso, A.D. Jolly, M. Boichu, Surono, S. Dwiyono et al. (2013)- Signs of magma ascent in LP and VLP seismic events and link to degassing: an example from the 2010 explosive eruption at Merapi volcano, Indonesia. J. Volcanology Geothermal Research 261, p. 171-192.

Jousset, P., S. Dwipa, F. Beauducel, T. Duquesnoye M. Diament (2000)- Temporal gravity at Merapi during the 1993-1995 crisis: an insight into the dynamical behaviour of volcanoes. J. Volcanology Geothermal Research 100, p. 289-320.
(online at: http://www.ipgp.jussieu.fr/~beaudu/download/jvgr96.pdf)
(During 1993-1995 activity of Merapi volcano, C Java, little deformation (<5 cm), but significant gravity changes, explained mostly by growth of lava dome)

Jousset, P., J. Palister & Surono (2013)- The 2010 eruption of Merapi volcano. J. Volcanology Geothermal Research 261, p. 1-6.
(October-November 2010 eruption of Merapi volcano in C Java was largest eruption in >100 years, at volcano known for smaller eruptions occurring on average every 4-6 years)

Junghuhn, F.W. (1843)- Bijdragen tot de geschiedenis der vulkanen in den Indischen Archipel, Eerste afdeeling Java. I. Goenoeng Salak, II. Goenoeng Pangerango, III. Goenoeng Gede. Tijdschrift voor Nederlands Indie 5, 1, p. 97-133.
(online at: http://resolver.kb.nl/resolve?urn=dts:2783002:mpeg21:pdf)
('Contributions to the history of volcanoes in the Indies Archipelago, First part Java, I. Gunung Salak, II. Gunung Pangerango, III. Gunung Gede'. Early descriptions of Java volcanoes)

Junghuhn, F.W. (1843)- Bijdragen tot de geschiedenis der vulkanen in den Indischen Archipel, Eerste afdeeling Java. IV. Tangkoebang Prauw, V. Patoeha, VI. Malabar, VII. Waijang, VIII-IX. Goenoeng Goentoer, X. Kawa Manok, XI. Papandaijang. Tijdschrift voor Nederlands Indie 5, 1, p. 185-227.
((online at: http://resolver.kb.nl/resolve?urn=dts:2783002:mpeg21:pdf)
('Contributions to the history of volcanoes in the Indies Archipelago, First part Java, IV, Tangkuban Perahu, V Patuha, VI Malabar, VII Waijang, VIII-IX Gunung Guntur, X Kawa Manok, XI Papandayang'. First of many continuations of above)

Junghuhn, F.W. (1843)- Bijdragen tot de geschiedenis der vulkanen in den Indischen Archipel, Eerste afdeeling Java, XII. Telaga Bodas, XIII, Galoeng Goeng. Tijdschrift voor Nederlands Indie 5, 1, p. 257-280.
('Contributions to the history of volcanoes in the Indies, etc. XII Telaga Bodas, XIII Galunggung')

Junghuhn, F.W. (1843)- Bijdragen tot de geschiedenis der vulkanen in den Indischen Archipel, Eerste afdeeling Java, XIV. Tjerimai. Tijdschrift voor Nederlands Indie 5, 1, p. 614-626.
('Contributions to the history of volcanoes in the Indies, etc. XIV Ciremai')

Junghuhn, F.W. (1843)- Bijdragen tot de geschiedenis der vulkanen in den Indischen Archipel, Eerste afdeeling Java, XV. Slamat. Tijdschrift voor Nederlands Indie 5, 1, p. 745-763.
('Contributions to the history of volcanoes in the Indies, etc. XV Slamet')

Junghuhn, F.W. (1844)- Bijdragen tot de geschiedenis der vulkanen in den Indischen Archipel, Eerste afdeeling Java, XVI Radja Djampangang, XVII. Het gebergte Dieng. Indisch Magazijn 1844, 4-6, p. 41-83 and p. 163-176.
('Contributions to the history of volcanoes in the Indies, etc., XVI Raja Jampangang, XVII The Dieng Plateau')

Junghuhn, F.W. (1844)- Bijdragen tot de geschiedenis der vulkanen in den Indischen Archipel, Eerste afdeeling Java, XVIII. Goenoeng Sindoro. Indisch Magazijn 1844, 4-6, p. 287-315.
('Contributions to the history of volcanoes in the Indies, etc., XVIII Gunung Sindoro')

Junghuhn, F.W. (1844)- Bijdragen tot de geschiedenis der vulkanen in den Indischen Archipel, Eerste afdeeling Java, XIX. Goenoeng Soembing. Indisch Magazijn 1844, 7-9, p. 64-94.
(Final part of 'Contributions to the history of volcanoes in the Indies Archipelago, First part Java, XIX Gunung Sumbing'. Series not completed as originally intended)

Juwarna, H., A.D. Wirakusumah, D. Soetoyo & S. Bronto (1986)- Geological map of Galunggung volcano, West-Java (scale 1:10,000). Volcanological Survey of Indonesia, Bandung.

Kartadinata, M.N., M. Okuno, T. Nakamura & T. Kobayashi (2002)- Eruptive history of Tangkuban Perahu Volcano, West Java, Indonesia: a preliminary report. J. of Geography (Chigaku Zasshi) 111, 3, p. 404-409.
(online at: www.jstage.jst.go.jp/article/jgeography1889/111/3/111_3_404/_article/-char/en)
(Tangkuban Perahu volcano, N of Bandung, tephra group divided into two subgroups: (1) Old Tangkuban Perahu (oldest radiometric date ~40,750 years) and (2) Young Tangkuban Perahu (started at ~10,000 BP))

Katili, J.A. & A. Sudradjat (1984)- Galunggung the 1982-1983 eruption. Volcanological Survey Indonesia, Bandung, p. 1-102.

Kausar, A.A., I. Setiawan, A. Yuliyanti, L. Lintjewas, J. Jakah & W. Herawan (2024)- Geochemical characteristic of volcanic rocks in the Karaha- Talagabodas fields related to Galunggung Volcano. Riset Geologi dan Pertambangan (BRIN) 34, 1, p. 25-40.
(online at: https://jrisetgeotam.brin.go.id/index.php/jrisgeotam/article/view/1279/pdf)
(Karaha and Telaga Bodas solfatara fields/ geothermal systems near Galunggung volcano in W Java. Associated volcanic rocks pyroxene andesite, basaltic andesite, basalt, altered pyroclastics and tuff breccia)

Kavalieris, I. (1994)- High Au, Ag, Mo, Pb, V and W content of fumarolic deposits at Merapi Volcano, Central Java, Indonesia. J. Geochemical Exploration 50, p. 479-491.
(Blue and red-green sublimates incrustations deposited in 1991 around high T (800°C) fumaroles at Merapi volcano. Blue sublimates comprise thin coating of Mo oxide on cristobalite-alunogen-anbydrite. They contain up to 3% Mo, 1.64% Pb and many other metallic elements. Related to ascent of new magma and degassing at depths of 2 km or less below the summit of volcano. High T fumarolic activity may form 'false'" anomalies of key elements such as Au, unrelated to hydrothermal fluids with potential for commercial mineralization)

Keil, K.F.G. (1933)- Uber das Vorkommen von leucitreichem Basalt am Gunung Ringgit (Java). Centralblatt Mineralogie Geologie Palaontologie 1933, A, p. 245-249.
('On the occurrence of leucite-rich basalt at the Ringgit volcano, Java'. Ringgit is extinct volcano center E of Arjuno- Welirang complex in East Java. Young basalts with leucite crystals up to 3 cm in size and locally up to 50% of rock (leucitite))

Keil, K.F.G. (1934)- Der Goenoeng Ringgit und seine oeconomische Bedeutung fur Indien. Geologie en Mijnbouw 12, 10, p. 107-111.
(online at: https://drive.google.com/file/d/1ETrjybO5gbdeTW73Dk60S3uFmmcxEAUf/view(
('The Gunung Ringgit and its economic significance for the Netherlands Indies'. Leucite-rich basaltic volcanics of Ringgit volcano in easternmost Java are potential economically significant source of K_2O for fertilizer or glass manufacturing)

Kelfoun, K., A.B. Santoso, T. Latchimy, M. Bontemps, I. Nurdien, F. Beauducel, A. Fahmi, R Putra et al. (2021)- Growth and collapse of the 2018-2019 lava dome of Merapi volcano. Bulletin of Volcanology 83, 2, p.
(manuscript online at: www.researchgate.net/publication/348577177_Growth_and_collapse_of_the_2018-2019_lava_dome_of_Merapi_volcano)
(Evolution of 2018−2019 lava dome of Merapi volcano and associated pyroclastic density currents. Dome developed on plateau flanked by steep sides (~40°--50°) inside crater open to SE. Dome viscous on gentle slopes and brittle on slopes >35°, thus unable to grow on outer slopes of plateau, resulting in small and frequent collapses)

Kemmerling, G.L.L. (1919)- De Kloetramp. De Ingenieur 34, 44, p. 804-813.
(online at: https://www.delpher.nl/nl/tijdschriften/view?identifier=MMTEY01:179524003:00005)
('The Kelud disaster' of 1919))

Kemmerling, G.L.L. (1921)- De geologie en geomorphologie van den Idjen. In: Het Idjen Hoogland, Koninklijke Natuurkundige Vereeniging, Batavia, Monografie 2, Kolff Publishers, p. 1-162.
(online at: https://www.delpher.nl/nl/boeken/view?coll=boeken&identifier=MMKB02:100003937:00013)
('The geology and geomorphology of the Idjen'. Monograph on the Ijen highlands and Ijen volcano and caldera complex, easternmost Java. Year of publication not mentioned in the book, but usually assumed to be 1921. (although Kemmerling's foreword is from 1917))

Kemmerling, G.L.L. (1921)- De uitbarsting van den G. Keloet in den nacht van den 19den op den 20sten Mei 1919. Vulkanologische Mededeelingen (Dienst van het Mijnwezen, Batavia) 2, p. 1-120.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB24:064356000:00002)
('The eruption of the Kelud in the night of 19-20 May 1919'. Extensive report of catastrophic eruption and its results. Kemmerling managed to reach Kelut crater 4 days after eruption, and found the crater lake had disappeared, but crater walls remained intact)

Kemmerling, G.L.L. (1921)- De hernieuwde werking van den vulkaan G. Merapi (Midden Java) van begin Augustus 1920 tot en met einde Februari 1921. Vulkanologische Mededeelingen (Dienst Mijnwezen Nederlandsch Oost Indie) 3, p. 1-30.
('The renewed activity of the volcano G.Merapi (C Java) from early August 1920 through end February 1921')

Kemmerling, G.L.L. (1921)- Vulkanologische Berichten I-XII. Natuurkundig Tijdschrift voor Nederlandsch-Indie 81, p. 33-66.
('Volcanological Reports 1-12'. Series of short reports on 1920-1921 activities of Indonesia's most active volcanoes. I. Goentoer, II. Papandajan, III. Telagabodas, IV. Galoenggoeng, VI. Sorok Merapi, VII. Peuet Sagoee (Aceh), VIII. Merapi, IX. Keloet, Raoeng, XI. Kawah Idjen, XII. Batoer (Bali))

Kemmerling, G.L.L. (1922)- Vulkanologische Berichten XIII-XIV. Natuurkundig Tijdschrift voor Nederlandsch-Indie 82, p. 90-102.
('Volcanological Reports 13-14'. Short reports on 1921-1922 activities of Indonesia's active volcanoes. XIII. Awoe (Sangi), XIV. Keloet)

Kemmerling, G.L.L. & N. Taverne (1922)- Vulkanologische Berichten XV-XX. Natuurkundig Tijdschrift voor Nederlandsch-Indie 82, p. 188-207.
(online at: https://resolver.kb.nl/resolve?urn=MMTEY01:179526002:pdf)
('Volcanological Reports 15-20'. Short reports on 1922 activities of Indonesia's active volcanoes. XV. Merapi, XVI. Merbaboe, XVII. Sendoro, XVIII. Misc., XX. Seroea (Banda Sea) (For continuation of this series, see Taverne, 1923-1925))

Kemmerling, G.L.L. (1922)- De G. Semeroe, De G. Brama en de G. Lamongan in het begin van 1920. Vulkanologische Mededeelingen (Dienst Mijnbouw Nederlandsch-Indie), 4, p. 1-40.
(online at: https://drb-qa.nypl.org/read/6646625)
('Activities of the Semeru (Mahameroe), Brama (Bromo) and Lamongan volcanoes in early 1920'. East Java)

Kemmerling, G.L.L. (1924)- De drooglegging van het kratermeer van Goenoeng Keloet. De Ingenieur 39, 8, p. 127-133.
('The drainage of the crater lake of Gunung Kelud'. Detailed report at request of B.G. Escher on plans for drainage of Kelud crater lake, incl. problems with tunneling, the April 1924 fatal accident, etc. Engineering work initially designed and supervised by H.G. von Steiger, later continued by Ir. H. Tromp, N. Taverne and others. See also response by Taverne (1924))

Kemmerling, G.L.L. (1931)- Beschouwingen over de hernieuwde werking van den Merapi der Vorstenlanden van December 1930. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2), 48, p. 712-743.
('Discussion of the renewed activity of the Merapi in Central Java of December 1930'. Kemmerling disagrees with some of the Merapi 1930 narrative of Neumann van Padang (1931, De Mijningenieur). With Naschrift (post-script) on p. 934-935, criticizing some of the locations of the volcano observation posts, and recommends permanent removal of population from W and S flanks of Merapi)

Kirchenbaur, M., S. Schuth, A.R. Barth, A. Luguet, S. Konig, A. Idrus, D. Garbe-Schonberg & C. Munker (2022)- Sub-arc mantle enrichment in the Sunda rear-arc inferred from HFSE systematics in high-K lavas from Java. Contributions to Mineralogy and Petrology 177, 8, p. 1-25.
(online at: https://link.springer.com/content/pdf/10.1007/s00410-021-01871-9.pdf)
(Geochemistry of extended HFSE group (Nb-Ta-Zr-Hf-W-Mo) of K-rich rear-arc volcanoes Muria and Ringgit, compared to lavas of main Sunda arc volcanoes (Krakatoa, Galunggung, Merapi, Agung, Rinjani). Clear contribution of sediment to frontal arc lavas; K-rich rear-arc lavas tap more hybrid and enriched mantle sources. Sub-arc slab melting potentially triggered along slab tear beneath Sunda arc (result of forced subduction of oceanic basement relief at ~ 8 Ma). Age of slab tear coincides with paucity in arc volcanism, thrusting of Javanese basement crust and short-lived K-rich rear-arc volcanism)

Kohno, Y., L.D. Setijadji, P. Zoltan, H. Agung, P. Utami, A. Imai & K. Watanabe (2006)- Geochronology and petrogenetic aspects of Quaternary across arc magmatism on Merapi-Merbabu-Telomoyo-Ungaran volcanoes, Central Java, Indonesia. Proc. 3rd Symposium Earth resources and geological engineering education, Yogyakarta 2006, p. 194-201.
(online at: http://geothermal.ft.ugm.ac.id/wp-content/uploads/2012/12/Geochronology-and-Petrogenetic-Aspects-2006-Lucas-et-al.pdf)
(Paper documenting progressive S-ward younging of volcanic activity along Ungaran- Telomoyo- Merbabu-Merapi line of Quaternary volcanoes. Merapi in S currently active, with oldest flows dated as ~0.67 Ma. Ungaran in back-arc in N with Pleistocene K-Ar ages (0.22- 0.52 Ma and older ages (1.4± 0.5 Ma) from hornblende phenocrysts). Merapi lavas evolve from medium-K to high-K affinity during lifetime of magmatism)

Komorowski, J.C., S. Jenkins, P.J. Baxter, A. Picquout, F. Lavigne, S. Charbonnier, R. Gertisser et al. (2013)- Paroxysmal dome explosion during the Merapi 2010 eruption: Processes and facies relationships of associated high-energy pyroclastic density currents. J. Volcanology Geothermal Research 261, p. 260-294. *(online at: https://www.academia.edu/23458188/Paroxysmal_dome_explosion_during_the_Merapi_2010_eruption_Processes_and_facies_relationships_of_associated_high_energy_pyroclastic_density_currents)*
(S-directed explosions and retrogressive collapses on 5 November 2010 at Merapi destroyed rapidly-growing dome and generated high-energy pyroclastic density currents spreading over 22 km^2 with runout of 8.4 km, while contemporaneous co-genetic valley-confined PDCs reached 15.5 km)

Koning, J. (1919)- De Kloet ramp van 20 Mei 1919. N.V. Soerabaiasch Handelsblad, p. p. 1-228.
(online at: https://resolver.kb.nl/resolve?urn=MMKB24:068541000:pdf)
('The Kelud disaster of 20 May 1919'. Collection of eyewitness reports on 1919 Kelud disaster in E Java, which killed 5110 people by lahar in area around Blitar by journalists of Surabaya newspaper and other contributors, incl. G. Kemmerling and W. van Bemmelen Sr)

Koulakov, I., G. Maksotova, K. Jaxybulatov, E. Kasatkina, N.M. Shapiro, B.G. Luehr, S. El Khrepy & N. Al-Arifi (2016)- Structure of magma reservoirs beneath Merapi and surrounding volcanic centers of Central Java modeled from ambient noise tomography. Geochem. Geophysics Geosystems 17, 10, p. 4195-4211. *(online at: http://gfzpublic.gfz-potsdam.de/pubman/item/escidoc:1975923:7/component/escidoc:1978904/1975923.pdf)*
(3D S-wave velocity model of upper crust down to 20 km under C Java from seismic ambient noise from >100 seismic stations. Large low-velocity anomaly under S flank of Merapi, with two layers: (1) upper ~1 km cover of volcanoclastic deposits and (2) anomaly at ~4–8 km (possible magma reservoir). Under Merapi summit, low-velocity anomaly at ~8 km, possibly active magma reservoir that feeds eruptive activity of Merapi)

Kupper, H. (1984)- Die Stellung des Vulkans Krakatao im Malayischen Archipel, Indonesien. Mitteilungen Osterreichischen Mineralogischen Gesellschaft 129, p. 65-68.
(online at: https://opac.geologie.ac.at/ais312/dokumente/Mitt_OEMinGes_129_065_068.pdf)
('The position of the Krakatau volcano in the Malay Archipelago'. Brief review at '100 year Krakatau' symposium)

Kurniawan, I.A., T. Hasenaka & E. Suparka (2011)- Quartenary Gede Salak volcanic complex, Banten area, at the junction between Sumatra arc and Java arc, Indonesia. Proc. ISEGA Conf.?, p. 1-14.
(online at: https://www.researchgate.net/publication/258467739_Quartenary_Gede_Salak_volcanic_complex_Banten_area_at_the_junction_between_Sumatra_arc_and_Java_arc_Indonesia)
(Pleistocene Gede Salak volcanic complex in W Java consists of Gede, Salak, Batur and Wadas volcanoes. Mainly pyroclastic flow deposits in W and lava flows in E part. M edum- high-K basaltic to trachytic rocks, REE pattern similar to back-arc volcanoes)

Lapian, A.B. (1985)- Volcanoes and the history of Indonesia (with special reference to the big eruption of Krakatau in 1883. In: D. Sastrapradja et al. (eds.) Proc. Symposium on 100 years development of Krakatau and its surroundings, Jakarta 1983, Indonesian Inst. of Sciences (LIPI), p.

Latengke, V.C., I. Faiqi, P.A.S.M. Dewi & E.N. Nainggolan (2019)- Characteristics of Muria vulkanism and tectonic impact at development of nuclear reactor in Muria, Central Java. Proc. EAGE-GSM 2nd Asia Pacific Meeting on Near Surface Geoscience and Engineering, Kuala Lumpur 2019, p. 1-5.
(Muria volcano at C Java north coast near proposed site of nuclear rector. Young Muria vulcanism was produced in 320 ka, but no recorded historic volcanic activity. Magmas ultrapotassic series in middle-base lava series and calc-alkaline potassic and shoshonitic series from cooling magma with contact with ground water producing phreatic eruptions)

Lavigne, F. (1998)- Les lahars du volcan Merapi, Java central, Indonesie: declenchement, budget sedimentaire, dynamique et zonage des risques associes. Ph.D. Thesis Universite Blaise Pascal, Clermont-Ferrand, p. 1-539.
('The lahars of Merapi Volcano, Central Java, Indonesia: triggering, sediment budget, dynamics and zoning of associated risks')

Lavigne, F. (2004)- Rate of sediment yield following small-scale volcanic eruptions: a quantitative assessment at the Merapi and Semeru stratovolcanoes, Java, Indonesia. Earth Surface Processes and Landforms 29, 8, p. 1045-1058.

Lavigne, F., R. Hadisantono, M. Sumaryadi, F. Flohic & F. Geyer (2003)- L'eruption du volcan Papandayan (Indonesie) en novembre 2002: aleas directs et induits. Bull. Association Geographes français 81, 1, p. 84-94.
(online at: https://www.persee.fr/docAsPDF/bagf_0004-5322_2004_num_81_1_2368.pdf)
('The eruption of the Papandayan volcano in November 2002: direct and induced hazards'. Eruption expelled more than one million m^3 of volcanic ash. Entire drainage basin was disrupted through several geomorphic processes)

Lavigne, F. & H. Suwa (2002)- Contrasts between debris flows, hyperconcentrated flows and stream flows at a channel of Mount Semeru, East Java, Indonesia. Geomorphology 61, 1-2, p. 41-58.
(Study of debris flows, hyperconcentrated flows, and stream flows in Curah Lengkong river on SE slope of Mount Semeru in East Java)

Lavigne, F. & J.C. Thouret (2002)- Sediment transportation and deposition by rain-triggered lahars at Merapi Volcano, Central Java, Indonesia. Geomorphology 49, p. 45-69.
(online at: https://www.researchgate.net/publication/223696787_Sediment_Transportation_and_Deposition_by_Rain-Triggered_Lahars_at_Merapi_Volcano_Central_Java_Indonesia)
(Merapi volcano in C Java prone to lahar generation, due to: (1) millions of m^3 of pyroclastic deposits from frequent pyroclastic flows at 2- 4-year intervals; (2) high rainfall intensity during the November-April rainy season; and (3) dense drainage pattern)

Lavigne, F., J.C. Thouret, D.S. Hadmoko & C.B. Sukatja (2007)- Lahars in Java: initiations, dynamics, hazard assessment and deposition process. Forum Geografi 21, 1, p. 17-32.
(online at: http://journals.ums.ac.id/index.php/fg/article/view/1822/1274)
(Lahar term for rapidly flowing, high-concentration, poorly sorted sediment-laden mixtures of rock debris and water from a volcano. Resulting deposits poorly sorted, massive, made up of clasts (mainly volcanics) in mud-poor matrix. Lahars may be direct result of eruptive activity or not temporally related to eruptions. Etc.)

Lavigne, F., J.C. Thouret, B. Voight, H. Suwa & A. Sumaryono (2000)- Lahars at Merapi volcano, Central Java: an overview. J. Volcanology Geothermal Research 100, p. 423-456. *(online at: www.researchgate.net/publication/223908999_Lahars_at_Merapi_Volcano_Central_Java_An_Overview*
(Merapi volcano in C Java, is one of most active volcanoes in world. At least 23 of 61 reported eruptions since mid-1500s produced lahar deposits. Combined lahar deposits ~286 km^2 on flanks and surrounding areas. Lahars commonly triggered by rainfalls of ~40mm in 2 hrs. Average velocities 5-7 m/s at 1000m)

Legowo, B., S. Putra, M.K.I. Mufti, H. Purwanto, H. Rifai, W. Suryanto & B. Purnama (2023)- Identification pyroclastic flow of magnetic minerals (Holocene volcano): a case study of paleo-volcano Lawu on the South side, Central Java, Indonesia. Kuwait J. Science 50, 4, p. 724-730.

(manuscript online at: https://www.sciencedirect.com/science/article/pii/S2307410823001232)
(Inactive 'Old Lawu' volcano in C Java (~10,000 years old. Lawu volcano erupted on November 28, 1885. Discusses of magnetic susceptibiliyy and minerals in pyroclastic flows from Mt Lawu))

Le Guern, F., H. Tazieff & R. Faivre Pierret (1982)- An example of health hazard: people killed by gas during a phreatic eruption: Dieng Plateau, Java, Indonesia: Bulletin of Volcanology 45, p. 153-156.
(142 inhabitants of Dieng Plateau in C Java were asphyxiated on February 20, 1979, by poisonous magmatic CO_2 gas, during a mild phreatic eruption)

Lestiani, D.D., R.Apryani, L. Lestari, M. Santoso, E.P. Hadisantoso & S. Kurniawati (2018)- Characteristics of trace elements in volcanic ash of Kelud eruption in East Java, Indonesia. Indonesian J. of Chemistry (UGM) 18, 3, p. 457-463.
(online at: https://jurnal.ugm.ac.id/ijc/article/view/26876/20850)
(Chemistry of ash from Mt Kelud eruption of February 13, 2014. Ejected huge plume of ash and sand >26 km into air, which moved >500km west over Java. Composition medium-K basaltic andesite. Etc.)

Leterrier, J., Y.S. Yuwono, R. Soeria-Atmadja & R.C. Maury (1990)- Potassic volcanism in Central Java and South Sulawesi, Indonesia. J. Southeast Asian Earth Sciences 4, 3, p. 171-187.
(Neogene- Quaternary K-rich volcanics from back-arc of C Java and S Sulawesi 3 series: (1) silica-saturated or oversaturated potassic (SK); (2) weakly silica-saturated alkaline potassic (Muria 1, Genuk in Java; Baturape Fm, Cindako Fm, Camba 2a Fm and part of Lompobatang stratovolcano, S Sulawesi); and (3) silica-undersaturated ultrapotassic, usually leucite-bearing (Muria 2, Bawean in Java; Camba 2b Fm, Sopeng I Fm in Sulawesi). Rocks compatible with subduction-related environment, but in S Sulawesi emplacement post-dates latest known subduction. In C Java do not fit with model of increasing K2O with depth of Benioff plane, and location of UK series is independent from latter (Quaternary UK Series on Bawean away from 600 km isobath). Prefer genetic model for K-rich volcanic series by melting of mantle sources enriched in incompatible elements during previous subduction events, and possibly involving contribution of subcontinental mantle (C Java))

Li, W., F. Costa, K. Nagashima (2021)- Apatite crystals reveal melt volatile budgets and magma storage depths at Merapi Volcano, Indonesia. Journal of Petrology 62, 4, p. 1-35.
(online at: https://academic.oup.com/petrology/article/62/4/egaa100/5941471)

Lube, G., S.J. Cronin, J.C. Thouret & Surono (2011)- Kinematic characteristics of pyroclastic density currents at Merapi and controls on their avulsion from natural and engineered channels. Geological Society of America (GSA) Bull. 123, 5-6, p. 1127-1140.
(online at: https://www.researchgate.net/publication/236974572_Kinematic_characteristics_of_pyroclastic_density_currents_at_Merapi_and_controls_on_their_avulsion_from_natural_and_engineered_channels)
(On 14 June 2006 four dome collapses at Merapi volcano, C Java, led to generation of four block-and-ash flows into Kali Gendol valley. All four pyroclastic density currents locally overflowed channel margins to devastate cultivated terraces along each side of the box-shaped canyon, while propagating 2.2 km within adjacent tributaries. Fow avulsion caused by overflow of up to 20 vol% of dense, basal part of pyroclastic density currents onto interfluves)

Maaskant, A. (1940)- Onderzoek van de plagioklasen uit de Krakatau-asch van 1883. Geologie en Mijnbouw, n.s., 2, 8, p. 160-167.
(online at: https://drive.google.com/file/d/130IjYQyZNXfIr0vcVFUzMS95psrIH6bW/view)
('Investigation of plagioclase from the Krakatau ash of 1883'. Krakatau 1883 ash 91% glass and 9% crystals. Two groups of (zoned) plagioclase crystals, one with core average An of 45%, one with average 75%)

Madden-Nadeau, A.L., M. Cassidy, D.M. Pyle, T.A. Mather, S.F.L. Watt, S.L. Engwell, M. Abdurrachman, M.E.M. Nurshal, D.R. Tappin & T. Ismail (2021)- The magmatic and eruptive evolution of the 1883 caldera-forming eruption of Krakatau: Integrating field- to crystal-scale observations. J. Volcanology Geothermal Research 411, 107176, p. 1-21.
(Manuscript online at: https://nora.nerc.ac.uk/id/eprint/529635/1/Krakatau1883_Paper_Final_LF.pdf)

(Sequence of events since May 1883 before caldera-forming paroxysmal explosion of Krakatau volcano on 27 August 1883)

Maeno, F. & F. Imamura (2011)- Tsunami generation by a rapid entrance of pyroclastic flow into the sea during the 1883 Krakatau eruption, Indonesia. J. of Geophysical Research: Solid Earth 116, B9, B09205, p. 1-24.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/2011JB008253/epdf)
(Pyroclastic flow with volume of >5 km^3 rapidly entering sea at 10 million m3/second(?) most plausible mechanism of 1883 Krakatau tsunami)

Maeno, F., S. Nakada, M. Yoshimoto, T. Shimano, N. Hokanishi, A. Zaennudin & M. Iguchi (2019)- A sequence of a plinian eruption preceded by dome destruction at Kelud volcano, Indonesia, on February 13, 2014, revealed from tephra fallout and pyroclastic density current deposits. J. Volcanology Geothermal Research 382, p. 24-41.
(online at: https://www.sciencedirect.com/science/article/pii/S0377027317301385)
(Reconstruction of 2014 Kelud eruption sequence. Plinian phase preceded by destruction of earlier lava dome)

Maeno, F., S. Nakada, M. Yoshimoto, T. Shimano, N. Hokanishi, A. Zaennudin & M. Iguchi (2019)- Eruption pattern and a long-term magma discharge rate over the past 100 years at Kelud Volcano, Indonesia. J. of Disaster Research (Tokyo) 14, 1, p. 27-39.
(online at: https://www.jstage.jst.go.jp/article/jdr/14/1/14_27/_pdf/-char/en)
(Kelud Volcano among most active volcanoes in Indonesia. Volumes of 1901, 1919, 1951, 1966, 1990, and 2014 eruptions estimated between 51-296 × 10^6 m3. Long-term mass discharge rate was estimated as ~1.5 × 10^{10} kg/year, relatively high compared to other basaltic-andesitic subduction-zone volcanoes)

Mandeville, C.W., S.H.S. Carey & J. King (1994)- Paleomagnetic evidence for high temperature emplacement of the 1883 subaqueous pyroclastic flows from Krakatau volcano, Indonesia. J. of Geophysical Research 99, B5, p. 9487-9504.
(1883 eruption of Krakatau volcano in Indonesia discharged >6.5 km^3 (dense rock equivalent) of pyroclastic material into Sunda Straits within 15km of volcano. Paleomagnetic evidence for high-emplacement T from pumice clasts from core of submarine pyroclastic deposits, showing mean inclination of ~24°, indicating cooling of clasts from >350°C after deposition)

Mandeville, C.W., S. Carey & H. Sigurdsson (1996)- Magma mixing, fractional crystallization and volatile degassing during the 1883 eruption of Krakatau volcano, Indonesia. J. Volcanology Geothermal Research 74, p. 243-274.
(Krakatau eruption of 1883 produced ~12.5 km3 of magma, 90% rhyodacite, 4% mafic dacite, 1% andesite and ~5% lithic material. Magma chamber compositionally and thermally zoned with upper part rhyodacite at T of 880-890 °C, overlying more mafic dacite at 890-913°C, and andesite at 980-1000°C)

Mandeville, C.W., S. Carey & H. Sigurdsson (1996)- Sedimentology of the Krakatau 1883 submarine pyroclastic deposits. Bulletin of Volcanology 57, 7, p. 512-529.
(Majority of tephra generated during 1883 eruption of Krakatau deposited in sea within 15 km of caldera. Thickest accumulation of tephra from eruption on submarine slopes W of Sertung (80m). Two submarine pyroclastic facies (1) massive, poorly sorted pumice and lithic lapilli-to-block sized fragments in silty-sandy ash matrix (indistinguishable from 1883 subaerial pyroclastic flow deposits; result of sinking of components of pyroclastic flows over water), (2) less common well-sorted, planar-laminated to low-angle cross-bedded, vitric-enriched silty ash, likely deposited from low-concentration pyroclastic density currents generated by shear between submarine flows and seawater)

Mandeville, C.W., A. Sasaki, G. Saito, K. Faure, R. King & E. Hauri (1998)- Open-system degassing of sulfur from Krakatau 1883 magma. Earth Planetary Science Letters, 160, 3-4, p. 709-722.
(Sulfur and oxygen isotopic data for tephra from August 1883 eruption of Krakatau. Sulfur isotopic ratios in unaltered tephra enriched in 34S relative to mantle sulfur. High values best be explained by open-system or multi-stage degassing of SO2 from oxidized rhyodacitic and gray dacitic magmas)

Marin, J., Y.M. Muhammad & T Winarno (2022)- Characteristics of volcanic rocks and associated intrusions based on petrography analysis in Jari-Krondonan Area, Bojonegoro Regency, East Java. Proc. 1st Int. Seminar on Earth Sciences and Technology (ISEST 2021), Bandung, IOP Conference Series: Earth and Environmental Science 1047, 012034, p. 1-10.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1047/1/012034/pdf)
(Pandan volcano one of dormant Quaternary volcanoes in E Java. Four andesitic intrusion centers which extend in N direction. Gabbro and metamorphic xenoliths Mount Lawang and Mount Watu, indicating interaction with country rock during rise of magma)

Marin, J., T. Winarno & D. Mindasar (2019)- Mineralogy and geochemistry variation of igneous rocks from Ungaran and Muria Volcano and Its processes related to subduction zone magmatism of Sunda Arc. Proc. Int. Conf. on Geoscience, Makassar 2018, IOP Conference Series: Earth and Environmental Science, 279, 012017, p. 1-9.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/279/1/012017/pdf)
(Igneous rocks from Ungaran and Muria volcanoes represent two different types of subduction magmatism: Ungaran typical volcanic arc basaltic andesite-andesite, Muria undersaturated, high-K calc alkaline-alkaline magma (confirming what has already been known for 50-100 years?; JTvG)

Marini, J.C. (2004)- L'Hafnium dans les zones de subduction: bilan isotopique des flux entrant et sortant. Doct. Sci. Thesis, Universite Joseph Fourier, Grenoble, p. 1-135.
(online at: www.iaea.org/inis/collection/NCLCollectionStore/_Public/37/095/37095281.pdf)
('Hafnium in subduction zones: isotopic record of incoming and outgoing flows'. Includes chapters on Hafnium isotopes in N Luzon and Late Eocene- Pleistocene volcanic arc lavas from Java, which appear very radiogenic, possibly caused by contamination of oceanic pelagic sediments in magma sources)

Maury, R.C., R. Soeria-Atmadja, R. Bellon, J.L. Joron, Y.S. Yuwono & E. Suparka (1987)- Nouvelles donnees geologiques et chronologiques sur le deux associations magmatiques du volcan Muria (Java, Indonesie). Comptes Rendus Academie Sciences, Paris, 304 (II), 4, p. 175-180.
('New geological and chronological data on the two magmatic associations of Muria volcano'. Two lava types in Pleistocene Muria volcano: young (0.6- 0.4 Ma) ultrapotassic leucite-bearing lavas and underlying leucite-free rocks, less rich in K (1.1- 0.6 Ma))

Minakami, T., T. Miyazaki & I. Surjo (1969)- Volcanological survey of Indonesian volcanoes- Part 1: Topographical change in the area near the summit crater of Mt. Merapii and and its geothermal survey. Bull. Earthquake Research Institute (University of Tokyo) 47, 5, p. 951-967.
(online at: https://repository.dl.itc.u-tokyo.ac.jp/records/33354)javascript:OnLinkClick('/record/33354/files/ji0475007.pdf', 33354, 'open_date')
(Brief review of historical changes in Merapi volcano crater area and new volcano observation in 1968. After Minakami's observations in 1941, seven new lava flows formed in 1948, 1953, 1954, 1956, 1957, 1961 and 1967. New temperature measurements mainly correspond to altitude of locations)

Mitsuoka, T., A. Toramaru, A. Harijoko & H.E. Wibowo, (2021)- Eruption types and conduit dynamics of Kukusan and Genteng volcanoes of the Ijen Volcanic Complex, Indonesia. Memoirs Faculty of Science, Kyushu University, D, Earth and Planetary Sciences 35, 1, p. 1-17.
(online at: https://api.lib.kyushu-u.ac.jp/opac_download_md/4371995/3501_p001.pdf)
(Eruption types of two monogenetic mafic volcanoes in Ijen volcanic complex: Kukusan volcano considered as sub-Plinian; Genteng is Strombolian. Kukusan scoria higher bubble number density and microlite crystallinity than Genteng, suggesting rapid magma ascent in volcanic conduit and higher magma viscosity, leading to a more explosive sub-Plinian eruption)

Moktikanana, M.L.A. & A. Harijoko (2022)- Reconnaissance study on the stratigraphy and characteristics of eruption products associated with basaltic caldera in Raung volcano, East Java, Indonesia. Proc. 13th AUN/SEED-Net Regional Conference Geological and Geo-Resource Engineering (RCGeoE 2021; online), IOP Conference Series: Earth and Environmental Science 1071, 012016, p. 1-11.

(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1071/1/012016/pdf)
(Raung volcano in E Java pre-historic devastating eruption evidenced by caldera at summit. Four pyroclastic fall deposits, two lava flows, ignimbrite, block and ash flow deposit, and lahar identified. Plinian eruption represented by layers of pumice fall, uncommon for an andesitic-basaltic stratovolcano)

Moktikanana, M.L.A., T. Ohba, A. Harijoko, H.E. Wibowo, M.A. Gurusinga & S.M. Cahyani (2024)- Geology, chronology, and temporal evolution of basaltic to dacitic magma system in Raung volcano, East Java, Indonesia. J. Volcanology Geothermal Research 452, 108126, p. 1-21.
(online at: https://www.sciencedirect.com/science/article/pii/S0377027324001185)
(Raung volcano in East Java (3332 m above s.l.) with magma composition from basalt to dacite. Frequently active from 1580-now. Radiocarbon dating of charcoal beneath tephra fall layers yield ages of major Plinian VEI-4 to VEI-5 eruptions were around 1200 CE and 1600 CE. Current volcanic activity mainly andesitic Strombolian eruption. Etc.)

Moktikanana, M.L.A., H.E. Wibowo, E. Rahayu & A. Harijoko (2021)- Hummock size and alignment in Gadung debris avalanche deposit, Raung Volcanic Complex, East Java, Indonesia. IOP Conference Series: Earth and Environmental Science 851, 012037, p. 1-16.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/851/1/012037/pdf)
(Debris avalanche deposit Gunung Gadung in Raung Volcanic Complex formed by failure of volcanic edifice. Collapse followed two main flow directions with different kinds of debris avalanche, i.e., freely spreading and valley filling. No significant correlation between hummock size and distance from source)

Muhammad, A.E.P., M. Abdurrachman, N. Kartadinata & W.F. Banggur (2025)- Petrogenesis of Sadakeling-Karaha Volcanic Complex, Tasikmalaya, West Java, Indonesia: Argoland contamination. Proc. 1st Int. Conference of Petroleum Mining Geology Geoscience Energy & Environmental Technology (ICPMGET), Jakarta 2024, IOP Conference Series: Earth and Environmental Science 1451, 012021, p. 1-9.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1451/1/012021)
(Sadakeling-Karaha Volcanic Complex N of Galunggung in W Java categorized as Volcanic Arc Basalt. Strong influence of continental crust suggests part of active continental margin, with contamination from Sundaland crust in N and Gondwana in S. Trace element Sr and Nd suggest link with SE Australian Granite)

Muller, M., A. Hordt & F.M. Neubauer (2002)- Internal structure of Mount Merapi, Indonesia, derived from long-offset transient electromagnetic data. J. of Geophysical Research 107, B9, p. 2187.
(Long-offset transient electromagnetic survey gave 2 resistivity profiles (10 km E-W and 15 km S-N) of Merapi volcano, C Java. Extensive conductive layer at depths of 1-2 km, probably caused by fluids)

Mulyadi, E. (1992)- Le complexe de Bromo-Tengger (Est Java, Indonesie): etude structurale et volcanologique. Doct. Thesis Universite Blaise Pascal, Clermont Ferrand, France, p. 1-152. *(Unpublished)*
('The Bromo- Tengger complex (East Java): structural and volcanological study')

Mulyadi, E. (1993)- The sand-sea and other calderas formation in Bromo-Tengger complex, East Java. Proc. 22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 35-44.
(online at: https://www.iagi.or.id/web/digital/61/7.pdf)
(In Bahasa Indonesia. Bromo-Tengger complex in E Java composite strato-volcano. Five eruption centers since ~1.4 Ma, each destroyed by caldera formation. Current Sand Sea caldera 9x10km wide and formed during two big eruption series that produced Tosari and Ngadas pyroclastic deposits (between ~2750- 8000 years ago?). Post-caldera volcanic cones Bromo, Batur, etc.)

Mulyaningsih, S. (2002)- Volcano-stratigraphy on the South Plain of Merapi, Yogyakarta: implication of volcanic activities to the civilization performance in the 8-16th centuries. Proc. 31st Annual Conv. Indonesian Association Geologists (IAGI), Surabaya, 2, p. 397-411. *(online at: https://www.iagi.or.id/web/digital/18/VOLCANO-STRATIGRAPHY-ON-THE-SOURTH-PLAIN-OF-MERAPI,-YOGYAKARTA;-IMPLICATION-OF-VOLCANIC-ACTIVITIES-TO-THE-CIVILIZATION-PERFORM Etc.)*

(Four periods of major eruption disasters at S side of Merapi: 8th, 10th (1006, demise of 'Old Mataram'?), 13th and 16th (1587) centuries)

Mulyaningsih, S. & S. Bronto (2000)- Genesis of the ancient Borobudur Lake, Central Java, related to Merapi volcano activities. Proc. 29th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 4, p. 149-154.
(Borobudur temple 27 km W of Merapi volcano built in area surrounded by former lake, possibly formed by damming of Progo River by Merapi eruption deposits around 1710 BC. Lake deposits ~13m thick)

Mulyaningsih, S., S. Bronto, A. Kusniadi, L. Apriyanti, L. Budiyanto & D.A. Wiloso (2022)- The petrology and volcano-stratigraphy of the Muria-Peninsula high-K volcanic rocks, Central Java, Indonesia. J. Geoscience Engineering Environment Technology (JGEET) 7, 2, p. 69-80.
(online at: https://journal.uir.ac.id/index.php/JGEET/article/download/9602/4364/)
(Quaternary Muria volcano (1.2 Ma- 10ka) at N coast of Java with high-very high-K ('ultrapotassic') volcanics, with leucite-rich trachyte and pyroxene-rich basaltic-andesites. Volcanic complex includes Muria (in center, with 4 craters), Genuk (N) and Patiayam (S) eruption centers. High-K volcanics with 4-6% K2O, very high-K volcanics with 6-8.2% K2O. Calcareous sediments of Bulu Fm are basement of Muria trachyandesite. Pumice-rich volcanic breccia of Ujungwatu Fm are basement of basanite-tephrite of Genuk Volcano. Most of Muria volcanic materials low in leucite, while some maars contain pumice-rich pyroclastic flows and basaltic lava. Two periods of magmatic series developed in Muria-Peninsula)

Mulyaningsih, S. & S. Godang (2020)- Geochemistry of basaltic Merbabu volcanic rocks, Central Java, Indonesia. Indonesian J. on Geoscience (IJOG) 7, 2, p. 161-178.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/456/312)
(S flank of Merbabu Volcano with olivine basalt and augite-rich basalt flows)

Mulyaningsih, S., S. Hidayat, B.A. Rumanto & G. Saban (2016)- Identifikasi karakteristik erupsi gunung api Merbabu berdasarkan stratigrafi dan mineralogi batuan gunung api. Pros. Seminar Nasional Aplikasi Sains & Teknologi (SNAST 2016), Yogyakarta, p. 85-97.
(online at: http://journal.akprind.ac.id/index.php/snast/article/view/757/484)
('Identification of eruption characteristics of Merbabu volcano based on the stratigraphy and mineralogy of volcanic rocks')

Mumtaza, T.H., E. Handini, T. Hasenaka, Y. Mori & T.N. Khasanah (2024)- Petrology and geochemistry of Mount Lurus lavas: evidence for alkaline to subalkaline transition in the rear arc of Java, Sunda Arc. Proc. Int. Conf. Geological Engineering and Geosciences, Yogyakarta 2023, IOP Conference Series: Earth and Environmental Science 1373, p. 012035, p. 1-7.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1373/1/012035/pdf)
(Mount Lurus small Quaternary volcanic center at N coast of eastermost Java near Ringgit-Beser. Erupted both alkaline and subalkaline calcalkaline, island arc lavas. Magmas sourced from at least three magma chambers of distinct composition: highly potassic (comparable to evolved-K series of Ringgit-Beser) and hydrous-potassic magma (Old Lurus edific) and calc-alkaline magma (Young Lurus edifice))

Nadeau, O. (2011)- The behaviour of base metals in arc-type magmatic-hydrothermal systems- insights from Merapi Volcano, Indonesia. Ph.D. Thesis McGill University, Montreal, p. 1-195. *(online at: https://central.bac-lac.gc.ca/.item?id=TC-QMM-104612&op=pdf&app=Library&oclc_number=794605927)*
(At Merapi, injection of sulfide melt-saturated mafic magma into shallower, more evolved and more oxidized resident magma induced exsolution of hydrothermal fluid from mafic magma. Viewed as possible model of formation of porphyry copper deposits below stratovolcanoes)

Nadeau, O., J. Stix & A.E. Williams-Jones (2013)- The behavior of Cu, Zn and Pb during magmatic-hydrothermal activity at Merapi volcano, Indonesia. Chemical Geology 342, p. 167-179.
(Fe, Cu, Co and Ni at Merapi volcano transferred from mafic melt to immiscible sulfide melt, then to magmatic volatile phase which carried them to surface)

Nadeau, O., J. Stix & A.E. Williams-Jones (2016)- Links between arc volcanoes and porphyry-epithermal ore deposits. Geology (GSA) 44, 1, p. 11-14.
(Formation of porphyry and epithermal ore deposits tied to volcanic cycles (partly based on observations of variations in vapors from Merapi volcano, C Java). Injections of mafic magma (commonly with explosive volcanic eruptions) are followed by decompression of magmatic hydrothermal system, inducing fluid phase separation, rapid cooling, and deposition of porphyry and epithermal ores at rel. shallow depths (<5km))

Nadeau, O., A.E. Williams-Jones & J. Stix (2013)- Magmatic-hydrothermal evolution and devolatilization beneath Merapi Volcano, Indonesia. J. Volcanology Geothermal Research 261, p. 50-68.

Nasution, A., M.N. Kartadinata, T. Kobayashi, D. Siregar, E. Sutaningsih, R. Hadisantono & E. Kadarstia (2004)- Geology, age dating and geochemistry of the Tangkuban Parahu geothermal area, West Java, Indonesia. J. Geothermal Research Soc. Japan 26, 3, p. 285-303.
(online at: https://www.jstage.jst.go.jp/article/grsj1979/26/3/26_3_285/_pdf)
(Three main episodes of volcanic activity in Mt. Sunda volcanic complex (Sunda, Burangrang and Tangkuban Parahu volcanoes): (1) Batunyusun Andesite (1.1 Ma), which unconformably overlies Neogene sediments; (2) Sunda Volcanics (0.56 and 0.18 Ma; Sunda Andesite and huge volume of pyroclastics covering area of 200 km^2 and with caldera-forming eruption between 0.205-0.18 Ma; (3) Tangkuban Parahu andesite and pyroclastics (62-22 ka). Younger craters at 9980-1440 yrs BP. No magmatic eruption since 1600)

Nawiyanto & N. Sasmita (2019)- The eruption of Mount Kelud in 1919: Its impact and mitigation efforts. Proc. 1st Int. Conf. Social Sciences and Interdisciplinary Studies (ICSSIS 2018), Advances in Social Science, Education and Humanities Research 208, p. 127-133.
(online at: https://www.atlantis-press.com/article/125906275.pdf)
(Review of 19-20 May 1919 disastrous eruption of Kelud volcano in E Java, with >5000 fatalities. During 20th century, Mt Kelud erupted in 1901, 1910, 1919, 1951 and 1990, of which 1919 eruption was among biggest)

Neumann van Padang, M. (1929)- De noordelijke doorbraak in de Papandajan kraterwand. De Mijningenieur 10 (1928), 3, p. 52-58.
('The northern breakthrough in the Papandayan crater wall'. West Java)

Neumann van Padang, M. (1929)- Goenoeng Papandajan. Proc. 4th Pacific Science Congress, Java 1929, Excursion Guide C1, 2, p.
(Excursion guide to Papandayan volcano near Garut, W Java, 1929)

Neumann van Padang, M. (1931)- Een en ander over de uitbarsting van den Merapi in 1930. De Mijningenieur 12, 2, p. 20-25.
('About the eruption of the Merapi in 1930')

Neumann van Padang, M. (1931)- Der Ausbruch des Merapi (Mittel Java) im Jahre 1930. Zeitschrift fur Vulkanologie 14, p. 135-148.
('The eruption of the Merapi (Central Java) in the year 1930'. Major simultaneous pyroclastic flow and block lahar of the 18/19 December 1930 catastrophe at Merapi was triggered by crater collapse. Entire area covered with 40 cm thick ash deposit, numerous casualties, Etc.)

Neumann van Padang, M. (1931)- De Merapi (Midden Java). De Tropische Natuur 20 (1931), 6, p. 99-103.
(online at: https://natuurtijdschriften.nl/pub/510840)
('The Merapi (Central Java)'. Historical review of Merapi volcano, which through much of its history did not have a crater at the top, but a dome-shaped lava mass. Eruptions since 1883 always same pattern: eruption of viscous lava, forming a lava dome, which plugs the eruption channel, and new magma needs to find alternative route. The catastrophic 18/19 December 1930 eruption involved collapse of part of mountain flank. Etc.))

Neumann van Padang, M. (1931)- Die Beziehungen zwischen Anfang und grosster Kraftentfaltung eines vulkanischen Ausbruches. Handelingen 6e Nederlands-Indisch Natuurwetenschappelijk Congres, Bandoeng September 1931, p. 670-679.
(The relations between the start and the greatest energy of a volcanic eruption')

Neumann van Padang, M. (1933)- Haben bei den Ausbrüchen des Slamet-Vulkans Eruptionsregen stattgefunden? Leidse Geologische Mededelingen 6, 1, p. 79-97.
(online at: https://repository.naturalis.nl/pub/505681)
('Did eruption rains take place during eruptions of the Slamet volcano?'. Discussion on possibility of rainfall triggered by volcanic eruptions (and feed lahars), as suspected during Gecember 1930 eruption of Merapi. Using rainfall data from 10 small eruptions with ash rains of Slamet volcano, Java, between 27 November 1926 and September 1932, the answer is: no evidence)

Neumann van Padang, M. (1933)- De uitbarsting van den Merapi (Midden Java) in de jaren 1930-1931. Vulkanologische en Seismologische Mededeelingen (Dienst van den Mijnbouw) 12, p. 1-116.
(online at: https://resolver.kb.nl/resolve?urn=MMKB24:076860000:pdf)
('The eruption of the Merapi (Central Java) in the years 1930-1931'. Including formation of a lava dome and a 2km long lava flow, followed by 'nuees ardentes'. Eruption of 18 December 1930 destroyed large part of the west slope of Merapi, killing 1369 people and destroying 13-23 villages by multiple nuees ardentes. With report on gases, thermal waters, etc. by M. Hartmann)

Neumann van Padang, M. (1933)- De Krakatau voorheen en thans. De Tropische Natuur 22, 8, p. 137-150.
(online at: https://natuurtijdschriften.nl/pub/511015/TN1933022008001.pdf)
('Krakatau, then and now'. Popular, but comprehensive and elegant review of development of Krakatau volcano, 50 years after 1883 eruption)

Neumann van Padang, M. (1936)- Die Tatigkeit des Merapi-Vulkans (Mittel Java) in den Jahren 1883-1888. Zeitschrift fur Vulkanologie 17, p. 93-113.
('The activity of the Merapi volcano (Central Java) in the years 1883-1888')

Neumann van Padang, M. (1936)- Over de verplaatsing van de kraters der vulkanen Slamet, Lamongan, Merapi en Semeroe. De Ingenieur in Nederlandsch-Indie (IV) 3, 1, p. IV.1- IV.6.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1936-01.pdf)
('On the displacement of the craters of the volcanoes Slamet, Lamongan, Merapi and Semeru'. Several of Java active volcano groups show shift with age of active craters from N to S (Ungaran-Merbabu- Merapi) or NE to SW (Slamet, Lamongan), probably following fault zones)

Neumann van Padang, M. (1936)- Der Krater des Anak Krakatau. De Ingenieur in Nederlandsch-Indie (IV) 3, 6, p. 101-107.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1936-06.pdf)
('The crater of the Anak Krakatau'. Discussion of evolution of Anak Krakata volcano from its first appearance on 29 December 1927 (after 44 years of Krakatau dormancy) until July 1935. Minor S-ward displacement of eruption center between 1927-1930. Anak Krakatau I was destroyed by wave erosion in January 1928. Anak Krakatau II lasted from January-July 1929, Anak Krakatau III from June 1930 until 9 August 1930, but soon re-emerged as Anak Krakatau IV in mid-August 1930 (and still exists today)

Neumann van Padang, M. (1936)- Het Dieng Gebergte. De Tropische Natuur, Jubileum Uitgave 25 years NINHV, p. 27-36.
(online at: https://natuurtijdschriften.nl/pub/511295)
('The Dieng Mountains', East Java. Dieng Mountains a volcano ruin, with 12 or more small, younger secondary volcanoes formed in area of 6 x 14 km). Junghuhn (1854) and Verbeek and Fennema (1896) considered it to be an old caldera, but theory disputed by Umbgrove (1929). Five andesite-basalt lava groups)

Neumann van Padang, M. (1937)- De uitbarsting van den Tjerimai in 1937 (verschijnselen van Juni t/m September). De Ingenieur in Nederlandsch-Indie (IV) 4, 12, p. IV.211- IV.227.
('The eruption of the Ciremai volcano in 1937 (June-September), W Java. See also Neumann vP (1938), below)

Neumann van Padang, M. (1938)- De erupties van den Tjerimai in 1937. De Tropische Natuur 27, 1, p. 1-10.
(online at: https://natuurtijdschriften.nl/pub/511388/TN1938027001001.pdf)
('The eruptions of the Ciremai volcano in 1937', W Java. Similar to paper above. First eruptions of Ciremai since 1805, started on 24 June 1937. First moderate eruption in East crater erupted only rel. cold mud and old rocks. An ash explosion followed during a 27 June visit by Dr. Neumann van Padang, but not causing any burning of vegetation. On 10 July until late September 1937, additional minor gas and ash eruptive acivities on flank of Ciremai and in crater)

Neumann van Padang, M. (1939)- Uber die vielen tausend Hugel im westlichen Vorlande des Raoeng-Vulkans (Ostjava). De Ingenieur in Nederlandsch-Indie (IV) 6, 4, p. IV.35- IV.41.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1939-04.pdf)
('On the many thousand hills in the western foreland of the Raung Volcano (East Java)'. Numerous hills at W side of Raung volcano (E of Slamet) not small satellite volcanic centers, as suggested by Verbeek and as known from Lamongan volcano, but probably remnants of large ancient landslide (volcano flank collapse) (similar Neumann presentation in Dutch in Handelingen 8e Nederlandsc-Indisch Natuurwetenschappelijk Congres, Soerabaia 1938; without figures))

Neumann van Padang, M. (1939)- Die Gesteine des Slamet-Vulkans (Mittel Java). De Ingenieur in Nederlandsch-Indie (IV) 6, 11, p. IV.155- IV.161.
('The rocks of the Slamet volcano (Central Java'))

Neumann van Padang, M. (1955)- A Swedish sketch of the Island of Krakatau in 1748. Bulletin of Volcanology (Bulletin Volcanologique), Napoli, 17, p. 135-139.
(also Dutch version in TKNAG (1955) 72, p. 147-149))

Neumann van Padang, M. (1959)- Changes in the top of Mount Ruang (Indonesia). Geologie en Mijnbouw 21, 4, p. 113-118.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0QTJrWms0Rmd6cFk/view)
(Activity and changes in shape of Mt Ruang in S part of Sangihe Archipelago since 1808)

Neumann van Padang, M. (1960)- The steam borings in Kawah Kamodjang. Bulletin of Volcanology (Bulletin Volcanologique), Napoli, 23, p. 251-255.
(On the successful drilling of the first five geothermal test wells on Java in 1926, by Dienst van den Mijnbouw at Kamojang/Guntur volcano complex, W Java (no subsequent geothermal exploration activity on Java until 1970s, with first production at Kamojang in 1983; JTvG))

Newhall, C.G., S. Bronto, B. Alloway, N.G. Banks, I. Bahar, M.A. Del Marmol, R.D. Hadisantono, R.T. Holcomb et al. (2000)- 10,000 years of explosive eruptions of Merapi volcano, Central Java: archaeological and modern implications. J. Volcanology Geothermal Research 100, p. 9-50.
(online at: www.academia.edu/5015196/10_000_Years_of_explosive_eruptions_of_Merapi_Volcano Etc.)
(Stratigraphy and radiocarbon dating of pyroclastic deposits at Merapi Volcano, C Java, reveals ~10,000 years of explosive eruptions:(1) Construction of Old Merapi stratovolcano to height of present cone or slightly higher. Oldest age for explosive eruption 9630 yrs BP; (2) Collapse(s) of Old Merapi with impoundment of Kali Progo to form early Lake Borobudur at ~3400 yrs BP. Somma-forming collapse at ~1900 yrs BP. Current cone began to grow soon thereafter. (3) Explosive Merapi eruptions before and after Buddhist and Hindu temples construction in C Java between 732 and ~900 AD; (4) Partial collapse of New Merapi in 12th-14th century AD); (5) Lava-dome extrusion and dome-collapse pyroclastic flows dominant in 20th century)

Newhall, C.G., R.W. Decker, A.S. Sumartadipura, R.I. Tilling & D.W. Peterson (1985)- A comparison of eruption and magma reservoirs of Krakatau, Mount St Helens and Galunggung. In: D. Sastrapradja et al. (eds.) Proc.

Symposium on 100 years development of Krakatau and its surroundings, Jakarta 1983, Indonesian Institute of Sciences (LIPI), p. 11-19.

Nicholls, I.A. & D.J. Whitford (1983)- Potassium-rich volcanic rocks of the Muriah complex, Java, Indonesia: products of multiple magma sources? J. Volcanology Geothermal Research 18, p. 337-359.
(Extinct Pleistocene Muriah volcano in N-C Java two groups of lavas: (1) 'Anhydrous Series' leucite basanite to tephritic phonolite and (2)'Hydrous Series', tephrites and high-K andesites. Mafic A-series probably related to crustal doming-extension above dominant subduction regime. Hydrous Series magmas may be result of mixing between Anhydrous Series and high-K calc-alkaline basaltic- andesitic magmas related to subduction)

Niermeyer, J.F. (1900)- De vulkaan Idjen in Besoeki. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2), 17, p. 735-763.
(online at: https://babel.hathitrust.org/cgi/pt?id=mdp. 39015077870965;view=1up;seq=771)
('The Ijen volcano in Besoeki', easternmost Java. Early description of the then little known Kawah Ijen, one of the many craters and peaks of the Ijen Plateau)

Nihayatul, U., A. Supriyono & H. Rinardi (2017)- The eruption of Mount Kelud and its impacts in Blitar 1919-1922. Indonesian Historical Studies 1, 1, p. 67-77.
(online at: https://ejournal2.undip.ac.id/index.php/ihis/article/view/1164/954
(Historical account of Mt Kelud eruptions)

Nomanbhoy, N. & K. Satake (1995)- Generation mechanism of tsunamis from the 1883 Krakatau eruption. Geophysical Research Letters 22, 4, p. 509-512.
(Three models previously proposed for large tsunami generated by 1883 eruption of Krakatau: (1) large-scale caldera collapse of N part of Krakatau Island; (2) emplacement of pyroclastic flow deposits; (3) submarine explosion. Modeling suggests all three models displace same volume of water (11.5 km³), but in different ways. Submarine explosion model of 1-5 min duration best explains generation of largest tsunami)

Nossin, J.J., R.P.G.A. Voskuil & R.M.C. Dam (1996)- Geomorphologic development of the Sunda volcanic complex, West Java, Indonesia. International Institute Aerospace Survey and Earth Sciences (ITC) Journal, 1996, 2, p. 157-165.
(Sunda volcanic complex near Bandung characterized by one active volcano, Tangkuban Perahu, set in large caldera of former Sunda volcano. Another group of volcanoes to E (Bukittunggul-Manglayang complex) structurally related to Sunda complex. Sunda volcano blew up in probably two cataclysmic episodes (~105 ka and 50 ka) and collapsed to leave caldera in which Tangkuban Perahu volcano arose)

Nugroho, R.P., T. Disando, I.A. Kurniawan & M. Abdurrachman (2019)- Crystal size distribution (CSD) of plagioclase phenocryst-microphenocryst and the calculation of crystal resident times in the continuous central eruption sequences of Mount Lasem, Central Java, Indonesia. In: 1st Workshop on Environmental Science, Society, and Technology, Medan 2018, Journal of Physics: Conference Series; Bristol, 1363, 1, 012041, p. 1-7.
(online at: https://media.proquest.com/media/hms/PFT/1/uKlSK?_s=4gxWYELA%2BLhF3Ty4%2FvwzW6QF55g%3D)
(Two populations of plagioclase phenocryst size in five continuous andesite lava sequences at extinct Mt Lasem volcano in C Java, revealing variations in magma residence time during eruption (63-120 years and 8-18 years respectively))

Nurfiani, D., T. Ismail, A. Pratama, N.A. Rukmini, M. Abdurrachman, I.A. Kurniawan, W.A. Draniswari et al. (2024)- Geochemical characteristics of Anak Krakatau's (Indonesia) lava in the past half-century. Frontiers in Earth Science 12, 124500, p. 1-7.
(online at: https://www.frontiersin.org/journals/earth-science/articles/10.3389/feart.2024.1245001/full)
(After last caldera-forming eruption of Krakatau in 1883, activity of volcano resumed in 1927 with Surtseyan eruptions, forming Anak Krakatau. Since then, AK erupted every 1-3 years, culminating in 2018 VEI-3 eruption, which led to flank collapse. Since then, volcano continued episodic eruptions. All AK lavas mainly basaltic, but

matrix-glass compositions more evolved, mostly dacitic-rhyolitic composition. On average, plagioclase phenocrysts and microphenocrysts were stored for approximately 142 years and 55 years, respectively)

Oba, N., K. Tomita & M. Yamamoto (1992)- An interpretation of the 1883 cataclysmic eruption of Krakatau from geochemical studies on the partial melting of granite. GeoJournal 28, 2, p. 99-108.
(Pumice from 1883 Krakatau eruption very different from other volcanics of Krakatau group, which are tholeiitic. Fragments of granitic rock in pumice flow are similar to W Malayan granites, and must have been captured by rising magma from underlying complex. Sialic crustal materials may have plunged into depths and partially melted to produce magma of granitic composition and mixed with ascending basaltic magma from upper mantle to produce pumice of dacitic composition)

Oba, N., K. Tomita, M. Yamamoto, S. Bronto, M. Istidjab, A. Sudradjat & T. Suhanda (1983)- Geochemical study of some volcanic products from Galunggung volcano, West Java. Reports Faculty of Science, Kagoshima University (Earth Science & Biology), 16, p. 1-20.
(online at: http://ir.kagoshima-u.ac.jp/bitstream/10232/5937/1/AN00040884_1983_001.pdf)
(Volcanic products of 1982 Galunggung eruptions range in chemical composition from basaltic andesite to basalt. Silica-content of first stage (5-8 April 1982) ~55 wt %, later stages ~50%)

Oba, N., K. Tomita, M. Yamamoto, M. Istidjab, M. Badruddin, M. Parlin, Sadjiman, A. Djuwandi, A. Sudradjat & T. Suhanda (1983)- Geochemical study of lava flows, ejecta and pyroclastic flows from the Krakatau group, Indonesia. Reports Faculty of Science, Kagoshima University 15, p. 21-41.
(online at: http://ir.kagoshima-u.ac.jp/bitstream/10232/5932/1/AN00040884_1982_002.pdf)
(Rocks and ejecta of Anak Krakatau almost same lithologic and geochemical characteristics of island arc basaltic andesites. New volcanic ash more basic in composition. Volcanics from Rakata three types: augite-hypersthene andesite, augite andesite and olivine basalt. Pyroclastic flow from 1883 eruption characterized by large amount of volcanic glass and high-contents of SiO_2, Na_2O and K_20 and low MgO, FeO and CaO (lithologically andesitic and geochemically dacitic). Granitic xenoliths of quartz monzonite in pyroclastic flow of Sertung)

Oba, N., K. Tomita, M. Yamamoto, M. Istidjab, A. Sudradjat, T. Suhanda, M., Parlin, Sadjiman, A. Djuwandi et al. (1983)- Geochemical study of volcanic products, in particular to pumice flow of the Krakatau group, Indonesia. Reports Faculty of Science, Kagoshima University 16, p. 21-41.
(online at: http://ir.kagoshima-u.ac.jp/bitstream/10232/5932/1/AN00040884_1983_002.pdf)
(1883 Krakatau pumice flow with lithic fragments of granitic rock (from underlying basement), metabasic igneous rock, tuff, and glassy andesite, presumably of cogenetic material. Pumice flow differs in mineral and chemical compositions from other volcanics of Krakatau Group. Possibly sialic crustal materials partially melted and mixed with or assimilated by ascending basaltic magma, producing dacitic magma)

Oba, N., K. Tomita, M. Yamamoto, M. Istidjab, A. Sudradjat & T. Suhanda (1986)- Geologic significance of granitic fragments found from pumice flow of 1883 eruption at the Krakatau Group, Indonesia. In: G.H. Teh & S. Paramananthan (eds.) Proc. 5th Regional Congress Geology Mineral Energy Resources of SE Asia (GEOSEA V), Kuala Lumpur 1984, 1, Bull. Geological Society Malaysia 19, p. 51-68.
(online at: https://gsm.org.my/products/702001-101276-PDF.pdf)
(Pumice flow of 1883 Krakatau eruption at Rakata Kecil and Sertung differs from other volcanics of Krakatau Group, which belong to Miyashiro's (1974) tholeiitic series. With lithic fragments of granitic rock (quartz monzonite- quartz monzodiorite; up to 30cm in size) similar in compositions to W Malay Peninsula granites. Granitic clasts presumably from underlying sialic crustal material at depth of Sunda Straits)

Paris, R., P. Wassmer, F. Lavigne, A. Belousov, M. Belousova, Y, Iskandarsyah, M. Benbakkar, B. Ontowirjo & N. Mazzoni (2014)- Coupling eruption and tsunami records: the Krakatau 1883 case study, Indonesia. Bulletin of Volcanology (Bulletin Volcanologique) 76, 814, p. 1-23.
(online at: http://repo.kscnet.ru/1329/1/Paris_2014.pdf)
Five kinds of sedimentary and volcanic facies related to Krakatau 1883 identified along coasts of Java and Sumatra: (1, 2) bioclastic and pumiceous tsunami sands, deposited before and during Plinian phase (26-27

August); (3) rounded pumice lapilli reworked by tsunami; (4) pumiceous ash fall deposits and (5) pyroclastic surge deposits (only in Sumatra))

Oemaiya, D.V. & D. Santoso (2019)- 3D model of Krakatau volcano subsurface structure based on gravity data. Proc. International Seminar on Science and Technology, Palu 2018, IOP Conference Series 1242, 012049, p. 1-10.
(online at: https://iopscience.iop.org/article/10.1088/1742-6596/1242/1/012049)
(Gravity study suggests position of magma chamber under Krakatau volcano not directly vertical or oblique under crater, and has multiple chambers trending NW-SE)

Pawellek, T. (2013)- Die grossen Caldera-Systeme Zentral-Indonesiens. Der Aufschluss 64, 4/5, p. 250-261.
(online at: www.researchgate.net/profile/Thomas-Pawellek/publication/271503688_DIE_GROSSEN_C Etc.)
('The large caldera systems of Central Indonesia'. Popular review of calderas of E Java (Tengger-Semeru, Ijen) and Bali (Batur))

Permana, B.R., Y. Darmadi & D. Sugandi (2022)- 4 Decades after the eruption, Galunggung pre-historical and historical records. Proc. 51st Annual Conv. Indonesian Association Geologists (IAGI), Makassar, p. 1-27.
(online at: https://www.iagi.or.id/web/digital/71/pitiagi-22-p-abs-007.pdf)
(Extensive review: Mount Galunggung is an active volcano in W Java that after long dormancy erupted in 1822, killing >4000 people. Tasikmalaya Fm debris field related to side eruption causing horseshoe shaped of crater and construction of Ten Thousand mountains at ~4,200 yts B.P. Another prolonged eruption in 1982-1983. Etc.)

Permanadewi, S., S. Maryanto & J. Subandrio (2017)- Mineralogi dan geokimia Tuf berumur Tersier dan Kuarter di daerah Cibadak, Sukabumi, Jawa Barat. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 18, 4, p. 211-214.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/295/299)
('Mineralogy and geochemistry of the Tertiary and Quarternary tuffs in the Cibadak area, Sukabumi, West Java'. Fine-grained pyroclastic rocks in Cibadak area, SW Java, two groups: Miocene tuffs of Jampang Fm and Quarternary tuffs)

Perttu, A., C. Caudron, J.D. Assink, D. Metz, D. Tailpied, B. Perttu, C. Hibert, D. Nurfiani et al. (2020)- Reconstruction of the 2018 tsunamigenic flank collapse and eruptive activity at Anak Krakatau based on eyewitness reports, seismo-acoustic and satellite observations. Earth Planetary Science Letters 541, 116268, p. 1-12.
(online at: www.sciencedirect.com/science/article/pii/S0012821X20302119?via%3Dihub)
(After months of eruptive activity, subaerial cone of Anak Krakatau collapsed on December 22, 2018, generating deadly tsunami with multiple waves around volcano, the last one being largest. Collapse led to change in eruptive style from continuous Strombolian explosions to sustained Surtseyan)

Peters, S.T.M., V.R. Troll, F.A. Weis, L. Dallai, J.P. Chadwick & B. Schulz (2017)- Amphibole megacrysts as a probe into the deep plumbing system of Merapi volcano, Central Java, Indonesia. Contributions to Mineralogy and Petrology 172, 16, p. 1-20.
(Metastable calcic amphibole megacrysts in basaltic andesites of Merapi volcano, C Java, crystallised at pressures of >500 MPa (mid- to lower crust))

Petroeschevsky, W.A. (1949)- Een eerste na-oorlogse verkenning van Lang Eiland en Anak Krakatau op 5 Juni 1949. Chronica Naturae 105, 10, p. 247-249.
('A first post-war reconnaissance of Pulau Panjang and Anak Krakatau on 5 June 1949'. Anak Krakatau in 1949 was little changed since 1941. Crater lake now close to sea level. Max. height ~132m)

Philibosian, B. & M. Simons (2006)- A survey of volcanic deformation on Java using ALOS PALSAR interferometric time series. Geochem. Geophysics Geosystems 12, 11, p. 1-20.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/2011GC003775/epdf)
(Satellite-based survey of volcanic deformation on Java during 2007-2008. Volcanoes experiencing small eruptions are typically fed by magma bodies too small to produce recognizable InSAR signal. Deformation event

at Lamongan volcano likely linked to magmatic intrusion at several km depth. Second one at Slamet volcano at shallower depth that may have been related to subsequent eruption)

Prabowo, A.. S. Permanadewi & H. Samodra (2021)- Analisis batuan gunungapi di daerah Banyuwangi dan sekitarnya, Provinsi Jawa Timur berdasarkan aspek geokimia. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 22, 4, p. 197-207.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/658
('Analysis of volcanic rocks in the Banyuwangi and surrounding areas, East Java Province based on geochemistry aspects'. Volcanic rocks (lava) in Banyuwangi area include Oligo-Miocene Batuampar and Merubetiri Fms towards the S coast, and Quaternary volcanics to N. Generally tholeitic basalts)

Prambada, O., Y. Arakawa, K. Ikehata, R. Furukawa, A. Takada, H.E. Wibowo, M. Nakagawa & M.N. Kartadinata (2016)- Eruptive history of Sundoro volcano, Central Java, Indonesia since 34 ka. Bulletin of Volcanology 78, 11, p. 1-19.
(online at: https://www.researchgate.net/publication/309436467_Eruptive_history_of_Sundoro_volcano_Central_Java_Indonesia_since_34_ka)
(Sundoro volcano 65 km NW of Yogyakarta, with 12 eruptive groups. Volcano very active since 34 ka)

Prasetya, Y.A., A.K. Gibran, M. Aziz & Siswandi (2024)- Petrology, geochemistry, and magma evolution of basaltic rocks of Baturraden area, Central Java, Indonesia. J. Geoscience Engineering Environment Technology (JGEET) 9, 4, p. 547-554.
(online at: https://journal.uir.ac.id/index.php/JGEET/article/view/17882)
(Basaltic rocks in Baturraden area in C Java are part of Slamet Lava 1 and Slamet Lava 2)

Prasetya, Y.A. & A. Toramaru (2023)- Petrology and geochemical comparation of pumice and scoria rocks of Slamet Volcano. ARPN J. Applied Sciences Management Engineering Technology (JASMET) 3, 1, p. 19-28.
(online at: http://ejurnal.itats.ac.id/jasmet/article/view/2954/2333)
(Slamet volcano in C Java second highest volcano on Java (3428m a.s.l.). Two types of pyroclastic rocks: (1) pumice in Old Slamet; (2) scoria in Young Slamet)

Prastistho, B. (1992)- Data baru umur Komplex Muria, Jawa. Proc. 21st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 2, p. 507-516.
(online at: https://www.iagi.or.id/web/digital/50/21th-Vol-II-(7-10-Des-1992)-137-146.pdf)
('New data on ages of the Muria Complex, Java'. Oldest rock dated from Muria volcano ~1.01 Ma. Lava flows in N part of Muria complex 0.95 and 0.90 Ma. Volcanic neck of recent summit 0.17 Ma. Old Muria dominated by andesite- trachyte; Young Muria mainly basalt, with composition change at ~0.65 Ma)

Pratama, A., S. Bijaksana, M. Abdurrachman & N.A. Santoso (2018)- Rock magnetic, petrography, and geochemistry studies of lava at the Ijen Volcanic Complex (IVC), Banyuwangi, East Java, Indonesia. Geosciences (MDPI) 8, 183, p. 1-14.
(online at: https://www.mdpi.com/2076-3263/8/5/183/pdf)
(Rock magnetic studies of basaltic- andesitic lavas from Ijen Volcanic Complex, East Java)

Pratama, A., H. Hadiyat, F.R. Atarita, S. Bijaksana, D. Santoso, M. Abdurrachman & S.J. Fajar (2019)- Petrology and geochemistry dataset of lava from the Ijen Crater and Mount Blau, Banyuwangi, East Java, Indonesia. Data in Brief 27, 104765, p. 1-8.
(online at: www.sciencedirect.com/science/article/pii/S2352340919311205#!)

Pratama, A., D. Nurfiani, T. Ismail, G.N.R.B. Naen, M. Abdurrachman, W.F.S. Banggur et al. (2023)- Magma storage conditions beneath Krakatau, Indonesia: insight from geochemistry and rock magnetism studies. Frontiers in Earth Science 11, 1128798, p. 1-23.
(online at: https://www.frontiersin.org/articles/10.3389/feart.2023.1128798/full)

(Volcanostratigraphy and geochemistry of three eruptive periods of Krakatau: Old Krakatau, Young Krakatau, and Anak Krakatau. Old and Young Krakatau magma storage shallow (within upper 3 km; more differentiated magmas). Anak Krakatau magma storage deeper (up to 26 km), less differentiated, Etc.)

Pratama, A., D. Nurfiani, P.B. Suryanata, T. Ismail, G.N.R. Bunga Naen, M. Abdurrachman et al. (2023)- Magma storage conditions beneath Krakatau, Indonesia: insight from geochemistry and rock magnetism studies. Frontiers in Earth Science 11, 1128798, p. 1-23.
(online at: https://www.frontiersin.org/articles/10.3389/feart.2023.1128798/full)
(Old and Young Krakatau magma storage regions shallow (within upper 3 km), with more differentiated magmas. Anak Krakatau magma storage deeper (up to 26 km), less differentiated, and erupted hotter but more reduced compared to Old and Young Krakatau)

Pratama, Z. (2023)- Studi petrologi dan geokimia untik pemodelan magmatisme Kenozoicum Pulau Jawa. Thesis Institut Teknologi Bandung (ITB), p. *(Unpublished)*
(Java Island experienced three changes in magma affinity: (1) low-K around 40-18 Ma, (2) high-K around 12-2 Ma, and (3) medium-very high-K around 2 Ma- now)

Preece, K.J. (2014)- Transitions between effusive and explosive activity at Merapi volcano, Indonesia: a volcanological and petrological study of the 2006 and 2010 eruptions. Ph.D. Thesis University of East Anglia, U.K., p. 1-443.
(online at: https://ueaeprints.uea.ac.uk/id/eprint/49599/1/2014PreeceKPhd.pdf)
(2010 explosive eruption (VEI 4) of Merapi volcano was largest since 1872. In contrast, volcanism over last century has been characterised by dome-building and gravitational dome collapse. 2006 and 2010 eruptions produced basaltic andesite. Major zone of crystallisation between ~14- 29 km depth, although crystallisation occurs throughout crust. Eruptive style and transitions at Merapi linked to magma ascent rate, crystallisation and open- and closed-degassing processes, which can be influenced by magma influx)

Preece, K., R. Gertisser, J. Barclay, K. Berlo & R.A. Herd (2014)- Pre- and syn-eruptive degassing and crystallisation processes of the 2010 and 2006 eruptions of Merapi volcano, Indonesia. Contributions to Mineralogy and Petrology 168, 1061, p. 1-25.
(online at: https://link.springer.com/article/10.1007/s00410-014-1061-z)
(Geochemical data for melt inclusions and their clinopyroxene hosts extracted from dense dome lava, grey scoria and white pumice generated during peak of 2010 Merapi eruption, andcompared to 2006 eruption. Etc.)

Preece, K., R. Gertisser, J. Barclay, S.J. Charbonnier, J.C. Komorowski & R.A. Herd (2016)- Transitions between explosive and effusive phases during the cataclysmic 2010 eruption of Merapi volcano, Java, Indonesia. Bulletin of Volcanology 78, 54, p. 1-16.
(online at: https://www.researchgate.net/publication/305422788_Transitions_between_explosive_and_effusive_phases_during_the_cataclysmic_2010_eruption_of_Merapi_volcano_Java_Indonesia)

Preece, K., F.M. van der Zwan, J. Hammer & R. Gertisser (2023)- A textural perspective on the magmatic system and eruptive behaviour of Merapi Volcano. In: R. Gertisser at al. (eds.) Merapi volcano- geology, eruptive activity, and monitoring of a high-risk volcano. Springer Nature, Berlin, p 265-289.
(Textural analysis of phenocryst crystals in Merapi volcanic rocks)

Priadi, B., I.G.B.E. Sucipta, R.Mulyana & J.Xu (2009)- Products of Lamongan volcano (East Java, Indonesia): indication of gradual magmatic changes from continental to subduction-related system. Proc. 38th Annual Conv. Indonesian Association Geologists (IAGI), Semarang, 1p. *(Abstract only)*
(online at: https://www.iagi.or.id/web/digital/26/2009_IAGI_Semarang_Products-of-Lamongan.pdf)
(Lamongan is small volcano between Bromo-Tengger and Iyang volcanic ranges in E Java Supposed to be Plio-Pleistocene in age and characterized by occurrence of maar-lakes. Apparent volcanic succession from continental type magmatism to magmas of subduction character, possibly related to underlying microcontinent?)

Priadi, B., I. Zulkarnain & H. Permana (2004)- Volcanism and submarine hydrothermal activities around Krakatau island in Sunda Strait, Indonesia Proc. 5th International Conference on Asian Marine Geology, Bangkok 2004, p.

Priyanto, W.S., J.E. Hunt, M. Hanif, D.R. Tappin, H. Permana, Susilohadi, M. Cassidy & E. Yulianto (2021)- Bathymetry and shallow seismic imaging of the 2018 flank collapse of Anak Krakatau. Frontiers in Earth Science 8, 577448, p. 1-13.
(online at: www.frontiersin.org/articles/10.3389/feart.2020.577448/full)

Purbawinata, M.A. (1988)- Some geochemical aspects from Guntur Gandapura volcanic center, West Java, Indonesia. Geological Society of New Zealand, Miscellaneous Publication 41a, 124

Purbawinata, M.A. (1990)- Petrology and geochemistry of the Guntur- Gandapura volcanic complex, West Java, Indonesia. Ph.D. Thesis, University of Otago, New Zealand, p. 1-346.

Purbawinata, M. & E. Kadasetia (1991)- Petrologi dan geokimia Gunungapi Ciremai, Jawa Barat. Proc. 20th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 38. *(Abstract only)*
(Petrology and geochemistry of Ciremai volcano, West Java'. Active Ciremai volcano 90km E of Bandung, 190km above Wadati-Benioff zone, with three periods of volcanism. Calc-alkaline volcanics with SiO2 50-68 Wt%. Etc.)

Purbawinata, M., A. Ratdomopurbo, A. Sinulingga, I.K. Sumarti & S. Suharno (1997)- Merapi volcano- a guide book. Volcanological Survey Indonesia, Bandung, p. 1-63.

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(online at: https://media.suub.uni-bremen.de/bitstream/elib/8188/1/Purnomo_Pichler_Geothermal%20systems%20on%20the%20island%20of%20Java%2C%20Indonesia_2014_accepted-version.pdf)
(Two types of geothermal systems on Java, volcano-hosted and fault-hosted)

Purwantara, S., A. Ashari, K.Hadi, Kuncoro & E.P.N Saputro (2025)- The palaeogeographic evolution of the Wonosobo volcanic area and its impacts on ancient life in the cradle of the Javanese civilization. Southeast Asian Studies14, 2, p. 313-339.
(online at: https://englishkyoto-seas.org/wp-content/uploads/SEAS1402_Purwantara.pdf)
(Geomorphological study of Wonosobo Volcanic Area (WVA) in C Java, with three main volcanic complexes: Sumbing and Sundoro twin active stratovolcanoes and Dieng Volcanic Complex. Evolution of volcanoes influenced important sites for ancient Mataram Kingdom, with Dieng Hindu-Buddhist Temple Complex, etc.)

Putra, S.D.H., R. Rizki & A.F. Akbar (2014)- Volcanostratigraphic study and its implication to the geothermal resource estimation of Mount Wilis, East Java. Proc. 3rd Int. Geothermal Workshop, ITB, Bandung 2014, 7p.
(online at: https://www.academia.edu/download/36640988/Volcanostratigraphic_Study_and_Its_Implication_to_The_Geothermal_Resource_Estimation_of_Mount_Wilis__East_Java1.pdf)
(Wilis volcano in E Java inactive since 1600 A.D. Volcanic rocks deposition since E Pleistocene)

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(online at: http://iopscience.iop.org/article/10.1088/1755-1315/62/1/012040/pdf)
(Ambient noise seismic velocity tomography around Mt. Merapi show pronounced NNW-SSE positive anomaly from under Mt. Merapi to Mt. Merbabu, interpreted as old basaltic lava. Negative anomalies in E and W flanks)

Qayyima, K.P., I.G.B.E. Sucipta, K.F. Hasan, I.A. Kurniawan, M. Abdurrachman, A. Saepuloh & V. Susanto (2025)- Influence of continental crust in the magmatic process of the Sunda-Tangkubanperahu Volcanic Complex, West Java, Indonesia. Proc. 3rd International Seminar on Earth Sciences and Technology (ISEST 2024), Bandung, IOP Conference Series: Earth and Environmental Science 1472, p. 1-8.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1472/1/012011/pdf)
(Geochemical signatures of Pre-Sunda, Sunda, and Tangkubanperahu volcanoes indicate possible (continental) crustal contamination beneath W Java during magmatic evolution)

Queisser, M., M.R. Burton, F. Arzilli, A. Chiarugi, G.I. Marliyani, F. Anggara & A. Harijoko (2017)- CO_2 flux from Javanese mud volcanism. J. of Geophysical Research: Solid Earth 122, 6, p. 4191-4207.
(online at: www.ncbi.nlm.nih.gov/pmc/articles/PMC5586201/pdf/JGRB-122-4191.pdf)
(CO_2 fluxes of Bledug Kuwu mud volcano in Kendeng zone, C Java. Expelled gas is rich in CO_2, with volume fraction at least 16%. Source of CO_2 at Bledug Kuwu likely mixture of thermogenic, biogenic, and magmatic CO_2, with faulting controlling potential pathways for magmatic fluids)

Ramdhan, M., S. Widiyantoro, A.D. Nugraha, A. Saepuloh, J.P. Metaxian, S. Kristyawan et al. (2017)- Seismic travel-time tomography beneath Merapi volcano and its surroundings: a preliminary result from DOMERAPI Project. Proc. Southeast Asian Conference on Geophysics, Bali 2016, IOP Conference Series: Earth and Environmental Science 62, 012039, p. 1-6.
(online at: http://iopscience.iop.org/article/10.1088/1755-1315/62/1/012039/pdf)
(New tomographic imaging shows higher resolution at shallow depths (<35 km) below Merapi volcano, C Java. Magma reservoirs detected at ~27km and 12km depth. Dipping low velocity material rises from ~100km depth)

Ramdhan, M., S. Widiyantoro, A.D. Nugraha, J.P. Metaxian, N. Rawlinson, A. Saepuloh et al. (2019)- Detailed seismic imaging of Merapi volcano, Indonesia, from local earthquake travel-time tomography. J. Asian Earth Sciences 177, p. 134-145.
(New high resolution tomographic images for Merapi and Merbabu volcanoes show shallow (5 km) and intermediate (15 km) depth magma bodies beneath Merapi and none underMerbabu)

Ratdomopurbo, A. (1995)- Etude sismologique du volcan Merapi et formation du dome de 1994. Ph.D. Dissertation. Universite Joseph-Fourier- Grenoble I, France, p. 1-208.
(online at: https://theses.hal.science/tel-00711136)
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Ratdomopurbo, A. & G. Poupinet (2000)- An overview of the seismicity of Merapi volcano (Java, Indonesia), 1983-1994. J. Volcanology Geothermal Research 100, p. 193-214.
(Discussion of seismic events at Merapi volcano from 1983-1994, when four major eruptive events occurred in 1984, 1986, 1992 and 1994. Explosive eruptions in 1984 and 1992 preceded by deep and shallow volcanotectonic earthquakes, but 1986 and 1994 eruptions were not. Aseismic zone between 1.5-2.5 km below summit probably small shallow magma reservoir)

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('A look-back at the eruption of the Krakatau from 1928-1930'. Overview mainly based on work by C. Stehn. Seven eruption periods between late 1928-1930 (Stehn counted 14))

Reck, H. (1931)- Der Merapi-Vulkan auf Java und sein Ausbruch im Dezember 1930. Die Naturwissenschaften 19, p. 369-373.
('The Merapi volcano on Java and its eruption in December 1930'. About 1300 people killed during 1930 Merapi eruption)

Reck, H. (1935)- Der Ausbruchcyklus des Merapi in den Jahren 1933/34. Die Naturwissenschaften 23, p. 812-816.
('The eruption cycle of the Merapi in the years 1933/1934')

Reubi, O., I.A. Nicholls & V.S. Kamenetsky (2002)- Early mixing and mingling in the evolution of basaltic magmas: evidence from phenocryst assemblages, Slamet volcano, Java, Indonesia. J. Volcanology Geothermal Research 119, p. 255-274.
(Slamet volcano basalts studied and subdivided in two groups: Old Slamet (OS) and New Slamet (NS))

Richard, J.J. (1935)- Enkele aantekeningen omtrent den Gg Raoeng op Java. Leidsche Geologische Mededelingen 7, p. 1-40.
(online at: https://repository.naturalis.nl/pub/506013/LGM1935007001001.pdf)
('Some notes on the Raung volcano in E Java'. Rel. extensive description of Raung volcano in E Java around 1927-1933, by J. Richard, 'honorary assistant' of Volcanological Survey in 1933, working with C.E. Stehn and M. Neumann van Padang. Central cone within Raung crater was active in 1903-1904, 1913 and in August-September 1927, but with shifts in eruption points (Akkersdijk and Ecoma Verstege observations in 1927))

Rohiman, Y., I.G.B.E. Sucipta, M. Abdurrachman & S.R.A. Sugiono (2016)- Petrogenesis of Malabar Volcano, West Java, Indonesia. Proc. 14th Regional Conference Geology and Mineral Resources of SE Asia (GEOSEA XIV) and 45th Annual Conv. Indonesian Association Geologists (IAGI) (GIC 2016), Bandung, p. 295-300.
(online at: https://www.researchgate.net/publication/312198072_Petrogenesis_of_Malabar_Volcano_West_Java_Indonesia)
(Samples from Malabar, Gambung, Wayang and Bedil volcanoes show 8 units of lava and pyroclastics, erupted from 4 different vents. SiO2 from 59- 64.%, K2O 1.3- 1,6.% (medium-K series), Etc.)

Sabila, F.S.N. & M. Abdurrachman (2020)- Mekanisme pembentukan struktur geologi di Gunung Raung, Provinsi Jawa Timur. Jurnal Teknologi Sumberdaya Mineral 1, 1, p. 1-10.
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('The mechanism of geological structure formation at Mount Raung, East Java')

Saepuloh, A., K. Koike M. Omura, M. Iguchi & A. Setiawan (2010)- SAR- and gravity change-based characterization of the distribution pattern of pyroclastic flow deposits as Mt. Merapi during the past 10 years. Bulletin of Volcanology 72, p. 221-232.
(online at: https://asepsaepuloh.com/wp-content/uploads/saepuloh_springer2010.pdf)
(Mt. Merapi in C Java erupted frequently and produced pyroclastic flows following collapse of summit lava dome. SAR data used for distribution patterns of pyroclastic flow deposits. Collapse pattern followed change from S to the W, interpreted to originate from inclination of the conduit and formation of magma reservoirs)

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(Eruptions from Kelud (Kelut) volcano in E Java in February, 2014 ejected huge amount of volcanic ash to an altitude of >26 km and spread to >700 km, leading to disruption of flights, destruction and ecosystem degradation. Analysis of 3 ash samples from roof tops in Yogyakarta shows basaltic andesite island arc affinity)

Saibi, H., E. Aboud, A. Setyawan, S. Ehara & J. Nishijima (2012)- Gravity data analysis of Ungaran Volcano, Indonesia. Arabian J. Geosciences 5, 5, p. 1047-1054.
(Hot springs around Ungaran volcano structurally controlled and from depths of 1-3 km)

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(Magma evolution and plumbing system of Gede-Salak Volcano in W Java with two magma types: A (lava flows and peripheral dome) and B (summit dome). Plumbing system three magma series, felsic, intermediate and mafic.Magma type A resulted from multiple mafic recharges of felsic series; type B resulted from mixing of intermediate and mafic series. Felsic and intermediate phenocryst crystallization in mid-crust at 14 -17 km depth; mafic series resides in lower crust at 21 km depth)

Santoso, N.A., S. Bijaksana, K. Kodama, D. Santoso & D. Dahrin (2017)- Multimethod approach to the study of Recent volcanic ashes from Tengger Volcanic Complex, Eastern Java, Indonesia. Geosciences (MDPI) 7, 3, 63, p. 1-12.
(online at: http://www.mdpi.com/2076-3263/7/3/63)
(Comparison of ashes from 2010 eruption of Bromo, with two older tuff layers from same caldera: Widodaren Tuff (1.8 ka) and Segarawedi Tuff (33 ka))

Sauqi, F., M. Abdurrachman & I.A. Kurniawan (2022)- The role of crystal fraction to relative magma viscosity: an approach to understand the explosive caldera-forming volcanism of Raung Volcano. Proc. 4th Int. Conf. Transdisciplinary Research on Environmental Problems in Southeast Asia (TREPSEA-2021), IOP Conference Series: Earth and Environmental Science 1027, 012019, p. 1-9.
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(online at: https://digitalcommons.mtu.edu/etdr/989)
(Anak Krakatau sector collapse on 22 December 2018, after start of new intense activity phase on 30 June 2018, and 7 lava flows developed between July and November 2018. Destroyed most of Anak Krakatau edifice)

Sayudi, D.S., R. Mulyana & R. Sukhyar (1990)- Geokimia dan petrogenesa basalt kompleks Gunungapi Lamongan- Jawa Timur. Proc. 19th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 220-246.
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('Geochemistry and petrogenesis of the basalt complex of Lamongan volcano, E Java'. Multiple eruption centers, basaltic lavas)

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Scher, S., A.E. Williams-Jones & G. Williams-Jones (2013)- Fumarolic activity, acid-sulfate alteration, and high sulfidation epithermal precious metal mineralization in the crater of Kawah Ijen Volcano, Java, Indonesia. Economic Geology 108, 5, p. 1099-1118.
(Kawah Ijen crater in E Java ~1 km in diameter, and hosts one of world's largest hyperacidic lakes. With small actively degassing solfatara field, surrounded by much larger area of acid-sulfate alteration. Area exposed after phreatomagmatic eruption in 1817, which excavated crater to depth of 250m. Magmatic vapors caused (uneconomic) high sulfidation epithermal Cu-Au-Ag ore deposits at very shallow depth)

Schmidt, K.G. (1934a)- Die Schuttstrome am Merapi auf Java nach dem Ausbruch von 1930. De Ingenieur in Nederlandsch-Indie (IV) 1, 7, p. IV.91- IV.120.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1934-07.pdf)
('The debris flows at Merapi after the eruption of 1930'. Detailed report(s) on 1930-1931 lahar deposits at West side of Merapi volcano, Central Java, by Dienst van den Mijnbouw engineer Dr. K.G. Schmidt. Mainly valley-fill block deposits)

Schmidt, K.G. (1934b)- Die Schuttstrome am Merapi auf Java nach dem Ausbruch von 1930 (Vervolg). De Ingenieur in Nederlandsch-Indie (IV) 1, 8, p. IV.123- IV.134.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1934-08.pdf)
('The debris flows at Merapi after the eruption of 1930 (Continuation)'. Part 2 of report(s) on 1930-1931 lahar deposits at South side of Merapi volcano, by K.G. Schmidt))

Schmidt, K.G. (1934c)- Die Schuttstrome am Merapi auf Java nach dem Ausbruch von 1930 (Vervolg en Slot). De Ingenieur in Nederlandsch-Indie (IV) 1, 9, p. IV.143- IV.171.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1934-08.pdf)
('The debris flows at Merapi after the eruption of 1930 (Continuation and End)'. Part 3 of report(s) on 1930-1931 lahar deposits in rivers affected by volcanic debris: Batang, Senowo, Blongkeng, Lamat, Progo)

Schneider, C.F.A. (1885)- Ueber den vulkanischen Zustand der Sunda- Inseln und der Molukken im Jahre 1884. Jahrbuch Kaiserlich-Koniglichen Geologischen Reichsanstalt, Wien, 35, 1, p. 1-26.
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('On the volcanoes situation of the Sunda Islands and the Moluccas in the year 1884. Review of volcanic activity mainly on Java. Argues that magnitude of disastrous 1883 eruption of Krakatau was exagerrated)

Scrivenor, J.B. (1929)- The mudstreams ("lahars") of Gunong Keloet in Java. Geological Magazine 66, 10, p. 433-434.
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('Charles Edgar Stehn and the eruption of Anak Krakatau in May 1933'. Report on the monitoring of Krakatau activiiy by volcanologist C.E. Stehn and his team of the Netherlands Indies Volcanological Survey Department)

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(Review of catastrophic Krakatau 1883 eruption cycle, starting with minor activity on 20 May, to climax on 27 August)

Self, S. & M.R. Rampino (1981)- The 1883 eruption of Krakatau. Nature 294, 5843, p. 699-704.
(Brief review of deposits of 1883 Krakatau eruption. Modest ignimbrite-forming event. Deposits mainly coarse, dacitic, non-welded ignimbrite. Large explosions produced pyroclastic flows that entered sea and produced tsunamis. Bulk volume of pyroclastic deposits (incl. co-ignimbrite ash) estimated as 18-21 km^3)

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(Volcanoclastic facies architecture of E flank of Merapi (not impacted by major eruptions for nearly 2000 years))

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(online at: www.jstage.jst.go.jp/article/jmps/105/1/20/_pdf)
(Geochemistry and Sr-Nd-Pb isotopes of Miocene-Quaternary basaltic-andesitic lavas from W Java arc, which existed in current configuration since at least 15 Ma. Two parallel volcanic ranges: southern (VF; volcanic front) and northern (RA rear arc). Partial melting in mantle source greater in VF. Fluid addition to mantle greater in VF. Across-arc geochemical variation between Tertiary and Quaternary lavas does not differ, implying W Java arc has been in 'steady state' over past 10 My, with continuous subduction input from Indian Ocean sediments and continuous upwelling and replenishment of depleted mantle source from back arc)

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(W Java Arc segment of Sunda arc >10 Quaternary volcanic centers, above 120 to 200 km depth contours of Wadati-Benioff zone. Quaternary lavas range from basalt to dacite. Incompatible element abundances increase from volcanic front to rear-arc in response to change from low-K to high-K suites. Nd-Sr isotopes of basalts between mid-ocean ridge basalt (MORB) source mantle and Indian Ocean sediment compositions)

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(online at: www.jstage.jst.go.jp/article/grsj/31/2/31_2_107/_pdf)
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(online at: https://repository.dl.itc.u-tokyo.ac.jp/records/33355)
(Seismic recordings of volcanic earthquakes in August-September 1968 at N and S sides of Merapi, C Java, during time of growth and collapse of a lava dome. Most of volcanic earthquakes typical B-type earthquakes)

Sigurdsson, H., S. Carey, C. Mandeville & S. Bronto (1991)- Pyroclastic flows of the 1883 Krakatau eruption. EOS Transactions American Geophysical Union (AGU) 72, 36, p. 377-381.
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Sitorus, K. (1990)- Volcanic stratigraphy and geochemistry of the Idjen caldera complex, East Java, Indonesia, Master Thesis, Victoria University, Wellington, New Zealand, p. 1-148. *(Unpublished)*

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('Stratigraphy and geochemistry of the Idjen caldera, E Java'. Idjen is Krakatau-type collapsed caldera with diameter 11-14 km. Pre-caldera stratovolcano stage at ~0.3 Ma, built on basement of Miocene limestones. Basaltic-andesitic lavas and pyroclastic flows, etc.)

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('Geologic map of the Gede volcano, Cianjur, West Java', 1:50,000)

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(online at: https://theses.hal.science/tel-01555688v1/file/SOLIKHIN_2015CLF22559.pdf)
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(Structural interpretation of satellite imagery shows four groups of faults orientated N40, N160, N75, and N105 to N140. Currently active Jonggring-Seloko vent of Semeru composite cone is buttressed against Mahameru edifice at head of large scar that may reflect failure plane at shallow depth and has potential for flank and summit collapse in future)

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(online at: www.ig.cas.cz/wp-content/uploads/2019/01/4_krakatau_sgg_2002.pdf)
(Almost columnar pattern of earthquake hypocenters down to upper boundary of subducting slab at depth of 100 km under Krakatau volcano is phenomenon not yet observed beneath any other volcano at convergent plate margins.This active seismic domain is separated both from Wadati-Benioff zone of subducting Indo-Australian plate and subduction-related fracture zones. Possibly related to bending of Sunda Arc in Sunda Strait area)

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(Nine pumice fall deposits of Young Merapi stage (<2.2 ka- 1,788 CE) in W and S flanks of Merapi volcano. All include variety of lithics (10-42%), with thicker deposits more lithic-rich. Two magma types; Type II magma erupting more explosively than Type I)

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(online at: www.academia.edu/20632635/Geochemistry_of_the_acid_Kawah_Putih_lake_Patuha_Volcano_West_Java_Indonesia)
(Kawah Putih summit crater of Patuha volcano, W Java, with shallow, 300m-wide lake with strongly mineralized acid-sulfate-chloride water. Lake waters mix of isotopically heavy fluids of deep origin and meteoric water. Acid fluid-induced processes at Patuha led to accumulation of elements commonly associated with volcano-hosted epithermal ore deposits)

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('Test wells for the exploitation of volcanic energy in the Netherlands Indies'. On the drilling of the first geothermal test wells in Indonesia in 1926, at Kawah Kamojang, a solfatara field in W part of Guntur volcano complex, W Java, to test the feasibily of steam production from volcanic heat for generation of electricity Other solfatara fields on Java, Sumatra and Sulawesi thought to have similar energy potential (although the first wells were successful, geothermal power generation was not pursued further at that time, as Java had suffucient power supply from hydroelectric schemes; JTvG))

Stehn, C.E. (1928)- Miniatur Lavastrome und Lavaspratzen im Papandajan-Krater? Centralblatt Mineralogie Geologie Palaontologie 1928, B4, p. 224-227.
(Miniature lava flows and lava spittings in the Papandayan crater?' Reports of these from Kawah Mas at Papandayan by W. Volz (1905) and K. Sapper are erroneous: not lava, but hardened dark sulfurous mud)

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(online at: https://resolver.kb.nl/resolve?urn=dts:2945104:mpeg21:pdf)
('The Krakatau and its latest eruption'. Summary of review/presentation in Bandung 6 June 1928. Renewed activity of Krakatau started on 29 December 1927- 5 February 1926; with eruption up to 1200m high. Permanent observation from Lang Eiland started on 11 January 1928. On 26 January first emergence of crater edge above sea, but soon disappeared after erosion during quiet period. Second eruption period 25 March-1 April and 13 April-15 May (Anak Krakatau still under water)

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(Review of volcanic activity history of Krakatau from the earliest single andesite volcano long time ago, its collapse leaving four remnants, including the now-vanished Poolsche Hoed, formation of anew (eccentric) cone, activity in 1600s, 1800s, the major eruption in late August 1883 and its pumice deposits, restart of submarine volcanic activity in December 1927 until birth of the first Anak Krakatau on 26 January 1928, and continued activity until 1929)

Stehn, C.E. (1929)- Kawah Kamodjang. Proc. 4th Pacific Science Congress, Java 1929, Excursion C2, p. 1-13.
(online at: https://nla.gov.au/nla.obj-3043675846/view?partId=nla.obj-3043676325)
(Excursion to solfatara fields of the Kawah Kamojang volcano ruin, SE of Bandung. This is site of first successful geothermal pilot wells, after initial test wells in 1918-1927 (no further activity in geothermal exploration until 1970s, resulting in first geothermal power producting field at Kamojang in 1983; JTvG)))

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('Observations on nuees ardentes (pyroclastic flows) during the increased activity of the Merapi volcano in Central Java in the years 1933-1935'. Two types observed on Merapi: (1)'Explosionsglutwolken' (explosion hot clouds) and (2) 'Absturzglutwolken' (avalance hot clouds, caused by collapse of oversteepened parts of a lava dome or lava flow))

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Stehn, C.E. & J.H. Coert (1929)- Keloet. Proc. 4th Pacific Science Congress, Java 1929, Excursion E21, Vorkink, Bandung, p. 1-37.

(Guidebook of excursion to Kelut volcano, E Java, the site of repeated disastrous lahar eruptions, the most significant one in May 1919)

Stehn, C.E., W.M. Docters van Leeuwen & K.W. Dammerman (1929)- Krakatau (Geologie, vulkanisme, flora en fauna). Proc. 4th Pacific Science Congress, Java 1929, Vorkink, Bandung, p. 57-118.
(Fieldtrip guide book on Krakatau volcano, in 3 parts: (1) The geology and volcanism of the Krakatau group (Stehn), (2) Krakatau's new flora (Docters van Leeuwen) and (3) Krakatau's new fauna (Dammerman))

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('The Banyuwangi Province with the Ijen-Raun volcano group in East Java'. Early geographic- geologic description of easternmost part of Java, with focus on recent volcanoes)

Stoop, A. (1886)- Verslag over een onderzoek van den vulkaan Merapi op Java in Juli 1885. Natuurkundig Tijdschrift voor Nederlandsch-Indie 45, 4, p. 519-525.
(online at: https://ia800203.us.archive.org/19/items/mobot31753002486873/mobot31753002486873.pdf)
('Report on an investigation of the Merapi volcano on Java in July 1885'. With one map)

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(online at: https://ris.utwente.nl/ws/portalfiles/portal/311754966/978_3_031_15040_1_12.pdf)
(Volcano Explosivity Index 4 eruption of Merapi in October-December 2010 was largest since 1872 and deadliest since 1930 (398 casualties). 2010 eruption fed by basaltic andesite magma, similar to earlier Merapi eruptions, but larger than normal influx of deep, volatile-rich magma that replenished shallow magma system within carbonate-dominated upper crust beneath Merapi. Lahars swept down almost all major valleys)

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(online at: https://sejarah.dibi.bnpb.go.id/uploads/arsip/20200929-Copy-of-05-3105---83-Krakatau_-The-morphological-development-of-karakatau-volcano,-sunda-strait-Indonesia-(1).pdf)

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(On 1990 violent eruption of Kelud composite volcano in E Java, after being quiet for 33 years. About 120 km^2 of SW slope of volcano covered with 10-40 cm of tephra)

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(Investigation of relationship between characteristics of Merapi volcano lahars and activity. Five lahar units and 5 groups of Merapi activities can be distinguished)

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(Same paper as Sudrajat et al. (2010))

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(Ungaran volcano in C Java. Lava dome formation, which requires a high magma viscosity, originates from longer-lived and more crystalline magma, whereas lava flow with low viscosity originates from young and less crystalline magma. In this case of mafic-intermediate magma, resultant lava morphology strongly controlled by abundance of phenocrysts and magma residence time)

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(online at: https://journal.uir.ac.id/index.php/JGEET/article/view/10015/4787)
(Dieng volcanic complex post-caldera volcanoes classified as:(1) pyroclastic domain (Pagerkandang, Merdada, Pangonan); and (2) lava domain (Prambanan, Kendil, Pakuwaja, Sikunir, Sikarim, Seroja)

Sukarna, D. (2000)- Unsur langka dan kelompok platina basal Mg-tinggi Galunggung, Indonesia. Proc. 29th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 23-36.
('The rare elements and platinum group of high-Mg basalts of Galunggung, Indonesia')

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(online at: https://www.iagi.or.id/web/digital/49/20th-(10-12-Des-1991)-22.pdf)
(K2O contents of Dieng biotite andesite generally higher that Sumbing and Sundoro andesites)

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(online at: https://www.ijsr.net/archive/v3i3/MDIwMTMxMTQx.pdf)
(Kelud volcano in E Java erupted on April 14, 2014 and destroyed 2006-2007 lava dome, which measured 200x300m. New hole left by April 14 eruption occupied 70% of lava dome with diameter of 175 m)

Sunardi, E. & J.I. Kimura (1998)- Temporal chemical variations in late Cenozoic volcanic rocks around the Bandung Basin, West Java, Indonesia. J. Mineralogy Petrology Economic Geology, Tokyo, 93, 4, p. 103-128.
(online at: www.jstage.jst.go.jp/article/ganko/93/4/103/_pdf)
(Bandung Basin on axis of Sunda arc in W Java. Underlain by young basaltic-dacitic volcanics with ~4.1 Ma-Recent K-Ar ages. Trace elements suggest continuous cooling of mantle wedge, with resurgence of degree of melting between ~1.1- 0.6 Ma, same time as axial uplift in Sunda arc and may be due to kinematic change in subduction of Indian-Australian Plate beneath Sunda arc)

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(online at: https://www.iagi.or.id/web/digital/63/6.pdf)
(New K-Ar whole rock ages between ~4 Ma ± 0.04 Ma of Sunda- Tangkuban Perahu volcano complex)

Suparka, E. (2012)- Petrologi dan geokimia: model magmatisme Kenozoik Pulau Jawa. Institut Teknologi Bandung (ITB), Special Publication?, p. 1-43.
('Petrology and geochemical model of Cenozoic magmatism on Java Island')

Suparka, E., C.I. Abdullah, P. Senjaya, J. Hutabarat, A.I. Kurniawan et al. (2011)- PGA analyses of incompatible B (Boron) trace element of the Quaternary volcanic rocks of the Sunda-Banda Arc: case study volcanic complex Banten area, West Java. Proc. Joint 36th HAGI and 40th IAGI Annual Conv., Makassar, JCM2011-238, p. 1-9.
(Samples of Quaternary volcanics from Banten area, SW Java, vary from basaltic, andesitic to dacitic composition. Boron content 7 ppm in basaltic rocks, 3 - 17 ppm in andesitic rocks, and ~7 ppm (for dacitic?))

Supriyadi, S., A. Saepuloh, H. Mahardika & W. Srigutomo (2025)- Characterization of Java Island's volcanoes based on volcano density and quantification of volcanic products using Landsat imagery. Geosystems and Geoenvironment 4, 3, 100398, p. 1-14.
(online at: https://www.sciencedirect.com/science/article/pii/S2772883825000482)
(Landsat study of 34 volcanoes on Java: volcano density, delineation of volcanic products on 17 Type A volcanoes, etc. Highest volcano density observed in West Java. Etc.)

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(online at: https://hal-insu.archives-ouvertes.fr/insu-00723412/document)
(Merapi volcano known for frequent small-moderate eruptions and pyroclastic flows produced by lava dome collapse. In 2010 largest and most explosive eruptions in more than century, fed by rapid ascent of magma from 5-30 km depths. Eruptive behavior related to seismicity along fault >40 km from volcano)

Suryo, I. (1980)- Lahars in Indonesia. In: Volcanic hazard zoning, contributions from Indonesia, UNESCO, p. 1-19.

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(online at: https://booksc.org/book/10173323/975ad3)
(Review of volcanic hazards associated with eruptions at Java's most active volcanoes (Merapi, Kelut, Galunggung): lava flows, volcanic blocks and bombs, nuees ardentes, crater lake generated lahars, rain lahars, ash plumes, poisonous gas accumulations and tidal waves or tsunamis)

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(online at: https://journal.iagi.or.id/index.php/IJEG/article/viewFile/340/348)
(About hydrothermal systems and relations to volcanic activity and geological structures, and mineral deposits related to hydrothermal systems)

Sutarto, A. Sulaksono, D.T. Laksana, A.M. Rangkuti, A.P. Setyahadiwibowo & Ediyanto (2023)- Geochemistry and petrographic signature of the back arc alkaline mafic rocks at Muria Volcanic Complex, Central Java, Indonesia. Proc. 4th Int. Conference on Earth Science Mineral and Energy, Sleman 2021, AIP Conference Proceedings 2598, p.
(Muria Volcanic Complex on north coast of C Java is situated behind Pleistocene-Recent Sunda-Banda arc. Can be divided into Genuk Complex (Old Muria; mostly shoshonitic series) and Muria Complex (Young Muria; leucititic). Muria magmatism formed by mixing of overriding mantle wedge and slab breakoff partial melting)

Sutarto, D.F. Yudiantoro, Suharwanto, M. Abdurrachman, T. Wikaningrum, M.Apriniyad et al. (2024)- Characteristics of pyroclastic deposits and evolution of Maar Bethok Lamongan Volcano Tiris Probolinggo East Java Indonesia. Proc. 6th Int. Conference Earth Science Mineral and Energy, Yogyakarta, IOP Conference Series: Earth and Environmental Science 1339, 2023, p.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1339/1/012002/pdf)
(Lamongan volcano Complex in E Java differs from other Java volcanoes, having 37 volcanic cones and 27 volcanic lakes (maars, ranu). Maar Bethok exposes olivine-pyroxene basalts and pyroclastic fall deposits. Volcanism started with alkaline magma of island arc calc-alkaline affinity and ended with more acidic composition)

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(online at: https://www.dpri.kyoto-u.ac.jp/nenpo/no40/40s0/a40s0p03.pdf)

(Eruptive activity cycle of Anak Krakatau in 1992-1996 with lava flows and tephra eruptions, producing >12 million m3 of erupted materials)

Sutawidjaja, I.G. (2006)- Pertumbuhan gunung api Anak Krakatau setelah letusan katastrofis 1883. Jurnal Geologi Indonesia 1, 3, p. 143-153.
(online at: www.bgl.esdm.go.id/dmdocuments/jurnal20060303.pdf)
(Since appearance in 1929, Anak Krakatau Volcano has grown to 315 m high in 2005 (av. 4m/ year). Latest volume measurement in 2000 was 5.52 km^3)

Sutawidjaja, I.S., D. Aswin & K. Sitorus (1985)- Geologic map of Slamet Volcano, Central Java, scale 1: 50.000. Volcanological Survey of Indonesia, Bandung.

Sutawidjaja, I.G. & R. Sukhyar (2009)- The cinder cones of Mount Slamet, Central Java, Indonesia. Proc. 38th Annual Conv. Indonesian Association Geologists (IAGI), Semarang, p. 1-21. *(also as Indonesian J. on Geoscience (IJOG) 4, 1, p. 57-75)*
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/70/70)
(Mount Slamet volcanic field in C Java with 35 partly degraded cinder cones up to 185m high on E flank and E side of volcano. Most cinder cones lie on Tertiary sediments, along NW-trending fault system and on radial fractures. K-Ar age of scoria bomb 0.042 + 0.02 Ma)

Sutawidjaja, I.S., D. Wahyudin & E. Kusnidar (1996)- Peta geologi Gunungapi Semeru, Jawa Timur. Direktorat Vulkanologi, Bandung.
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('Geologic map of the Semeru volcano, East Java')

Symons, G.J. (ed.) (1888)- The eruption of Krakatoa and subsequent phenomena. Report of the Krakatoa Committee of the Royal Society, London. Trubner & Co, London, p. 1-494.
(online at: https://books.google.com.na/books?id=Vk8PAAAAYAAJ)
(Royal Society of London report on 1883 Krakatau eruption. More focused of physical and global meteorological phenomena than the volcano/geology-focused texts of Verbeek))

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(online at: https://resolver.kb.nl/resolve?urn=MMTEY01:179526004:pdf)
('Volcanological reports 21-29'. Status reviews of volcanic activity in 1922 of: XXI. G. Merapi (several eruptions), XXIII. G. Lamongan, (minor activity), XXIII. G. Semeroe, XXIV. G. Kelud (tunneling in progress), XXV. Kawah Idjen, XXVI. G. Raung (rel. quiet after 1921 eruption), XXVII. G. Awu (Sangi; active), XXVIII. G. Api (Siaoe, Sangi Archipelago; increased activity), XXIX. Miscellaneous, with report on photographing a series of Java volcano craters by Lieutenant Feenstra of LA-KNIL. With illustrations)

Taverne, N.J.M. (1924)- De drooglegging van het Keloetmeer. De Ingenieur 39, 11, p. 796-807.
(online at: https://resolver.kb.nl/resolve?urn=dts:2972058:mpeg21:pdf)

('The draining of the Kelud lake'. Discussion about the tunnels construction at the Kelud volcano (a reponse to a paper by Kemmerling (1924) in this journal and to discussion by Wing Easton (1923?) on details of the disastrous 1919 eruption))

Taverne, N.J.M. (1924)- Vulkanologische berichten XXX-XLI. Natuurkundig Tijdschrift voor Nederlandsch-Indie 84, p. 16-86.
(online at: www.delpher.nl/nl/tijdschriften/) (https://resolver.kb.nl/resolve?urn=MMTEY01:179527002:pdf)
('Volcanological reports 30-41'. Status reviews of 1923 acivity in Indonesia: XXX. G. Merapi (C Java; rel. quiet), XXXI. G. Lamongan (minor activity), XXXII. G. Semeru (no increased activity), XXXIII. Papandayan (minor increase in solfataric activity), XXXIV. Kawah Idjen (some increase in solfataric activity), XXXV. G. Raung (minor activity), XXXVI. Kelud (rel. calm; sampling of fractured andesites in tunnel before its collapse), XXXVII. G. Slamat (minor activity), XXXVIII. Kawah Cibeureum, XXXIX. G. Soputan (N Sulawesi; eruption November 1923), XL. G. Gedeh, XLI. Miscellaneous). With many illustrations)

Taverne, N.J.M. (1925)- Vulkanologische berichten XLII-LII. Natuurkundig Tijdschrift voor Nederlandsch-Indie 85, p. 101-205.
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('Volcanological reports 42-53'. July 1925 report of volcanic activities in 1924 and early 1925. XLI. G. Papandajan (extensive report of monitoring through 1924), XLII. G. Merapi (C Java) (regular monitoring by Petroeschevsky et al.; installation of Omori seismometer at observation post Maron, brief increased activity in mid-Sept. 1924), XLIV. G. Lamongan (relatively quiet), XLV. Kawah Idjen (quiet), XLVI. G. Raoeng (minor activity), XLVII. G. Semeroe and Bromo (quiet), XLVIII. G. Keloet) (quiet; ongoing tunnel construction), XLIX. Tangkuban Perahu (rel. quiet; with history review), L. G. Sendoro, LI. Sopoetan (still active since eruption of November 1923)

Taverne, N.J.M. (1925)- Merkwaardige uitbarstingen van den Papandajan. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 8 (Memorial volume Gedenkboek Verbeek 80-year birthday, p. 481-519.
(book online at: www.delpher.nl/nl/boeken/ Etc.)
(also online at: https://resolver.kb.nl/resolve?urn=MMKB24:062597000:pdf)
('Peculiar eruptions of the Papandayan'. Last known eruption of Papandayan was in 1772, which killed ~3000 people, but not clear how this happened (Taverne suspects large pyroclastic flow(s)). In March 1923- early 1925 18 relatively insignificant eruptions in western part of crater, followed by fumarole activity, etc.)

Taverne, N.J.M. (1925)- De aardbevingen van Wonosobo op 12 November en 2 December 1924. Vulkanologische Mededeelingen (Dienst Mijnwezen Nederlandsch Oost Indie) 8, Landsdrukkerij, Weltevreden, p. 1-21.
('The earthquakes of Wonosobo on 12 November and 2 December 1924'. Non-volcanic earthquakes on Dieng Plateau in E Java. With 18 photos)

Taverne, N.J.M. (1926)- Omzetting van vulkanische in electrische energie. De Mijningenieur 6, 1925, p.
('Conversion of volcanic into electrical energy'. Early paper on geothermal energy, with list of potential sites on Java)

Taverne, N.J.M. (1926)- Vulkaanstudieen op Java. Doctorate Thesis, Technische Hogeschool Delft, p. 1-132.
(online at: https://repository.tudelft.nl/islandora/object/uuid%3Ad5284b83-38b6-439e-934f-83a406add41a?collection=research)
('Volcano studies on Java'. TH Delft Thesis under Prof. H.A. Brouwer. Classic study of Java volcanoes, based mainly on Taverne's land investigations in 1922-1924, and the newly acquired, spectacular aerial photos made from Netherland Indies Army flyovers between August 1922 and May 1924. Three types on Java: (1) volcano ruins (2 examples), monoconic volcanoes (9 examples) and polyconic volcanoes (7 ex.))

Taverne, N.J.M. (1926)- Vulkaanstudieen op Java. Vulkanologische Mededeelingen (Dienst Mijnwezen Nederlandsch Oost Indie) 7, p. 1-132.

(online at: https://books.google.com/books?id=33G4i0TFOMUC&printsec=frontcover&source Etc.)
(online at: https://www.delpher.nl/ etc. and https://resolver.kb.nl/resolve?urn=MMKB21:031658000:pdf)
(Same as Taverne (1926), above)

Thoha, M., P. Parman, B. Prastistho, D.F. Yudiantoro, I. Permata Hati & I.B. Jagranata (2014)- Geology and geothermal manifestations of Mount Pandan, East Java, Proc. 3rd International ITB Geothermal Workshop, Bandung 2014, p. 1-13.
(online at: http://eprints.upnyk.ac.id/14608/1/4.%20Maret%202014%20CD%20GEOLOGY%20AND% Etc.)
(Mt. Pandan is inactive E Pleistocene volcano in Kendeng zone of E Java, with several eruption centers and geothermal manifestations)

Thornton, I.W.B. (1997)- Krakatau: the destruction and reassembly of an island ecosystem. Harvard University Press, p. 1-346.
(Review of repopulation of a tropical forest ecosystem on Krakatau islands since 1883 eruption. Now covered in secondary forest with >200 species of plants, 70 species of vertebrates, and 1000's of invertebrate species)

Thouret, J.C., K.E. Abdurachman, J.L. Bourdier & S. Bronto (2000)- Origin, characteristics, and behaviour of lahars following the 1990 eruption of Kelud volcano, eastern Java (Indonesia). Bulletin of Volcanology 59, p. 460-480.
(online at: https://www.academia.edu/127090272/Origin_characteristics_and_behaviour_of_lahars_following_the_1990_eruption_of_Kelud_volcano_eastern_Java_Indonesia_)
(Kelud one of the most lahar-prone volcanoes of Java. In contrast to most 20th-century eruptions of Kelud volcano, plinian eruption of 10 February 1990 not accompanied by lake-outburst lahars. However, at least 33 post-eruption lahars followed in following 7 weeks, travelling as far as 24 km. Deposits ~7 m thick at 2 km from vent, 3 m thick at 10 km from vent)

Thouret, J.C., F. Lavigne, K. Kelfoun & S. Bronto (2000)- Toward a revised hazard assessment at Merapi volcano, Central Java. J. Volcanology Geothermal Research 100, p. 479-502. *(online at: www.academia.edu/5508657/Toward_a_revised_hazard_assessment_at_Merapi_volcano_Central_Java)*
(Of the 1.1 million people living on flanks Merapi volcano, 440,000 are at relatively high risk in areas prone to pyroclastic flows, surges, and lahars)

Thouret, J.C., F. Lavigne, H. Suwa, B. Sukatja & B. Surono (2007)- Volcanic hazards at Mount Semeru, East Java (Indonesia), with emphasis on lahars. Bulletin of Volcanology 70, 2, p. 221-244.
(Mt. Semeru highest mountain in Java (3,676 m), is one of few persistently active composite volcanoes on Earth. Daily eruptive activity supplies pyroclastic debris shed over summit cone). Adjacent to plain with about 1 million people. Two edifices: Mahameru 'old' Semeru and Seloko 'young' Semeru. Pyroclastic flows recur every 5 years on average; large lahars (>5 Mm^3 each) at least five times since 1884. Lumajang, home to 85,000 people, 35 km E of summit, was devastated by lahars in 1909)

Thouret, J.C., J.F. Oehler, A. Gupta, A. Solikhin & J. Procter (2014)- Erosion and aggradation on persistently active volcanoes- a case study from Semeru Volcano, Indonesia. Bulletin of Volcanology 76, 10, p. 1-26.
(Semeru volcano, E Java, is one of the most magmatically active volcanoes on Earth that also produces huge volumes of lahars. Patterns of aggradation (sediment supply pulses from episodic pyroclastic density currents and continuous supplies of tephra) and degradation via cycles of aggradation and degradation in river channels and rain-triggered (which remove much more material than fluvial transport))

Thouret, J.C., M. Taillandier, E. Wavelet, N. Azzaoui, O. Santoni & B. Tjahjono (2023)- Semeru volcano, Indonesia: measuring hazard, exposure and response of densely populated neighbourhoods facing persistent volcanic threats. Natural Hazards 117, p. 1405-1453.

Tissot van Patot, A. (1926)- De bouw van het Wilis gebergte. Jaarboek Topographische Dienst, Batavia, 1925, p. 1-10.

('The composition of the Wilis mountains'. Quaternary volcanic complex in East Java. TvP suggests three episodes of Quaternary volcanic activity)

Tjia, H.D. (1962)- Aerial observation of Gunung Merapi Central Djava. Proceedings Institut Teknologi Bandung (ITB) 1, 4, p. 1-7.
(online at: https://journals.itb.ac.id/index.php/jmfs/article/view/9812)
(Aerial reconnaissance of Merapi volcano with military plane in November 1961, after 1400m long lava flow to SW in May 1961. Two breaks in slope on Merapi: at ~1500m contour (base of 36°- 42° upper slope) and at 400m contour line (base of 9°- 12° middle slope composed of lahars and used for 'ladangs'/dry fields). Below 400m alluvial plain of gentle gradient (<1°) and is used for 'sawahs'/ wet fields)

Tjia, H.D. (1969)- Fracture pattern on Lamongan volcano, East Java. Bulletin of Volcanology 33, 2, p. 594-599.
(Arial photographs show fractures up to 3 km long on slopes and in country surrounding Lamongan volcano in E Java, Indonesia. Also linear arrangements of maars and boccas. Fracture system is compatible with regional compression directed N15°- 195°E)

Troll, V.R., F.M. Deegan, E.M. Jolis, C. Harris, J.P. Chadwick, R. Gertisser, L.M. Schwarzkopf, A.Y Borisova et al. (2013)- Magmatic differentiation processes at Merapi Volcano: inclusion petrology and oxygen isotopes. J. Volcanology Geothermal Research 261, p. 38-49.
(online at: www.academia.edu/30455512/Magmatic_differentiation_processes_at_Merapi_Volcano_inclusion_petrology_and_oxygen_isotopes)
(Common calc-silicate inclusions and elevated δ18O values in feldspar phenocrysts from 1994-2010 Merapi lavas suggest addition of limestone and calc-silicate materials to Merapi magmas. Together with high δ13C in fumarole gas, crustal additions to mantle and slab-derived magma and volatiles likely steady state process)

Troll, V.R., D.R. Hilton, E.M. Jolis, J.P. Chadwick, L.S. Blythe, F.M. Deegan, L.M. Schwarzkopf & M. Zimmer (2012)- Crustal CO_2 liberation during the 2006 eruption and earthquake events at Merapi volcano, Indonesia. Geophysical Research Letters 39, L11302, p. 1-6.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/full/10.1029/2012GL051307)

Umbgrove, J.H.F. (1928)- The first days of the new submarine volcano near Krakatoa. Leidsche Geologische Mededelingen 2, p. 325-328.
(online at: https://repository.naturalis.nl/pub/505661/LGM1926002001014.pdf)
(Pictures of Anak Krakatoa on 3-4 January 1928, taken during a trip with government steamer 'Wega', with Dr. C. Stehn and F. Ecoma Verstege of the Volcanology Department in Bandung. The new volcano island was 'born' in late December 1927 within the large Krakatau caldera formed by catastrophic 1883 eruption)

Urlaub, M., J. Belo, C. Berndt, E. Klein, J. Wollschläger, A.M. Volsch (2023)- Reconstructing volcanic eruptions and tsunamis of Krakatau Volcano - Transit. SONNE-Berichte, Cruise SO299, Leg 2, Singapore-Port Louis, 15/08- 02/09/2023, p. 1-39.
(online at: https://www.geomar.de/fileadmin/personal/fb4/gdy/cberndt/SO299_2_Cruise_Report_04.pdf)
(Prelimininary cruise report of German Research Vessel SONNE in 2023, with main scientific focus on Krakatau archipelago in the Sunda Strait)

Van Baren, J. (1931)- Properties and constitution of a volcanic soil, buit in 50 years in the East-Indian Archipelago. Mededeelingen Landbouw-Hoogeschool, Wageningen 35, Verhandelingen 6, p. 1-33.
(online at: https://core.ac.uk/download/pdf/186483351.pdf)
(A soil profile sampled in 1928 by F. Ecoma Verstege on Lang Eiland (Krakatau) shows 50 years of tropical weathering of pumice since the 1883 eruption, 0,45% humus formed; $Si0_2$, Na_20 and K_20 decreased and $A1_20_3$ and Fe_20_3 increased)

Van Baren, F.A. (1948)- On the petrology of the volcanic area of the Goenoeng Moeria (Java). Mededelingen Algemeen Proefstation voor de Landbouw, Buitenzorg (Bogor), 60, p. 1-69.
(online at: https://edepot.wur.nl/216992)

(Petrographic descriptions of volcanic rocks of Muria volcano, incl. leucite bearing series: (a) monzonite-latite series, (b) tephrite-leucitite series, (c) leucite-basanite series, (d) augitite-limburgite series and (e) shoshonitic-absarokite-trachyte series. Originally written in 1942)

Van Bemmelen, R.W. (1930)- De Tengger-strijdvraag. Natuurkundig Tijdschrift voor Nederlandsch-Indie 90, p. 96-161.
(online at: https://resolver.kb.nl/resolve?urn=MMTEY01:179529006:pdf)
('The Tengger debate'. Description of evolution of the Tengger-Bromo caldera/ volcanic complex in East Java, discussing previous interpretations by Verbeek & Fennema (1896), Escher (1927), Akkersdijk (1928) and Van den Bosch (1929))

Van Bemmelen, R.W. (1937)- The volcano-tectonic structure of the Residency of Malang (Eastern Java) (an interpretation of the structure of the Tengger Mountains). De Ingenieur in Nederlandsch-Indie (IV), 4, 9, p. 159-172.
(Discussion of E Java between Madura Straits and Indian Ocean and Arjuna, Semeru- Bromo- Tengger and Lamongan volcanic complexes)

Van Bemmelen, R.W. (1938)- De Ringgit-Beser, een geplooide alkali-vulkaan in Oost-Java. Natuurkundig Tijdschrift voor Nederlandsch-Indie 98, p. 171-194.
('The Ringgit-Beser, a folded alkali-volcano in East Java'. Ringgit-Beser volcanic complex originated in shallow sea at N coast of E Java during Plio-Pleistocene. Volcano grew above sea level, became connected with mainland, and was subjected to folding in younger Pleistocene (Beser Ridge anticline))

Van Bemmelen, R.W. (1938)- Het Ringgit-Besergebergte (een geplooide alkalivulkaan in Oost-Java). Handelingen 8e Nederlandsch-Indisch Natuurwetenschappelijk Congres, Soerabaia, July 1938, p. 495-496.
(online at: https://resolver.kb.nl/resolve?urn=MMKB31:042287000:pdf)
('The Ringgit- Beser mountains (a folded alkaline volcano in East Java)'. Brief version of 1938 paper above)

Van Bemmelen, R.W. (1941)- Voorloopig bericht over de Semeroe-eruptie van September-Oktober 1941. Nederlandsch-Indische Geografische Mededeelingen 1, p. 136-142.
('Preliminary communication about the Semeru eruption of September-October 1941'. In short-lived journal 'Netherlands Indies Geographic Communications')

Van der Zwan, F.M, J.P. Chadwick & V.R. Troll (2013)- Textural history of recent basaltic-andesites and plutonic inclusions from Merapi volcano. Contributions to Mineralogy and Petrology 166, p. 43-63.
(online at: https://www.academia.edu/3707451/Textural_history_of_recent_basaltic_andesites_and_plutonic_inclusions_from_Merapi_volcano)
(On Recent Merapi basaltic andesites crystal size distribution, coarse plutonic inclusions, etc.)

Van Es, L.J.C. & N.J.M. Taverne (1924)- De Galoenggoeng en Telaga Bodas. Vulkanologische Mededeelingen (Dienst Mijnbouw Nederlandsch-Indie), Bandung, 6, p. 1-63.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB24:076864000:00001)
('The Galunggung and Telaga Bodas'. Description of Galunggung- Telaga Bodas volcano group in West-Central Java by Taverne, and report of Galunggung eruptions of July 1918, 1822 and 1894 by Van Es)

Van Gelder, J.K. & M.H. Caron (1915)- Den zwavelafzettingen in den Kawah Idjen. Jaarboek Mijnwezen Nederlandsch Indie, Verhandelingen 2, p. 70–90.
('The sulfur deposits in the Ijen crater', East Java)

Van Gerven, M. (1990)- Vulkanologisch-petrographische und geochemische Untersuchungen im Bereich der Tengger-Caldera, Java, Indonesien. M.Sc. Thesis, University of Tiibingen, p. 1-101. *(Unpublished)*
('Volcanological-petrographic and geochemical investigations in the area of the Tengger Caldera, Java, Indonesia')

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(Indonesian volcanoes variable concentrations of volatile and fluid-mobile elements. Kawah Ijen higher Altered Oceanic Crust-derived fluid fluxes (Sr/Nd and H2O/Nd) than Galunggung and Tambora)

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(Interaction between magma and crustal carbonate studied in calc-silicate xenoliths from 1994-2010 lava domes of active Merapi volcano, C Java. Two types of xenoliths, with alteration minerals clinopyrozxene, wollastonite, etc. Rapid release of large volumes of crustal CO_2 may impact global carbon cycling. Etc.)

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(online at: https://www.academia.edu/69348214/Magmatic_and_metasomatic_effects_of_magma_carbonate_interaction_recorded_in_calc_silicate_xenoliths_from_Merapi_volcano_Indonesia_)
(Abundant calc-silicate skarn xenoliths at Merapi volcano reflects interaction of basaktic and andesitic magma-with underlying upper crust of carbonate-rich Cretaceous-Cenozoic sediments. Two xenolith types:(1) magmatic skarn xenoliths, with evidence of formation within magma; and (2) exoskarn xenoliths holocrystalline, unzoned, with rim of clinopyrozene at lava contact, likely representing fragments of metamorphosed (carbonate) wall rocks. Magma-carbonate interaction associated with partial carbonate melting, decarbonation, etc. Associated CO_2 release could affect eruption intensity)

Wibowo, H.E. (2017)- Petrological and geochemical study of Sundoro Volcano, Central Java, Indonesia: temporal variations in differentiation and source processes in the growth of an individual volcano. Ph.D. Thesis Graduate School of Science, Hokkaido University, p. 1-275.
(online at: https://eprints.lib.hokudai.ac.jp/dspace/bitstream/2115/65414/1/Haryo_Edi_Wibowo.pdf)
(Geochemistry of 9 units of volcanic products of Sundoro of past 34 ka. Three magma types, formed by continuous slab dehydration and partial melting, from three distinct slab-derived fluxes. Ratios of slab hydrous fluid and sediment melt in Flux-A is 50:50, Flux-B is 45:55 and Flux-C is 40:60. The "unusual" magmatism of C Java arc may reflect influence of subduction of rugged bathymetry relief beneath region)

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(online at: https://jurnal.ugm.ac.id/jag/article/view/80866/38881)
(Thick scoriaceous tephra-fall deposits at S-SE flank of Mt. Raung,E Java, indicating large rel. young past explosive eruptions. Four main layers, but probably all from single eruption cycle. Volume of Scoria Fall 2 ~0.54 km3, and Scoria Fall 3 is ~0.26 km3, making total volume 0.8 km3 (VEI 4))

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(Isotope ratios and geochemical data from rocks of Sundoro volcano in C Java that represent volcano's activity since 34 ka. Three magma types A, B and C, representing mixing of mafic and felsic end-members, with increasing sediments and slab-derived flux)

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('The eruption of Mt. Ringgit on Java in the year 1593'. Historic records of significant volcanic activity of Ringgit volcano above Panarukan village, with possibly 10,000 people killed)

Widiyantoro, S., M. Ramdhan, J.P. Metaxian, P.R. Cummins, C. Martel, S. Erdmann, A.D. Nugraha, A. Budi-Santoso, A. Laurin & A.A. Fahmi (2018)- Seismic imaging and petrology explain highly explosive eruptions of Merapi Volcano, Indonesia. Nature Scientific Reports 8, 13656, p. 1-7.
(online at: https://www.nature.com/articles/s41598-018-31293-w.pdf)
(Seismic tomographic images show details of subvertical magma plumbing system of Merapi Volcano. P- and S-wave data with similar path coverage reveal high Vp/Vs structure from depth of ≥20km below (MSL to summit of volcano. Combined with petrological studies suggest (1) shallow zone of intense fuid percolation, directly below summit of the volcano; (2) main magma reservoir at ≥10- 20km below MSL that is orders of magnitude larger than erupted magma volumes; (3) deep magma reservoir at MOHO depth which supplies main reservoir; (4) extensive, subvertical fuid-magma-transfer zone from mantle to surface)

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(22 December 2018 flank failure of Anak Krakatau volcano generated tsunami that killed >400 people. Volume of material initially lost from volcano flank failure relatively small (~0.1 km^3) compared to overall changes observed

during entire eruption. Flank failure changed eruption style and upper volcanic plumbing system, with subsequent explosive eruptions destroying summit, then partially rebuilding lost flank)

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(Fieldtrip guidebook with brief introduction to Krakatau volcano, Sunda Straits, and its infamous eruption of 1883)

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(Kelud volcano complex in E Java with ten eruption craters identified on summit area and W flank. Eruption center moved clockwise from Lirang crater (oldest; ~238 ka) via Gajahmungkur, Kombang, Tumpak, Dargo, Badak, etc., to Kelut crater ~(4 ka). Volcanics dominated by basaltic andesites)

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(online at: https://www.mdpi.com/2072-4292/14/6/1399)
(Changes in area of Anak Krakatau volcano in 2018-2019, before and after the 22 December 2018 major lateral collapse of W part, following an undersea landslide, using Sentinel-1 and ALOS-2 Synthetic aperture radar (SAR) images.. SE part of the volcano expanded significantly after the eruption. Volcano morphology change experienced a slow-fast-slow process in two years)

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(online at: http://revistagi.geofisica.unam.mx/index.php/RGI/article/view/11/14)
(Review paper. Tambora 1815 caldera defined as large "explosion-type" caldera, the largest in historic time (6.7km in diameter. After 1815 no further explosive eruptions, only small Doro Api Toi lava flow. Latest estimate of 1815 ejecta volume ~41-63 km^3. Pre-eruption height ~4000m)

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(https://journal.uir.ac.id/index.php/JGEET/article/view/2456/2277)
(Lamongan volcano unique volcanoes in Sunda Arc, with parasitic eruptions on flanks: 64 parasitic eruption centers consisting of 37 volcanic cones (bocca) and 27 ranu (maar lakes))

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(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/838)
(Ngebel Volcano part of Quaternary andesitic Wilis Volcanic Complex, E Java. Four phases of volcanic activity: Jeding (E Pleistocene basaltic andesite), Kemlandingan pyroxene andesite, Manyutan hornblende andesite and Ngebel dacite. Temporal evolution of Ngebel magma composition from mafic to more felsic)

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(E Pleistocene (1.2 Ma) Pandan volcano formed on Tertiary sediments in Kendeng zone, E Java basin. Pandan potential geothermal system in basaltic-andesitic and hornblende andesite and of medium-high K calk alkaline affinity. Hot springs and calcite travertine in study area)

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(online at: https://academic.oup.com/gji/article/226/1/511/6171020)
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(online at: https://vsi.esdm.go.id/gallery/picture.php?/74)
('Geologic map of the Kelut volcano, East Java')

Zaennudin, A., R.D. Hadisantono, R.D. Erfan & A.R. Mulyana (1994)- Peta geologi Gunungapi Bromo- Tengger, Jawa Timur. Direktorat Volkanologi (Volcanological Survey Indonesia), Bandung..
(online at: https://vsi.esdm.go.id/gallery/picture.php?/68/category/8)
('Geologic map of the Bromo-Tengger volcano, East Java')

Zaennudin, A., S. Primulyana & D. Siregar (2013)- Letusan Gunung Kelud pada 690 +- 110 tahun yang lalu merupakan letusan yang sangat dahsyat dan sangat berdampak pada Kerajaan Majapahit. Jurnal Lingkungan dan Bencana Geologi 4, 2, p. 117-133.
(online at: https://jlbg.geologi.esdm.go.id/index.php/jlbg/article/view/53)
('The eruption of Mount Kelud in 690 +/- 110 years ago was very powerful eruption and hada huge impact on the Majapahit Kingdom')

Zaennudin, A., I.S. Sutawidjaja & D. Aswin (1993)- Peta geologi Gunungapi Salak, Jawa Barat. Direktorat Vulkanologi Indonesia (Volcanological Survey Indonesia), Bandung.
(online at: https://vsi.esdm.go.id/gallery/picture.php?/79/category/8)
('Geologic map of the Salak volcano, West Java. 1:50,000')

Zakly, H.I., S. Zulaikah, C.A. Hapsoro, S. Maulida & M.F.R. Hasan (2024)- Chemical element analysis of Arjuno-Welirang igneous rocks. Environmental Science and Pollution Research, p. 1-13 *(in press?)*

(online at: https://www.researchgate.net/publication/380321294_Chemical_element_analysis_of_Arjuno-Welirang_igneous_rocks)
(Chemical analyses of 7 Quaternary volcanics samples from Arjuno-Welirang, E Java. Higher SiO_2 than nearby Bromo-Semeru. K_2O higher than Semeru and lower than Bromo. Calculated depth of magma origin ~148- 225 km)

Zelenov, K.K. (1969)- Aluminum and titanium in Kava Ijen volcano crater lake; Indonesia. International Geology Review 11, 1, p. 84-93.

Zen, M.T. (1969)- The state of Anak Krakatau in September 1968. Bull. of National Institute Geology and Mining (NIGM), Bandung 2, 1, p. 15-23.
(online at: https://jrisetgeotam.lipi.go.id › article › download)
(Observations on Anak Krakatau volcano by Joint Indonesian-Japanese team in September 1968. Describe minor changes in volcano morphology that took place between 1963 and 1968)

Zen, M.T. (1971)- Geothermal system of the Dieng-Batur volcanic complex. Proceedings Institut Teknologi Bandung (ITB) 6, 1, p. 23-38.
(online at: https://journals.itb.ac.id/index.php/jmfs/article/view/9732/3707)
(Geothermal system of eastern Dieng volcanic complex, C Java, originated through intersection of two major fracture zones. High chloride content suggests geothermal system system of hot water and steam, not dry steam)

Zen, M.T. (1985)- Destruction, formation and growth of the Merapi domes. Buletin Jurusan Geologi, Institut Teknologi Bandung (ITB), 14, p. 7-13.

Zen, M.T., M. Alswar, S.H. Simatupang & G. Yuniart (1983)- Tektogenesa- gravitasi dan daur magmatik di sepanjang deretan volkanik Ungaran-Merapi di Jawa Tengah. Proc. 12th Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, p.
('Tektogenesis, gravity and magmatic cycles along the Ungaran-Merapi volcano row in Central Java')

Zen, M.T. & D. Hadikusumo (1964)- Recent changes in the Anak Krakatau volcano. Bulletin of Volcanology 27, p. 259-268.
(Visit to Anak-Krakatau in March 1963 reveal changes in Anak-Krakatau volcano since 1960. Former moonshaped crater lake (1960) disappeared and lava flows cover crater floor between inner cone and outer ring wall. Lava streams flowed over SW crater rim and spread fan-wise into sea)

Zen, M.T. & D. Hadikusumo (1965)- The future danger of Mt. Kelut (Eastern Java- Indonesia). Bulletin of Volcanology 28, 1, p. 275-282.
(Tunnel system of Hettinga Tromp proved Kelut eruption dangers can be minimized: no great lahars formed during eruption of 1951. However, eruption destroyed existing tunnels. New 1954 drainage tunnel system based on seepage principle, but failed to drain the lake completely. 23.5 million m3 of water still stored. Largest and deadliest recorded eruption of Kelut in 1586; associated lahars, caused ~10,000 casualties)

Zen, M.T. & A. Sudradjat (1983)- History of the Krakatau volcanic complex in Strait Sunda and the mitigation of its future hazards. Buletin Jurusan Geologi ITB 10, p. 1-28.

Zies, E.G. (1929)- The volcanoes of Java and Bali. EOS Transactions, American Geophysical Union 10, 1, p. 103-105. *(Abstract only)*
(Preliminary report on visits to volcananoes on Java and Bali (Batur) in summer of 1928 by American geochemist from the Carnegie Institute in Washington, Dr. Emanuel G. Zies, to sample volcano gases. Hosted by C.E. Stehn and other personnel of the 'Vulkaandienst' in Bandung. Results of Zies'analyses never fully published)

Zirkel, F. (1875)- Leucitbasalt von Gunung Bantal Susum auf der Insel Bawean bei Java. Neues Jahrbuch Mineralogie Geologie Palaontologie 1875, p, 175-176.
(online at: https://www.zobodat.at/pdf/Neues-Jb-Min-Geol-Palae_1875_0171-0224.pdf)

('Leucite basalt from the island Bawean near Java'. Brief January 1875 letter about first discovery of leucite-bearing basalts outside Europe, from Gunung Bantal Susum on Bawean island, Java Sea. In collection of Zirkel's recently deceased brother-in-law Prof. H. Vogelsang in Delft. (leucite basalts later also found in Gunung Muriah and Ringgit in NE Java, SW Sulawesi, etc.; JTvG))

Zollinger, H. (1844)- Togt naar den Salakh, op den tweeden tot vierden en vijftienden tot negentienden November, 1843. Tijdschrift voor Nederlandsch-Indie 6, 1, p. 141-176 and 7?, 3, p. 37-61.
('Trip to the Salak volcano on 2-4 and 15-19 November 1843'. Rel. comprehensive early geographic and botanical description of Salak volcano, W Java, after earlier surveys by Reinwardt, Kuhl, Van Hasselt, Hasskarl and Junghuhn (Zollinger's pioneering work was 'inexcusably ignored' in later papers by Junghuhn (Wichmann, 1896))

Zulkarnain, I. (2003)- Petrographic evidence for magma mixing beneath the Krakatau volcano and its implication for eruption magnitude and its mechanism: A preliminary view. J. RISET Geologi dan Pertambangan (LIPI) 13, 1, p. 1-11.
(Explosive eruption of Krakatau in August 1883 took place when magma composition reached dacitic stage, after change basaltic through andesite into dacite ('normal cycle of Krakatau eruptions'). Petrography suggests magma mixing and seismic data suggest two different magma chambers below Krakatau, suggesting changes in magma composition result of magma mixing, not fractionation processes)

X. INDONESIA- SE ASIA: MODERN ENVIRONMENTS, CARBONATES

(Numerous other papers on Recent environments and sediments and Oceanography that could be listed here but are tied to more specific sub-areas in Indonesia, may be listed under those areas)

X.1. Quaternary/Recent deposits and environments- shallow: Deltas, Tsunami deposits, Climate

Adhiperdana, B.G. Hendarmawan, K. Shibata & M. Ito (2018)- Relationships between discharge parameters and cross-sectional channel dimensions of rivers in an active margin influenced by tropical climate: The case of modern fluvial systems in the Indonesian islands. Catena 171, p. 645-680.
(Compilation of hydrological data from 649 river sites on Java, Sumatra, and Kalimantan, establishing relationships between discharge/bankfull channel width, (2) depth/ bankfull channel width, etc.)

Ai, L., S. Liu, S. Cong, H. Zhang, P. Cao, K. Wu, W. Ye, C.A. Rahim Mohamed & X. Shi (2024)- Spatial variability of surface sediments in the Malacca strait and its implications for sedimentary environments. J. Asian Earth Sciences 259, 105922, p. 1-10.
(Sediment samples from 1130km long Malacca Strait, between Malay Peninsula and Sumatra, connecting Andaman Sea with S China Sea. Residual sediments are coarsest sediments and concentrated in central region of Strait; modern terrigenous sediments distributed along coast of Malaysia and broad N region of Strait)

Ai, L., S. Liu, H. Zhang, P. Cao, X. Wu, L. He, W. Qi, K. Wu, C.A.R. Mohamed, H. Wang & X. Shia (2025)- Evolutionary history of the Malacca Strait driven by sea level changes since the last deglaciation. Global and Planetary Change 246, 104731, p.
(preprint online at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4954987)
(Opening of Malacca Strait occurred at ~10 ka. A modern strait environment was established at ~7 ka. Sea level is the first-order control of recent sedimentary evolution in Malacca Strait)

Aldrian, E. & R.D. Susanto (2003)- Identification of three dominant rainfall regions within Indonesia and their relationship to sea-surface temperature. Int. J. Climatology 23, p. 1435-1452.
(online at: http://onlinelibrary.wiley.com/doi/10.1002/joc.950/epdf)
(Three rainfall regions in Indonesia, related to island topography and sea-surface Temperature variability: (A) S Indonesia (S Sumatera to Timor, S Kalimantan, Sulawesi and part of Irian Jaya); (B) NW Indonesia (N Sumatra to NW Kalimantan); (C) Maluku and N Sulawesi. All with strong annual and (except A) semi-annual variability. Region C strongest El Nino- Southern oscillation influence)

Alongi, D.M., M. da Silva, R.J. Wasson & S. Wirasantosa (2013)- Sediment discharge and export of fluvial carbon and nutrients into the Arafura and Timor Seas: a regional synthesis. Marine Geology 343, p. 146-158.
(Islands of Timor and New Guinea significant sources of sediment. Most material delivered into Arafura and Timor Seas comes from New Guinea. Island and continental materials overlap with volcanic input from Banda Arc. Discharge from New Guinea and Timor greater than from N Australia)

Alongi, D.M., L.A. Trott, F. Tirendi, A.D. McKinnon & M.C. Undu (2008)- Growth and development of mangrove forests overlying smothered coral reefs, Sulawesi and Sumatra, Indonesia. Marine Ecology Progress Ser. 370, p. 97-109.
(Human-induced shifts from fringing reef-dominated to mangrove-dominated coastal habitats in S Sumatra and SW Sulawesi)

Amijaya, H. & Ngisomuddin (2007)- Textural characteristics of tsunamiite: study on recent tsunami deposit at Pangandaran coast, Ciamis and Parendog coast, Yogyakarta. Proc. Joint Convention 32nd HAGI, 36th IAGI and 29th IATMI, Bali, p. 1103-1109.
(online at: https://www.iagi.or.id/web/digital/28/2007_IAGI-Bali_Textural-Characteristics-of-Tsunamiite.pdf)
(Recent tsunamiites of Java S coast have erosional base, homogeneous m-f sand grain size and no fining-upward trend. Sedimentary structures parallel lamination in lower part and ripples in upper part)

Arp, G., A. Reimer & J. Reitner (2003)- Microbialite formation in seawater of increased alkalinity, Satonda Crater Lake, Indonesia. Journal of Sedimentary Research 73, p. 105-127.
(Crater lake of Satonda, a small volcanic island 3 km NW of Sumbawa, with red-algal microbial reefs in marine-derived water of increased alkalinity. Potential analogue for ancient microbialites in open-marine facies)

Arp, G., J. Reitner, G. Worheide & G. Landmann (1996)- New data on microbial communities and related sponge fauna from the alkaline Satonda crater lake (Sumbawa, Indonesia). Gottinger Arbeiten Geologie Palaeontologie, Sonderband SB2, p. 1-7.
(Crater lake of Satonda, a small volcanic island 3 km NW of Sumbawa, with high-alkaline water. With well-developed 'stromatolitic' red algal- microbialite reefs with demosponges in upper ~20m)

Ashton, P.S. (2014)- On the forests of tropical Asia- lest the memory fade. Royal Botanic Gardens Kew and Arnold Arboretum, Harvard University, p. 1-670.

Ashton, P.S. (2017)- Patterns of variation among forests of tropical Asian mountains, with some explanatory hypotheses. Plant Ecology Diversity 10, 5-6, p. 361-377.
(online at: https://www.tandfonline.com/doi/abs/10.1080/17550874.2018.142902)
(Review of modern forests zonation in tropical Asia: lowland forests, lower montane forests, upper montane forests, subalpine thicket/ shrublands)

Aswan & Y. Rizal (2021)- Identification of suspected paleotsunami deposits study from Karapyak Beach, Pangandaran area, West Jawa, Indonesia. Bulletin of the Marine Geology, 36,2, p. 75-83.
(online at: https://media.neliti.com/media/publications/381443-none-f1ee23b1.pdf)
(Karapyak Beach near Pangandaran, SW Java, paleotsunami deposit light brown loose sand overlying a dark brown paleosoil layer with erosional contact. Base of lower part rich with broken mollusc shells and corals, the mid-top of lower part may contain several intact mollusc shells and corals, rock fragments and anthropogenic products. Foraminifera mixture of shallow and deep marine species)

Bachtiar, A., M. Reza, A. Krisyunianto & Y.S. Purnama (2011)- Sedimentology of Kalianyar Delta, Indramayu, Northwest Java basin: uniques tidal and wave interaction in a supposedly river dominated delta. Proc. Joint 36th HAGI and 40th IAGI Annual Conv., Makassar, JCM2011-470, p. 1-15.
(online at: https://www.iagi.or.id/web/digital/10/2011_IAGI_Makassar_Sedimentology-of-Kalianyar-Delta.pdf)
(Kalianyar Delta modern delta on N coast of Indramayu, NW Java. Morphologically classified as river-dominated 'bird-foot' delta, but field survey common influence of wave and tidal processes)

Bachtiar, A., J. Wiyono, Liyanto, M. Syaiful, Y.S. Purnama et al. (2010)- , cores, and salinity. Proc. HAGI-SEG International Geosciences Conference, Bali 2010, IGCE10-OP-009, p. 1-10.
(Modern Mahakam delta sediments study. Most channel thalwegs devoid of sands; grab samples usually found semi-consolidated clay instead. Active sand transportation and deposition on slopes of point bars and side bars. Shallow cores in lower delta plain generally characterized by clay drapes, suggesting tidal processes)

Baker, E.K., P.T. Harris, J.B. Keene & S.A. Short (1995)- Patterns of sedimentation in the macrotidal Fly River delta, Papua New Guinea. In: B.W. Flemming & A. Bartholomae (eds.) Tidal signatures in modern and ancient sediments, Int. Association of Sedimentologists (IAS), Special Publ. 24, p. 193-211.

Benzerara, K., A. Meibom, Q. Gautier, J. Kazmierczak, J. Stolarski et al. (2010)- Nanotextures of aragonite in stromatolites from the quasi-marine Satonda crater lake, Indonesia. In: H.M. Pedley & M. Rogerson (eds.) Tufas and speleothems: unravelling the microbial and physical controls, Geological Society, London, Special Publ. 336, p. 211-224.
(On composition and texture of aragonite in lacustrine stromatolites from alkaline crator lake of Satonda)

Bird, E.C.F. & O.S.R. Ongkosongo (1980)- Environmental changes on the coasts of Indonesia. The United Nations University, United Nations University Press, Tokyo, p. 1-55.
(online at: www.unu.edu/unupress/unupbooks/80197e/80197E00.htm)

(Overview of coastal progradation along various coastlines of Indonesia)

Bird, M.I., D. Taylor & C.Hunt (2005)- Palaeoenvironments of insular Southeast Asia during the last glacial period; a savanna corridor in Sundaland? Quaternary Science Reviews 24, 20-21, p. 2228-2242.
(online at: https://www.researchgate.net/publication/313759617_Paleoenvironments_of_insular_Southeast_Asia_during_the_last_glacial_period_A_savanna_corridor_in_Sundaland)
(Geomorphology, palynology, biogeography and vegetation/climate modelling suggests N-S 'savanna corridor' through Sundaland continent at Last Glacial Period at time of lowered sea-level. Minimal interpretation of 50-150 km wide zone of open savanna vegetation along divide between S China and Java Seas, forming land bridge between Malay Peninsula, Sumatra, Java and Borneo and served as barrier to dispersal of rainforest- dependent species between Sumatra and Borneo. Savanna corridor may have provided convenient route for rapid early dispersal of modern humans through region and on into Australasia)

Brown, I.M. (1990)- Quaternary glaciations of New Guinea. Quaternary Science Reviews 9, p. 273-280.
(New Guinea mountains covered by glaciers at ~300 ka and at ~700 ka. Mean annual T was at least 6-7°C lower. Glaciers receded by 13 ka BP and New Guinea may have been ice free by 7 ka. Glaciers developed again at ~5 ka. At least four significant re-advances during last 3.5 ka. Little Ice Age ended 120-150 years ago and glaciers retreating to present day)

Brune, S., A.Y. Babeyko, S. Ladage & S.V. Sobolev (2010)- Landslide tsunami hazard in the Indonesian Sunda Arc. Natural Hazards Earth System Sciences 10, p. 589-604.
(online at: https://www.nat-hazards-earth-syst-sci.net/10/589/2010/nhess-10-589-2010.pdf)
(Review of tsunamigenic events triggered by submarine landslides. Largest documented recent slides (SE of Sumba, etc.) volume of 15-20 km^3. Many large tsunamigenic landslides ultimately triggered by earthquakes)

Brune, S., S. Ladage, A.Y. Babeyko, C. Muller, H. Kopp & S.V. Sobolev (2009)- Submarine landslides at the eastern Sunda margin: observations and tsunami impact assessment. Natural Hazards 54, 2, 547-562.
(online at: http://edoc.gfz-potsdam.de/gfz/get/14283/0/b800b700926b1f854f8f70c2e84b0c4a/14283.pdf)
(New bathymetric data show six large submarine slides at E Sunda margin between C Java and Sumba. Volumes between 1 km^3 in Java fore-arc basin up to 20 km^3 at trench off Sumba and Sumbawa)

Caline, B. & J. Huong (1992)- New insights into the recent evolution of the Baram Delta from satellite imagery: Bull. Geological Society Malaysia 32, p. 1-13.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1992012.pdf)

Cannon, C.H., R.J. Morley & A.B.G. Bush (2009)- The current refugial rainforests of Sundaland are unrepresentative of their biogeographic past and highly vulnerable to disturbance. Proc. National Academy of Sciences USA (PNAS) 106, 27, p. 11188- 11193.
(online at: www.pnas.org/content/early/2009/06/18/0809865106.full.pdf)
(Model reconstruction of forest types across exposed Sunda Shelf during Pleistocene Last Glacial Maximum, suggesting rainforests covered substantially larger area than today (see also Wurster et al. 2010 who argued for more savannah vegetation; JTvG))

Cecil, C.B., F.T. Dulong, J.C. Cobb & Supardi (1993)- Allogenic and autogenic controls on sedimentation in the Central Sumatra basin as an analogue for Pennsylvanian coal-bearing strata in the Appalachian basin. In: J.C. Cobb & C.B. Cecil (eds.) Modern and ancient coal-forming environments, Geological Society of America (GSA), Special Paper 286, p. 3-22.
(Modern influx of fluvial sediment to Sunda shelf/ Strait of Malacca from Sumatra restricted by rain forest cover in equatorial ever-wet climate belt. Much of marine and estuarine environments erosional or non-depositional, except for localized deposition in slack water areas, such as downstream end of islands. Thick (>13m), laterally extensive (>70,000 km^2) peat deposits forming on poorly drained coastal lowlands)

Cecil, C.B., F.T. Dulong, R.A. Harris, J.C. Cobb, H.G. Gluskoter & H. Nugroho (2003)- Observations on climate and sediment discharge in selected tropical rivers, Indonesia. In: C.C Blaine et al. (eds.) Climate controls on stratigraphy, Soc. Sedimentary Geology (SEPM), Special Publ. 77, p. 29-50.
(Factors influencing fluvial sediment discharge include catchment-basin size, relief, gradient, tectonic setting, bedrock lithology, rainfall. Dominant variable affecting fluvial sediment discharge among islands of Indonesia appears to be seasonality in rainfall, regardless of tectonic setting, relief or catchment-basin size)

Chabangborn, A., K.K.A. Yamoah, S. Phantuwongraj & M. Choowon (2018)- Climate in Sundaland and Asian monsoon variability during the last deglaciation. Quaternary International 479, p. 141-147.
(Warming S Hemisphere caused S-ward shift of Intertropical Convergent Zone (ITCZ) and weakened summer monsoon in Asian monsoon region between 18.5- 15 ka BP. Warmer N Hemisphere strengthened summer monsoon intensity in Asian monsoon region and moved ITCZ to N between 15 and 13.5 ka BP, Opposing precipitation pattern between E and Wt Indian Ocean suggested potential influence of Walker circulation on the Sundaland climate from 13.5-11 ka BP)

Chapkanski, S., G. Brocard, F. Lavigne, T. Afrizal, E. Meiliand, N. Ismail, J. Majewski et al. (2025)- Mid-to late-Holocene fluvial and coastal evolution in the Aceh River delta, Sumatra: effects of sea-level change, sediment supply, wave climate, tectonics and tsunamis. Quaternary Science Advances 19, 100290, p. 1-18.
(online at: https://www.sciencedirect.com/science/article/pii/S2666033425000267)
(On processes affecting growth of Aceh River delta at NW-most tip of Sumatra during last 6 kyrs. Formed in NW-SE trough basin along trace of the Great Sumatran fault)

Clift, P.D. (2006)- Controls on the erosion of Cenozoic Asia and the flux of clastic sediment to the ocean. Earth Planetary Science Letters 241, p. 571-580.
(Rates of continental erosion reconstructed from volumes of clastic sediment, most of which offshore. Sediment flux from mainland Asia first peaked in E-M Miocene (24-11 Ma), well before initiation of glacial climate, indicating that rock uplift and precipitation are key controls on erosion over long periods of time. In E Asia faster erosion correlates with more humid, warm climates in E-M Miocene, changing to less erosive, drier climates after 14 Ma when Antarctic glaciation begins. Average sedimentation rates on most E Asian continental margins since 1.8 Ma 5-6 times less than modern fluvial flux)

Clift, P.D. (2020)- Asian monsoon dynamics and sediment transport in SE Asia. J. Asian Earth Sciences 195, 104352, p. 1-11.
(Asian monsoon is dominant climatic phenomenon in SE Asia, responsible for most regional precipitation. Strong monsoons associated with intensified reworking of pre-existing floodplain sediments over millennial timescales, and deliver/ deposition more sediment than during more arid times. Over longer time periods strengthening of monsoon linked to faster bedrock erosion and increased sediment flux of ocean.Over long time periods, monsoon is subsidiary to effects of global cooling at least since M Miocene)

Clift, P.D. & R.A. Plumb (2008)- The Asian monsoon: causes, history and effects. Cambridge University Press, p. 1-288.
(Asian monsoon large-scale seasonal reversal of normal atmospheric circulation pattern. Low-pressure systems develop in tropics due to rising hot air that cools and descends in subtropics (arid regions). In contrast, summer heating of Asian continent (mainly Tibetan Plateau) generates low-pressure cells and summer rains in S and E Asia. In winter reversed high-P system established, with dry, cold winds blowing out of Asia. Monsoon intensity varies in 21, 40 and 100 thousand year timescale, with periods of glacial advance and retreat: summer monsoons strong and winter monsoons weaker during warm, interglacial periods (reverse in glacial times))

Coleman, J.M., S.M. Gagliano & W.G. Smith (1970)- Sedimentation in a Malaysian high tide tropical delta. In: J.P. Morgan & R.H. Shaver (eds.) Deltaic sedimentation, modern and ancient. Soc. Economic Min. Paleont. (SEPM), Special Publ. 15, p. 185-197.
(Study of sedimentation in Klang and Langat Rivers delta in Malacca Strait)

Consentius, W.U. (1974)- Die Kusten des Sudostlichen Asien. Ph.D. Thesis, Technische Universitat Berlin, p. 1-231.
('The coasts of SE Asia'. Geographic description of coastlines and processes in SE Asia)

Corlett, R.T. (2009)- The ecology of tropical East Asia. Oxford University Press, New York, p. 1-272.
(Review of terrestrial ecology of East Asian tropics and subtropics, from S China to W Indonesia)

Crame, J.A. & B.R. Rosen (2002)- Cenozoic palaeogeography and the rise of modern biodiversity patterns. In: J.A. Crame & A.W. Owen (eds.) Palaeobiogeography and biodiversity change: the Ordovician and Mesozoic-Cenozoic radiations, Geological Society, London, Special Publ. 194, p. 153-168.

Darlan, Y., K.T. Dewi & R. Kapid (2007)- Dinamika pantai Indramayu Jawa Barat: tekstur sedimen dan mikrofauna. Proc. 32nd HAGI, 36th IAGI and 20th IATMI Annual Conference Exhibition, Bali, p. 1133-1151.
(online at: www.iagi.or.id/web/digital/28/2007_IAGI-Bali_Dinamika-Pantai-Indramayu-Jawa-Barat.pdf)
('Coastal dynamics of Indramayu, West Java: sediment texture and microfauna'. Sediments and microfaunas (ostracods, calcareous nannoplankton) in two Holocene shallow core holes along Balongan- Indramayu coast)

Darlan, Y., Y. Noviadi & H. Prasetyo (1996)- Studi proses sedimentasi perairan Serwatu dan sekitarnya, Kepulauan Aru, Maluku Tenggara. Proc. 25th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 127-147.
('Study of sedimentation processes in waters around Serwatu, Aru Islands, Moluccas')

Dawson, A.G., S. Shi, S. Dawson, T. Takahashi & N. Shuto (1996)- Coastal sedimentation associated with the June 2nd and 3rd, 1994 tsunami in Rajegwesi, Java. Quaternary Science Reviews 15, 8-9, p. 901-912.
(Recent tsunami deposits along NE Java coast)

De Bruyn, M., L. Ruber, S. Nylinder, B. Stelbrink, N.R. Lovejoy, S. Lavoue, H.H. Tan, E. Nugroho et al. (2013)- Paleo-drainage basin connectivity predicts evolutionary relationships across three Southeast Asian biodiversity hotspots. Systematic Biology 62, 3, p. 398-410.
(Molecular genetic data from freshwater fishes across three biodiversity hotspots in SE Asia, to test effect of Quaternary climate change and drainage rearrangements on aquatic faunal diversification. Paleo-drainage re-arrangements played significant role in spatiotemporal evolution of lowland aquatic taxa)

Dewi, A.Y. & S.S. Surjono (2010)- Tipe-tipe pembentukan delta di Pantai utara Jawa. Proc. 39th Annual Conv. Indonesian Association Geologists (IAGI), Lombok, PIT-IAGI-2010-287, p. 1-12.
(online at: https://www.iagi.or.id/web/digital/12/2010_IAGI_Lombok_Tipe-Tipe-Pembentukan-Delta.pdf)
('Delta sedimentation types along North coast of Java'. Review of modern delta types along Java north coast. Two main types: (1) fluvial-dominated Mississippi/ birdfoot type (high sediment supply), and (2) Sao Francisco type (dominant marine control and lower sediment supply)

Dong, W.S., A. Ismailluddin, L.S. Yun, E.H. Ariffin, C. Saengsupavanich, K.N.A. Maulud, M.Z. Ramli et al. (2024)- The impact of climate change on coastal erosion in Southeast Asia and the compelling need to establish robust adaptation strategies. Heliyon 10, 4, e25609, p. 1-20.
(About link between climate change and coastal erosion in SE Asia, in terms of sea-level rise, storm surge, and monsoon patterns)

Dubois, N., D.W. Oppo, V.V. Galy, M. Mohtadi, S. van der Kaars, J.E. Tierney, Y. Rosenthal et al. (2014)- Indonesian vegetation response to changes in rainfall seasonality over the past 25,000 years. Nature Geoscience 7, p. 513-517.
(online at: http://www.whoi.edu/fileserver.do?id=186164&pt=2&p=17766)
(Climate proxy data 30 surface marine sediment samples from throughout Indo-Pacific warm pool. Sediment core from offshore NE Borneo show broadly similar vegetation during Last Glacial Maximum and Holocene, suggesting that, despite generally drier glacial conditions, no pronounced dry season. Core off Sumba indicates enhanced dry season aridity and water stress during most recent glaciation)

Ellis, B. (2021)- Holocene climate and ocean variability in the Sunda Strait region of the eastern Indian Ocean. Ph.D. Thesis Australian National University, p. 1-349.
(online at: https://openresearch-repository.anu.edu.au/bitstream/1885/219249/2/ELLIS_complete_thesis.pdf)
(Holocene climate signal and influence of Indian Ocean Dipole (IOD) climate oscillation from isotopes, etc., in sediment cores and Porites corals))

Engelhart, S.E., B.P. Horton, D.H. Roberts, C.L. Bryant & D.R. Corbett (2007)- Mangrove pollen of Indonesia and its suitability as a sea-level indicator. Marine Geology 242, p. 65-81.
(SE Sulawesi mangrove zonations parallel to shoreline and dominated by Rhizophoraceae, with Avicennia, Heritiera and Sonneratia also important. Elevation significant control on distribution of pollen assemblages)

Fontaine, H. (1971)- Depots coquilliers du delta du Mekong. Archives Geologiques Vietnam 14, p. 135-141.
('Shell deposits of the Mekong Delta'. During Flandrian, large area of Mekong delta was covered by sea, which after withdrawal left traces of paleo-shorelines and shell deposits. C14 ages of shells 4150- 5680 BP)

Galey, M.L., A. van der Ent, M.C.M. Iqbal & N. Rajakaruna (2017)- Ultramafic geoecology of South and Southeast Asia. Botanical Studies 58,18, p. 1-28.
(online at: https://link.springer.com/content/pdf/10.1186%2Fs40529-017-0167-9.pdf)
(Globally, ultramafic outcrops known for floras with high levels of endemism, including plants adapted to nickel or manganese hyperaccumulation. Soils derived from ultramafic regoliths generally nutrient-deficient, with major cation imbalances and high concentrations of potentially toxic trace elements, especially nickel. SE Asian region large surface occurrences of ultramafic regoliths, but geoecology still poorly studied)

Gathorne-Hardy, F.J., Syaukani, R.G. Davies, P. Eggleton & D.T. Jones (2002)- Quaternary rainforest refugia in South-East Asia: using termites (Isoptera) as indicators. Biological J. Linnean Society 75, p. 453-466.
(online at: https://academic.oup.com/biolinnean/article/75/4/453/2639628)
(In SE Asia, during Quaternary glaciations increased seasonality and sea level drops of ~120m caused fragmentation of rainforest. During Last Glacial Maximum, most of Thailand, Peninsula Malaysia, W and S Borneo, E and S Sumatra, and Java probably covered by savannah. Rainforest refugia probably present in N and E Borneo, N and W Sumatra and Mentawai islands.)

Goltenboth, F., K.H. Timotius, P.P. Milan & J. Margraf (eds.) (2006)- Ecology of insular Southeast Asia, The Indonesian Archipelago. Elsevier Science, p. 1-568.
(Reviews of modern marine and terrestrial ecosystems of Indonesia (mainly biology))

Griffiths, M.L., R.N. Drysdale, M.K. Gagan, J.X. Zhao, J.C. Hellstrom, L.K. Ayliffe & W.S. Hantoro (2013)- Abrupt increase in East Indonesian rainfall from flooding of the Sunda Shelf ~9500 years ago. Quaternary Science Reviews 74, p. 273-279.
(Stalagmite record from Liang Luar Cave, Flores, suggests rapid increase in Indonesian monsoon rainfall at ~9.5 ka, synchronous with rapid expansion of rainforest in NE Australia, regional freshening of S Makassar Strait and ~1.5 °C cooling in upper thermocline of Timor Sea, indicative of reduced surface heat transport by Indonesian Throughflow when Java Sea opened during postglacial sea-level rise. Increase in monsoon rainfall tied to sudden increase in ocean surface area and/or temperature in monsoon source region as Sunda Shelf flooded during deglaciation)

Gugliotta, M., Y. Saito, V.L. Nguyen, T.K.O. Ta, T. Tamura & S. Fukuda (2018)- Tide- and river-generated mud pebbles from the fluvial to marine transition zone of the Mekong River delta, Vietnam. Journal of Sedimentary Research 88, 9, p. 981-990.
(Mud clasts present in most samples from channel in Mekong River and Delta channels. Formed by erosion of previously deposited fluvial and tidal mud layers)

Gupta, A. (ed.) (2005)- The physical geography of Southeast Asia. Oxford University Press, Oxford, p. 1-440.

Haberle, S.G. (2003)- The emergence of an agricultural landscape in the highlands of New Guinea. Archaeology in Oceania 38, 3, p. 149-158.
(Pollen and sedimentological evidence in highlands of New Guinea, from 5 sites from highland valleys (1400-1890m altitude), covering period from Last Glacial Maximum (22 ka) to Present. Earliest indications of agricultural impact in vegetation record around 7800 cal BP. Subsequent vegetation change reflects increases in anthropogenic impact, punctuated by peak episodes of vegetation change towards more open landscape. Emergence of an agricultural landscape in New Guinea is seen as a result of gradual indigenous development)

Haberle, S.G., G.S. Hope & Y. Defretes (1991)- Environmental change in the Baliem Valley, montane Irian Jaya, Republic of Indonesia. J. of Biogeography 18, p. 95-40.
(online at: www.academia.edu/17017366/Environmental_Change_in_the_Baliem_Valley_Montane_I Etc.)
(Floor of the Baliem Valley, at ~1420- 1600m altitude and montane tropical climate, largely cleared and initial date for burning and slope degradation is 26,000 yr BP, based on charcoal in slope wash. Pollen and magnetic analyses show high level of human disturbance since that time. Casuarina widely grown after 2900 yr BP)

Hanebuth, T.J.J., U. Proske, Y. Saito, V. Nguyen & K. Thi (2012)- Early growth stage of a large delta-transformation from estuarine-platform to deltaic-progradational conditions (the northeastern Mekong River Delta, Vietnam). Sedimentary Geology 261-262, p. 108-119.
(Mekong Delta early delta growth during transgression-related inundation between 8 ka BP (maximum flooding) and 5.7 ka BP (sea-level highstand), characterized by tide-and marine-influenced nearshore conditions with extensive mangrove and tidal-flat deposits aggrading on wide abrasion platform. Onset of regression/ progradation at ~4.8 ka)

Hantoro, W.S. (1993)- Dynamics of Indian-Pacific ocean gateways: Pleistocene sea-level study in Savu area using uplifted coral reef terraces. In: F. Hehuwat et al. (eds.) Proc. International Workshop on Neogene Evolution of Pacific Ocean Gateways, Bandar Lampung 1993, p. 21-28.

Hantoro, W.S. (1996)- Quaternary sea level variations in the Pacific- Indian Ocean gateways: response and impact. Quaternary International 37, p. 73-80.
(On Pacific to Indian Ocean water flow during last glacial maximum)

Hapsari, K.A., S. Biagioni, T.C. Jennerjahn, P.M. Reimer, A. Saad, Y. Achnopha, S. Sabiham & H. Behling (2017)- Environmental dynamics and carbon accumulation rate of a tropical peatland in Central Sumatra, Indonesia. Quaternary Science Reviews 169, p. 173-187.
(Analyses of peat core from Sungai Buluh peatland in C Sumatra suggests that peat and C accumulation rates driven mainly by sea level change, river water level, climatic variability and anthropogenic activities)

Hapsari, K.A., T.C. Jennerjahn, S.H. Nugroho, E. Yulianto & H. Behling (2021)- Sea level rise and climate change acting as interactive stressors on development and dynamics of tropical peatlands in coastal Sumatra and South Borneo since the Last Glacial Maximum. Global Change Biology 28, p. 3459-3479.
(online at: https://onlinelibrary.wiley.com/doi/pdf/10.1111/gcb.16131)
(Paleoecological studies in Kampar Peninsula (coastal Riau) and Katingan (C Kalimantan) peatlands. Changes in precipitation and sea level led to shifts in peat swamp vegetation and peat accumulation rates)

Hapsari, K.A., T.C. Jennerjahn, S.H. Nugroho, E. Yulianto & H. Behling (2022)- Analysis of KP peat core from the Kampar Peninsula, Riau, Sumatra Indonesia. PANGAEA, *(at online data publisher)*
(online at: https://doi.pangaea.de/10.1594/PANGAEA.941445)
(Paleoecological and palynological investigation of two Quaternary peat cores from E Sumatra coastal area)

Hapsari, K.A., T.C. Jennerjahn, S.H. Nugroho, E. Yulianto & H. Behling (2022)- Pollen and spores of the KP peat core from the Kampar Peninsula, Riau, Sumatra Indonesia. PANGAEA *(at online data publisher)*
(online at: https://doi.pangaea.de/10.1594/PANGAEA.941439)

Harris, P.T., E.K. Baker, A.R. Cole & S.A. Short (1993)- A preliminary study of sedimentation in the tidally dominated Fly River delta, Gulf of Papua. Continental Shelf Research 13, 4, p. 441-472.
(Tidal currents dominate in transport of sandy sediments throughout Fly River Estuary, PNG)

Harris, P.T., M.G. Hughes, E.K. Baker, R.W. Dalrymple & J.B. Keene (2004)- Sediment transport in distributary channels and its export to the pro-deltaic environment in a tidally dominated delta: Fly River, Papua New Guinea. Continental Shelf Research 24, 19, p. 2431-2454.

Heads, M. (2002)- Regional patterns of biodiversity in New Guinea animals. J. of Biogeography 29, p. 285-294.

Heads, M. (2003)- Ericaceae in Malesia: vicariance biogeography, terrane tectonics and ecology. Telopea 10, 1, p. 311-449.
(online at: www.rbgsyd.nsw.gov.au/_data/assets/pdf_file/0006/72726/Tel10Hea311.pdf)
(Paper discussing present-day plant distribution in SE Asia (mainly Erica, Rhododendron groups) and relation to plate tectonic history. Many terranes or groups of terranes have endemic species. Many distributions are hard to explain with present-day ecology, but can be understood through tectonic history)

Heaney, L.R. (1991)- A synopsis of climatic and vegetational change in Southeast Asia. Climatic Change 19, 1-2, p. 53-61. *(online at: www.academia.edu/download/45139460/A_Synopsis_of_Climatic_and_Vegetational_20160427 Etc.)*
(Tropical rain forest in SE Asia developed in extensive archipelago during past 65 My or more. Miocene rain forest extended further N (to S China and Japan). Pleistocene development of continental glaciers at high latitudes associated in SE Asia with lowered sea level, cooler temperatures, and modified rainfall patterns. SE Asian vegetation during last glacial maximum (ca. 18,000 BP) different from that of today, with increase in extent of montane vegetation and savannah and decline in rain forest)

Hehanussa, P.E., S. Hadiwisastra & S. Djoehanah (1975)- Sedimentasi delta baru Cimanuk. Geologi Indonesia (IAGI) 3, 1, p. 21-35.
('Sedimentation of the new Cimanuk delta', NW Java)

Heikoop, J.M., C.J. Tsujita, M.J. Risk, T. Tomascik & A.J. Mah (1996)- Modern iron ooids from a shallow-marine volcanic setting; Mahengetang, Indonesia. Geology (GSA) 24, 8, p. 759-762.
(Unconsolidated deposit of iron ooids and pisoids off volcanic island Mahengetang, Sangihe Arc, in shallow-marine setting, in area of venting of hydrothermal fluids and expulsion of gas. Ooids composed of concentric accretionary layers of limonite admixed with amorphous silica, precipitated around andesitic rock fragments)

Hoekstra, P. (1989)- River outflow, depositional processes and coastal morphodynamics in a monsoon-dominated deltaic environment, East Java, Indonesia. Doct. Thesis University of Utrecht, Netherlands Geographical Studies (Koninklijk Nederlands Aardrijkskundig Genootschap) 87, p. 1-214.
(On sediment discharge at Solo and Brantas/ Porong River deltas, E Java. Part of 1984-1985 Snellius II program)

Hoekstra, P. (1989)- Hydrodynamics and depositional processes of the Solo and Porong Deltas, East Java, Indonesia. In: W.J.M. van der Linden (ed.) Coastal Lowlands, Proc. KNGMG Symposium 'Coastal lowlands geology and Geotechnology', Kluwer Academic Publishers, Dordrecht, p. 161-173.
(High input of sediment into coastal waters by Solo and Porong rivers resulted in rapid development of two-delta-systems. Solo delta mud-dominated, rapidly prograding elongate (single-finger) delta, while Porong delta is lobate, multidistributary delta)

Hoekstra, P. (1993)- Late Holocene development of a tide-induced elongate delta, the Solo delta, East Java. Sedimentary Geology 83, p. 211-233.
(Review of delta of monsoonal Solo River. Late Quaternary mud-dominated, rapidly prograding, elongate 'single-finger' delta with well-developed natural levees)

Hoekstra, P., R.F. Nolting & H.A. van der Sloot (1989)- Supply and dispersion of water and suspended matter of the rivers Solo and Brantas into the coastal waters of East Java, Indonesia. In: J.E. van Hinte et al. (eds.) Proc. Snellius II Symposium, Jakarta 1987, Netherlands J. of Sea Research 23, 4, p. 501-515.

Hoekstra, P. & Tiktanata (1988)- Coastal hydrodynamics, geomorphology and sedimentary environments of two major Javanese river deltas; program and preliminary results from the Snellius-II expedition (Indonesia). J. Southeast Asian Earth Sciences 2, 2, p. 95-106. *(online at: https://www.academia.edu/48585721/Coastal_hydrodynamics_geomorphology_and_sedimentary_envir Etc.)*
(Study of river outflow, sediment transport, depositional facies and delta morphology of Solo and Porong river deltas, E Java. Very high denudation rates. Sediment transport mainly restricted to wet season. Solo delta single-finger delta. Porong delta half-circular, lobate delta with multidistributary network of channels)

Hoogendoorn, R.M. (2006)- The impact of changes in sediment supply and sea-level on fluvio-deltaic stratigraphy. Ph.D. Thesis, Technische Universiteit Delft, p. 1-153. *(Unpublished)*
(online at: repository.tudelft.nl/assets/uuid.../ceg_hoogendoorn_20060131.pdf
(With chapter of Late Holocene evolution of Mahakam Delta, E Kalimantan, based on Storms et al. (2005))

Hope, G.S. (2001)- Environmental change in the Late Pleistocene and later Holocene at Wanda site, Soroako, South Sulawesi, Indonesia. Palaeogeogr. Palaeoclim. Palaeoecology 171, p. 129-145.
(Pollen analysis of 8m core from mire at 445m altitude on ultramafic soil near W shore of Lake Matano. Montane forest grew continuously from~75,000- 50 yrs B.P. Increase in grass and Casuarina at ~35-17 ka indicate possible drier conditions)

Hope, G.S. (2004)- Glaciation of Malaysia and Indonesia, excluding New Guinea. In: Quaternary Glaciations Extent and Chronology- III: South America, Asia, Africa, Australasia, Antarctica. Developments Quaternary Science 2, 3, p. 211-214.
(Brief review of Pleistocene glaciation of Mt Kinabalu (Sabah, 4100m) above ~3000m, and deglaciated by end of Pleistocene. Volcanic mountains of Java, Sumatra, Lombol, etc.may have exceeded Pleistocene snowline of 3000-3500m, but have not preserved many traces of glaciation. Van Beek (1982) argued that area of about 100 km^2 was glaciated in Mount Leseur massif in N Sumatera)

Hope, G.S. (2005)- The Quaternary in Southeast Asia. In: A. Gupta (ed.) The physical geography of Southeast Asia, Oxford University Press, Chapter 2, p. 24-37.
(online at: https://d1wqtxts1xzle7.cloudfront.net/59041007/epdf.tips_the-physical-geography-of-southeast-asia-oxford-re20190426-15928-1bsfvqp-libre.pdf Etc.)

Hope, G.S. (2015)- Peat in the mountains of New Guinea. Mires and Peat 15, 13, p. 1-21.
(online at: http://mires-and-peat.net/media/map15/map_15_13.pdf)
(Peatlands common in montane areas above 1000m in New Guinea and extensive above 3000m. Montane mires up to 4-8m deep and up to 30,000 years in age. Above 3000m peat soils form under blanket bog on slopes as well as on valley floors. Typical peat depths 0.5-1 m on slopes, but valley floors up to 10m of peat. Peats record vegetation shifts at 28, 17-14 and 9 ka and variable history of human disturbance from 14 ka)

Hope, G.S., A.P. Kershaw, S. van der Kaars, X. Sun, P.M. Liew, L.E. Heusser, H. Takahara et al. (2004)- History of vegetation and habitat change in the Austral-Asian region. Quaternary International 118, p. 103-126.
(Climate reconstruction of last 200kyrs from Russian Arctic to SE Asia and SW Pacific)

Horton, B.P., P.L. Gibbard, G.M. Milne, R. J. Morley, C. Purintavaragul & J.M. Stargardt (2005)- Holocene sea levels and palaeoenvironments of the Malay-Thai Peninsula, southeast Asia. The Holocene 15, 8, p. 1199-1213.
(Sedimentology and palynology studies at Great Songkhla Lakes and other areas of Malay-Thai Peninsula suggest Holocene relative sea level rise from -22 m at ~9500 yr BP to mid-Holocene high stand of 4850-4450 yr BP, followed by sea-level fall at steady at ~1.1 mm/yr)

Hummel, K. (1931)- Sedimente indonesischer Susswasserseen. Archiv fur Hydrobiologie, Suppl.-Band 8, p. 615-676.
('Sediments of Indonesian fresh water lakes'. Analyses of sediment samples from lakes on Java and Sumatra)

Husein, S. (2006)- Tidal influence on sedimentation processes of the Mahakam Delta, East Kalimantan. Proc. 35th Annual Conv. Indonesian Association Geologists (IAGI), Pekanbaru, p. 1-13.
(Hydrodynamic measurements and bottom samples study in Mahakam Delta. Sand at bottom of distributaries at delta apex and gradually fines seaward but does not extend to channel mouths. Most bedload sediment transport during spring tide. Mud dominates offshore, in estuaries and distal reaches of distributaries. Sand-mud couplets upstream to at least delta apex. Benthic marine organisms up to 20 km upstream in distributaries. Fluvial dominance constrained to upper reaches of active distributaries, tides most important process on delta)

Husein, Salahuddin (2008)- Modern sediment dynamics and depositional systems of the Mahakam Delta, Indonesia Ph.D. Thesis, Universiti Brunei Darussalam, Bandar Seri Begawan, p. 1-740. *(Unpublished)*

Husein, Salahuddin & J.J. Lambiase (2005)- Modern sediment dynamics of the Mahakam Delta. Proc. 30th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 367-379.
(Description of present-day Mahakam Delta environments. Mixed fluvial and tide-dominated delta)

Kamaludin B. & B.Y. Azmi (1997)- Interstadial records of the last glacial period at Pantai Remis, Malaysia. J. Quaternary Science 12, 5, p. 419-434.
(Two eustatic high sea stands during last glacial period recognised at Pantai Remis, both lower than present-day sea-level: (1) 14.6m, synchronous with Oyxgen Isotope Stage 5a; (2) 4.3 m, dated as ~54ka. Palynology data show interstadial coastal Pandanus and mangrove swamps, succeeded by mixed freshwater swamp forests of Campnosperma- Calophyllum assemblage, followed by drier mixed swamp forest)

Kazmierczak, J. & S. Kempe (1993)- Recent cyanobacterial counterparts of Paleozoic *Wetheredella* and related problematic fossils. Palaios 7, p. 294-304.
(Recent calcareous structures resembling stromatolites generated by cyanobacteria in alkaline crater lake of small Satonda island, N of Sumbawa)

Kempe, S. & J. Kazmierczak (1990)- Chemistry and stromatolites of the sea-linked Satonda Crater Lake, Indonesia: A recent model for the Precambrian sea? Chemical Geology 81, 4, p. 299-310.
(First discovery of Recent stromatolites, produced by coccoid cyanobacteria in crater Lake of Satonda Island near Sumbawa. Started to grow 4000 yrs ago. pH (8.45) and calcite saturation higher than in seawater, due to biogenic CO_2 and weathering of volcanic silicates. May provide analogue to Precambrian stromatolite environments)

Kempe, S. & J. Kazmierczak (1993)- Satonda crater lake, Indonesia: hydrogeochemistry and biocarbonates. Facies 28, p. 1-32.
(Recent calcareous structures resembling stromatolites in crater lake of small Satonda island, N of Sumbawa)

Kershaw, A.P., D. Penny, S. van der Kaars, G. Anshari & A. Thamotherampillai (2001)- Vegetation and climate in lowland southeast Asia at the Last Glacial Maximum. In: I. Metcalfe et al. (eds.) Faunal and floral migration and evolution in SE Asia-Australasia. Balkema, Lisse, p. 227-236.
(Pollen records from SE Asia suggest that during Last Glacial Maximum (~18 ka) precipitation was probably lower by ~30-50% than today, and temperature was reduced by as much as 6-7°. Rainforest was replaced by grassland in some areas. Montane forest elements descended to low altitudes. Exposed continental shelves covered largely by rainforest in wetter areas, by grassland and open woodlands in drier areas)

Kershaw, A.P., S. van der Kaars & J.R. Flenley (2011)- The Quaternary history of Far Eastern rainforests. In: M.B. Bush et al. (eds.) Tropical rainforest responses to climatic change, 2nd Ed., Springer-Praxis, Chapter 4, p. 85-123.

(Rel. little overall change in gross Far Eastern rainforest distribution during Quaternary. Palynology studies from several sites across Indonesia suggest ~5-6°C lower temperatures during Last Glacial Maximum. Major impact on Holocene rainforest has been that of people)

Kershaw, P., P.G. Quilty, B. David, S. van Huet & A McMinn (2000)- Palaeobiogeography of the Quaternary of Australasia. Memoir Assoc.Australasian Palaeontologists (AAP) 23, p. 471-516.
(Reconstructions of Quaternary geography and vegetation provinces of Australia- Indonesia)

Koopmans, B.N. (1972)- Sedimentation in the Kelantan delta (Malaysia). Sedimentary Geology 7, 1, p. 65-84.
(Kelantan River (NE Malay Peninsula) flows into S China Sea through two main channels. Mouth of river gradually shifted W under influence of beach drift generated by NE monsoon)

Korus, J.T. & C.R. Fielding (2015)- Asymmetry in Holocene river deltas: patterns, controls, and stratigraphic effects. Earth-Science Reviews 150, p. 219-242.
(Review of sediment distribution patterns in 27 deltas worldwide, incl. Mahakam)

Lanuru, M. & R. Fitri (2008)- Sediment deposition in a South Sulawesi seagrass bed. Marine Res. Indonesia 33, 2, p. 221-224.
(Deposition of suspended sediment in shallow coastal waters colonized by Thallasia-dominated seagrass in Pannikiang Island measured with sediment traps. Amounts of sediment deposition inside seagrass beds significantly higher than in adjacent unvegetated area)

Liu, J.P., D.J. DeMaster, T.T. Nguyen, Y. Saito, V.L. Nguyen, T.K.O. Ta & X. Li (2017)- Stratigraphic formation of the Mekong River Delta and its recent shoreline changes. In: Sedimentation and survival of the Mekong Delta, Oceanography 30, 3, p. 72-83.
(online at: https://tos.org/oceanography/assets/docs/30-3_liu.pdf)
(Mekong River discharges into S China Sea and formed third largest delta plain in world (~50,000 km^2; after Amazon and Ganges-Brahmaputra). Subaerial delta prograded ~220 km SE-ward in last 7500 years, showing 15m thick sigmoidal clinoforms immediately off distributaries. Mekong-derived sediment extends ~300 km along shelf to SW. From 1973- 2005 seaward shoreline growth decreased gradually, due to construction of dams, sand mining, delta subsidence, increasing storms and sea level rise)

Liu, Z., H. Wang, W.S. Hantoro, E. Sathiamurthy, C. Colin, Y. Zhao & J. Li (2012)- Climatic and tectonic controls on chemical weathering in tropical Southeast Asia (Malay Peninsula, Borneo, and Sumatra). Chemical Geology 291, p. 1-12.
(Clay mineralogy and major element geochemistry of 58 surface sediment samples in 27 rivers draining Malay Peninsula, Borneo, and Sumatra. High kaolinite in Malay Peninsula (av. 80%), Sumatra (58-78%), and S Borneo (41-55%), high illite in N Borneo (47-77%), moderate smectite in Sumatra (6-29%). Intensive chemical weathering in all three regions, increasing from N Borneo to S Borneo, and further to Malay Peninsula and Sumatra. Monsoon climate with constant warm temperature and abundant precipitation principal forcing factor on chemical weathering)

Lyu, H., T. Watanabe, Y. Ota, A. Hartono, M. Anda, R.A. Dahlgren & S. Funakawa (2022)- Climatic controls on soil clay mineral distributions in humid volcanic regions of Sumatra and Java, Indonesia. Geoderma 425, 116058, p. 1-13.
(Climate and parent material primary factors determining distributions of soil clay minerals. In Sumatra-Java large variations in climate (T, precipitation/ intensity of dry season) and parent material (rhyolitic-to-basaltic tephra).High Fe(hydr) oxide in soils derived from mafic materials. Occurrence of mica, altered to hydroxy-Al interlayered vermiculite, under continuous leaching conditions in soils from felsic materials)

Mann, T., A. Rovere, T. Schoene, A. Klicpera, P. Stocchi, M. Lukman & H. Westphal (2016)- The magnitude of a mid-Holocene sea-level highstand in the Strait of Makassar. Geomorphology 257, p. 155-163.

(Literature suggests two relative sea-level highstands over last 6000 years, with magnitudes >2m, but emergent fossil microatolls on Pulau Panambungan, Spermonde Shelf, indicate relative sea-level highstand not >0.5 m above present at ~5600 yr BP. Highstand followed by rapid sea-level fall to present level at ~4000 cal. yr BP)

Milliman, J.D. (1995)- Sediment discharge to the ocean from small mountainous rivers: the New Guinea example. Geo-Marine Letters 15, p. 127-133.
(Small mountainous rivers draining island of New Guinea discharge approximately 1.7 × 109 t of sediment annually, about same as combined loads of rivers draining N America)

Milliman, J.D., K.L. Farnsworth & C.S. Albertin (1999)- Flux and fate of fluvial sediments leaving large islands in the East Indies. J. of Sea Research 41, 1-2, p. 97-107.
(Rivers on Sumatra, Java, Borneo, Sulawesi, Timor and New Guinea relatively high sediment discharge. These six islands only 2% of land area draining into global ocean, but responsible for 20-25% of sediment export)

Minoura, K., F. Imamura, T. Takahashi & N. Shuto (1997)- Sequence of sedimentation processes caused by the 1992 Flores tsunami: Evidence from Babi Island. Geology (GSA) 25, 6, p. 523-526.
(1992 Flores tsunami caused widespread deposition of coarse and well-sorted marine carbonate sand with molluscan shells sand on N and SSW shores of Babi Island)

Molengraaff, G.A.F. (1930)- The recent sediments in the seas of the East Indian Archipelago with a short discussion of those seas in former geological periods. Proc. Fourth Pacific Science Congress, Java 1929, IIA, p. 989-1021.

Molnar, P. & T.W. Cronin (2015)-- Growth of the Maritime Continent and its possible contribution to recurring Ice Ages. Paleoceanography and Paleoclimatology (AGU) 30, 3, p. 196-225.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1002/2014PA002752)
(Areal extent of the 'Maritime Continent' (= islands of Indonesia and surrounding region) has grown by ~60% since 5 Ma, which may have altered global climate in two ways: (1) heavier rainfall over islands and (2) increased area of weathering of basaltic rock under warm, moist conditions extracts more CO_2 from atmosphere, possibly lowering global temperatures by 0.25°C)

Morley, R.J. & H. Morley (2021)- The prelude to the Holocene: tropical Asia during the Pleistocene. In: N. Kumaran & D. Padmalal (eds.) Holocene Climate Change and Environment, Elsevier, Chapter 1, p. 1-32.
(Review of Quaternary climate in India and SE Asia. SE Asian rainforest flora largely derived from India, as it collided with Asia in Eocene, and many elements of Southeast Asia's fauna dispersed from India during late Neogene. For last and penultimate glacial periods, increasing evidence for seasonally dry conditions in different parts of Sundaland. Etc.).

Morley, R., H. Morley & T. Swiecicki (2017)- Mio-Pliocene history of deltas, rivers and uplands across Sunda, as revealed by sequence biostratigraphy. Proc. Asia Petroleum Geoscience Conference and Exhibition (APGCE 2017), EAGE, Kuala Lumpur, 43699, p. 203-207. *(Extended Abstract)*

Nguyen, V.L., T.K.O. Ta & M. Tateishi (2000)- Late Holocene depositional environments and coastal evolution of the Mekong River Delta, Southern Vietnam. J. Asian Earth Sciences 18, 4, p. 427-439.
(Mekong River Delta is tide-dominated delta, with mainly fine grained sediments. At 6000- 5000 yr BP Holocene transgression created Late Pleistocene terrace in N parts of delta and marine erosion at 4.5 and 2.5m above present sea level. Over last 4550 yrs fast progradation produced delta plain of 62,520 km^2)

Nienhuis, J.H., A.D. Ashton & L. Giosan (2015)- What makes a delta wave-dominated? Geology. 43, 6, p. 511-514.
(Morphology of deltas largely determined by balance between river inputs and ability of waves to spread sediments along coast. 'Fluvial dominance ratio' tested on 25 deltas on N shore of Java)

Nomosatryo, S., R. Tjallingii, A.M. Schleiche, P. Boli, C. Henny, D. Wagner & J. Kallmeyer (2021)- Geochemical characteristics of sediment in tropical Lake Sentani, Indonesia, Are influenced by spatial differences in catchment geology and water column stratification. Frontiers in Earth Science 9, 671642, p. 1-16.
(online at: https://www.frontiersin.org/articles/10.3389/feart.2021.671642/full)
(Lake Sentani near Jayapura, NE Papua, composed of four interconnected sub-basins. At least 16 rivers drain into lake. Sediment compositionis mostly controlled by catchment geology)

Novico, F., D. Menier, M. Mathew, M. Ramkumar, M. Santosh, C. Endyana, K.T. Dewi, I. Kurniawan et al. (2022)- Impact of Late Quaternary climatic fluctuations on coastal systems: Evidence from high-resolution geophysical, sedimentological and geochronological data from the Java Island. Marine and Petroleum Geology 136, 105399, p.
(manuscript online at: https://archimer.ifremer.fr/doc/00865/97716/106921.pdf)
(On morphology and Late Quaternary post-glacial sedimentary fill of submerged Last Glacial Maximum incised lowstand valleys in Jakarta Bay, along north coast of Java' Max. depths ~30-40m. Etc.)

Nummedal, D., F.H. Sidi & H.W. Posamentier (2003)- A framework for deltas in Southeast Asia. In: F.H. Sidi et al. (eds.) Tropical deltas of Southeast Asia; sedimentology, stratigraphy, and petroleum geology, Soc. Sedimentary Geology (SEPM), Special Publ. 76, p. 5-17.

Page, S.E. & A. Hooijer (2016)- In the line of fire: the peatlands of Southeast Asia. Philosophical Transactions Royal Society London, B 371, 1696, p. 1-9.
(online at: http://rstb.royalsocietypublishing.org/content/royptb/371/1696/20150176.full.pdf)

Page, S.E., J.O. Rieley & R. Wust (2006)- Lowland tropical peatlands of Southeast Asia. In: I.P. Martini et al. (eds.) Peatlands; evolution and records of environmental and climate changes, Elsevier, Developments in Earth Surface Processes 9, p. 145-172.
(online at: https://www.researchgate.net/profile/Raphael-Wuest/publication/238501608_Chapter_7_Lowland_tropical_peatlands_of_Southeast_Asia)
(Tropical peatlands in SE Asia all in low altitudes where rain forest vegetation grows on thick mass of organic matter accumulated over 1000s or 10,000s of years, to form deposits up to 20 m thick. Lowland ombrogenous peatlands support peat swamp forest; freshwater swamp forests associated with geogenous peatlands. Etc.)

Palinkas, C.M., C.A. Nittrouer & J.P. Walsh (2006)- Inner-shelf sedimentation in the Gulf of Papua, New Guinea: a mud-rich shallow shelf setting. J. Coastal Research 22, 4, p. 760-772. *(online at: https://www.researchgate.net/publication/254948352_Inner-Shelf_Sedimentation_in_the_Gulf_of_Papua Etc.)*
(Gulf of Papua: (1) the large supply of fine-grained sediment, accumulating at significant rates on inner shelf; (2) quiescent monsoon conditions probably aid sediment retention on inner shelf; and (3) coalescence of supply from multiple river sources causes maximum accumulation rates to occur in central Gulf of Papua)

Paris, R., F. Lavigne, P. Wassmer & J. Sartohadi (2007)- Coastal sedimentation associated with the December 26, 2004 tsunami in Lhok Nga, west Banda Aceh (Sumatra, Indonesia). Marine Geology 238, p. 93-106.
(Case study for interpretation of coastal sedimentation associated with large tsunamis)

Parker, G., T. Muto, Y. Akamatsu, W.E. Dietrich & J.W. Lauer (2008)- Unravelling the conundrum of river response to rising sea-level from laboratory to field. Part II. The Fly-Strickland River system, Papua New Guinea. Sedimentology 55, 6, p. 1657-1686.
(Most recent deglaciation resulted in global sea-level rise of ~120 m over 12 000 years. Numerical model is developed to predict response of rivers to this rise)

Payenberg, T.H.D., S.C. Lang & B. Wibowo (2003)- Discriminating fluvial from deltaic channels- examples from Indonesia. Proc. 29th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 1-16.
(Fluvial channel reservoirs most commonly meander pointbars or braided sheets. Deltaic distributary channel reservoirs typically elongate sandy channel sidebars attached to straight channel walls. Deltaic distributary channels usually thinner and shallower than fluvial channel belts, and not thicker than their depositional

mouthbars. Width-thickness ratios for fluvial distributary channel reservoirs average 50:1, meandering fluvial channel reservoirs have width-thickness ratios typically >100:1, braided river reservoirs 500:1 or higher)

Pilarczyk, J.E., T. Dura, B.P. Horton, S.E. Engelhart, A.C. Kemp, Y. Sawai (2014)- Microfossils from coastal environments as indicators of paleo-earthquakes, tsunamis and storms. Palaeogeogr. Palaeoclim. Palaeoecology 413, p. 144-157.
(Discussion of storm- and tsunami-related transport, with examples from Thailand, Malaysia, etc. Paleotsunami deposits commonly recognized as anomalous sand sheets that were washed into marsh or lake sediments. Marine microfossils often dominate tsunami overwash deposits because of landward transport and deposition of scoured marine sediment. Nearshore benthic foraminifera (Ammobaculites spp., Ammonia, etc.) may also be entrained by tsunami run-up and subsequently transported seaward by backwash, where they end up as allochthonous assemblages in low-energy submarine sediments)

Prentice, M.L. & S. Glidden (2010)- Glacier crippling and the rise of the snowline in western New Guinea (Papua Province, Indonesia) from 1972 to 2000. In: S.G. Haberle et al. (eds.) Altered ecologies: fire, climate and human influence on terrestrial landscapes, ANU Press, p. 457-472.
(From 1936 to 2006, the area of the Meren/Carstensz glacial system of W Papua decreased by 78%)

Prentice, M.L., G.S. Hope, K. Maryunani & J.A. Peterson (2005)- An evaluation of snowline data across New Guinea during the last major glaciation, and area-based glacier snowlines in the Mt. Jaya region of Papua, Indonesia, during the last glacial maximum. In: S.P. Harrison (ed.) Snowlines at the last glacial maximum and tropical cooling, Quaternary International 138-139, p. 93-117.
(Data from Puncak Jaya show Last Glacial Maximum glaciation less extensive than previously thought)

Proske, U., T.J.J. Hanebuth, H. Behling, V.L. Nguyen, T.K.O. Ta & B.P. Diem (2010)- The palaeoenvironmental development of the northeastern Vietnamese Mekong River Delta since the mid Holocene. The Holocene 20, 8, p. 1257-1268.
(online at: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.918.2627&rep=rep1&type=pdf)
(During the mid-Holocene when sea level was between ~2.5-4.5 m above present level, broad mangrove belts (Rhizophora pollen, Avicennia, Sonneratia, Bruguiera, etc.) along numerous coasts of Sunda and Sahul shelves. With subsequent seaward migrating shoreline gradually replacement by back-mangroves)

Proske, U., T.J.J Hanebuth, J. Groger & B.P. Diem (2011)- Late Holocene sedimentary and environmental development of the northern Mekong River Delta, Vietnam. Quaternary International 230, p. 57-66.
(Sedimentological and palynological study of sediment cores from N Mekong River Delta show delta development since M-Holocene sea level highstand. M Holocene Sub- to intertidal flat deposit followed by late Holocene regression and delta progradation)

Raes, N., C.H. Cannon, R.J. Hijmans, T. Piessens, L.G. Saw, P.C. van Welzen & J.W.F. Slik-(2014)- Historical distribution of Sundaland's Dipterocarp rainforests at Quaternary glacial maxima. Proc. National Academy of Sciences USA (PNAS) 111, 47, p. 16790-16795.
(online at: https://www.pnas.org/doi/pdf/10.1073/pnas.1403053111)
(On extent of Dipterocarp rainforests on emergent Sundaland in SE Asia during Quaternary glaciations. Dipterocarp trees dominate rainforests of Sundaland, and their distributions serve as proxy for rainforest extent. Climate of C Sundaland during Last Glacial Maximum (LGM) suitable to sustain Dipterocarp rainforest, and presence of previously suggested transequatorial savannah corridor at that time unlikely)

Ranawijaya, D., Y. Noviadi, E. Usman, N. Kristanto, N. Sutisna, J. Widodo & Wardhana (2000)- Progradation-retrogradation of Mahakam Delta since Last Glacial Maximum and Holocene. Proc. 29th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 4, p. 137-148.

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(online at: www.ccop.or.th/download/pub/41as_ii.pdf#page=31)
(Late Quaternary seismic/sedimentary record interpreted in terms of the climatic events, from Last interglacial maximum, (120 ka BP) but mainly since the Last Glacial Maximum (18 ka BP) and onset of Recent Interglaciation at 5 ka)

Rant, A. (1929)- De Javaansche gebergteflora als bewijs van een vroegere verbinding van Java met het vasteland van Azie. Natuurkundig Tijdschrift voor Nederlandsch-Indie 89, 3, p. 1-28.
('The Javanese mountain flora as proof of former connection of Java and the mainland of Asia'. Many of the present-day mountain flora species of Java also known from mainland Asia, suggesting areas were formerly connected (also supported by distribution of fresh water fish, etc.))

Ray, R.D., G.D. Egbert & S.Y. Erofeeva (2005)- A brief overview of tides in the Indonesian seas. Oceanography 18, 4, p. 74-79.

Reich, S. (2014)- Seagrass mollusks as a model group for paleoecological and paleodiversity studies. Doct. Thesis University of Utrecht, Utrecht Studies in Earth Sciences 57, p. 1-495.
(online at: https://dspace.library.uu.nl/bitstream/1874/294598/2/reich.pdf)
(Includes Section on Mollusk assemblages from the Miocene of Indonesia (South Central Java, East Kalimantan), p. 65-243 (reprint of 2 papers published elsewhere))

Reich, S., E. Di Martino, J.A. Todd, F.P. Wesselingh & W. Renema (2015)- Indirect paleo-seagrass indicators (IPSIs): a review. Earth-Science Reviews 143, p. 161-186.
(online at: https://repository.naturalis.nl/pub/801379/Reich-2015-Indirect-paleo-seagrass-indicators-A.pdf)
(Review of modern and fossil faunas associated with seagrass meadows in Late Cretaceous and Cenozoic warm, shallow marine deposits. Most examples from Recent and Miocene of Indonesia. Many foraminifera and other organisms generally associated with seagrasses not necessarily confined to seagrass substrates)

Richardson, J.E., C. Costion & A. Muellner-Riehl (2012)- The Malesian floristic interchange: plant migration patterns across Wallace's Line. In: D.J. Gower et al. (eds.) Biotic evolution and environmental change in Southeast Asia, The Systematics Association, Cambridge University Press, Chapter 6, p. 138-163.
(online at: https://www.researchgate.net/publication/269060852_The_Malesian_floristic_interchange_plant_migration_patterns_across_Wallace's_Line)
(Discussion of migrations of 'Sundanian' floral elements to Australasian land masses and vice versa. Wallace Line not a sharp floristic dividing line today, but a significant barrier (Kalkman, 1955). Greater plant migration across Wallace's Line from W to E than E to W. A significant percentage of Australia's northern tropical flora derived from SE Asia. Etc.)

Richmond, B.M., B.E. Jaffe, G. Gelfenbaum & R.A. Morton (2006)- Geologic impacts of the 2004 Indian Ocean tsunami on Indonesia, Sri Lanka, and the Maldives. Zeitschrift fur Geomorphologie, N.F., Supplement 146, p. 235-251.
(December 26,2004 tsunami deposits generally characterized as relatively thin sheets (<80cm), mostly of sand)

Rimbaman, I. (1992)- The role of sea-level changes on the coastal environment of northern West Java (case study of Eretan, Losarang and Indramayu). J. Southeast Asian Earth Sciences 7, 1, p. 71-77.
(Quaternary geology of north coastal palain near Indramayu, W Java)

Rizal, Y., Aswan, Y. Zaim, W.D. Santoso, N. Rochim, Daryono, S.D. Anugrah, Wijayanto, I. Gunawan et al. (2017)- Tsunami evidence in South Coast Java, case study: tsunami deposit along South coast of Cilacap. Proc. 2nd International Conference Transdisciplinary research on environmental problems in Southeast Asia (TREPSEA), Bandung 2016, IOP Conference Series: Earth and Environmental Science, 71, 012001, p. 1-12.
(online at: http://iopscience.iop.org/article/10.1088/1755-1315/71/1/012001/pdf)
(Three paleo-tsunami deposits identifid along Cilacap coast of S Java. dated and tied to earthquakes of 1883, 1982 and 2006. Three more older layers. Paleo-tsunami layer characterized by light sands on top of paleo-soil, with common mud clasts and marine benthic foraminifera)

Roberts, H.H. (1987)- Modern carbonate-siliciclastic transitions: humid and arid tropical examples. Sedimentary Geology 50, p. 25-65.
(Includes discussion of shallow southern Sunda Shelf/ Java Sea environments. Remnants of Pleistocene drainage channels still detectable on present sea floor. Java Sea modern carbonate buildups strong E-W orientation, response to dominant current directions triggered by monsoonal wind directions. Westerly monsoon brings large quantities of suspended terrigenous sediment to Sunda Shelf; easterly monsoon drives higher salinity water (33-35 ppt) into region from Banda Sea. Java Sea sediments mainly terrigenous muds derived from weathered volcanics (Sumatra and Java) and other crystalline rocks from Kalimantan, but with significant areas of carbonate sedimentation and reef development (Pulau Seribu, East Sunda Shelf margin))

Rodysill, J.R., J.M. Russell, S. Bijaksana, E.T. Brown, L.O. Safiuddin & H. Eggermont (2012)- A paleolimnological record of rainfall and drought from East Java, Indonesia during the last 1,400 years. J. Paleolimnology 47, 1, p. 125-139.
(Organic matter δ13C data from 6.8m core in Lake Logung, E Java indicate E Java became wetter over last millennium until ~1800 Common Era, consistent with evidence for S-ward migration of Intertropical Convergence Zone at this time. Century-scale hydrologic variability relates to changes in Walker Circulation)

Russell, J.M., S. Bijaksana, H. Vogel,M. Melles, J. Kallmeyer, D. Ariztegui, S. Crowe, S. Fajar et al. (2016)- The Towuti Drilling Project: paleoenvironments, biological evolution, and geomicrobiology of a tropical Pacific lake. Scientific Drilling 21, p. 29-40.
(online at: https://core.ac.uk/download/pdf/44741514.pdf)
(Drilling of lacustrine fill of Lake Towuti in S Sulawesi by Towuti Drilling Project in 2015, to study long-term environmental and climatic change in tropical W Pacific region. One of oldest lakes in Indonesia (since ~1.5 Ma). Water depths 156-200 m. Clear indications of orbital-scale climate variability during M-L Pleistocene)

Russell, J.M., H. Vogel, B.L. Konecky, S. Bijaksana, Y. Huang, M. Melles, N. Wattrus, K. Costa & J.W. King (2014)- Glacial forcing of central Indonesian hydroclimate since 60,000 y B.P. Proc. National Academy of Sciences USA (PNAS) 111, 14, p. 5100-5105.
(online at: www.pnas.org/content/111/14/5100.full.pdf)
(Terrestrial sedimentary record of surface hydrology and vegetation in Indonesia in the last 60,000 yr, based on geochemical data from Lake Towuti, Sulawesi. Wet conditions and rainforest ecosystems present during Holocene and during Marine Isotope Stage 3, alternating with severe drying between ~33,000 and 16,000 yr B.P., when high-latitude ice sheets expanded and global temperatures cooled)

Ruttner, F. (1931)- Hydrographische und hydrochemische Beobachtungen auf Java, Sumatra und Bali. Archiv Hydrobiologie, Supplement Volume 8, p. 1-454.

Ruwaimana, M., G.Z. Anshari, L.C. R. Silva & D.G. Gavin (2020)- The oldest extant tropical peatland in the world: a major carbon reservoir for at least 47 000 years. Environmental Research Letters (IOP), 15, 11, p. 1-10.
(online at: https://iopscience.iop.org/article/10.1088/1748-9326/abb853/pdf)
(Upper Kapuas Basin in NW Kalimantan shosw inland peat formation since at least 47.8 ka. Synthesis of peat basal dates across Borneo, which showshiatus in peat genesis during cool and dry period from 30 to 20 ka)

Salahuddin (2011)- The relic fluvial-dominated morphology of Mahakam Delta. Berita Sedimentologi 21, FOSI-IAGI, p. 5-8.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/download/206/176)
(Mahakam Delta fluvial-dominated morphology not result of present-day processes, but reflects past phase of fluvial-dominant progradation before present-day subsidence and transgression)

Salahuddin & J.J. Lambiase (2013)- Sediment dynamics and depositional systems of the Mahakam Delta, Indonesia: ongoing delta abandonment on a tide-dominated coast. Journal of Sedimentary Research 83, p. 503-521.

(Mahakam Delta presently subsiding and being transgressed and modified by marine processes. Most or all, fluvially-derived sand stored onshore in distributaries, whilst finer-grained sediment moves offshore. Marine benthic organisms inhabit distributaries up to 20 km landward from shoreline. Facies distribution is better indicator of modern depositional processes than delta morphology)

Setyobudi, P.T., P.A. Suandhi, Z.L. Tarigan, A. Bachtiar, A.G.R. Jayanti & L. Budin (2016)- Sedimentology and limnology of Singkarak and Toba Lakes, Sumatra, Indonesia: depositional and petroleum system model for tropical fluvio-lacustrine and volcanic related rift basins in Southeast Asia. Proc. 40th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA16-660-G, p. 1-21.

Sevastjanova, I., R. Hall & D.H.M. Alderton (2012)- A detrital heavy mineral viewpoint on sediment provenance and tropical weathering in SE Asia. Sedimentary Geology 280, p. 179-194.
(Heavy mineral study of river sand samples from Malay Peninsula and Sumatra. Malay Peninsula granitic and contact metamorphic provenance (zircon, tourmaline, hornblende, andalusite, epidote, monazite, rutile and titanite, etc.). Sumatra two main sources: (1) modern volcanic arc (pyroxene, particularly hypersthene), and (2) basement. Zircon, apatite, hornblende, epidote, and olivine also common and likely of mixed provenance. Heavy mineral assemblages of Malay Peninsula and Sumatra modern rivers different from Cenozoic sediments, suggesting rapid source unroofing)

Shearman, P., J. Bryan & J.P. Walsh (2013)- Trends in deltaic change over three decades in the Asia-Pacific region. J. Coastal Research 29, 5, p. 1169-1183.
(Analysis of recent changes of five major mangrove deltaic systems in Asia-Pacific region: Fly and Kikori-Purari, Ganges-Brahmaputra, Irrawaddyand Mekong. Overall net contraction in mangrove areas)

Sidi, F.H., D. Nummedal, P. Imbert, H. Darman & H.W. Posamentier (eds.) (2003)- Tropical deltas of Southeast Asia- sedimentology, stratigraphy and petroleum geology. Society for Sedimentary Geology (SEPM) Special Publ. 76, p. 1-269.

Sihombing, E.H., N. Oetary, I. Fardiansyah, R. Waren, E. Finaldhi, F. Fitris et al. (2016)- Modern fluvio-lacustrine system of Lake Singkarak, West Sumatra and its application as an analogue for Upper Red Bed Fm in the Central Sumatra Basin. Berita Sedimentologi 36, p. 9-33.
(online at: www.iagi.or.id/fosi/berita-sedimentologi-no-36.html)
(Modern sediments of Sumpur axial-fluvial delta and Malalo alluvial fan delta in N part of Lake Singkarak, and comparison to Paleogene rift-fill of C Sumatra Basin)

Situmorang, M., D. Ilahude, T. Kuntoro, D. Kusnida & D. Arifin (1993)- Core lithology and Quaternary sedimentation in Masalembo-Bawean waters, Eastern Java Sea. Proc. 22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 1003-1014.
(online at: https://www.iagi.or.id/web/digital/53/22nd-Volume-2-(6-9-Des-1993)-401-412.pdf)
(Marine geology of area in E Java Sea around Masalembo, between SE Kalimantan and Madura. Water depth 22-85m, deepest north. Includes seafloor area with peat and black clay ('lowstand' coastal marsh))

Situmorang, M., Koesnadi H., Yudicara & Y. Noviandi (2000)- Seafloor surficial geology and mineral resources around Karimata waters, West Kalimantan. Proc. 29th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 87-98.

Slingerland, R., R.W. Selover, A.S. Ogston, T.R. Keen, N.W. Driscoll, and J.D. Milliman (2008)- Building the Holocene clinothem in the Gulf of Papua: an ocean circulation study. J. of Geophysical Research 113, F01S14, p. 1-17.
(On role of tidal and wind-driven flows and buoyant river plumes in development of Holocene clinoform in Gulf of Papua. Tidal flows on modern clinoform are strong and are landward and seaward directed.

Soegiarto, A. (1992)- The role of the Southeast Asian Seas in regional and global climate change. Global Change 22, p. 32-37.

Soeriaatmadja, R.E. (1957)- The coastal current south of Java. Penjelidikan Laut di Indonesia (Marine Research in Indonesia) 3, p. 41-55.

Solihuddin, T., D.A. Utami, H.L. Salim & J. Prihantono (2019)- Sedimentary environment of a modern carbonate platform of Karimunjawa Islands, Central Java. Indonesian J. on Geoscience (IJOG), 6, 1, p. 57–72.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/448/278)
(Satellite interpretation and sedimentology of fringing reefs around Karimunjawa islands, Java Sea. Coral contributes to carbonate sands and gravels, along with molluscs, foraminifera (Homotrema, Calcarina), Halimeda and red algae)

Stevenson, J. (2018)- Vegetation and climate of the Last Glacial Maximum in Sulawesi. In: S. O'Connor et al. (eds.) The Archaeology of Sulawesi: Current Research on the Pleistocene to the Historic period, Terra Australis 48, Australian National University Press, Canberra, p. 17-29.
(online at: https://press-files.anu.edu.au/downloads/press/n4569/pdf/book.pdf)
(Geochemical and paleovegetation records from last 60,000 years in cores from Lake Towuti suggest climate during Last Glacial Maximum (~20 ka) was extremely dry and more seasonal than today, and bracketed by much wetter conditions of Marine Isotope Stage 3 and the Holocene)

Stuart, K.L. (2018)- Discovery of possible paleotsunami deposits in Pangandaran and Adipala, Java, Indonesia using grain size, XRD, and 14C Analyses. M.Sc. Thesis Brigham Young University, Provo, Utah, Theses and Dissertations 6719, p. 1-67.
(online at: https://scholarsarchive.byu.edu/etd/6719/)
(Fining-upward grain size trends, interbedded sand and mud and trends in heavy mineral abundances are among the characteristics used for Quaternary tsunami deposit identification along S coast of Java).

Sukawati, E., H. Amijaya & E. Yulianto (2009)- Sedimentology of December 2004 and March 2005 tsunami deposit at Busung Bay, Simeulue Island, Sumatra. Proc. 38th Annual Conv. Exh. Indonesian Association Geologists (IAGI), Semarang, p. 1-7.
(Tsunami deposits from Aceh earthquake of 26 December 2004 and Nias earthquake on March 2005. In 2004 tsunami sediments basal rip-up clasts and 6 (9?) fining-upward patterns and 6 coarsening upward patterns; in 2005 tsunami sediment only 1 fining upward pattern. With foraminifera assemblages from inner shelf (2004 and 2005) and middle shelf (2004 only))

Sumner, E.J., M.I. Siti, C. McNeill, P.J. Talling, T.J. Henstock, R.B. Wynn, Y.S. Djajadihardja & H. Permana (2013)- Can turbidites be used to reconstruct a paleoearthquake record for the central Sumatran margin? Geology 41, 7, p. 763-766.
(Sumatra has well-characterized earthquake record spanning past 200 yr, but sediment cores from Sumatran margin reveal few turbidites emplaced in past 100-150 yrs. No evidence of turbidites that correlate with large 2004 and 2005 earthquakes, suggesting not all large earthquakes generate widespread turbidites (Comment by Goldfinger et al. 2014 suggests absence of turbitides possibly because cores not in right locations))

Syahrir, M.R., T. Hanjoko, A. Adnan, M. Yasser, M. Efendi, A.A. Budiarsa & I. Suyatna (2018)- The existence of estuarine coral reef at eastern front of Mahakam Delta, East Kalimantan, Indonesia, a first record. AACL Bioflux, Int. J. of the Bioflux Society 11, 2, p. 362-378.
(online at: http://www.bioflux.com.ro/docs/2018.362-378.pdf)
(Coral reef at NE front of Mahakam Delta with 30 genera of hard coral and 11 genera of soft coral)

Szczucinski, W. (2012)- The post-depositional changes of the onshore 2004 tsunami deposits on the Andaman Sea coast of Thailand. Natural Hazards 60, 1, p. 115-133.
(online at: https://link.springer.com/article/10.1007/s11069-011-9956-8)
(2004 Indian Ocean tsunami flooded Andaman Sea coastal zone, leaving few mm to 10's of cm thick deposits over ~1 km-wide inundation zone. After 4 years tsunami deposits preserved at only half of studied sites)

Ta, T.K.O., V.L. Nguyen, M. Tateishi, I. Kobayashi & Y. Saito (2001)- Sedimentary facies, diatom and foraminifer assemblages in a late Pleistocene-Holocene incised-valley sequence from the Mekong River Delta, Bentre Province, Southern Vietnam: the BT2 core. J. Asian Earth Sciences 20, 1, p. 83-94.
(71m long core in incised vally fill shows post-glacial transgressive -regressive fill cycle. Maximum Holocene marine influence at ~5300 yr BP, with bay/estuary muds with common planktonic diatoms (Coscinodicus, Thalassionema, etc.) and open marine foraminifera (Bolivina, Bulimina, Quinqueloculina, Pararotalia). Regressive succession from prodelta- delta front (4000-3000 yr BP) to delta plain)

Ta, T.K.O., V.L. Nguyen, M. Tateishi, I. Kobayashi, Y. Saito & T. Nakamura (2002)- Sediment facies and Late Holocene progradation of the Mekong River Delta in Bentre Province, southern Vietnam: an example of evolution from a tide-dominated to a tide- and wave-dominated delta. Sedimentary Geology 152, p. 313-325.

Ta, T.K.O., V.L. Nguyen, M. Tateishi, I. Kobayashi, S. Tanabe & Y. Saito (2002)- Holocene delta evolution and sediment discharge of the Mekong River, southern Vietnam. Quaternary Science Reviews 21, p. 1807-1819.
(Last 3000 yr of Mekong delta evolution characterized by progradation with increasing wave influence, SE-ward sediment dispersal, decreasing progradation rates, beach-ridge formation and delta front face steepening)

Ta, T.K.O., V.L. Nguyen, M. Tateishi, I. Kobayashi & Y. Saito (2005)- Holocene delta evolution and depositional models of the Mekong River Delta, Southern Vietnam. In: L. Giosan & J.P. Bhattacharya (eds.) River deltas- concepts, models, and examples, Soc. Sedimentary Geology (SEPM) Special Publ. 83, p. 453-466.

Ta, T.K.O., V.L. Nguyen, M. Tateishi, I. Kobayashi, Y. Saito & T. Nakamura (2002)- Sediment facies and Late Holocene progradation of the Mekong River Delta in Bentre Province, southern Vietnam: an example of evolution from a tide-dominated to a tide- and wave-dominated delta. Sedimentary Geology 152, p. 313-325.
(Mekong Delta is mixed tide and wave energy delta with wide delta plain formed during last 6 ka and is one of largest deltas in world. Changed from tide-dominated to tide-wave-dominated during Late Holocene. Late Pleistocene Paleo-Mekong River incised valley >70 m deep and formed during last glacial period)

Tamuntuan, G., S. Bijaksana, J. King, J. Russell, U. Fauzi, K. Maryunani, N. Aufa & L.O. Safiuddin (2015)- Variation of magnetic properties in sediments from Lake Towuti, Indonesia, and its paleoclimatic significance. Palaeogeogr. Palaeoclim. Palaeoecology 420, p. 163-172.
(Sediment core from Lake Towuti in E Sulawesi Ophiolite belt with three zones of varying magnetic properties, corresponding to levels of iron oxide dissolution and magnetite precipitation. Magnetically strongest zone weak iron oxide dissolution and intense magnetite precipitation, likely driven by lake conditions during dry conditions in Marine Isotope Stage 2)

Tamura, T., Y. Saito, V.L. Nguyen, T.K.O. Ta, M.D. Bateman, D. Matsumoto & S. Yamashita (2012)- Origin and evolution of interdistributary delta plains; insights from Mekong River delta. Geology (GSA) 40, 4, p. 303-306.
(Mekong River delta characterized by several shore-perpendicular elongate delta plains, with sequences of beach ridges, reflecting progradation in last 3.5 ka))

Tamura, T., Y. Saito, S. Sieng, B. Ben, M. Kong, I. Sim, S. Choup & F. Akiba (2009)- Initiation of the Mekong River delta at 8 ka: evidence from the sedimentary succession in the Cambodian lowland. Quaternary Science Reviews 28, 3-4, p. 327-344.
(Most modern deltas initiated around 7.5-9 ka, in response to deceleration of Holocene sea-level rise. Initial stage of Mekong River delta recorded in Cambodian lowland sediment cores: (1) aggrading flood plain and tidal-fluvial channels during postglacial sea-level rise (10- 8.4 ka); (2) aggrading to prograding tidal flats and mangrove forests around maximum flooding of sea (~8.0 ka); (3) prograding fluvial system on delta plain (6.3 ka- Present). Delta progradation initiated as result of sea-level stillstand at around 8-7.5 ka. Thick mangrove peat accumulation from ~7.5- 6.3 ka. Since 6.3 ka fluvial system and delta progradation)

Tan, K.H. (2008)- Soils in the humid tropics and monsoon region of Indonesia. CRC Press, Boca Raton, FL, p. 1-557.

Tan, K.H. & J. van Schuylenborg (1961)- On the classification and genesis of soils developed over acid volcanic material under humid tropical conditions II. Netherlands J. Agricultural Science, Wageningen, 9, 1, p. 41-54.
(online at: https://library.wur.nl/ojs/index.php/njas/article/view/17634/17048)
(Review of soil development in N and E Sumatra on acid volcanic (rhyolitic and dacitic) tuffs. Four belts, mainly following altitude: podzols at 1500-2000 m, podzol-brown podzolic iniergrades at 1100-1500 m, brown podzolic soils at 1100-500 m, red-yellow podzolic soils at 500 m and less)

Tanabe, S., T.K.O. Ta, V.L. Nguyen, M. Tateishi, I. Kobayashi & Y. Saito (2003)- Delta evolution model inferred from the Holocene Mekong Delta, southern Vietnam. In: F.H. Sidi et al. (eds.) Tropical deltas of Southeast Asia, Soc. Sedimentary Geology (SEPM), Special Publ. 76, p. 175-188.
(Mekong Delta at SE tip of Indochina Peninsula with large delta plain ranked third largest in world. Present delta classified as tide-dominated/ wave-influenced. Delta evolved from tide-dominated from 6.5- 2.5 ka to tide-wave mixed delta from 2.5 ka- Present. Wave energy will become more pronounced as delta continues to prograde towards shelf margins)

Thomas, R.B. & E.J. Lesleighter (1983)- Sediment transport and deposition in the Cimanuk Delta region, Indonesia. In: Sixth Australian Conference Coastal and Ocean Engineering, Australian Institute Engin., National Committee on Coastal and Oceanic Engineering, Barton, Australia, p. 139-144
(Many rivers in volcanic areas of Java discharge huge quantities of sediment, forming actively growing deltas like Cimanuk, 170 km E of Jakarta)

Tomascik, T., A.J. Mah, A. Nontiji & M. Moosa (1997)- The ecology of the Indonesian Seas, Part I. The ecology of Indonesia 7, Periplus Ed., Singapore, p. 1-642.
(Extensive overview of Indonesian seas, with chapters on geology, oceanography and coral reefs)

Tomascik, T., A.J. Mah, A. Nontiji & M. Moosa (1997)- The ecology of the Indonesian Seas, Part II. The ecology of Indonesia Series 8, Periplus Editions, Singapore, p. 643-1388.
(Continuation of overview of Indonesian seas, with additional chapters coral reefs, pelagic systems, mangroves and environmental issues)

Triana, K., T. Solihuddin, S. Husrin, J. Risandi, E. Mustikasari, T.L. Kepel, H. L. Salim et al. (2023)- An integrated satellite characterization and hydrodynamic study in assessing coastal dynamics in Cirebon, West Java. Regional Studies in Marine Science 65, 103107, p.
(preprint online at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4178972)

Umbgrove, J.H.F. (1930)- The amount of maximal lowering of sea level in the Pleistocene. Proc. 4th Pacific Science Congress, Java 1929, IIA, p. 105-113.
(Submarine topography of Sunda Shelf in S China Sea, Java Sea and Straits of Malacca indicate Pleistocene rivers debouched near 100m isobath, suggesting about 100m of maximum sea level lowering)

Unverricht, D., W. Szczucinski, K. Stattegger, R. Jagodzinski, X.T. Le & L.L.W. Kwong (2013)- Modern sedimentation and morphology of the subaqueous Mekong Delta, southern Vietnam. Global and Planetary Change 110, B, p. 223-235.
(Mekong River Delta influenced by tides (meso-tidal system), waves, coastal currents, monsoon-driven river discharge and human impact. Subaqueous part large lateral variability, with two delta fronts, 200 km apart, one at mouth of Bassac distributary, one around Cape Ca Mau in SW. Two different sediment types in delta)

Utami, D.A. (2021)- Modern, equatorial carbonates from Kepulauan Seribu, Indonesia: Facies, isotope geochemistry, and microplastic as a sedimentary component. Doktoral Thesis Rheinisch-Westfalischen Technischen Hochschule Aachen, p. 1-123.
(online at: https://publications.rwth-aachen.de/record/816964/files/816964.pdf)
(Study of Thousand Islands patch reefs complex in Java Sea NW of Jakarta: sedimentary facies, carbonate geochemistry (very low δ13C and δ18O values, related to isotopically depleted riverine input) and impact of

microplastics pollution (present in all Kep. Seribu cabonate sediment facies; "Indonesia is known as the second-largest contributor of mismanaged plastic waste to the ocean"))

Van der Kaars, S. & G.D. van den Bergh (2004)- Anthropogenic changes in the landscape of west Java (Indonesia) during historic times, inferred from a sediment and pollen record from Teluk Banten. J. Quaternary Science 19, 3, p. 229-239.
(online at: https://www.academia.edu/110937719/Anthropogenic_changes_in_the_landscape_of_west_Java_Indonesia_during_historic_times_inferred_from_a_sediment_and_pollen_record_from_Teluk_Banten)
(Palynological and charcoal analyses of core from Banten Bay coastal area of NW Java provide vegetation history for last few centuries. Effect of Krakatau eruption insignificant compared to human impact on vegetation in Banten)

Van der Meij, S.E.T., R.G. Moolenbeek & B.W. Hoeksema (2009)- Decline of the Jakarta Bay molluscan fauna linked to human impact. Marine Pollution Bull. 59, p. 101-107.
(online at: https://pdfs.semanticscholar.org/91ea/86518ab13496eec4055c5af9d2477c02e2d2.pdf)
(Molluscan fauna of Jakarta Bay deteriorated between 1937 and 2005 due to increased sewage from Jakarta and sediment input from deforested W Java hinterland. Predatory gastropods and mollusc species associated with carbonate substrate vanished from Jakarta Bay, among which many edible species)

Van der Meij, S.E.T., Suharsono & B.W. Hoeksema (2010)- Long-term changes in coral assemblages under natural and anthropogenic stress in Jakarta Bay (1920-2005). Marine Pollution Bull. 60, 9, p. 1442-1454.
(Comparison of coral assemblages show about half species recorded in 1920 was found again in 2005. Most prominent declines in nearshore disappearance of Acroporidae, Milleporidae and to lesser extent Poritidae)

Van der Stok, J.P. (1897)- Wind and weather, currents, tides and tidal streams in the East Indian archipelago. Government Printing Office, Batavia, p. 1-209.
(online at: https://dspace.library.uu.nl/handle/1874/426811)
(Charts of currents, wind, etc. for Netherlands Indies, by season, area, etc., by Meteorological and Magnetical Observatory in Batavia))

Van der Stok, J.P., S.P. Naber, G.F. Tydeman, W.E. Ringer et al. (ed.) (1922)- De zeeen van Nederlandsch Oost Indie. Koninklijk Nederlands Aardrijkskundig Genootschap, E.J. Brill, Leiden, p. 1-506.
(online at: https://ia600404.us.archive.org/2/items/dezeenvanneder00koni/dezeenvanneder00koni.pdf)
('The seas of Netherlands East Indies'. With chapter on geology and coral reefs by Molengraaff, p. 272-357)

Van Tuijn, J. (1932)- Over een recente daling van den zeespiegel in Nederlandsch Oost-Indie. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2) 49, p. 89-99.
(online at: https://resolver.kb.nl/resolve?urn=MMUBA13:001678001:pdf)
('On a recent drop in sea level in Netherlands East Indies'. Many coastlines in W Indonesia show evidence of recent sea level drop of 5-10m (raised coral reefs, etc.). With map of distribution)

Verstappen, H.Th. (1960)- Some observations on karst development in the Malay Archipelago. J. Tropical Geography 14, p. 1-10.
(On limestone karst development with examples from Java S Mountains, C. Sumatra, Halmahera)

Verstappen, H.Th. (1975)- On palaeoclimates and landform development in Malesia. In: G.J. Bartstra & W.A. Casparie (eds.) Modern Quaternary Research in Southeast Asia, A.A. Balkema, Rotterdam, 1, p. 3-35.
(Climate changes in Quaternary lead to alternating humid and more arid periods, also in tropics. Chemical weathering dominates in interglacial equatorial rainforest conditions, like in Holocene. During glacial periods more pronounced seasonality and physical desintegration of rocks becomes more important. Pleistocene lowered sea level probably did not cause incision of valleys on shelf as rivers have very low gradient. Etc.)

Verstappen, H.Th. (1980)- Quaternary climatic changes and natural environment in SE Asia. Geo Journal 4, 1, p. 45-54.

(Lower rainfall and longer dry season characterised SE Asia during Quaternary Glacials. This had important effect on vegetation and landform development. Low Glacial sea levels thought not to have caused river incision; deposition of coarse-textured materials more characteristic. Incision mainly tied to Interglacial and Holocene humic tropical conditions when vegetation interfered with non-concentrated surface wash)

Verstappen, H.Th. (1993)- Geomorphologie volcanique et attenuation des desastres naturels. Les volcans de l'Indonesie, quelques exemples. Bull. Association de Geographes Francais 70, 4, p. 367-376.
(online at: https://www.persee.fr/docAsPDF/bagf_0004-5322_1993_num_70_4_1704.pdf)
('Volcanic geomorphology and natural disaster reduction- the volcanoes of Indonesia, some examples'. French version of Verstappen, 1994)

Verstappen, H.Th. (1994)- The volcanoes of Indonesia and natural disaster reduction. Indonesian J. Geography 26, 68, p. 27-35.
(online at: http://i-lib.ugm.ac.id/jurnal/detail.php?dataId=8432)
(Indonesian volcanic landforms: strato volcanoes, calderas and 'volcano-tectonic' depressions' associated with ignimbrite/ welded tuff plateaus (associated with deep-seated faults). Important role for geomorphological survey and use of aerospace technology in volcanic hazard zoning)

Verstappen, H.Th. (1998)- The effect of climatic change on Southeast Asian geomorphology. J. Quaternary Science 12, 5, p. 413-418.
(Quaternary climatic changes in SE Asia four types of fluctuations: temperature, precipitation, wind patterns and sea-level)

Verstappen, H.Th. (2000)- Outline of the geomorphology of Indonesia. lnt. Institute Aerospace Survey and Earth Sciences (ITC), Enschede, Publication 79, p. 1-212.
(Review of geomorphology research in Indonesia, including geologic framework, climatic factors affecting landforms, volcanic landforms, karst terranes, lowlands, coastal geomorphology and coral reefs)

Walsh, J.P. & C.A. Nittrouer (2003)- Contrasting styles of off-shelf sediment accumulation in New Guinea. Marine Geology 196, 3-4, p. 105-125.
(Study of modern 'highstand' off-shelf sedimentation in PNG Gulf of Papua and Sepik margin. Gulf of Papua receives >3x10-8 tons of sediment annually from rivers. Most accumulates on shelf, <5% deposited in Pandora Trough. Sepik margin different: Sepik River discharges ~1x10 -8 tons of sediment annually, and submarine canyon extends to river mouth. 90% of river material regularly produces gravity-driven flows in canyon)

Walsh, J.P. & C.A. Nittrouer (2004)- Mangrove-bank sedimentation in a mesotidal environment with large sediment supply, Gulf of Papua. Marine Geology 208, p. 225-248.
(Extensive mangrove forests are associated with major river systems. Indo-Pacific region numerous large rivers that discharge onto broad continental shelves, with common mangroves along these coastlines. Gulf of Papua >3350 km^2 of mangrove forests, majority associated with Fly, Kikori and Purari River deltas. Sediment trapping in W Gulf of Papua mangroves estimated to be 2-14% of total sediment load)

Walsh, J.P., C.A. Nittrouer, C.M. Palinkas, A.S. Ogston, R.W. Sternberg & G.J. Brunskill (2004)- Clinoform mechanics in the Gulf of Papua, New Guinea. Continental Shelf Research 24, 19, p. 2487-2510.
(Largest islands of Indo-Pacific Archipelago account for 20-25% of global sediment discharge to oceans, >50% of this supplied to wide (>150 km) continental shelves. These conditions create large-scale clinoforms-sigmoidal-shaped deposits on continental shelf. ~20% of sediment supplied to Gulf of Papua accumulates on clinoforms, <5% escapes to adjacent slope, 75% trapped on inner-topset region (<20 m depth) and within flood/ delta plains)

Webster, P.J.& N.A. Streten (1978)- Late Quaternary ice age climates of tropical Australasia: interpretations and reconstructions. Quaternary Research 10, 3, p. 279-309.

Weiss, T.L., B.K. Linsley, A.Gordon, Y. Rosenthal & S. Dannenmann-Di Palma (2022)- Constraints on Marine Isotope Stage 3 and 5 sea level from the flooding history of the Karimata Strait in Indonesia. Paleoceanography and Paleoclimatology (AGU) 37, 9, e2021PA004361, p.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/full/10.1029/2021PA004361)
(Reconstructtion of Pleistocene sea level fluctuations in Karimata Strait (between SW Kalimantan and Belitung islands) Karimata Strait (36m deep) likely closed/exposed during Marine Isotope Stage 3 (MIS 3; 60-26 ka)), which may have aided human migration to Borneo (Global mean sea level was lower than ca -22m). Karimata Strait was inundated during MIS 5a and 5c (117-72 ka), and GMSL was above −12 ± 7 m relative to today. Etc.)

Whiffin, T. (2002)- Plant biogeography of the SE Asian-Australian region. In: P. Kershaw et al. (eds.) Bridging Wallace's Line: the environmental and cultural history and dynamics of the SE Asian- Australian region, Advances in Geology 34, Catena Verlag, p. 61-82.
(Review of present-day floral provinces of SE Asia)

Whittaker, R.J., K. Richards, H. Wiriadinata & J.R. Flenley (1984)- Krakatau 1883 to 1983: a biogeographical assessment. Progress in Physical Geography 8, 1, p. 61-81.

Whitten, T., J. Whitten, C. Goettsch, J. Supriatna & R.A. Mittermeier (1999)- Sundaland. In: R.A. Mittermeier et al. (eds.) Biodiversity hotspots of the world, Cemex, Prado Norte, Mexico, p.

Whitten, T., J. Whitten, C. Goettsch, J. Supriatna & R.A. Mittermeier (1999)- Wallacea. In: R.A. Mittermeier et al. (eds.) Biodiversity hotspots of the world, Cemex, Prado Norte, Mexico, p.

Wicaksono, S.A., J.M. Russell, A. Holbourn & W. Kuhnt (2017)- Hydrological and vegetation shifts in the Wallacean region of central Indonesia since the Last Glacial Maximum. Quaternary Science Reviews 157, p. 152-163.
(Study of vegetation, rainfall and changes in atmospheric circulation during past 26,000 years in C Indonesia from terrestrial plant biomarkers in sediment cores in Mandar Bay, off W Sulawesi. Enriched leaf wax δ13C isotope values during LGM, together with other regional vegetation records, document grassland expansion, implying regionally dry and possibly more seasonal glacial climate. Inundation of Sunda Shelf (in particular opening of Java Sea and Karimata Strait between 9.4- 11.1 ka provided new moisture sources)

Wong, P.P. (2005)- The coastal environment of Southeast Asia. In: A. Gupta (ed.) The physical geography of Southeast Asia, Oxford University Press, p. 177-192.

Woodroffe, C.D. (1993)- Late Quaternary evolution of coastal and lowland riverine plains of Southeast Asia and northern Australia: an overview. Sedimentary Geology 83, p. 163-175.
(Introduction and overview of special issue of Sedimentary Geology)

Woodroffe, C.D. (2000)- Deltaic and estuarine environments and their Late Quaternary dynamics on the Sunda and Sahul shelves. J. Asian Earth Sciences 18, 4, p. 393-413.
(online at: https://eurekamag.com/pdf/003/003399322.pdf)
(Deltaic and estuarine environments of Sunda shelf receive large volumes of sediment and had diverse and productive vegetation before clearing. Three periods of change: long-term response of deltaic- estuarine plains to postglacial sea-level rise, Holocene patterns of coastal progradation and distributary migration under relatively stable sea level and impact of human modifications)

Woodroffe, C.D. (2005)- Southeast Asian deltas. In: A. Gupta (ed.) The physical geography of Southeast Asia, Oxford University Press, p. 219-236.
(Brief review of delta processes and deltas of Irrawaddy, Mekong, Mahakam, Rajang-Barang, etc.in SE Asia)

Woodruff, D.S. (2010)- Biogeography and conservation in Southeast Asia: How 2.7 million years of repeated environmental fluctuations affect today's patterns and the future of the remaining refugial-phase biodiversity. Biodiversity and Conservation 19, p. 919-941.

(SE Asia geography today typical of only 2% of last million years; 90% of time land area was 1.5-2.0x larger as mean sea levels were 62m lower, climates were cooler, and extensive forests and savanna covered emerged Sunda plains. Land areas varied as sea levels fluctuated up to 50m with each of ~50 Pleistocene glacial cycles, and forests expanded and contracted with oscillations in land area and seasonality)

Woodson, A.L., E. Leorri, S.J. Culver, D. J. Mallinson, P.R. Parham, R.C. Thunell, V.R. Vijayan & S. Curtis (2017)- Sea-surface temperatures for the last 7200 years from the eastern Sunda Shelf, South China Sea: climatic inferences from planktonic foraminiferal Mg/Ca ratios. Quaternary Science Reviews 165, p. 13-24.
(online at: www.academia.edu/32712738/Sea_surface_temperatures_for_the_last_7200_years_from_t Etc.)
(Holocene temperature records in two cores from Holocene incised valley fills on Sunda Shelf off Sarawak. Several significant shifts between warmer and colder conditions. Coldest period analyzed at 5500-4500 cal., concomitant with wet period in Borneo. Last ~1000 years recorded warmest SST. Warm interval from ~1000-500 cal years BP may represent Medieval Climate Anomaly)

Wurster, C.M., M.I. Bird, I.D. Bull, F. Creed, C. Bryant, J.A.J. Dungait & V. Paze (2010)- Forest contraction in north equatorial Southeast Asia during the Last Glacial Period. Proc. National Academy of Sciences USA (PNAS), 107, 35, p. 15508-15511.
(online at: www.pnas.org/content/early/2010/07/22/1005507107.full.pdf)
(Distribution of vegetation in SE Asia during Last Glacial Maximum (23-19 ka) still debated. $d^{13}C$ carbon isotope composition of ancient cave guano profiles suggest substantial forest contraction during Last Glacial Period on Peninsular Malaysia (Batu cave) and Palawan (Gangub and Makangit caves), while rainforest was maintained in N Borneo (Niah cave). Results support rainforest 'refugia' hypotheses and provide evidence that environmental barriers reduced mixing between Borneo and Sumatra flora/ fauna. Also sheds light on possible early human dispersal events

Wurster, C.M., H. Rifai, B. Zhou, J. Haig. & M.I. Bird (2019)- Savanna in equatorial Borneo during the Late Pleistocene. Nature Scientific Reports 9, 6392, p. 1-7.
(online at: https://www.nature.com/articles/s41598-019-42670-4)
(The now-drowned Sundaland continent was exposed as contiguous landmass for most of past 2 million years. Stable carbon isotope composition (δ13C) of bat guano and High Molecular Weight n-alkanes from Saleh Cave in S Kalimantan demonstrates open vegetation existed during of much past 40,000 yrs BP (at S equatorial end of hypothesized 'savanna corridor'). Saleh Cave record also shows strong correspondence with insolation and sea surface T of Indo-Pacific Warm Pool, suggesting sensitivity of vegetation to tropical climate change on glacial/interglacial timeframes)

Wust, R.A.J. & R.M. Bustin (2004)- Late Pleistocene and Holocene development of the interior peat-accumulating basin of Tasek Bera, Peninsular Malaysia. Palaeogeogr. Palaeoclim. Palaeoecology. 211, 3-4, p. 241-270.
(Tasek Bera freshwater swamp is lowland dendritic basin in Peninsular Malaysia. Accumulation of organic matter in local lakes during Last Glacial Maximum, but widespread peat deposition did not start until 5300 BP when climatic changes led to evolution of wetland system. Peat accumulation progressively expanded with terrestrialisation of channels and subbasins to paludification of riparian part of lowland forest zone. Etc.).

Yudhicara, A. Ibrahim, V. Asvaliantina, W. Kongko & W. Pranowo (2012)- Sedimentological properties of the 2010 Mentawai tsunami deposit. Bulletin of the Marine Geology 27, 2, p. 55-65.
(online at: http://ejournal.mgi.esdm.go.id/index.php/bomg/article/view/45/46)
(Thickness of 2010 Mentawai tsunami deposits on Sipora and Pagai islands off W Sumatra 1.5-22 cm. Generally composed of fine-coarse sand, in irregular contact with underlying soil. Commonly multiple layers: run up at bottom and back wash at top. Fining upward, parallel lamination and soil clasts observed. Fossils generally rare, but include shallow marine foraminifera and abundant sponge spicules)

Yudhicara, Y. Zaim, Y. Rizal, Aswan, R. Triyono, U. Setiyono & D. Hartanto (2013)- Characteristics of paleotsunami sediments, a case study in Cilacap and Pangandaran coastal areas, Jawa, Indonesia. Indonesian Journal of Geology 8, 4, p. 163-175.

(online at: www.neliti.com/publications/68850/characteristics-of-paleotsunami-sediments-a-case-study-in-cilacap-and-pangandara)
(In Pangandaran, S Java, two possible tsunami deposits on top of soil horizons: 5-6 cm layer of coarse sand at top as 2006 tsunami deposit and 5-10 cm sand layer at bottom as paleotsunami. Sands contain (Miocene?) planktonic and shallow marine foraminifera)

Xue, Z. (2010)- A source-to-sink study of the Mekong River Delta: hydrology, delta evolution, and sediment transport modeling. Ph.D. Thesis North Carolina State University, p. 1-190.

Xue, Z., J.P. Liu, D. DeMaster, L.V. Nguyen & T.K.O. Ta (2010)- Late Holocene evolution of the Mekong subaqueous delta, Southern Vietnam. Marine Geology 269, p. 46-60.
(High-resolution seismic and coring revealed low gradient, subaqueous paleo-delta system, up to 20m thick, surrounding modern Mekong RiverDelta, formed around 3000 BP)

Yosephin, Y., S.H. Nugroho, P.S. Putra, S.W.A. Suedy & M. Izzati (2019)- Palinologi laut di Selat Sumba, Nusa Tenggara Timur. J. RISET Geologi dan Pertambangan (LIPI) 29, 1, p. 43-52.
(online at: https://jrisetgeotam.lipi.go.id/index.php/jrisgeotam/article/view/971/pdf)
('Marine palynology In Sumba Stait, East Nusa Tenggara'. Distribution of Quaternary-Recent spores and pollen on seafloor and shallow core ST 14 in 1283m water depth, N of Sumba. Four zones distinguished)

Zakaria, A.S. (1975)- The geomorphology of Kelantan Delta (Malaysia). Catena 2, p. 337-349.
(Kelantan Delta in NE part of Malay Peninsula. During NE monsoon (October- February) high rate of development, while during rest of year no major development)

Zhang, H., S. Liu, P. Cao, Z. Li, R.A. Troa, R. Zuraida, E. Triarso, M. Hendrizan & X. Shi (2023)- Geochemical records provide evidences for the evolution of the marine redox environment in the southwestern Sumatra waters over the past 35,000 years. J. Asian Earth Sciences 255, 105759, p.

X.2. Quaternary/Recent deposits and environments- deep: Oceanography, Indonesian Throughflow

Ahmad, S.M., F. Guichard, K. Hardjawidjaksana, M.K. Adisaputra & L.D. Labeyrie (1995)- Late Quaternary paleoceanography of the Banda Sea. Marine Geology 122, p. 385-397.
(Oxygen and carbon isotopes of benthic (Uvigerina, Cibicidoides) and planktonic (Gs. ruber) foraminifera from Banda Sea deep-sea over last 180 kyr indicate increase in Banda surface and deep water salinity during glacial conditions. Planktonic data influenced by precession (23 kyr periodicity) while benthic values reflect intermediate Pacific water fluctuations. Banda Sea records indicate general good ventilation. Deepening of lysocline resulted in higher carbonate content during glacial periods, similar to N Pacific)

Alongi, D.M., (2013)- Enhanced benthic response to upwelling of the Indonesian Throughflow onto the southern shelf of Timor-Leste, Timor Sea. J. Geophysical Research: Biogeosciences 118, 1, p. 158-170.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/full/10.1029/2012JG002150)
(Mainly on water and sediment surface geochemistry response to periodic upwelling along S margin of Timor)

Andersson, H.C. & A. Stigebrandt (2005)- Regulation of the Indonesian Throughflow by baroclinic draining of the North Australian Basin. Deep Sea Research I, 52, 12, p. 2214-2233.
(Mainly low-saline N Pacific water fills upper part of Indonesian seas and downstream buoyant (surface) pool (DBP) that stretches over large part of N Australian Basin. Long-term mean steric sea level in Indonesian seas equal to neighboring Pacific Ocean sea level. Change of steric sea level from Pacific to Indian Ocean sea level at border between DBP and Indian Ocean. Darwin situated inside DBP. Control of ITF set by baroclinic transport capacity of DBP relative to adjacent (Indian Ocean) water. Mean ITF, estimated as outflow from DBP to S Equatorial Current, is about 10 Sv. ITF imprint is fresh and cold. Atmospheric transfer of freshwater to N Pacific and vertical mixing in N Pacific provide driving of mean ITF and ITF is major branch of estuarine-type vertical circulation of N Pacific)

Andruleit, H. (2007)- Status of the Java upwelling area (Indian Ocean) during the oligotrophic northern hemisphere winter monsoon season as revealed by coccolithophores. Marine Micropaleontology 64, p. 36-51.
(Coccolithophores used as indicators for present-day functioning of Java upwelling)

Andruleit, H., A. Luckge, M. Wiedicke & S. Stager (2008)- Late Quaternary development of the Java upwelling system (eastern Indian Ocean) as revealed by coccolithophores. Marine Micropaleontology 69, 1, p. 3-15.
(Coccolithophores help decipher Pleistocene paleoproductivity changes in E Indian Ocean in past 300-65.3 kyr. Core SO139-74KL at seaward limit of fore-arc basin of Indonesian continental shelf, beneath Java upwelling system. Dominated by Florisphaera profunda (41.5%), followed by Gephyrocapsa ericsonii, Emiliania huxleyi and G. oceanica. Warm tropical conditions prevailed throughout)

Arifin, S.R.D. (1996)- Studi paleosalinitas perairan Indonesia sejak Glasial Maksimum terakhir sampai Resen. Proc. 25th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 148-159.
('Study of paleosalinity of Indonesian waters from the Last Glacial Maximum until Recent')

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(online at: http://journal.ipb.ac.id/index.php/jurnalikt/article/view/13221/10223)
('Spatial and temporal variation of Indonesian Throughflow in the Makassar Strait'. On the main axis of southward jet of Indonesian Throughflow in Makassar Straits, mainly following western shelf slope)

Atmadipoera, A., R. Molcard, G. Madec, S. Wijffels, J. Sprintall, A. Koch-Larrouy, Indra Jaya & A. Supangat (2009)- Characteristics and variability of the Indonesian throughflow water at the outflow straits. Deep Sea Research I, 56, 11, p. 1942-1954.
(Revised structure and variability of Indonesian Throughflow Water at major outflow straits (Lombok, Ombai, Timor))

Atmadipoera, A. & P. Widyastuti (2014)- A numerical modeling study of upwelling mechanism in southern Makassar Strait. J. Ilmu Teknologi Kelautan Tropis 6, 2, p. 355-371.
(online at: http://journal.ipb.ac.id/index.php/jurnalikt/article/view/9012/7080)
(On upwelling events in S Makassar Strait during SE Monsoon period, associated with low sea surface temperature and high chlorophyll-a concentrations in seawater. Upwelling controlled by SE monsoon winds and enhanced by Indonesian Throughflow TF Makassar jet that creates large circular eddies flow due to complex topography in triangle area of S Makassar- E Java Sea- W Flores Sea)

Auer, G., D. de Vleeschouwer, R.A. Smith, K. Bogus, J. Groeneveld, P. Grunert, I.S. Castaneda, B. Petrick et al. (2019)- Timing and pacing of Indonesian Throughflow restriction and its connection to Late Pliocene climate shifts. Paleoceanography and Paleoclimatology (AGU) 34, 4, p. 635-657.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2018PA003512)
(Pliocene characterized by gradual shift of global climate toward cooler and more arid conditions. Progressive restriction of Indonesian Throughflow (ITF) may have enhanced this shift toward stronger meridional thermal gradients. Reduced ITF, caused by N-ward movement of Australia and uplift of Indonesia, impeded global thermohaline circulation. Calcareous nannofossil record between 3.6- 3.0 Ma from IODP site U1463 suggests tropical Pacific ITF sources replaced by cooler, fresher N Pacific waters)

Ayers, J.M., P.G. Strutton, V.J. Coles, R.R. Hood & R.J. Matear (2014)- Indonesian throughflow nutrient fluxes and their potential impact on Indian Ocean productivity. Geophysical Research Letters 41, 14, p. 5060-5067.
(ODP Site U1463 provides record of local surface water conditions and Australian climate in relation to changing ITF connectivity. ITF configuration culminated ~3.54 Ma. Decrease in warm, oligotrophic taxa with shift from Gephyrocapsa to Reticulofenestra and increase of mesotrophic taxa suggest tropical Pacific ITF sources replaced by cooler, fresher, N Pacific waters. After 3.3 Ma restructured ITF established conditions for inception of Sahul-Indian Ocean Bjerknes mechanism and increased response to glacio-eustatic variability)

Barmawidjaja, D.M., E.J. Rohling, W.A. van der Kaars, C. Vergnaud Grazzini & W.J. Zachariasse (1993)- Glacial conditions in the northern Molucca Sea region (Indonesia). Palaeogeogr. Palaeoclim. Palaeoecology 101, p. 147-167.
(Core K12 from 3510m water depth N of N Halmahera spans last 27,000 yrs. Palynology suggests glacial time climate drier than today. This and lower sea level resulted in expansion of Lower Montane oak forests on Halmahera. Surface water salinities probably higher. Also well-developed 'Deep Chlorophyll Maximum layer'. With elevated planktonic forams Neogloboquadrina dutertrei and presence of Ng. pachyderma in glacial times (similar to observed in Sulu Sea by Linsley et al. 1985))

Barmawidjaja, D.M., A.F.M de Jong, K. van der Borg, W.A. van der Kaars & W.J. Zachariasse (1989)- Kau Bay, Halmahera, a late Quaternary palaeoenvironmental record of a poorly ventilated basin. In: J.E. van Hinte et al. (eds.) Snellius-II Symposium, Jakarta 1987, Netherlands J. of Sea Research 24, 4, p. 591-605.

Barmawidjaja, D.M., A.F.M de Jong, K. van der Borg, W.A. van der Kaars, W.J.M. van der Linden & W.J. Zachariasse (1989)- The timing of postglacial marine invasion of Kau Bay, Halmahera, Indonesia. Radiocarbon 31, 3, p. 948-956.
(Kau Bay, Halmahera, E Indonesia is small 470m deep marine basin, separated from SW Pacific Ocean by 40m deep shallow sill. Bay water below depth of ~350m devoid of oxygen and high dissolved H2S. Radiocarbon dating on piston cores and study on microfossils demonstrate Kau Bay was freshwater lake in Weichselian times (freshwater diatoms). At 10,000 BP reconnected with open ocean. If sill depth did not change in intervening years, sea level at 10,000 BP stood 40m below present level)

Barrows, T.T. & S. Juggins (2004)- Sea-surface temperatures around the Australian margin and Indian Ocean during the Last Glacial Maximum. Quaternary Science Reviews 24, p. 1017-1047.
(Sea-surface temperature maps for oceans around Australia based on planktonic foraminifera assemblages. During Last Glacial Maximum cooling in tropics of up to 4 °C in E Indian Ocean, mostly between 0- 3 °C elsewhere along equator. High latitudes cooled more, with maximum of 7-9 °C in SW Pacific Ocean)

Baumgart, A., T. Jennerjahn, M. Mohtadi & D. Hebbeln (2010)- Distribution and burial of organic carbon in sediments from the Indian Ocean upwelling region off Java and Sumatra, Indonesia. Deep Sea Research I, 57, 3, p. 458-467.
(On marine organic carbon productivity and preservation in Indian Ocean off Sumatra- Java- Banda Islands. Maximum concentrations of organic carbon (3.0%) and nitrogen (0.31%) in N Mentawai and Savu and Lombok basins. High productivity related to seasonal upwelling in Indian Ocean S of Java-Sumatra between June-November responsible for high carbon accumulation S of E Java- Lombok and in Savu Basin. Better preservation by reduced ventilation contributes to high carbon in N Mentawai)

Bender, M., T. Mann, P. Stocchi, D. Kneer, T. Schone, J. Illigner, J. Jompa & A. Rovere (2020)- Late Holocene (0-6 ka) sea-level changes in the Makassar Strait, Indonesia, Climate of the Past (EGU), 16, p. 1187-1205.
(online at: https://cp.copernicus.org/articles/16/1187/2020/cp-16-1187-2020.pdf)
(Results of Holocene paleo sea level measuruments from microatolls in Spermonde Archipelago in SW Sulawesi (General: rates of post-Last Glacial Maximum sealevel rise progressively decreased between 8-2.5 k, remaining constant thereafter (until post-industrial sea-level rise). Local M Holocene sea-level highstand between ~6-3 ka in low latitudes, not eustatic in origin but combined effect of glacial isostatic adjustment and redistribution of water masses due to changes in gravitational attraction and Earth rotation following ice mass loss)

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('Sea floor samples of the Siboga Expedition'. Extensive descriptions of deep sea sediment samples from Siboga Expedition of 1899-1900 in Eastern Indonesian archipelago. Deep marine samples are blue mudstones, volcanic mud, Globigerina marl and red clays. Deepest samples (below 3900m) are lime-free red clays. No diatom or radiolarian clays. Greenish sediments generally in shallower regions)

Bray, N.A., S. Hautala, J. Chong & J. Pariwono (1996)- Large-scale sea level, thermocline, and wind variations in the Indonesian throughflow region. J. of Geophysical Research 101, p. 12239-12254.

Burnett, W.H., V.M. Kamenkovich, G.L. Mellor & A.L. Gordon (2000)- The influence of the pressure head on the Indonesian Seas circulation. Geophysical Research Letters 27, 15, p. 2273-2276.
(online at: https://www.gfdl.noaa.gov/bibliography/related_files/burnett0001.pdf)
(Model suggests pressure difference between Pacific and Indian Ocean does not significantly influence total transport of Indonesian throughflow)

Cane, M.A. & P. Molnar (2001)- Closing of the Indonesian seaway as a precursor to east African aridification around 3-4 million years ago. Nature 411, p. 157-162.
(Closure of Indonesian seaway 3-4 Myr ago may be responsible for global climate changes. N movement of New Guinea, ~5 Myr ago, switched source of flow through Indonesia from warm S Pacific to colder N Pacific waters, decreasing Indian Ocean sea surface temperatures and leading to aridification of E Africa. Changes in equatorial Pacific may have reduced atmospheric heat transport from tropics to higher latitudes, stimulating global cooling and growth of ice sheets)

Cappelli, E.L.G. (2015)- Late Pleistocene variability in Timor Sea hydrology: evidence from paleotemperature proxies. Doctoral Thesis Kiel University, Germany, p. 1-194.
(online at: http://macau.uni-kiel.de/...)

Cappelli, E.L., G.A. Holbourn, W. Kuhnt & M. Regenberg (2016)- Changes in Timor Strait hydrology and thermocline structure during the past 130 ka. Palaeogeogr. Palaeoclim. Palaeoecology 462, p. 112-124.
(Data from core from 485m depth at S edge of Timor Trough suggest lower thermocline warming during globally cold periods (MIS 4-MIS 2), related to weaker and contracted thermocline ITF and advection of warm-salty Indian Ocean waters)

Chen, Y., J.Xu, J. Liu, T. Li, Z. Xiong, P. Zhang & H.Yan (2022)- Climatic and tectonic constraints on the Plio–Pleistocene evolution of the Indonesian Throughflow intermediate water recorded by benthic δ18O from IODP site U1482. Quaternary Science Reviews 295, 107666, p. 1-15.
(Plio-Pleistocene benthic foram oxygen isotope record from deep see core from Site U1482 (IODP Exp. 363) in Timor Passage, the main exit of Indonesian Throughflow to Indian Ocean (~3.17-1.07 Ma). Prominent 41-kyr glacial-interglacial cycles, with decreased glacial-interglacial amplitudes at ~1.6–1.2 Ma. Etc.)

Christensen, B.A., W. Renema, J. Henderiks, D. de Vleeschouwer, J. Groeneveld, I.S. Castaneda, L. Reuning, K. Bogus et al. (2017)- Indonesian Throughflow drove Australian climate from humid Pliocene to arid Pleistocene. Geophysical Research Letters 44, 13, p. 6914-6925.
(online at: http://onlinelibrary.wiley.com/doi/10.1002/2017GL072977/epdf)
(Late Miocene- M Pleistocene sedimentary proxy records (incl. IODP Site U1463) show NW Australia underwent abrupt transition from arid to humid climate conditions at 5.5 Ma, likely receiving year-round rainfall. After ~3.3 Ma climate shift to increasingly seasonal precipitation, back to arid interval after 2.4 Ma. Linked to progressive restriction of flow of warm surface currents from Pacific (Indonesian Throughflow))

Cresswell, G., A. Frisch, J. Peterson & D. Quadfasel (1992)- Circulation in the Timor Sea. J. of Geophysical Research 98, C8, p. 14379-14389.
(Current measurements in Timor Strait suggest transport of about 7 Sv toward Indian Ocean, with about half of this in upper 350m)

Damanik, A., K.A. Maryunani, S.H. Nugroho & P.S. Putra (2020)- Climate variability since Last Glacial Maximum based on distribution of foraminifera in North Papua waters. Marine Research in Indonesia (LIPI) 45, 2, p. 59-66.
(online at: https://www.researchgate.net/publication/354730060_Climate_variability_since_last_glacial_maximum_based_on_distribution_of_foraminifera_in_North_Papua_Waters_Pacific_Ocean)
(Variabilities in abundance of Late Pleistocene- Holocene planktonic foraminifera species in 246 cm core OS-07, from 4327m water depth in SW Pacific N of Birds Head, West Papua, allow recognition of global climate events such as Last Glacial Maximum (~19-17 kyr; Cluster 1A-1C, dominated by Globigerinoides ruber, low Pulleniatina), Younger Dryas cool event (~11-9 kyr), 8.2 ka event and and Mid-Holocene Transition (~4kyr))

De Deckker, P. (2016)- The Indo-Pacific Warm Pool: critical to world oceanography and world climate. Geoscience Letters (AOGS) 3, 20, p. 1-12.
(online at: https://geoscienceletters.springeropen.com/articles/10.1186/s40562-016-0054-3)
(Review of climatic significance of Indo-Pacific Warm Pool, a large area with permanent surface T >28 °C in SW Pacific/ Indonesian region ('heat and steam engine' of globe))

De Deckker, P., N.J. Tapper & S. van der Kaars (2002)- The status of the Indo-Pacific Warm Pool and adjacent land at the Last Glacial Maximum. Global and Planetary Change 35, p. 25-35.
(During Last Glacial Maximum significant drop in precipitation in Warm Pool region that would explain increase in salinity while Sea surface T decreased by ~2°C, causing decrease of atmospheric convection over Indo-Pacific Warm Pool. Drier atmosphere and diminished level of cloud cover also reduced nocturnal temperatures at elevation, forcing tree line to drop and glaciers to much lower altitudes than today)

De Vleeschouwer, D, G. Auer, R. Smith, K. Bogus, B. Christensen, J. Groeneveld, B. Petrick et al. (2018)- The amplifying effect of Indonesian Throughflow heat transport on Late Pliocene Southern Hemisphere climate cooling. Earth Planetary Science Letters 500, p. 15-27.
(Unusually short glaciation interrupted warm Pliocene around 3.3 Ma (MIS M2). One proposed mechanism for glaciation and quick return to normal is reduced Equator-to-Pole heat transfer in response to tectonically reduced Indonesian Throughflow (ITF). Multi-proxy orbital-scale record for 3.7-2.8 Ma interval from IODP Site U1463 shows heat-transport through ITF did not shut down completely, but intensity decreased prior to and during MIS M2, amplifying global cooling by advancing the thermal isolation of Antarctica)

Ding, X., F. Bassinot, F. Guichard & N.Q. Fang (2013)- Indonesian Throughflow and monsoon activity records in the Timor Sea since the last glacial maximum. Marine Micropaleontology 101, p. 115-126.
(online at: http://www.cugb.edu.cn/upload/20600/papers_upload/291.pdf)
(Foraminifera-based multi-proxy study in main Indonesian Throughflow (ITF) outflow area of Timor Sea)

Ding, X., F. Guichard, F. Bassinot, L. Labeyrie & N.Q. Fang (2002)- Evolution of heat transport pathways in the Indonesian Archipelago during last deglaciation. Chinese Science Bull. 47, 22, p. 1912-1917.

Ehlert, C., M. Frank, B.A. Haley, U. Boniger, P. De Deckker & F.X. Gingele (2011)- Current transport versus continental inputs in the eastern Indian Ocean: radiogenic isotope signatures of clay size sediments. Geochem. Geophysics Geosystems 12, 6, Q06017, p. 1-17.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/full/10.1029/2011GC003544)
(Nd, Sr and Pb of clay-sized sediments allow tracing of source areas of sediment and current transport off NW Australia and SW of Java)

Fan, W., Z. Jian, Z. Chu, H. Dang, Y. Wang, F. Bassinot, X. Han & Y. Bian (2018)- Variability of the Indonesian Throughflow in the Makassar Strait over the last 30 ka. Nature Scientific Reports 8, 5678, p. 1-8.
(online at: https://www.nature.com/articles/s41598-018-24055-1)
(Indonesian Through Flow flows into e Indonesian Seas through two paths, mainly W path, in which N Pacific water enters Indonesian seas through S cape of Mindanao Island and Sulawesi Sea, and penetrates Makassar Strait. Thermocline T and salinity gradient across Makassar Strait increased during last glacial period relative to Holocene and was significantly larger during 13.4-19 ka BP and 24.2-27 ka BP (weakened ITF))

Feng, M., N. Zhang, Q. Liu & S. Wijffels (2018)- The Indonesian throughflow, its variability and centennial change. Geoscience Letters 5, 3, p. 1-10.
(online at: https://link.springer.com/content/pdf/10.1186%2Fs40562-018-0102-2.pdf)

Ffield, A.L., K. Vranes, A.L. Gordon, R.D. Susanto & S.L. Garzoli (2000)- Temperature variability within Makassar Strait. Geophysical Research Letters 27, 2, p. 237-240.
(Average thermocline T varies with S-ward Makassar transport volume: during high volume transport, average T of thermocline also high)

Fieux, M., C. Andrie, P. Delecluse, A.G. Ilahude, A. Kartavtseff, F. Mantisi, R. Molcard & J.C. Swallow (1994)- Measurements within the Pacific-Indian oceans throughflow region. Deep Sea Research I, 41, 7, p. 1091-1130.
(online at: https://core.ac.uk/download/pdf/39857022.pdf)
(Two hydrographic sections between Australian shelf and Indonesia, where throughflow between Pacific Ocean and Indian Ocean emerges. Subtropical and Central waters separated from waters of Indonesian seas by sharp hydrological front, around 13°30 S, below thermocline down to 700 m. Off Sumba, Savu, Roti and Timor channels a core of low salinity and high oxygen near-surface water in axis of each channel, suggesting strong currents from Indonesian seas towards Indian Ocean. Deep water flowing in opposite direction, from Indian Ocean to Timor basin below 1400 m to sill depth)

Fieux, M., R. Molcard & A.G. Ilahude (1996)- Geostrophic transport of the Pacific-Indian Oceans throughflow. J. of Geophysical Research 101, C5, p. 12421-12432.

Furue, R., M. Nonaka & H. Sasaki (2023)- The intrinsic variability of the Indonesian Throughflow. Frontiers in Marine Science 10, 117304, p. 1-17.
(online at: https://www.frontiersin.org/journals/marine-science/articles/10.3389/fmars.2023.1117304/full)
(Indonesian Throughflow (ITF) carries annual average of about 15 Sv of water from Pacific through Indonesian Seas into Indian Ocean. Year-to-year variation ~ 1 to 4 Sv. Observed intrinsic variability may come from zonal jets in western subtropical North Pacific)

Gagan, M.K., E.J. Hendy, S.G. Haberle & W.S. Hantoro (2004)- Post-glacial evolution of the Indo-Pacific warm pool and El Nino-Southern Oscillation. Quaternary International 118, p. 127-143.

(Sea surface temperature of Indo-Pacific Warm Pool during Last Glacial Maximum ~3°C cooler than today)

Gallagher, S.J., G. Auer, C.M. Brierley, C.S. Fulthorpe & R. Hall (2024)- Cenozoic history of the Indonesian Gateway. Annual Review Earth Planetary Sciences 52, p. 581-604.
(online at: https://www.annualreviews.org/docserver/fulltext/earth/52/1/annurev-earth-040722-111322.pdf)
(Pacific Ocean water flows through Indonesian Archipelago into Indian Ocean via Indonesian Throughflow. Gateway initiated around 23 Ma, when Australia collided with SE Asia. By ~10 Ma gateway was sufficiently restricted to create a proto–warm pool in SW Pacific. During Pliocene it alternated between more or less restricted conditions, until modern oceanic conditions were established by 2.7 Ma. Indonesian Gateway key branch of global thermohaline oceanic circulation, exerting major control on Earth's climate over last 25 Myr)

Gallagher, S.J., M.W. Wallace, C.L. Li, B. Kinna, J.T. Bye, K. Akimoto & M. Torii (2009)- Neogene history of the West Pacific Warm Pool, Kuroshio and Leeuwin currents. Paleoceanography 24, PA1206, p. 1-27.
(Presence of Indo-Pacific larger foraminifera and smaller taxa Asterorotalia and Pseudorotalia on Australia NW Shelf at ~4 Ma and from 1.6- 0.8 Ma suggest periods of increased Indonesian Throughflow (connecting W Pacific Warm Pool and Indian Ocean). From 10 to 4.4 Ma lack of biogeographic connectivity between Pacific and Indian Oceans suggests Indonesian Throughflow restriction, when collision of Australia and Asia trapped warmer waters in Pacific, creating WPWP biogeographic province from equator to 26°N)

Ganssen, G., S.R. Troelstra, B. Faber, W.A. van der Kaars & M. Situmorang (1989)- Late Quaternary paleoceanography of the Banda Sea, Eastern Indonesian piston cores (Snellius-II expedition, cruise G5). In: J.E. van Hinte et al. (eds.) Proc. Snellius II Symposium, Jakarta 1987, Netherlands J. of Sea Research 24, 4, p. 491-494.
(Late Quaternary paleoclimatology and oceanography deduced from two Banda Sea piston cores. Two-step deglaciation seen in oxygen isotopes, but did not lead to higher surface water temperatures but to wetter climate as recorded in palynofacies. Increasing monsoon regime around 10 ka. At ~10.5 ka climate got wetter. Upwelling intensity increased around 9.2 ka and monsoonal intensity decreased again at ~2.7 ka)

Gingele, F.X., P. De Deckker, A. Girault & F. Guichard (2002)- History of the South Java Current over the past 80 ka. Palaeogeogr. Palaeoclim. Palaeoecology 183, p. 247-260.
(Sediment core below South Java Current (SJC) used to reconstruct paleoclimate/ paleoceanography of past 80 ka. Considerable contrasts from glacial to Holocene. Presently below low-salinity tongue from Java Sea via Sunda Strait, with characteristic terrigenous matter. During last glacial stage sea level was lower, Sunda Strait was closed and terrigenous supply from that source ceased. Circulation patterns alternatively dominated by N Hemisphere E Asian Monsoon system and S Hemisphere Australian Monsoon system. Between 20-12 ka, (Australian) SE Winter Monsoon reached maximum and intensified W flowing S Java Current)

Godfrey, J.S. (1996)- The effect of the Indonesian Throughflow on ocean circulation and heat exchange with atmosphere: a review. J. of Geophysical Research- Oceans 101, C5, p. 12217-12238.

Godfrey, J.S., A.C. Hirst & J. Wilkin (1993)- Why does the Indonesian throughflow appear to originate from the North Pacific? J. Physical Oceanography 23, p. 1087-1098.
(online at: https://journals.ametsoc.org/view/journals/phoc/23/6/1520-0485_1993_023_1087_wdtita_2_0_co_2.xml)
(Modeling discussion. See also Gordon, 1995)

Gordon, A.L. (1995)- When is appearance reality? A comment on why does the Indonesian throughflow appear to originate from the North Pacific. J. Physical Oceanography 25, p. 1560-1567. *(online at: https://journals.ametsoc.org/view/journals/phoc/25/6/1520-0485_1995_025_1560_wiarac_2_0_co_2.xml)*
(Transfer of water from Pacific to Indian Oceans in the Indonesian Seas comprised primarily of North Pacific water masses)

Gordon, A.L. (2005)- Oceanography of the Indonesian Seas and their throughflow. Oceanography 18, 4, p. 14-27.

(online at: www.tos.org/oceanography/issues/issue_archive/issue_pdfs/18_4/18.4_gordon.pdf)
(Elegant review of Indonesian Throughflow between Pacific and Indian Oceans)

Gordon, A., A. Ffield & A.G. Ilahude (1994)- Thermocline of the Flores and Banda Seas. J. of Geophysical Research 99 (C9), p. 18235-18242.

Gordon, A.L. & R.A. Fine (1996)- Pathways of water between the Pacific and Indian Oceans in the Indonesian seas. Nature 379, p. 146-149.
(Indonesian Throughflow dominated by (1) low-salinity well ventilated N Pacific water through Makassar Strait upper thermocline and (2) more saline S Pacific water through lower thermocline of E Indonesian Seas)

Gordon, A.L., C.F. Giulivi & A.G. Ilahude (2003)- Deep topographic barriers within the Indonesian seas. In: F. Schott (ed.) Physical oceanography of the Indian Ocean during the WOCE period, Deep Sea Research II, 50, p. 2205-2228.
(Pacific water spills over deep topographic barriers into Sulawesi, Seram and Banda seas. W-most flow through Makassar Strait shallower barriers: 1350m deep Sangihe Ridge, providing access to Sulawesi Sea and 680m deep Dewakang Sill between S Makassar Strait- Flores Sea. Along E path, Pacific water must flow over 1940 m barrier of Lifamatola Passage before passing into deep Seram and Banda Seas. Deepest barrier encountered by W and E paths is 1300-1450 m Sunda Arc sill near Timor. Savu Sea connected to Banda Sea down to 2000 m, but closed to Indian Ocean at depth shallower than Timor Sill. Density-driven overflows force upwelling of resident waters within confines of basins)

Gordon, A.L., B.A. Huber, E.J. Metzger, R.D. Susanto, H.E. Hurlburt & T.R. Adi (2012)- South China Sea throughflow impact on the Indonesian throughflow. Geophysical Research Letters 39, L11602, 11, p. 1-7.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1029/2012GL052021)
(Increased SCS throughflow during El Nino events increases S-ward flow of buoyant surface water through Sulu Sea into N Makassar Strait, inhibiting tropical Pacific surface water injection into Makassar Strait)

Gordon, A.L., S. Ma, D.B. Olson, P. Hacker, A. Ffield, L.D. Talley, D. Wilson & M. Baring (1997)- Advection and diffusion of Indonesian throughflow water within the Indian Ocean South Equatorial Current. Geophysical Research Letters 24, 21, p. 2573-2576.
(Warm, low salinity Pacific water flows through Indonesian Seas into E Indian Ocean, spreading within S Equatorial Current. Low salinity throughflow trace, centered along 12°S, stretches across Indian Ocean, separating monsoon-dominated regime of N Indian Ocean from subtropical stratification to S)

Gordon, A.L. & J.L. McClean (1998)- Thermohaline stratification of the Indonesian seas: model and observations. J. Physical Oceanography 29, p. 198-216.
(Oceanographic models)

Gordon, A., J. Sprintal, H.M. Van Aken, D. Susantoa, S. Wijffels, R. Molcarde, A. Ffield, W. Pranowo & S. Wirasantosa (2010)- The Indonesian Throughflow during 2004–2006 as observed by the INSTANT program. Dynamics of Atmospheres and Oceans 50, 2, p. 115-128.
(online at: https://www2.atmos.umd.edu/~dwi/papers/gordon_dao2010.pdf)
(The 3-year mean Indonesian Throughflow transport into the Indian Ocean recorded by INSTANT program is ~30% greater than values of non-simultaneous measurements made prior to 2000)

Gordon, A.L., R.D. Susanto & A. Ffield (1999)- Throughflow within the Makassar Strait. Geophysical Research Letters 26, 21, p. 3325-3328.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/1999GL002340)
(Velocity measurements in constriction in Makassar Straits near 3°S suggest average throughflow is 9.3 Sv. Throughflow within Makassar Strait can account for all of Pacific to Indian interocean transport)

Gordon, A.L., R.D. Susanto, A. Ffield, B.A. Huber, W. Pranowo & S. Wirasantosa (2008)- Makassar Strait throughflow, 2004 to 2006. Geophysical Research Letters 35, L24605, p. 1-5.

(online at: https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1029/2008GL036372)

Gordon, A.L., R.D. Susanto & K. Vranes (2003)- Cool Indonesian throughflow as a consequence of restricted surface layer flow. Nature 425, p. 824-828.
(online at: https://www.atmos.umd.edu/~dwi/papers/gordon_dwi_nature03.pdf)
Within Makassar Strait (primary pathway of Indonesian throughflow), flow far cooler than estimated earlier. During boreal winter monsoon, wind drives buoyant, low-salinity Java Sea surface water into S Makassar Strait, creating N-ward pressure gradient in surface layer of strait. This surface 'freshwater plug' inhibits warm surface water from Pacific Ocean from flowing S into Indian Ocean, leading to cooler Indian Ocean sea surface, which may weaken Asian monsoon. Summer wind reversal eliminates obstructing pressure gradient, by transferring more-saline Banda Sea surface water into S Makassar Strait)

Gourlan, A.T., L. Meynadier & C.J. Allegre (2008)- Tectonically driven changes in the Indian Ocean circulation over the last 25 Ma: Neodymium isotope evidence. Earth Planetary Science Letters 267, p. 353-364.
(Nd isotopic composition of Indian and Pacific Ocean cores for past 25 Ma reflect paleo-oceanography. Prior to 14 Ma broad passage between Indian and Pacific Oceans. Progressive closure of Indonesian gateway due to N movement of Australia and S-ward motion of Sunda block induced reorganization of paleoceanic circulation at ~14 Ma. Further reduced flux of Pacific water into Indian Ocean between 4- 2.5 Ma caused by final closure of Indonesian Gateway)

Hallberg, P.L., F. Schenk, K.A. Yamoah, X. Kuang & R.H. Smittenberg (2022)- Seasonal aridity in the Indo-Pacific Warm Pool during the Late Glacial driven by El Nino-like conditions. Climate of the Past 18, 7, p. 1655-1674.
(online at: https://cp.copernicus.org/articles/18/1655/2022/)
(Island SE Asia today is part of Indo-Pacific Warm Pool, an everwet humid region with world's largest tropical peat deposits. Most of this peat accumulated only recently, during Holocene, suggesting climate was drier and/or more seasonal during earlier times. During Last Glacial Maximum (LGM, 21 ka BP) colder, drier climate, with higher seasonality and likely expansion of savanna (and no peat). Late Glacial (14.7-11.7 ka BP) climate in Indonesian region transitional cool/dry/seosonal period before onset of warm Holocene (11.7- 0 ka))

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(Reconstruction of hydrological changes in Makassar Strait over last 14 kyr from Core SO217-18517 off Mahakam Delta (698 m water depth). Sea surface T based on Mg/Ca of Globigerinoides ruber, etc. provide evidence for increased precipitation during Bølling-Allerød (BA) and E Holocene, and for warmer/ more saline surface waters and decrease in Indonesian Throughflow during Younger Dryas (YD). Changes in Makassar Strait surface hydrology reflect S-ward displacement of Intertropical Convergence Zone)

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(Global Climate Modeling of effects of variations in Indonesian Throughflow. Throughflow generally warms Indian Ocean and cools the Pacific Ocean)

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(Climate models imaging response to changes in global climate with changes in rates of Indonesian Throughflow)

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(Timor Sea, productivity fluctuations over last 460 kyr strongly influenced by monsoonal wind patterns off NW Australia (23 and 19 kyr). Also modulated by sea level-related variations in intensity of Indonesian Throughflow (100 kyr))

Holbourn, A., W. Kuhnt & J. Xu (2011)- Indonesian Throughflow variability during the last 140 ka: the Timor Sea outflow. In: R. Hall, M.A. Cottam & M.E.J. Wilson (eds.) The SE Asian gateway: history and tectonics of Australia-Asia collision, Geological Society, London, Special Publ. 355, p. 283-303.
(Steeper thermocline T gradient in Timor Strait than in E Indian Ocean during glacials, implying decrease in Indonesian Throughflow cool thermocline outflow. Major freshening and cooling of thermocline waters at ~9.5 ka, when sea level rose above critical threshold, allowing establishment of shallow marine connection from S China Sea to Java Sea)

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(Environmental variation in Banda Sea over past 820 ka from core MD012380 data. Magnetic spectral data show Milankovitch periods, especially eccentricity period (400-ka and 100-ka) after 420 ka, but before 420 ka obliquity (41-ka) and precession (23-ka and 19-ka) cycles. In Banda Sea main factor controlling variation of magnetic minerals fluctuation of Indonesian Throughflow intensity due to sea-level change)

Ilahude, A.G. & A.L. Gordon (1996)- Water masses of the Indonesian Seas Throughflow. Proc. Third International IOC-WESTPAC Scientific Symposium, Bali 1994, p. 572-587.

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(Makassar Straits carries bulk of Pacific water throughflow, consisting of North Pacific water (upper thermocline Smax) and North Pacific Intermediate Water (lower thermocline Smin). Relatively salty water of South Pacific origin in lower thermocline in Seram and S Moluccu seas, particularly in NW monsoon)

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(Ostracods in core from central part of Makassar Strait suggest warm water/ low oxygen water fauna and species diversity rapidly increased at ~12 ka, reaching maxima during Younger Dryas. Interpreted as response to stagnation of intermediate water due to decline in Inonesian Throughflow intensity. After ~7 ka, ostracod faunal

composition changed to deeper, colder and high oxygen fauna, responding to deglacial E Holocene sea-level rise. Etc.)

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(Partial closing of Indonesian Gateway between 4-3 Ma supposedly triggered switch in source of waters feeding Indonesian Throughflow into Indian Ocean from warm- salty S Pacific water to cool and relatively fresh N Pacific Ocean waters. Planktonic foraminifera suggest surface conditions in E tropical Indian Ocean rel. stable from 5.5- 2 Ma, but subsurface waters freshened and cooled by about 4°C between 3.5- 2.95 Ma. Restriction of Indonesian Gateway led to cooling and shoaling of thermocline in tropical Indian Ocean)

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(Planktonic foraminifera reflect Pliocene hydrography of W tropical Indian Ocean (Site 709C) and Leeuwin Current in E subtropical Indian Ocean (Site 763A) in response to Indonesian Gateway dynamics. Indonesian Throughflow and warm S-flowing Leeuwin Current off W Australia are essential for polar heat transport in Indian Ocean. During 3.5-3 Ma, sea surface T Leeuwin Current area 2-3°C cooler than rather unchanged sea surface T from tropical Indian Ocean, probably induced by tectonically reduced surface Throughflow)

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(Climatic conditions in W Timor Sea and adjacent NW Australia reconstructed for last 460 ka from IMAGES Core MD01-2378. Reduced precipitation and elevated productivity characterize glacial stages. Long-term reduction in precipitation over last 320 ka in two steps at ~300 ka and 180 ka BP. Paleoproductivity and paleoclimate appear to be related to precession-controlled Australian monsoon system)

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(Last Glacial Maximum was cool and dry over Indo-Pacific Warm Pool region. Pervasive aridity and reduced rainfall coincided with apparent increase in circulation intensity in IPWP)

Krebs, U., W. Park & B. Schneider (2011)- Pliocene aridification of Australia caused by tectonically induced weakening of the Indonesian throughflow. Palaeogeogr. Palaeoclim. Palaeoecology 309, p. 111-117.
(Climate model to test response of climate to E-M-Pliocene tectonic changes, which constricted and uplifted passages between New Guinea and Sulawesi. Associated changes in Indonesian throughflow influenced amount of heat transported from Pacific to Indian Ocean and contributed to Pliocene climate change of Indo-Pacific)

Kuenen, P.H. (1939)- Sediments of the East Indian Archipelago. In: P.D. Trask (ed.) Recent marine sediments: a symposium, AAPG/ Society for Sedimentary Geology (SEPM), Tulsa, Special Publ. 4, p. 348-355.
(Sediments of Indonesian Archipelago vary greatly in different areas. In shallow Java Sea relatively fine-grained and rich in volcanic debris on S side near Java, relatively coarse-grained and quartz-rich on N side near Borneo.

Deep water sediments generally low in carbonate, mainly due to relatively high % terrigenous debris. Calcium carbonate decreases with depth from ~50% in water <500m deep to <5% for water >5000m deep. Sediments of Kau Bay contain H_2S and FeS; also rich in organic matter and black in color, suggesting condition of stagnation in this bay (500m deep and shallow connection with sea)

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('The lime and organic content of Indies deep sea deposits')

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(Oxygen content of bottom water suggests currents ventilating Celebes Sea- Banda Sea deep-sea basins deflected by Coriolis force. N of equator the currents are forced to right, S of equator to left)

Kuenen, P.H. (1950)- Marine Geology. John Wiley, New York, p. 1-568.
(online at: https://ia800501.us.archive.org/23/items/marinegeology030411mbp/marinegeology030411mbp.pdf)
(General textbook on marine geology, with many examples from Indonesian waters, incl. Chapter 3, 'The Indonesian deep-sea depressions' (p. 175-209), and discussions of formation of coral reefs, ancient river courses on Sunda Shelf (Fig. 203), etc. ('Pre-plate tectonics' discussions of origins of seas and continents; Kuenen skeptical of Wegener's continental drift theory; JTvG))

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(online at: http://searg.rhul.ac.uk/pubs/kuhnt_etal_2004%20Neogene%20Indonesian%20throughflow.pdf)
(Early evolution of Indonesian Gateway characterized by tectonic restriction of deep water pathway between Pacific and Indian Oceans at ~25 Ma. By E Miocene already closed as deep water pathway)

Kusnida, D. (2009)- Occurrence of phillipsite mineral in sub-seafloor of Roo Rise- Indian Ocean: a tectonic erosion synthesis. Indonesian Mining J. 12, 1, p. 23-27.
(online at: http://jurnal.tekmira.esdm.go.id/index.php/imj/article/view/573/435)
(Phillipsite at 30-30.3m in core from Indian Ocean seafloor S of W Timor at 3884m water depth. Marks hiatus between Eocene and Late Miocene nannoplankton-rich marls, possibly related to volcanic activity)

Kuswardani, R.T.D. & F. Qiao (2014)- Influence of the Indonesian Throughflow on the upwelling off the east coast of South Java. Chinese Science Bull. 59, 33, p. 4516-4523.
(online at: https://www.sciengine.com/doi/10.1007/s11434-014-0549-2)
(Wave-tide-circulation model used to simulate upwelling off S coast of Java. Strongest vertical velocity at ~80m depth. Upwelling off W Java has seasonal variability, but steady and strong off E Java. Wind not dominant for upwelling off S part E Java. Indonesian Throughflow probably accounts for ~60% of E Java upwelling)

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(online at: https://ejournal.mgi.esdm.go.id/index.php/bomg/article/view/882/641)
(Reconstruction of sea surface temperature and salinity from core at two SONNE 217 sites in Makassar Straits, for Late Pleistocene interval from 25,000–18,000 years ago, in area of Indonesian Throughflow. Temperature during the LGM reach the minimum around ~20 ka BP and was ~2-3 °C lower than in Late Holocene)

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(online at: https://journals.ametsoc.org/doi/pdf/10.1175/1520-0485%282002%29032%3C1404%3 Etc.)
(Circulation modeling to investigate effects of Indonesian Throughflow on circulation and thermal structure of Pacific and Indian Oceans. Blockage of ITF cuts off heat transport from Pacific to Indian Ocean, causing overall warming deepening and shoaling of thermocline in tropical Pacific and cooling and shoaling of thermocline in S Indian Ocean)

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(Disappearance at ~10 Ma of Globoquadrina dehiscens from W Pacific and S China Sea, increase in warm-water species, decrease in deepwater species and evidence of sea surface warming and deepened local thermocline interpreted as early development of W Pacific warm pool. Late Miocene warm pool became paleobiologically detectable from ~10 Ma, but modern warm pool did not appear until ~4 Ma, in M Pliocene)

Li, Z., X. Shi, M.T. Chen, H. Wang, S. Liu, J. Xu, H. Long, R.A. Troa, R. Zuraida & E. Triarso (2016)- Late Quaternary fingerprints of precession and sea level variation over the past 35 kyr as revealed by sea surface temperature and upwelling records from the Indian Ocean near southernmost Sumatra. Quaternary International 425, p. 282-291.
(Paleoclimate reconstructions from core SO184-10043 offshore southernmost Sumatra, 2171m water depth)

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(online at: www-odp.tamu.edu/publications/124_SR/VOLUME/CHAPTERS/sr124_28.pdf)
(Sulu Sea ODP Sites 768 and 769 currently above carbonate compensation depth (4800 m), in deep marine silled basin. Pliocene- Pleistocene sediments with common pelagic material, but no pelagic carbonate before 2.4 Ma. Timing of increase in carbonate accumulation constrained by Gauss/Matuyama paleomagnetic reversal and coincides with onset of N Hemisphere glaciation at 2.4 Ma. Not clear if increase in carbonate accumulation at 2.4 Ma is due to productivity changes, preservation changes, or combination of two)

Linsley, B.K., Y. Rosenthal & D.W. Oppo (2010)- Holocene evolution of the Indonesian Throughflow and the western Pacific warm pool. Nature Geoscience 3, 8, p. 578-583.
(online at: https://marine.rutgers.edu/pubs/private/Holocene%20WPWP-ITF_N.Geo2010_w_SOM.pdf)
(Sediment cores from across Indonesian Throughflow area suggest that from ~10,000 to 7000 years ago, (Holocene Climate Optimum) sea surface T in western W Pacific warm pool ~0.5 °C higher than during pre-industrial times. About 9500 years ago, when South China and Indonesian seas connected by rising sea level, surface waters in Makassar Strait became relatively fresher)

Linsley, B.K., R.C. Thunell, C. Morgan & D.F. Williams (1985)- Oxygen minimum expansion in the Sulu Sea, western equatorial Pacific, during the last glacial low stand of sea level. Marine Micropaleontology 9, p. 395-418.
(Sulu Sea deep silled, dysaerobic basin, ventilated through single sill at 420m depth to China Sea. Increases in planktonic foraminifera Neogloboquadrina dutertrei and Ng. pachyderma and light d18 O values suggest reduced surface water salinities during last glacial maximum, with expansion of mid-water oxygen minimum layer and increased organic carbon preservation at mid-water depths at this time. Oridorsalis umbonatus dominant benthic foram species between water depths of 2000-4200m. Bolivina robusta found only in oxygen minimum zone at 1700 m and in zone of oxygen depletion in deep part of basin. Below 4000 m, bottom waters maintained some

degree of oxygenation during last glacial maximum. Radiolarians 3-8% of fauna at water depths <4000 m, gradually increasing in abundance to >50% below 4500 m)

Lowemark, L., C.H. Chen, C.A. Huh, T.Q. Lee, Y.P. Ku et al. (2004)- Biogenic reworking of tephra layers in the South China Sea (core MD972142) and the Celebes Sea (core MD012388). Berita Sedimentologi 19, p. 31-41.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/226)
(Discrete traces such as Scolicia, Thalassinoides and Zoophycos account for significant redistribution of material in tephra layers (10s of cm or more). Deep-reaching burrows may be serious threat to high-resolution stratigraphy)

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(Pollen-spores from 62 seafloor sediments of southern Sh China Sea dominated by trilete spores (from ferns). Most pollen and spores on Kalimantan Island coast from herbaceous plants and trees, with few trilete spores)

Martinez, J.I., P. De Deckker & T.T. Barrows (1999)- Palaeoceanography of the last glacial maximum in the eastern Indian Ocean: planktonic foraminiferal evidence. Palaeogeogr. Palaeoclim. Palaeoecology 147, p. 73-99.
(online at: https://www.academia.edu/16724209/Palaeoceanography_of_the_last_glacial_maximum_in_the_eastern_Indian_Ocean_planktonic_foraminiferal_evidence)
(Palaeoceanographic conditions in E Indian Ocean for the last ~30 kyr, from planktonic foraminiferal analyses. Increase during last glacial maximum (LGM) of foraminiferal fragmentation resulting from more productive Java upwelling system and/or more corrosive Antarctic Intermediate Water at intermediate water depths (~1000 m). During LGM decrease in % of shallow-dwelling and symbiont-bearing planktonic foraminifera, increase in % upwelling-related species (Globorotalia cultrata, Neogloboquadrina dutertrei), Etc.)

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(Simulated total Indonesian Throughflow (-13.4 Sv) is similar to observational estimate (-15.0 Sv) and distributed among three outflow passages (Lombok Strait, Ombai Strait and Timor Passage). Makassar Strait carries ~75% of observed total ITF inflow. Wide and shallow Java and Arafura Seas carry -0.8 Sv of inflow)

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Meyers, G., R. Bailey & A. Worby (1995)- Geostrophic transport of Indonesian throughflow. Deep Sea Research I, 42, 7, p. 1163-1174.
(Indonesian Throughflow measured for 6 years. Mean relative throughflow-transport 5 million m3/s. Maximum net relative transport to W between Australia and Indonesia is 12 Sv, in August/September. Amplitude and phase of annual signal vary considerably within Indonesian region

Middelburg, J.J., G.J. de Lange & R. Kreulen (1990)- Dolomite formation in anoxic sediments of Kau Bay, Indonesia. Geology (GSA) 18, 5, p. 399-402.
(Authigenic dolomite layers in organic matter-rich sediments of Kau Bay, Halmahera. Dolomite formation related to anaerobic decomposition of organic matter. Rate of dolomite formation controlled by supply of calcium and around few cm/ 1000 years)

Middelburg, J.J. (1991)- Organic carbon, sulphur, and iron in Recent semi- euxinic sediments of Kau Bay, Indonesia. Geochimica Cosmochimica Acta 55, 3, p. 815-828.

(Kau Bay in NE Halmahera, E Indonesia, is 470 m deep basin, separated from Pacific Ocean by sill at 40m below sea-level. During Weichselian time, sea-level dropped below sill depth and freshwater sediments were deposited, rich in organic matter with terrigenous isotope characteristics and also rich in sulfur)

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(Study of planktonic foraminifera in surface sediment samples from fore-arc basins in W and SW Indonesian Archipelago. Present-day oceanography and marine productivity reflected in tropical to subtropical and upwelling assemblages of planktonic foraminifera in surface sediments. Opal in surface sediments corresponds to upwelling-driven increased marine productivity)

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(online at: http://onlinelibrary.wiley.com/doi/10.1029/2011PA002132/pdf)
(Shell chemistry of planktic foraminifera in 69 seafloor samples in E Indian Ocean off W and S Indonesia)

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(online at: http://www.stuut.tv/Mohtadi_et_al_2011.pdf)
(Planktonic foraminiferal oxygen isotopes and faunal composition in sediments offshore S Java show glacial-interglacial variations in Australian-Indonesian winter monsoon in phase with Indian summer monsoon system. Australian-Indonesian summer and winter monsoon variability closely linked to summer insolation and abrupt climate changes in N hemisphere (on Indian Ocean side of volcanic arcs of Sumatra and Java, wetter conditions during Last Glacial Maximum compared to mid-Holocene. Indian Ocean was only moisture source during times of an emerged Sunda Shelf during glacials))

Mohtadi, M., M. Prange, E Schefuss & T.C. Jennerjahn (2017)- Late Holocene slowdown of the Indian Ocean Walker circulation. Nature Communications 8, 1015, p. 1-8.
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(Climate proxies in E Indian Ocean sediment cores off W and S Sumatra and S Java. During Last Glacial Maximum increased thermocline depth and rainfall, indicating stronger-than-today Walker circulation)

Mohtadi, M., S. Steinke, J. Groeneveld, H.G. Fink, T. Rixen, D. Hebbeln, B. Donner & B. Herunadi (2009)- Low-latitude control on seasonal and interannual changes in planktonic foraminiferal flux and shell geochemistry off south Java: a sediment trap study. Paleoceanography 24, 1, PA1201, p. 1-20.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/2008PA001636/epdf)
(Planktonic foraminifera primary production rates in Indian Ocean off S Java highest during SE monsoon-induced coastal upwelling period in July- October, with Globigerina bulloides, Neogloboquadrina pachyderma (d) and Globigerinita glutinata 40% of total fauna. Habitats of 0-30m for G. ruber (mixed layer depth); 60-80m for P. obliquiloculata and 60-90m for N. dutertrei (upper thermocline depth); and 90-150 m for G. menardii (lower thermocline depth))

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(Current meter moorings in 1992-1993 between Roti island and Ashmore Reef recorded mean Pacific water transport of 3.4-5.3 Sv (1 Sv = 106 m3/s) to Indian Ocean through Timor Passage. Unexpected deep flow toward Indian Ocean between 500- 1550m)

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Morey, S.L., J.F. Shriver & J.J. O'Brien (1999)- The effects of Halmahera on the Indonesian Throughflow. J. of Geophysical Research 104, C10, p. 23281-23296.
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(Development of West Pacific Warm Pool linked with restriction of surface water flow through Indonesian Seaway. Preliminary results suggest Seaway narrowed during Middle to Late Miocene, ~11.5- 8.5 Ma)

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Surachmat, A. (1999)- Salinity of the modern Mahakam Delta, East Kalimantan. Berita Sedimentologi 12, p. 14-16.
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(Indonesian Throughflow branch through S China Sea- Karimata Strait important role in Throughflow, despite rel. shallow depths)

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(online at: https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1029/2000GL011844)
(Upwelling along Java-Sumatra Indian Ocean coasts response to regional monsoon winds. Upwelling center with low sea surface T migrates W-ward and toward equator during SE monsoon (June-October), driven by alongshore winds and latitudinal changes in Coriolis parameter. Upwelling terminated due to reversal of winds at onset of NW monsoon. During El Nino episodes upwelling extends in time and space, when ITF carries colder water, shallowing thermocline depth (by 20-60m) and enhancing upwelling strength)

Susanto, R.D., Z. Wei, T.R. Adi, Q. Zheng, G. Fang, B. Fan, A. Supangat, T. Agustiadi, S. Li, M. Trenggono & A. Setiawan (2016)- Oceanography surrounding Krakatau Volcano in the Sunda Strait, Indonesia. Oceanography 29, 2, p. 264-272.
(online at: https://tos.org/oceanography/assets/docs/29-2_susanto.pdf)
(Sunda Strait current velocity strongly affected by seasonal monsoon winds. During boreal winter monsoon NW winds draw waters from Indian Ocean into Java Sea. During the summer monsoon higher T, lower-salinity, and lower-density waters from Java Sea exported to Indian Ocean through Sunda Strait)

Takahashi, K. & H. Okada (2000)- The paleoceanography for the last 30,000 years in the southeastern Indian Ocean by means of calcareous nannofossils. Marine Micropaleontology 40, p. 83-103.
(Latest Quaternary paleoceanography based on calcareous nannofossils from deep-sea cores along N-S transect between 12-25° S off W Australia. Java upwelling system operates above N site and increases counts of small placoliths)

Tan, S., L.J. Pratt, D. Yuan, X. Li, Z. Wang, Y. Li, C. Corvianawatie, D. Surinati, .A.S. Budiman & A. Bayhaq (2020)- Hydraulics and mixing of the Deep Overflow in the Lifamatola Passage of the Indonesian Seas. Oceanic Flow–Topography InteractionsAmerican Meteorological Society 60, p. 2797- 2814.
(online at: https://journals.ametsoc.org/view/journals/phoc/50/9/jpoD190326.xml)
(Hydrographic measurements along thalweg of the 2000m deep Lifamatola Passage between Maluku Sea and 5000m deep Seram Sea (part of eastern route of Indonesian Throughflow)

Talley, L.D. & J. Sprintall (2005)- Deep expression of the Indonesian Throughflow: Indonesian intermediate water in the South Equatorial Current. J. of Geophysical Research 110, C10009, p. 1-30.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2004JC002826)

Tillinger, D. (2010)- The Indonesian Throughflow of the last 50 years. Ph.D. Thesis Columbia University, Palisades, New York, p. 1-101.
(Indonesian Throughflow transports ~15 Sv (1 Sv = 1 million m3/sec) of relatively cool and low salinity water from tropical Pacific Ocean into Indian Ocean. 50-year time series of transport calculated))

Tillinger, D. (2011)- Physical oceanography of the present day Indonesian Throughflow. In: R. Hall, M.A. Cottam & M.E.J. Wilson (eds.) The SE Asian gateway: history and tectonics of Australia-Asia collision, Geological Society, London, Special Publ. 355, p. 267-281.
(online at: www.statisticstutors.com/articles/debrat-indonesian-throughflow.pdf)
(Indonesian Throughflow transfers ~15 Sv (1 Sv = Mm3/second) of relatively cool, fresh water from tropical Pacific Ocean to Indian Ocean. Flow freshens the Indian Ocean and transports heat between basins. Etc.)

Tillinger, D. & A. Gordon (2009)- Fifty years of the Indonesian Throughflow. J. of Climate 22, 23, p. 6342-6355.
(online at: http://journals.ametsoc.org/doi/pdf/10.1175/2009JCLI2981.1)

Tozuka, T., T. Qu & T. Yamagata (2007)- Dramatic impact of the South China Sea on the Indonesian Throughflow. Geophysical Research Letters 34, L12612, p. 1-5.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/2007GL030420/epdf)
(S China Sea throughflow may play important role in climate variability of Indo-Pacific region)

Tsuchi, R. (1997)- Marine climatic responses to Neogene tectonics of the Pacific Ocean seaways. Tectonophysics 281, p. 113-124.

Valsala, V. & S. Maksyutov (2010)- A short surface pathway of the subsurface Indonesian Throughflow water from the Java Coast associated with upwelling, Ekman transport, and subduction. Int. J. Oceanography 2010, 540783, p. 1-15.
(online at: https://www.hindawi.com/journals/ijocean/2010/540783/)
(Circulation modeling suggests Pacific-origin Indonesian Throughflow water can upwell from position below 100m to surface along S Java coast during upwelling season)

Van Aken, H.M., J. Punjanan & S. Saimima (1988)- Physical aspects of the flushing of the East Indonesian basins. In: J.E. van Hinte et al. (eds.) Proc. Snellius II Symposium, Jakarta 1987, Netherlands J. of Sea Research 22, p. 315-339.

Van Andel, T.H., G.R. Heath, T.C. Moore & D.F.R. McGeary (1967)- Late Quaternary history, climate, and oceanography of the Timor Sea northwestern Australia. American Journal of Science 265, p. 737-758.

(In late Quaternary climate in Timor Sea region more arid than adjacent land is today. Area mainly above sea level during last glaciation and covered by savanna vegetation. Subsequent transgression rapid. Supports Fairbridge contention that during glacial periods W-wind belts with associated rainfall displaced 5-10° N -ward and equatorial pluvial zone was compressed)

Van Riel, P.M. (1933-1959)- The Snellius Expedition in the eastern part of the Netherlands East-Indies 1929-1930. 6 vols. in 18 parts. E.J. Brill, Leiden.
(Results of the first oceanographic- zoological-geological 'Snellius expedition', 1929-1930 in E Indonesia)

Van Riel, P.M. (1934)- The bottom configuration in relation to the flow of the bottom water. The Snellius Expedition in the Eastern Part of the Netherlands East Indies 1929-1930, Vol II, 2, E.J. Brill, Leiden, p. 1-63.

Van Riel, P.M., J.P.H. Perks & F. Pinke (1937)- Scientific results of the Snellius- Expedition in the Eastern Part of the Netherlands East-Indies 1929-1930, Volume I, Chapters I-IV. E.J. Brill, Leiden, p. 1-178.
(overview volume online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB24:073713000:00006)
(Introduction and summaries of first Snellius oceanographic expedition to Indonesia, with expedition ship Willebrord Snellius. Four chapters: (I) Programme of Research and Preparations, (II) The expeditionary ship and the Naval Personnel's share, (III) The voyage in the Netherlands East-Indies, (IV) Investigations on shore)

Van Riel, P.M. (1938)- The influence of the bottom configuration on the properties of the sea water in the abyssal layers. Comptes Rendus Congres International de Geographie, Amsterdam 1938, Brill, Leiden, 2, Oceanographie, p. 18-26.
(online at: https://resolver.kb.nl/resolve?urn=MMKB06:000004273:pdf)
(Review of deep water circulation in Indonesian Archipelago, with its closed deep basins and troughs (mainly based on Snellius Expedition results. Deepest basin is Weber Deep (7440m). Bottom water of Pacific Ocean origin reaches as far S as the Savu Sea, via Morotai Basin, Ternate Trough, Bacan Basin, Buru Basin, Banda Sea and Wetar Basin)

Van Sebille, E., J. Sprintall, F.U. Schwarzkopf, A. Sen Gupta, A. Santoso, M.H. England, A. Biastoch & C.W. Boning (2014)- Pacific-to-Indian Ocean connectivity: Tasman leakage, Indonesian Throughflow, and the role of ENSO. J. of Geophysical Research: Oceans, 119, 2, p. 1365-1382.
(Circulation model)

Van Weering, T.C.E., D. Kusnida, S. Tjokrosapoetro, S. Lubis & P. Kridoharto (1989)- Slumping, sliding and the occurrence of acoustic voids in recent and subrecent sediments of the Savu Forearc Basin, Indonesia. In: J.E. van Hinte et al. (eds.) Proc. Snellius II Symposium, Jakarta 1987, Netherlands J. of Sea Research 24, 4, p. 415-430.
(High resolution seismic and acoustic profiles from Snellius-II Expedition in Savu Basin show widespread recent acoustic voids (transparent 'bright spots') that probably formed from local expulsion of pore-waters, caused by sediment mass movements down uplifted ridge between Sumba and Savu/Roti)

Verschell, M.A., J.C. Kindle & J.J. O'Brien (1995)- Effects of Indo-Pacific throughflow on the upper tropical Pacific and Indian Ocean. J. of Geophysical Research: Atmospheres, 100, C9, p. 18409-18420.
(Throughflow oceanography models)

Visser, K., R. Thunell & M.A. Goni (2004)- Glacial-interglacial organic carbon record from the Makassar Strait, Indonesia: implications for regional changes in continental vegetation. Quaternary Science Reviews 23, p. 17-27.
(Climate in W Pacific Warm Pool and other equatorial regions was colder by 3-4°C during glacial periods. Makassar Strait sediment core suggests vegetation on Borneo and surrounding islands did not change from tropical rainforest during last two Late Pleistocene glacial periods, supporting hypothesis that winter monsoon strengthened in glacial periods, allowing Indonesia to maintain high rainfall despite cooler conditions)

Visser, K., R. Thunell & L. Stott (2003)- Magnitude and timing of temperature change in the Indo-Pacific warm pool during deglaciation. Nature 421, 6919, p. 152-155.

(Oxygen isotopes and Mg/Ca ratios of Globigerinoides ruber shells from Makassar strait in Indo-Pacific warm poolyielde estimates of sea surface temperatures and ice volume. Sea surface T increased by 3.5-4.0 °C during last two glacial-interglacial transitions, synchronous with global increase in atmospheric CO_2 and Antarctic warming, but T increase ~2000-3000 years before N Hemisphere ice sheets melted. Tropical Pacific region plays important role in driving glacial-interglacial cycles)

Vranes, K., A.L. Gordon & A. Field (2002)- The heat transport of the Indonesian Throughflow and implications for the Indian Ocean heat budget. Deep Sea Research II, 49, p. 1391-1410.

Vranes, K. & A.L. Gordon (2005)- Comparison of Indonesian throughflow transport observations, Makassar Strait to Eastern Indian Ocean. Geophysical Research Letters 32, 10, L10606, p. 1-5.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2004GL022158)

Wajsowicz, R.C., A.L. Gordon, A. Ffield & R.D. Susanto (2003)- Estimating transport in Makassar Strait. Deep Sea Research II, 50, 12-13, p. 2163-2181.
(Current meters in Labani channel in 1996-1998 show mean N-ward flow at depths below ~800m and S-ward above that)

Wang, P. (1999)- Response of Western Pacific marginal seas to glacial cycles: paleoceanographic and sedimentological features. Marine Geology 127, p. 5-39.
(On Late Quaternary in five NE Pacific marginal seas, from Bering Sea to Banda Sea. During glacial cycles reorganization of sea water circulation in basins. Decrease of sea area and sea surface temperature in marginal seas lead enhanced aridity of inland China during glaciation)

Wang, P., L. Wang, Y. Bian & Z. Jian (1995)- Late Quaternary paleoceanography of the South China Sea: surface circulation and carbonate cycles. Marine Geology 127, p. 145-165.

Waworuntu, J.M. (1999)- Water mass transformations and throughflow variability in the Indonesian seas. Ph.D. Thesis University of Miami, Coral Gables, p. 1-98.

Waworuntu, J.M., R.A. Fine, D.B. Olson & A.L. Gordon (2000)- Recipe for Banda Sea water. J. Marine Research 58, p. 547-569.
(Water from W Pacific flows through Indonesian Seas following different pathways and is modified by various processes to form uniquely isohaline (34.6) Banda Sea Water)

Waworuntu, J.M., S.L. Garzoli & D.B. Olson (2001)- Dynamics of Makassar Strait. J. Marine Research 59, p. 313-325.
(online at: www.aoml.noaa.gov/phod/docs/garzoli_jmr_2001.pdf)
(Throughflow in Makassar Strait requires at least 3-layer description: upper 200 m water mass characterized by the salinity maximum of North Pacific SubtropicalWater; water in layer 2 is North Pacific Intermediate Water salinity minimum (~300m); bottom layer ~1600m)

Weber, M. (1902)- Siboga expeditie- Introduction et description de l'expedition. Uitkomsten op zoologisch, botanisch, oceanographisch en geologisch gebied, verzameld in Nederlandsch Oost-Indie 1899-1900, Monograph 1, Brill, Leiden, p. 1-152.
('Introduction and description of the Siboga expedition 1899-1900'. First of many volumes on results of the zoological, botanical, oceanographic and geological studies in E Indonesia waters and islands by members of the Siboga Expedition. Geological results reported by Wichmann (1925))

Wei, J., M.T. Li, P. Malanotte-Rizzoli, A.L. Gordon & D.X. Wang (2016)- Opposite variability of Indonesian Throughflow and South China Sea Throughflow in the Sulawesi Sea. J. Physical Oceanography 46, p. 3165-3180.
(online at: https://journals.ametsoc.org/doi/pdf/10.1175/JPO-D-16-0132.1)

Wetzel, A. (1983)- Biogenic structures in modern slope to deep-sea sediments in the Sulu Sea Basin (Philippines). Palaeogeogr. Palaeoclim. Palaeoecology 42, p. 285-304.
(On biogenic structures and depth zonation in 23 cores taken by RV Valdivia from 1000- 5000m water depth, Sulu Sea. Slope- rise sediments down to 3800m almost totally bioturbated, with 8 types of traces: common Helminthopsis, Planolites, Thalassinoides, less common Chondrites, Scolicia, Skolithos, Trichichnus and Zoophycos. Abyssal plain deposits below 4400m less bioturbated (20% or less of sediment burrowed). Increase of trace diversity by small traces, dominated by Muensteria, 'mycellia' and Phycosiphon. Traces typical of many turbidite sequences ('graphoglyptids') absent)

Wetzel, A. (2002)- Modern *Nereites* in the South China Sea- ecological association with redox conditions in the sediment. Palaios 17, p. 507-515.
(Nereites trace fossil ichnofabrics in box cores from >4000m water depths in central S China Sea. Appear to be restricted to oxygenated sediments above redox boundary)

Wijffels, S.E., G. Meyers & J.S. Godfrey (2008)- A 20-yr average of the Indonesian Throughflow: regional currents and the interbasin exchange. J. Physical Oceanography 38, p. 1965-1978.
(online at: https://journals.ametsoc.org/doi/pdf/10.1175/2008JPO3987.1)

Wyrtki, K. (1957)- Die Zirkulation an der Oberflache der Südostasiatischen Gewasser. Deutsche Hydrographische Zeitschrift 10, 1, p. 1-13.
('The circulation at the surface of SE Asian waters'. The currents at the surface of SE Asian waters correlated with monsoons. With six charts for every second month)

Wyrtki, K. (1958)- The water exchange between the Pacific and the Indian Oceans in relation to upwelling processes. Proc. 9th Pacific Science Congress 16, Oceanography, p. 61-65.

Wyrtki, K. (1961)- Physical oceanography of the Southeast Asian waters. Scientific Reports of marine investigations of the South China Sea and the Gulf of Thailand, NAGA Report 2, Scripps Inst. Oceanography, University of California Press, San Diego, p. 1-195.
(Classic NAGA 2 review of oceanography of Indonesian waters. With maps of seasonal surface currents, salinity, oxygen, temperature, tidal types and amplitudes, etc.)

Wyrtki, K. (1962)- The upwelling in the region between Java and Australia during the south-east monsoon. Australian J. Marine Freshwater Res. 13, 3, p. 217-225.
(online at: www.publish.csiro.au.ezproxy.lib.monash.edu.au/?act=view_file&file_id=MF9620217.pdf)
(During SE monsoon season main upwelling area is along coast of Java and Sumbawa, not along NW Australian shelf. Region characterized by high inorganic phosphate at bottom of the euphotic layer and high plankton biomass. Transparency of water in upwelling area is low, indicating high suspended matter)

Wyrtki, K. (1987)- Indonesian throughflow and the associated pressure gradient. J. of Geophysical Research 92, p. 12941-12946.
(online at: ftp://mananui.soest.hawaii.edu/pub/rlukas/Klaus/papers/Wyrtki%201987%20JGR.pdf)
(Flow of water from W Pacific to E Indian Ocean through Indonesian archipelago governed by strong pressure gradient. Average sea level difference 16 cm and most of pressure gradient contained in upper 200m. Annual maximum during SE monsoon in July- August and minimum in January-February)

Xu, Y., L. Wang, X. Yin, X. Ye, D. Li, S. Liu, X. Shi, R.A. Troa, R. Zuraida, E.Triarso & M. Hendrizan (2017)- The influence of the Sunda Strait opening on paleoenvironmental changes in the eastern Indian Ocean. J. Asian Earth Sciences 146, p. 402-411.
(With E Holocene sea level rise warm and low-salinity sea water from Java Sea was transported into E Indian Ocean after opening of Sunda Strait. Core CJ01-185 (1538m water depth) in E Indian Ocean off Sunda Strait sediments derived mainy from Java Island. Sedimentation rate increased from last glacial period to Holocene. Additional terrigenous nutrients from Java Sea induced paleoproductivity with higher TOC and TN concentrations after opening of Sunda Strait)

Yin, S., F.J. Hernandez-Molina, L. Lin, J. Chen, W. Ding & J. Li (2022)- Isolation of the South China Sea from the North Pacifc Subtropical Gyre since the latest Miocene due to formation of the Luzon Strait. Nature Scientific Reports 11, 1562, p. 1-10.
(online at: https://www.nature.com/articles/s41598-020-79941-4.pdf)
(Study of contourites show vigorous N Pacifc subtropical gyre circulation through S China Sea until Late Miocene, then major shift in NPSG in latest Miocene (~6.5 Ma) due to restriction of S China Sea from N Pacifc due to formation of Luzon Strait as consequence of NW movement of Philippine Sea plate)

Yuliyanti, A., H. Permana, I. Setiawan, H. Nurohman & S.P. Saputro (2022)- Geochemistry of seafloor surface sediment and submarine hydrothermal signature of Tomini Bay, Indonesia. Australian J. Earth Sciences, p. 1-12.
(Seafloor sediment samples from Tomini Bay enriched in Na, P, S, Ca, Ni, Sr, and Ba, mainly from terrigenous source. Elevated concentrations of Mg, S, Cr, Co and Ni at one site suggest contribution from mafic terrigenous source. Manganese-rich sediment layer provides evidence for submarine hydrothermal activity)

Xu, J. (2014)- Change of Indonesian Throughflow outflow in response to East Asian Monsoon and ENSO activities since the Last Glacial. Science China: Earth Sciences 57, p. 791-801.

Zhang, P., R. Zuraida, J. Xu & C. Yang (2016)- Stable carbon and oxygen isotopes of four planktonic foraminiferal species from core-top sediments of the Indonesian Throughflow region and their significance. Acta Oceanologica Sinica 35, 10, p. 63-76.
(Horizontal and vertical distributions of δ18O and δ13C investigated in Globigerinoides ruber, Gs sacculifer, Pulleniatina obliquiloculata and Neogloboquadrina dutertrei, from 62 core-top samples from Indonesian Throughflow region. In Makassar Strait depleted δ18O and δ13C linked to freshwater input. In Bali Sea depleted δ18O result of freshwater input, while depleted δ13C more likely due to Java-Sumatra upwelling. G. ruber and G. sacculifer calcify within mixed-layer, respectively at 0-50 m and 20-75 m water depth, and P. obliquiloculata and N. dutertrei within upper thermocline at 75-125 m water depth)

Zuvela-Aloise, M. (2005)- Modelling of the Indonesian Throughflow on glacial-interglacial time-scales. Doct. Thesis Christian-Albrechts Universitat Kiel, p. 1-185.
(online at: http://d-nb.info/980884292/34)
(Model used to simulate circulation through the Indonesian Gateways. Lowering of glacial sea level of 120m not sufficient to severely block flow within Makassar Strait as main passage of Throughflow. Reduction in sill depth and absence of low buoyancy surface waters due to exposure of shelf area led to intensification of surface flow within Makassar Strait)

X.3. SE Asia- Modern carbonate environments, Coral Reefs, Cenozoic carbonates

Papers in this chapter on coral reefs and Cenozoic carbonates are of a more general nature. Numerous additional papers on specific localities may found under the areas. It includes references to reefs and Cenozoic carbonates from 'Circum-Indonesia' (North Australia, PNG, SW Pacific, Philippines, South China Sea, etc.), which all share characteristics with examples from Indonesia.

Akbar, M., B. Vissapragada, A.H. Alghamdi, D. Allen, M. Herron et al. (2001)- A snapshot of carbonate reservoir evaluation. Oilfield Review, Schlumberger, Winter 2000/2001, p. 20-41.
(online at: www.slb.com/~/media/Files/resources/oilfield_review/ors00/win00/p20_41.ashx)
(Reservoir evaluation paper with example of M Miocene buildup in Sibolga basin, off NW Sumatra, with unsuccessful 1997 well due to lack of internal seals and late top seal preventing capture of early biogenic gas)

Alcock, A. (1902)- Report on the deep-sea Madreporaria of the Siboga Expedition. Siboga Expeditie Monograph 16a, Brill, Leiden, p. 1-51.
(online at: www.archive.org/details/sibogaexpeditie07sibo)
(Descriptions of 75 species of modern, mainly solitary deep-sea corals from East Indonesia, collected during Siboga Expedition 1899-1900, incl. Caryophyllia, Dendrophyllia, Coenopsammia, etc)

Amir, S., H. Tsegab, G.J. Soto & A.I. Azman (2022)- Facies mapping of the Holocene carbonate complexes in Kepulauan Seribu Java Basin, Indonesia using satellite-derived data set. Pertanika J. Science Technology 30, 3, p. 2253-2270.
(online at: http://www.pertanika.upm.edu.my/resources/files/Pertanika%20PAPERS/JST%20Vol.%203 Etc.)
(Satellite image mapping of modern carbonate sub-environments in Thousand Islands patch reefs complex, Jakarta Bay/Java Sea: reef sand apron, subtidal reef margin, and shallower subtidal lagoon. Bidirectional monsoon winds caused E-W orientations of individual reefs. Islands in S part of complex include larger platforms, with lagoons less <3 m deep and larger reef sand aprons; N part of archipelago reefs smaller with no lagoon formation. Etc. (see also earlier 'classic' works on this modern reef complex by Scrutton (1976), Jordan (1998) and Park (1992, 2003), also Utami (2021), Jambak et al. (2022), etc.)

Ashton, P.R. (1981)- Estimating potential reserves in Southeast Asian Neogene reefs. Proceedings Seminar Assessment of undiscovered oil and gas, Kuala Lumpur 1980, UN ESCAP CCOP, Technical Publication 10, p. 244-259.

Azmy, K., E. Edinger, J. Lundberg & W. Diegor (2010)- Sea level and paleotemperature records from a mid-Holocene reef on the North coast of Java, Indonesia. Int. J. Earth Sciences (Geologische Rundschau) 99, p. 231-244.
(Mid-Holocene fossil fringing reefs at Point Teluk Awur, near Jepara, N coast of C Java, contains two horizons of Porites lobata microatolls. Age of corals in lower horizon, 80 cm above sea level, ~7000 yr BP, upper horizon at 1.5m, ~6960 ± 60 yr BP, matching transgressive phase of regional sea-level curves)

Bak, R.P.M. & G.D.E. Hovel (1989)- Ecological variables, including physiognomic structural attributes, and classification of Indonesian coral reefs. In: J.E. van Hinte et al. (eds.) Proc. Snellius II Symposium, Jakarta 1987, Netherlands J. of Sea Research 23, 2, p. 95-106.
(Measured transects across 30+ seaward facing modern coral reef slopes in E Indonesia (results not clear?))

Bal, A.A., R. Bray & R. Sigit (2012)- Hydrothermally enhanced fractured reservoirs- a new play? Petroleum Geoscience Conference Exhib. PCGE 2012, Kuala Lumpur 2012, p. 1-3. *(Extended Abstract)*
(online at: http://geology.um.edu.my/gsmpublic/PGCE2012/)
(With exception of Nang Nuan (Gulf of Thailand karst buried hill) and some references to fractured granites in Vietnam, hydrothermally altered hydrocarbon reservoirs largely unreported in SE Asia. Hydrothermal fluids may create higher porosities than expected, not necessarily associated with unconformities)

Bassi, D., J.H. Nebelsick, A. Checconi, J. Hohenegger & Y. Iryu (2009)- Present-day and fossil rhodolith pavements compared: their potential for analysing shallow-water carbonate deposits. Sedimentary Geology 214, p. 74-84.
(Review of rhodoliths (algal nodules consisting predominantly of coralline algae) and sediments formed by these unattached coralline algae, called rhodolith pavements. Includes study of Recent 'rhodolith pavement' off Sesoko-jima (S Japan), at depths of 50-70 m on submarine terrace)

Bellwood, D.R., T.P. Hughes, S.R. Connolly & J. Tanner (2005)- Environmental and geometric constraints on Indo-Pacific coral reef biodiversity. Ecology Letters 8, 6, p. 643-651.
(Discussion of coral species richness patterns in Indo-Australian archipelago coral reef biodiversity 'hotspot')

Bernecker, M. (2005)- Late Triassic reefs from the Northwest and South Tethys: distribution, setting, and biotic composition. Facies 51, p. 442-453.
(Ladinian and Carnian increasing expansion of reefs. Optimum reef diversity and frequency in Norian, as sponge and coral reefs associated with development of carbonate platforms. Not much on SE Asia)

Betzler, C. (1997)- Ecological control on geometries of carbonate platforms: Miocene/Pliocene shallow-water microfaunas and carbonate biofacies from the Queensland Plateau (NE Australia). Facies 37, p. 147-166.
(Miocene and Pliocene of ODP Leg 133 sites record biofacies evolution prior and during the partial drowning of Queensland Plateau carbonate platform. M Miocene depositional geometry is carbonate bank with a well-defined rim and flank. Late Miocene- E Pliocene carbonate ramps, rich in large benthic forams. Reconstruction of Tortonian- Messinian relative sea level curve shows rise punctuated by four falls. Lepidocyclina (N.) rutteni described from Australian faunal province for first time)

Betzler, C., T.C. Brachert & D. Kroon (1995)- Role of climate for partial drowning of the Queensland Plateau carbonate platform (northeastern Australia). Marine Geology 123, p. 11-32.
(Late Miocene- E Pliocene partial drowning of Queensland Plateau carbonate platform off NE Australia. Modern plateau mosaic of pinnacle reefs and larger reefs representing relicts of E-M Miocene buildups. Late Miocene rich in larger forams Lepidocyclina and Cycloclypeus show Pliocene partial drowning of platform preceded by 4 Myr of neritic carbonate deposition without any reefs. Low surface water temperatures (17°-19°C) major factor which suppressed reef growth during Late Miocene- E Pliocene)

Betzler, C. & G.C.H. Chaproniere (1993)- Paleogene and Neogene larger foraminifers from the Queensland Plateau: biostratigraphy and environmental significance. In: J.A. McKenzie, P.J. Davies et al. (eds.) Proc. Ocean Drilling Program (ODP), Scientific Results 133, p. 51-66.
(Leg 133 Queensland Plateau ODP site sites with Eocene (Nummulites, Discocyclina) and Late Oligocene- M Miocene larger foram facies)

Boekschoten, G.J., M. Borel Best, A. Oosterbaan & F.M. Molenkamp (1989)- Past corals and Recent reefs in Indonesia. Proc. Snellius II Symposium, Jakarta 1987, Netherlands J. of Sea Research 23, 2, p. 117-122.
(Snellius-II Expedition collections of Lower Pliocene corals near Salayer and Quaternary reefs on Ambon and Sumba and compared with Pliocene of Nias. Absence of Acropora and Montipora from Quaternary coral faunae (common in Pliocene and modern reefs) may reflect disturbance by Pleistocene sea level fluctuations)

Boekschoten, G.J., M.B. Best & K.S. Putra (2000)- Balinese reefs in historical context. In: K.S.Moosa et al. (eds.) Proc. 9th International Coral Reef Symposium, Bali 2000, 1, p. 321-324.
(online at: www.reefbase.org/resource_center/publication/pub_14767.aspx)
(Oldest reefs of Bali developed on top of Neogene pillow lava flows, but barely preserved. Parts of early and late Pleistocene reefs on Bukit Peninsula in S Bali. Holocene post-glacial reefs developed along limestone cliffs and denuded volcanic hardnecks; on lava outflows; and on residual boulder coasts)

Boichard, R., P.F. Burollet, B. Lambert & J.M. Villain (1985)- La plate-forme carbonate du Pater Noster, Est de Kalimantan (Indonesie), etude sedimentologique et ecologique. TOTAL Compagnie Francaise du Petrole, Notes et Memoires 20, p. 3-101.

('The carbonate platform of Paternoster, East of Kalimantan'. Well-documented sedimentological- ecological study by TOTAL personnel of Recent sediments on marine platform bordering SW Makassar Straits deepwater and its coral reef islands. All bottom samples are m-c grained carbonate sands. On reef islands mainly fragments of corals, algae and foraminifera, between reef complexes mainly benthic foraminifera. In some sheltered lows abundant Halimeda algae. On E slope of platform common planktonic foraminifera, coccoliths and glauconite)

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(350 species of living corals in E Indonesia)

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(East Indonesia has the richest coral reef faunas in the world (other rich areas are Philippines and Great Barrier Reef of NE Australia). During 1984 Snellius-II Expedition ~350 species/75 genera of scleractinian corals were collected from 9 coral reef areas between Sulawesi-Sumba-Seram. Most reefs differ greatly from one another)

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(Eight types of carbonate platform recognized, based on basinal and tectonic setting: Fault-Block, Salt Diapir, Subsiding Margin, Offshore Bank, Volcanic Pedestal, Thrust-Top, Delta-Top and Foreland Margin platforms)

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('The high energy carbonate platforms with rhodoliths and the climatic crisis of the Mio-Pliocene transition in the Pacific area'. Large Middle and Late Miocene carbonate platforms built on volcanic remains in W and SW Pacific. In rhodolith facies, without corals, probably related to colder climate interval (?). Warming around Mio-Pliocene boundary allowed resettlement of corals)

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(Rhodolites over wide areas of tropical Pacific dated as M Miocene. They are preceded in E Miocene and succeeded in Late Miocene by hermatypic coral deposits. Possible causes of facies change: sea-level rise drowning reefs, drop of winter surface water temperature and increase in fertility of surface waters inhibiting compensatory growth of hermatypic corals until sea-level fall restored original conditions of deposition)

Braga, J.C. (2011)- Fossil coralline algae. In: D. Hopley (ed.) Encyclopedia of modern coral reefs; structure form and process, Springer Verlag, Dordrecht, p. 423-426.
(Depth zonation of coralline algae in Quaternary Pacific reefs three zones: (1) Shallow coral reef (0-5/20m): coralline algae encrusting corals (Hydrolithon, Neogoniolithon); (2) Intermediate fore-reef slope (15/20-50/60m): coralline algae as rhodoliths (Mesophyllum, Lithophyllum); (3) Deep fore-reef slope (50/60- 120m): coralline algae as nodules in carbonate sands or crusts on hard substrates, frequently intergrown with encrusting foraminifera (Lithothamnium, Mesophyllum, Sporolithon, Peyssonnellia))

Braithwaite, C.J.R. & L.F. Montaggione (2009)- The Great Barrier Reef: a 700 000 year diagenetic history. Sedimentology 56, p. 1591-1622.
(Variety of carbonate cements identified in deep borehoe through Ribbon Reef 5, off NE Australia)

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(Study of 155 species of M Miocene- E Pleistocene reef coral communities from Indonesia (Salayar, S Sulawesi), PNG (New Britain) and Fiji. Coral communities vary with global sea level and time. 41.8% of species in M

Miocene in New Britain now extinct. Study supports previously proposed models of E Pliocene turnover event in Scleractinia in Indo-Pacific)

Bromfield, K. & J.M. Pandolfi (2011)- Regional patterns of evolutionary turnover in Neogene coral reefs from the central Indo-West Pacific Ocean. Evolut. Ecology, May 2011, p. 1-17.
(Neogene origination and extinction patterns from Indonesia (Salayar Island; 5.8-1.4 Ma), New Britain and Fiji. Two faunal turnover events: (1) increase in Scleractinia diversity during M Miocene (17-14 Ma), coinciding with large-scale sea level fluctuations and M Miocene collision event, possibly facilitated by habitat fragmentation associated with tectonism and sea level fall (2) lowering of diversity throughout Late Miocene-Pliocene (7-3 Ma), followed by pulse of extinction at Pliocene-Pleistocene boundary (~2.6 Ma))

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(Many islands in E Indonesia covered with Plio-Pleistocene fringing reefs, on some islands elevated recently up to 1300m above s.l. Highest reef caps are not necessarily oldest if uplift not uniform)

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(online at: https://www.researchgate.net/publication/279403911_Coral_reefs_of_the_Andaman_Sea_-_An_integrated_perspective)
(Review of the common and often diverse coral reefs in the Andaman Sea region. Fringing reefs abundant in Andaman and Nicobar Islands, Mergui Archipelago (Myanmar), west coasts of Thailand and Malaysia, and NW Sumatra. Most have never been visited by scientists)

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(Development of New Caledonia barrier reef result of interplay between margin subsidence and sea-level changes. Major W shelf-margin building appears to have started during MIS 11 (400 ka) from shallow-water carbonate platform deposits older than 780 ka. Climatic conditions likely not optimal before late Quaternary, resulting in luxuriant reef expansion only in last 400,000 yrs)

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(Short version of more extensive paper on the subject by Carnell & Wilson (2004))

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(online at: http://searg.rhul.ac.uk/pubs/carnell_2004%20Dolomites%20in%20SE%20Asia.pdf)
(Diagenetic dolomite present in Paleozoic, Triassic, Paleogene and Neogene carbonates in SE Asia. Pre-Tertiary carbonates form part of economic basement; most not considered to form economic prospects. Manusela Lst of Seram viewed as E-M Jurassic (should be Late Triassic?; JTvG), Dolomitic Tampur Lst of N Sumatra viewed as Eocene (but could be Permian?; JTvG))

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(Satellite imagery analysis of 7 modern carbonate platforms E of Sabah, combined with 140 sediment samples. Mudstone to wackestone mainly in deep lagoon; wackestone to packstone dominant in shallow lagoon. Carbonate sand shoal packstone- grainstone. Reef complex boundstone- rudstone)

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(NW Shelf is modern tropical ramp, underlain by Cretaceous-Tertiary carbonates. Late Tertiary-Quaternary, fringing to isolated coral reefs rise from deep-ramp settings. Scott Reef is isolated reef formed mainly during Last Interglacial (~125 ka). Other reefs that apparently grew to sea level are now 30m below present sea level, indicating significant subsidence in Late Quaternary. Contemporary reefs grew during Holocene in accommodation space provided by subsidence and are up to 35m thick. Rowley Shoals emergent annular reefs rise from depths of 200-400 m. Possible spatial association between reef systems and hydrocarbon seeps)

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(Scott Reef is small carbonate platform located in distal ramp setting on Australia NW Shelf. Rising from depths of 400-700 m. Composed of two large isolated coral reefs. Present-day reef morphology developed mainly in Holocene. Developed over Late Triassic anticline; area probably above sea level from Permian- Late Jurassic)

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(Also revised second and third editions in 1874, 1889) (Classic pioneering study by British naturalist Charles Darwin on global distribution of coral reefs, including some of the first descriptions of the extent of reef building in eastern Indian Ocean, Indonesian archipelago, etc.)

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(Carbonate platforms of NE Australia (Great Barrier Reef, Queensland, Marion and Eastern Plateaus S of PNG) contain record complex interactions over past 60 My. Size, shape, and location of carbonate platforms determined by continental rifting. N-ward plate movement controlled distribution of climate facies in Great Barrier Reef sequence. Rising and high sea-level periods favored increased carbonate deposition, falling low sea-levels restricted carbonate deposition. Oceanographic factors affected platform evolution, e.g., inhibition of reef development by high oceanic-phosphate levels during E-M Miocene. Development of foreland basin on N edge of NE Australian region initially caused dramatic expansion of carbonate facies, but ultimately terminated carbonate deposition as result of uplift and inundation by clastic detritus)

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(Modern coral barrier reefs extend along edges of some low-latitude siliciclastic shelves for 10's-1000's of km (Great Barrier Reef, NE Australia). Onset of rapid sea-level rise during early deglaciations was opportune time for coralgal communities establishment on top of maximum lowstand siliciclastic coastal deposits (beach ridges, lowstand shelf-edge deltas). Most modern barrier reefs relatively thin (~120m), late-Quaternary deposits, dating from mid Brunhes (~400 ky?) to Recent, composed of 4-5 stacked coralgal units, separated by exposure horizons (reflecting 100,000-year glacial-interglacial cycles) and covering older nonreefal, often siliciclastic deposits. Includes examples from Gulf of Papua)

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(N and S Marion Platforms off NE Australia studied by ODP 194 wells and seismic. Built by cool, subtropical faunal assemblages and asymmetric geometry. Four megasequences subdivided into 14 sequences. E-M Miocene sequences are prograding and aggrading sequences. From late M Miocene, mounded geometries in basinal area where large drift deposits accumulated. Two most prominent sequences boundaries are drowning unconformities, at 11.1 Ma (N) and ~7 Ma (S Marion Platform). Timing of many Neogene sequence boundaries coincides with boundaries on Queensland Plateau (ODP Leg 133) and along Bahamas Transect (ODP Leg 166), suggesting global synchroneity of Neogene 3rd order sea-level changes)

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(Pollution damage measured in surveys of 8 Java Sea reefs and 8 reefs in Ambon and Sulawesi. Reefs subject to land-based pollution 30-60% less diverse at 3-10m depth. Polluted reefs dominated by massive and submassive corals, and have almost no Acropora corals. Unpolluted reefs dominated by Acropora at 3m and by branching or foliose corals at 10m)

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(Analyses of porosity and permeability in two Miocene carbonate platforms cored by ODP Leg 194, seaward of Great Barrier Reef, at N Marion Platform mostly preserved as limestone) and S Marion Platform (mostly dolomitized))

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(Porosity-permeability analyses of Early- Late Miocene platform and deep water carbonates cored on Marion Plateau. Platforms experienced widely varying calcite cementation, dolomitization and dissolution but little evidence of meteoric diagenesis, suggesting subaerial exposure played little role in porosity-permeability evolution. Permeability controlled by grain size and calcite cement content in grainstones and shelter pores and vugs in mud-rich samples. Dolomitization reduces permeability variation. 'Windward' (current-facing) settings overall higher permeability (less muddy depositional facies, greater cementation, and lesser grain dissolution))

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(Sr-isotope stratigraphy used to determine timing of depositional events and dolomitization in two Miocene carbonate platforms cored by ODP Leg 194, seaward of Great Barrier Reef. Initial transgression of Marion Plateau volcanic basement E Oligocene (29-31 Ma). Main growth of carbonate platforms in Miocene (23-7 Ma), with five depositional sequences. Both platform-demise events (10.7 and 6.9 Ma) coincide with falls in global sea level combined with decreasing water temperature)

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(Oxygen isotope data from DSDP holes in SW Pacific used to compile paleotemperature curve for Cenozoic of offshore NE Australia (Great Barrier Reef area): subtropical in Paleo-Eocene and Miocene, temperate in Oligocene, tropical in Pliocene- Recent. Reflects interaction between paleoclimate and N-ward motion of Australian plate)

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Flamand, B., G. Cabioch, C. Payri & B. Pelletier (2008)- Nature and biological composition of the New Caledonian outer barrier reef slopes. Marine Geology 250, p. 157-179.
(Grande Terre island of New Caledonia enclosed by one of longest barrier reefs in world. Forereef slopes from 40- 320m depth with 7 sedimentary facies. From upper reef slopes to ~90m thick coralline algal crusts dominant. Three groups: (C), shallowest, mainly mastophorids (Hydrolithon, Lithoporella, Neogoniolithon) and Lithophyllum); (B) Lithophyllum spp, Mesophyllum and Peyssonnelia from 15-40m; (A) rich in Mesophyllum,

Peyssonnelia, Sporolithon on deep reef slopes up to 90m. Below ~90m encrusting foraminifera acervulinids progressively replace coralline algal crusts)

Flugel, E. (1988)- *Halimeda*: paleontological record and palaeoenvironmental significance. Coral Reefs 6, p. 123-130.
(Halimediform algae in carbonate rocks since U Triassic. Some 30 species described, in four 'genera'. Recent Halimeda in lagoonal and reefal environments. Reinvestigation of Boueina limestones from Norian-Rhaetian lagoonal carbonates of W Thailand indicates important role of alga (up to 60% Boueina marondei n. sp.) in sediment accumulation since Late Triassic)

Flugel, E. (1982)- Evolution of Triassic reefs: current concepts and problems. Facies 6, p. 297-327.
(Norian and Rhaetian reefs known from many parts of the Tethys, incl. Seram, Timor in E Indonesia)

Flugel, E. (2002)- Triassic reef patterns. In: W. Kiessling et al. (eds.) Phanerozoic reef patterns, Soc. Sedimentary Geology (SEPM) Special Publ. 72, p. 391-463.
(Includes summaries of known Triassic reefal carbonates in Timor (various localities with Norian reef sponges and corals), Sulawesi, C-E Seram (up to 150m thick sponge-coral-hydrozoan limestone; Wilckens 1937), Papua New Guinea. (Triassic limestone development in Indonesia appears to follow trends across Tethys: first reef optimum in earliest Carnian (sponge-dominated), decrease in LateCarnian, second reef optimum in Late Norian-Rhaetian (sponge-coral and coral dominated); JTvG)

Flugel, E. & B. Senowbari-Daryan (2001)- Triassic reefs of the Tethys. In: G.D. Stanley (ed.) The history and sedimentology of ancient reef systems, Topics in Geobiology, Kluwer, New York, 17, p. 217-249.
(Evolution of Triassic reefs started with ~12 Myr global crisis of metazoan reef ecosystem after Permian-Triassic mass extinction), followed by recovery during M Triassic. Reef systems differentiated during U Triassic but were severely affected by global crisis at Triassic-Jurassic boundary)

Friedman, G.M. (1983)- Reefs and porosity: examples from the Indonesian Archipelago. Proc. SE Asia Petroleum Exploration Society (SEAPEX) 6, p. 35-40.
(Most porosity in Tertiary reefal carbonates in Indonesia involves post-depositional diagenetic changes)

Friedman, G.M. (1988)- Case histories of coexisting reefs and terrigenous sediments: the Gulf of Eilat (Red Sea), Java Sea, and Neogene basin of the Negev, Israel. In: L.J. Royle & H.H. Roberts (eds.) Carbonate clastic transitions, Elsevier Developments in Sedimentology 42, p. 77-97.

Fulthorpe, C.S. & S.O. Schlanger (1989)- Paleo-oceanographic and tectonic settings of Early Miocene reefs and associated carbonates of offshore Southeast Asia. American Assoc. Petroleum Geol. (AAPG) Bull. 73, 6, p. 729-756.
(Late Oligocene- early M Miocene widespread carbonates/reefs in SE Asia, related to rising eustatic sea level and expansion of coral-algal facies belt N to Japan and S to New Zealand. Examples mainly from Philippines)

Gallagher, S.J., L. Reuning, T. Himmler, J. Henderiks, D. De Vleeschouwer, J. Groeneveld, A. Rastigar Lari et al. (2018)- The enigma of rare Quaternary oolites in the Indian and Pacific Oceans: A result of global oceanographic physicochemical conditions or a sampling bias? Quaternary Science Reviews 200, p. 114-122.
(The Indo-Pacific area stands out as region without modern marine oolites, especially during Quaternary (the "ooid enigma"). Recent coring by IODP 356 off W Australia shows common ooid horizons in Pleistocene up to 730,000 years old. Increased aridity associated with higher alkalinity conditions during glacials probably facilitated ooid precipitation on tropical carbonate platforms particularly offshore arid Australia)

Gallagher, S.J., M.W. Wallace, P.W. Hoiles & J.M. Southwood (2014)- Seismic and stratigraphic evidence for reef expansion and onset of aridity on the North West Shelf of Australia during the Pleistocene. Marine and Petroleum Geology 57, p. 470-481.

(Previously unknown series of drowned fossil reefs in NW Australia shelf described. Reefs formed around 0.5 Ma with oldest ooids in Indian Ocean. Reef expansion partly due to increased Leeuwin Current intensity. Tropical facies expanded with onset of aridification of Australia after 0.6 Ma)

Gerth, H. (1925)- Die Bedeutung der Tertiaeren Riffkorallenfauna des malaysischen Archipels fur die Entwicklung der lebenden Rifffauna im Indopazifischen und Atlantischen Gebiet. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 8 (Gedenkboek Verbeek, memorial volume), p. 173-196.
(online at: https://books.google.com/books?id=Yy0RAAAAIAAJ&pg)
('The significance of the Tertiary reef coral fauna of the Malay Archipelago (=Indonesia) for the development of the living reef fauna in the Indo-Pacific and Atlantic area'. On global distributions of Paleogene- Recent reef corals)

Gerth, H. (1930)- The evolution of reef corals during the Cenozoic period. Proc. 4th Pacific Science Congress, Java 1929, 2A, p. 333-350.
(Modern reef corals two distinct provinces, Indo-Pacific and Atlantic, with higher diversity in Indo-Pacific. Known genera, more than on modern reefs. In Paleogene-Miocene reef corals more widely distributed (up to ~50°N) than today (~32°N). No figures)

Girard, E.B., Estradivari, S. Ferse, R. Ambo-Rappe, J. Jompa & W. Renema (2022)- Dynamics of large benthic foraminiferal assemblages: a tool to foreshadow reef degradation? Science of the Total Environment 811, 151396, p. 1-11.
(online at: https://www.sciencedirect.com/science/article/pii/S0048969721064743)
(About changes in living assemblages of larger foraminifera on reef flats of 12 islands in Spermonde Archipelago (S Sulawesi) between 1997 and 2018. Shift from typical foraminifera in coral-dominated reef habitats (Amphistegina lobifera, A. radiata, Calcarina spengleri, Heterostegina depressa) to fleshy algae-dominated reef assemblages (Neorotalia gaimardi, C. mayori). Other species (e.g., Elphidium spp., Peneroplis planatus, Sphaerogypsina globulus) reflect anthropogenic pollution from nearby islands and mainland). Changes in larger foram assemblages indicate the reef province is degrading)

Goldberg, W.M. (2013)- The biology of reefs and reef organisms. The University of Chicago Press, p. 1-401.
(Modern textbook on Recent carbonate reefs and their organism. Modern reefs clear, warm, low-nutrient waters and are not found far outside 30° from Equator. With review of reef-building organism through time since Precambrian)

Green, A.L. & P.J. Mous (2008)- Delineating the Coral Triangle, its ecoregions and functional seascapes. The Nature Conservancy, TNC Coral Triangle Program, Report 1/08, p. 1-34.
(online at: https://www.conservationgateway.org/Documents/Green%20and%20Mous%202008%20CT%20Delineation%20v5%200.pdf)
(Review and maps of the present-day 'Coral Triangle' ecoregion, the epicenter of coral diversity, spanning E Indonesia, the Philippines and the PNG archipelagoes (Bismarck-Solomon Seas ecoregion))

Greenlee, S.M. & P.J. Lehmann (1993)- Stratigraphic framework of productive carbonate buildups. In: R.G. Loucks et al. (eds.) Carbonate sequence stratigraphy: recent developments and applications, American Assoc. Petroleum Geol. (AAPG), Memoir 57, p. 43-62.

Gutteridge, P., J. Garland, B. Vincent & S. Kettle (2011)- Southeast Asian carbonate systems and reservoir development: an up-to-date synthesis. Cambridge Carbonates Ltd., p. 1-600. *(Unpublished report*
(Selected parts online at: www.cambridgecarbonates.com/assets/se-asian-carbonate-systems-and-reservoir-development-report---sample.pdf)
(Major review of existing and future hydrocarbon potential of Tertiary carbonate systems of SE Asia, with chapters on N and S Sumatra, Java, offshore Vietnam/ S China, Sarawak/ Philippines/ Natuna Sea, E Kalimantan, S Sulawesi/ S Makassar Basin, E Sulawesi, W Papua, Papua New Guinea)

Halfar, J. & M. Mutti (2005)- Global dominance of coralline red-algal facies: a response to Miocene oceanographic events. Geology (GSA) 33. 6, p. 481-484.
(Global rhodalgal facies peak abundances in Burdigalian-E Tortonian (16-11 Ma). Dominance of red algae over coral reefs triggered by Burdigalian global increase in productivity (higher C- isotope values). Rhodalgal lithofacies expanded further in M Miocene when strengthened thermal gradients associated with establishment of E Antarctic Ice Sheet led to enhanced upwelling, while increased weathering rates introduced land-derived nutrients into oceans. Cooler temperatures following E-M Miocene climatic optimum contributed to sustain dominance of red algae)

Hallock, P. & L. Pomar (2008)- Cenozoic photic reef and carbonate ramp habitats: a new look using paleoceanographic evidence. Proc. 11th International Coral Reef Symposium, Fort Lauderdale 2008, p. 1-5.

Hallock, P. & L. Pomar (2012)- Cenozoic evolution of carbonate shelf and ramp habitats: insights from paleoceanography. AAPG Annual Convention Exhib., Long Beach 2012, Search and Discovery Article 50663, p. 1-42. *(Abstract + Presentation)*
(online at: www.searchanddiscovery.com/documents/2012/50663hallock/ndx_hallock.pdf)
(On relationships between carbonate deposition and Greenhouse vs Icehouse conditions. Large Benthic Forams assemblages most diverse when deeper waters were warmest, with high extinction rates during cooling (increase of surface to thermocline gradients). Aragonite production by corals more widespread during ice-house conditions)

Hantoro, W.S. (1994)- Batugamping terumbu koral Kwarter terangkat di Timor. Proc. 23rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 1, p. 192-207.
(online at: https://www.iagi.or.id/web/digital/62/18.pdf)
('Uplifted Quaternary coral reef limestones of Timor'. Uplifted marine coral reef limestone terraces across much of Timor, up to 1200m a.s.l. Unconformable on older rocks. In Kupang area 8 Late Pleistocene terraces up to ~120m elevation, suggesting uplift rate of W tip of Timor 0.35-0.45 mm/yr)

Hantoro, W.S., N. Nganro, S. Shofiyah, I. Narulita & J. Sofjan (1997)- Recent climate variation signals from corals in Timor, Indonesia. Quaternary International 37, p. 81-87.

Harrison, G.W.M., N. Santodomingo, K.G. Johnson & W. Renema (2023)- Is the Coral Triangle's future shown in a Pliocene reef gap? Coral Reefs 42, p. 1219-1225.
(online at: https://link.springer.com/article/10.1007/s00338-023-02412-5)
(Distributions of coral reefs in center of maximum coral diversity (Coral Triangle= Indonesian Archipelago-Philippines- New Guinea) show significantly fewer coral reefs during Pliocene ('Pliocene Reef Gap'). Reefs re-established in Pleistocene. Reefs decrease not associated with drop in coral genus diversity or warming or increasing pCO2 or human factors. Regional tectonics and sea-level rise possible drivers)

Haryono, E., S.T.J. Putro, D.H. Barianto, M.H.D. Sasongko & J.B. Setiawan (2022)- The formation of an open atoll in strike slip-fault setting: new insight from Maratua Island, Kalimantan-Indonesia. Environmental Earth Sciences 81, 350, p.
(Maratua Island V-shaped open atoll off NE Kalimantan, mainly controlled by sinistral fault system. Island is push-up morphology which formed a carbonate high (Pliocene transpression).

Heikoop, J.M., C.J. Tsujita, M.J. Risk & T. Tomascik (1996)- Corals as proxy recorders of volcanic activity; evidence from Banda Api, Indonesia. Palaios 11, p. 286-292.

Hillis-Colinvaux, L. (1980)- Ecology and taxonomy of *Halimeda*: primary producer of coral reefs. Advances in Marine Biology, Academic Press, 17, p. 1-327.
(online at: https://ia801401.us.archive.org/24/items/advancesinmarine80hill/advancesinmarine80hill.pdf)
(Halimeda algae important contributor to tropical reefal limestones since Cretaceous (Jurassic if Boueina included in Halimeda group))

Hoeksema, B.W. (1992)- The position of northern New Guinea in the center of marine benthic diversity: a reef coral perspective. Proc.7th International Coral Reef Symposium, Guam 1992, 2, p. 710-717.
(N New Guinea and PNG islands with exceptionally high coral diversity, part of the "East Indies center of maximum marine biodiversity")

Hoeksema, B.W. (2007)- Delineation of the Indo-Malayan centre of maximum marine biodiversity: the coral triangle. In: W. Renema (ed.) Biogeography, time and place: distributions, barriers and islands, Topics in Geobiology 29, Springer, p. 117-178.
(Ranges of many tropical marine species overlap in center of maximum marine biodiversity in Indo-Malayan region ('East Indies Triangle': Malaysia, Philippines, Indonesia and Papua New Guinea))

Hoeksema, B.W., Giyanto & Suharsono (2019)- The role of maximum shelf depth versus distance from shore in explaining a diversity gradient of mushroom corals (Fungiidae) off Jakarta. Diversity (MDPI) 11, 3, 46, p. 1-23.
(online at: https://www.mdpi.com/1424-2818/11/3/46)
(Thirty-eight coral reef sites in Jakarta Bay and Thousand Islands (Pulau Seribu) surveyed in 2005. Highest diversity of mushroom corals is on reefs surrounded by deep seafloor in central section of archipelago, not on northernmost reefs, which are farthest away from mainland)

Hoeksema, B.W. & K.S. Putra (2000)- The reef coral fauna of Bali in the center of marine diversity. In: M.K. Moosa et al. (eds.) Proc. 9th International Coral Reef Symposium, Bali 2000, 1, p. 173-178.
(online at: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.612.2947&rep=rep1&type=pdf)
(Bali coral reefs richest in Tulamben- Amed area (E Bali; mainly volcanic sand with limestone outcrops). Islands Nusa Lembongan and Nusa Penida (Lombo Straits, in SE; uplifted limestone) with special fauna elements due to cold upwelling and strong currents. At Sanur and Nusa Dua species previously known only from Pacific. Coral fauna of Bali resembles most fauna of species-rich E Indonesian areas)

Hopley, D. & Suharsono (2000)- The status of coral reefs in Eastern Indonesia. Global Coral Reef Monitoring Network (GCRMN), Australian Inst. Marine Science, p. 1-111.

Huang, D., W.Y. Licuanan, B.W. Hoeksema, C.A. Chen, P.O. Ang, H. Huang, D.J.W. Lane, S.T. Vo, Z. Waheed, Y. Affendi, T. Yeemin & L.M. Chou (2015)- Extraordinary diversity of reef corals in the South China Sea. Marine Biodiversity 45, 2, p. 157-168.
(Reefs across S China Sea with 571 known species of reef corals)

Iryu, Y. (1997)- Pleistocene fore-reef rhodoliths from the Ryukyu Islands, southwestern Japan. In: H.A. Lessios and I.G. Macintyre (eds.) Proc. 8th International Coral Reef Symposium, Panama, 1, p. 749-754.
(Well-rounded rhodoliths 1-8 cm consist of multiple species of nongeliculatecoralline algae and encrusting foraminifer Acervulina inhaerens, together forming concentric internal structure. Thought to have formed in deep fore reef to shelf, at 50-150m depth. Often associated with Cycloclypeus- Operculina foram assemblage)

Iryu, Y., S. Inagaki, Y. Suzuki & K. Yamamoto (2010)- Late Oligocene to Miocene reef formation on Kita-daito-jima, northern Philippine Sea. In: M. Mutti et al. (eds.) Carbonate systems during the Oligocene-Miocene climatic transition, Int. Association of Sedimentologists (IAS), Special Publ. 42, p. 245-256.
(Late Oligocene- Late Miocene carbonate in 433m deep borehole on Kita-daito-jima)

Iryu, Y. & S. Matsuda (1988)- Depth distribution. abundance and species assemblages of nonarticulated coralline algae in the Ryukyu Islands, southwestern Japan. In: J.H. Choat et al. (eds.) Proc. 6th International Coral Reef Symposium, Townsville 1988, 3, p. 101-106.
(Distribution of 8 non-articulated coralline algal species in upper 30m of slope of patch reef off Yonehara, Ishigaki-jima: Porolithon onkodes and Lithophyllum insipidum most abundant at depth of 1m, but absent below 20m. Spongites sp. A most common at 15m depth. Neogoniolithon conicum distributed throughout)

Iryu, Y., T. Nakamori, S. Matsuda & O. Abe (1995)- Distribution of marine organisms and its geological significance in the modern reef complex of the Ryukyu Islands. Sedimentary Geology 99, p. 243-258.

(Compositions of coral and coralline algal assemblages change with increasing depth. Hermatypic corals common down to 50m. Coralline algae Hydrolithon onkodes limited to upper 10m. Algal nodules with encrusting foram Acervulina inhaerens (rhodoliths) most abundant constituent on island shelf, commonly with Cycloclypeus carpenteri (50-150m). In Ryukus negligible Halimeda; probably two types of shelves in tropical- subtropical regions: nutrient-rich Halimeda-dominant and nutrient-poor rhodolith-dominant)

Iryu, Y., T. Nakamori & T. Yamada (1998)- Pleistocene reef complex deposits in the Central Ryukus, south-western Japan. In: G.F. Camoin & P.J. Davies (eds.) Reefs and carbonate platforms in the Pacific and Indian Oceans, Int. Association of Sedimentologists (IAS), Special Publ. 25, p. 197-213.
(Pleistocene carbonates of Ryuku Group with extensive rhodoliths in distal parts of reef complex. Four facies: (1) coral (reef- reef slope; 0-50m), (2) rhodolith (insular shelf 50-150m), (3) Cycloclypeus-Operculina (associated with rhodoliths; 50-150m) and (4) poorly sorted detrital limestones (insular shelf, >50m))

Isern, A., J.A. McKenzie & D.R. Muller (1993)- Paleoceanographic changes and reef growth off the northeastern Australian margin: stable isotope data from Leg 133, Sites 811 and 817 and Leg 21 Site 209. Proc. Ocean Drilling Program (ODP), Scientific Results, 133, p. 263-280.
(online at: www-odp.tamu.edu/publications/133_SR/VOLUME/CHAPTERS/sr133_19.pdf)
(Oxygen isotopes from Holes 811A, 817A indicate extensive reef growth on Queensland Plateau in M Miocene before 12 Ma, signifying surface-water T of 20°C or more. Decrease in reefal detritus in Late Miocene (10.0-5.2 Ma) corresponds with isotopic data from planktonic foraminifera suggesting cooler surface waters (16°-19°C). This may have contributed to demise of reefs on Queensland Plateau. Surface waters remained cool until M Pleistocene (1.2- 0.5 Ma), when surface-water T increased to 25 °C and Great Barrier Reef initiated)

Isern, A.R., J.A. McKenzie & D.A. Feary (1996)- The role of sea-surface temperature as a control on carbonate platform development in the western Coral Sea. Palaeogeogr. Palaeoclim. Palaeoecology. 124, p. 247-272.

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Isern, A.R., F.S. Anselmetti & P. Blum (2004)- A Neogene carbonate platform, slope and shelf edifice shaped by sea level and ocean currents, Marion Plateau (Northeast Australia). In: G.P. Eberli et al. (eds.) Seismic imaging of carbonate reservoirs and systems, American Assoc. Petroleum Geol. (AAPG), Memoir 81, p. 291-307.
(Marion Plateua off NE Australia large drowned carbomate platform, composed of cool, subtropical organisms, such as red algae, bryozoans, and larger foraminifera. Coralline algae notably absent. Onlapped by deep water prograding drift deposits)

Jambak, M.A. & R.K. Mahendra (2024)- A bibliometric analysis of carbonate paragenesis. Scientific Contributions Oil and Gas (SCOG), Lemigas, 46, 3, p. 129-144.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/1590/pdf)
(987 publications on carbonate paragenesis in 1999-2022)

Jambak, M.A., D. Syavitri, H.F. Yuda, Ovinda, S.D. Hafiz, Rendy & Fachry Muhammad (2022)- Quaternary-Recent reef facies model in Seribu Islands- Jakarta Bay, DKI Jakarta. Int. J. Multidisciplinary Research and Publications (IJMRAP) 5, 1, p. 174-178.
(online at: https://ijmrap.com/wp-content/uploads/2022/07/IJMRAP-V5N1P88Y22.pdf)
(Study of facies, coral assemblages, etc., of Thousand Islands patch reefs in W Java Sea near Jakarta)

James, N.P., L.B. Collins, Y. Bone & P. Hallock (1999)- Rottnest shelf to Ningaloo reef: coolwater to warm-water carbonate transition on the continental shelf of Western Australia. Journal of Sedimentary Research 69, p. 1297-1321.
(W continental margin of Australia, from Cape Naturaliste to NE Cape, 1200km long and with carbonate deposition throughout. Temperate (cool) water in S to tropical in N, influenced by Leeuwin current)

Janssen, A., A. Wizemann, A. Klicpera, D.Y. Satari, H. Westphal & T. Mann (2017)- Sediment composition and facies of coral reef islands in the Spermonde Archipelago, Indonesia. Frontiers in Marine Science 4, 144, p. 1-13. *(online at: https://www.frontiersin.org/articles/10.3389/fmars.2017.00144/full)*

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(online at: http://espace.library.uq.edu.au/eserv/UQ:312024/Dept_Geology_Papers_VIII_3_p1_85.pdf)

Jenkins, S., R. Swarbrick, A. Mallon & S. O'Connor (2012)- Pressure in Miocene carbonate exploration targets. Proc. 36th Annual Conv. Indonesian Petroleum Association Jakarta, IPA12-G-046, p. 1-16.
(Includes examples of overpressured fields in Arun and NSO fields, N Sumatra, NW Java, E Java, etc.)

John, C.M. & M. Mutti (2005)- The response of Heterozoan carbonate systems to paleoceanographic, climatic and eustatic changes: a perspective from slope sediments of the Marion Plateau (ODP Leg 194). Journal of Sedimentary Research 75, p. 216-236.
(On relative control of paleoceanography, eustasy, and temperature on evolution of Marion Plateau (NE Australia) carbonates. Several carbonate platforms started in E Miocene, composed mainly of heterozoans. Carbon isotope record revealed cycles of 409 Kyr (eccentricity) and 1800 Kyr (long-term eustatic change))

Johnson, K.G., W. Renema, B.R. Rosen & N. Santodomingo (2015)- Old data for old questions: what can the historical collections really tell us about the Neogene origins of reef-coral diversity in the Coral Triangle? Palaios 30, 1, p. 94-108.
(Updated stratigraphy and revised taxonomic determinations for important historical collections of Cenozoic fossil corals from Indonesia in Leiden museum reveal Pliocene and Paleogene sampling gaps. E Miocene increase in richness followed by plateau of relatively high richness. Observed patterns of taxonomic turnover highly correlated with sample size. Taxonomic revision reduced number of genera and species from 133 and 404 to 115 and 321)

Johnson, K.G., B.R. Rosen, N. Santodomingo & W. Renema (2011)- Southeast Asian and Caribbean Cenozoic reef-coral diversity and the importance of new collections. In: Abstracts 11th Symposium Fossil Cnidaria and sponges, Liege 2011, Kolner Forum Geol. Palaontologie 19, p. 67-68. *(Extended Abstract)*
(SE Asia fossil coral collections at Naturalis Museum, Leiden, contain 271 species from 210 localities. Late Oligocene- Early Miocene interval of increased diversification, coinciding with expansion in coral reef development. No intervals of accelerated extinction seen in Neogene)

Jordan, C.F. (1998)- Kepulauan Seribu, West Java Sea, Indonesia: a modern reef analog for Miocene oil and gas fields in Southeast Asia. Proc. 26th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 71-83.

Jordan, C.F. (1998)- The sedimentology of Kepulauan Seribu: a modern path reef complex in the West Java Sea, Indonesia. Indonesian Petroleum Association, Jakarta, Field Guide, p. 1-81.
(online at: https://www.academia.edu/40324632/THE_SEDIMENTOLOGY_OF_KEPULAUAN_SERIBU_A_MODERN_PATCH_REEF_COMPLEX_IN_THE_WEST_JAVA_SEA_INDONESIA)
(Fieldtrip guidebook to 'Thousand Islands' modern patch reefs complex NW of Jakarta.With identifications and distributions of corals, etc.))

Jordan, C., H. Roberts et al. (1999)- Probing the third dimension of the reef complex at Kepulauan Seribu. Berita Sedimentologi (FOSI- IAGI) 10, p. 3. *(Abstract Only)*
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/273/243)
(Brief proposal for 1999 shallow seismic and coring program around Pulau Seribu, NW of Jakarta))

Keith, S.A., A.H. Baird, T.P. Hughes, J.S. Madin & S.R. Connolly (2013)- Faunal breaks and species composition of Indo-Pacific corals: the role of plate tectonics, environment and habitat distribution. Proc. Royal Society (London) B 280, 20130818, p. 1-9.

(online at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3774232/pdf/rspb20130818.pdf)
(On concordance between geological features and coral biogeographical structure)

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(online at: https://www.frontiersin.org/articles/10.3389/fmars.2017.00145/full)

Kiessling, W., C. Simpson & M. Foote (2010)- Reefs as cradles of biodiversity in the Phanerozoic. Science 327, p. 196-198.

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(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB24:082134000:00133)
(Comprehensive review of modern coral reefs in 31 areas across Indonesia. Including discussions on growth of coral reefs, formation of atolls, etc.)

Kuenen, P.H. (1933)- The formation of the atolls in the Toekang-Besi-group by subsidence. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam 36, 3, p. 331-336.
(online at: https://dwc.knaw.nl/DL/publications/PU00016412.pdf)
(Tukang Besi atolls and raised islands arranged along NW-SE fault trends. Post-Pleistocene subsidence produced atolls where reef growth kept up with subsidence)

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Roberts, H.H. & C.V. Phipps (1988)- Proposed oceanographic controls on modem Indonesian reefs: a turn-off/turn-on mechanism in a monsoonal setting. In: J.H. Choat et al. (eds.) Proc. 6th International Coral Reef Symposium, Townsville 1998, 3, p. 529-534.
(In E Java Sea mutually exclusive occurrences of coral reefs and Halimeda bioherms: coral reefs in depths <15m, extensive areas of 20-50m thick Halimeda bioherms between 20-100m. Unusual success of Halimeda at expense of reef-building corals appears related to nutrient overloading as modulated by monsoon cycle. Strong E-to-W surface flow during E monsoon induces upwelling along western platform margins. Deformation of shallow thermocline where nutrients concentrate (50-100m) brings this deeper Pacific throughflow water to platform margins and top)

Saller, A.H. & R.B. Koepnick (1990)- Eocene to Early Miocene growth of Enewetak Atoll; insight from strontium-isotope data. Geological Society of America (GSA) Bull. 102, 3, p. 381-390.
(online at: https://www.researchgate.net/profile/Arthur-Saller/publication/249526253_Eocene_to_early_Miocene_growth_of_Enewetak_Atoll_Insight_from_strontium-isotope_data Etc.)
(Margin of Eniwetok atoll contains1260-1405m of Late Eocene- E Miocene carbonates above volcanic basement. New Sr isotope data from E1 and F1 wells (original larger foraminifera analyses paper by W.S. Cole (1957))

Santoso, W.D., Y. Zaim & Y. Rizal (2017)- Carbonate biofacies and paleoecology analysis based on *Acropora* coral in Ujunggenteng area, West Java Province, Indonesia. J. RISET Geologi dan Pertambangan (LIPI) 27, 2, p. 179-188.
(online at: http://jrisetgeotam.com/index.php/jrisgeotam/article/view/477/pdf)
(Limestone at Ujung Genteng beach, SW Java, with three Acropora coral associations, tied to 0-13m paleobathymetry. (Quaternary age?))

Santoso, W.D., Y. Zaim & Y. Rizal (2018)- Paleontology of *Acropora* corals and standard facies belt from Ujunggenteng area, West Java. J. RISET Geologi dan Pertambangan (LIPI) 28, 2, p. 129-140.
(online at: http://jrisetgeotam.com/index.php/jrisgeotam/article/view/799)
(4 species of branching coral genus Acropora in Quaternary limestones exposed along Ujunggenteng beach)

Saqab, M.M. & J. Bourget (2015)- Controls on the distribution and growth of isolated carbonate build-ups in the Timor Sea (NW Australia) during the Quaternary. Marine and Petroleum Geology 62, p. 123-143.
(Quaternary isolated carbonate build-ups common on NW Australia shelf/ Bonaparte Basin: 1-30 km wide, in clusters of ~150 build-ups, 2-85 km from edge of 650 km-wide continental shelf. Mainly 'Halimeda bioherms'. Distribution of buildups impacted by fault activity, starting in latest Miocene- E Pliocene (initial collision of Australian Plate with Banda Arc, increasing and peaking in E Pleistocene), causing flexural reactivation of structural highs and lows along shelf-margin. Seismic evidence of moat channels and drift deposits suggest contour current activity intensified in late E Pleistocene (~1 Ma). Despite good conditions, buildups did not form until M Pleistocene (~0.58- 0.8 Ma), corresponding to onset of major sea level fluctuations)

Sartorio, D. & S. Venturini (1988)- Southern Tethys biofacies. AGIP, San Donato Milanese, p. 1-235.
(Atlas of excellent photomicrographs of Cambrian- Pliocene carbonate thin sections, mainly from Mediterranean region)

Scaps, P. & F. Runtukahu (2008)- Assessment of the coral reefs of the Luwuk Peninsula, Central Sulawesi, Indonesia. Bull. Societe Zoologique France 133, p. 341-355.
(Recent coral reefs off the East Arm of Sulawesi)

Scheibner, C. & R.P. Speijer (2008)- Late Paleocene- Early Eocene Tethyan carbonate platform evolution- a response to long- and short-term paleoclimatic change. Earth-Science Reviews 90, p. 71-102.
(Three stages in Late Paleocene- E Eocene Tethys carbonate platforms: (1) late Paleocene: coralgal-dominated at low-mid paleolatitudes; (2) latest Paleocene: coralgal reefs dominant at middle paleolatitudes and larger foraminifera-dominated (Miscellanea, Ranikothalia, Assilina) at low paleolatitudes; (3) E Eocene larger foraminifera-dominated (Alveolina, Orbitolites, Nummulites) platforms at low-middle paleolatitudes. Onset of larger foraminifera-dominated platform correlates with Paleocene/Eocene Thermal Maximum. Decline of coralgal reefs in low latitudes related to warming, with sea-surface temperatures in tropics beyond maximum temperature range of corals)

Scheibner, C., R.P. Speijer & A.M. Marzouk (2005)- Turnover of larger foraminifera during the Paleocene-Eocene Thermal Maximum and paleoclimatic control on the evolution of platform ecosystems. Geology (GSA) 33, 6, p. 493-496.
(online at: https://lirias.kuleuven.be/retrieve/121047)
(Larger-Foraminifera Turnover (LFT) at Paleocene-Eocene transition involves rapid increase in species and shell size. LFT coincides with Paleocene-Eocene Thermal Maximum (PETM). Because of vulnerability of corals to high surface-water temperatures, global warming may have favored larger foraminifera at expense of corals as main carbonate-producing component on carbonate platforms at lower latitudes)

Scrutton, M.E. (1976)- Aspects of carbonate sedimentation in Indonesia. Proc. 5th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 179-193.

Scrutton, M.E. (1978)- Modern reefs in the West Java Sea. Proc. IPA Carbonate Seminar, Jakarta 1976, Indonesian Petroleum Association, Special Vol., p. 14-41.
(Overview of reefs and bottom sediments composition of Pulau Seribu, Java Sea, NW of Jakarta)

Scrutton, M. (1979)- Modern reefs in the West Java Sea. Proc. SE Asia Petroleum Exploration Society (SEAPEX) Conference. 4, Singapore, p. 22-40.
(Study of carbonate sediment composition of Pulau Seribu group of coral reefs, Java Sea)

Sluiter, C.P. (1890)- Uber die Entstehung der Korallenriffe in der Java See und Branntweinsbai, und uber neue Korallenbildung bei Krakatau. Biologisches Centralblatt 9, 24, p. 737-753.
('On the origin of the coral reefs in the Java Sea and Brandewijns Bay (near Padang, W Sumatra) and on new coral growth near Krakatoa'. On initiation of new coral growth in Bay of Jakarta (away from muddy bottoms and usually first by solitary corals Madrepora, Porites, etc., followed by massive corals Astraea, etc.) and growth of modern reefs. Same as Sluiter (1890) below)

Sluiter, C.P. (1890)- Einiges uber die Entstehung der Korallenriffe in der Java Zee und Branntweinsbai, und uber neue Korallenbildung bei Krakatau. Natuurkundig Tijdschrift voor Nederlandsch-Indie 49, 2, p. 360-380.
(online at: http://62.41.28.253/cgi-bin/...)
('On the origin of the coral reefs in the Java Sea and Brandewijns Bay (near Padang, W Sumatra) and on new coral growth near Krakatoa')

Solihuddin, T. (2017)- Atoll reef geomorphology of Sagori Island, SE Sulawesi: a reconnaissance study. Indonesian J. on Geoscience (IJOG) 4, 3, p. 181-191.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/386/247)

Spencer, T. & M.D. Spalding (2005)- Coral reefs of Southeast Asia: controls, patterns and human impacts. In: A. Gupta (ed.) The physical geography of Southeast Asia, Oxford University Press, p. 402-427.
(Indonesia with its 17,500 islands contains 32% of world's shallow coral reefs)

Starger, C.J., P.H. Barber, Ambariyanto & A.C. Baker (2010)- The recovery of coral genetic diversity in the Sunda Strait following the 1883 eruption of Krakatau. Coral Reefs 29, 3, p. 547-565.
(Genetic diversity has largely recovered on reefs decimated by eruption of Krakatau in 1883. Recolonization occurred mainly from Pulau Seribu, but also larval input from other regions. Recovery of genetic diversity in coral reef animals can occur on order of decades and centuries rather than millennia)

Sun, S.Q. & M. Esteban (1994)- Paleoclimatic controls on sedimentation, diagenesis and reservoir quality: lessons from Miocene carbonates. American Assoc. Petroleum Geol. (AAPG) Bull. 74, 4, p. 519-543.
(Reservoir quality of Miocene carbonates primarily controlled by prevailing paleoclimate. Two end members: (1) humid, oceanic tropical-subtropical settings (e.g. Miocene of SE Asia). Warming trend and rising sea level allowed thick coral reefs and skeletal banks to develop. Typically several 3rd-order cycles, separated by discontinuities in platform growth with subaerial exposure, with porosity development associated with meteoric leaching and karstification. Basal transgressive carbonates mostly tight; (2) arid, land-locked temperate-subtropical settings with elevated salinities and relatively low temperature restricting growth of buildups. Mainly thin, narrow fringing coral reefs with small lagoons in rhodalgal ramps, with minimal meteoric dissolution during subaerial exposure. Evaporitic lagoons cause of pervasive dolomitization, leaching and generation of moldic, vuggy and intercrystalline porosity. Often with anhydrite cement)

Tanaka, Y. (2016)- Coral diversity and coral reef environment in Brunei Darussalam. Scientia Bruneiana, Special Issue, p. 13-17.
(online at: https://scibru.fos.ubd.edu.bn/index.php/scibru/article/view/28/15)
(Coral reefs 4-30 km off Brunei with 400 species of scleractinian corals, close to highest diversity in S China Sea)

Teichert, C. & R.W. Fairbridge (1948)- Some coral reefs of the Sahul Shelf. Geographical Review 38, 2, p. 222-249.

Tomascik, T., A.J. Mah, A. Nontiji & M. Moosa (1997)- Geological history of reefs. In: The ecology of the Indonesian Seas, Part I, Chapter 5, The ecology of Indonesia 7, Periplus Ed., Singapore, p. 145-206.

Tomascik, T., A.J. Mah, A. Nontiji & M. Moosa (1997)- Fringing reefs, patch reefs, barrier reefs, atolls, coral cays. In: The ecology of the Indonesian Seas II, The ecology of Indonesia series 7, Chapters 13-17, Periplus Ed., Singapore, p. 643-827.

Tomascik, T., Suharsono & A.J. Mah (1994)- Case histories: a historical perspective of the natural and anthropogenic impacts in the Indonesian Archipelago with a focus on the Kepulauan Seribu, Java Sea. Proc. Colloquium Global aspects of coral reefs: health, hazard and history, Miami, p. 304-310.-*(online at: www.researchgate.net/publication/284877475_Case_histories_a_historical_perspective_of_the_natural_and_anthropogenic_impacts_in_the_Indonesian_Archipelago_with_a_focus_on_the_Kepulauan_Seribu_ Etc.)*
(Discussion of environmental degradation in Jakarta Bay and Kepulauan Seribu (chain of coral cays in Java Sea, ~40 km from Jakarta). Inverse relationship between water transparency and coral reef health)

Tomascik, T., R. van Woesik & A.J. Mah (1996)- Rapid colonisation of a recent lava flow following a volcanic eruption, Banda Islands, Indonesia. Coral Reefs 15, p. 169-175.
(online at: https://www.researchgate.net/publication/225976451_Rapid_coral_colonization_of_a_recent_lava_flow_following_a_volcanic_eruption_Banda_Islands_Indonesia)
(Five years after the 1988 eruption of Gunung Api volcano, Banda Islands, lava flows supported diverse coral community (124 species) with high coral cover and with some colonies measuring over 90 cm in diameter)

Tsuji, Y. (1993)- Tide influenced high energy environments and rhodolith-associated carbonate deposition on the outer shelf and slope off the Miyako Islands, southern Ryukyu Island Arc, Japan. Marine Geology 113, p. 255-271.

Twidale, C.R. (2006)- Origin and development of Karstinselberge, with particular reference to some South East Asian evidence. Bull. Geological Society Malaysia 49, p. 145-155.
(online at: https://gsm.org.my/articles/702001-100554/)
(Discussion of formation of cone karst and tower karst, mainly in Malaysia)

Umbgrove, J.H.F. (1928)- Een eeuw theorieen over het ontstaan van koraalriffen. Natuurkundig Tijdschrift voor Nederlandsch-Indie 88, p. 141-183.
('A century of theories on the origin of coral reefs')

Umbgrove, J.H.F. (1928)- De koraalriffen in de Baai van Batavia. Dienst Mijnbouw Nederlandsch-Indie, Bandung, Wetenschappelijke Mededeelingen 7, p. 1-66.
('The coral reefs in the Bay of Jakarta'. 63 recent species. Reef islands started on muddy bottom, sank into substrate after growth)

Umbgrove, J.H.F. (1929)- De koraalriffen der Duizend Eilanden (Java-zee). Wetenschappelijke Mededeelingen, Dienst Mijnbouw Nederlandsch-Indie, Bandung, 12, p. 3-47.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB24:079039000:00001)
('The coral reefs of the Thousand Islands (Java Sea)'. Description of the so-called Thousand Islands (Pulau Seribu), a group of 80 coral islands (patch reefs) in the W Java Sea, just outside Jakarta Bay. Many islands elongated in E-W direction, reflecting preferential growth onwindward side during East Monsoon. (in Dutch, with extended English summary. Reefs thickness ~90m or more (reflecting growth during Holocene sealevel rise)The N-S arrangement of the whole island group reflects an underlying pre-Holocene ridge)

Umbgrove, J.H.F. (1930)- The end of Sluiter's coral reef at Krakatoa. Leidsche Geologische Mededelingen 3, p. 261-264.
(online at: www.repository.naturalis.nl/document/549489)
(Rapid re-colonization of Krakatoa remnants (NW Rakata) by corals (mainly branching types) after 1883 eruption, as observed by Sluiter (1890). Forty years later covered by pumice deposits eroded from exposed Rakata walls)

Umbgrove, J.H.F. (1930)- De koraalriffen van den Spermonde Archipel (Zuid-Celebes). Leidsche Geologische Mededelingen 3, 5, p. 227-247.
(online at: http://www.repository.naturalis.nl/document/549271)
('The coral reefs of the Spermonde Archipelago, S Sulawesi'. Early survey of modern reefs off SW tip of Sulawesi. Adjacent coastal plain is bordered by Maros Mountains, composed of Late Eocene and Miocene limestones)

Umbgrove, J.H.F. (1930)- The influence of the monsoons on the geomorphology of coral islands. Proc. 4th Pacific Science Congress, Java 1929, IIA, p. 49-64.
(Character of coral reefs strongly influenced by prevailing winds. Indies Archipelago in monsoon zone, where winds change with seasons)

Umbgrove, J.H.F. (1930)- De tegenwoordige gedaante der koraal-rif problemen. De Ingenieur 1930, 27, M. Mijnbouw, p. M11-M15.
(online at: https://resolver.kb.nl/resolve?urn=dts:2959095:mpeg21:pdf)
('The current status of the coral reef problems'. Inaugural lecture as Professor of Geology at the Technische Hogeschool Delft, in June 1930)

Umbgrove, J.H.F. (1931)- De koraalriffen van Emmahaven (W Sumatra). Leidsche Geologische Mededelingen 4, p. 9-24.
(online at: www.repository.naturalis.nl/document/549644)
('The coral reefs of Port Emma, West Sumatra'. On modern coral reefs in bay near Padang)

Umbgrove, J.H.F. (1939)- De atollen en barriere-riffen der Togian eilanden. Leidsche Geologische Mededelingen 11, 1, p. 139-187.
(online at: https://repository.naturalis.nl/pub/505837/LGM1939011001004.pdf)
('The atolls and barrier reefs of the Togian Islands'. Study of modern atolls and reefs in Tomini Gulf, NE Sulawesi, with reconnaissance geology observations on Togian Islands. Oldest rocks are sediments, intruded by young volcanics (but no recent activity). Raised reef terraces younger than Tf/Miocene)

Umbgrove, J.H.F. (1939)- Madreporaria from the Bay of Batavia. Zoologische Mededelingen 22, 1, p. 1-64.
(online at: www.repository.naturalis.nl/document/149596)
(Study of corals in the Bay of Jakarta)

Umbgrove, J.H.F. (1939)- Madreporia from the Togian reefs (Gulf of Tomini, North Celebes). Zoologische Mededelingen 22, 10, p. 265-308.
(online at: https://repository.naturalis.nl/pub/318138/ZM1940022010.pdf)
(Descriptions of modern corals from steep barrier reefs, atolls and fringing reefs of the Togian Islands, E Sulawesi. In setting rel. sheltered from monsoons, therefore lacking shingle ramparts and sand cays)

Umbgrove, J.H.F. (1946)- Evolution of reef corals in East Indies since Miocene time. American Assoc. Petroleum Geol. (AAPG) Bull. 30, p. 23-31.
(The Lyellian method of percentage-of-living-species deemed useful for stratigraphic dating and correlation)

Umbgrove, J.H.F. (1947)- Coral reefs of the East Indies. Geological Society of America (GSA) Bull. 58, 8, p. 729-778.
(Review of investigations on coral reefs in Indonesia in 15 years before WWII. Every atoll and barrier reef studied shows evidence of subsidence. Extreme thickness of some reefs, as demonstrated by their steep submarine slopes, cannot be explained by glacial control only. Prevailing wind and wave action are important influence on upper structure of reefs. Additional examples of currents as factors of morphological importance)

Umbgrove, J.H.F. & J. Verweij (1929)- The coral reefs in the Bay of Batavia. Proc. 4th Pacific Science Congress, Java 1929, Excursion Guide A2, p. 5-30.
(online at: https://nla.gov.au/nla.obj-3123127124/view?partId=nla.obj-3123129921)

Utami, D.A. & A.R. Hakim (2018)- Carbonate sedimentology of Seribu Islands patch reef complex: a literature review. Proc. Global Colloquium on GeoSciences and Engineering, Bandung 2017, IOP Conference Series: Earth and Environmental Science 118, 012013, p. 1-6.
(online at: http://iopscience.iop.org/article/10.1088/1755-1315/118/1/012013/pdf)

(Kepulauan Seribu archipelago many atoll-like islands with reef belts exposed to bidirectional monsoon winds. Four main facies; coral grainstone, coral packstone/grainstone, coral-mollusc packstone and mollusc wackestone. Etc.)

Utami, D.A., L. Reuning & S.Y. Cahyarini (2018)- Satellite- and field-based facies mapping of isolated carbonate platforms from the Kepulauan Seribu Complex, Indonesia. The Depositional Record (SEPM) 4, 2, p. 255-273.
(online at: https://onlinelibrary.wiley.com/doi/epdf/10.1002/dep2.47)

Van der Horst, C.J. (1921)- Madreporaria Fungida. Siboga Expeditie Monograph 16b, Brill, Leiden, p. 1-46.
(First of series of papers on Recent corals of Indonesia, collected during Siboga Expedition)

Van der Horst, C.J. (1921)- Madreporaria of the Siboga Expedition, Part 2. Madreporaria Fungida. Siboga Expeditie Monograph 16b, Brill, Leiden, p. 53-98.
(Second of series of monographs on Recent corals of Indonesia, collected during Siboga Expedition (Part 1 by Alcock (1902), part 4 by H. Boschma)

Van der Horst, C.J. (1922)- The Madreporaria of the Siboga Expedition. Part 3: Eupsammidae. Siboga Expeditie Monograph 16c, Brill, Leiden, p. 99-127.
(online at: https://ia600404.us.archive.org/25/items/sibogaexpeditie92sibo/sibogaexpeditie92sibo.pdf)
(Third of series of monographs on Recent corals of Indonesia, collected during Siboga Expedition

Van der Meij, S.E.T., Suharsono & B.W. Hoeksema (2010)- Long-term changes in coral assemblages under natural and anthropogenic stress in Jakarta Bay (1920-2005). Marine Pollution Bull. 60, 9, p. 1442-1454
(Coral reefs in Jakarta Bay have been under long-term natural and anthropogenic stress. Coral species diversity and composition of reefs changed considerably between 1920 and 2005. About half number of species recorded in 1920 was found again in 2005)

Veron, J., M. Stafford-Smith, L. DeVantier & E. Turak (2015)- Overview of distribution patterns of zooxanthellate Scleractinia. Frontiers in Marine Science 1, 81, p. 1-19.
(online at: http://journal.frontiersin.org/article/10.3389/fmars.2014.00081/full)
(Global study of present-day geographic distributions of corals. Birds Head- Sulu Sea region is global center of peak coral diversity))

Verstappen, H.Th. (1953)- Oude en nieuwe onderzoekingen over de koraaleilanden in de baai van Djakarta. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 70, 4, p. 472-478.
('Early and recent investigations on the coral islands in the Bay of Jakarta'. Results of 1950-1951 investigations compared with studies by Sluiter 1890 and Umbgrove 1928. Coral islands only in W part of bay. Islands probably older than 3000 years, as suggested by Umbgrove, and controlled by underlying structure. Shape and growth patterns of island largely controlled by dominant wind patterns)

Verstappen, H.Th. (1954)- The influence of climatic changes on the formation of coral islands. American Journal of Science 252, 7, p. 428-435.
(Comparison of modern small patch reefs in Jakarta Bay from 1875, 1927, 1935 and 1950. Shingle ramparts of coarse material originate on weather side of reefs and varied through time: in 1875 mainly on NW sides of islands (period of dominant W-monsoon), in 1927 in N, NE and E (period of dominant E-monsoon), in 1939 and 1950 most on W sides (period of dominant W-monsoon))

Veron, J.E.N. & R. Kelley (1988)- Species stability in reef corals of Papua New Guinea and the Indo Pacific. Memoir Assoc. Australasian Palaeontologists (AAP) 6, p. 1-69.
(Pliocene coral fauna from PNG with 85 species, of which 87% still extant)

Verweij, J. (1930)- Depth of coral reefs and penetration of light. With notes on oxygen consumption of corals. Proc. 4th Pacific Science Congress, Java 1929, 2A, p. 277-299.

(Oxygen content of water in lagoon of one of islands in Bay of Jakarta rises during day and falls at night, suggesting production of oxygen by algae during day and significant consumption by reef at night. Lower depth limit of reef corals controlled by depth of light penetration (corals depend on zooxanthellid algae for food), This is usually around 40m, but may be reduced in areas of clay-silt sediment supply, like Bay of Jakarta)

Verweij, J. (1930)- Coral reef studies. Treubia 12, p. 305-366.
(online at: http://e-journal.biologi.lipi.go.id/index.php/treubia/article/view/1894/1780)
(Mainly zoological studies of Indonesian coral reefs)

Verweij, J. (1931)- Coral reef studies II. The depth of coral reefs in relation to their oxygen consumption and the penetration of light in the water. Treubia 13, 2, p. 169-198.
(online at: http://e-journal.biologi.lipi.go.id/index.php/treubia/article/view/1933/1816)
(Observations on Onrust island coral reef in W Bay of Batavia. Close correlation between amount of suspended silt (light penetration) and lower depth limit of growth of reef corals)

Verweij, J. (1931)- Coral reef studies III. Geomorphological notes on the coral reefs of Batavia Bay. Treubia 13, 2, p. 199-215.
(online at: e-journal.biologi.lipi.go.id/index.php/treubia/article/download/1934/1817)
(Observation on coral islands Dapur, Damar Besar (edam) and Pulau Ayer (Hoorn) in Bay of Jakarta, after initial work of Umbgrove. Not much coral growth below ~10-15m, due to silt content of bay water)

Waheed, Z. & B.W. Hoeksema (2013)- A tale of two winds: species richness patterns of reef corals around the Semporna Peninsula, Malaysia. Marine Biodiversity 43, p. 37-51.
(online at: https://link.springer.com/content/pdf/10.1007/s12526-012-0130-7.pdf)
(Highest concentration of Malaysian (N Borneo) coral reefs is in coastal area of Semporna, E Sabah, which is located just within the boundaries of the 'Coral Triangle' of maximum marine species diversity. Five main reef types. Increasing coral diversity from exposed barrier reef to more sheltered nearshore reefs)

Waheed, Z., H.G.J. van Mil, M.A.S. Hussein, R. Jumin, B.G. Ahad & B.W. Hoeksema (2015)- Coral reefs at the northernmost tip of Borneo: an assessment of scleractinian species richness patterns and benthic reef assemblages. PLoS One 10, 12, e0146006, p. 1-25.
(online at: https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0146006)
(Coral reefs around Kudat and Bengkoka Peninsulas of N Sabah)

Wallace, C.C. (1997)- The Indo-Pacific center of coral diversity re-examined at species level. Proc. 8th International Coral Reef Symposium, Panama, 1, p. 365-370.
(On distribution pattern of Acropora coral species in Indonesia)

Wallace, C.C. (1999)- The Togian Islands: coral reefs with a unique coral fauna and an hypothesized Tethys Sea signature. Coral Reefs 18, p. 162. *(Abstract only?)*
(Acropora coral fauna of Togian Islands, N Sulawesi, high diversity and includes 'relict Tethys Sea' elements (conclusion re-assessed in Wallace 2001: more likely remnant Pacific fauna))

Wallace, C.C. (2001)- Wallace's line and marine organisms: the distribution of staghorn corals (*Acropora*) in Indonesia. In: I. Metcalfe (ed.) Faunal and floral migrations and evolution in SE Asia-Australasia, Balkema, p. 168-178.
(online at: https://www.researchgate.net/publication/274412576_Wallace_C_C_2001_Wallace's_line_and_marine_organisms_the_distribution_of_staghorn_corals_Acropora_in_Indonesia)
(Distribution patterns of 89 species of Acropora staghorn coral, which has highest diversity in Wallacea region (= E Indonesia) (but is not center of origin). In Indonesian Archipelago overlap of Indian Ocean species (diminishing E-ward) and Pacific Ocean species (diminishing W-wards), with stronger Pacific influence possibly due to access of larvae through the Indonesian Throughflow currents)

Wallace, C.C., G. Paulay, B.W. Hoeksema, D.R. Bellwood, P.A. Hutchings, P.H. Barber et al. (2000)- Nature and origins of unique high diversity reef faunas in the Bay of Tomini, Central Sulawesi: The ultimate "center of diversity"? Proc. 9th International Coral Reef Symposium, Bali 2000, 1, p. 185-192.
(online at: https://www.academia.edu/2937380/Nature_and_origins_of_unique_high_diversity_reef_faunas_in_the_Bay_of_Tomini_Central_Sulawesi_The_ultimate_centre_of_diversity)
(Togian Islands support reef fauna with strong affinities to West Equatorial Pacific, also links with Sulawesi. Islands. Represent lagoonal refugia from Pleistocene lowlands. Little or no influence from Indian Ocean)

Wallace, C.C. & J. Wolstenholme (1998)- Revision of the coral genus *Acropora* (Scleractinia: Astrocoeniina: Acroporidae) in Indonesia. Zoological J. Linnean Society 123, p. 199-384.
(online at: https://pmc.ncbi.nlm.nih.gov/articles/PMC7165868/pdf/ZOJ-123-199.pdf)
(Review of 83 species of coral genus Acropora is reviewed from Indonesia, based on collections from 131 sites in 1993-1996. Species of Acropora in Indonesian waters include (1) five known only from Indian Ocean and Indonesia, (2) seven from Pacific Ocean, South China Sea and Indonesia, (3) 10 species apparently endemic to Indonesia, and (4) widespread Indo-Pacific species)

Watanabe, T., M.K. Gagan, T. Correge, W.S. Hantoro, H. Scott-Gagan, J. Cowley, G.E. Mortimer & M.T. McCulloch (2002)- Palaeoclimate reconstruction using *Diploastrea* and *Porites* corals from Alor in Eastern Indonesia. Proc. 31st Annual Conv. Indonesian Association Geologists (IAGI), Surabaya, 2, p. 645. *(Abstract only?)*
(Alor in Banda Sea is in core of Indo-Pacific warm Pool. 18O isotopes of coral growth stages used to monitor inter-annual climate changes. El Nino events in last 30 years clearly reflected by increased 18O)

Webster, J.M., J.C. Braga, D.A. Clague, C. Gallup, J.R. Hein, D.C. Potts, W. Renema, R. Riding et al. (2009)- Coral reef evolution on rapidly subsiding margins. Global and Planetary Change 66, p. 129-148.
(online at: https://robertriding.com/pdf/websteretal2009_1.pdf)
(Series of submerged coral reefs in Huon Gulf (PNG) and around Hawaii. Rapid subsidence (2-6 m/ka over last 500 ka), combined with eustatic sea-level changes, responsible for repeated drowning and backstepping of coral reefs. Reef drowning characterized by distinct biological and sedimentary sequence. In short term, rate and amplitude of eustatic sea-level changes control initiation, growth, drowning or sub-aerial exposure, subsequent reinitiation, and final drowning. Over longer time scales (>100-500 ka) tectonic subsidence and basement substrate morphology influence reef morphology and backstepping geometries)

Webster, J.M., L. Wallace, E. Silver, B. Applegate, D. Potts, J.C. Braga & C. Gallup (2004)- Drowned carbonate platforms in the Huon Gulf, Papua New Guinea. Geochem. Geophysics Geosystems 5, 11, Q11008, p. 1-31.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/2004GC000726/pdf)
(W Huon Gulf actively subsiding foreland basin with 14 drowned carbonate platforms and many pinnacles/ banks, increasing in age (~20-450 kyr) and depth (0.1-2.5 km) NE to Ramu- Markham Trench. Superimposed on downward flexing of platforms toward trench is tilting of deep platforms to NW and shallow platforms to SE. This may reflect encroaching thrust load from NW (Finisterre Range). Over shorter time scales (~100 kyr) eustatic sea level changes critical in controlling initiation, growth, drowning of platforms. Tectonic subsidence and basement morphology influence backstepping geometry and tilting of platforms over longer timescales)

Webster, J.M., L. Wallace, E. Silver, D. Potts, J.C. Braga, W. Renema, K. Coleman-Riker & C. Gallup (2004)- Coralgal composition of drowned carbonate platforms in the Huon Gulf, Papua New Guinea: implications for lowstand reef development and drowning. Marine Geology 204, p. 59-89.
(Coral, algae, larger forams facies models and development of Pleistocene carbonate platforms, Huon Gulf. Facies from shallow to deep: 1. Coral reef lst (reef flat-upper reef slope <20m; with Calcarina), 2. Coralline algal- foraminiferal nodule limestone, 3. Halimeda limestone (deep fore-reef slope ~20-60m; with Amphistegina, Heterostegina, Operculina), 4. Coralline algal- foraminiferal crust limestone (deeper fore-reef slope ~60-90m; with Amphistegina, Cycloclypeus, Heterostegina operculinoides, Operculina) and 5. Planktonic foraminifera limestone (with Amphistegina, Cycloclypeus, Heterostegina))

Whitehouse, F.W. (1973)- Coral reefs of the New Guinea Region. In: O.A. Jones & R. Endean (eds.) Biology and geology of coral reefs, 1, Academic Press, New York, p. 169-186.

Wichmann, C.E.A. (1912)- On the so-called atolls of the East-Indian Archipelago. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 14, p. 698-711.
(online at: https://dwc.knaw.nl/DL/publications/PU00013229.pdf)
(Dutch version online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:036997000:00009)
(Review of distribution of modern coral reefs in Indonesia. Most are fringing reefs and patch reefs. True atolls or barrier reefs are absent or virtually so in the East Indies Archipelago)

Wienberg, C., H. Westphal, E. Kwoll & D. Hebbeln (2010)- An isolated carbonate knoll in the Timor Sea (Sahul Shelf, NW Australia): facies zonation and sediment composition. Facies 56, 2, p. 179-193.
(Facies and biota description of Pee Shoal in Timor Sea. Steep and flat-topped knoll. Facies zonation: (A) scarce sponges, hydrozoans and crinoids (320-210m water depth); (B) hardground outcrops (step-like banks, vertical cliffs) colonized by octocorals and sponges (210-75m); (C) summit region (75-21m) slopes merge gently into flat-topped summit, colonized by massive and encrusting corals and octocoral Heliopora. Sediments from summit dominated by Halimeda)

Wijsman-Best, M.B. (1977)- Coral research in the Indonesian Archipelago, the past, the present and the future. Marine Research in Indonesia 17, p. 1-14.
(online at: https://www.researchgate.net/publication/343550355_CORAL_RESEARCH_IN_THE_INDONESIAN_ARCHIPELAGO_THE_PAST_THE_PRESENT_AND_THE_FUTURE)
(Includes brief historical account of coral reef research in Indonesia before 1950 (incl. works by Molengraaff, Umbgrove, Niermeijer, Verweij, Kuenen, etc.))

Wilson, M.E.J. (2002)- Cenozoic carbonates in Southeast Asia: implications for equatorial carbonate development. Sedimentary Geology 147, p. 295-428.
(online at: www.academia.edu/download/39358644/Wilson_M._E._J.__Cenozoic_carbonates_in_Southeast_Asia_implications_for_equatorial_carbonate_development._Sedimentary_Geology_147_342015.pdf)
(Most comprehensive modern review of Tertiary carbonates in SE Asia)

Wilson, M.E.J. (2008)- Reservoir quality of Cenozoic carbonate buildups and coral reef terraces. Proc. 32nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA08-G-155, p. 1-8. *(online at: www.academia.edu/31155294/Reservoir_quality_of_Cenozoic_carbonate_buildups_and_coral_reef_terraces)*
(On ongoing research on modern carbonates of Wakatobi area, Tukang Besi Islands, SE of Buton/Sulawesi. Archipelago includes large atolls, smaller buildups and 4 main islands with modern rimmed shelves or fringing reefs. On islands >10 Pliocene- Quaternary coral reef terraces, uplifted to ~300m)

Wilson, M.E.J. (2008)- Global and regional influences on equatorial shallow-marine carbonates during the Cenozoic. Palaeogeogr. Palaeoclim. Palaeoecology 255, p. 262-274.
(online at: http://searg.rhul.ac.uk/pubs/wilson_2008%20Equatorial%20shallow-marine%20carbonates.pdf)
(Marked change from larger foram to coral-dominated carbonate producers around Oligo-Miocene boundary. Early Miocene acme of coral development in SE Asia)

Wilson, M.E.J. (2011)- SE Asian carbonates: tools for evaluating environmental and climatic change in the equatorial tropics over the last 50 million years. In: R. Hall, M.A. Cottam & M.E.J. Wilson (eds.) The SE Asian gateway: history and tectonics of Australia-Asia collision, Geological Society, London, Special Publ. 355, p. 347-369.
(online at: http://searg.rhul.ac.uk/pubs/wilson_2011%20SE%20Asian%20carbonates.pdf)
(Review of shallow water carbonate environmental and climatic changes through last 50 My in SE Asia)

Wilson, M.E.J. (2012)- Equatorial carbonates: an Earth systems approach. In: Carbonate platforms: archives of past global change, Sedimentology 59, 1, p. 1-31.
(Review of low-latitude carbonate systems, with examples from SE Asia)

online at: https://www.academia.edu/17164228/Equatorial_carbonates_an_earth_systems_approach)

Wilson, M.E.J. (2015)- Oligo-Miocene variability in carbonate producers and platforms of the Coral Triangle biodiversity hotspot; habitat mosaics and marine biodiversity. Palaios 30, 1, p. 150-168.
(Mainly review of Tertiary carbonates of Kutai Basin of E Kalimantan)

Wilson, M.E.J. & R. Hall (2010)- Tectonic influences on SE Asian carbonate systems and their reservoir development. In: W.A. Morgan, W.A. George et al. (eds.) Cenozoic carbonate systems of Australasia, Soc. Sedimentary Geology (SEPM), Special Publ. 95, p. 13-40.
(online at: https://www.researchgate.net/publication/229042787_Tectonic_Influences_on_SE_Asian_Carbonate_Systems_and_their_Reservoir_Development)
(Tectonics control location of SE Asian Cenozoic carbonate deposits. 70% of 250 shallow marine carbonate formations in SE Asia initiated as attached features, 90% of economic hydrocarbon discoveries developed over antecedent topography, of which >75% isolated platforms. Economic reservoirs mainly in backarc and rift-margin settings (40% each). Demise of many platforms influenced by tectonic subsidence, often in combination with eustatic sea-level rise and environmental perturbations. Fractures enhance reservoir quality or may cause compartmentalization of reservoirs through formation of fault gouge or fault leakage)

Wilson, M.E.J. & S.W. Lokier (2002)- Siliciclastic and volcaniclastic influences on equatorial carbonates: insights from the Neogene of Indonesia. Sedimentology 49, p. 583-601.
(online at: https://www.academia.edu/17164227/Siliciclastic_and_volcaniclastic_influences_on_equatorial_carbonates_insights_from_the_Neogene_of_Indonesia)
(Despite significant clastic influence, Neogene carbonates developed adjacent to major deltas or volcanic arcs, and are comparable with modern mixed carbonate-clastic deposits in region. Regional carbonate development in areas of high clastic input influenced by antecedent highs, changes in amounts or rates of clastic input, delta lobe switching or variations in volcanic activity, energy regimes and relative sea-level change. With examples from patch reef complexes in Miocene deposits of proto-Mahakam and Wonosari Platform, Java S Mountains)

Wilson, M.E.J. & B.R. Rosen (1998)- Implications of paucity of corals in the Paleogene of SE Asia: plate tectonics or center of origin? In: R. Hall & J.D. Holloway (eds.) Biogeography and geological evolution of SE Asia, Backhuys Publishers, Leiden, p. 165-195.
(online at: https://www.researchgate.net/publication/267260031_Implications_of_paucity_of_corals_in_the_Paleogene_of_SE_Asia_plate_tectonics_or_Centre_of_Origin)
(Corals generally rare in Eocene- Oligocene carbonates of SE Asia. Instead, dominated by larger foraminifera and coralline algae)

Wilson, M.E.J. & A. Vecsei (2005)- The apparent paradox of abundant foramol facies in low latitudes: their environmental significance and effect on platform development. Earth-Science Reviews 69, p. 133-168.
(Locally common Recent larger foram-rich carbonates at tropical latitudes in SE Asia and Australia)

Wizemann, A., T. Mann, A. Klicpera & H. Westphal (2015)- Microstructural analyses of sedimentary *Halimeda* segments from the Spermonde Archipelago (SW Sulawesi, Indonesia): a new indicator for sediment transport in tropical reef islands? Facies 61, 2, p. 1-18.

Yamano, H., G. Cabioch, B. Pelletier, C. Chevillon, H. Tachikawa, J. Lefevre et al. (2015)- Modern carbonate sedimentary facies on the outer shelf and slope around New Caledonia. Island Arc 24, p. 4-15.
(Encrusted grains facies (rhodoliths, macroids) generally distributed at depths of 75-200m and associated with Cycloclypeus carpenteri. Ahermatypic coral facies on cone-like mounds at depths of 240-520 m)

Yamano, H., H. Kayanne, F. Matsuda & Y. Tsuji (2002)- Lagoonal facies, ages, and sedimentation in three atolls in the Pacific. Marine Geology 185, 3-4, p. 233-247.
(Lagoons in atolls of Palau and Marshall islands 3 facies: Calcarina, Calcarina-Heterostegina and Heterostegina facies, based on presence/ absence of larger forams Calcarina (reef flat) and Heterostegina (deep

lagoon). Calcarina facies allochthonous reef-derived materials, Heterostegina facies mainly in situ lagoonal materials)

Yamano, H., T. Miyajima & I. Koike (2000)- Importance of foraminifera for the formation and maintenance of a coral sand cay: Green Island, Australia. Coral Reefs 19, p. 51-58.
(Green Island Reef (Great Barrier Reef, Australia) sand cay major constituents benthic foraminifera (mainly Amphistegina lessonii, Baculogypsina sphaerulata, and Calcarina hispida), calcareous algae (Halimeda and coralline algae), hermatypic corals, and molluscs. Benthic foraminifera ~30% of total sediment)

Yi, L., Z. Jian, X. Liu, Y. Zhu, D. Zhang, Z. Wang & C. Deng (2018)- Astronomical tuning and magnetostratigraphy of Neogene biogenic reefs in Xisha Islands, South China Sea. Science Bulletin (China) 63, 9, p. 564-573.
(online at: https://www.sciengine.com/SB/doi/10.1016/j.scib.2018.04.001)
(Cyclostratigraphic and magnetostratigraphic study on Miocene-Pliocene reef buildup using XK-1 core, drilled at Shidao Island, Xisha (Paracel) Islands. Astronomical geochronology suggests that bottom ages for Ledong, Yinggehai, Huangliu, Meishan and Sanya Fms are 2.2 Ma, 5.7 Ma, 10.4 Ma, 16.6 Ma and 24.3 Ma. Earth's eccentricity and obliquity played dominant roles in biogenic reef growth)

Zaneveld, J.S. & H.Th. Verstappen (1952)- A recent investigation about the geomorphology and the flora of some coral islands in the Bay of Djakarta. J. Scientific Research 3, p. 58-68.
(First research of Bay of Jakarta coral reef islands since Umbgrove in 1927. Several rel. minor changes. With outline of modern floral zonation on coral islands (incl. marine algae and sea weeds)

XI. INDONESIA- SE ASIA: PALEONTOLOGY, BIOSTRATIGRAPHY

The following chapters on paleontology-biostratigraphy papers tend to be of a more general nature. Numerous additional papers with biostratigraphy content that are case studies with geological implications for specific areas, are listed under those areas;and are not repeated here. These chapters also include titles from Circum-Indonesian areas that may be relevant for interpretations of Indonesian materials.

XI.1. Quaternary/Recent faunas-microfloras and distribution, Biogeography

Adisaputra, Mimin Karmini (1985)- Paleontological analyses of the Sawu Basin, Lombok basin and Argo abyssal plain. Proc. 14th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 205-221.
(online at: https://www.iagi.or.id/web/digital/40/PIT_IAGI_1985_paper19.pdf)
(Recent foraminifera distribution in seafloor samples collected during Snellius-II Expedition)

Adisaputra, Mimin K. (1988)- Late Quaternary calcareous nannoplankton in the surface sediment of Makasar and Flores basin, Indonesia. Bull. Marine Geological Institute 3, 1, p. 25-36.

Adisaputra, Mimin K. (1989)- Planktonic foraminifera in recent bottom sediments of the Flores, Lombok and Savu Basins, eastern Indonesia. In: J.E. van Hinte et al. (eds.) Proc. Snellius II Symposium, Jakarta 1987, Netherlands J. of Sea Research 24, 4, p. 465-475.
(Planktonic foraminiferal assemblages differ between Flores, Lombok and Savu Basins. In Flores Basin Ng. dutertrei dominant, followed by Gr. menardii, Pulleniatina obliquiloculata, Hastigerina siphonifera and Globigerina bulloides. Lombok and Savu Basins dominated by Gr. menardii, with Pulleniatina obliquiloculata, Gs. ruber and Gr. tumida)

Adisaputra, Mimin K. (1991)- Mikrofauna dan potensi wisata perairan Benoa, Bali. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 1, 2, p. 2-6.
('Microfauna and recreational potential of the water of Benoa, Bali'. Beach sand at Benoa, S of Denpasar, SE Bali, contains abundant foraminifera of genus Schlumbergerella, also Amphistegina lessoni, Calcarina calcar, Tinoporus spengleri, Baculogypsisna sphaerulata, Operculina, etc.)

Adisaputra, Mimin K. (1992)- Mikrofauna perairan Muria. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 2, 5, p. 11-16.
('Microfauna in the waters of Muria'. Shallow marine small benthic forams of Java Sea N of Muriah volcano. At less than 20m common Ammonia beccarii, Eponides praecinctus and Asterorotalia trispinosa. In deeper parts more Ammonia annectens, Pseudorotalia schroeteriana and Quinqueloculina. Not much detail)

Adisaputra, Mimin K. (1992)- Late Neogene planktonic foraminifera of the Makasar Basin. Bull. Marine Geological Institute 7, 1, p. 15-21.
(Abundant planktonic foraminifera in Makassar Straits bottom samples between 42-2300m, collected during Snellius II expedition. Globigerinoides ruber dominant in North, Neogloboquadrina dutertrei in S part)

Adisaputra, Mimin K. (1996)- Planktonic foraminifera and oxygen isotope records in two cores from the Banda Sea and Indian Ocean. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 6, 57, p. 10-17.
(Study of Quaternary planktonic foraminifera from two ~7-8m long French- Indonesian cores collected in 1990, one SW of Timor (2313m), one in Banda Sea depth (3163m). Neogloboqudrina dutertrei is indicator of rel. low salinity, Globorotalia menardii for rel. high salinity)

Adisaputra, Mimin K. (1996)- Biostratigrafi kuarter sedimen dasar laut perairan Indonesia bagian Timur dan Samudera Hindia. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 6, 59, p. 2-6.
('Stratigraphy of Quaternary seafloor sediments in waters of eastern Indonesia and the Indian Ocean'. Study of Quaternary planktonic foraminifera from 46 seven meter long seafloor cores in deep waters of E Indonesia and adjacent Indonesian Ocean. Four subzones in Quaternary Globorotalia truncatulinoides zone (N22-N23), from

top: (1) Globorotalia fimbriata- Bolliella adamsi, (2) Globigerina calida, (3) Globorotalia crassaformis hessi and (4) Globigerinoides cyclostomus))

Adisaputra, Mimin K. (1997)- Foraminifera sedimen permukaa perairan Selat Bangka-Belitung. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 7, 70, p. 2-10.
('Foraminifera from seafloor sediments of Bangka-Belitung Straits'. 38 seafloor samples from straits S of Bangka and Belitung in water depths 10-50m. Dominant foraminifera Operculina ammonoides and other spp., followed by Quinqueloculina, Amphistegina lessonii, Elphidium, Cellanthus, Pseudorotalia schroeteriana, etc.)

Adisaputra, Mimin K. (1998)- *Schlumbergerella floresiana* accumulation in coastal zone of Bali and Nusatenggara, Indonesia: implementation for tourism. Proc. 33rd Session Coord. Comm. Coastal and Offshore Programmes E and SE Asia (CCOP), Shanghai 1996, p. 310-316.
('White sands' along coasts of E Bali, W Lombok, N Sumbawa and S Flores composed mainly of rounded foraminifera Schlumbergerella floresiana (formerly also called Tinoporus, Baculogypsina, Baculogypsinoides; JTvG). Forams derived from adjacent coral reefs)

Adisaputra, Mimin K. (1998)- Foraminifera bentos pantai Senggigi, Lombok Barat dan asosiasinya; faktor penunjang pariwisata. Proc. 27th Annual Conv. Indonesian Association Geologists (IAGI), 2 (Sedimentology Paleontology Stratigraphy), Yogyakarta, p. 53-65.
(online at: https://www.iagi.or.id/web/digital/56/32.pdf)
('Benthic foraminifera of Senggigi Beach, W Lombok, and its associations; factors supporting tourism'. Senggigi beach with abundant foraminifera derived from adjacent reef flat, dominated by Schlumbergerella floresiana. Also Baculogypsina, Baculogysinoides spinosus, Amphistegina lessonii, Calcarina calcar))

Adisaputra, Mimin K. (2000)- Recent foraminifera on the coast and offshore of East Lombok, Eastern Indonesia. Proc. 36th Session Coord. Comm. Coastal and Offshore Programmes E and SE Asia (CCOP), Hanoi 1999, p. 181-200.
(Benthic foraminifera from East Lombok coast and Alas Strait shallow waters down to 90m. In N and central parts Amphistegina lessonii dominant and associated with Calcarina. In S Asterorotalia ('Rotalinoides') gaimardii dominant, still with Amphistegina. Beach samples in N with common Schlumbergerella and Baculogypsinoides, derived from coral reef. Planktonic foraminifera rare)

Adisaputra, Mimin K. (2000)- Late Neogene planktonic foraminiferal biostratigraphy of two cores in Timor waters, Indonesia. Majalah Geologi Indonesia (IAGI) 24, 1, p. 39-50.

Adisaputra, Mimin K. & M. Hendrizan (2011)- Foraminifera perairan Balikpapan, Kalimantan Timur: lingkungan pengendapan dan pengaruhnya. J. Geologi Kelautan 9, 2, p. 119-133.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/205/195)
('Foraminifera from waters off Balikpapan, East Kalimantan: depositional environment and its effects'. 195 benthic and 34 planktonic foraminifera species in Makassar Straits seafloor samples off Balikpapan, between 18-562m depth. Asterorotalia trispinosa dominant around 20m, Heterolepa praecincta most abundant from ~50-300m, Karreriella brady and Uvigerina spp. common only >300m, etc. Cycloclypeus only at 71 and 83m. Abundant planktonic foraminifera Neogloboquadrina dutertrei below 100m, indicating rel. low salinity.)

Adisaputra, Mimin K., M. Hendrizan & A. Kholiq (2010)- Katalog foraminifera perairan Indonesia. Pusat Puslitbang Geologi Kelautan, Bandung, p. 1-198.
('Catalog of Foraminifera collected from Indonesian seas')

Adisaputra, Mimin K. & D. Rostyati (2000)- Recorded Recent foraminifera in the surface sediment of Sunda Strait water. Proc. 29th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 4, p. 117-132.
(Foraminifera from 12 seafloor samples in Sunda Straits and adjacent Indian Ocean between 52- 2180m. Rel. common planktonic foram Neogloboquadrina dutertrei, possibly related to rel. low salinity. Most common benthics Bulimina and Bolivina (mostly 490-1580m). Hyalinea balthica between 489-1078m)

Adisaputra, Mimin K. & D. Rostyati (2003)- Foraminifera sedimen dasar Laut Delta Mahakam, Kalimantan Timur. J. Geologi Kelautan 1, 3, p. 1-10.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/98/88)
('Foraminifera in sediments offshore Mahakam Delta, E Kalimantan'. Foram distribution in samples mainly from 10-100m water depth. 39 species of planktonic, 149 benthic foraminifera. Common benthics Amphistegina lessonii, Heterolepa, Operculina and Pseudorotalia schroeteriana. Max. diversity at depth of 63,5 m)

Amijaya, H., Ngisomuddin & Akmaluddin (2010)- Characterization of July 17, 2006 tsunamiite at South coast of West Java. J. Southeast Asian Applied Geology (UGM) 2, 1, p. 35-39.
(online at: https://journal.ugm.ac.id/index.php/jag/article/viewFile/7232/5672)
(Deposits of July 26 tsunami at Pangandaran Beach, W Java. Mainly f-m sand, ~10-12cm thick, separated from older beach sediment by erosional surface. Sedimentary structures parallel lamination and current ripples. No vertical fining trends. With transported shallow and deeper marine benthic foraminifera, incl. Ammonia, Elphidium, Amphistegina, Cibicides., Biginerina, Bolivina, Bathysiphon, Nodosaria and Quinqueloculina)

Anderson, J.A.R. (1963)- The flora of the peat swamp forests of Sarawak and Brunei, including a catalogue of all recorded species of flowering plants, ferns and fern allies. Singapore Gardens Bull. 20, p. 131-228.
(All modern coastal and deltaic peat swamps of N Borneo raised bog type. 243 plant/tree species, in 6 communities: 1) Mixed swamp forest, 2) Alan forest, 3) Alan bunga forest, 4) High pole forest, 5) Low pole forest, 6) Padang keruntum)

Ardi, R.D.W, Aswan, K.A. Maryunani, E. Yulianto, P.S Putra & S.H. Nugroho (2023)- First occurrence of planktonic foraminiferal species *Boliella adamsii* as a marker for the Pleistocene-Holocene boundary in the sea around Sumba Island. Proc. Second Int. Seminar on Earth Sciences and Technology (ISEST-2023), Bandung, IOP Conference Series: Earth and Environmental Science 1245, 012025, p. 1-12.
(online at: https://iopscience.iop.org/article/10.1088/1755-1315/1245/1/012025/pdf)
(Pleistocene- Holocene boundary depth in cores off Sumba Island nearly coeval with first occurrence of planktonic foraminifer Boliella adamsii (N.B.:both genus and species names missspelled; should be Bolliella adamsi; JTvG))

Ardi, R.D.W., Aswan, K.A. Maryunani, E. Yulianto, P.S Putra & S.H. Nugroho (2023)- Sea surface paleoproductivity reconstruction based on foraminiferal accumulation rate in the western Savu Strait since the Last Glacial Maximum (~23 ka BP). Rudarsko-Geolosko-Naftni Zbornik (Mining-Geology-Petroleum Engineering Bulletin), Zagreb, 38, 1, 62, p. 167-178.
(online at: https://hrcak.srce.hr/ojs/index.php/rgn/article/view/23308/13606)

Ardi, R.D.W., K.A. Maryunani, E. Yulianto, P.S Putra & S.H. Nugroho (2019)- Biostratigrafi dan analisis kedalaman termoklin di Lepas Pantai Barat Daya Sumba sejak Pleistosen Akhir berdasarkan kumpulan foraminifera planktonik. Bulletin of Geology (ITB) 3, 2, p. 355-362.
(online at: https://buletingeologi.com/index.php/buletin-geologi/issue/download/8/Paper%203%20-%20Ryan%20Dwi%20Wahyu%20Ardi)
('Biostratigraphy and thermocline depth analysis in the Southwest Sumba Offshore since the Late Pleistocene based on planktonic foraminifera assemblages'. Late Pleistocene- Holocene 235cm long deep marine core S8, off SW Sumba. Relatively abundant thermocline dwellers Neogloboquadrina dutertrei, Pulleniatina obliquiloculata and Globorotalia menardii during Pleistocene, indicating shallower thermocline (eutrophic condition), and tied to SE monsoon domination during Pleistocene (stronger Indonesian Throughflow))

Aswan, Y. Zaim & Y. Rizal (2006)- Distribution of Quarternary freshwater molluscs fossils in Jawa. In: Y. Zaim et al. (eds.) S. Sartono: dari hominid ke delapsi dengan kontroversi, Penerbit ITB, Bandung, Chapter 9, p. 109-120.

Auliaherliaty, L., K.T. Dewi & Y.A. Priohandono (2004)- Foraminifera di Teluk Sepi- Blongas, Lombok selatan, Nusa Tenggara Barat dan kaitannya dengan faktor lingkungan. J. Geologi Kelautan 2, 3, p. 1-8.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/115/105)

(Seafloor sediment samples of 1-78m in Sepi-Blongas Bay, S Lombok, with 133 foraminiferal species, mainly Ammonia beccarii, Elphidium crispum, Pattelina, Amphistegina lessonii, Calcarina, Pyrgo, Quinqueloculina, etc. Genus Calcarina with 15 species (?))

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(online at: https://popups.uliege.be/0037-9395/index.php?id=5366)
(Eight species of soritids, incl. Marginopora vertebralis)

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(Foraminifera from three reef flats of of Lizard Island archipelago in N Great Barrier Reef. Highest abundances reached by Soritidae (Peneroplis, Sorites, Marginopora, Spiroloculina, etc.), Amphistegina lobifera, Calcarinidae (Calcarina spengleri, Baculogypsina sphaerulata) and Elphidiidae (E. crispum). 104 species identified. Distributions closely related to distribution of algal substrate)

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(online at: http://dspace.library.uu.nl/handle/1874/238680)
(Collection of papers on subrecent foraminifera in Adriatic Sea, semi-enclosed Kau Basin (Halmahera; sill depth 40m) and Molucca Sea. Three categories of species: epifaunal, predominantly infaunal and infaunal. Kau Basin, Halmahera was freshwater lake during Last Glacial Maximum, became reconnected with open ocean about 10 ka due to sea level rise at Pleistocene- Holocene transition. Dysoxic bottom conditions prevailed throughout Holocene. Piston core off Halmahera in N Molucca Sea suggest Pleistocene glacial climate was drier than today and surface water T 2.5° C lower than today)

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(Read-online at: https://onlinelibrary.wiley.com/doi/epdf/10.1002/spp2.1273)
(Paleobiogeography and evolutionary lineages of Late Eocene-Recent alveolinid Borelis species, incl. Indo-Pacific Borelis pygmaea Hanzawa 1930 from Late Oligocene Rajamandala Limestone in W Java))

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(10m-long section in core from 3800m depth at 9°S on Ninety-East Ridge, Indian Ocean, consists of 2/3 of diatom Ethmodiscus rex and 1/3 planktonic foraminifera. Age ~30 ka- 11 ka. During glacial time, Pacific Ocean thermocline waters may have moved above site, providing silica and nutrients required by diatoms)

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(Paleoproductivity in Sunda Strait study area driven by salinity, sea surface temperature, and thermocline depth. Three facies: (I) increase in Globigerina bulloides, indicating paleoproductivity influenced by upwelling and SE monsoon; (II) relatively shallow thermocline reflected by extinction of Globorotalia crassaformis and decreasing Globorotalia hirsuta (increased run-off and terrigenous influx controlled by NW monsoon; (III) decreasing oligotrophic Globigerinoides, indicating eutrophic water during increased run-off)

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Chen, C.W., K.Y. Wei, H.S. Mii & T.N. Yang (2008)- A Late Quaternary planktonic foraminiferal oxygen isotope record of the Banda Sea: chronostratigraphy, orbital forcing, and paleoceanographic implications. Terrestrial Atmospheric Oceanic Sciences (TAO) 19, 4, p. 331-339.
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(Oxygen isotope time-scale based on planktonic foram Globigerinoides sacculifer at piston core site MD012380 in water depth 3232m in Banda Sea was established for past 820 ky. Spectral analysis of 18 O time-series reveals distinct periodicities of 100, 41, and 23 ky, indicating strong orbital forcing)

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(Modern pollen rain samples from western Malay Peninsula. With 29 plates)

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(Presentation online at: http://www.ukm.my/wgm/wgm2011pdf/6.%20Siti%20Umiyatun%20Choiriah.pdf)
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(online at: www.researchgate.net/publication/302382186_Coral_diversity_across_a_disturbance Etc.)
(Study of coral richness, cover, and composition in Jakarta Bay and Pulau Seribu reef complex off Jakarta. Coral cover very low and composition differed markedly in near-shore zone 1 (Jakarta Bay), where human-induced disturbance is most intense, and highest in outlying reefs of Seribu islands)

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(Mangrove swamp samples from Setiu wetlands of NE Peninsular Malaysia with 13 infauna taxa. Six taxa live in all cores: Ammobaculites exiguus, Bruneica clypea, Caronia exilis, Haplophragmoides, Siphotrochammina and Trochammina inflata. Upper mangrove swamp populations with Arenoparella mexicana (=Trochammina inflata mexicana), Haplophragmoides wilberti, Miliammina fusca, Miliammina obliqua, Trochammina inflata and calcareous Helenina anderseni. Low-mangrove-swamp and adjacent mudflat populations dominated by calcareous species such as Ammonia aoteana, Rosalina sp., Elphidium oceanicum, and Triloculina oblonga)

Culver, S.J., D.J. Mallinson, D.R. Corbett, E. Leorri, A.A. Rouf, N.A.M. Shazili, R. Yaacob, J.E. Whittaker, M.A. Buzas & P.R. Parham (2012)- Distribution of foraminifera in the Setiu estuary and lagoon, Terengganu, Malaysia. J. Foraminiferal Research 42, p. 109-133.
(Four benthic foram thanatofacies in Setiu wetlands of NE Peninsular Malaysia, related to variations in salinity and hydrodynamics: (1) low salinity estuarine: low diversity assemblage dominated by Ammotium directum, Trochammina amnicola, Miliammina fusca and Ammobaculites exiguus; (2) medium salinity lagoon: dominated by Ammobaculites exiguus; (3) high salinity estuary and lagoon: high diversity, dominated by A. exiguus and Ammonia aff. A. aoteana; (4) normal marine salinity inlet and adjacent lagoon: high diversity dominated by Amphistegina lessonii, Ammonia aff. A. aoteana)

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(Descriptions of smaller bulimimid benthic foraminifera from tropical Pacific Ocean. For Part 4 of series see Todd 1965)

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(online at: http://pubs.usgs.gov/pp/0260h/report.pdf)
(331 species from 195 samples from lagoons and outer slopes of Marshall Islands: Rongerik, Rongelap, Bikini and Eniwetok, range in depth from beach to 835 fathoms. Reef flat fauna characterized by common Calcarina spengleri, Marginopora vertebralis, Homotrema rubrum, Miniacina miniacea, Carpenteria proteiformis and Amphistegina madagascariensis. Lagoon fauna dominated by A. madagascariensis and Heterostegina suborbicularis)

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(On low diversity fresh water Thecamoebian amoebae assemblage in Lake Sentani, NE Papua)

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(Larger foraminifera Baculogypsina sphaerulata, Marginopora and Amphistegina contribute 55% of calcareous sediment produced on Raine Island reef)

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(Variable and often chaotic diatom assemblages can be attributed to tsunami waves incorporating and depositing diatoms from intertidal and offshore habitats during runup and subsequent backwash. Tsunami sand deposits have high % of broken diatom valves and dominance of centric (circular) species)

De, S. & A.K. Gupta (2010)- Deep-sea faunal provinces and their inferred environments in the Indian Ocean based on distribution of Recent benthic foraminifera. Palaeogeogr. Palaeoclim. Palaeoecology 291, p. 429-442.
(Distributions of 46 species of deep-sea benthic foraminifera from 131 core-top samples (322-5013 m) from across Indian Ocean. Two faunal provinces: (1) NW (Arabian Sea): with high organic flux and pronounced oxygen minimum zone (dominated by Uvigerina peregrina, Robulus nicobarensis, Bolivinita spp., Bulimina aculeata, Bulimina alazanensis, Ehrenbergina carinata and Cassidulina carinata); (2) S, SE and E Indian Ocean (dominated by Nuttallides umbonifera, Epistominella exigua, Globocassidulina subglobosa, Uvigerina proboscidea, Cibicides wuellerstorfi, Cassidulina laevigata, Pullenia bulloides, Oridorsalis umbonatus, Gyroidinoides soldanii), suggesting well-oxygenated, cold deep water)

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(online at: http://horizon.documentation.ird.fr/exl-doc/pleins_textes/divers14-01/010058351.pdf)
(Descriptions and environmental conditions of 1000 species of Recent foraminifera found around New Caledonia)

Debenay, J.P. & G. Cabioch (2007)- Recent and Quaternary foraminifera collected around New Caledonia. In: Compendium of marine species of New Caledonia, Documments Scientifiques Techniques II-7, Institut de Recherche pour le Developpement (IRD), Noumea, New Caledonia, p. 69-94.
(online at: www.ird.nc/biodec/downloads/Compendium/Version%20v%E9rrouill%E9e/Debenay-Cabioch-v.pdf)
(Listing and some illustrations of modern forams around New Caledonia)

Debenay, J.P. & C.E. Payri (2007)- Epiphytic foraminiferal assemblages on macroalgae in reefal environments of New Caledonia. J. Foraminiferal Research 40, 1, p. 36-60.
(online at: http://jfr.geoscienceworld.org/content/40/1/36.full.pdf)
(152 species of epiphytic foraminifera identified from New Caledonia)

De Deckker, P. & F.X. Gingele (2002)- On the occurrence of the giant diatom *Ethmodiscus rex* in an 80-ka record from a deep-sea core, southeast of Sumatra, Indonesia: implications for tropical palaeoceanography. Marine Geology 183, p. 31-43.
(Deep-sea core from water depth 2542 m off SE Sumatra shows 'blooms' of giant diatom Ethmodiscus rex in Indian Ocean during last glacial period, particularly in Last Glacial Maximum. Blooms caused by increases in salinity and nitrate levels near surface. No major upwelling recorded during glacial times. During glacial period Indonesian Archipelago was much drier, preventing low-salinity 'cap' at surface of oceans)

De Neve, G.A. (1949)- Foraminifera from the shore zone of the Islands of Roeang and Siaoe. Chronica Naturae 105, 4, p. 113-115.
(online at: http://colonial.library.leiden.edu/….)
(Recent benthic foraminifera in shoreline sands of islands between Sulawesi and Philippines. Mainly miliolids, Robulus, Elphidium, Heterostegina, Amphistegina, Calcarina spp., Baculogypsina sphaerulata)

De Neve, G.A. (1949)- Opmerkingen over een foraminifenhoudende kalksteen van Baranti op het schiereiland Sanggar (Soembawa) en de strandzanden van Poeloe Ngali (Salehbaai) en Poeloe Madang. Chronica Naturae 105, 4, p. 116-118.
(online at: http://colonial.library.leiden.edu/….)
('Remarks on a foraminifera-bearing limestone of Baranti on the Sanggar Peninsula (Sumbawa) and the beach sands of Pulau Ngali (Saleh Bay) and Pulau Madang'. Late Neogene limestone similar to described by Tobler (1918), with Schlumbergerina, Alveolinella quoyi, Calcarina spp., Baculogypsina sphaerulata, etc.

Baculogypsina tetraedra n.sp. described by Tobler (1918) from this area is probably synonym of Tinoporus baculatus and T. floresianus (Schlumberger))

De Neve, G.A. (1949)- Foraminifera from the shore zone of the islands of Morotai and Ternate. Chronica Naturae 105, 7, p. 196-198.
(online at: http://colonial.library.leiden.edu/....)
(Recent foraminifera from beach sand samples of SW Molotai and Ternate: Quinqueloculina, Robulus, Elphidium, Heterostegina, Orbitolites, Rotalia gaimardii, Amphistegina radiata, Calcarina spp., Baculogypsina sphaerulata. With summary of foraminifera from deep water samples off W Halmahera from 'Albatross-Expedition', as reported by Cushman (1921))

De Neve, G.A. (1949)- Foraminifera from the shore zone of Parigi and Poso (Gulf of Tomini). Chronica Naturae 105, 10, p. 252-254.
(online at: http://colonial.library.leiden.edu/....)
(Recent foraminifera from beach sand samples near Parigi and Poso, C Sulawesi. Up to 13 species, incl. miliolids, Elphidium, Operculina, Verbeekia, Orbitolites, Siderolites tetraeda and Calcarina. With summary of Gulf of Tomini deep water samples (1240-1966m) from 'Albatross-Expedition', as reported by Cushman (1921))

De Neve, G.A. (1949)- Een notitie over de foraminiferen van de oudste diepzee-lodingen in Indonesia. Chronica Naturae 105, 11, p. 291-292.
(online at: http://colonial.library.leiden.edu/....)
('Note on the foraminifera from the oldest deep sea soundings in Indonesia'. Brief note on earliest descriptions of deep sea foraminifera from Indonesia by Ehrenberg (1854) and Harting (1861, 1864))

De Silva, L.P. & P.J. Militante-Matias (1998)- Foraminiferal assemblages of Pagbilao Bay, Philippines. J. Geological Society of the Philippines 53, 1-2, p.
(134 foram species identified, representing 7 foraminiferal assemblages: river mouth, intertidal zone- Patayan Island, intertidal zone- Bocboc point, beach, reef/carbonate platform, inner bay, and inner bay channel. Nature of substrate strongly influences distribution of shallow water benthic foraminifera)

Dewi, K.T. (1993)- Ostracoda from the Java Sea, West of Bawean Island, Indonesia. Masters Thesis, University of Wollongong, Australia, p. 1-165.
(online at: https://ro.uow.edu.au/theses/2832)
(Seafloor samples from Sunda Shelf W of Bawean island contain 113 species of ostracodes, including 7 new)

Dewi, K.T. (1997)- Ostracoda from the Java Sea, West of Bawean Island, Indonesia. Marine Geology Institute (MGI), Bandung, Special Publ. 4, p. 1-86.
(same as Kresna Tri Dewi (1993) above; Masters Thesis, University of Wollongong, Australia)

Dewi, K.T. (2000)- Distribution of ostracoda from South of Tanjung Selatan, South Kalimantan. Bulletin of the Marine Geology 15, 1, p. 1-14.

Dewi, K.T. (2014)- Ostracoda from subsurface sediments of Karimata Strait as indicator of environmental changes. Bulletin of the Marine Geology 29, 1, p. 1-10.
(online at: ejournal.mgi.esdm.go.id/index.php/bomg/article/download/60/61)
(43 species of ostracods from 3 short seafloor cores of Sunda Shelf, in water depth 11-27m. Highest abundance/ diversity in upper 70cm of cores. Main genera Actinocythereis, Hemicytheridea, Loxoconcha, Neocytheretta, Stigmatocythere, Neomonoceratina, Phlyctenophora, Argillloecia, etc. (see also Mostafawi 1992))

Dewi, K.T., I. Adhirana, Y.A. Priohandono & L. Gustiantini (2016)- Ostracoda sebagai indikator perubahan lingkungan perairan sekitar PLTU Tarahan, Teluk Lampung, Sumatera. J. Geologi Kelautan 14, 1, p. 1-12.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/335/263)

('Ostracoda as indicators of marine environmental changes off the Tarahan power plant, Lampung Bay, Sumatera'. Ostracods from surface sediments in Lampung Bay quite diverse and abundant, with 27 genera, dominated by Keijella, Hemicytheridea and Cytherella. Also locally abundant Bairdopillata)

Dewi, K.T., L. Arifin, A. Yuningsih & Y. Permanawati (2012)- Meiofauna (Foraminifera) dalam sedimen dan keterkaitannya dengan pantai pasir putih Senggigi serta kondisi perairan Lombok Barat. J. Ilmu Teknologi Kelautan Tropis 4, 1, p. 47-54.
(online at: www.itk.fpik.ipb.ac.id/ej_itkt41/jurnal/...)
('Meiofauna (Foraminifera) in sediments and its association with the white sand beaches and water conditions of Senggigi, West Lombok'. Schlumbergerella floresiana abundant in white sands of Senggigi beach, but not common in offshore samples)

Dewi, K.T., N.C.D. Aryanto & Y. Noviadi (2007)- Land-sea interactions in coastal waters off NE Kalimantan: evidence from microfaunal communities. Bulletin of the Marine Geology 22, 1, p. 1-15.
(online at: ejournal.mgi.esdm.go.id/index.php/bomg/article/download/1/1)
(Microfauna in seafloor samples in 14-43m deep water off Nunukan and Sebatik islands in NE Kalimantan with typical microfauna of shallow marine ostracoda (Hemicytheridea spp., Keijella spp., Cytherella) and foraminifera (Asterorotalia trispinosa, Operculina))

Dewi, K.T., P. Frenzel & A. Muller (2008)- Mikrofauna (ostracoda) di sekitar paparan Sahul dan Laut Banda dalam kaitannya dengan batimetri. Proc. 37th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 127-138.
(online at: https://www.iagi.or.id/web/digital/14/2008_IAGI_Bandung_Mikrofauna-di-Sekitar-Paparan.pdf)
(Study of recent ostracods distribution in Snellius II samples along transects from Timor, Tanimbar, Seram into Banda Sea down to 3070m. Highest number of ostracods between 100-210m water depth, with Bairdopillata, Neonesidea, Paranesidea, Paracytheridea, Hemiparacytheridea, Foveoleberis, Polycope and Loxoconcha)

Dewi, K.T., P. Frenzel, A. Muller & D. van Harten (2004)- Recent ostracoda (microcrustacea) from a Banda-to-Timor Sea traverse: implications for paleobathymetric studies. Proc. 33rd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 42-51. *(online at: www.researchgate.net/profile/Peter-Frenzel/publication/255979013_Recent_Ostracoda_Microcrustac Etc.)*
(146 species of ostracods in surface sediments between 100-3070m along Banda Sea- Leti Strait-Timor Sea transect, E of Timor island. Richest assemblages in <100m water; abundance and diversity decreases with depth. Bathyal zone characterized by Cytheropteron, Saida, Bradleya, Paleocythere, Henryhowella, Krithe and Parakrithe; lower bathyal by Acantocythereis, Agrenocythereis and Krithe- Parakrithe spp.; abyssal depths by Argilloecia, Xestoleberis, Cytheropteron)

Dewi, K.T. & M. Hanafi (2013)- Karakteristik komunitas foraminifera laut dalam di Teluk Tomini, Sulawesi. J. Ilmu Teknologi Kelautan Tropis (JITKT; Bogor), 5, 1, p. 17-25.
(online at: http://journal.ipb.ac.id/index.php/jurnalikt/article/view/7742)
('The characteristics of the deep sea foraminiferal community in Tomini Bay, Sulawesi'. Foraminifera from 14 seafloor sediment samples from 600-1400m in Tomini Bay. Samples dominated by planktonic foraminifera (>90%). Benthic foraminifera represented by Cibicidoides wuellerstorfi, Ceratobulimina pacifica, Pyrgo sp., Bolivinita quadrilatera, Uvigerina peregrina, Planulina, etc., also very rare Laticarinina below 1000m)

Dewi, K.T. & D. Illahude (2005)- Ostracoda from off Derawan island, East Kalimantan (LP-1815) in relation to bathymetric zonation. Bulletin of the Marine Geology 20, 1, p. 1-14.
(Depth distribution of Recent ostracoda from 25 seafloor samples at depths 7-628m off Berau/ Tarakan Rivers, NE Kalimantan. 142 species identified. Common ostracods in area around reef complex, with Bairdopillata paracratericola, B. paraalcyanicola and Macrocypris decora. Also high diversity at water depths >200m, with displaced shallow water ostracods and deep water fauna. Bradleya common deepwater ostracod, found from <50m to >500m)

Dewi, K.T., A. Muller, P. Frenzel, L. Auliaherliaty & L. Gustiantini (2003)- Do Quaternary ostracods reflect sea level changes in the Timor Sea? Proc. 32nd Annual Conv. Indonesian Association Geologists (IAGI) and 28th Annual Conv. HAGI, Jakarta, p. 1-11.
(Samples from E of Timor in water depth 1768m show several small ostracod diversity peaks. Peaks of deep-sea taxa like Krithe, Bradleya, Cytheropteron, Acantocythereis and Ambocythere related to changes in paleoproductivity. Other peak with mixed shallow-water (Paracytheridea, Quadracythere, Loxocorniculum, Neonesidea) and deep-sea taxa suggest downslope transport of sediments, possibly regressive events)

Dewi, K.T., N. Nurdin, Y.A. Priohandono & A. Sinaga (2015)- Benthic foraminifera in marine sediment related to environmental changes off Bangka Island, Indonesia. Berita Sedimentologi 33, p. 47-57.
(online at: www.iagi.or.id/fosi/files/2015/09/BS33-Marine-Geology-of-Indonesia-II-R1.pdf)
(60 species of foraminifera in samples from 6-24m water depth offshore E Bangka island. Dominated by Amphistegina, Elphidium, Quinqueloculina, Operculina)

Dewi, K.T. & Y.A. Prihandono (2023)- Mikrofauna (Ostrakoda) dari Teluk Balikpapan; implikasinya untuk interpretasi lingkungan pengendapan. J. Geologi Kelautan 21, 1, p. 13-22.
(online at: https://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/779/585)
('Microfauna (Ostracoda) from Balikpapan Bay: its implication for interpreting depositional environments'. Ostracoda from water depths 1.5-27m 62 species, dominated by shallow marine ostracods Hemicytheridea reticulata, Cytherella semitalis and Alocopocythere kendengensis)

Dewi, K.T., Y.A. Prihandono & H.H. Prabowo (2000)- Ostracoda perairan Utara P. Kangean: kaitannya dengan transpor sedimen. Proc. 29th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 4, p. 109-116.
('Ostracodes from waters North of Kangean Island; relations to sediment transport'. 30 sediment samples with 30 species, dominated by Bairdopillata, Cytherella, Foveoleberis. Not much detail)

Dewi, K.T. & E. Saputro (2013)- Sebaran spasial foraminifera dalam kaitannya dengan kedalaman laut dan jenis sedimen di Teluk Bone, Sulawesi Selatan. J. Geologi Kelautan 11, 3, p. 165-173.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/240/230)
('Spatial distribution of foraminifera in relation to water depth and sediment types in Bone Bay, S Sulawesi'. Foraminifera from 23-85m water depth in N Bone Bay mainly Operculina spp., Heterolepa, Pseudorotalia. Absence of 'Sunda species' Asterorotalia trispinosa)

Dewi, K.T., E. Setiyabudi, R. Oktavitania & H. Samodra (2023)- Tinjauan kontribusi fosil dalam penetapan warisan geologi. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 24, 4, p. 225-234.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/804/547)
('An overview of fossil contributions to geoheritage determination'. Listing of 28 potential geoheritage sites across indonesia that contain unique Permian-Pleistocene fossil assemblages)

Dharma, B. (2005)- Recent & fossil Indonesian shells. Conch Books, Hackenheim, Germany, p. 1-424.
(Comprehensive monograph/atlas of Recent and fossil molluscs of Indonesia. 1,982 Recent species in 536 genera With 150 plates (plates 111-150 of fossil species)

Dhillon, D.S. (1968)- Notes on the foraminiferal sediments from the Lupar and Labuk estuaries, East Malaysia. In: Geological Papers 1967, Geological Survey Borneo Region, Malaysia, Kuching, Bull. 9, p. 56-73.
(Recent benthic foraminifera distribution in SW Sarawak river estuaries. 46 species. Arenaceous brackish water species found far upriver, while shallow marine hyaline calcareous species dominate near mouth of estuary. Includes new genus with two new species, Gobbettia wilfordi and Gobbettia klompei)

Dhillon, D. S. (1968)- A new genus of the Haplophragmoidinae from Malaysia. Contr. Cushman Foundation Foraminiferal Research 19, 4, p. 140-141.

Dhillon, D.S. (1969)- Three new species of foraminifera from Malaysia. Journal of Paleontology 43, 3, p. 767-770.

(Three new species of arenaceous foraminifera proposed from Recent sediments in Labuk Estuary, SW Sarawak: Arenoparrella malaysiana, Haplophragmoides labukensis, and H. sabahensis (also described in Dhillon (1968))

Ding, X., F. Bassinot, F. Guichard, Q.Y. Li, N.Q. Fang, L. Labeyrie, R.C. Xin, M.K. Adisaputra & K. Hardjawidjaksana (2006)- Distribution and ecology of planktonic foraminifera from the seas around the Indonesian Archipelago. Marine Micropaleontology 58, p. 114-134.
(Planktonic foraminiferal assemblages five provinces: (1) Banda/ Java region; (2) Timor region; (3) Java upwelling region; (4) Indian monsoon Sumatra region, and (5) NW Australia margin region. Assemblages reflect sea-surface temperature, salinity, thermocline depth, and nutrient supply, related to circulation patterns. Strongest dissolution in Java upwelling region, with lysocline rising above 2800m. Increase in Globigerina bulloides at 10-8 ka BP in Java upwelling region corresponds to decrease in Banda/ Java region, indicating intensification of upwelling in relation to strengthened SE monsoon)

Egger, J.G. (1893)- Foraminiferen aus Meeresgrundproben gelothet von 1874 bis 1876 von S.M. Sch. Gazelle. Abhandlungen Bayerischen Akademie Wissenschaften, Mathematisch-Physikalische Klasse 18, 2, p. 193-458.
(online at: https://www.biodiversitylibrary.org/item/110282#page/229/mode/1up)
('Foraminifera from sea floor samples collected between 1874 and 1876 by S.M. Sch. Gazelle'. Classic study of foraminifera from sea floor samples collected by German Gazelle oceanographic expedition. Incl. material from Banda Sea, Raja Ampat islands, etc. (stations 95-99))

Faiz, N.N., K.R. Mohamed & R. Omar (2017)- Species diversity and distribution of ostracoda (Crustacea) in Sungai Kubang Badak, Langkawi, Malaysia. Malayan Nature J. 69, 2, p. 83-92.
(online at: https://www.researchgate.net/publication/325557157_Species_diversity_and_distribution_of_Ostracoda_Crustacea_in_Sungai_Kubang_Badak_Langkawi_Kedah_Malaysia)
(Estuarine-shallow marine ostracode assemblages in Kubang Badak river and river mouth in N Langkawi. 27 species, dominated by Hemicytheridea wangi and Neomonoceratina delicata. Three assemblages. Density and diversity of ostracoda increases from upper estuary to nearshore areas)

Faiz, N.N., K.R. Mohamed, R. Omar & M.N.A. Malek (2017)- Benthic foraminiferal assemblages in the Pahang River Delta (Pahang, Malaysia). Thalassas: An International J. of Marine Sciences 34, 1, p. 65-79.
(Bottom sediments of Pahang River delta (E coast of Malay Peninsula) yielded 88 benthic foraminifera species. Agglutinated foraminifera (Ammobaculites) dominant at river mouth, while calcareous species (Asterorotalia pulchella) dominated in offshore samples)

Faiz, N.N., R. Omar & Basir Jasin (2007)- Taburan ostrakod di dalam sedimen luar pantai di sekitar Pulau Tinggi, Johor. Sains Malaysiana 36, 2, p. 139-148.
(online at: http://journalarticle.ukm.my/112/1/1.pdf)
(Distribution of ostracoda in offshore sediment around Pulau Tinggi, Johor. 11 shallow(?) marine samples off SE Malay Peninsula with 36 genera/ 51 species of ostracods. Dominant species is Loxoconcha malayensis. Sediment mainly m-grained sand)

Faiz, N.N., Ramlan Omar, M.N. Abd Malek, C. Li & Y. Liu (2016)- Taburan dan kepelbagaian Foraminifera bentik di dalam sedimen permukaan sekitar delta Sungai Pahang, Pahang, Malaysia. Sains Malaysiana 45, 5, p. 669-676.
(online at: www.ukm.my/jsm/pdf_files/SM-PDF-45-5-2016/02%20Noraswana%20.pdf)
('The distribution and diversity of benthic Foraminifera in surface sediment of Pahang River Delta, Pahang, Malaysia'. 82 species of Recent benthic foraminifera offshore Pahang River delta. Amphistegina lessonii and A. gibbosa most abundant, followed by Elphidium advenum, Operculina ammonoides and Asterorotalia pulchella. No specifics on water depth of samples or detailed distribution)

Fajemila, O.T., M.R. Langer & J.H. Lipps (2015)- Spatial patterns in the distribution, diversity and abundance of benthic foraminifera around Moorea (Society Archipelago, French Polynesia). PLoS One 10, 12, e0145752, p. 1-25.
(online at: http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0145752)

(380 species of shallow benthic foraminifera from around Moorea)

Fauzielly, L. (2013)- Distribusi vertikal Ostracoda dan hubungannya dengan perubahan lingkungan di perairan Teluk Jakarta. Bull. Scientific Contribution (UNPAD) 11, 2, p. 108-117.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8292/3839)
('Vertical distribution of ostracods and relationship with environmental changes in Jakarta Bay waters'. Similar to Fauzielly et al. (2012), below)

Fauzielly, L., T. Irizuki & Y. Sampei (2012)- Vertical changes of Recent ostrocode asemblages and environment in the inner part of Jakarta Bay, Indonesia. J. Coastal Development 16, p. 11-24.
(Ostracodes from sediment core from the inner part of Jakarta Bay. 53 species, dominated by Keijella carriei and Loxoconcha wrighti, which are common in areas with high organic carbon and nitrogen contents)

Fauzielly, L., T. Irizuki & Y. Sampei (2013)- Spatial distribution of Recent ostracode assemblages and depositional environments in Jakarta Bay, Indonesia, with relation to environmental factors. Paleontological Research (Palaeontological Society of Japan) 16, 4, p. 267-281.
(online at: https://bioone.org/journalArticle/Download?urlId=10.2517%2F1342-8144-16.4.267
(Recent ostracodes of Jakarta Bay 94 species, dominated by Keijella carriei, Hemicytheridea reticulata, Loxoconcha wrighti and Hemicytheridea ornata. Cytherella, Cytherelloidea, Neomonoceratina, and Pistocythereis also abundant. Three biofacies: (I) muddy bottom inner-middle bay with K. carriei, L. wrighti, and H. reticulata. Biofacies; (II) muddy bottom outer bay with H. reticulata, H. ornata and Cytherella spp. (III) sandy mud bottom outer bay high-diversity assemblages with Atjehella kingmai, Foveoleberis cypraeoides, Neomonoceratina bataviana and Pistocythereis cribriformis)

Fauzielly, L., L. Jurnaliah & A.H. Hamdani (2014)- Distribusi foraminifera bentonik sedimen paleo-tsunami letusan Gunung Krakatau berdasarkan data inti bor U-6 Di daerah Ujungkulon, Banten. Bull. Scientific Contribution (UNPAD) 12, 2, p. 84-91.
(online at: http://repository.unpad.ac.id/21772/1/Distribusi-foraminifera-bentonik-sedimen...)
('The distribution of benthic foraminifera in sedimentary paleo-tsunami eruption of Krakatoa based on data from core U-6 in the Ujungkulon area, Banten'. Marine microfossils in onland sediments may indicate paleo-tsunami deposits. Sand with coral debris at 90-120cm in core from Ujung Kulon recognized as tsunami deposit. With 55 species of benthic foraminifera, dominated by Streblus beccarii, Planulina wuellerstorfi, Hyalinea balthica, Bulimina marginata, Bolivina spathulata, Elphidium, Uvigerina peregrina Cushman. Origin of tsunami sediments is (outer) shelf-bathyal and inner shelf lagoon)

Fernando, A.G.S., A.M. Peleo-Alampay & M.G. Wiesner (2007)- Calcareous nannofossils in surface sediments of the eastern and western South China Sea. Marine Micropaleontology 66, p. 1-26.
(Calcareous nannofossils in surface sediments of S China Sea in water depths of 35–4345 m. In shallow/ nearshore waters dominant taxa are Emiliania huxleyi and Gephyrocapsa oceanica. In deeper portion of SCS, Florisphaera profunda dominates. Three assemblages recognized:(a) upwelling, (b) oceanic and (c) deep basin assemblages. F. profunda is relatively resistant to dissolution)

Fitriany, R., L. Jurnaliah & T.Y.W.M. Iskandarsyah (2019)- Small benthic foraminifera as an indicator of paleotsunami in Ujungkulon, Banten Province, Indonesia. J. Geological Sciences Applied Geology (UNPAD) 3, 1, p. 74-78.
(online at: http://jurnal.unpad.ac.id/gsag/article/view/22241/10591)
(55 species of small benthic foraminifera in paleotsunami deposits of the Laban Isthmus, Ujung Kulon Peninsula, SW Java, ~2m below surface. Dominant species Planulina wuellerstorfi, a deep marine species)

Flenley, J.R. (1979)- The Equatorial rain forest: a geological history. Butterworths London, p. 1-162.
(Includes review of SE Asia Cretaceous- Neogene evolution of pollen assemblages and chapter on Quaternary palynology and vegetation changes of SE Asia. In PNG vegetation zones moved downward ~1600m during Pleistocene glacial episodes, suggesting 10°C decline in temperatures (later book with similar title by R.J. Morley (2000) Origin and evolution of tropical rain forests))

Flenley, J.R. (1998)- Tropical forests under the climates of the last 30,000 years. In: A. Markham (ed.) Potential impacts of climate change on tropical forest ecosystems, Climatic Change 39, Kluwer, p. 177-197.
(Incl. review of pollen diagrams from lowlands of SE Asia. Depression of altitudinal vegetation zones during Late Pleistocene Last Glacial Maximum suggests temperatures 5-10°C cooler than now)

Flenley, J.R. (1999)- Problems of the Quaternary on mountains of the Sunda-Sahul region. Quaternary Science Reviews 15, p. 549-555.
(In montane areas in Sunda-Sahul region Upper Montane rainforest appears to be absent in Late Pleistocene. Estimates of temperature lowering in Late Pleistocene strikingly greater in mountains than in lowlands)

Forderer, M. & M.R. Langer (2016)- Five new species and one new genus of recent miliolid foraminifera from Raja Ampat (West Papua, Indonesia). PeerJ 4:e2157; DOI 10.7717/peerj.2157, p. 1-20.
(online at: www.ncbi.nlm.nih.gov/pmc/articles/PMC4924127/pdf/peerj-04-2157.pdf)
(Shallow waters W of Waigeo Island with highly diverse assemblages of 455 species of benthic foraminifera (249 miliolid species). With new genus (Dentoplanispirinella) and 5 new species of miliolids (D. occulta, Miliolinella moia, M. undina, Triloculina kawea, Siphonaperta hallocki). New species relatively rare)

Forderer, M. & M.R. Langer (2018)- Atlas of benthic foraminifera from coral reefs of the Raja Ampat Archipelago (Irian Jaya, Indonesia). Micropaleontology 64, 1-2, p. 1-170.
(Exceptionally rich and diverse shallow marine benthic foram assemblages in Raja Ampat islands, W of Waigeo/ Batanta islands: 421 species, with miliolids highest species number. Incl. 35 species of symbiont-bearing larger foraminifera, amongst highest in modern oceans)

Forderer, M. & M.R. Langer (2019)- Exceptionally species-rich assemblages of modern larger benthic foraminifera from nearshore reefs in northern Palawan (Philippines). Revue de Micropaleontologie 65, 9, 100387, p. 1-25.
(44 larger foraminifera morphospecies from shallow nearshore habitats in N Palawan, among the highest reported anywhere (in Coral Triangle hotspot of biodiversity). Heterostegina depressa and Calcarina mayori most widely distributed taxa)

Forderer, M., D. Rodder & M.R. Langer (2018)- Patterns of species richness and the center of diversity in modern Indo-Pacifc larger foraminifera. Nature Scientific Reports 8, 8189, p. 1-9.
(online at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5974165/pdf/41598_2018_Article_26598.pdf)
(Species richness maps for Indo-Pacific larger foraminifera)

Forel, M.B. (2021)- Recent ostracods (Crustacea) from the southwestern coast of Peninsular Thailand (Satun Province), Andaman Sea. Revue de Micropaleontologie 72, 100526, p. 1-15.
(35 species of ostracods from shallow (<1.5 m) embayment near Mu Koh Phetra National Park, SW Peninsular Thailand, Andaman Sea. Most species well-known from Indo-Pacific area)

Frerichs, W.E. (1967)- Distribution and ecology of benthonic foraminifera in the sediments of the Andaman Sea. Ph.D. Thesis University Southern California, Los Angeles, p. 1-269.
(Recent foraminifera from seafloor samples across Andaman Sea, between 13-3778m depth. Number of forams increases with depth to 1800m; below this affected by dissolution of calcareous foraminifera. Planktonic number increases with depth and distance from shore. Planktonic assemblages from shelf sediments have globose chambers (Globigerina, Globigerinoides, Globigerinita); in bathyal deposits common Globorotalia and Sphaeroidinella. Radiolarian number increases with depth; not significant above middle bathyal depths. Benthic foraminifera five faunal provinces. Etc.)

Frerichs, W.E. (1970)- Distribution and ecology of benthonic foraminifera in the sediments of the Andaman Sea. Contr. Cushman Foundation Foraminiferal Research 21, 4, p. 123-147.
(online at: https://cushmanfoundation.allenpress.com/portals/_default/files/pubarchive/CCFFR/21ccffr4.pdf)

(In Andaman Sea shelf faunas characterized by species of Ammonia, Asterorotalia and Pseudorotalia. Upper bathyal faunas characterized by first appearance of Bolivina robusta. Change in ornamentation of Uvigerina at upper-middle bathyal boundary: costate species in outer shelf-upper bathyal; hispid species (U. auberiana) below 600m. Lower bathyal microfaunas calcareous forams dissolved, characterized by arenaceous Glomospira charoides and Karreriella apicularis. Etc.)

Frerichs, W.E. (1971)- Planktonic foraminifera in the sediments of the Andaman Sea. J. Foraminiferal Research 1, p. 1-14.
(Distribution of Recent planktonic foraminifera in sediments of Andaman Sea controlled by surface salinity, water depth, diagenesis and topography. Large volumes of fresh water in N Andaman Sea result in lowering of surface salinity and exclusion of planktonic forams. Depth zonation: Sphaeroidinella and some Globorotalia species indicative of bathyal depths)

Fujita, K. (2006)- Identification of coral reef environments based on foraminiferal death assemblages from Ishigaki Island, Okinawa, Japan. Proc. 10th International Coral Reef Symposium, Okinawa 2004, p. 528-535.
(Reef-flat foraminiferal assemblages characterized by dominant Calcarinidae, whereas fore-reef foraminiferal assemblages are characterized by various dominant species)

Fujita, K. & S. Kato (2011)- Distribution of gravel-sized empty tests of large benthic foraminifers as practical depositional indicators in tropical reef and shelf carbonate environments. Facies 57, 4, p. 525-541.
(Depth and spatial distributions of Large Benthic Forams in 39 surface sediment samples from W coast of Miyako Island (Ryukyu Islands, NW Pacific))

Fujita, K., Y. Osawa, H. Kayanne, Y. Ide & H. Yamano (2009)- Distribution and sediment production of large benthic foraminifers on reef flats of the Majuro Atoll, Marshall Islands. Coral Reefs 28, p. 29-45.
(Estimates of sediment production by Large Benthic Forams, mainly Calcarina and Amphistegina, on reef flats of Pacific atolls. Both live attached to seagrass/algae and most abundant on ocean reef flat (ORF) and in inter-island channel near windward, sparsely populated islands. Calcarina density higher on windward sides)

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(Diatoms, pollen, geomagnetic and geochemical analyses on 3.6 m long core from Lake Buyan, Bali, representing ~8000 yrs sedimentation. Laminated sediments at 6.5-5.0 and 3.6-3.1 ka reflect drier climate)

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(online at: http://repository.dl.itc.u-tokyo.ac.jp/dspace/bitstream/2261/51680/1/CMS350104.pdf)
(Dinoflagellates play role in harmful agal blooms. Review of distribution in marine sediments shows generally 13-50 cyst types, Pyridinium bahamense var. compressum most common species in SE Asia waters)

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(online at: http://repository.dl.itc.u-tokyo.ac.jp/dspace/bitstream/2261/5609/1/KJ00004354582.pdf)

(Dinoflagellate cysts relatively rare in sediments from Kota Kinabalu Bay and Tuaran Estuary. >25 species identified, mainly Spiniferites, Alexandrium, Lingulodinium, Polysphaeridium, etc.))

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(In Spermonde Archipelago (S Sulawesi) temporal shift was observed in foraminiferal assemblages from coral-dominated (e.g, Amphistegina lobifera, Calcarina spengleri, Heterostegina depressa) to fleshy algae dominated (e.g. Neorotalia gaimardi, C. mayori))

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(Foraminifera ~40% of sediment at small, isolated Apo Reef. Comparisons of live and dead assemblages show time-averaged assemblages, the product of taphonomic processes, more effective in delineating reefal sub-environments than do live assemblages. Robust calcarinids are in shallow seaward zones; free-living miliolids and small rotaliines in leeward zones. Planktonics and large thin rotaliines in fore reef)

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(Recent larger foram distribution at 6 sites in 8-35m water off Brunei Darussalam (mainly sandy patches near shipwrecks, in area of mud-dominated seafloor without larger forams). High diversity assemblages, 16 species. Shallowest samples dominated by Calcarina defrancei and Neorotalia calcar, deepest samples by Amphistegina radiata, Operculina ammonoides and Calcarina mayori. Alveolinella quoii around 30m)

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(231 species of foraminifera identified from 8-63 m water depth off Brunei. Most abundant foraminiferal groups from reef and wreck samples are larger benthic foraminifera: especially Calcarinidae and Amphisteginidae. In muddier sites mainly smaller benthic forams with Pseudorotalia and Asterorotalia)

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(Study of Early Holocene coseismic subsidence in Aceh. Buried mangrove soil horizons overlain with sharp contact by 5-20 cm thick sand that tapered landward, with intertidal and shallow marine foraminifera (Ammonia, Asterorotalia, Pararotalia, Quinqueloculina, etc.) and probably tsunami deposit. Sands overlain by 1-3m of silty clay with at base common Cerithidea cingulata, an opportunistic intertidal gastropod)

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(Tempe Lake Depression in SW Sulawesi with three lakes and swamp areas probably remnant shallow marine seaway between Makassar Straits and Bone Bay until recently. In tidal mangrove zone between 7000- 2600 BP)

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('Foraminifera in the waters around Bakauheni, Lampung (northern Sunda Strait)' Abundant foraminifera along Lampung coast in N Sunda Strait, dominated by Asterorotalia trispinosa, Operculina, Pseudorotalia and Elphidium)

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(Bottom samples from 31 stations between 21-153m in Java Sea rich in foraminifera. 43 species. Some genera more abundant in sandy deposits (incl. Textularia, Operculina, Amphistegina, Siderolites (=Baculogypsina?; JTvG), Planorbulinella, Alveolinella), some more abundant in muddy deposits (Eponides praecinctus, Rotalia schroeteriana, Quinqueloculina))

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Peneroplis planatus in protected shoals in <5m water, (3) Amphistegina lessonii on reef slopes of 5-20m, (4) Amphistegina radiata and Operculina ammonoides deeper dwelling taxa)

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(Study on distribution of small agglutinated benthic foram Miliammina fusca in three modern depositional settings, Klang Delta, Pahang Delta and Sedili Besar River. Invariably associated with brackish conditions. In Malay Basin M. fusca used as indicator of marine incursions into basin, particularly in Lower Oligocene (upper Group L and Group K))

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(Shallow Holocene peat near Pekan Nanas, Johore, with 47 pollen and spore types. Pollen profile shows succession from open swamp vegetation with mangrove influence to marginal peat swamp facies with river bank vegetation. Radiocarbon dating on deepest peat yielded ~4.9 ka)

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(Brief, general overview of pollen and spores, processing and application in determination of paleoenvironments. 'Palynology in SE Asia still at early stage of development')

Haslett, S.K. (2001)- The palaeoenvironmental implications of the distribution of intertidal foraminifera in a tropical Australian estuary: a reconnaissance study. Australian Geographical Studies 39, 1, p. 67-74.
(Modern intertidal foraminifera in mangrove-lined microtidal distributary of Barron River Delta (Queensland): (1) saltmarsh: Trochammina inflata assemblage; (2) regularly inundated tidal flat: dominated by Ammonia beccarii; (3a) high tidal flat: >70% Ammonia beccarii and low diversity, and (3b) low tidal flat: 55-65% Ammonia beccarii and diverse small allochthonous species transported into estuary from shelf)

Hayward, B.W. & S. Kawagata (2005)- Extinct foraminifera figured in Brady's Challenger Report. J. Micropalaeontology 24, 2, p. 171-175.
(online at: https://www.j-micropalaeontol.net/24/171/2005/jm-24-171-2005.pdf)
(Brady's classic 1884 monograph on Recent foraminifera from Challenger Expedition samples contains 18 species known to become extinct in M Pleistocene, between 1.2- 0.6 Ma (mainly elongate, benthic foraminifera like Pleurostomella, Stilostomella, Orthomorphina, etc.). Majority (14 species) from two stations off Kei Islands, Banda Sea (191A, 192). Station 192 (~250m depth) is considerably shallower than established fossil bathymetric ranges of extinct species, suggesting tectonic uplift and Pleistocene deposits exposed on seafloor)

Hayward, B.W., S. Kawagata, H.R. Grenfell, A.T. Sabaa & T. O'Neill (2007)- Last global extinction in the deep sea during the mid-Pleistocene climate transition. Paleoceanography 22, PA3103, p. 1-14.
(20% of cosmopolitan deep-sea benthic foraminifera extinct during late Pliocene-M Pleistocene, with peak of extinctions during M Pleistocene Climate Transition (1.2-0.55 Ma). Family Stilostomellidae (30 species) wiped out, Pleurostomellidae (9 species) decimated. Pulsed declines in abundance, earlier in deepst water sites. Tied to demise of microbial food source due to increased cold and oxygenation of S-sourced deep water masses during major late Pliocene and E Pleistocene glacials)

Hendrizan, M., R.A. Troa, R. Zuraida & E. Triarso (2016)- Calcareous nannoplankton (marine algae) analysis in subsurface sediments of Andaman Sea. Bulletin of the Marine Geology 31, 2, p. 91-98.
(online at: http://ejournal.mgi.esdm.go.id/index.php/bomg/article/view/313/277)
(4m thick Quaternary clay sediment core BS36 in S Andaman Sea (Mergui-N Sumatra Basin). With 11 genera of calcareous nannofossils, dominated by Gephyrocapsa, Emiliania, and Helicosphaera)

Hendrizan, M., C.A. Widiyanti, R.E. Prabowo, Munasri & N. Nurdin (2019)- Karakter masa air di Laut Sulawesi berdasarkan analisis foraminifera kuantitatif. J. Geologi Kelautan, 17, 1, p. 9-18.\
(online at: https://www.researchgate.net/publication/337979247_KARAKTER_MASA_AIR_DI_LAUT_SULAWESI_BERDASARKAN_ANALISIS_FORAMINIFERA_KUANTITATIF)
('Water mass characteristics of the Sulawesi Sea based on quantitative foraminifera analysis'. Foraminifera from core STA 3 (water depth 294 m) on W side of North Makassar Straits)

Hessler, I., M. Young, U. Holzwarth, M. Mohtadi, A. Luckge & H. Behling (2013)- Imprint of eastern Indian Ocean surface oceanography on modern organic-walled dinoflagellate cyst assemblages. Marine Micropaleontology 101, p. 89-105.
(Recent distribution of dinoflagellate cysts in 116 marine surface samples of E Indian Ocean. Three distinct regions (1) W and E Indonesia, with high T and low nutrient content of surface water; dominated by Spiniferites spp. and S. ramosus; (2) Indonesian Throughflow (ITF) region, dominated by heterotrophic dinocyst species

(Brigantedinium spp.), reflecting high productivity; (3) offshore NW Australia, characterized by water masses of saline and nutrient depleted Leeuwin Current, with rel. high O. centrocarpum)

Hillen, R. (1986)- Palynology as a tool in delineating tropical lowland depositional environments of Late Quaternary age. In: G.H. Teh & S. Paramananthan (eds.) Proc. 5th Regional Congress Geology Mineral Energy Resources of SE Asia (GEOSEA V), Kuala Lumpur 1984, 1, Bull. Geological Society Malaysia 19, p. 495-504.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1986037.pdf)
(Samples from Lower Perak and Kelantan lowlands (Malay Peninsula) allowed palynological characterizaton of environments:shallow offshore, deltaic/ esturine, mangrove, fresh water swamp, peat swamp)

Hofker, J. (1927)- The foraminifera from the Siboga expedition, I. Families Tinoporidae, Rotaliidae, Nummulitidae, Amphisteginidae. Siboga Expedition 1899-1900, Monograph 4a, 1, E.J. Brill, Leiden, p. 1-78.
(Modern foraminifera in seafloor samples collected by Siboga Expedition in Indonesia, part 1 of 3)

Hofker, J. (1930)- Foraminifera of the Siboga Expedition, Part II, Families Astrorhizidae, Rhizamminidae, Reophacidae, Anomalinidae, Peneroplidae. Siboga-Expeditie, Monograph 4a, 2, E.J. Brill, Leiden, p. 79-170.
(Modern foraminifera in seafloor samples collected by Siboga Expedition in Indonesia, part 2 of 3)

Hofker, J. (1933)- Foraminifera of the Malay Archipelago. Papers from Dr. Th. Mortensen's Pacific Expedition, 1914-16, part 62, Dansk Naturhistorisk Forening, Videnskabelige Meddedelser 93, C.A. Reitzel, p. 71-167.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB24:064959000:00005)
(Descriptions of 55 species of Recent foraminifera collected by Th. Mortensen during Danish Expedition to Kai islands in 1922 (should be 1914-1916?). No maps, nothing on sample localities, little on depth ranges, etc.)

Hofker, J. (1951)- The Foraminifera of the Siboga Expedition. Part III. Ordo Dentata, Sub-Ordines Protoforaminata, Biforaminata, Deuteroforaminata. Siboga Expeditie Monograph 4a, 3, Brill, Leiden, p. 1-513.
(Modern foraminifera in seafloor samples collected by Siboga Expedition in Indonesia, part 3 of 3)

Hofker, J. (1968)- Foraminifera from the Bay of Jakarta, Java. Bijdragen tot de Dierkunde 37, p. 11-59.
(online at: www.repository.naturalis.nl/document/548150)
(Rel. low diversity recent foraminifera assemblages in shallow marine Jakarta Bay, dominated by Pseudoratalia schroeteriana, Asterorotalia pulchella, Elphidium batavum, Operculina complanata, Quinqueloculina. Highest diversity in NW part of bay. Pseudorotia most common in muddy substrates in SE, Baculogypsinoides and miliolids mainly in NW, away from delta muds)

Hofker, J. (1978)- Biological results of the Snellius Expedition XXX. The foraminifera collected in 1929 and 1930 in the eastern part of the Indonesian Archipelago. Zoologische Verhandelingen, Rijksmuseum Natuurlijke Historie Leiden 161, p. 1-69.
(online at: www.repository.naturalis.nl/document/155300)
(462 species of foraminifera from 78 sea bottom samples at depths 85- 5138m, collected by 1929-1930 Snellius Expedition to East Indonesia, and a few other shallow marine samples)

Hohenegger, J. (1994)- Distribution of living larger foraminifera NW of Sesoko-Jima, Okinawa, Japan. Marine Ecology 15, p. 291-334.
(Living larger foraminifer restricted to photic zone. Peneroplids in shallow-water from intertidal (common Peneroplis) to 40m (Dendritina, sandy substrates). Soritids subtidal, from reef moat down to 60m. Amphisorus and Marginopora common down to 3 m, Parasorites in deeper parts of reef slope. Alveolinella in upper 40m of reef slope. Amphisteginids in entire photic zone, with test flattening with increasing depth. Calcarinids cling to firm substrates. Baculogypsina restricted to high energy reef flat regions. Calcarina similar facies, extending to fore reefs down to 8m. Baculogypsinoides dominant calcarinid genus from 30-70m depth. Heterostegina prefers hard substrates on reef slope. Operculina frequent in deeper part, independent of substrates. Sandy bottoms from 30-60m inhabited by Nummulites (Operculina) venosus. Cycloclypeus restricted to fore reef areas below 50m down to base of photic zone)

Hohenegger, J. (1995)- Depth estimation by proportions of living larger foraminifera. Marine Micropaleontology 26, p. 31-47.

Hohenegger, J. (1996)- Remarks on the distribution of larger foraminifera (Protozoa) from Belau (Western Carolines). Kagoshima University Research Center Pacific Islands, Occasional Papers 30, p. 85-90.
(online at: http://hdl.handle.net/10232/16891)

Hohenegger, J. (1999)- Larger foraminifera-microscopical greenhouses indicating shallow-water tropical and subtropical environments in the present and past. Kagoshima University Research Center Pacific Islands, Occasional Papers 32, p. 19-45.
(online at: http://hdl.handle.net/10232/16923)
(Larger foraminifera (2mm-15cm) characteristic of shallow marine (sub-)tropical environments, in clear, nutrition-depleted water like for coral reefs. All larger foraminifera house symbiotic microalgae and are thus restricted to photic zone (<150m). In intertidal-shallow subtidal environments high irradiatiois blocked by thicker tests or porcelaneous structures; species living near base of photic zone facilitate light penetration by thin transparent test walls and by light-collecting mechanisms such as nodes and pillars)

Hohenegger, J. (2000)- Coenoclines of larger foraminifera. Micropaleontology 46, Suppl. 1, Advances in the biology of foraminifera, p. 127-151.
(online at: https://www.researchgate.net/publication/279548754_Coenoclines_of_Larger_Foraminifera)
(Good review of depth distribution of modern larger foraminifera, mainly in W Pacific)

Hohenegger, J. (2004)- Depth coenoclines and environmental considerations of Western Pacific larger foraminifera. J. Foraminiferal Research 34, p. 9-33.
(Good overview of depth distribution modern larger foraminifera in W Pacific)

Hohenegger, J. (2005)- Estimation of environmental paleogradient values based on presence/absence data: a case study using benthic foraminifera for paleodepth estimation. Palaeogeogr. Palaeoclim. Palaeoecology 17, p. 115-130.

Hohenegger, J. (2006)- The importance of symbiont-bearing benthic foraminifera for West Pacific carbonate beach environments. Marine Micropaleontology 61, 1, p. 4-39.
(online at: https://www.researchgate.net/publication/222019398_The_importance_of_symbiont-bearing_foraminifera_for_West_Pacific_carbonate_beach_environments)
(In tropical W Pacific and East Indian Ocean, symbiont-bearing benthic foraminifera are significant producers of calcium carbonate grains. Prefer firm substrate in high-energy environments close to front of coral reefs)

Hohenegger, J. (2011)- Large foraminifera: greenhouse constructions and gardeners in the oceanic microcosm; Kagoshima University Museum Bull. 5, Kagoshima, Japan, p. 1-81.
(online at: https://www.museum.kagoshima-u.ac.jp/publications/LARGE%20FORAMINIFERA.pdf)
(Well-illustrated general introduction to larger foraminifera and their symbionts)

Hohenegger, J. & E. Yordanova (2001)- Depth-transport functions and erosion-deposition diagrams as indicators of slope inclination and time-averaged traction forces: applications in tropical reef environments. Sedimentology 48, p. 1025-1046.
(Comparisons of distributions of living versus dead tests of larger foraminifera indicate common downslope transport in two NW Pacific off-reef transects)

Hohenegger, J. & E. Yordanova (2001)- Displacement of larger foraminifera at the western slope of Motobu Peninsula (Okinawa, Japan). Palaios 16, p. 53-72.

Hohenegger, J., E. Yordanova & A. Hatta (2000)- Remarks on West Pacific Nummulitidae (Foraminifera). J. Foraminiferal Research 30, p. 3-28.

(Operculina, Planostegina, Cycloclypeus and Heterostegina from W Pacific. Heterostegina depressa broad range in light intensities and is protected against irradiation by thick tests and cryptic life mode near surface. Test construction enables life under strong hydrodynamic regimes. Lives firmly attached to hard substrates, thus counteracting transportation by water movement. Nummulites venosus lives exclusively on coarse sand and avoids high sediment movement, starting distribution beneath fair weather wave base. Cycloclypeus carpenteri easily transported due to thin, plate-like form. Upper distribution limit correlates with storm wave base, below 50m. Lower distribution limit depends on light intensity and is near base photic zone)

Hohenegger, J., E.K. Yordanova, Y. Nakano & F.Tatzreiter (1999)- Habitats of larger foraminifera on the upper reef slope of Sesoko Island, Okinawa, Japan. Mar. Micropal. 36, p. 109-168.
(Peneroplis common on reef flat, hardgrounds down to 30m. Dendritina on sandy bottoms avoids uppermost slope, found down to 50m. Alveolinella similar distribution, common on hard bottom. Parasorites restricted to sandy substrates, 20-80m. Sorites and Amphisorus firm substrates between reef edge and 50m. Amphistegina species prefer hardgrounds, A. radiata also common on sand. Calcarinids withstand high energy, abundant on firm substrates close to reef edge. Baculogypsinoides deeper slope, sandy bottom, avoids shallowest parts. Hard substrates settled by Heterostegina down to 80m, occasionally on sandy bottoms. Nummulites on sands between 20- 70m. Operculina, starting at 20m, sandy substrates, rare individuals on rubble)

Hoibian, T. (1984)- La microfaune benthique traceur de l'evolution d'un systeme deltaique sous climat equatorial: le delta de la Mahakam (Kalimantan). Doct. Thesis Universite Bordeaux, p. 1-169. *(Unpublished)*
('Benthic microfauna tracing evolution of a delta system under equatorial climate: the Mahakam Delta (Kalimantan)')

Ho Kiam Fui (1971)- Distribution of recent benthonic foraminifera in the "inner" Brunei Bay. Brunei Museum J. 2, 3, p. 124-137.
(Three foraminifera assemblage in nearly landlocked Brunei Bay: (1) Trochammina cf. lobata and other small arenacous species (tidal inlets); (2) Ammobaculites (large part of inner bay); (3) Asterorotalia trispinosa with Ammonia, Elphidium, Florilus (seaward part of inner bay))

Holbourn, A., A.S. Henderson & N. Macleod (2013)- Atlas of benthic foraminifera. Wiley-Blackwell, p. 1-654.
(Atlas describing and illustrating 300 common Jurassic- Recent deep-sea benthic foraminifera species)

Hope, G.S. (1973)- The vegetation history of Mt Wilhelm. Ph.D. Thesis Australian National University, Canberra, p. 1-461.
(online at: https://digitalcollections.anu.edu.au/handle/1885/11103)
(Palynology study of sites on Mt Wilhelm PNG. Before 10,000 BP cooler and drier conditions prevailed in mountains and most mountains over 3800m in New Guinea were glaciated. Glaciers started retreating after 14,000 BP. By 8300 BP subalpine forests colonised Mt Whilhelm up to 4000m. Forests extensively cleared after 800 BP when planting of gardens took place below 2500m)

Hope, G.S. (1976)- The vegetational history of Mt Wilhelm, Papua New Guinea. J. of Ecology 64, p. 627-663.
(Pollen diagrams and 14 C dating from sites between 4420- 2740m on Mt Wilhelm, PNG Highlands allow determination of position of vegetation zones. From >22 000 years ago until 10 200 yrs B.P. tree-line stood well below 2700m and glaciers were present on mountain)

Horton, B.P., S.J. Culver, M.I.J. Hardbattle, P. Larcombe, G.A. Milne et al. (2007)- Reconstructing Holocene sea-level change for the central Great Barrier reef (Australia) using subtidal foraminifera. J. Foraminiferal Research 37, 4, p. 47-63.
(Samples behind barrier reef in water depths from 4.2- 48m. Two foraminiferal zones: inner shelf with Elphidium hispidulum, Pararotalia venusta, Planispirinella exigua, Quinqueloculina venusta and Triloculina oblonga; and middle shelf dominated by Amphistegina lessonii, Dendritina striata and Operculina complanata)

Horton, B.P., P. Larcombe, S.A. Woodroffe, J.E. Whittaker, M.R. Wright & C. Wynn (2003)- Contemporary foraminiferal distributions of a mangrove environment, Great Barrier Reef coastline, Australia: implications for sea-level reconstructions. Marine Geology 198, p. 225-243.
(Modern foraminifera and associated environmental information from Cocoa Creek, a mesotidal fringing mangrove environment on Great Barrier Reef. Three elevational zones. Zones I (highest) and II dominated by agglutinated species Trochammina inflata and Miliammina fusca, respectively; and Zone III (lowest) dominated by calcareous species, notably Ammonia tepida and Elphidium discoidale multiloculum. These assemblage zones similar to those found in both tropical and temperate intertidal environments)

Horton, B.P., J.E. Whittaker, K.H. Thomson, M.I.J. Hardbattle, S.A. Woodroffe & M.R. Wright (2005)- The development of a modern foraminiferal data set for sea-level recontructions, Wakatobi Marine National Park, Southeast Sulawesi, Indonesia. J. Foraminiferal Research 35, 1, p. 1-14.
(Intertidal foraminifera from Tukang-Besi islands off SE Sulawesi. Agglutinated species like Arenoparella mexicana, Miliammina fusca and Trochammina inflata most common at landward margin, and small calcareous species Ammonia tepida, Elphidium advanum and Quinqueloculina dominant at seaward margin of mangrove belt)

Horton, B.P., Y. Zong, C. Hillier & S. Engelhart (2007)- Diatoms from Indonesian mangroves and their suitability as sea-level indicators for tropical environments. Marine Micropaleontology 63, p. 155-168.
(Modern diatoms from mangrove swamps of Kaledupa (Tukang Besi island). 95 species, dominated by mesohalobous species (Amphora coffeaeformis, Amphora turgida, Achnanthes delicatula, Nitzschia sigma, Tryblionella balatonis) and oligohalobous (Amphora veneta, Diploneis ovalis, Progonoia didiomatia) taxa)

Howe, H.V. & K.G. McKenzie (1989)- Recent marine ostracoda (Crustacea) from Darwin and North Western Australia. Northern Territory Museum Arts Sciences, Monograph Series 3, p. 1-50.

Hughes, G.W. (1977)- Recent foraminifera from the Honiara Bay area, Solomon Islands. J. Foraminiferal Research 7, 1, p. 45-57.

Hughes, G.W. (1984)- Recent foraminifera and selected biometrics of *Heterostegina* from Ontong Java Atoll, Solomon Islands, Southwest Pacific. J. Foraminiferal Research 15, p. 13-17.
(online at: http://jfr.geoscienceworld.org/content/15/1/13.full.pdf)
(56 species of foraminifera in Halimeda gravels from Ontong Java Atoll lagoon between 31-38 m water depth. Amphistegina lessoni and Heterostegina depressa two most common species in all samples)

Hughes, G.W. (1988)- Modern bathyal agglutinating foraminifera from the Vella Gulf and Blanche Channel, New Georgia, Solomon Islands, Southwest Pacific. J. Foraminiferal Research 18, p. 304-310.
(online at: http://jfr.geoscienceworld.org/content/18/4/304.full.pdf)
(Diverse agglutinated foraminiferal assemblages of 39 species between 510- 1225m water depth off Solomon Islands. Below ~600m Bathysiphon, Ammodiscus, Martinottiella, Karreriella appear. Increase in abundance and diversity between 865-1070m associated with regional oxygen-maximum zone between 450m and 750m and a salinity-minimum zone below 800m)

Hughes, G.W. (1995)- Recent foraminifera from inter-reef channels, nearshore North Rarotonga, Cook Islands, South Pacific. J. Micropalaeontology 14, 1, p. 29-36.
(online at: https://www.j-micropalaeontol.net/14/29/1995/jm-14-29-1995.pdf)
(Samples from 8-65 water depth in Avatiu and Avarua channels of Rarotonga Island, S Pacific. Foraminifera mainly Cymbaloporetta bradyi, Borelis schlumbergeri, Heterostegina depressa, Peneroplis pertusus, Planorbulinella larvata, Siphogenerina raphanus, Sorites marginalis, Reussella simplex, Spirillina vivipara, Rosalina globularis, Amphistegina radiata, Planispirinella exigua and small miliolids)

Hughes, G.W. (2008)- Recent brackish Foraminifera and Thecamoebae from Sedili River, West Malaysia. Malaysia. In: M.A. Kaminski & R. Coccioni (eds.) Proc. 7th Int. Workshop on agglutinated foraminifera, Grzybowski Foundation Special Publ. 13, p. 41-45.

(Sedili River of S Malay Peninsula enters S China Sea through wide estuary. Lower estuarine, mangrove-fringed regime with normal marine salinity (34 ppt) has mixed calcareous-agglutinated autochthonous foraminiferal assemblage with Trochammina, Tiphotrocha comprimata, Haplophragmoides and Ammobaculites and surge-transported inner neritic calcareous benthic forams (Asterorotalia, Cellanthus, Triloculina, Ammonia, Elphidium, etc.) and rare planktonics. Estuarine, mangrove-fringed regime upstream of lower estuarine contains diverse agglutinated foraminiferal assemblages dominated by Trochammina spp., Tiphotrocha, Cribrostomoides and Ammobaculites. Upper estuarine, freshwater-slightly brackish Pandanu- grass-fringed tidal regime with low diversity agglutinated foram assemblages dominated by Miliammina fusca and Spirolocammina sp. Upstream freshwater areas of Nipa palm and grass-fringed river banks barren of foraminifera. Thecamoebae include Difflugia oblonga, Cucurbitella tricuspis and Nebela colaris)

Hunt, C.O., D.D. Gilbertson & G. Rushworth (2012)- A 50,000-year record of Late Pleistocene tropical vegetation and human impact in lowland Borneo. Quaternary Science Reviews 37, p. 61-80.
(Palynology from exposures in Great Cave of Niah, Sarawak, spanning ~52,000-5000 BP records climate-driven vegetation changes. Interstadials (interglacial periods) are marked by lowland forest, stadials by taxa from open environments or, as at the Last Glacial Maximum by disturbed open forest. Glacial stadials also characterised by taxa now restricted to 1000-1600 m above sea level, suggesting temperature declines of ~ 7–9 °C relative to todayt. Biomass burning appears associated with earliest human activity in cave)

Hunt, C.O. & R. Premathilake (2012)- Early Holocene vegetation, human activity and climate from Sarawak, Malaysian Borneo. Quaternary International 249, p. 105-119.
(40 m core from Loagan Bunut yielded high-resolution E Holocene (11.3- 6.75 ka) sequence of marginal-marine deposits)

Hussain, S.M. (2017)- An overview of ostracoda studies from the freshwater, marginal marine and marine ecosystems of Andaman and Nicobar Islands and the coasts of India. In: P K Kathal et al. (eds.) Micropaleontology and its applications, Scientific Publishers, India, Chapter 10, p. 135-162.

Hussain, S.M., P. Ganesan, G. Ravi, S.P. Mohan & S.G.D. Sridhar (2007)- Distribution of ostracoda in marine and marginal marine habitats off Tamil Nadu and adjoining areas, SE coast of India and Andaman Islands: environmental implications. Indian J. Marine Sciences 36, 4, p. 369-377.
(online at: http://nopr.niscair.res.in/bitstream/123456789/68/1/IJMS%2036(4)%20(2007)%20369-377.pdf)

Hussain, S.M., R. Krishnamurthy, M.S. Gandhi, K. Ilayaraja, P. Ganesan & S.P. Mohan (2006)- Micropaleontological investigations of tsunamigenic sediments of Andaman Islands. Current Science 91, p. 1655-1667.
(online at: https://www.currentscience.ac.in/Volumes/91/12/1655.pdf)
(Diverse marine foraminifera and ostracods from likely tsunami deposits on Andaman Islands. Common Amphistegina., Operculina ammonoides, Calcarina, Textularia, Ammonia, etc. Also deeper marine elements, sediments derived from Shallow littoral to neritic depths)

Hussain, S.M., S.P. Mohan & M.P. Jonathan (2010)- Ostracoda as an aid in identifying 2004 tsunami sediments: a report from SE coast of India. Natural Hazards 55, p. 513-522.
(Presence of marine ostracods in 2004 coastal tsunami deposits)

Hustedt, F. (1938)- Systematische und okologische Untersuchungen uber die Diatomeen-Flora von Java, Bali und Sumatra nach dem Material der Deutschen Limnologischen Sunda-Expedition. 1: Systematischer Archiv. Hydrobiologie, Suppl. Band 15, p. 1-790. *(Reprinted 1980 by Otto Koeltz Science Publishers, Konigstein)*
('Systematic and ecological investigations of the diatom floras of Java, Bali and Sumatra…'. Recent freshwater diatoms)

Hustedt, F. (1942)- Susswasser-Diatomeen des indomalayischen Archipels und der Hawaii-Inseln. Nach dem Material der Wallacea-Expedition. Internationale Revue der gesamten Hydrobiologie und Hydrographie 42, 1-3, p. 1-252. *(Reprinted 1979, Otto Koeltz Science Publishers, Germany)*

('Freshwater diatoms of the Indo-Malayan Archipelago and the Hawaii islands-From the material collected by the Wallacea Expedition'. Diatoms from samples collected during the German Limnological Sunda Expedition, 1937-1939))'

Isnaniawardhani, V. (2006)- Biostratigrafi dan paleoekologi berdasarkan nannoplankton dan foraminifera daerah Perairan Madura sejak Pliosen hingga Resen. Ph.D. Thesis Institut Teknologi Bandung (ITB), p. 1- . *(Unpublished)*
('Biostratigraphy and paleoecology based on nannoplankton and foraminifera in the Madura waters from Pliocene to Recent'. 10 biozones in waters S of Madura. Climate trends: warm conditions characterized by nannoplankton Discoaster quinqueramus and foram Globorotalia tumida)

Isnaniawardhani, V. (2009)- Environmental control of nannoplankton and foraminifera assemblages in Madura waters. Bulletin of the Marine Geology 24, 1, p. 1-12.
(online at: http://isjd.pdii.lipi.go.id/admin/jurnal/24109112.pdf)
(Distribution of nannoplankton and foraminifera in 26 shallow marine surface sediment samples from Madura Strait and 24 samples from open marine water N of Madura)

Isnaniawardhani, V. (2012)- Karakteristik sedimen dan mikroorganisma permukaan dasar laut perairan Madura bagian utara. Bull. Scientific Contribution (UNPAD) 10, 1, p. 18-30.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8275/3822)
('Characteristics and microorganisms of seafloor sediments north of Madura'. Clay and silt seafloor samples in water depths 5-77m with 20 nannoplankton species (mainly Emiliania huxleyi, Gephyrocapsa oceanica), 30 planktonic forams species (mainly Globigerinoides ruber) and 16 benthic foraminifera species (common Ammonia, Quinqueloculina, Eponides, Triloculina, Asterorotalia, Cibicides, Cancris, Elphidium, Textularia). Pseudorotalia, Cibicides and Anomalinella more abundant in N, away from coast. Abundance and diversity increase with depth. Gephyrocapsa mainly in samples closest to shoreline)

Isnaniawardhani, V. (2016)- Environmental control of nannoplankton and foraminifera assemblages in Madura waters. Bulletin of the Marine Geology 24, 1, p. 1-13.
(online at: http://ejournal.mgi.esdm.go.id/index.php/bomg/article/viewFile/10/10)
(Distributions of calcareous nannofossils (mainly Gephyrocapsa oceanica) and foraminifera in Recent sediments around Madura Island, divided into four zones: (I) inner shelf (< 30 m) in Madura Strait, (II) inner shelf in open marine N of Madura, (III) outer shelf (water depth 30- 80 m) in Madura Strait, and (IV) outer shelf in open marine N of Madura)

Isnaniawardhani, V. & R. Kapid (2016)- Kumpulan nannoplankton dan foraminifera di Selat Madura, sebarannya dalam batimetri serta letak terhadap sungai dan pantai. Bul. Ilmiah Mineral dan Energi (MINDAGI) 10, 2, p. 47-60.
('Collection of nannoplankton and foraminifera in Madura Strait, bathymetric distribution and location of rivers and beaches'. Recent foraminifera and nannoplankton in 38 seafloor samples from 4-72m water depth)

Isnaniawardhani, V. & F. Muhammadsyah (2015)- Kelimpahan, keanekaragaman dan spesies khas dari kumpulan foraminifera bentik pada sedimen permukaan dasar laut di perairan Tambelan. Bull. Scientific Contribution (UNPAD) 13, 3, p. 259-269.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8413/3920)
('Abundance, diversity and species of benthic foraminifera in sea floor sediments in waters of Tambelan'. Benthic foraminifera from shallow waters around Tambelan Islands, Natuna Sea)

Isnaniawardhani, V., E. Suparka, R. Kapid & H. Latief (2002)- Calcareous nannoplankton and foraminifera in the surface sediments of Madura waters. Proc. 31st Annual Conv. Indonesian Association Geologists (IAGI), Surabaya, 1, p. 380-386.
(online at: https://www.iagi.or.id/web/digital/17/CALCAREOUS-NANNOPLANKTON-AND-FORAMINIFERA-IN-THE-SURFACE-SEDIMENTS-OF-MADURA-WATERS.pdf)

(Recent calcareous nannoplankton assemblages N of Madura island dominated by Gephyrocapsa oceanica, Emiliana huxleyi and Florisphaera. Not much detail (see also Isnaniawardhani 2009, 2012, 2016))

Isnaniawardhani, V., E. Suparka, R. Kapid & H. Latief (2003)- Nannoplankton and foraminifera assemblages and their relations to bathymetry in Madura waters. Proc. 8th International Congress Pacific Neogene Stratigraphy, Chiang Mai 2003, p.

Jell, J.S., W.H.G. Maxwell & R.G. McKellar (1965)- The significance of the larger foraminifera in the Heron Island reef sediments. Journal of Paleontology 39, 2, p. 273-279.
(Distribution of foraminiferal detritus in sediments of Heron Island Reef, Great Barrier Reef Province. Dominant genus Calcarina spp., Baculogypsina sphaerulata and Marginopora vertebralis mainly in outer parts of reef flats. Amphistegina, Elphidium, Operculina, Peneroplis and Alveolinella quoii relatively rare)

Jian, Z. & L. Wang (1997)- Late Quaternary benthic foraminifera and deepwater paleoceanography in the South China Sea. Marine Micropaleontology 32, p. 127-154.
(In deepwater S China Sea different foram assemblages associated with Intermediate Water Mass (Globocassidulina subglobosa), Deep Water Mass (Astrononion novozealandicum and Bulimina aculeata) and Deep water below CCD (Eggerella bradyi))

Jian, Z., L. Wang, M. Kienast, M. Sarnthein, W. Kuhnt, H. Lin & P. Wang (1999)- Benthic foraminiferal paleoceanography of the South China Sea over the last 40,000 years. Marine Geology 156, 1, p. 159-186.
(During periods of high organic carbon flux during last glacial maximum (~10 ka; possibly due to increased surface productivity, induced by increased input of nutrients from nearby river runoff) detritus feeders like Bulimina aculeata and Uvigerina peregrina dominated benthic foraminiferal assemblages. Suspension feeders like Cibicidoides wuellerstorfi and 'opportunistic' species like Oridorsalis umbonatus, Melonis barleeanum and Chilostomella ovoidea gradually became more abundant as soon as organic carbon flux decreased)

Jones, R.W. (1994)- The Challenger Foraminifera. Oxford University Press, p. 1-149.
(Updated taxonomy and reproductions of foraminifera from classic H.B. Brady (1884) Challenger report)

Jones, R.W. (2014)- Supplemental notes on Challenger Foraminifera. In: A.J. Bowden et al. (eds.) Landmarks in foraminiferal micropalaeontology: history and development, The Micropalaeontological Society, Special Publ. 6, Geological Society, London, p. 31-45.
(Updates to Jones (1994) updates to names of foraminifera in Brady Challenger Report)

Jouse, A., P. & G.H. Kazarina (1974)- Pleistocene diatoms from site 262 leg 27, DSDP. Initial Reports Deep Sea Drilling Project (DSDP) 27, U.S. Government Printing Office, Washington, p. 925-946.
(online at: www.deepseadrilling.org/27/volume/dsdp27_42.pdf)
(Site 262 near axis of the Timor Trough, 75 km S of W tip of Timor in 2315m water depth. Mainly nannofossil oozes with some terrigenous material. Diatoms only in upper 250m (M-U Pleistocene; 5 zones), not numerous, well preserved, 97 species, dominantly oceanic (38). All samples with of Thalassionema and Thalassiotrix)

Joyce, E.M., K.R. Thiele, J.W.F. Slik & D.M. Crayn (2020)- Plants will cross the lines: climate and available land mass are the major determinants of phytogeographical patterns in the Sunda-Sahul Convergence Zone. Biological J. Linnean Society, London, 132, 2, p. 374-387.
(online at: https://academic.oup.com/biolinnean/article/132/2/374/6040689)
(Miocene convergence of Sunda shelf, Sahul shelf and Wallacea facilitated exchange of previously isolated floras across the Sunda-Sahul Convergence Zone (SSCZ). Lydekker's and Wallace's Lines not reflected in flora compositions: 46% of genera distributed across these biogeographical lines. Modern phytogeographical patterns influenced more by environmental variables (rainfall, seasonality) and land areas available for colonization than by proposed barriers to movement such as Wallace's and Lydekker's Lines)

Jumnongthai, J. (1983)- Recent smaller foraminifera from the Gulf of Thailand. J. Geological Society Thailand 6, p. 39-53.

(online at: http://library.dmr.go.th/Document/J-Index/1983/88.pdf)
(Foram distribution in 18 samples from water depth 29-74m in N Gulf of Thailand >99% benthics (83% calcareous). Common Asterorotalia pulchella, Cellanthus craticulatus, Elphidium, Pseudorotalia spp., Quinqueloculina, Textularia, etc.))

Jumnongthai, J. (2001)- Brackish foraminifera from southern provinces along the Gulf of Thailand. Dept. Mineral Resources (DMR), Bangkok, Technical Report No. GSD 254/2001, p. 1-40.
(online at: http://library.dmr.go.th/Document/DMR_Technical_Reports/2001/1746.pdf)
(Brackish water foraminifera from five provinces along Gulf of Thailand 53 benthic species. Low salinity facies with Ammobaculites, Ammotium cassis, Arenoparella, Miliammina fusca and Trochammina. Higher salinity assemblages with more calcareous forms Elphidium, Pararotalia nipponica))

Jumnongthai, J. (2002)- Recent brackish foraminifera from southern peninsular Thailand. J. Geological Society Thailand 1, p. 35-46.
(online at: http://library.dmr.go.th/Document/J-Index/2002/136.pdf)
(92 species of brackish foraminifera in estuaries and coastal zones along Andaman Sea. Arenacous taxa Arenoparella mexicana, Haplophragmoids, Miliammini fusca and Trochammina dominant in mangrove forests; calcareous taxa Ammonia beccarii, Elphidium and Pararotalia nipponica dominant in coastal areas)

Jurnaliah, L. & Winantris (2015)- Distribusi submikrofosil (polen dan foraminifera) pada delta front di delta Mahakam, Kalimantan Timur. Bull. Scientific Contribution (UNPAD) 13, 3, p. 169-181.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8404/3911)
('Distribution of microfossils (pollen and foraminifera) in the Mahakam delta, East Kalimantan'. 29 samples from delta front. Pollen 24 species of palmae, 21 mangrove and 117 species of non-mangrove and 7 biofacies. Foraminifera 82 species of small benthics, also 7 biofacies, from inner shelf to mangrove swamp)

Jurnaliah, L. & Winantris (2021)- Biozona Delta Mahakam modern berdasarkan kumpulan foraminifera bentik kecil dan polen, Kalimantan Timur. J. Geologi Kelautan 19, 2, p. 96-102.
('Biozones in the modernMahakam Delta, based on small benthic foraminifera and pollen, E. Kalimantan')
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/742/539)
(83 sediment samples from 3 parts of Mahakam Delta show 4 biozones: I (Palmae pollen Oncosperma, Nypa) located in delta plain; II (Foraminifera "A"; Ammonia spp, Asterorotalia); III (Foraminifera "B";Elphidium, Hateroleoa, Ammonia) in delta front; IV (non-mangrove pollen like Graminae, Cyperaceae) mainly in delta plain and distributary channel. N part of Mahakam Delta more diverse than S part)

Jurnaliah, L., I. Syafri, A. Sudradjat & R. Kapid (2019)- Biofasies dan ekologi perairan Jawa Tengah bagian utara berdasarkan kumpulan foraminifera bentik kecil. J. Geologi Kelautan 17, 2, p. 89-98.
(online at: https://garuda.kemdikbud.go.id/documents/detail/1643798)
('Biofacies and ecology of the waters of Java Sea N of Central Java, based on benthic foram assemblages'.32 bottom samples from shallow part of Java Sea suggest 4 Recent benthic foraminifera biofacies)

Kalebos, R.C., J.M. Mamuaja, M.T. Lasut, M. Ompi, R.M. Rampengan & K. Kemer (2024)- Komposisi foraminifera genus *Calcarina* di perairan desa Wineru, Kecamatan Likupang Timur, Sulawesi Utara. Jurnal Pesisir dan Laut Tropis 12, 2, p. 72-81.
(online at: https://ejournal.unsrat.ac.id/v3/index.php/jplt/article/view/57804/47496)
('The composition of foraminifera of the genus Calcarina in the waters of Wineru village, East Likupang District, North Sulawesi'. Samples of Recent Calcarina from 1-2m deep reef habitats in N-most N Sulawesi. Dominant species in all locations is C. spengleri, followed by C. sp., C hispida, C. gaudichaudii and C. defrancei)

Kamaludin b. Hassan (1989)- Significance of palynology in Late Quaternary sediments in Peninsular Malaysia. Bull. Geological Society Malaysia 24, p. 57-66.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1989b05.pdf)

Kapustin, D.A., A.M. Glushchenko, J.P. Kociolek & M.S. Kulikovskiy (2021)- *Encyonopsis indonesica* sp. nov. (Bacillariophyceae, Cymbellales), a new diatom from the ancient lake Matano (Sulawesi, Indonesia). PhytoKeys 175, 61044, p. 1-11.
(online at: https://www.researchgate.net/publication/350123595_Encyonopsis_indonesica_sp_nov_Bacillariophyceae_Cymbellales_a_new_diatom_from_the_ancient_lake_Matano_Sulawesi_Indonesia)
(New diatom species, Encyonopsis indonesica described from ancient lake Matano, C Sulawesi)

Kapustin, D.A., M. Kulikovskiy & J.P. Kociolek (2018)- *Celebesia* gen. nov., a new cymbelloid diatom genus from the ancient Lake Matano (Sulawesi Island, Indonesia). Nova Hedwigia, Beiheft 146, p. 147-155.
(Cymbella distinguenda Hustedt 1942 is rare endemic freshwater diatom species from ancient Lake Matano, Sulawesi. Here placed in A new genus, Celebesia

Karmini A.S., Mimin (1996)- Foraminifera sedimen permukaan perairan Teluk Semangko & Lepas pantai sebelah Barat Sumatra Selatan. Proc. 25th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, p. 71-87.
('Foraminifera in seafloor sediments of Semangko Bay and Lepas beach, S Sumatra')

Kathal, P.K. (2002)- Taxonomy, distribution patterns and ecology of Recent littoral foraminifera of the East coast of India. Neues Jahrbuch Geologie Palaontologie, Abhandlungen 224, 1, p. 115-160.
(Foraminifera distributions in 96 samples of coastal sediments down to 3m depth along E coast India. Faunas dominated by Miliolidae, followed by Rotaliidae, Elphididae, Nonionidae, Cassidulinidae, etc.)

Kawagata, S., B.W. Hayward & A.K. Gupta (2006)- Benthic foraminiferal extinctions linked to late Pliocene-Pleistocene deep-sea circulation changes in the northern Indian Ocean (ODP sites 722 and 758). Marine Micropaleontology 58, p. 219-242.
(Late Pliocene- M Pleistocene decline and extinction of 63 species of elongate, bathyal-upper abyssal benthic foraminifera (Stilostomellidae, Pleurostomellidae, some Nodosariidae. Two Indian Ocean ODP sites show pulsed declines in Extinction Group abundance and richness, especially in glacial periods, with partial recoveries in interglacials. Glacial declines result of increased production of colder, well-ventilated Antarctic Bottom Water and Glacial North Atlantic Intermediate Water)

Kawamura, H. (2002)- Marine palynological records in the southern South China Sea over the last 44 kyr. Doctoral Dissertation Christian-Albrechts-University, Kiel, p. 1-145.
(online at: at http://deposit.ddb.de/cgi-bin/...)
(Mainly on Recent and Quaternary dinoflagellates in area of Molengraaff paleo-river at N margin of Sunda Shelf)

Kawamura, H. (2004)- Dinoflagellate distribution along a shelf to slope transect of an oligotrophic tropical sea (Sunda Shelf, South China sea). Phycological Research 52, 4, p. 355-375.
(51 surface samples along Sunda shelf to S China Sea slope with36 taxa of dinoflagellate cysts. Oligotrophic tropical shelf assemblages dominated by gonyaulacoids (Spiniferites, Operculodinium spp.). Slope assemblages dominated by protoperidinioids, possibly reflecting higher nutrient availability)

Keij, A.J. (1953)- Preliminary note on the Recent Ostracoda of the Snellius Expedition. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, B 56, 2, p. 155-168.
(13 species of podocopid and one platycopid ostracode species from 28 stations of 1929-1930 Snellius Expedition in E Indonesian Seas. Ostracoda still found in samples from 4000-5000m)

Keij, A.J. (1964)- The relative abundance of recent planktonic foraminifera in seabed samples collected offshore Brunei and Sabah. Annual Report Geological Survey Borneo Region Malaysia 1963, p. 146-153.
(Percentages of planktonic foraminifera increase with depth in 561 seafloor samples from narrow Brunei and Sabah shelf between 4-113m: rare between 0-20m, <5% between 20-40m, 5-40% between 40-100m, up to 80% between 100-200m. Distinct increases in relative abundance of Orbulina, Pulleniatina, Globorotalia menardii below 40-50m. Globorotalia truncatulinoides, Gr. crassaformis and Sphaeroidinella dehiscens only below 100m)

Keij, A.J. (1975)- Some Recent Ostracoda of Manila (Philippines). Proc. Koninklijke Nederlandse Akademie van Wetenschappen B 78, p. 351-363.

Keijzer, C.J. (1935)- On variability in East Indian foraminifera. Doct. Thesis University of Leiden, Brill, p. 1-79. *(Unpublished)*
(Biometric study of selected modern foraminifera species from coasts of Java, Bali, Madura)

Khare, N., S.K. Chaturvedi & A. Mazumder (2007)- An overview of foraminiferal studies in nearshore regions off eastern coast of India, and Andaman and Nicobar Islands. Indian J. Marine Sciences 36, 4, p. 288-300.
(online at: http://nopr.niscair.res.in/bitstream/123456789/52/1/IJMS%2036(4)%20(2007)%20288-300.pdf)
(Review and bibliography of over 100 papers dealing with shallow marine and coastal Recent foraminifera)

Khustina, Y.C., D.D. Solihin & N.T.M. Pratiwi (2014)- Morphological identification and diversity analysis of fossil diatoms from diatomite Sangiran Central Java Indonesia. Jurnal Biologi Indonesia 10, 2, p. 247-258.
(online at: https://e-journal.biologi.lipi.go.id/index.php/jurnal_biologi_indonesia/article/view/2105)
(Pleistocene lower, middle and upper diatomites in Sangiran with 50 species identified. Highest diversity in lower diatomite (34 species, mixed marine and freshwater; dominated by Coscinodiscus kutzingi). Middle diatomite dominated by Fragilaria and Coscinodiscus lineatus. Upper diatomite mainly Fragilaria, Cyclotella and Coscinodiscus spp. Gradual changes reflect change from marine to freshwater environment)

Kleijne, A. (1990)- Distribution and malformation of extant calcareous nannoplankton in the Indonesian Seas. Marine Micropaleontology 16, p. 293-316.
(Calcareous nannoplankton distribution in 202 samples from Snellius-II Expedition in Banda Sea and adjacent seas. 36 living species recorded; most common Gephyrocapsa oceanica, Umbellosphaera irregularis, Emiliania huxleyi and U. sibogae. Coccolithophorids present, but devoid of coccoliths during NW monsoon, suggesting low salinity and nutrient depletion of surface waters restrict coccolith formation, since normal coccoliths do develop during SE monsoon when upwelling causes nutrient enrichment and normal salinity)

Kob, M.R.C. (1993)- Late Quaternary nannofossils from offshore Sabah, northwest Borneo. In: T. Thanasuthipitak (ed.) Proc. International Symposium Biostratigraphy of mainland Southeast Asia: facies & paleontology (BIOSEA), Chiang Mai 1993, Chiang Mai University, 2, p. 261-281.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/1993/2298_2 ...)
(late Pleistocene- Recent calcareous nannofossils from 13m thick core KL139 in ~2700m water depth of Sabah Trough. Emiliana huxleyi, Gephyrocapsa oceanica and 'small Gephyrocapsa' >50% of total assemblages. Four zones: deeper zone C (Late Pleistocene Last Glacial Maximum?) with peak 'small Gephyrocapsa' represents rel. cool period, youngest zone A with peak G. oceanica rel. warm)

Koba, M. (1978)- Distribution and environment of Recent *Cycloclypeus*. Science Reports Tohuku University, ser. 7, 28, p. 283-311.
(online at: http://ir.library.tohoku.ac.jp/re/bitstream/10097/45065/1/AA0045945078466.pdf)
(Tropical larger foram Cycloclypeus widely distributed in Recent of Indo-Pacific oceanic region. Common on outer reef slopes, and confined by 200m isobath. Not present in pelagic environments, reef banks, lagoons or bays. In Recent samples found between 32-1419m depth, but clear abundance peak around 90m)

Langer, M.R. (1992)- New Recent foraminiferal genera and species from the lagoon at Madang, Papua New Guinea. J. Micropalaeontology 11, 1, p. 85-93.
(online at: https://www.j-micropalaeontol.net/11/85/1992/jm-11-85-1992.pdf)
(Samples from shallow water (0-55m) fore- and back-reef environments at Madang lagoon with larger foraminifera (Assilina spp., Heterostegina depressa, Alveolinella quoyi, Sorites spp., Amphisorus hemprichii, Marginopora vertebralis). Two new genera (Pseudolachlanella) and eight new species of benthic foraminifera)

Langer, M.R. (1995)- Oxygen and carbon isotopic composition of Recent larger and smaller foraminifera from the Madang Lagoon (Papua New Guinea). Marine Micropaleontology 26, p. 215-221.

(General trend in Recent large benthic foraminifera (Operculina, Heterostegina, Sorites, Marginopora, Alveolinella) from Madang Lagoon of depletion in heavier C and O isotopes with depth appears to be depth- and light-dependant)

Langer, M.R. & L. Hottinger (2000)- Biogeography of selected 'larger' foraminifera. Micropaleontology 46, Suppl. 1, Advances in the biology of foraminifera, p. 105-126.
(Global distributions of Recent larger foraminifera species. Main provinces: (1) Central Pacific with Baculogypsinoides spinosus, Schlumbergerella floresiana, Operculina heterosteginoides, Pseudorotalia indopacifica; (2) Indo-Pacific with Marginopora vertebralis, Alveolinella quoyii, Amphistegina radiata, Calcarina spp., Nummulites venosus and Cycloclypeus carpenteri; (3) W Indian Ocean and (4) Caribbean)

Langer, M.R. & J.H. Lipps (2003)- Foraminiferal distribution and diversity, Madang reef and lagoon, Papua New Guinea. Coral Reefs 22, p. 143-154.
(Benthic foram distribution shows four clusters in Madang lagoon at NE coast of PNG)

Lei, Y. & T. Li (2016)- Atlas of benthic foraminifera from China Seas, the Bohai Sea and the Yellow Sea. IUP Science Press, Beijing, Springer, p. 1-399.
(Descriptions of 183 species of mainly shallow marine foraminifera from northern South China Sea)

Lelono, E.B. (2006)- Pleistocene palynology of East Java. Lemigas Scientific Contributions 29, 3, p. 3-14.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/1027)
(Study of Pleistocene palynology in 3 unnamed wells in NE Java basin. Base Pleistocene characterised by index pollen of Dacrycarpidites australiensis and abundant grass pollen of Monoporites annulatus in the absence of spore of Stenochlaenidites papuanus. Interpretation supported by occurrence of nannoplankton Gephyrocapsa eocenica (NN19). Benthic zone lower NB1 (equivalent to E Pleistocene planktonic foram zone N22, based on appearance of Asterorotalia gaimardii and Pseudorotalia schroeteriana in absence of Asterorotalia gaimardii inermis, Pseudorotalia schroeteriana angusta, P. alveiformis, Asanoina globosa and Ammonia ikebei)

Lelono, E.B. (2018)- Dry climate expansion in the Pleistocene of Indonesia as recorded in its pollen assemblage. Scientific Contributions Oil and Gas (SCOG), Lemigas, Jakarta, 41, 1, p. 17-27.
(online at: http://journal.lemigas.esdm.go.id/ojs/index.php/SCOG/article/download/69/pdf)
(Pleistocene characterised by glacial and interglacial periods. In Indonesia reflected in dry/cool (abundant Gramineae grass pollen) and wet/warm climates (increases of coastal and mangrove palynomorphs). Quantitative palynology shows Pleistocene in E Java wells characterised by abundant Monoporites annulatus grass pollen, corresponding to glacial-period expansion of savanna vegetation. Abundant charred Gramineae cuticles reflect burning grass. In N Papua wells repetition of dry/ wet conditions or low/ high sea levels)

LeRoy, L.W. (1938)- A preliminary study of the microfaunal facies along a traverse across Peper Bay, West coast of Java. De Ingenieur in Nederlandsch-Indie (IV) 5, 8, p. IV.130- IV.133.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1938-08.pdf)
(Recent foraminifera off West coast of Java, SW of Labuan (deepest sample 32m). Three assemblages (1) Haplophragmoides- Haplophragmium facies (semi-brackish), (2) Operculina- Ozawaia facies (18-32m, marine) and (3) Dendritina-Aveolinella facies (7-26m; also Rotalia calcar, Calcarina spengleri, Marginopora, etc.))

Lessard, R.H. (1964)- Intertidal and shallow water foraminifera of the tropical Pacific Ocean. M.Sc. Thesis, University of Southern California, p. 1-112.
(online at: http://digitallibrary.usc.edu/cdm/ref/collection/p15799coll30/id/107855)
(Mainly on distribution of Baculogypsina and Tinoporus in western tropical Pacific)

Lessard, R.H. (1980)- Distribution patterns of intertidal and shallow water foraminifera of the tropical Pacific Ocean. Cushman Foundation Foraminiferal Research, Special Publ. 19, p. 40-58.
(online at: https://business.cushmanfoundation.org/ap/CloudFile/Download/rJDJ8V5P

(Recent foraminifera from intertidal and shallow-water sediment samples along two major sections across islands of tropical Pacific Ocean, dominated by Tinoporus, Baculogypsina, Atnphistegina, Marginopora and Heterostegina. With discussions on possible dispersal mechanisms. No distrubution maps)

Li, Z., Y. Saito, L. Mao, T. Tamura, Z. Li, B. Song, Y. Zhang, A. Lu, S. Sieng & J. Li (2012)- Mid-Holocene mangrove succession and its response to sea-level change in the upper Mekong River delta, Cambodia. Quaternary Research 78, 2, p. 386-399.
(Cores from upper Mekong River delta in Cambodia record transgressive sequence from floodplain freshwater marsh to tidal flat (~9.4- 6.3 ka), overlain by mangrove. At decelerated sea-level rise at ~8.3 ka pioneer (high-salinity tolerant) mangrove species Sonneratia alba and Sonneratia caseolaris appeared, then was replaced by regressive mangrove succession of increasing Rhizophora apiculata and Bruguiera spp.)

Ling, H.Y. & W.A. Anikouchine (1967)- Some spumellarian radiolaria from the Java, Philippines and Mariana trenches. Journal of Paleontology 41, 6, p. 1481-1491.
(Eight species of five genera of patagium-bearing and morphologically closely related spumellarian Radiolaria in three sediment cores from Java, Philippine, and Mariana Trenches. Java Trench samples from pelagic ooze in core from 3380m water depth off S Sumatra, with Euchitonia spp., Hymeniastrum, Dictyocorine and Rhopalodictyum. Also locally common diatiom Ethmodiscus rex)

Lipps, J.A. & K.P. Severin (1985)- *Alveolinella quoyi*, a living fusiform foraminifera, at Motupore Island, Papua New Guinea. Science in New Guinea (University of PNG, Port Moresby) 11, p. 126-137.
(Living species of Alveolinella quoyi in water depths of 3-12m, mainly on algae-covered coral rubble and around bases of living coral heads in rel. sheltered areas. Dead tests scattered over wider bathymetric range. Virtually absent on back-reef flats)

Lobegeier, M.K. (2002)- Benthic foraminifera of the family Calcarinidae from Green Island Reef, Great Barrier Reef Province. J. Foraminiferal Research 32, 3, p. 201-216.
(Three epiphytic calcarinid species on Great Barrier Reef and limited to W Indo-Pacific (absent from Indian Ocean and E of 170°W). Calcarina spengleri (=hispida) dominant and common in shallow water on reef flat. Calcarina mayori smaller and dominates in deeper water off reef flat. Baculogypsina sphaerulata is shallow water high-energy species. Best preserved Calcarina at Green Island Reef in windward shoals)

Li, B.H., X.Y. Wang, Z.M. Jian, P.X. Wang (2009)- Sea surface environment inferred from planktonic foraminifera in the southern South China Sea since the last glacial period. Palaeoworld 18, p. 23-33.
(Planktonic foraminifera from Site 17964 in southern S China Sea (SCS) show higher % warm-water species in Holocene, while temperate-water species increase during last glacial period. Pulleniatina obliquiloculata more common during glacial period. Orbulina universa test size larger than those in Indian and Atlantic Oceans, indicating warmer and less saline surface water in Equatorial- tropical W Pacific. Diameter and shell porosity of O. universa increased from last glacial to Holocene)

Lirdwitayaprasit, T. (1997)- Distribution of dinoflagellate cysts in the surface sediment of the South China Sea, Area I: Gulf of Thailand and East Coast of Peninsular Malaysia. Proc. 1st Techn. Seminar Marine fishery resource survey in the South China Sea, SE Asia Fisheries Development Centre (SEAFDEC), Training Dept., Thailand, S4/SB7, p. 294-309.
(online at: http://map.seafdec.org/downloads/pdf/collaborative%20research/AreaI_GOT/SCS_FRS1_18.pdf)
(Dinoflagellate cysts in Gulf of Thailand and off E coast of Peninsular Malaysia 20 goniolacoid, tuberculodinioid and peridinioid species. Spiniferites spp. (=Gonyaulax spp.) dominant cyst species)

Lirdwitayaprasit, T. (1997)- Distribution of dinoflagellate cysts in the surface sediment of the South China Sea, Area II: Sabah, Sarawak and Brunei Darussalam waters. Proc. 1st Techn. Seminar Marine fishery resource survey in the South China Sea, SE Asia Fisheries Development Centre (SEAFDEC), Training Dept., Thailand, S2/FB4, p. 310-322.
(online at: http://map.seafdec.org/downloads/pdf/collaborative%20research/AreaII_West%20Borneo/SCS_FRS2_16.pdf)

(Dinoflagellate cysts off N Borneo with Spiniferites bulloideus as dominant species)

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(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/148)
(Description of technique of imaging foraminifera by combining series of digital photographs in automated software to produce single optical image with high resolution and superior depth of focus. With examples of Indonesian Tertiary- Recent foram material)

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(online at: https://www.researchgate.net/publication/233654597_Benthic_Foraminifera_from_the_Chuuk_Lagoon_Atoll_System_Caroline_Islands_Pacific_Ocean)
(Excellent documentation of Recenet shallow marine benthic foraminifera from a western Equatorial Pacific atoll system formerly called Truk, in hotspot of marine tropical diversity in modern oceans. 104 species: 66% porcelaneous, 22% hyaline-perforate and 16% agglutinated species. Amphistegina lessonii and Heterostegina depressa most abundant. Other significant species include Alveolinella quoyi and Baculogypsina sphaerulata)

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Maloney, B.K. & F.G. McCormac (1996)- Thirty thousand years of radiocarbon dated vegetation and climatic change in highland Sumatra. Proc. 15th Int. 14C Conference, Radiocarbon 37, 2, p. 181-190.
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(Pollen analysis and 14C sequences from two Sumatra highland sites, Pea Bullok (Toba Plateau) and Danau di-Atas, spanning last glacial period. Strong indications of extensive forest clearance after ~2 ka)

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(online at: https://www.semanticscholar.org/paper/Key-to-mangrove-pollen-and-spores-of-southern-an-to-Mao-Batten/b1103575729f2b3827e06999d3cd0d2502e4b66e)
(Pollen morphological "atlas" and identification keys for mangrove flora of coastal areas of S China)

Marquez, E.J. (1999)- Deep sea foraminiferal distribution of eastern South China Sea. J. Geological Society of the Philippines 54, 1-2, p.

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(Pyroclastic materials from 1991 eruption of Mt Pinatubo resulted in decimation of most benthic foraminifera in E South China Sea. Samples above eruption layers in deep water cores much lower abundances, lower diversity and relative common of Quinqueloculina spp., probably form part of recolonization fauna)

Marquez, E.J., P.J. Militante-Matias, G.P. Yumul, M.M. De Leon, D.V. Faustino et al. (1999)- Deep-sea foraminiferal distribution of the central and eastern portions of the South China Sea. In: G.H. Teh (ed.) Proc. 9th Regional Congress Geology Mineral Energy Resources of SE Asia (GEOSEA '98), Kuala Lumpur 1998, Bull. Geological Society Malaysia 43, p. 529-536.
(online at: www.gsm.org.my/products/702001-100787-PDF.pdf)
(1991 eruption of Mount Pinatubo covered S China Sea with W-trending ash fan. Eruption affected foraminifera only in cores taken near Luzon. Not much detail (not one species name!))

Martin, S.Q. (2016)- Distribution and taxonomy of modern benthic foraminifera of the western Sunda Shelf (South China Sea) off Peninsular Malaysia. Masters Thesis, East Carolina University, p. 1-262. *(Unpublished)*
(also as Cushman Foundation Special Publ. 47, 2018, with S.J. Culver et al.; see below)
(Distribution and taxonomy of 125 modern benthic foraminifera species from 54 seafloor samples in southern S China Sea, between 8-60m. Main assemblages across Sunda Shelf: (1) nearshore areas (<40m) dominated by symbiont-bearing Amphistegina lessonii, A. radiata; (2) inner shelf (40-100m), sandy mud substrates and abundant Heterolepa. dutemplei; (3) outer shelf (100-200m), muddy substrates and Uvigerina schwageri)

Martin, S.Q., S. J. Culver; E. Leorri; D.J. Mallinson; M.A. Buzas; L.A.C. Hayek & N.A.M. Shazili (2018)- Distribution and taxonomy of modern benthic foraminifera of the Western Sunda Shelf (South China Sea) off Peninsular Malaysia. Cushman Foundation Foraminiferal Research, Special. Publ. 47, p. 1-108.
(60 seafloor sediment samplesfrom southern South China Sea off NE Peninsular Malaysia from 8- 60m water depths yielded 125 species. Shallow samples with sandy substrates dominated by Amphistegina radiata and Amphistegina lessonii. Mud substrates at (44–59 m) characterized by Heterolepa dutemplei and Asterorotalia milletti. At 60m rel. common Heterolepa and Assilina ammonoides)

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McCloskey, B.J. (2009)- Foraminiferal responses to arsenic in shallow-water hydrothermal system in Papua New Guinea and in the laboratory. Ph.D. Thesis University of South Florida, p. 1-425. *(Unpublished)*
(On shallow marine, reef flat foram assemblages around hydrothermal vents in ~8m of water at Ambitle Island, Tutum Bay, E of New Ireland, PNG)

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(Recent ostracodes from East Indonesia Snellius Expedition, incl. Pterobairdia maddocksae n. sp.)

Melis, R. & D. Violanti (2006)- Foraminiferal biodiversity and Holocene evolution of the Phetchaburi coastal area (Thailand Gulf). Marine Micropaleontology 61, p. 94-115.
(Study of foraminifera from surface sediments from Phetchaburi coastal area, Thailand Gulf, from margin of vegetated zone, to depth of ~20m, and core in Mae Khlong delta plain. Area characterized by inflow of Mae Khlong river. Four assemblages of low diversity brackish-water faunas, with salinity controlling factor)

Mertens, K.N., Y. Takano, M.J. Head and K. Matsuoka (2014)- Living fossils in the Indo-Pacific warm pool: a refuge for thermophilic dinoflagellates during glaciations. Geology (GSA) 42, 6, p. 531-534.
(Dinoflagellate 'refugium species' Dapsilidinium pastielsii thought to range from Eocene- E Pleistocene, but still living in SE Asia (Okinawa; Koror, Palau, Ambon, E Vietnam Sea and Philippines)

Miao, Q. & R.C. Thunell (1993)- Recent deep-sea benthic foraminiferal distributions in the South China and Sulu Seas. Marine Micropaleontology 22, p. 1-32.
(Benthic foraminifera in surface sediment samples from S China and Sulu Seas. Low abondances but high diversity. Four faunal assemblages: (1) Globocassidulina subglobosa/ Uvigerina <1500m; within oxygen minimum zone); (2) Bulimina aculeata between 1700-2000m in SE S China Sea, also associated with high organic carbon content; (3) Astrononion pusillum in S China Sea between 1500-3200 m; (4) below lysocline (~3200m) in S China Sea agglutinated Rhabdammina abyssorum assemblage, in water mass that is highly undersaturated with respect to calcite. In Sulu Sea Pyrgo murrhina assemblage 1400-2200m; below 2200m assemblages dominated by Oridorsalis umbonatus)

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(Reprinted by Antiquariaat Junk, Lochem, 1970. 17 papers on foraminifera from samples collected by A. Durrand at 30 stations along transect from N Australia to Malay Peninsula)

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(online at: https://www.frontiersin.org/articles/10.3389/fmars.2021.647531/full)
(24 seafloor samples from Malaysian waters in northern Strait of Malacca, in water depths 9-86m. With 49 species of benthic foraminifera, dominated by calcareous hyaline taxa Asterorotalia pulchella (= A. trispinosa; most dominant), Pseudorotalia schroeteriana, Discorbinella bertheloti, Ammonia tepida, and Heterolepa praecincta. Three groups)

Minhat, F.I., P.R. Parham, M.L. Husain & B. Satyanarayana (2014)- Review of foraminiferal studies in nearshore areas, Peninsular Malaysia. Geological Society Malaysia, Proc. National Geoscience Conference (NGC), Terengganu 2014, P063, p. 122-124. *(Extended Abstract)*
(online at: https://gsm.org.my/articles/702001-100318/)
(Brief review of current status of intertidal- shallow marine foraminiferal distribution work in Malaysia)

Minhat, F.I., B. Satyanarayana, M.L. Husain & V.V.V. Rajan (2016)- Modern benthic foraminifera in subtidal waters of Johor: implications for Holocene sea-level change on the East coast of Peninsular Malaysia. J. Foraminiferal Research 46, 4, p. 347-357.
(Modern subtidal benthic foraminifera on E coast of Johor 279 species, dominated by Asterorotalia pulchella (= A. tripinosa), Discorbinella bertheloti, Pseudorotalia indopacifica, Ammonia and Cavarotalia annectens. Agglutinated species Textularia pseudosolita, T. agglutinans, Bigenerina nodosaria and T. foliacea in middle-shelf (>20m), calcareous genera Elphidium, Pararotalia and Ammonia in inner-shelf (<20m))

Minhat, F.I., K. Yahya, A. Talib & O. Ahmad (2013)- A survey of benthic foraminiferal assemblages in tropical coastal waters of Pulau Pinang, Malaysia. Tropical Life Sciences Research 24, 1, p. 35-43.
(Samples from subtidal zone to 1200m offshore Pinang Island, Malacca Straits, in water depths 1.5-10m with 9 nine genera of foraminifera, dominated Ammonia, Bigenerina, Ammobaculites and Elphidium)

Minhat, F.I., K. Yahya, A. Talib & O. Ahmad (2014)- Benthic foraminiferal distributions as bioindicators in coastal waters of Penang National Park, Malaysia. J. Foraminiferal Research 44, 2, p. 143-150.
(Distribution of benthic foraminifera off NW corner of Penang Island. Water depths 1.5-10 m, with predominantly muddy substrate. All assemblages dominated by Ammonia; also Elphidium, Ammobculites, etc.)

Mohamed, Mahani, S. Jirin, S.S. Hasan & N. Mohsin (2010)- Biofacies characterisation in the marginal marine environments of the Malay Basin using agglutinated foraminifera. Proc. Petroleum Geology Conference Exhibition (PGCE), Kuala Lumpur 2010, p. *(Extended Abstract)*
(Malay Basin dominated by paralic facies, where agglutinated foraminifera are useful in characterising biofacies. Three modern localities studied for biofacies analogs: Sedili Besar Estuary, Klang-Langat Delta and Pahang River Delta. Occurrences of species such as Ammobaculites exiguus, Textularia sp and Arenoparrella mexicana used to differentiate nearshore, shallow marine and brackish intertidal depositional settings)

Mohamed, Mahani, S.S. Hasan & S. Jirin (2014)- Recent agglutinated foraminiferal trends and assemblages of the Sedili Besar River and its adjacent offshore area, southeastern Peninsular Malaysia. Berita Sedimentologi 29, p. 73-79.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/144)
(Distribution of Recent foraminifera from Sedili river estuary to shallow marine offshore S China Sea along SE coast of Malay Peninsula. Calcareous forms increase with water depth, agglutinated foraminifera show reverse trend. Five biofacies zones differentiated, coinciinge with the upper brackish intertidal, lower brackish intertidal, estuary mouth, beach/nearshore and inner shelf depositional settings)

Mohamed, Mahani, S.S. Hasan, A.M. Yakzan & S. Jirin (2011)- Agglutinated foraminiferal trends and assemblages of the Sedili Besar River and its offshore area, southeastern Peninsular Malaysia. In: M.A. Kaminski & S. Filipescu (eds.) Proc. 8th Int. Workshop on agglutinated foraminifera, Romania, Grzybowski Foundation Special Publ. 16, p. 131-136.
(Similar to paper above)

Mohamed, Mahani, S. Jirin & S.S. Hasan & N. Mohsin (2011)- Salinity stratification and its effects on the Malay Basin biofacies assemblages. In: Petroleum Geology Conference and Exhibition 2011, Kuala Lumpur, Poster 7, p. 141-143. *(Extended Abstract)*
(Foraminifera in Sedili Besar River Estuary dominated by Ammonia cf. takanabensis (also identified as Ammonia beccarii) in stratified water column of marine base and freshwater top. In Klang-Langat and Pahang Deltas, where minimal salinity stratification, Ammonia assemblages are quite scattered. Agglutinated forms (mainly Arenoparrella group) dominate less stratified water column)

Mohan, P.M., P. Dhivya & K. Narayanamurthy (2013)- Distribution of live planktonic and benthic foraminifera in the shelf off Port Blair and Hut Bay, Andaman Group of Islands, India. In: K. Venkataraman et al. (eds.) Ecology and conservation of tropical marine faunal communities, Springer-Verlag, Berlin, p. 19-42.
(189 shelfal marine foram species off Andaman Islands (no water depths of sample locations given))

Montaggioni, L.F. & M.T. Venec-Peyre (1993)- Shallow-water foraminiferal taphocoenoses at Site 821: implications for the Pleistocene evolution of the central Great Barrier Reef shelf, Northeastern Australia. In: J.A. McKenzie et al. (eds.) Proc. Ocean Drilling Program (ODP), Scientific Results, College Station, 133, p. 365-378.
(online at: www-odp.tamu.edu/publications/133_SR/VOLUME/CHAPTERS/sr133_26.pdf)
(Useful overview of foram distribution on and around Great Barrier reef)

Morley, R.J., H.P. Morley, A.A.H. Wonders, Sukarno & S. van der Kaars (2004)- Biostratigraphy of modern (Holocene and Late Pleistocene) sediment cores from Makassar Straits. In: R.A. Noble et al. (eds.) Proc. Deepwater and frontier exploration in Asia and Australasia, Indonesian Petroleum Association, Jakarta 2004, p. 361-371.
(Palynology and foraminifera from two shallow Late Pleistocene- Holocene cores from Makassar Straits and offshore SW Sulawesi)

Mostafawi, N. (1992)- Rezente Ostracoden aus dem mittleren Sunda-Schelf, zwischen der Malaiischen Halbinsel und Borneo. Senckenbergiana Lethaea 72, p. 129-168.
('Recent ostracods from the central part of the Sunda Shelf, between the Malay Peninsula and Borneo'. 116 species of Recent ostracodes in 44 seafloor samplesalong W-E transect, all <100m depth. Four new genera.Major control on abundance / diversity appears to be substrate. Many species range across all water depths, some more diagnostic for water depth: (1) <~50m with Atjehella kingmai, Keijia spp., Hemicytheridea cf. oculosa, etc.; (2) >50m with Abracythereis malaysiana, Bythocytheridea carinatum, etc.)

Mostafawi, N., J.P. Colin & J.F. Babinot (2005)- An account on the taxonomy of ostracodes from recent reefal flat deposits in Bali, Indonesia. Revue de Micropaleontologie 48, p. 123-140.
(Ostracods from recent reefal flat sample off Sanur, SE Bali, at depth of ~1.5m. Assemblage of 34 species, dominated by Loxoconcha peterseni, Auradilus convolutus, A. australiensis, Paranesidea conulifera, etc. Fauna belongs to East Indian biogeographical province of Titterton and Whatley (1988) in tropical littoral zone of Indo-W Pacific. Associated with foraminifera Schlumbergella floresiana, Calcarina hispida, etc.)

Mousson, A. (1849)- Die Land- und Susswasser–Mollusken von Java. Nach den Sendungen des Herrn Seminardirektors Zollinger. Friedrich Schulthess, Zurich, p. 1-126.
(online at: https://www.e-rara.ch/zuz/content/zoom/11468827)
('The land- and freshwater molluscs of Java, from shipments of Mr. Seminary Director Zollinger'. One of first descriptions of freshwater molluscs and land snails of Java by Swiss naturalist of University of Zurich, Prof. Albert Mousson, collected by Swiss naturalist H. Zollinger (see also freshwater mollusc papers by E. von Martens 1897, K. Martin, W. van Benthem Jutting, Neuberth et al. 2023, etc.))

Mousson, A. (1849)- Uber die Land- und Susswassermollusken von Java. Mittheilungen Naturforschenden Gesellschaft Zurich, 1 (3, 30), p. 264-273.
('The land- and freshwater molluscs of Java'. Abbreviated version of Mousson (1849, above)

Muller, G.W. (1906)- Die Ostracoden der Siboga-Expedition. In: M. Weber (ed.) Siboga Expeditie, Uitkomsten op zoologisch, botanisch, oceanographisch en geologisch gebied, Monograph 30, Brill, Leiden, 40, p. 1-40.
(online at: http://ia800807.us.archive.org/26/items/dieostracodender00mlle/dieostracodender00mlle.pdf)
('The ostracodes of the Siboga Expedition'. 56 Recent species from shallow to deep water seafloor samples of 1899-1900 Siboga Expedition. Material unusually rich in Cypridinids (25 species, 15 new). Halocypriden mainly at depths>750m. Cypridiniden generally <70m)

Muller, J. (1965)- Palynological study of Holocene peat in Sarawak. In: Symposium on ecological research in humid tropics vegetations, Kuching, Sarawak. UNESCO, p. 147-156.

Murphy, S. (1996)- Distribution and ecology of Holocene foraminifera within the Lassa distributary of the Rajang River delta, Sarawak, East Malaysia. M.S. Thesis, Southern Illinois University, Carbondale, p. 1-121.
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Murray, J.W. (1994)- Larger foraminifera from the Chagos Archipelago: their significance for Indian Ocean biogeography. Marine Micropaleontology 24, p. 43-55.
(Chagos Archipelago is thin limestone cap on Eocene volcanic basement in central Indian Ocean. Principal larger foraminifera in surface samples from 0-43m. Amphisorus hemprichii and Sorites orbiculus widespread in shallow lagoon Heterostegina depressa patchy distribution, most common between 18-25m. Operculina ammonoides generally in deeper lagoon, below 12m)

Murray, J.W. (2006)- Ecology and applications of benthic foraminifera. Cambridge University Press, New York, p. 1-426.

Murray, J.W. & C.W. Smart (1994)- Distribution of smaller benthic foraminifera in the Chagos Archipelago, Indian Ocean. J. Micropalaeontology 13, 1, p. 47-53.
(online at: https://www.j-micropalaeontol.net/13/47/1994/jm-13-47-1994.pdf)
(Chagos Archipelago in C Indian Ocean close to the equator. Relatively high energy conditions in shallow waters around reefs. On oceanic side of atoll reefs Amphistegina lessonii dominant, with minor miliolidsand up to 20% planktonics. Lagoon assemblages dominated by Calcarina calcar, with minor miliolids)

Muruganantham, M. & P.M. Mohan (2015)- First report of three benthic foraminifera from the waters of Andaman Islands, India. Biodiversity Journal 6, 4, p. 789-794.
(online at: www.biodiversityjournal.com/pdf/6(4)_789-794.pdf)
(Living benthic foraminifera Nevillina coronata, Sigmoihauerina involuta and Loxostomina limbata reported from inner shelf regions of Andaman Islands. Nevillina coronata very common in NE, flourishing in low T of rainy season, while two other species abundant in non rainy months)

Muruganantham, M. & P.M. Mohan (2015)- The assemblages of benthic foraminifera In the muddy and sandy sediments of Andaman Islands. J. Andaman Science Association 20, 2, p. 199-208.
(online at: http://asapb.org/15%20-%20The%20Assemblages%20of%20Benthic.pdf)
(28 species of tropical marginal- shallow marine benthic foraminifera around South Andaman Island)

Muruganantham, M., P. Ragaven & P.M. Mohan (2017)- Diversity and distribution of living larger foraminifera from coral reef environments, South Andaman Islands, India. J. Foraminiferal Research 47, 3, p. 252-257.
(Larger foraminifera at six reef sites (4-30 m) around South Andaman Islands 16 species, incl. Amphistegina lessonii, A. radiata and Calcarina spengleri)

Myers, E.H. (1945)- Recent studies of sediments in the Java Sea and their significance in relation to stratigraphic and petroleum geology. In: P. Honig & F. Verdoorn (eds.) Science and scientists in the Netherlands Indies, New York, p. 265-269.
(online at: https://archive.org/details/in.ernet.dli.2015.183759)

Newman, K., B. Hakim, A.A. Oktaviana, B. Burhan, D. McGahan & A. Brumm (2022)- The missing deposits of South Sulawesi: New sources of evidence for the Pleistocene/Holocene archaeological transition. Archaeological Research in Asia 32, 100408, p. 1-16.
(S Sulawesi archeologically one of most intensively investigated parts of Indonesia. Pleistocene assemblages scarce, but S Sulawesi contains sites with deposits >50,000 years old, along with rock art of similar age. Gap in archeological record between ~20,000–10,000 years ago (dating of archeological breccias at Leang Bulu Bettue, in Maros Regency. Archeological breccias in caves important sources of information)

Newsome, J.C. (1985)- Late Quaternary vegetational history of the West Sumatran Highlands. Ph.D. Thesis, University of Hull, p. 1-583.
(online at: https://hydra.hull.ac.uk/assets/hull:12775a/content)
(Palynological investigation of sediments from montane West Sumatra, from shallow cores at Danau di Atas and Telago Climates formerly cooler, particularly from ~17.9- 12.9 kyrs, when vegetation of area included important

gymnosperm element. During this cool period mean annual T 1.6-5.2°C cooler than present, but no evidence that climate was drier)

Newsome, J.C. (1988)- Late Quaternary vegetational history of the Central Highlands of Sumatra. I. Present vegetation and modern pollen rain. J. of Biogeography 15, 2, p. 363-386.

Newsome, J. & J.R. Flenley (1988)- Late Quaternary vegetational history of the Central Highlands of Sumatra. II. Palaeopalynology and vegetational history. J. of Biogeography 15, 4, p. 555-578.
(Late Quaternary pollen from two swamps at ~1500 m asl in Sumatran Highlands (Danau di Atas, Telago). In Late Pleistocene, montane forest vegetation zones depressed by ~800m and mean annual T was 1.6- 5.2 °C cooler than now)

Ngisomuddin, Akmaluddin & H. Amijaya (2007)- Benthic foraminifera as indicator of Recent tsunami deposit sources at Pangandaran coast, Ciamis and Parangendog coast, Yogyakarta. Proc. Joint Convention 36th IAGI, 32nd HAGI, and 29th IATMI, Bali 2007, p. 1110a-1110d. *(online at: https://www.iagi.or.id/web/digital/28/2007_IAGI-Bali_Benthic-Foraminifera-as-Indicator-of-Recent.pdf)*
(Recent tsunami deposit from Pangandaran with Ammonia, Elphidium, Amphistegina, Cibicides, Bigenerina. Bolivina, Bathysiphon, Nodosaria and Quinqueloculina, suggesting source from shallow to deep marine environents. Recent tsunami sediments at Parangendog Beach with Ammonia beccarii and Elphidium advenum, suggesting sediments came from lagoonal to shallow marine environment)

Noraswana, N.F., K.R. Mohamed & R. Omar (2017)- Species diversity and distribution of Ostracoda (Crustacea) in Sungai Kubang Badak, Langkawi, Kedah, Malaysia. Malayan Nature Journal 69, 2, p. 83-92.
(25 samples of estuarine- nearshore marine ostracod faunas of Sungai Kubang Badak river and estuary, N Langkawi. 16 genera and 27 species, most abundant species Hemicytheridea wangi and Neomonoceratina delicata. Three ostracod biofacies, (1) lower estuary and nearshore: dominated by H. wangi, N. delicata and Stigmatocythere indica; (2) upper estuary: lowest diversity, dominated by H. wangi and Xestoleberis malaysiana; (3) lower estuary: dominated by N. delicata and Hemicytheridea ornata)

Noraswana, Nor Faiz & R. Omar (2009)- Ostrakod baharu di dalam sedimen luar pantai di Sekitar Pulau Tioman, Pahang. Sains Malaysiana 38, 1, p. 9-20.
('Recent Ostracoda in offshore sediment around Pulau Tioman, Pahang'. 34 species of ostracodes in shallow waters around Tioman Island. Most common species Loxoconcha paiki, Pistocythereis bradyi, Venericythere papuensis)

Noraswana, N.F., Omar Ramlan & S. Norashikin (2014)- Distribution of Recent Ostracoda in offshore sediment of selected stations in the Sulu Sea. Sabah. Malaysian Applied Biology 43, 2, p. 49-57.
(online at: http://journalarticle.ukm.my/8679/1/43_2_07.pdf)
(32 species of Recent ostracods from 12 stations off eastern Sabah in 24-205m water depth. Dominant species Phlyctenophora orientalis)

Nugroho, S.H. (2018)- State of knowledge on marine palynology in Indonesia. Proc. Global Colloquium on GeoSciences and Engineering, Bandung 2017, IOP Conference Series: Earth and Environmental Science 118, 012012, p. 1-7.
(online at: http://iopscience.iop.org/article/10.1088/1755-1315/118/1/012012/pdf)
(Brief review of Quaternary (transported) spores-pollen studies in marine environments in Indonesia)

Nugroho, S.H., M.D. Sisca, P.S. Putra, S.W.A. Suedy & M. Izzati (2019)- Distribusi polen pada sedimen permukaan Bawah Laut di Perairan Sumba, Nusa Tenggara Timur. J. RISET Geologi dan Pertambangan (LIPI) 29, 1, p. 105-114.
(online at: https://jrisetgeotam.lipi.go.id/index.php/jrisgeotam/article/view/975/pdf)
(Distribution of pollen in 13 seafloor samples around Sumba Island helps interpret sedimentation effect of fluvial inputs, marine and terrestrial vegetation changes. Most dominant pollen from Family Poaceae)

Nugroho, S.H., Y. Zaim, E. Yulianto, Y. Rizal, A. Kurniasih, P. Sulastya Putra, S. Prasetyo A. Wibowo & A. Amar (2021)- A preliminary study in vertical distribution of planktonic foraminifera and marine ecological conditions of Simeulue sub-basin, Aceh, Indonesia. Bull. Geological Society Malaysia 72, p. 137-149.
(online at: https://gsm.org.my/wp-content/uploads/gsm_file_2/702001-101916-PDF.pdf)
(Quaternary planktonic foraminifera in 2m sediment core from 870m water depth in Simeulue sub-basin, off Aceh, W Sumatra forearc ('usual suspects': Globigerinoides ruber, Neogloboquadrina dutertrei, Pulleniatina obliquiloculata, Globigerina calida, Globigerinoides elongates, Gs cyclostomus, Gs sacculiferus, etc.))

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(online at: http://jurnal.unpad.ac.id/bsc/article/view/8364/3885)
('Determination of small benthic foraminifera species dominant in the waters of Semarang, C Java Province'. Foraminifera in 20 samples from 38-54m in Java Sea N of Semarang dominated by Heterolepa (36%), Anomalina, Ammonia spp. (12%), Pseudorotalia, Quinqueloculina (9%) and Asterorotalia trispinosa (6%))

Nurdin, N., L. Gustiantini, S. Marina & M. Yosi (2014)- Analyses of foraminifers microfauna as environmental bioindicators in Kotok Besar, Kotok Kecil and Karang Bongkok Islands, Kepulauan Seribu, DKI Jakarta Province. Bulletin of the Marine Geology 29, 1, p. 21-28.
(online at: http://ejournal.mgi.esdm.go.id/index.php/bomg/article/view/62/63)
(Kepulauan Seribu (Thousand Islands) samples from coral reefs with ~20 genera of benthic foraminifera, dominated by Amphistegina and Calcarina, also Operculina, Quinqueloculina, Peneroplis, and Discorbis)

Nurdin, N. & I.R. Silalahi (2014)- Distribusi foraminifera bentik di perairan Aceh. J. Geologi Kelautan 12, 1, p. 25-31.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/243/233)
('Distribution of benthic foraminifera in Acaeh waters'. Shallow marine foraminifera distribution off NW tip of Sumatra, in water depths of 7-170m. 45 species of benthic foraminifera, dominated by Amphistegina papillosa. Ammonia tepida dominant in N part of Weh island)

Okada, H. (1983)- Modern nannofossil assemblages in sediments of coastal and marginal sea along the Western Pacific Ocean. Utrecht Micropaleontological Bulletin 30, p. 171-187.
(online at: https://dspace.library.uu.nl/bitstream/1874/205889/1/Utrecht+Micropaleontological+Bulletins-30-Meulenkamp.pdf)
(On distribution of modern calcareous nannofossils off Japan, Taiwan, Gulf of Thailand (mainly Emiliania huxleyi, Gephyrocapsa oceanica, Florisphaera profunda; G. oceanica most abundant in coastal stations) and Arafura Sea- Gulf of Carpenteria (mainly G. oceanica and E. huxleyi; F. profunda rel. rare). F. profunda dominates associations in deep basins, G. oceanica dominates floras in shallow marginal basins)

Omar, R. & N.N. Faiz (2014)- Distribution of Recent ostracoda in offshore sediment of the South China Sea. Pertanika J. Science Technology 22, 2, p.:433-444.
(Two faunal assemblages of ostracoda around S China Sea: (1) shallow water (Hemikrithe orientalis, Neomonoceratina iniqua, Stigmatocythere indica, Cytherelloidea leroyi, Neocytheretta snellii) and deep water (Paracypris sp., Alataconcha pterogona, Bythocytheropteron alatum, Keijella paucipunctata, Actinocythereis scutigera). Dominant species Foveoleberis cypraeoides)

O'Neill, M.C. (1986)- Distribution and ecology of Recent foraminifera from Pulau Pari (Pulau Seribu), West Java Sea. M.Sc. Thesis, p. 1-132.

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('Recent foraminifera from mangrove forests in Ambon Bay' (see also Suhartati Natsir 2010))

Oostingh, C.H. (1923)- Recent shells from Java, Part I. Gastropoda. Mededelingen Landbouwhoogeschool Wageningen 26, 3, Verhandelingen, p. 1-174.

(online at: https://edepot.wur.nl/294606)
(Description of Recent marine and freshwater gastropods from across Java, mainly collected by J. van Baren and J.M. Geerts)

Oostingh, C.H. (1925)- Report on a collection of Recent shells from Obi and Halmahera (Moluccas). Mededeelingen Landbouw-Hoogeschool Wageningen 29, 1, p. 1-362.
(online at: https://edepot.wur.nl/294577)
(Systematic descriptions of collection of rent shells from Obi Major and Halmahera. No localities or illustrations?))

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(online at: https://www.zobodat.at/pdf/Archiv-fuer-Molluskenkunde_63_0166-0255.pdf)
('Contributions to the knowledge of the mollusc fauna of S Sumatra'. Listings of recent molluscs from southernmost Sumatra (S tip of Bengkulu and along Sunda straits)

Oppenoorth, W.F.F. (1920)- het gebruik der microfauna voor de kennis der stratigrafie van het jong-tertiair ten behoeve van olie-opsporingen. Mededelingen Algemeen Ingenieurs Congres, Batavia 1920, 5, Mijnbouw en Geologie, Prae-advies 5, p. 3-4.
('The use of microfauna for the knowledge of stratigraphy of the Late Tertiary, as needed for oil exploration'. Brief pamphlet promoting use of foraminifera for oilfield stratigraphic subdivision))

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(Recent foraminifera distribution in shallow water grab samples, Exmouth Gulf (generally <20m). Benthic foraminifera dominant; planktonics only 1-2%. Six cluster groups, mainly controlled by bottom sediment type)

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(22 taxa of modern LBF in southern Andaman islands. Most common families Amphisteginidae, Calcarinidae, Nummulitidae, Peneroplidae and Soritidae. With listings of preferred water depth, substrate, symbonts, etc.)

Panchang, R. & R. Nigam (2012)- High resolution climatic records of the past ~489 years from Central Asia as derived from benthic foraminiferal species, *Asterorotalia trispinosa*. Marine Geology 307-310, p. 88-104.
(Recent benthic foraminiferal distribution on Ayeyarwaddy Delta Shelf, off Myanmar shows Asterorotalia trispinosa has preference for low salinity. Variations in abundance used as proxy for delineation of past wet and dry periods: dry climate prior to 1650 AD and warm and wet climate since 1650 to present)

Parker, J.H. (2009)- Taxonomy of foraminifera from Ningaloo Reef, Western Australia. Memoir Assoc. Australasian Palaeontologists (AAP) 36, p. 1-810.
(Comprehensive inventory of modern foraminifera from 334 samples in 0-34m water depth of subtropical Ningaloo Reef in E Indian Ocean, off NW Australia. Descriptions and illustrations of 404 species)

Parker, J.H. & E. Gischler (2011)- Modern foraminiferal distribution and diversity in two atolls from the Maldives, Indian Ocean. Marine Micropaleontology 78, p. 30-49.
(Two coral-reef lagoons comprise eight foraminifera assemblages with 270 species. Three assemblages reefal and dominated by Amphistegina and Calcarina. One lagoon assemblage with abundant Ammonia and smaller miliolids. Species diversity in Maldives higher than W Indian Ocean, but not as high as central Indo-Pacific)

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(Reconstruction of vegetation patterns in Australia and SE Asia in mid-Holocene and Last Glacial Maximum from pollen data. At 18ka SEAPAC region drier than today and, in tropics, colder)

Pirrung, M., G. Buechel, U. Schulte-Vieting, B.W. Scharf & H.C. Treutler (2005)- Dating of lacustrine sediments from the tropical maar Ranu Klindungan, East Java (Indonesia). Zeitschrift Deutschen Gesellschaft Geowissenschaften 156, 4, p. 557-571.
(On Late Quaternary lake sediments from 126 m deep volcanic maar lake near Pasuruan, E Java. Bottom sediments down to 1.06 m sediment depth consist of calcareous diatom gyttja with frequent turbidites. Seasonal variations of terrigenic layers deposited during rainy season (November–April) and diatom gyttja layers with thin distal turbidites, deposited during dry season)

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(Quaternary pollen grains in Liang Bua cave derived mainly from local upland vegation around cave)

Polhaupessy, A.A. (2009)- Palynology of Togi Ndrawa cave, coastal area of Nias Island, North Sumatera. Bulletin of the Marine Geology 24, 2, p. 99-115.
(online at: http://ejournal.mgi.esdm.go.id/index.php/bomg/article/view/19/19)
(Spores-pollen in 10 samples from Pleistocene- Holocene cave deposits on Nias)

Poliakova, A. (2015)- The Late Holocene history of vegetation, climate, fire dynamics and human impacts in Java and Southern Kalimantan. Doct. Thesis Georg-August Universitat, Gottingen, p. 1-186.
(online at: https://d-nb.info/1113875569/34)
(Collection of papers/ manuscripts of palynological studies in four shallow cores in Holocene deposits in Java Sea off NE Java (Solo River) and S Kalimantan (off Jelai and Pembuang rivers))

Poliakova, A. & H. Behling (2015)- Pollen and fern spores recorded in recent and late Holocene marine sediments from the Indian Ocean and Java Sea in Indonesia. Quaternary International 392, p. 251-314.
(Documentation of Quaternary and Recent pollen (138) and spores (41) in cores from coastal regions of Java Sea off Pembuang River in SW Kalimantan and NE Java and in marine sediment trap off W Java)

Poliakova, A., K.A.F. Zonneveld, L.S. Herbeck, T.C. Jennerjahn, H. Permana, C. Kwiatkowski & H. Behling (2017)- High resolution multi-proxy reconstruction of environmental changes in coastal waters of the Java Sea, Indonesia, during the late Holocene. Palynology 41, 3, p. 297-310.
(A 134-cm-long sediment core from ~50 km off Pembuang River mouth, S Kalimantan. Mixed terrestrial and marine organic matter, with low pollen-spore concentrations. Dinoflagellate cysts mainly Operculodinium and Spiniferites with minor Impagidinium (mainly I. strialatum). After ca. 2480 cal yr BP, bottom waters became increasingly ventilated. After 1530 cal yr BP, more pronounced influence of Pembuang River indicated by nutrient-sensitive Lingulodinium machaerophorum and Nematosphaeropsis labyrinthus)

Post, A.L., L. Sbaffi, V. Passlow & D.C. Collins (2009)- Benthic foraminifera as environmental indicators in Torres Strait- Gulf of Papua. In: B.J. Todd & H.G. Greene (eds.) Mapping the seafloor for habitat characterization, Geolpgical Association of Canada (GAC), Special Paper47, p. 329-348.
(online at: https://www.researchgate.net/publication/286972215_Benthic_foraminifera_as_environmental_indicators_in_Torres_Strait-Gulf_of_Papua)
(Study of benthic forams along transect from Fly River Delta to shelf edge (~140m depth), near N end of Great Barrier Reef. Three areas different benthic foram assemblages. High relict content in surface samples)

Prayudi, S.D., Suhartati M. Natsir & M.A. Kaminski (2025)- Extant benthic foraminifera from the Indonesian seas: An update of what we know so far and implications for future studies. Marine Micropaleontology 197-198, 102471, p.
(Benthic foraminifera from Indonesian waters have been studied since the Challenger Expedition in 1876. To date, 1164 species of Recent benthic foraminifera documented here, belonging to 448 genera. Numerous instances of taxonomic misnaming)

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(Palynology of 18m core from small lake in Dieng Plateau, C Java. Montane forest assemblages record climate changes)

Putra, P.S. & S.H. Nugroho (2020)- Holocene climate dynamics in Sumba Strait, Indonesia: a preliminary evidence from high resolution geochemical records and planktonic foraminifera. Studia Quaternaria 37, 2, p. 91-99.
(online at: https://journals.pan.pl/Content/116874/PDF/4_Putra.pdf)
(Planktonic foraminifera in 243cm drop core ST14 in 1283m water depth in Sumba Strait. Base Holocene determined from first occurrence of Globigerina calida calida at 156 cm. Six Holocene climate zones (warm-humid versus cold-dry episodes) identified. Cool water Globigerina bulloides more abundant in Pleistocene than in Holocene sediment. Globorotalia menardii, Gr. tumida, Pulleniatina obliquiloculata peaks in warm humid zones. Etc.)

Rai, A.K. & V.B. Singh (2001)- Late Neogene deep-sea benthic foraminifera at ODP Site 762B, eastern Indian Ocean: diversity trends and palaeoceanography. Palaeogeogr. Palaeoclim. Palaeoecology 173, p. 1-8.
(Pliocene-Pleistocene deep sea benthic foraminifera from ODP Site 762B off Exmouth Plateau. Species diversity inverse relationship with abundance of Uvigerina proboscidea and precentage infaunal taxa))

Rai, A.K. & V.B. Singh (2012)- Response of eastern Indian Ocean (ODP Site 762B) benthic foraminiferal assemblages to the closure of the Indonesian seaway. Oceanologia 54, 3, p. 449-472.
(Pliocene-Pleistocene deep sea benthic foraminifera from ODP Site 762B off Exmouth Plateau in E Indian Ocean. Diverse fauna in E Pliocene (>3.5 Ma) relatively oligotrophic and warm bottom water conditions. At beginning of Late Pliocene (i.e. $\sim 3 \pm 0.5$ Ma) increase in Uvigerina proboscidea, infaunal taxa and high productivity taxa and decline in faunal diversity suggest development of pronounced upwelling. Reduced inflow of warm and oligotrophic water masses from SW Pacific to E Indian Ocean due to effective closure of Indonesian seaway increased surface water productivity. Closing of Indonesian seaway in Late Pliocene also responsible for cessation of warm, S-flowing Leeuwin Current)

Rajshekhar, C. (2013)- The Late Holocene foraminifera from Andaman Islands, Andaman Sea, Bay of Bengal. In: K. Venkataraman et al. (eds.) Ecology and conservation of tropical marine faunal communities, Springer Verlag, p. 3-18.
(S Andaman Island three distinct environments: rocky shore with Elpidium, Amphistegina; (2) sandy shore with common Calcarina and (3) intertidal muddy region with Trochammina inflata is common in intertidal clays)

Ramlan, Omar & Noraswana Nor Faiz (2014)- Distribution of recent ostracoda in offshore sediment of the South China Sea. Pertanika J. Science and Technology 22, 2, p. 433-444.
(online at: http://www.pertanika.upm.edu.my/pjst/browse/archives?article=JST-0379-2012)
(30 sediment samples in S China Sea off eastern Malay Penisula contain 79 species of ostracods. Dominant species Foveoleberis cypraeoides. Two faunal assemblages: shallow water (<50m) (Hemikrithe orientalis, Neomonoceratina iniqua, Stigmatocythere indica, Cytherelloidea leroyi and Neocytheretta snellii) and deep water (>50m) (Paracypris sp., Alataconcha pterogona, Bythocytheropteron alatum, Keijella paucipunctata and Actinocythereis scutigera).

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(Asterorotalia trispinosa dominates sparse foraminiferal assemblage of shallow, mud-dominated Muthupet Lagoon on SE coast of India, where salinities are slightly lower than normal marine)

Rasheed, D.A. (1968)- Distribution of foraminifera in the Coral Sea, South of Papua, New Guinea. J. of the Madras University B37-38, p. 73-80.

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Rasheed, D.A. (1970)- Some Recent arenaceous foraminifera from the Coral Sea. south of Papua, New Guinea. J. of the Madras University B39-40, p. 41-58.

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Rasheed, D.A. (1970)- Some calcareous foraminifera belonging to the families Rotaiiidae, Cymboloporidae, Anomalinidae, Calcarinidae, Globigerinidae and Bulinidae from the Coral Sea, South of Papua (New Guinea). J. of the Madras University B 39-40, p. 150-201.

Rasheed, D.A. (1971)- Some foraminifera belonging to Miliolidae and Ophthalmidiidae from the Coral Sea, South of Papua (New Guinea), Part II. J. of the Madras University B37-38, p. 150-201.

Rathburn, A.E. & B.H. Corliss (1994)- The ecology of living (stained) deep-sea benthic foraminifera from the Sulu Sea. Paleoceanography 9, p. 87-150.
(Deep-sea benthic foraminifera distibution in 8 box cores from 510-4515 m in thermospheric (>10°C) Sulu Sea. Site 510m dominated by Cibicidoides, Uvigerina, and Bolivina. 1005m core: mainly Siphonina Cibicidoides, Uvigerina. 2000m cores: Cibicidoides, Gyroidinoides, and Oridorsalis. 3000 and 4000m cores: Cibicidoides bradyi and Oridorsalis umbonatus dominant. Infaunal Valvulineria mexicana in sediments of 4515m core. Low bottom water oxygen values do not necessarily yield 'low-oxygen taxa' like Bolivina, Uvigerina, Chilostomella, Bulimina and Globobulimina)

Rathburn, A.E., B.H. Corliss, K.D. Tappa & K.C. Lohmann (1996)- Comparisons of the ecology and stable isotopic compositions of living (stained) benthic foraminifera from the Sulu and South China Seas. Deep Sea Research 1, 43, 10, p. 1617-1646.
(Significant differences between living deep-sea benthic foraminifera in thermospheric (>10°C) environments of Sulu Sea and psychrospheric (<10°C) conditions in S China Sea. Gavelinopsis, Bolivinopsis, Astrononion, Osangularia and Ceratobulimina common taxa in S China Sea, but rare in Sulu Sea. Siphonina and Valvulineria dominant genera at certain depths in Sulu Sea, but rare in S China Sea. Differences result from large differences of bottom-water temperatures)

Rathburn, A.E. & Q. Miao (1995)- The taphonomy of deep-sea benthic foraminifera: comparisons of living and dead assemblages from box and gravity cores taken in the Sulu Sea. Marine Micropaleontology 25, p. 127-149.
(Benthic foraminifera from 500- 4000m water in Sulu Sea. Bolivina, Bulimina, Globobulimina, Chilostomella and Uvigerina most abundant <1500m, but rel. rare in deeper water. Dominant taxa below 2000m Cibicidoides bradyi and Oridorsalis umbonatus)

Razak, N.S.A., H. Shaari, F.I. Minhat, E.H. Ariffin, F. Shariful, S. Yang, R. Suriadi & H.M. Sharif (2023)- Benthic foraminifera as environmental indicators in the lagoon and mangrove environments of Langkawi, Malaysia. Marine Geology 462, 107095, p. 1-11.
(Foraminiferal distribution in the surface sediments of Sungai Kilim in Kilim Geoforest Park, Pulau Langkawi, NW Malaysia. Twenty-eight genera of benthic foraminifera from surface samples. Elphidium (13-83%) most

abundant in mangrove and lagoon environments.Other common genera Trochaminna, Ammotium, Ammobaculites and Haplophragmoides)

Reeves, J.M. (2004)- The use of ostracoda in the palaeoenvironmental reconstruction of the Gulf of Carpenteria, Australia, from the last interglacial to present. Ph.D. Thesis University of Wollongong, p. 1-447.
(online at: http://ro.uow.edu.au/cgi/viewcontent.cgi?filename=0&article=1211&context=theses&type=additional)

Reeves, J.M., A.R. Chivas, A. Garcia & P. De Deckker (2007)- Palaeoenvironmental change in the Gulf of Carpentaria (Australia) since the last interglacial based on Ostracoda. Palaeogeogr. Palaeoclim. Palaeoecology 246, p. 163-187.
(Throughout last glacial cycle, region between Australia and New Guinea (now Gulf of Carpentaria) oscillated from open shallow marine conditions to freshwater lake behind Arafura sill. Six ostracod biofacies in last 130 ka: (1) open shallow marine with bairdiids, pectocytherinids, cytherettids; (2) shallow marine dominated by Cytherella and Hemikrithe; (3) marginal marine with Xestoleberis and Praemunita; (4) tidal channel dominated by Loxoconcha; (5) estuarine with Venericythere and Leptocythere; (6) non-marine facies: brackish lagoon/lake dominated by Cyprideis and Leptocythere and freshwater with Ilyocypris, Cyprinotus and Cypretta. Also morphological variations within species tied to paleoenvironments)

Renault-Miskovsky, J. & A.M. Semah (1998)- Palynology of the Quaternary in temperate and tropical areas: chronostratigraphy, palaeoclimatology and vegetal environment of fossil man. In: N.M. Dutta et al. (eds.) Current concepts in pollen-spore and biopollution research (S. Chandra volume), Chapter 20, Research Periodicals and Book Publishing House, Houston, p. 297-317. *(online at: https://horizon.documentation.ird.fr/exl-doc/pleins_textes/pleins_textes_7/b_fdi_53-54/010021194.pdf)*
(General review of spores-pollen studies and applications in chronostratigraphy, paleoclimate and paleoenvironments. With examples from SE Asia, including work on Java Pleistocene hominid sites and Pleistocene climate changes on New Guinea, Sumatra, etc.)

Renema, W. (2003)- Larger foraminifera on reefs around Bali. Zoologische Verhandelingen, Leiden, 345, p. 337-366.
(online at: www.repository.naturalis.nl/document/46850)
(Recent larger foraminifera from Bali total 19 species. Species richness similar to SW Sulawesi and Cebu, but different composition. Schlumbergerella locally abundant and geographically restricted to Lesser Sunda Islands and Java. Very low abundance of imperforate species probably due to climatic or oceanographic parameters, most likely periodic upwelling, which causes seasonal seawater temperature drops)

Renema, W. (2005)- Depth estimation using diameter-thickness ratios in larger benthic foraminifera. Lethaia 38, p. 137-141.
(Diameter-thickness ratio (D/T) of Amphistegina and Operculina varies with depth. Increased turbulence thickens test, whilst decreased light intensity causes flatter tests)

Renema, W. (2006)- Large benthic foraminifera from the deep photic zone of a mixed siliciclastic-carbonate shelf off East Kalimantan, Indonesia. Marine Micropaleontology 58, p. 73-82.
(Modern large benthic forams on Berau shelf two-three depth-controlled assemblages (1) shallow (20-50m; dominated by Operculina ammonoides) and (2) deeper (50-85m; dominated by Operculina complanata and Planostegina operculinoides). Deepest living LBF at 115m. Cycloclypeus carpenteri between 55-95m)

Renema, W. (2006)- Habitat variables determining the occurrence of large benthic foraminifera in the Berau area (East Kalimantan, Indonesia). Coral Reefs 25, 3, p. 351-359.
(Composition of larger foram assemblages (35 species) on Berau carbonate shelf with barrier reef system and some reefs outside barrier. Four clusters corresponding to substrate type)

Renema, W. (2008)- Habitat selective factors influencing the distribution of larger benthic foraminiferal assemblages over the Kepulauan Seribu. Marine Micropaleontology 68, p. 286-298.

(On distribution of symbiont-bearing larger foraminifera on 'Thousand Islands' off Jakarta. Diversity and habitat fractionation increases as terrestrial and nutrient influence decline. Assemblages in nearshore reefs dominated by generalist species, while, additionally, more specialistic species occur at more offshore reefs)

Renema, W. (2010)- Is increased calcarinid (foraminifera) abundance indicating a larger role for macro-algae in Indonesian Plio-Pleistocene coral reefs? Coral Reefs 29, p. 165-173.
(Comparisons of large benthic foraminifera between areas with high (Kepulauan Seribu) and lower (Spermonde Archipelago) anthropogenic influence. Reefal habitats dominated by algae are inhabited by Calcarinidae larger foraminifera)

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(online at: https://www.sciencedirect.com/science/article/pii/S0012825217303410)
(Thorough review of Recent Indo-Pacific larger foraminifera and their distributions. Nutrient availability, hydrodynamic energy, light intensity, substrate type and temperature important environmental parameters controlling occurrence of larger foraminifera species. Terrestrial run-off also important environmental parameter. Calcarinids more abundant with increased algal cover)

Renema, W., R.J. Beaman & J.M. Webster (2013)- Mixing of relict and modern tests of larger benthic foraminifera on the Great Barrier Reef shelf margin. Marine Micropaleontology 101, p. 68-75.
(On distribution of live, well preserved, and relict larger foraminifera off shelf margin near Hydrographers Passage in Great Barrier Reef, Australia. Eight living species, mostly of families Amphisteginidae and Nummulitidae, separated into a shallow (platform) and deep (terrace) assemblages. Relict fauna more diverse, with taxa from much shallower settings (downslope transport from nearby Pleistocene coral reef structures))

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(Fossil and molecular evidence reveals at least three hotspots of high marine biodiversity in past 50 million years. They moved across globe, with timing and locations coinciding with major tectonic events. Birth and death of successive hotspots highlights link between environmental change and biodiversity patterns. Antiquity of taxa in modern Indo-Australian Archipelago hotspot emphasizes role of pre-Pleistocene events)

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(online at: www.repository.naturalis.nl/document/46294)
(Distribution patterns of 20 species of larger benthic foraminifera in Spermonde Archipelago, off SW Sulawesi. 13 transects sampled, down to 33m water depth. Substrate type, hydrodynamic energy, light intensity, nutrient availability and environmental stabiltity determine distribution)

Renema, W. & J. Hohenegger (2005)- On the identity of *Calcarina spengleri* (Gmelin 1791). J. Foraminiferal Research 35, 1, p. 15-21.
(online at: https://www.researchgate.net/publication/236849648_On_the_identity_of_Calcarina_Spengleri_GMELIN_1791)
(On identity of Recent reef dwelling larger foram Calcarina spengleri (Gmelin 1791). Commonly confused with Calcarina mayori Cushman 1924, C. gaudichaudii d'Orbigny 1840 and C. hispida Brady 1876)

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(online at: https://www.academia.edu/28094197/Larger_foraminifera_distribution_on_a_mesotrophic_carbonate_shelf_in_SW_Sulawesi_Indonesia_)
(Modern larger foram distribution on Spermonde Shelf)

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(online at: https://www.researchgate.net/publication/235087893_Holocene_and_Recent_shallow_soft-bottom_mollusks_from_the_Western_Gulf_of_Thailand_Pak_Phanang_Bay_and_additions_to_Phetchaburi_fauna)
(>150 species of gastropods and bivalves from Holocene Bangkok Bay from modern shallow bottoms in Phetchaburi coastal area)

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(online at: http://onlinelibrary.wiley.com/doi/10.1029/2012PA002299/epdf)
(Late Pleistocene diatoms in core GeoB10038-4 off S Sumatra show highest paleoproductivity during interglacials, due to nutrient input after rise in sea level. In Marine Isotope Stage 5 response of diatom productivity and upwelling intensity to boreal summer insolation. Resting spores of Chaetoceros, typical of nutrient-rich waters, dominant during periods of highest diatom paleoproductivity)

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(On Calcarina larger foram in Recent reefal limestone deposits. Calcarina spp. dominant on Recent reefs of Pulau Seribu (Calcarina calcar, C. spengleri, C. venusta))

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('Foraminifera as bioindicators for contaminated deposits'. Foraminifera from Jakarta Bay and Sunda Straits)

Rositasari, R. (2010)- Recent foraminifera communities in Makassar Strait. J. Coastal Development 14, p. 26-34.
(online at: https://scispace.com/pdf/recent-foraminiferal-communities-in-makassar-strait-26gpolhhtb.pdf)
(Globigerina ooze forms major fraction of bottom sediment in Makassar Strait. Diversity and richness of benthic foraminifera decrease with water depth. High abundance of Uvigerina asperula may be proxy of oxygen minimum zone)

Rositasari, R. (2010)- Karakteristik komunitas foraminifera di perairan Teluk Jakarta. J. Ilmu Teknologi Kelautan Tropis (JITKT; Bogor) 3, 2, p. 100-111. *(online at: http://repository.ipb.ac.id/bitstream/handle/123456789/53434/08%20Karakteristik%20Komunitas.pdf)*
(The characteristics of the foraminiferal community in Jakarta Bay'. Benthic foraminifera in Jakarta Bay: (1) coastal water and estuary dominated by Ammonia beccarii; (2) Calcarina and other larger foraminifera common in coral reef area; (3) Elphidium and Nonion depressulum common in open waters area. Higher diversity than coastal water of Semarang and Cirebon. Reef area has highest diversity)

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(online at: https://www.iagi.or.id/web/digital/62/15.pdf)
('Type of estuary as factor on foraminifera communities; results of study at mouths of Ciawi and Bekasi Rivers'. Ciawi river mouth (Ujung Kolon) with abundant Operculina ammonoides, Amphistegina lessonii, Calcarina calcar, Elphidium, Quinqueloculina, etc. Bekasi river mouth dominated by Ammonia beccarii, Trochammina hadai and Ammobaculites agglutinans)

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(Pteropods common in Recent sediments of S China Sea (but aragonitic tests highly susceptible to dissolution, so rarely fond as fossils))

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(Distributions of Recent aragonitic pelagic pteropod species on Sunda Shelf and in Java Sea very similar, but some exceptions)

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(Palynological data from tide-dominated shoreline of Caution Bay, W of Port Moresby, PNG, suggest late-Holocene mangrove to mudflat transition)

Rugmai, W., P.J. Grote, C. Chonglakmani, R. Zetter & D.K. Ferguson (2008)- A Late Pleistocene palynoflora from the coastal area of Songkhla Lake, southern Thailand. Science Asia 34, p. 137-145.
(online at: http://scienceasia.org/2008.34.n2/scias34_137.pdf)

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(online at: https://www.biodiversitylibrary.org/page/27557854#page/66/mode/1up)
(On many 'varieties' of Lagena vulgaris (incl. Oolina) from seafloor samples at 1080 fathoms, 10 miles S of 'Sandalwood Island' (= Sumba?, but lat-longs closer to South Bali; unlikely from Java Sea). Many now viewed as variations of single species. Associated with common Rotalia, Uvigerina, Bulimina, Globigerina, diatoms, ostracods, sponge needles, etc.)

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(online at: http://bioflux.com.ro/docs/2021.3750-3775.pdf)
(Geographic distribution of freshwater bivalve molluscs in Indonesia. Three main ecoregions: 1) Sundaland (Sumatra, Java, and Kalimantan), dominated by Unionidae; 2) Wallacea (Sulawesi), dominated by Cyrenidae; and 3) the Sahul region (Papua): hotspot of the Hyriidae)

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(online at: https://core.ac.uk/download/pdf/287301008.pdf)
('Distribution of foraminifera in the waters of Cenderawasih Bay, West Papua'.Foraminifera from 20 bottom samples between 87 and 1266m water depth, with 13 species of planktonic foraminifera and 87 species of benthic foraminifera)

Sarasin, P. & F. Sarasin (1897)- Ueber die Molluskenfauna der grossen Susswasser Seen von Central-Celebes. Zoologischer Anzeiger 20, 536, p. 241-245.
('On the mollusc fauna of the large freshwater lakes of Central Sulawesi')

Saraswat, R., M. Manasa, T. Suokhrie, M.S. Saalim & R. Nigam (2017)- Abundance and ecology of endemic *Asterorotalia trispinosa* from the western Bay of Bengal: implications for its application as a paleomonsoon proxy. Acta Geologica Sinica (English Ed.) 91, 6, p. 2268-2282.
(manuscript online at: https://drs.nio.res.in/drs/bitstream/handle/2264/7753/Acta_Geolo_Sinica_91_2268.pdf)
(In samples from continental shelf and slope of W Bay of Bengal Asterorotalia trispinosa abundance ranges from 0- 31%, with highest abundance near outfall region of Ganges-Brahmaputra Rivers and decreases away from river mouths. Abundance of A. trispinosa indicates warmer and marginally hyposaline environment)

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(online at: www.ulb.ac.be/sciences/biocomplexity/pub/Satyanarayanaetal_2014_JSustainSciManage.pdf)
(28 foram species in mangrove surface sediments on W coast of Malay Peninsula. Calcareous forms mainly Ammonia beccarii and Buccella frigida. Agglutinated species mainly Arenoparrella and Haplophragmoides)

Sawai, Y., K. Jankaew, M.E. Martin, A. Prendergast, M. Choowong &, T. Charoentitirat (2009)- Diatom assemblages in tsunami deposits associated with the 2004 Indian Ocean tsunami at Phra Thong Island, Thailand. Marine Micropaleontology 73, 1, p. 70-79.
(Diatom assemblages in fining-upward m-f sandy deposits of 2004 tsunami at Phra Thong Island, Thailand: (1) lowermost sand mainly unbroken beach and subtidal species that live attached to sand grains; (2) shift to marine planktonic species in middle of the tsunami deposit and (3) mix of freshwater, brackish, and marine species near top. Trends are consistent with expected changes in current velocities of tsunami through time)

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Schepman, M.M. (1909)- The Prosobranchia of the Siboga Expedition, Part II. Taenioglossa and Ptenoglossa. In: M. Weber (ed.) Siboga Expeditie, Uitkomsten op zoologisch, botanisch, oceanographisch en geologisch gebied verzameld in Nederlandsch Oost-Indie 1899-1900, Monographie 49b, Brill, Leiden, p. 108-231.

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('The Prosobranchs of the Siboga Expedition, Part V, Toxoglossa'. Part 5 of series of six monographs on Recent marine gastropods from Indonesia, collected during Siboga Expediton 1899-1900)

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('The Prosobranchs of the Siboga Expedition, Part VI, Pulmonata and Opisthobranchia, Tectibranchiata, tribe Bullomorpha'. Part 6 of series of six monographs on Recent gastropods from Indonesia, collected during Siboga Expediton. 19 species of land- and freshwater molluscs (2 new), 41 species of Opisthobranchia Tectibranchiata Bullomorpha with 15 new sp.)

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(online at: https://www.j-micropalaeontol.net/14/165/1995/jm-14-165-1995.pdf)
(Deep water late Pliocene- Pleistocene benthic foraminifera from Sonne cruise SO67 core on Manihiki Plateau in SW Tropical Pacific (2612m water depth). Dominated by Nodogenerina, Cibicidoides wuellerstorfi, Oridorsalis umbonatus, Pleurostomella, Dentalina, etc. Remarkable absence of 'high-productivity taxa' Bolivina, Bulimina, Chilostomella and Uvigerina, suggesting low flux of organic matter to sea floor)

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(Holocene Ostracoda from 80cm deep digs on beach of Satonda Crater Lake off Sumbawa: (1) lowermost samples monospecific associations of fresh-brackish Aglaiocypris; (2) middle part higher diversity including marine Tenedocythere, etc.; (3) in upper parts of digs and in alkaline waters of today's crater lake, same cypridid species as in lowermost horizons, reflecting re-establishment of more stressful environment)

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(online at: www.ga.gov.au/corporate_data/80975/Jou1978_v3_n4_p341.pdf)
(Quaternary sediments in N Scott Plateau and Java Trench. Quaternary calcareous nannofossils associated with reworked U Cretaceous and Tertiary forms, possibly caused by bottom currents eroding parts of C Scott Plateau. Late Pleistocene-Holocene calcareous nannofossils in upper ~1 m thick of N Scott Plateau, but absent from Java Trench suggesting that present Nanno Solution Depth is between 3290-4950m water depth)

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(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/336/264)
('Benthic foraminifera and relation to water quality off SW Morotai Island, North Moluccas'. Seafloor samples from 16-36m depth off Morotai, N Moluccas, with 28 species of benthic foraminifera, dominated by abundant Amphistegina spp. and Operculina spp. Also Alveolinella, Calcarina, Heterolepa, Baculogypsinoides, Elphidium, Peneroplis, Schlumbergerella and Sorites)

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(Late Quaternary record of Pulleniatina obliquiloculata in cores from Andaman Sea. As in Pacific Ocean, Pulleniatina obliquiloculata Minimum Event exists in Indian Ocean between 4.5- 3.0 ka. Two additional minimum events in Younger Dryas and late Last Glacial Maximum (20-18 ka). PMEs of Andaman Sea characterized by fewer thermocline species, indicating increased depth of thermocline during minimum events)

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('Album of foraminifera and nannoplankton microfossils from Indonesian waters')

Siregar, M.S. (1978)- Pengaruh musim terhadap penyebaran foraminifera di Teluk Jakarta. J. RISET Geologi dan Pertambangan (LIPI) 1, 3, p. 33-78.
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Smith, B.J. & M. Djajasasmita (1988)- The land molluscs of the Krakatau Islands, Indonesia. Philosophical Transactions Royal Society London, Ser. B, 322, 1211, p. 379-400.

(Land molluscs fauna from 1984-85 Zoological Expeditions to Krakatau Islands 19 species: 16 from Rakata, 12 from Sertung, 7 from Panjang and 1 from Anak Krakatau (first record of land snail from that island))

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(online at: http://ci.nii.ac.jp/lognavi?name=nels&lang=en&type=pdf&id=ART0006479304)

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Southward, E.C., A. Schulze & V. Tunnicliffe (2002)- Vestimentiferans (Pogonophora) in the Pacific and Indian Oceans: a new genus from Lihir Island (Papua New Guinea) and the Java Trench, with the first report of *Arcovestia ivanovi* from the North Fiji Basin. J. Natural History 36, p. 1179-1197.
(Example of occurrences of tube worms at cold gas seeps and hot hydrothermal vent sites in SW Pacific and S Java deepwater seafloor settings (also known from Sumatra forearc, etc.))

Staub, W. (1915)- Uber die Verbreitung einiger lebender und versteinter Lamellibranchier und Gastropodenarten am Ausgange der Sangkulirangbai (Ost Borneo), einem Aestuarium der tropischen Zone. Vierteljahrschrift Naturforschenden Gesellschaft Zurich 61, p. 120-135.
('On the distribution of some living and fossilized bivalve and gastropod species at the mouth of Sangkulirang Bay (East Borneo), an estuary of the tropical sea'. Early paper on distribution of land, brackish and marine molluscs in estuary of NE Kalimantan)

Stelbrink, B. (2014)- A biogeographic view on Southeast Asia's history. Doct. Thesis Humboldt-Universitat, Berlin, p. 1-270.
(online at: http://edoc.hu-berlin.de/dissertationen/stelbrink-bjoern-2014-12-19/PDF/stelbrink.pdf)
(On significance of modern fauna and floral distribution for evolution of SE Asia, with focus on Sulawesi)

Sterrenburg, F.A.S, P.L.A. Erftemeijer & P.H. Nienhuis (1995)- Diatoms as epiphytes on seagrasses in South Sulawesi (Indonesia); comparison with growth on inert substrata. Botanica Marina 38, p. 1-8.

Stidolph, S.R., F.A.S. Sterrenburg, K.E.L. Smith & A. Kraberg (2012)- Stuart R. Stidolph diatom atlas. U.S. Geological Survey (USGS) Open File Report 2012-1163.
(online at: http://pubs.usgs.gov/of/2012/1163/)
(Spectacular photographs of modern coastal marine diatoms, including Indonesian material on Plates 30-33 (Semarang, Sumatra))

Stuijts, I. (1984)- Palynological study of Situ Bayongbong, West Java. Modern Quaternary Research in Southeast Asia 8, Balkema, Rotterdam, p. 2-17.
(Palynology of 8m sediment core from Bayombong swamp at ~1200m above s.l. in SW Java, showing Late Pleistocene- Holocene (~17 ky- today) vegetational shift from upper montane forest to lower montane forest around ~10,000 yrs B.P.)

Stuijts, I. (1993)- Late Pleistocene and Holocene vegetation of West Java, Indonesia. Modern Quaternary Research in Southeast Asia 12, Balkema, Rotterdam, p. 1-173. *(also Thesis Rijksuniversiteit Groningen)*
(Late Pleistocene- Holocene palynology of shallow core holes from montane localities above 1000m in West Java (Gede-Panggrango, Gunung Patuha, Danau Ciharus))

Stuijts, J.C., J.C. Newsome & J.R. Flendley (1988)- Evidence for Late Quaternary vegetational change in the Sumatran and Javan highlands. Review Palaeobotany Palynology 55, p. 207-216.
(Late Pleistocene pollen records from above 2000m on tropical mountains indicate cooler climates and more arid climates below 1200m. Sumatran and Javan sites at intermediate altitudes show higher altitude vegetation from ~18,200 yr B.P. to ca. 12,400 yr B.P., suggesting much lower forest altitudinal boundaries than today's)

Sugawara, D., K. Minoura, N. Nemoto, S. Tsukawaki, K. Goto & F. Imamur (2009)- Foraminiferal evidence of submarine sediment transport and deposition by backwash during the 2004 Indian Ocean tsunami. Island Arc 18, 3, p. 513-525.
(online at: http://onlinelibrary.wiley.com/doi/10.1111/j.1440-1738.2009.00677.x/epdf)
(Nearshore to offshore sediments from SW coast of Thailand clarify submarine sediment transport during 2004 Indian Ocean tsunami. Benthic foraminifera showed seaward migration after tsunami event (brackish agglutinated foraminifera in post-tsunami foreshore to offshore, transported offshore with tsunami backwash). Offshore planktonic and benthic species slight evidence of landward migration by tsunami)

Suhartati, M.N. (1992)- Preliminary study on the benthic foraminifera and its association with ostracoda in Porong Delta, East Java. Toyama University, p. 1-10.
(15 sediment samples from 0.6- 21.5m along Porong delta front, Madura Straits. Most abundant species Ammonia beccarii, Calcarina calcar and Elphidium advenum. Also common Elphidium crispum, Asterorotalia trispinosa, Pseudorotalia schroeteriana and Quinqueloculina)

Suhartati, M.N. (1994)- Foraminifera bentonik dan kaitannya dengan kandungan zat hara di perairan Padang Lamun, Goba Besar, Pulau Pari, Kepulauan Seribu. Proc. 23rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 1, p. 582-590.
(online at: https://www.iagi.or.id/web/digital/62/49.pdf)
('Foraminifera bentonic and their relation to nutrient content in the waters of Padang Lamun, Goba Besar, Pulau Pari, Thousand Islands'. Diverse benthic foram assemblage on seagrass beds of Pari Island, dominated by Quinqueloculina spp., Spiroloculina spp., Ammonia, Peneroplis, Rosalina, Elphidium, Calcarina, etc.)

Suhartati, M.N. (1994)- Benthic foraminifera in the seagrass beds of Pari island- Seribu islands, Jakarta. In: S. Sudara et al. (eds.) Proc. Third ASEAN-Australia Symposium Living Coastal Resources, Bangkok, 2, p. 323-329.
(Dominant species in reef-flat seagrass areas are miliolids Quinqueloculina spp., and Spiroloculina spp. Also common Ammonia beccarii, Calcarina calcar, Elphidium spp.)

Suhartati, M. Natsir (1998)- First record of brackish water agglutinated foraminifera from Java. Reopical Biodiversity 5, 1, p. 57-63.
(Ammobaculites agglutinans and Textularia pseudogramen common in Recent sediments near Solo and Poreng River mouths, E Java)

Suhartati, M. Natsir (2005)- Distribusi foraminifera bentik (*Textularia*) di Delta Porong, Jawa Timur. Agritek 4, 2, p. 1-7.
('Distribution of benthic foraminifera (Textularia) in the Porong Delta, East Java')

Suhartati, M. Natsir (2009)- Distribusi dan kelimpahan foraminifera bentik Resen di Pulau Opak Besar, Kepulauan Seribu. Lingkungan Tropis 3, 2, p. 95-103.
(Online at: www.lingkungan-tropis.org/distribusi-dan-kelimpahan-foraminifera-suhartati-m-natsir)
('Distribution and abundance of Recent benthic foraminifera in Opak Besar, Seribu islands'. Off NW Java. Samples from water depths 27-36m around Opak Island dominated by Calcarina calcar, followed by miliolids)

Suhartati, M.N. (2010)- First record of agglutinated foraminifera from Lombok. J. Coastal Development 13, 1, p. 48-55.
(online at: www.omicsonline.com/open-access/first-record-of-agglutinated-foraminifera-from-lombok-1410-5217-13-276.pdf)
(Benthic foram assemblages around Gili islands, NW Lombok, have more agglutinated individuals in stations close to bay, mainly Ammobaculites agglutitans and Haplophragmoides canariensis)

Suhartati M. Natsir (2010)- The distribution of benthic foraminifera in Damar and Jukung Island, Seribu Islands. Marine Research in Indonesia (LIPI) 35, 2, p. 9-14.

(online at: https://www.researchgate.net/publication/327826272_THE_DISTRIBUTION_OF_BENTHIC_FORAMINIFERA_IN_DAMAR_ISLAND_AND_JUKUNG_ISLAND_SERIBU_ISLANDS)
(Benthic foraminifers on Jakarta Bay islands. Jukung Island higher diversity than Damar Besar Island. Larger foraminifera of both islands Amphistegina, Calcarina, Heterostegina, Marginophora, and Operculina)

Suhartati M. Natsir (2010)- Foraminifera bentik sebagai indikator kondisi lingkungan terumbu karang perairan Pulau Kotok Besar dan Pulau Nirwana, Kepulauan Seribu. Oseanologi dan Limnologi di Indonesia 36, 2, p. 181-192.
('Benthic foraminifera as indicator of environmental conditions of coral reefs in Kotok Besar and Nirwana islands of Seribu islands'. Kotok Besar Island healthy reef growth due to FORAM Index of ~7.6. Dominant symbiont bearing foraminifera are Amphistegina, Calcarina and Tinoporus. Nirwana Island was dominated by opportunistic foraminifera Ammonia, Elphidium, Quinqueloculina and Spiroloculina, showing stressed conditions unsuitable for reef growth as shown by FORAM Index of 1.6-1.9)

Suhartati M. Natsir (2010)- Kelimpahan foraminifera Resen pada sedimen permukaan di Teluk Ambon. J. Ilmu Teknologi Kelautan Tropis (JITKT; Bogor) 2, 1, p. 9-18.
(online at: http://repository.ipb.ac.id/jspui/bitstream/123456789/53406/1/2_foraminifera.pdf)
('The abundance of recent foraminifera in surface sediment of Ambon Bay'. Bottom samples from Ambon Bay with 61 species of benthic and 25 species of planktonic foraminifera. Dominant benthics Amphistegina lessonii, Ammonia beccarii, Elphidium craticulatum, Operculina ammonoides and Quinqueloculina. Forams generally abundant on sand substrate sand, but no foraminifera on mud substrate)

Suhartati M. Natsir (2012)- The benthic foraminiferal assemblages on Handeuleum Islands, Ujung Kulon National Park of Banten, Indonesia. J. Shipping and Ocean Engineering 2, p. 86-91.
(online at: www.davidpublishing.com/...)
(Nine sediment samples from around Handeuleum Islands off Ujung Kulon Peninsula contain 14 genera of benthic foraminifera and some Ostracoda and Bryozoa. Most specimens from sand sediments of coral reefs community. Most common foraminifera are opportunistic taxa such as Ammonia beccari and Elphidium craticulatum and E. crispum. Also present are symbiont bearing foraminifera Amphistegina, Calcarina, Sorites also Cymbaloporetta, Oolina, Quinqueloculina and Spiroloculina)

Suhartati M. Natsir (2014)- The distribution of benthic foraminifera in Indonesian shallow waters. Berita Sedimentologi 29, p. 66-72.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/143)
(Summary of studies on Recent benthic foraminifera in Indonesia shallow waters by Research Center for Oceanography- LIPI)

Suhartati M. Natsir & K.T. Dewi (2015)- Foraminifera bentik terkait dengan kondisi lingkungan perairan sekitar Pulau Damar, Kepulauan Seribu. J. Geologi Kelautan 13, 3, p. 165-171.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/271/261)
('Benthic foraminifera related to marine environments around Damar Island, Pulau Seribu'. 64 species of benthic foraminifera from 11-37m depth around Damar Island reef, S part of Thousand Islands. Common forms associated with coral reef incl. Amphistegina lessonii, A. radiata, Sorites marginalis, Heterostegina and Calcarina calcar)

Suhartati M. Natsir, K.T. Dewi & S. Ardhyastuti (2017)- Keterkaitan foraminifera dan kedalaman perairan sebelah tenggara Pulau Seram, Maluku. J. Geologi Kelautan 15, 2, p. 73-80.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/389/424)
('The relation between foraminifera and water depth of waters SE of Seram Island, Moluccas'. Nine samples between 512-1177m water depth, with 95-100% planktonic foraminifera. Rare benthic foraminifera incl. Bulimina, Buliminella, Bolivinella)

Suhartati M. Natsir, A. Firman, I. Riyantini & I. Nurruhwati (2015)- Struktur komunitas foraminifera pada sedimen permukaan dan korelasinya terhadap kondisi lingkungan lepas pantai Balikpapan, Selat Makassar. J. Ilmu Teknologi Kelautan Tropis (JITKT; Bogor) 7, 2, p. 671-680.
(online at: http://journal.ipb.ac.id/index.php/jurnalikt/article/view/11059/8774)
('Community structure of foraminifera in surface sediments and correlation with environmental conditions in offshore waters of Balikpapan, Makassar Strait'. Foraminifera from 6 seafloor samples off Balikpapan (no water depths for samples (54-73m?), no species identifications))

Suhartati M. Natsir & Z.A. Muchlisin (2012)- Benthic foraminiferal assemblages in Tambelan Archipelago, Indonesia. AACL Bioflux 5, 4, p. 259-264.
(online at: https://bioflux.com.ro/docs/2012.259-264.pdf)
(Recent foraminifera in shallow waters around Tambelan islands, S China Sea. Dominated by Amphistegina and Assilina ammonoides; also common Quinqueloculina, Pseudorotalia, Amphistegina, Elphidium)

Suhartati, M.N., Ricky R. & Helfinalis (1994)- Foraminifera bentonik dan spesifikasinya pada beberapa lingkungan perairan Dangkal di Indonesia. Proc. 23rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 1, p. 603-604.

Suhartati M. Natsir & Rubiman (2010)- Distribusi foraminifera Resen di Laut Arafura. J. Ilmu Teknologi Kelautan Tropis (JITKT; Bogor) 2, 2, p. 74-82.
(online at: www.itk.fpik.ipb.ac.id/ej_itkt22/jurnal/ML_185_final%20(74-82).pdf)
('The distribution of Recent benthic foraminifera in the Arafura Sea'. Arafura Sea shallow waters S of Papua. Shallow-water ecosytems such as mangrove, seagrass beds and coral reefs. Samples mainly between 30-90m, deepest station 13 at 341m. 37 species, most common Ammonia beccarii and Pseudorotalia schroeteriana, except station 13 which has abundant Bolivina spp. and Anomalina rostrata)

Suhartati & Subadri (1993)- Foraminifera bentonik di perairan menpawah dan Sungai Duri- Pontianak Kalimantan Barat. Proc. 22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 1181-1188.
(online at: https://www.iagi.or.id/web/digital/53/22nd-Volume-2-(6-9-Des-1993)-579-586.pdf)
('Benthic foraminifera in the waters offhore Sungai Duri, Pontianak, W Kalimantan'. Shallow marine (0.5-5m) seafloor samples off Mempawah and Sunai Duri with 24 species of benthic foraminifera. Dominated by Quinquelocuina spp., Asterorotalia trispinosa, Ammonia beccarii, Pseudorotalia schroeteriana, etc.))

Suhartati M. Natsir & M. Subkhan (2012)- The distribution of agglutinated foraminifera in Porong and Solo deltas, East Java. J. Environmental Science and Engineering A 1, p. 918-923.
(Recent foraminiferal assemblages around Porong and Solo River Deltas dominated by small agglutinated forams, mainly Textularia pseudogramen, Ammobaculites agglutinans, Haplophragmoides, Ammotium, etc.)

Suhartati M. Natsir & M. Subkhan (2012)- The distribution of benthic foraminifera in coral reefs community and seagrass bed of Belitung Islands based on foram index. J. Coastal Development 15, 1, p. 51-58.
(online at: http://ejournal.undip.ac.id/index.php/coastdev/article/view/1997/1775)
(Benthic foraminiferal from six sampling sites around Belitung Islands 29 species of 18 genera. Most abundant benthic foraminifera in Nasik Strait on coarse sand substrate with coral reef (Peneroplis, Calcarina, Operculina, etc.). Seagrass beds of Nasik Strait dominated by opportunistic foraminifera Heterostegina, Calcarina, Elphidium, Ammonia, Acervulina, Spirolina, Quinqueloculina and Lenticulina. Most abundant species of all sites is Peneroplis pertusus)

Suhartati M. Natsir & M. Subkhan (2012)- Foraminifera bentik sebagai indikator kualitas perairan ekosistem terumbu karang di Pulau Bidadari dan Ringit, Kepulauan Seribu. Lingkungan Tropis 5, 1, p. 1-10.
('Benthic foraminifera as indicators for water quality of coral reefs ecosystem in Bidadari and Ringit Islands, Thousand Islands', off NW Java.)

Suhartati M. Natsir, M. Subkhan, Rubiman &, S.P.A. Wibowo (2011)- Komunitas foraminifera bentik di perairan kepulauan Natuna. J. Ilmu Teknologi Kelautan Tropis (JITKT; Bogor) 3, 2, p. 21-31.
('Benthic foraminifera community in the Natuna islands group'. Over 50 species, dominated by Amphstegina lessonii, Ammonia beccarii, Operculina ammonoides, Quinqueloculina, etc. Water depths??)

Suhartati M. Natsir, M. Subkhan, M.S. Tarigan, S.P.A. Wibowo & K.T. Dewi (2012)- Benthic foraminifera in South Waigeo waters, Raja Ampat, West Papua. Bulletin of the Marine Geology 27, 1, p. 1-6.
(online at: http://ejournal.mgi.esdm.go.id/index.php/bomg/article/view/40/41)
(Foraminifera from 12 sites in S part off Waigeo Island, Raja Ampat group, W Papua. Faunas dominated by symbiotic bearing benthic foraminifera, mainly Amphistegina lessonii, also Baculogypsina, Calcarina, Tinoporus, Heterostegina, etc.)

Suhartati M. Natsir, M. Subkhan & V.I. Wardhani (2012)- The distribution of benthic foraminiferal assemblages in Tambelan Islands of Riau Islands. Proc. Soc. Indonesian Biodiversity International Conference, 1, p. 107-112.
(online at: https://biosains.mipa.uns.ac.id/P/P0101/P010119.pdf)
(Foraminifera from 5 shallow shelf stations around Tambelan Archipelago in South China Sea, off NW Kalimantan (34-50m water depth). Sediments mainly clay and mud. Assemblages 64 species, dominated by Operculina ammonoides ('Assilina depressa'), Amphistegina lessonii and miliolids)

Sukandarrumidi (1990)- The new species of *"Quinqueloculina"* and "*Triloculina*" from the bottom sea sediment of the Java Sea, Bali Strait and Karimata Strait, Indonesia. Media Teknik (UGM) 13, 2, p. 132-143.
(Sea floor samples from Java Sea, Bali Strait and Karimata Strait with 3 new species of miliolid benthonic foraminifera, Quinqueloculina aberensis, Triloculina malayensis and Triloculina siuriensis)

Sukapti, W.S. & K.T. Dewi (2023)- Perubahan lingkungan Holosen akhir berdasarkan rekaman polen dari Delta Berau-Kalimantan Timur. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 24, 1, p. 23-29.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/713)
('Pollen study of Late Holocene environment changes in Berau Delta-East Kalimantan'. Pollen from 100 cm long core in Berau Delta, showing 80 types of pollen (dominated by lowland forest species) and 13 types of spores. Some fluctuations in % of mangrove- dry land- grassland and (sub-)montane pollen)

Suleiman, A, C.C.S. Wahyu & A. Bachtiar (2011)- Quaternary benthic foraminifera from bathyal zone seabed of Mamuju offshore, North Makassar Basin, West Sulawesi. Proc. Joint 36th HAGI and 40th IAGI Annual Conv., Makassar, JCM2011-424, p. 1-5.
(online at: https://www.iagi.or.id/web/digital/10/2011_IAGI_Makassar_Quarternary-Benthic-Foraminifera.pdf)
(Summary of benthic foraminifera from 1700-1800m depth, sampled during geohazard survey, offshore, Lariang Basin. Mainly calcareous benthics usually found in outer shelf- upper bathyal instead of arenaceous tests that are common in bathyal zone. This suggests deposition is at least partly allochthonous sediment debris from upslope (no data details))

Sumawinata, B. (1998)- Sediments of the lower Barito basin in South Kalimantan: fossil pollen composition. J. Southeast Asian Studies, Kyoto, 36, 3, p. 293-316.
(online at: https://kyoto-seas.org/pdf/36/3/360302.pdf)
(Palynology and successions of depositional environments inf Holocene sediments from 8 shallow (2-3m) cores in Lower Barito and Martapura River basins. Pollen diagrams dominated by mangrove forest taxa)

Sun, H.J., T.G. Li, R.T. Sun, X.K. Yu & F.M Chang & Z. Tang (2011)- Calcareous nannofossil bioevents and microtektite stratigraphy in the Western Philippine Sea during the Quaternary. Chinese Science Bull. 56, 25, p. 2732-2738.
(Seven calcareous nannofossil bioevents identified over past 2.36 Ma in two sediment cores from Benham Rise, W Philippine Sea, E of Luzon. Bioevents and Australasian microtektite impact event calibrated to oxygen isotope stratigraphy. Age of highest concentration of microtektites 792 ± 2 ka, near boundary of isotope stages MIS20/19)

Sun, X., Y. Luo, F. Huang, J. Tian & P. Wang (2003)- Deep-sea pollen from the South China Sea: Pleistocene indicators of East Asian monsoon. Marine Geology 201, p. 97-118.
(High-resolution pollen record for last 820 ka of ODP Site 1144, northern S China Sea. 29 pollen zones, mainly defined by alternations of Pinus-dominant (interglacial) vs. herb-dominant (glacial) zones correspond to Marine Oxygen Isotope Stages 1-29. Clear 100 ka Milankovich cyclicity)

Suriadi, R., H. Shaari, S.J. Culver, M.L. Husain, V.R. Vijayan, P.R. Parham, A. Sulaiman & N. Sapon (2019)- Inner shelf benthic foraminifera of the South China Sea, East Coast Peninsular Malaysia. J. Foraminiferal Research 49, 1, p. 11-28.
(online at: https://www.academia.edu/download/67521350/Suriadi_et_al._2019.pdf)
(Distribution of modern benthic foraminifera on inner shelf of southern S China Sea, off E coast of Malaysia, between Johor and Terengganu. Samples from <50 m water depth with 266 species. Two biofacies: (A) common Amphistegina papillosa in sandier sediments, (B) common Pseudorotalia schroeteriana and other small rotaliids in muddy sediments. Assemblages reflect strong fluvial/terrestrial influence on tropical shelf environment)

Suriadi, R., H. Shaari, S.J. Culver, A. Sulaiman, S. Yang, W.N.W. Saelan & M.M. Sharif (2023)- Holocene transgression and sea level change offshore Peninsular Malaysia (innermost Sunda Shelf) as indicated by benthic foraminiferal, lithologic and geochronologic data. Quaternary International 649, p. 46-57.
(open manuscript online at: https://www.sciencedirect.com/science/article/pii/S1040618223000034)
(Evidence of Holocene transgression from inner shelf of eastern Peninsular Malaysia, based on lithologic and foraminiferal analyses of 24 cores from 13.5- 46.8 m water depth)

Szarek, R. (2001)- Biodiversity and biogeography of Recent benthic foraminiferal assemblages in the south-western South China Sea (Sunda Shelf). Ph.D. Thesis, Christian Albrechts Universitat, Kiel, p. 1-273.
(online at: https://macau.uni-kiel.de/servlets/MCRFileNodeServlet/dissertation_derivate_00000537/d537.pdf)
(Benthic foraminifera distribution patterns on Vietnam Shelf and Sunda Shelf of SW S China Sea, based on 75 sites along two transects in 50-2000m water depth. Shallow water (<200m) assemblages from Vietnam and Sunda Shelves significantly different species composition and distinct distribution patterns. Bathyal faunas exhibit more uniform species composition)

Szarek, R., W. Kuhnt, H. Kawamura & H. Kitazato (2006)- Distribution of Recent benthic foraminifera on the Sunda Shelf (South China Sea). Marine Micropaleontology 61, p. 171-195.
(Recent benthic foraminifera distribution on Sunda Shelf around Natuna Island between 60-226m depth. Four biofacies: (A) inner shelf (Ammomassilina alveoliniformis- Asterorotalia pulchella), in fine grained sediments; (B) high-energy inner shelf (Heterolepa dutemplei- Textularia lythostrota, Asterorotalia gaimardii) in sand and silt dominated sediments NE of Natuna; (C) high-energy outer shelf biofacies (Cibicidoides pachyderma-Textularia bocki, Operculina ammonoides) in neritic relict sand; (4) outer shelf (Facetocochlea pulchra-Bulimina marginata, Bolivina) in area covered with modern silt and mud)

Szarek, R., W. Kuhnt, H. Kawamura & H. Nishi (2009)- Distribution of Recent benthic foraminifera along continental slope of the Sunda Shelf (South China Sea). Marine Micropaleontology 71, 1-2, p. 41-59.
(Benthic foraminiferal distribution from the winter upwelling region off Borneo on continental slope of Sunda Shelf and from continental slope of S Vietnam Shelf. Faunas highly diverse. Four biofacies: (1) Upper bathyal (Siphotextularia foliosa- Cibicidoides robertsonianus); (2) Middle bathyal (Uvigerina auberiana- Nuttallides rugosus; within oxygen minimum zone); (3) uppermost Lower bathyal (Lagenammina difflugiformis- Uvigerina peregrina) and (4) Lower bathyal (Paratrochammina challengeri- Parrelloides bradyi))

Tan Koh Siang (2021)- Deep-sea Protobranchia (Bivalvia) from the SJADES biodiversity cruise, with a description of a new species of *Propeleda* (Nuculanidae). Raffles Bull. of Zoology, Supplement. 36, p. 346-385.
(online at: https://www.science.nus.edu.sg/wp-content/uploads/sites/11/2024/07/s36rbz346-385.pdf)
(Study of Recent deep marine (100-2000m) bivalve molluscs collected during South Java Deep-Sea (SJADES) Biodiversity Expedition 2018. 37 stations off SE Sumatra and SW Java in Sunda Strait and Indian Ocean. 37 species in 17 genera belonging to families Nuculidae (incl. Nucula), Solemyidae (incl. Acharax), Nucinellidae, Nuculanidae, Malletiidae and Neilonellidae). Several evidences of methane venting on seafloor)

Tanaka, G., T. Komatsu & N.D. Phong (2009)- Recent ostracod assemblages from the northeastern coast of Vietnam and biogeographical significance of euryhaline species. Micropaleontology 55, p. 365-382.
(75 species, 3 biofacies controlled by salinity)

Taylor, A.M. (1988)- The taxonomy, ecology and zoogeographical significance of Recent reef Ostracoda from Singapore. M.Sc. Thesis, University of Wales, Aberystwyth, p. 1-203. *(Unpublished)*

Taylor, P. D. & S.H.A.Tan (2015)- Cheilostome bryozoa from Penang and Langkawi, Malaysia. European Journal of Taxonomy 149, p. 1-34.
(online at: https://europeanjournaloftaxonomy.eu/index.php/ejt/article/view/271/522)
(Twenty-three species of Recent cheilostome bryozoans from beaches of Penang and Langkawi islands)

Thanikaimoni, G. (1983)- Palynological investigation on the Borobudur monument. Bull. Ecole française d'Extreme-Orient 72, p. 237-250.
(online at: www.persee.fr/docAsPDF/befeo_0336-1519_1983_num_72_1_1458.pdf)
(Palynomorphs from soil material used for construction of base of Borobudur monument. Collected from alluvial deposits in open area, not covered by dense vegetation. Absence of marsh and aquatic elements like Typha and Nymphaea in samples suggests not derived from lake or marsh)

Thomas, E.A., T. Bond, J.L. Kolbusz, Y. Niyazi, D.J.B. Swanborn & A.J. Jamieson (2024)- Deep-sea ecosystems of the Indian Ocean >1000m. Science of the Total Environment 957, 176794, p. 1-35)
(https://www.sciencedirect.com/science/article/pii/S0048969724069511
(Comprehensive review of present-day deep-sea Indian Ocean physical features and associated ecosystems)

Thomas, M.L. (2015)- Holocene palynology of the Gulf of Papua, Papua New Guinea: using modern palynomorph distribution to better constrain paleoenvironmental changes. Ph.D. Thesis, Louisiana State University, Baton Rouge, p. 1-207.
(online at: http://digitalcommons.lsu.edu/cgi/viewcontent.cgi?article=1786&context=gradschool_dissertations)

Thomas, M.L., D.T. Pocknall, S. Warny, S.J. Bentley, A.W. Droxler & C.A Nittrouer (2015)- Assessing palaeobathymetry and sedimentation rates using palynomaceral analysis: a study of modern sediments from the Gulf of Papua, offshore Papua New Guinea. Palynology 39, 3, p. 410-433.
(Palynofacies analyses of organic matter of 64 seafloor samples in Gulf of Papua, PNG, from river mouth to shelf to slope. Five categories of palynomacerals distinguished: (1, 2) brown wood, (3) leaf cuticle, (4) black debris, (5) structureless organic matter. Palynomacerals 1-3 more common in nearshore facies, 4 more common in deeper offshore sites)

Thomas, M.L., S. Warny, D.M. Jarzen, S.J. Bentley, A.W. Droxler, B.B. Harper, C.A. Nittrouer & X. Xu (2018)- Palynomorph evidence for tropical climate stability in the Gulf of Papua, Papua New Guinea, over the latest marine transgression and highstand (14,500 years BP to today). Quaternary International 467, B22, p. 277-291.
(online at: https://sites01.lsu.edu/faculty/swarny/wp-content/uploads/sites/30/2018/02/Thomas-et-al.-2018-QI.pdf)
(Palynological data indicate climatic conditions at sea level around Gulf of Papua remained warm, wet and stable for past 14.5 kyr, with sea surface T >14 °C)

Titterton, R. & R.C. Whatley (1988)- The provincial distribution of shallow water Indo-Pacific and marine ostracoda: origins, antiquity, dispersal routes and mechanisms. In: T. Hanai et al. (eds.) Evolutionary biology of ostracoda: its fundamentals and applications, Proc. 9th International Symposium on Ostracoda (ISO), Shizuoka 1985, Elsevier, Amsterdam, p. 759-786.
(Tertiary to Recent ostracods from Indo-Pacific and Southern Ocean fall into 13 zoogeographical provinces. East Indian and SW Pacific regions were locus from which ostracods migrated out since Miocene)

Titterton, R. & R.C. Whatley (1988)- Recent Bairdiinae (Crustacea, Ostracoda) from the Solomon Islands. J. Micropalaeontology 7, 2, p. 111-142.
(online at: https://www.j-micropalaeontol.net/7/111/1988/jm-7-111-1988.pdf)
(21 species of Bairdiinae ostracods (13 new) from littoral and inner shelf of Solomon Islands)

Titterton, R. & R.C. Whatley (2005)- Recent marine Ostracoda from the Solomon Islands. Part 2. Cytheracea (Xestoleberidae). Revista Espanola Micropaleontologia 37, 2, 291-313.
(online at: http://revistas.igme.es/index.php/revista_micro/article/viewFile/314/312)

Titterton, R. & R.C. Whatley (2006)- Recent marine Ostracoda from the Solomon Islands. Part 1: Cypridoidea, Platycopina and Cladocopina. J. Micropalaeontology 25, p. 73-94.
(online at: https://www.j-micropalaeontol.net/25/73/2006/jm-25-73-2006.pdf)
(16 species of Cypridoidea described, comprising 15% of the ostracode fauna of 160 species from Solomon Islands. Platycopids/ Cladocopids 13% of total fauna)

Titterton, R. & R.C. Whatley (2006)- Recent marine Ostracoda from the Solomon Islands. Part 3: Cytheroidea, Bythcytheroidea, Cytherideidae, Krithidae, Neoytherideidae, Cytheruridae. Revista Espanola Micropaleontologia 38, p. 169-189.
(online at: http://revistas.igme.es/index.php/revista_micro/article/view/325/322)

Titterton, R. & R.C. Whatley (2008)- Recent marine Ostracoda from the Solomon Islands. Part 4: Cytheroidea; Hemicytheridae, Thaerocytheridae. J. Micropalaeontology 27, p. 13-33.
(online at: https://www.j-micropalaeontol.net/27/13/2008/jm-27-13-2008.pdf)
(11 species of family Hemicytheridae and 7 of family Thaerocytheridae described, together comprising 14% of Recent ostracod fauna from Solomon Islands. Hemicytherids more endemic than thaerocytherids)

Titterton, R., R.C. Whatley & J.E. Whittaker (2001)- A review of some key species of mainly Indo-Pacific ostracoda from the collections of G.S. Brady. J. Micropalaeontology 20, 1, p. 31-44.
(online at: https://jm.copernicus.org/articles/20/31/2001/jm-20-31-2001.pdf)
(Review and re-naming of 15 Recent (mainly deep water?) ostracode species from G.S. Brady's Challenger collectionsin the Hancock Museum in Newcastle-upon-Tyne and the Natural History Museum, London)

Todd, R. (1960)- Some observations on the distribution of *Calcarina* and *Baculogypsina* in the Pacific. Science Reports Tohoku University, Sendai, ser. 2 (Geology), Special Volume 4, p. 100-107.
(online at: https://tohoku.repo.nii.ac.jp/record/10741/files/KJ00004163739.pdf)
(Calcarina spengleri and Baculogypsina sphaerulata common reef-dwelling foram species of tropical W Pacific between ~170°W and 120°E. Both first appeared late in Tertiary. Common from Australia Great Barrier Reef to Philippines and Ryukyus in W and from Marianas to Marshalls, Gilberts, Phoenix Islands, Samoa, and Niue in E (not known from C-E Pacific))

Todd, R. (1961)- Foraminifera from Onotoa Atoll Gilbert Islands. U.S. Geological Survey Professional Paper 354-H, p. 1-34.
(online at: https://pubs.usgs.gov/pp/0354h/report.pdf)
(Example of foraminifera distribution on a SW Pacific coral reef atoll. 168 species identified. Dominant species in reef sediments Calcarina spengleri, Baculogypsina sphaerulata, Amphistegina madagascariensis and Marginopora vertebralis. Main taxa in lagoon sediments Amphistegina madagascariensis, Heterostegina suborbicularis, Marginopora vertebralis and Elphidium striato-punctatum)

Todd, R. (1965)- The foraminifera of the tropical Pacific Collections of the ”Albatross”, 1894-1900, Part IV, Rotaliform families and planktonic families. Bull. U.S. National Museum, 161, p. 1-139.
(online at: https://repository.si.edu/handle/10088/10220)
(Descriptions of smaller rotaliform benthic and planktonic foraminifera from tropical Pacific Ocean (Part 4 of Cushman 1932-1942 monographs))

Toruan, L.N.L., D. Soedharma & K.T. Dewi (2013)- Komposisi dan distribusi foraminifera bentik di ekosistem terumbu karang pada Kepulauan Seribu. J. Ilmu Teknologi Kelautan Tropis (JITKT; Bogor) 5, 1, p. 1-16.
(online at: http://journal.ipb.ac.id/index.php/jurnalikt/article/view/7741)
('The composition and distribution of benthic foraminifera at coral reef ecosystem in the Thousand Islands'. Benthic foraminifera from 11 stations at Karang Bongkok, Pramuka, and Onrust Island. Highest composition of symbiont-bearing foraminiferal assemblages associated with reef ecosystem in East Pramuka (78%) and lowest in South Onrust (22%). Opportunistic types highest in S Onrust, indicating high nutrients)

Troelstra, S.R., H.M. Jonkers & S. de Rijk (1996)- Larger Foraminifera from the Spermonde Archipelago (Sulawesi, Indonesia). Scripta Geologica 113, p. 93-120.
(online at: https://repository.naturalis.nl/pub/317518)
Modern larger foram distribution in Spermonde reefal province off SW tip of Sulawesi. Near-reef facies dominated by few species (Calcarina, Elphidium). Mid-shelf reefs mainly with Heterostegina depressa and Amphistegina radiata. Outer platform reefs more open ocean influence with Amphisorus hemprichii and Amphistegina lessonii)

Troelstra, S.R., G.J. Klaver, A. Kleijne, D. Kroon, L.J. van Marle, W. Meyboom, P.J. van de Paverd, M. Situmorang & I.M. van Waveren (1989)- Actuomicropalaeontology and sediment distribution of three transects across the Banda Arc, Indonesia (Snellius-II expedition, cruise G5). Proc. Snellius II Symposium, Jakarta 1987, Netherlands J. of Sea Research 24, 4, p. 477-489.
(online at: https://www.researchgate.net/publication/222322748_Actuomicropalaeontology_and_sediment_distribution_of_three_transects_across_the_Banda_Arc_Indonesia_Snellius-II_Expedition_Cruise_G5)
(Results of 1984/1985 systematic sampling along three traverses across Banda Arc resulted in recognition of distinct litho- and biofacies. Depths of lysocline and CCD determined at 1700 and 3300 m respectively. With table of benthic foram depth ranges. Peak radiolaria in sediments between 2000-3000m. Etc.)

Troelstra, S.R. & D. Kroon (1989)- Note on extant planktonic foraminifera from the Banda Sea, Indonesia (Snellius-II Expedition, Cruise G-5). In: J.E. van Hinte et al. (eds.) Proc. Snellius II Symposium, Jakarta 1987, Netherlands J. of Sea Research 24, p. 459-463.
(Recent planktonic foraminifers collected from oligotrophic Banda Sea surface waters during NW monsoon (April/May 1985) show five associations which correspond to measured sea surface temperatures)

Tulung, G.F., J.M. Mamuaja, R.M. Rampengan, R. Djamaluddin & R.C. Kepel (2023)- Komposisi foraminifera bentik besar pada sedimen mangrove. Jurnal Pesisir dan Laut Tropis 11, 1, p. 38-49.
(online at: https://ejournal.unsrat.ac.id/v3/index.php/jplt/article/download/53332/45065/127891)
('Composition of large benthic foraminifera in mangrove sediments', In Manado Bay, N Sulawesi, dominant foraminifera genera (>5%) at two mangrove study sites were Ammonia, Amphistegina, Calcarina, Elphidium and Neorotalia)

Van Benthem Jutting, W.S.S. (1925)- On molluscs of the Krakatau-isles. Treubia (Buitenzorg (Bogor), 6, 2, p. 140-145.
(First of many papers by Dutch malacologist WWSVBJ on Recent mainly non-marine molluscs from Indonesia. N.B.: W.S.S. (Woutera) van Benthem Jutting is the same person as T. (Tera) van Benthem Jutting)

Van Benthem Jutting, T. (1932)- On Prehistoric shells from Sampoeng Cave (Central Java). Treubia 14, 1, p. 103-108.
(online at: https://archive.org/details/CFGEDI193201010141932000l/page/102/mode/2up)
(Mollusc shells excavated from Neolithic rock shelter at Sampoeng village on slopes of Wilis volcano by P.V. van Stein Callenfels are mixture of marine and non-marine species. Freshwater shells were presumably used for food, while marine shells may have been valued as ornamental objects at this far-from-the-coast location)

Van Benthem Jutting, T. (1933)- Non marine mollusca from Dutch North New Guinea including an annotated list of the species of Papuina. Nova Guinea (Zoology) 17, p. 71-150.

Van Benthem Jutting, W.S.S. (1934)- Non marine Mollusca from Nias Island. Miscellanea Zoologica Sumatrana, Medan, 84/85, p. 1-17.

Van Benthem Jutting, W.S.S. (1941)- Non-marine Mollusca from the satellite islands surrounding Java. Archives Neerlandaises de Zoologie, Leiden, 5, 3, p. 251-348.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:047144000:00006)
(Non-marine molluscs from series of islands around Java, incl. Meeuwen Eiland, Prinsen Eiland, Popole, Krakatau, Sebesi, Dwars in den Weg, Pulau Seribu and Bay of Batavia islands, Karimon Djawa, Bawean, Madura, Kangean, Nusa Baron, Nusa Kembangan, Trowers, etc. Non-marine molluscs and land snails generally migrated by currents mainly from Java, possibly also Sumatra or Borneo. No plates?)

Van Benthem Jutting, T. (1941)- On a collection of non-marine mollusca from the Talaud Islands and from Morotai (Moluccas). Treubia, Bogor,18, 1, p. 1-27.
(online at: http://e-journal.biologi.lipi.go.id/index.php/treubia/article/view/2593/2231)
(Freshwater molluscs from northern Moluccas islands collected by H.J. Lam in 1926)

Van Benthem Jutting, W.S.S. (1948)- On the present state of the malacological research in the Malay Archipelago. Chronica Naturae 104, 5, p. 129-138.

Van Benthem Jutting, W.S.S. (1950)- Systematic studies on the non-marine mollusca of the Indo-Australian Archipelago. II. Critical revision of the Javanese Pulmonate land-shells of the Families Helicariontdae, Pleurodontidae, Fruticicolidae and Streptaxida. Treubia (Museum Zoologicum Bogoriense), Bogor, 20, 3, p. 381-505.
(online at: https://ejournal.brin.go.id/treubia/article/view/10016/7711)
(Extensive review of Recent pulmonate land snails on Java)

Van Benthem Jutting, W.S.S. (1950)- Systematic studies on the non-marine mollusca of the Indo-Australian Archipelago. IV. Critical revision of the freshwater bivalves of Java. Treubia (Museum Zoologicum Bogoriense), Bogor, 22, 1, p. 19-73.
(online at: https://e-journal.biologi.lipi.go.id/index.php/treubia/article/view/1562/1453)
(Review of 16 species of modern freshwater bivalves from lakes/ rivers of Java. Three families: Unionidae, Corbiculidae, Sphaeriidae (Pisidium spp.))

Van Benthem Jutting, W.S.S. (1956)- Systematic studies on the non-marine mollusca of the Indo-Australian Archipelago. V. Critical revision of the Javanese gastropods. Treubia (Museum Zoologicum Bogoriense), Bogor, 23, 2, p. 259-477.
(online at: http://e-journal.biologi.lipi.go.id/index.php/treubia/article/view/2713/2325)
(Review of modern freshwater gastropods (89 species) and land gastropods (171 species) of Java)

Van Benthem Jutting, W.S.S. (1958)- Landmollusken von Sumba. Wissenschaftliche Ergebnisse der Sumba-Expedition des Museums fur Volkerkunde und des Naturhistorischen Museums in Basel 1949, Verhandlungen der Naturforschenden Gesellschaft Basel 69, 1, p. 90-117.
(‘*Land molluscs from Sumba’*)

Van Benthem Jutting, W.S.S. (1958)- Non-marine Mollusca of the island of Misool. Nova Guinea, New Series, Leiden, 9, 2, p. 293-338.

Van Benthem Jutting, W.S.S. (1959)- Catalogue of the non-marine mollusca of Sumatra and of its satellite islands. Beaufortia, Zoological Museum Amsterdam, 7, 83, p. 41-191.
(online at: www.repository.naturalis.nl/document/548339)

Van Benthem Jutting, W.S.S. (1959)- Non-marine mollusca of the North Moluccan islands Halmahera, Ternate, Batjan and Obi. Treubia (Museum Zoologicum Bogoriense) 25, p. 25-87.
(online at: http://e-journal.biologi.lipi.go.id/index.php/treubia/article/view/2731/2341)

Van Benthem Jutting, W.S.S. (1963-1965)- Non-marine mollusca of West New Guinea. Nova Guinea (Zoology), vols. 20, 23, 26, 32.
(Part 1, Mollusca from fresh and brackish waters, vol. 20, p. 409-521. Part 2, Operculate land shells, vol. 23, p. 653-726. Part 3, Pulmonata, 1, vol. 26, p. 1-74. Part 4, Pulmonata, 2, vol. 32, p. 205-304)

Van Benthem Jutting, W.S.S. (1973)- Systematic studies on the non-marine mollusca of the Indo-Australian Archipelago. Linnaeus Press, Amsterdam, p. 1-477.
(Reprint of 5 papers on Recent fresh and brackish water molluscs from Indonesia, originally published in 'Treubia' (vol.19 (1948; p. 539-604; 20 (1950; p. 381-505; 21 (1952; p. 291-435; 22 (1953; p. 19-73) and 23 (1956; p. 259-477) (see also above)

Van den Bold, W.A. (1950)- *Hemikrithe*, a new genus of ostracoda from the Indopacific. Annals and Magazine Natural History 12, 3, p. 900-904.
(Short note listing 44 species of ostracods from two samples, one off Sarawak, one from Batu Island, W coast of Sumatra. Incl. new genus Hemikrithe orientalis)

Van de Paverd, P.J. & K.R. Bjorklund (1989)- Frequency distribution of polycystine radiolarians in surface sediments of the Banda Sea, Eastern Indonesia. In: J.E. van Hinte et al. (eds.) Proc. Snellius II Symposium, Jakarta 1987, Netherlands J. of Sea Research 24, 2, p. 511-521.
(Numbers of radiolarians in sea-floor sediments of Banda Sea vary widely: low from 0-950m, high between 950-4800m, and low again below 4800m water depth. Distribution reflect sediment influx and occurrence of highly productive areas in surface water)

Van de Paverd, P.J. & K.R. Bjorklund (1996)- Preservation and density of Late Quaternary radiolaria in piston cores from the Banda Sea, eastern Indonesia. Revista Espanola Micropaleontologia 28, 3, p. 139-152.

Van der Kaars, W.A. (1991)- Palynology of eastern Indonesian marine piston-cores: a Late Quaternary vegetational and climatic record for Australasia. Palaeogeogr. Palaeoclim. Palaeoecology 85, p. 239-302.
(Pollen analyses on Late Quaternary sediments from E Indonesia marine piston cores show vegetation and environmental record for E Indonesia and N Australia. On Halmahera and N Australia montane oak forest largely replaced tropical lowland vegetation during last glacial period, while climate was cooler and drier than today, with maximum grassland cover at ~18 ka. One piston-core (G6-4) extends to 300 ka. and also shows glacial periods characterised by expanding grassland vegetation (Graminae pollen peaks), and during interglacials increases in woodland and fern cover. Mangrove vegetation expansions suggest rises in sea-level at ~244, 220 and 130 ka)

Van der Kaars, S. (1998)- Marine and terrestrial pollen records of the last glacial cycle from the Indonesian region: Bandung Basin and Banda Sea. Palaeoclimates 3, p. 209-219.

Van der Kaars, S.F. Bassinot, P. de Deckker & F. Guichard (2010)- Changes in monsoon and ocean circulation and the vegetation cover of southwest Sumatra throughout the last 83,000 years: the record from marine core BAR94-42. Palaeogeogr. Palaeoclim. Palaeoecology 296, p. 52-78.
(Palynological record from deep-sea core off SW Sumatra used to reconstruct monsoon circulation and vegetation of SW Sumatra over the last 83 ky. During marine isotope stage (MIS) 5a, SW Sumatra was covered by rainforest. During MIS 4 conditions became drier, cooler and weaker monsoon. Vegetation most open during MIS 3, between ~52- 43 ky, driest of last glacial, also increase in montane pollen. After ~43 ky everwet climate gradually developed as monsoonal circulation intensified)

Van der Kaars, S. & R. Dam (1997)- Vegetation and climate change in West-Java, Indonesia during the last 135,000 years. Quaternary International 37, p. 67-71.
(Sediment cores from intramontane Bandung basin (W Java) provide paleoclimatic record for last 135,000 years. Anomalously dry conditions for penultimate glacial last glacial periods, very warm and humid conditions during last interglacial. For Last Glacial Maximum temperatures 4-7°C lower than present)

Van der Kaars, S., D. Penny, J. Tibby, J. Fluin, R.A.C. Dam & P. Suparan (2001)- Late Quaternary palaeoecology, palynology and palaeolimnology of a tropical lowland swamp: Rawa Danau, West-Java, Indonesia. Palaeogeogr. Palaeoclim. Palaeoecology 171, 3-4, p. 185-212.
(Open vegetation and drier climate suggested for Late Glacial time in Java, but no evidence for cooler conditions. Onset of Holocene coincides with change to more humid conditions. Changes in diatom composition reflect shallowing of lake)

Van der Kaars, S., X. Wang, A.P. Kershaw, F. Guichard & D.A. Setiabudi (2000)- A late Quaternary palaeoecological record from the Banda Sea, Indonesia; patterns of vegetation, climate and biomass burning in Indonesia and northern Australia. Palaeogeogr. Palaeoclim. Palaeoecology 155, p. 135-153. *(online at: https://www.academia.edu/17853126/A_Late_Quaternary_palaeoecological_record_from_the_Banda_Sea_Indonesia_patterns_of_vegetation_climate_and_biomass_burning_in_Indonesia_and_northern_Australia)*
(Banda Sea core SHI-9014 palynological and carbon isotope analyses provide a regional vegetation, fire and climate history for Banda Sea in last 180,000 years. During last two glacial periods drier climates in both E Indonesia and N Australia and lower montane forests expanded in E Indonesia indicating cooler climatic conditions. Before 37,000 yr BP. Dipterocarpaceae important part of lowland vegetation of E Indonesia. Subsequent demise likely related to increased human impact)

Van der Meer Mohr, J.C. (1927)- Note preliminaire sur la composition conchyliologique d'un amas prehistorique de coquilles pres de Medan (Sumatra). Miscellanea Zoologica Sumatrana, Medan, 18, p. 1-3.
('Preliminary note on shell composition of a prehistoric shell mound near Medan (Sumatra)'. Identifications of edible mollusc shells in 7m high and 50-60m long prehistoric shell midden/mound ('kjokkenmodding') in N Sumatra, at request of archeologist P.V. van Stein Callenfels. This mound is 'kitchen trash' from human settlements in coastal zone. Shells dominated by shallow marine-estuarine Meretrix meretrix (popularly known as 'Asiatic hard clam' from Venus group; 93%) and Ostrea (oyster; 6%), also some Arca and gastropods (NB: many original mounds destroyed by later mining activities for road cover and lime). Sumatra shell middens now 10-15 km inland from E coast of N Sumatra, in zone ~130 km long, and all located <5 m above sea level. Most recent estimate of age is ~6000 yr B.P., during mud-Holocene highstand. Similar shell mounds known from Malay Peninsula side of Malacca Straits) (Schurmann 1928, 1931, Van Heekeren 1972, Foo Shu Tien 2015))

Van Iperen, J.M., A.J van Bennekom & T.C.E. van Weering (1993)- Diatoms in surface sediments of the Indonesian Archipelago and their relation to hydrography. In: H. van Dam (ed.) Twelfth International Diatom Symposium, Renesse 1992, Hydrobiologia 269-270, 1, p. 113-128.
(Recent marine diatoms from 53 seafloor samples between 350-7200m water depth in Indonesian Archipelago, collected during Snellius II Expedition. Three assemblages, related to overlying water mass: (1) warm saline surface waters of Pacific and Indian Ocean origin (Thalassiosira oestrupii, Rhizosolenia bergonii); (2) low-salinity lobe in Makassar Strait ((Thalassionema frauenfeldii, Cyclotella striata); (3) seasonal upwelling areas in Arafura Sea and S of Java (Thalassionema nitzschioides, Chaetoceros resting spores). Also three groups of allochthonous species, indicators of productivity in littoral environment, bottom currents and river outflow)

Van Marle, L.J. (1988)- Bathymetric distribution of benthic foraminifera on the Australian- Irian Jaya continental margin, Eastern Indonesia. Marine Micropaleontology 13, 2, p. 97-152.
(Study of distribution of 164 species of benthic foraminifera in 35 seafloor samples from Australia- Irian Jaya continental margin between 60-2119 m water depth, along three transects across Banda Arc. Four fauna1 depth-zones and four subzones distinguished)

Van Marle, L.J. (1989)- Benthic foraminifera from the Banda Arc region, Indonesia, and their paleobathymetric significance for geologic interpretations of the Late Cenozoic sedimentary record. Ph.D. Thesis Vrije Universiteit, Free University Press, Amsterdam, p. 1-271.
(Collection of 11 papers, also published elsewhere, on modern foraminifera distribution and Neogene stratigraphy of E Indonesian islands)

Van Marle, L.J. (1991)- Eastern Indonesian, Late Cenozoic smaller benthic foraminifera. Verhandelingen Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, Afd. Natuurkunde 1, 34, p. 1-328.
(online at: https://dwc.knaw.nl/DL/publications/PU00011017.pdf)
(Key publication on taxonomy and distribution of Miocene- Recent deep water benthic foraminifera in E Indonesia, based mainly Recent seafloor sediments collected during the 1984-1985 Indonesian-Dutch Snellius II Expedition across basins of Eastern Indonesia, and Neogene ourcrop sediments from associated land expeditions)

Van Marle, L.J., J.E.van Hinte & A.J. Nederbragt (1987)- Plankton percentage of the foraminiferal fauna in seafloor samples from the Australian-Irian Jaya continental margin, Eastern Indonesia. Marine Geology 77, p. 151-156.
(Plankton percentage of foram fauna in 36 seafloor samples between 40-2119m depth from Australian-Irian Jaya continental margin increases with water depth. Percentage- Depth Transform derived from data set. Examples: around 100m water depth plankton% ~50%, below 500m >90%)

Van Steenis, C.G.G.J. (1934)- On the origin of the Malaysian mountain flora, part 1, Facts and statements of the problem. Bull. Jardin Botanique Buitenzorg, ser. 3, 13, p. 135-262.
(On distribution and origin of recent SE Asian mountain plants)

Van Steenis, C.G.G.J. (1935)- On the origin of the Malaysian mountain flora, part 2, Altitudinal zones, general consideration and renewed statement of the problem. Bull. Jardin Botanique Buitenzorg, ser. 3, 13, p. 289-290.

Van Steenis, C.G.G.J. (1936)- On the origin of the Malaysian mountain flora, part 3, Analysis of floristical relationships. Bull. Jardin Botanique Buitenzorg, ser. 3, 14, p. 56-72.
(Malesian (= Indonesian) mountain flora reached Indonesian archipelago along three migration routes, called Sumatra, Luzon and Papuan tracks)

Van Steenis, C.G.G.J. (1948)- Hoofdlijnen van de plantengeografie van de Indische archipel op grond van de verspreiding van de Phanerogamen geslachten. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2) 65, p. 193-208.
('The main lines of the plant geography of the Indies Archipelago based on the distribution of Phanerogams (seed plants) genera')

Van Steenis, C.G.G.J. (1950)- The delimitation of Malaysia and its main plant geographical divisions. Flora Malesiana, Ser. I, 1, p.
(see also Raes & Van Welzen, 2009)

Van Steenis, C.G.G.J. (1972)- The mountain flora of Java. E.J.Brill, Leiden, p. 1-89.
(online at: https://bsi.gov.in/uploads/userfiles/file/Rare%20Books/The%20Mountain%20Folra%20Of%20Java.pdf)
(Elegant review of modern Java mountain floras, with useful introductions on the volcanic mountain environments, climate, forest types and the works of early Java botanists, like Horsfield, Reinwardt, Kuhl & Van Hasselt, Blume, Junghuhn, Zollinger, Treub, Docters van Leeuwen, etc. Significant difference between flora of W and E Java due to different climates, i.e. everwet in W Java (allowing for richer flora), seasonal dry in E part)

Van Steenis, C.G.G.J. (1979)- Plant-geography of East Malesia. Botanical J. Linnean Society 79, 2, p. 97-178.
(Modern plant distribution in E Indonesian archipelago (Lesser Sunda Islands; not Malaysia). Two main contacts between Malesian (Indonesian) and Australian floras must have occurred, (1) in Upper Cretaceous- Paleocene or earlier, and (2) before End-Miocene (abundant influx of Asian elements into Australian flora))

Van Waveren, I. (1989)- Pattern analysis of organic component abundances from deltaic and open marine deposits: palynofacies distribution (East Java, Indonesia). In: J.E. van Hinte et al. (eds.) Proc. Snellius II Symposium, Jakarta 1987, Netherlands J. of Sea Research 23, 4, p. 441-447.

(Eleven types of organic debris types in sea floor samples from Java Sea, off Solo River Delta, Porong Delta, etc. Mix of open marine (foraminifera, dinoflagellates) and land-derived material (spores-pollen, etc.))

Van Waveren, I. (1989)- Palynofacies analysis of surface sediments from the Northeastern Banda Sea (Indonesia). Proc. Snellius II Symposium, Jakarta 1987, Netherlands J. of Sea Research 24, 4, p. 501-509.
(Analysis of organic matter types in 31 deep water sea floor samples E of Seram)

Van Waveren, I. (1993)- Planktonic organic matter in surficial sediments of the Banda Sea (Indonesia); a palynological approach. Ph.D. Thesis University of Utrecht, Geologica Ultraiectina 104, p. 1-237.
(online at: https://dspace.library.uu.nl/handle/1874/274671)
(Collection of seven publications, six of which deal with Recent Banda Sea palynomorphs, organic matter, tintinnomorphs and dinoflagellate cysts)

Van Waveren, I. (1994)- Tintinnomorphs from deep-sea sediments of the Banda Sea (Indonesia). Scripta Geologica 105, p. 27-51.
(online at: https://repository.naturalis.nl/pub/317483)
(64 types of chitinous remains of tintinnomorph protozoans in (sub-)Recent sediments of Banda Sea. Presence and preservation may be related to effects of high productivity and high sedimentation rates in Banda Sea)

Van Waveren, I. & H. Visscher (1994)- Analysis of the composition and selective preservation of organic matter in surficial deep-sea sediments from a high-productivity area (Banda Sea, Indonesia). Palaeogeogr. Palaeoclim. Palaeoecology 112, 1-2, p. 85-111.
(online at: https://www.researchgate.net/publication/229095304_Analysis_of_the_composition_and_selective_preservation_of_organic_matter_in_surficial_deep-sea_sediments_from_a_highproductivity_area_Banda_Sea)
(Palynological analysis of box-core samples from deep-sea sediments along three transects in Banda Sea)

Van Zeist, W. (1984)- The prospect of palynology for the study of prehistoric man in Southeast Asia. Modern Quaternary Research in Southeast Asia 8, Balkema, Rotterdam, p. 1-15.
(Early review of use of palynology to identify paleo-vegetational changes in Quaternary sediments of Indonesia, with examples from Java, Sumatra, PNG)

Van Zeist, W., N.A. Polhaupessy & I.M. Stuijts (1979)- Two pollen diagrams from West Java, a preliminary report. Modern Quaternary Research in Southeast Asia 5, Balkema, Rotterdam, p. 43-56.
(Palynology of two shallow core holes in Holocene lake deposits at Situ Gunung and Telaga Patengan, SW Java)

Varol, O. (1985)- Distribution of calcareous nannoplankton in surface sediments from intertidal and shallow marine regimes of a marginal sea: Jason Bay, South China Sea. Marine Micropaleontology 9, p. 369-374.
(Sediments collected from intertidal and shallow marine (0-20m) parts of Jason Bay, S China Sea contain calcareous nannoplankton assemblages with 99% Gephyrocapsa oceanica and rare Helicosphaera carteri, Umbilicosphaera sibogae, Scapholithus fossilis, Cyclococcolithus leptoporus, Syracosphaera pulchrae. Nannoplankton species abundance increases with depth, becoming abundant below ~20m)

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(online at: https://babel.hathitrust.org/cgi/pt?id=umn.31951002700313r&seq=513)
('Ostrocodes from Sumatra, Java, Thailand, the Hawai islands and Japan (journey of Dr. Walter Voltz)'. On Recent fresh-water ostracodes from swamps, lakes of these areas. With two plates)

Verheij, E. & P.L.A. Erftemeijer (1993)- Distribution of seagrasses and associated macroalgae in South Sulawesi, Indonesia. Blumea: Biodiversity, Evolution and Biogeography of Plants, 38, 1, p. 45-64.
(online at: https://repository.naturalis.nl/pub/524525/BLUM1993038001005.pdf)
(Eleven seagrass species found in Spermonde Archipelago, off South Sulawesi)

Victor, R. & C.H. Fernando (1979)- On some freshwater ostracod type specimens from Indonesia. Canadian Journal of Zoology 57, 1, p. 6-12.
(Re-description of some modern freshwater ostracod species from Sulawesi and Sumatra, originally described by Moniez (1892) (Strandesia, Hemicyprus, Cypretta))

Victor, R. & C.H. Fernando (1981)- Freshwater ostracods (Crustacea: Ostracoda) of the subfamily Cyprinotinae Bronstein, 1947 from Malaysia, Indonesia and the Philippines. Hydrobiologia 83, 1, p. 11-27.
(Recent Cyprinotus, Hemicypris and Heterocypris from ponds in W Indonesia, etc.)

Villain, J.M. (1995)- Modeles micropaleontologiques recents et stratigraphie sequentielle en Indonesie. In: M. Gayet et al. (eds.) First European Palaeontological Congress, Lyon 1993, Geobios, Memoire Special 18, p. 409-423.
('Recent micropaleontological models and sequence stratigraphy in Indonesia'. Foraminifera distribution on E Kalimantan shelf between Mahakam delta and Makassar Strait. Deltaic assemblages arranged according to salinity. Inner shelf with larger Rotaliidae towards euryhaline conditions. Operculina typical of shallow marine low-oxygen organic-rich clays; coarser seafloor rich in oxygen with Amphisteginids. Nodosariidae and planktonics bathymetric markers on slope. In bathyal areas mostly agglutinants. Model above valid only for highstand situations, comparable to present day. Sediments deposited during last lowstand period cored and correlated. Shelf microfaunas thin-walled, due to low oxygen and low carbonate concentrations; Rotaliidae indicate low salinities at shelf edge, where they coexist with Operculina and Amphistegina, close to deeper facies with planktonics, Buliminidae and Nodosariidae)

Von Martens, E. (1897)- Suss- und Brackwasser-Mollusken des Indischen Archipels. In: M. Weber (ed.), Zoologische Ergebnisse einer Reise in Niederlandisch Ost-Indien herausgegeben von Dr. Max Weber. Vierter Band, E.J. Brill, Leiden, p. 1-331.
(online at: https://www.zobodat.at/pdf/MON-Z-DIV_0063_0001-0453.pdf)
('Fresh- and brackish water molluscs of the Netherlands Indies Archipelago'. Described by German zoologist from Berlin, Prof. Eduard von Martens. Specimens presumably collected by Dr. Max Weber)

Vozenin-Serra, C. & C. Prive-Gill (1991)- Les terrasses alluviales pleistocenes du Mekong (Cambodge). I. Bois silicifies homoxyles recoltes entre Stung-Treng et Snoul. Review Palaeobotany Palynology 67, 1/2, p. 115-132.
('The Pleistocene alluvial terraces of the Mekong (Cambodia), I. Homoxyxl silified woods collected between Stung-Treng et Snoul'. Numerous wood remains from '+40m' Mekong Pleistocene terraces (Araucarioxylon spp., etc.))

Vozenin-Serra, C. & C. Prive-Gill (1991)- Les terrasses alluviales pleistocenes du Mekong (Cambodge). II. Bois silicifies heteroxyles recoltes entre Stung-Treng et Snoul. Review Palaeobotany Palynology 68, 1/2, p. 87-117.
('The Pleistocene alluvial terraces of the Mekong (Cambodia), II. Heteroxyxl silified woods collected between Stung-Treng et Snoul')

Vyverman, W. (1991)- Diatoms from Papua New Guinea. Bibliotheca Diatomologica 22, p. 1-224.
(Recent diatoms from lakes, etc., in PNG)

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Wagey, G.A. (2002)- Ecology and physiology of phytoplankton in Ambon Bay, Indonesia. Ph.D. Thesis University of British Columbia, p. 1-185.
(105 phytoplankton species identified from Ambon Bay, including several dinoflagellates new to Indonesia)

Waller, H.O. (1960)- Foraminiferal biofacies off the South China Coast. Journal of Paleontology 34, 6, p. 1164-1182.

(Benthic foraminifera from shelf S of Taiwan and in Gulf of Tonkin. Four depth-related faunas: (1) Inner Shelf (65-150') Elphidium advenum, E. sagrum, Nonion japonius, Quinqueloculina; (2) C Shelf (151-275') Amphistegina lessonii, Hanzawaia nipponica, Streblus tepidus, Operculina bartschi; (3) Outer Shelf (276-400') Biloculinella labiata, Cassidulina neocarinata, Spiroloculina communis; (4) U Bathyal (401-656') Bolivina spathylata, Uvigerina auberiana, U. schwageri)

Wang, P. & J. Chappell (2001)- Foraminifera as Holocene environmental indicators in the South Alligator River, Northern Australia. Quaternary International 83-85, p. 47-62.
(Trends in foraminifera assemblages along 80 km length of macrotidal river E of Darwin, N coast of Australia. Due to tidal transport and resuspension, most foraminiferal thanatocoenoses in river contain many small marine forms, while % of large and heavy marine forams, like Quinqueloculina, decreases upstream)

Wang, P. & C. Samtleben (1983)- Calcareous nannoplankton in surface sediments of the East China Sea. Marine Micropaleontology 8, p. 249-259.
(28 species of coccoliths in surface sediments of East China Sea. Emiliania huxleyi and Gephyrocapsa oceanica together >90% of assemblages. Coccoliths very rare in water depths <50m). Coccolith species composition different between continental shelf and Okinawa Trough, reflecting different water masses)

Wang, R., A. Abelmann, B. Li & Q. Zhao (2000)- Abrupt variations of the radiolarian fauna at Mid-Pleistocene climate transition in the South China Sea. Chinese Science Bull. 45, 10, p. 952-955.
(Core 17957-2 from S China Sea shows distinct changes in radiolarian/foraminfera ratio and radiolarian assemblages that can be related to global climate cooling observed at M Pleistocene climate revolution at ~900 ka)

Wang, X., S. van der Kaars, P.P. Kershaw, M.I. Bird & F.A. Jansen (1999)- A record of fire, vegetation and climate through the last three glacial cycles from Lombok Ridge Core G6-4, Eastern Indian Ocean, Indonesia. Palaeogeogr. Palaeoclim. Palaeoecology 147, 3-4, p. 241-256.
(Deepsea core SW of Sumba with ~300,000 yr sediment record)

Watson, K.A. (1988)- The taxonomy and distribution of Recent reef Ostracoda from the Pulau Seribu, Java Sea. Doct. Dissertation, University of Wales, Aberystwyth, p. 1-434. *(Unpublished)*

Weber, M., (1902)- Der Indo-Australische Archipel und die Geschichte seiner Tierwelt. Summary of a presentation in Karslbald, 22 September 1902, Gustav Fisher Verlag, Jena, p. 1-46.
('The Indo-Australian Archipelago and the history of its animal world'. Intereseting early views on historcal geology and animal life in the Indonesian Archipelago. Calls Wallace's Line 'fiction, correctly characterizes Mesozoic radiolarian cherts as oceanic deposits, observed wide distribution of Triassic and Jurassic seas, etc.))

Weber- van Bosse, A. & M. Foslie (1904)- The Corallinaceae of the Siboga Expedition. In: M. Weber (ed.) Siboga Expeditie, Uitkomsten op zoologisch, botanisch, oceanographisch en geologisch gebied verzameld in Nederlandsch Oost-Indie 1899-1900, Monographie 61, Brill, Leiden, p. 1-110.
(Monograph on Recent marine coralline red algae collected by Siboga Expedition in 1899-1900. Lithothamnium group present at 55 stations, invariably in areas of strong tidal or other currents, thriving best from 10-30m, but also present on reef flats and deeper water down to ~120m)

Weber- van Bosse, A. (1932)- Resultats scientifiques du voyage aux Index Orientales Neerlandaises de LL. AA. RR. le Prince et la Princesse Leopold de Belgique, vol. 6, 1, Algues. Memoires Musee Royal d'histoire naturelle de Belgique, Brussels, Hors serie, p. 1-27.
(online at: https://ia601300.us.archive.org/14/items/resultatsscienti61stra/resultatsscienti61stra.pdf)
('Scientific results of the voyage of Prince and Princess Leopold of Belgium to the East Indies, vol. 6, 1, Algae'. Rel. brief report on Recent calcareous algae from localities across Indonesia)

Weinmann, A.E., D. Rodder, S. Lotters & M.R. Langer (2013)- Heading for new shores: projecting marine distribution ranges of selected larger foraminifera. PLoS One 8, 4, e62182, p. 1-14.

(online at: https://journals.plos.org/plosone/article/file?id=10.1371/journal.pone.0062182&type=printable)
(Modern symbiont-bearing larger foraminifera confined to tropical and subtropical shallow marine habitats, mainly between 30°N and 30°S) and minimum T limits e governed by 14-20°C isotherms. During times of extensive global warming (Eocene, Miocene), larger foraminifera found as far N as 50°N and 47°S (New Zealand). Species distribution models for Archaias angulatus, Calcarina spp., and Amphistegina spp. Amphistegina spp. widest potential distribution (T tolerance). Calcarina most tolerant to high T)

Wells, P., G. Wells, J. Calli & A. Chivas (1994)- Response of deep sea benthonic foraminifera to Late Quaternary climate changes, SE Indian Ocean, offshore Western Australia. Marine Micropaleontology 23, p. 185-229.
(Late Quaternary benthic foraminifera of four ODP 122 deep-sea cores off W Australia with two main assemblages (1) dominated by Uvigerina peregrina, (2) dominated by U. proboscidea. Episodes of high influx of particulate organic matter during glacial episodes, tied to upwelling episodes and to unusually low sea-surface paleotemperature indicated by planktic foraminifera)

Whatley, R.C. & R. Titterton (1981)- Some new Recent podocopid Ostracoda from the Solomon Islands, South-West Pacific. Revista Espanola Micropaleontologia 13, p. 157-170.

Whatley, R.C. & K. Watson (1988)- A preliminary account of the distribution of ostracoda in Recent reef and reef associated environments in the Pulau Seribu or Thousand Island Group, Java Sea. In: T. Hanai et al. (eds.) Evolutionary biology of ostracoda: its fundamentals and applications, Proc. 9th Int. Symposium on Ostracoda, Shizuoka, Elsevier, Developments in Palaeontology and Stratigraphy 11, p. 399-411.
(Samples on and around reef complex of Pulau Pari, Pulau Seribu, Java Sea, yielded 141 species of podocopid and platycopid Ostra coda. Bairdiidae maximum diversity on reef, Renaudcypris and Hansacypris mainly in intertidal zone. Loxoconcha, Xestoleberis and Ornatoleberis wider environmental tolerance)

Whatley, R.C. & Q. Zhao (1987)- Recent ostracoda of Malacca Straits (Part I). Revista Espanola Micropaleontologia 19, 3, p. 327-366.
(18 bottom samples of modern sediments from Malacca Straits over depth range of 10-100m contain 129 species of ostracodes (22 new). Faunas close affinity to South China Sea and Indonesia)

Whatley, R.C. & Q. Zhao (1988)- Recent ostracoda of Malacca Straits (Part II). Revista Espanola Micropaleontologia 20, 1, p. 5-37.

Whittaker, J.E. & R.L. Hodgkinson (1995)- The foraminifera of the Pitcairn Islands. In: T.G. Benton & T. Spencer (eds.) Pitcairn Islands: biogeography, ecology and prehistory, Biol. J. Linnean Society 56, p. 365-371.
(Recent foraminifera from Pitcairn Islands, Pacific Ocean. Living forams almost exclusively from phytal (attached or clinging) habitats. Foraminifera in sediment samples mainly thanatocoenoses. Fauna all calcareous, low diversity, dominated by large soritids (Marginopora, Amphisorus, Sorites) and Amphistegina, with small miliolids and small attached genera (discorbids, etc.). Apparent absence of Calcarina, small rotaliids, elphidiids and agglutinating species, common in W Pacific islands)

Wicaksono, S.A., J.M. Russell & S. Bijaksana (2015)- Compound-specific carbon isotope records of vegetation and hydrologic change in central Sulawesi, Indonesia, since 53,000 yr BP. Palaeogeogr. Palaeoclim. Palaeoecology 430, p. 47-56.
(Carbon isotopic composition (δ13C) of terrestrial leaf waxes in sediment cores from Lake Matano spanning 53 kyr. During Marine Isotope Stages 1 and 3, more negative δ13Cwax values indicate closed-canopy rainforests dominated in Sulawesi, in wetter, less seasonal climate. More abundant open canopy vegetation and possible expansion of C4 grasses between 29-14 ka BP, indicating more arid climate in Marine Isotope Stage 2 (incl. Last Glacial Maximum). Higher elevations maintain rainforest refugia during regionally arid time intervals when C4 savannas and grasslands expanded at lower elevations)

Wijono, S. (1991)- Distribusi foraminifera bentonik di daerah peraian P. Papateo, Kepulauan Seribu, Laut Jawa. Media Teknik (UGM) 13, 2, p. 119-131.

'Distribution of benthic foraminifera off Papateo Island, Pulau Seribu, Java Sea'. Forams from 18 samples from 21-30m depth)

Winantris (2011)- Fungal spore sedimen Resen delta front delta Mahakam Kalimantan Timur. Bull. Scientific Contribution (UNPAD) 9, 2, p. 107-120.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8267/3814)
('Fungal spores in Recent sediments of the Mahakam delta from, East Kalimantan'. Terrestrial and marine fungal spores present in delta front sediments, incl. Monoporisporites, Inapertisporites, Biporipsilonites)

Winantris (2012)- Kelimpahan polen dan spora endapan channel Delta Mahakam. Bull. Scientific Contribution (UNPAD) 10, 2, p. 89-95.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8280/3827)
('Abundance of pollen and spores in channels deposits of the Mahakam Delta'. Abundance of pollen higher in tidal channel deposits than in distributary channels. Oncosperma tigillarium and Nypa fruticans palmae pollen dominate in distributary channels, Rhizophora and Avicennia mangrove pollen dominant in tidal channels)

Winantris & L. Jurnaliah (2018)- Pollen and foraminifera approaches to identify sediment sources in the river mouth Mahakam, East Kalimantan. J. Geoscience Engineering Environment Technology (JGEET) 2, 4, p. 242-248.
(online at: http://journal.uir.ac.id/index.php/JGEET/article/view/689/627)
(Shallow core from Mahakam River before delta plain. Common pollen (incl. mangrove), rel. rare, simple foraminifera (Oolina, Ramulina, Stictogongylus vandiemenensis, etc.))

Winantris, A. Sudradjat, I. Syafri & A.T.Rahardjo (2014)- Diversitas polen Palmae pada endapan delta Mahakam Resen. Proc. 43rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, PIT IAGI 2014-195, p. 1-5.
(online at: https://www.iagi.or.id/web/digital/6/2014_IAGI_Jakarta_Diversitas-Polen-Palmae.pdf)
('Diversity of Palmae pollen in Recent deposits of the Mahakam Delta'. Sediments of Mahakam Delta contain 28 palm pollen species in delta plain, 23 in delta front. Palm pollen can help differentiate between delta plain and delta front facies: (1) delta plain dominated by Oncosperma tiggilarium, Nypa fruticans, Eugessona insignis, Pinanga parvula and Cocos nucifera; (2) delta front dominated by Oncosperma tiggilarium, Nypa fruticans, Eugessona insignis, Phoenix paludosa and Licuala sp. Palm pollen abundance nearly 4x greater in delta plain than in delta front, also higher diversity)

Winantris, I. Syafri & A.T. Rahardjo (2012)- *Oncosperma tigillarium* merupakan bagian palino karakter delta plain di Delta Mahakam, Kalimantan. Bionatura-Jurnal Ilmu-ilmu Hayati dan Fisik 14, 3, p. 228-236.
(online at: http://jurnal.unpad.ac.id/bionatura/article/viewFile/7465/3426)
('Oncosperma tigillarium is part of palyno character of delta plain in Mahakam Delta, Kalimantan'. O. tigillarium pollen of coastal palm tree widespread in Recent delta plain samples, but absent in delta front, therefore good indicator of (upper) delta plain environment)

Woodroffe, S.A., B.P. Horton, P. Larcombe & J.E. Whittaker (2005)- Intertidal mangrove foraminifera from the central Great Barrier Reef shelf, Australia: implications for sea-level reconstruction. J. Foraminiferal Research 35, 3, p. 259-270.
(Foraminifera distribution in intertidal zone tied to elevation. Agglutinated foram assemblage of Miliammina fusca, Trochammina inflata, Ammotium and Haplophragmoides between just above Mean Low Water of Neap Tides to Highest Astronomical Tide level (vertical range 1.8 m). Ammonia aoteana- dominated assemblage between just below Mean Low Water of Neap Tides and Mean High Water of Neap Tides (vertical range 0.8 m))

Wu, R., Y. Gao, Q. Fang, C. Chen, B. Lan, L. Sun & D. Lan (2013)- Diatom assemblages in surface sediments from the South China Sea as environmental indicators. Chinese J. Oceanology Limnology 31, 1, p. 31-45.
(online at: http://dspace.xmu.edu.cn/bitstream/handle/2288/53977/Diatom_assemblages_in_surface_sediments_from_the_South_China_Sea_as_environmental_indicators.pdf)

(Diatoms in 62 surface sediment samples from depths from 101-4185m. 256 species, dominated by Coscinodiscus africanus, Coscinodiscus nodulifer, Cyclotella stylorum, Hemidiscus cuneiformis, Melosira sulcata, Nitzschia marina, Roperia tesselata, Thalassionema nitzschioides, etc. Seven zones)

Xu, J., P. Wang, B. Huang, Q. Li & Z. Jian (2005)- Response of planktonic foraminifera to glacial cycles: Mid-Pleistocene change in the southern South China Sea. Marine Micropaleontology 54, p. 89-105.
(online at: https://pxwang.tongji.edu.cn/__local/6/CE/0A/8C788E7E7091548CC36EC244794_3E Etc.)
(Planktonic foraminifera from ODP Site 1143 in S South China Sea show faunal response to glacial cycles in last 2.1 Ma. Globorotalia menardii rel. abundant in interglacials and low in glacials. Pulleniatina obliquiloculata low latitude species, relatively abundant during glacials and low during interglacials after ~850 ka)

Yahya, K., S. Shuib, F.I. Minhat, O. Ahmad & A. Talib (2014)- The distribution of benthic foraminiferal assemblages in the north-west coastal region of Malacca Straits, Malaysia. J. Coastal Life Medicine 2, 10, p. 784-790.
(online at: www.jclmm.com/qk/201410/5.pdf)
(Benthic foram assemblages from shallow marine environments around NW Penang island dominated by Ammonia (~80% of fauna), followed by Elphidium (~3%). Rare agglutinated taxa and Bolivina)

Yakzan, A.M., S. Jirin, S.S.M. Shah & R.J. Morley (2010)- The major trends of palynomorphs distribution in three fluvial systems, Peninsular Malaysia. Proc. Petroleum Geology Conference Exhibition (PGCE), Kuala Lumpur 2010, p. *(Extended Abstract)*
(Palynomorph distribution patterns in three fluvial systems on W (Klang-Langat River) and E (Pahang and Sedili Besar Rivers) coasts of Peninsular Malaysia. Ecological groups. mangrove (Rhizophora), back mangrove (Acrostichum, Nypa) and hinterland pollen. Pollen and spores redistributed by currents and less by wind. Sediments in offshore area contain pollen signals which approximately mirror vegetation character onshore)

Yakzan, A.M. & H. Kamaludin (2010)- Palynology of late Quaternary coastal sediments. Catena 30, 4, p. 391-406.
(Palynology of Late Pleistocene sediments from Pantai tin mine, W coast of Malay Peninsula, with freshwater Pandanus peat overlain by mangrove peat)

Yanagisawa, Y. (1987)- Age assignments of dredge and piston core samples based on diatom biostratigraphy. Coord. Comm. Joint Prospecting Mineral Resources in Asian Offshore Areas, CCOP, Technical Bull. 19, p. 73-87.
(online at: https://ncloud.dotdream.co.th/index.php/s/xCwHAtAFYxzBtC9)
(Latest Pliocene- Recent ages for sediments in piston cores from forearc area offshore E Java)

Yassini, I., B.G. Jones & M.R. Jones (1993)- Ostracods from the Gulf of Carpentaria, northeastern Australia. Senckenbergiana Lethaea 73, p. 375-406.

Yau, M.W.C. (1973)- Studies of the Recent foraminifera of the Sunda Shelf and the Java Sea. M.A. Thesis Rice University, Houston, p.
(online at: https://scholarship.rice.edu/handle/1911/104182)
(Foraminiferal assemblages on Sunda Shelf and Java Sea: (1) Inner shelf with Amphistegina radiata, Calcarina spengleri, Elphidium crispum, Operculina ammonoides and Quinqueloculina; (2) Central shelf Quinqueloculine-Rotalia spp., Asterorotalia trispinosa and Elphidium craticulatum (3) Outer shelf with Bolivina, Bulimina, Uvigerina spp., Cancris auriculus, etc. (4 l)ower middle bathyal with Bolivina-Uvigerina spp., Cassidulina subglobosa. High diversity correlates with possible relict assemblagesat lower sea-level)

Yin, J., C. Liu, J. Zhang, X. Yang, J. Wu, W. Oschmann, F.T. Fursich, B. Zhu & H. Zhang (2018)- Distribution and constraining factors of planktonic and benthic foraminifers in bottom sediments of the southern South China Sea. Palaeogeogr. Palaeoclim. Palaeoecology 502, p. 130-146.
(Water depth dominant factor controling foram assemblage composition and δ18O. Differences in proportion of agglutinated and porcelaneous tests in shallow-water zone controlled by terrestrial runoff from nearby river

systems (Mekong and N Borneo rivers) and seasonal currents. Dominance of Melonis barleeanus at sites of active cold methane seepage in southern SCS)

Yordanova, E.K. & J. Hohenegger (2004)- Morphocoenoclines of living operculinid foraminifera. Micropaleontology 50, p. 149-177.
(Relations between water depth and shape in Operculina, Planoperculina and Planostegina in Ryuku islands. Thick Operculina with intensively coiled spirals predominate in shallow water (20 -40m); in deep euphotic zone (−120m) thin forms with weakly coiled spiral. Thin Planoperculina heterosteginoides restricted to deep euphotic zone (>80m) can extend distribution to just below euphotic zone, where it develops very thin tests)

Yulianto, E., A.T. Rahardjo, Dardji Noeradi, D.A. Siregar & K. Hirakawa (2005)- A Holocene pollen record of vegetation and coastal environmental changes in the coastal swamp forest at Batulicin, South Kalimantan, Indonesia. J. Asian Earth Sciences 25, 1, p. 1-8.
(Pollen analysis of coastal peat swamp core at Batulicin, SE Kalimantan, representing 9100 BP, showing Rhizophora mangrove forest since early Holocene. From ~6000 BP gradual change from mangrove forest to peat swamp forest due to higher precipitation and progradation. Human influence recognized from ~1600 BP)

Yulianto, E. & W.S. Sukapti (1998)- Perubahan iklim selama rentang Plistosen atas hingga Holosen di Indonesia berdasarkan rekaman data palinologi. Proc. 27th Annual Conv. Indonesian Association Geologists (IAGI), 2 (Sedimentology Paleontology Stratigraphy), Yogyakarta, p. 66-71.
(online at: https://www.iagi.or.id/web/digital/56/33.pdf)
('Late Pleistocene-Holocene climate change in Indonesia based on palynological data records')

Yulianto, E., W.S. Sukapti & K.T. Dewi (2019)- Late Holocene pollen record of environmental changes in Karimata Strait, Sunda Shelf region. Indonesian J. on Geoscience (IJOG) 6, 1, p. 41-55.
(online at: http://ijog.bgl.esdm.go.id/index.php/IJOG/article/view/291/277)
(Pollen analysis on 90 cm gravity core taken from Karimata Strait, 170km NW of Bangka, reveals Late Holocene environmental changes in central Sunda Shelf region. Deposition of core started at 1800 yr BP, with 50-70% mangrove pollen. Surrounding mangroves terminated by catastrophic event, possibly 535 AD Krakatau eruption)

Yulianto, E., W.S. Sukapti & Praptisih (2019)- Perubahan lingkungan dan evolusi mangrove di Pulau Belitung selama Holosen akhir berdasarkan Rekaman Polen. J. Geologi Kelautan 17, 2, p. 123-139.
(online at: http://ejournal.mgi.esdm.go.id/ejournal/index.php/jgk/article/view/578)
('Pollen record of Late Holocene environmental changes and mangrove evolution from Belitung Island, Indonesia'. Palynology data reflects coastal progradation in last ca.1500 years in N Belitung. Brief changes may be interpreted as 535-536 AD and 1883 AD Krakatau tsunamis)

Yulianto, E., W.S. Sukapti, A.T. Rahardjo, Dardji Noeradi, D.A. Siregar, P. Suparan & K. Hirakawa (2004)- Mangrove shoreline responses to Holocene environmental change, Makassar Strait, Indonesia. Review Palaeobotany Palynology 131, p. 251-268.
(Pollen analyses of two near-coastal sites at Batulicin, S Kalimantan and Pare-Pare, S Sulawesi. Mangroves developed at Batulicin in mid-Holocene, persisting to present at Batulicin. Mangrove development commenced at Pare-Pare in early Holocene, but since mid Holocene fluvial/floodplain deposition)

Zallesa, S., K.T. Dewi, N.C.D. Aryanto & R. Rahardiawan (2014)- The correlation between benthic foraminifera and sediment types of South Makassar Strait. Bulletin of the Marine Geology 29, 2, p. 53-59.
(online at: http://ejournal.mgi.esdm.go.id/index.php/bomg/article/view/65/66)
(Core top samples from water depths 200-1500m in S Makassar Straits with 38 species of benthic foraminifera. Most common species Anomalinoides colligerus, Lenticulina suborbicularis, Planulina wuellerstorfi, Pseudonodosaria discrete, Bolivina spathulata. Highest abundance of benthic foraminifera in silty sand and sandy silt)

Zamoras, L.R. & P.J. Militante-Matias (1997)- Recent Foraminifera of Matabungkay and Talim Bays, Batangas. J. Geological Society of the Philippines 52, 2, p.

Zhang, P., R. Zuraida, Y. Rosenthal, A. Holbourn, W. Kuhnt & J. Xu (2019)- Geochemical characteristics from tests of four modern planktonic foraminiferal species in the Indonesian Throughflow region and their implications. Geoscience Frontiers 10, 2, p. 505-516.
(online at: https://www.sciencedirect.com/science/article/pii/S1674987118300471)
(d18O and Mg/Ca of Globigerinoides ruber, Gs sacculifer, Pulleniatina obliquiloculata and Neogloboquadrina dutertrei from 60 coretop sediment samples from Indonesian Throughflow region suggest calcification within mixed layer for G. ruber (0-50m) and G. sacculifer (20-75 m), and within thermocline (~75-125m) for P. obliquiloculata and N. dutertrei)

Zhao, Q. & P. Wang (1988)- Distribution of modern ostracoda in the shelf seas off China. In: T. Hanai et al. (eds.) Evolutionary biology of ostracoda: its fundamentals and applications, Proc. 9th International Symposium on Ostracoda, Shizuoka 1985, Elsevier, Developments in Palaeontology and Stratigraphy 11, p. 805-821.

Zhao, Q. & R.C. Whatley (1989)- Recent podocopid Ostracoda of the Sedili River and Jason Bay, southeastern Malay Peninsula. Micropaleontology 35, p. 168-187.
(Distribution of ostracodes in Jason Bay, off SE coast of Malay Peninsula. 101 species recorded. Dead assemblages higher diversity than live assemblages, due to postmortem transportation. One new genus and 13 new species. Freshwater Sedili River only two species (Darwinula stephensoni, ?Cytherissa.), in brackish estuary 4 species (Sinocythere superba, Hemicytheridea reticulata, Keijella multisulcus, Neocytherideis sp.) Forty-eight species live in open sea, most common: Atjehella semiplicata, Cushmanidea subjaponica, Hemicytheridea spp., Javanella kendengensis, Neomonoceratina delicata, Parakrithella pseudadonta, etc.)

Zhao, Q. & R.C. Whatley (1997)- Distribution of the ostracod genera *Krithe* and *Parakrithe* in bottom sediments of the East China and Yellow Seas. Marine Micropaleontology 32, 1, p. 195-207.
(Distribution closely linked to water masses)

Zheng, S.Y. (1979)- The Recent foraminifera of the Xisha Islands, Guangdong Province, China, Part II. Studia Marina Sinica 15, p. 101-232. *(In Chinese with English summary)*

Zheng, S.Y. (1980)- The Recent foraminifera of the Zhongsha Islands, Guangdong Province, China, Part I. Studia Marina Sinica 16, p. 143-182. *(In Chinese with English summary)*

Zhou, B. (1995)- Recent ostracode fauna in the Pacific off Southwest Japan. Memoirs Faculty of Science, Kyoto University, Ser. Geology and Mineralogy 57, 2, p. 21-98.
(online at: http://repository.kulib.kyoto-u.ac.jp/dspace/bitstream/2433/186675/1/mfskugm%20057002_021.pdf)

Zhou, B. & Q. Zhao (1999)- Allochthonous ostracods in the South China Sea and their significance in indicating downslope sediment contamination. Marine Geology 156, p. 187-195.
(Modern distribution pattern of allochthonous ostracods in South China Sea: limited to continental shelf and slope, and around reef islands, suggesting ostracod shells did not travel far from source areas. Turbidites probably principal agent responsible for downslope transport of ostracods)

Zobel, B. (1978)- Deep-water Quaternary foraminifera from short cores taken between Australia and southeast Indonesia. BMR J. Australian Geology Geophysics 3, p. 345-349.
(online at: www.ga.gov.au/corporate_data/80976/Jou1978_v3_n4_p345.pdf)
(Twenty short cores from N Scott Plateau (water depths ~3200 m) and S slope of the Java Trench (4950-5790m) taken by R.V. Valdivia. 55 species of benthic foraminifera identified on plateau, less in trench (incl. Eggerela bradyi, Kareriella bradyi, Bulimina spp, Sphaeroidina bulloides, Cibicides wuellerstorfi, Globocassidulina, Gyroidinoides, Melonis pompilioides, Oridorsalis tener, etc. Only deep-water forms. Planktonic foraminifera belong to tropical associations. Holocene-Pleistocene boundary at ~60 cm in cores, and carbonate solution more marked above than below boundary)

Zong, Y. & B.H. Kamaludin (2004)- Diatom assemblages from two mangrove tidal flats in Peninsular Malaysia. Diatom Research 19, p. 329-344.

XI.2. Quaternary Hominids and Mammals, Archeology

N.B. See also references to related Quaternary mammals-hominids assemblages from Thailand, Myanmar, South China and Malay Peninsula in Volume 2.III.1.

Abdurahman, O., U.P. Wibowo, A. Zaennudin, M. Thamrin & J. Arif (2020)- M. Thamrin- Sang pemburu fosil dari Cirebon (dilengkapi dengan geologi dan koleksi fosil). Badan Geologi, Bandung, p. 1-119.
(online at: https://geologi.esdm.go.id/publikasi/laporan-dan-buku/m-thamrin-sang-pemburu-fosil-dari-cirebon-dilengkapi-dengan-geologi-dan-koleksi-fosil)
('M. Thamrin- The fossil hunter from Cirebon (with geology and fossil collections)'. Book about Javanese amateur fossil collector M. Thamrin and his Pleistocene mammal collections from 40 years of fossil hunting in the Cirebon area, W Java)

Adhityatama, S., R.R. Triwurjani, D. Yurnaldi, R. Janssen, M.D.K. Dhony, Suryatman et al. (2022)- Pulau Ampat site: a submerged 8th century iron production village in Matano Lake, South Sulawesi, Indonesia. Archaeological Research in Asia 19, 100335, p. 1-11.
(Population of Indonesia grew dramatically after discovery of iron sources and use of iron tools. Pamor Luwu iron used by Java's 13th-15th century Majapahit Empire, primary sourced from Matano Lake area in SE Sulawesi. Evidence for underwater site named Pulau Ampat)

Aiello, L.C. (2010)- Five years of *Homo floresiensis*. American J. Physical Anthropology142, 2, p. 167-179.
(online at: https://www.academia.edu/1353347/Five_years_of_Homo_floresiensis)
(Review of early debates on the nature of Homo floresiensis. Evidence supports the hypothesis that Homo floresiensis is late-surviving species of early Homo with its closest morphological affinities to early African pre-erectus/ergaster hominins. Controversy will probably continue)

Aimi, M. (1989)- A mandible of *Sus stremmi* Koenigswald 1933 from Cisaat, Central Java, Indonesia. Geological Research Development Centre (GRDC), Bandung, Seri Paleontologi 6, p. 4-10.
(New mandible (jaw) of pig species from coarse sands of Kali Glagah Fm at Cisaat, Bumiayu region, C Java)

Aimi, M. & F. Aziz (1985)- Vertebrate fossils from the Sangiran dome, Mojokerto, Trinil and Sambungmacan, Indonesia. In: N. Watanabe & D. Kadar (eds.) Quaternary geology of the hominid bearing formations in Java. Geological Research Development Centre (GRDC), Bandung, Special Publ. 4, p. 155-198.

Aimi, M. & Sudijono (1979)- On the problematical species *Aceratherium boschi* von Koenigswald 1933. Bull. Geological Research Development Centre (GRDC) 1, p. 37-45.
(online at: http://www.rhinoresourcecenter.com/pdf_files/149/1498297867.pdf)
(On latest Miocene?-Pliocene? rhinoceros molar from calcarenite in upper Halang Beds in Cisande River, W Java. First described by Von Koenigswald in 1933. Here believed to be incomplete molar referable to Rhinoceros sondaicus. Foram age control deemed non-diagnostic)

Alink, G., S. Adithayama & T. Simanjuntak (2017)- Descriptive analysis of Palaeolithic stone tools from Sulawesi, collected by the Indonesian-Dutch expedition in 1970. AMERTA (J. Penelitian dan Pengembangan Arkeologi) 35, 2, p. 75-148. *(online at: www.researchgate.net/publication/323656343_DESCRIPTIVE_ANALYSIS_OF_PALAEOLITHIC_STONE_TOOLS_FROM_SULAWESI_COLLECTED_BY_THE_INDONESIAN-DUTCH_EXPEDITION_IN_1970)*
(1970 Indonesian-Dutch expedition, headed by Soejono, Van Heekeren and Hooyer collected 1100 lithic objects from sites Beru and Marale in Walanae Depression in S Sulawesi. Vertebrate fossils (mainly pigs, turtle) from Walanae valley from upper Late Pliocene and possible Lower Pleistocene Walanae Fm. 'Cabenge Industry' lithic artefacts in terrace deposits, may be of Late Pleistocene age)

Alink, G., W. Roebroeks & T. Simanjuntak (2016)- The *Homo erectus* site of Trinil: past, present and future of a historic place. AMERTA (J. Penelitian dan Pengembangan Arkeologi) 34, 2, p. 99-114.
(online at: https://jurnalarkeologi.kemdikbud.go.id/index.php/amerta/article/view/150)

(Review of excavation at the well-known Trinil Pithecanthropus erectus site along Solo River in Central Java, in 1891 (Dubois) and 1907 (Selenka Expedition))

Allen, H. (1991)- Stegodonts and the dating of stone tool assemblages in island S.E. Asia. Asian Perspectives 30, p. 243-266.
(online at: https://core.ac.uk/download/pdf/5105269.pdf)
(Stone tools found associated with U Pleistocene-Holocene Homo fossils on Java (Ngandong, Wajak, etc.), but no tools with any certainty associated with M Pleistocene Homo erectus (younger literature does suggest stone artifacts associated with H. erectus in Sangiran, etc.; JTvG))

Amano, N., T. Ingicco, A.M. Moigne, A.M. Semah, T. Simanjuntak & F. Semah (2022)- Monkey hunting in Early to Mid-Holocene Eastern Java (Indonesia). In: World Archaeoprimatology, Interconnections of humans and nonhuman primates in the past, Cambridge University Press, p. 474-496.
(online at: https://www.researchgate.net/publication/362430832_Monkey_Hunting_in_Early_to_Mid-Holocene_Eastern_Java_Indonesia)
(Excavations of E-M Holocene in Braholo Cave, Wonosari Plateau, western Gunung Sewu, East Java show high % of Javan langur (Trachypithecus auratus; ebony leaf monkey) bones, some with butchery marks, suggesting targeted hunting for food and as materials for tools and ornaments (see also Ingicco et al., 2020))

Amano, N., A.M. Moigne, T. Ingicco, F. Semah, R. DueAwe & T. Simanjuntak (2016)- Subsistence strategies and environment in Late Pleistocene- Early Holocene Eastern Java: evidence from Braholo Cave. Quaternary International 416, p. 46-63.
(Climatic shifts during Pleistocene- Holocene transition in Island SE Asia resulted in changes in landscapes, impacting vertebrate community composition and human subsistence economies. Braholo Cave in E Java with mainly arboreal fauna in Late Pleistocene - E-M Holocene, but older cave deposits dominated by animal taxa associated with open environments (bovids, cervids). Reflects forest expansion at onset of Holocene)

Amano, N., F. Rivals, A.M. Moigne, T. Ingicco, F. Semah & T. Simanjuntak (2016)- Paleoenvironment in East Java during the last 25,000 years as inferred from bovid and cervid dental wear analyses. J. Archaeological Science, Reports 10, p. 155-165.
(Dental wear analyses of bovid and cervid specimens from Late Pleistocene- M Holocene deposits of Braholo Cave and Song Terus in E Java. Pleistocene-Holocene transition accompanied by expansion of rainforests as evidenced by predominance of species that had browsing diet, but grazing signatures indicative of continued presence of patches of grasslands up to M Holocene. Dental wear from layers dating to Last Glacial Maximum (LGM) suggest a mosaic environment dominated by grasslands)

Ambrose, S.H. (1998)- Late Pleistocene human bottlenecks, volcanic winter, and differentiation of modern humans. J. Human Evolution 34, p. 623-651.
(Toba eruption on Sumatra may have caused human population bottleneck and modern human races may have differentiated abruptly only 70,000 years ago (see also commentary by Gathorne-Hardy 2003))

Ambrose, S.H. (2003)- Did the super-eruption of Toba cause a human population bottleneck? Reply to Gathorne-Hardy and Harcourt-Smith. J. Human Evolution 45, p. 231-237.
(~73 ka Toba eruption larger than previously estimated, and caused millennium of coldest temperatures of U Pleistocene. Genetic studies suggest real population bottleneck during first half of last glacial period, but no mass extinctions. We are descendants of few small groups of tropical Africans who united in face of adversity)

Anderson, C. (1937)- Palaeontological notes No. IV, Fossil marsupials from New Guinea. Records of the Australian Museum, Sydney, 20, 2, p. 73-76.
(online at: https://journals.australian.museum/media/Uploads/Journals/17261/250_complete.pdf)
(First record of Quaternary fossil marsupial from New Guinea (PNG), along the lower Bulolo and Watut Rivers, described as Nototherium watutense)

Ansyori, M.M. (2010)- Fauna from the oldest occupation layer in Song Terus cave, Eastern Java, Indonesia-biochronological significance of the Terus layer. Masters Thesis, Museum National Histoire Naturelle, Paris, p. 1-71.
(online at: www.ipt.pt/teses.digitais/ansyori.mirza/ansyori_mirza.pdf)
(Oldest archeological assemblage in Song Terus cave in Weru, Pacitan, S Mountains of S Java ranges in age from ~300-80 ka (M-L Pleistocene). Late Pleistocene faunas of upper Terus Layer (80-120 ka) resemble Punung fauna of Badoux. Big fauna dominated by Cervidae, Bovidae and Suidae. Tropical forest environment)

Ansyori, M. (2018)- Biostratigraphic significance of Sangiran Dome, Central Java, Indonesia: an insight on animal succession of Java during the Lower and Middle Pleistocene. Doctoral Thesis, International Doctorate in Quaternary and prehistory, Paris-Tarragone, p. 1-167.

Antoine, P.O. (2012)- Pleistocene and Holocene rhinocerotids (Mammalia, Perissodactyla) from the Indochinese Peninsula. Comptes Rendus Palevol 11, 2-3, p. 159-168.
(online at: https://www.sciencedirect.com/science/article/pii/S1631068311000492)
(Only living rhinoceros in Indochina Peninsula is Rhinoceros sondaicus (Vietnam). Extinct Pleistocene-Holocene Indochinese rhinocerotids include Dicerorhinus gwebinensis (E Pleistocene, Myanmar) and Recent Asian species Rhinoceros unicornis (M-L Pleistocene), R. sondaicus (M Pleistocene-Recent) and Dicerorhinus sumatrensis (M Pleistocene-Holocene). With SE Asia distribution maps)

Antoine, P.O., M.C. Reyes, N. Amano, A.P. Bautista, C.H. Chang, J. Claude, J. de Vos & T. Ingicco (2012)- A new rhinoceros clade from the Pleistocene of Asia sheds light on mammal dispersals to the Philippines. Zoological J. Linnean Society, London, 194, 2, p. 416-430.
(online at: https://academic.oup.com/zoolinnean/article/194/2/416/6280384)
(New Pleistocene rhinoceros species from 709 ± 68 kya archaeological deposits in Luzon Island, Philippines. Dental features reveal existence of unsuspected Asian Pleistocene clade, Nesorhinus gen. nov. Phylogenetic results suggest island-hopping dispersal for Nesorhinus from Asian mainland to Luzon via Taiwan by Late Miocene or later)

Anton, S.C. (1997)- Developmental age and taxonomic affinity of the Mojokerto child, Java, Indonesia. American J. Physical Anthropology 102, 4, p. 497-514.
(Mojokerto child (Perning I), Java, discovered in 1936, has been assigned to Australopithecus and multiple species of Homo modjokertensis, etc. Developmental age range probably 4-6 years)

Anton, S.C. (1999)- Cranial growth in *Homo erectus*: how credible are the Ngandong juveniles? American J. Physical Anthropology 108, 2, p. 223-236.
(Ngandong 5 and 9 skulls are adults, 8 an older juvenile and 2 is a juvenile. Adult cranial contours and pattern of contour development similar between Ngandong adults and other H. erectus adults. Nothing to suggest that Ngandong transitional in vault shape between H. erectus and H. sapiens, despite relatively large brain)

Anton, S.C. (2001)- Cranial evolution in Asian *Homo erectus*. Geological Research Development Centre (GRDC), Bandung, Special Publ. 27, p. 39-46.

Anton, S.C. (2002)- Evolutionary significance of cranial variation in Asian *Homo erectus*. J. Physical Anthropology 118, 4, p. 301-323.
(Principal components analysis of calvarial shape suggest regional differentiation between N Asian and SE Asian H. erectus. Most recent SE Asian fossils (e.g. Ngandong) conform to SE Asian pattern)

Anton, S.C. (2003)- Natural history of *Homo erectus*. Yearbook Physical Anthropology, Wiley, 46, p. 126-170.
(online at: http://studylib.net/download/8851017)
(In Indonesia earliest hominid crania (Sangiran) few in number, often badly deformed and ~1.6- 1.8 Ma old. More common hominids between 0.9- 1.5 Ma, with cranial capacity of ~800-1000cc. Later Indonesian hominids (Ngandong, Sambungmacan) <100ka in age, and lack upper facial, mandibular or dental remains. Cranial size 900- >1200cc, average >1000cc. Main differences between earlier and later Indonesian H. erectus: brain size

increase, increases in vault height, and decreases in postorbital constriction. H. erectus, notable for increased body size, originated around Plio-Pleistocene boundary in Africa and quickly dispersed into W and E Asia.)

Anton, S.C. & E.R. Middleton (2023)- Making meaning from fragmentary fossils: Early *Homo* in the Early to early Middle Pleistocene. J. Human Evolution 179, 103307, p. 1-56.
(Extensive re-evaluation of worldwide fossil record for early Homo (principally Homo erectus, Homo habilis, and Homo rudolfensis), from early diversification and dispersal in E Pleistocene (~2.0 Ma) to ultimate demise of H. erectus in early M Pleistocene. Includes occurrences in Indonesia.)

Anton, S.C., F. Spoor, C.D. Fellmann & C.C. Swisher (2007)- Defining *Homo erectus*: size considered. In: W. Henke et al. (eds.) Handbook of Paleoanthropology, Springer Verlag, 3, 11, p. 1655-1693.

Anton, S.C. & C.C. Swisher (2003)- Early dispersals of *Homo* from Africa. Annual Review of Anthropology 33, p. 271-296.
(Hominin presence outside Africa started at ~1.6-1.8 Ma (Homo erectus). Includes discussion on reliability of ages of Sangiran hominid ('poo-poo everything'; JTvG). Earliest hominins at Sangiran older than 1.0 Ma and probably 1.3 Ma or older)

Aplin, K. & K.M. Helgen (2010)- Quaternary murid rodents of Timor Part I: New material of *Coryphomys buehleri* Schaub, 1937, and description of a second species of the genus. Bull. American Museum Natural History 341, p. 1-80.
(online at: http://digitallibrary.amnh.org/handle/2246/6077)
(Archeological excavations in E Timor in 1968- 2002 provided new material of Late Pleistocene and recently extinct gigantic murine (rat) Coryphomys (originally described by Hooijer 1965))

Arifin, K. (2017)- Terminal Pleistocene and Early Holocene human occupation in the rainforests of East Kalimantan. In: P.J. Piper et al. (eds.) New perspectives in Southeast Asian and Pacific Prehistory, Chapter 6, p. 97-124.
(online at: https://press-files.anu.edu.au/downloads/press/n2320/pdf/ch06.pdf)
(Excavations at two rock shelters and cave in Berau region, NE Kalimantan, produced evidence for occupation of tropical rainforest along U Birang River by human foragers from at least end of Last Glacial Period)

Argue, D., C.P. Groves, M.S.Y. Lee & W.L. Jungers (2017)- The affinities of *Homo floresiensis* based on phylogenetic analyses of cranial, dental, and postcranial characters. J. Human Evolution 107, p. 107-133.
(online at: www.sciencedirect.com/science/article/pii/S0047248417300866)
(Analyses of multiple morphological characteristics suggest H. floresiensis (~65-90ka) is closest to early hominins (>1.75 Ma; Homo habilis?), suggesting probably long-surviving relict of early hominin lineage, with hitherto unknown migration out of Africa. Not recent descendants of either H. erectus or H. sapiens)

Ariens-Kappers, C.U. & K.H. Bouman (1939)- Comparison of the endocranial casts of the *Pithecanthropus erectus* skull found by Dubois and von Koenigswald's *Pithecanthropus* skull. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 45, p. 30-40.

Arif, J. (1998)- Morphological study of a *Homo erectus* skull (Skull IX) from Sangiran, Central Jawa, Indonesia. Thesis Kyoto University. p. 1-60.

Arif, J., H. Baba, M.E. Suparka, Y. Zaim & T. Setoguchi (2001)- Preliminary study of *Homo erectus* skull IX (Tjg-1993.05) from Sangiran, Central Java, Indonesia. Bull. National Science Museum, Tokyo, D, 27, p. 1-17.
(online at: https://www.kahaku.go.jp/research/publication/anthropology/download/27/BNSM_D2701.pdf)
(Similar to Arif et al. (2002) paper below, and Kaifu et al. (2011))

Arif, J., Y. Kaifu, H. Baba, M.E. Suparka, Y. Zaim & T. Setoguchi (2002)- Preliminary observation of a new cranium of *Homo erectus* (Tjg-1993.05) from Sangiran, Central Jawa. Anthropological Science 110, 2, p. 165-177.

(online at: https://www.jstage.jst.go.jp/article/ase1993/110/2/110_2_165/_pdf/-char/en)
(New well-preserved and most complete hominid skull IX found in 1993 from Bapang (Kabuh) Fm at Tanjung village, Sangiran region, C Java. Initially believed to be from Upper Tuff of Bapang Fm (Sartono & Tyler, 1993), then from Middle Sangiran Fm (Pucangan) Fm (Tyler & Sartono, 2001), but here relocated to basal or middle part of Bapang (Kabuh) Fm)

Arif, J., M.R. Schurr & R. Kapid (2008)- Evolutionary molar size reduction in Sangiran (Javanese), Early-Middle Pleistocene *Homo erectus* as an effect of palaeo-climatic change. J. Indian Ocean Archaeology 5, p. 10-23.
(online at: https://www.researchgate.net/profile/Johan-Arif/publication/370493081_Evolutionary_Molar_Size_Reduction_in_Sangiran_Javanese_Early-Middle_Pleistocene_Homo_erectus_As_an_Effect Etc.)(Secular molar size reduction in H.erectus's population from Sangiran from Grenzbank to Bapang Fm assemblages possibly associated with paleoclimate change between 1.0- 0.7 Ma)

Aubert, M., A. Brumm, M. Ramli, T. Sutikna, E.W. Saptomo, B. Hakim, M. J. Morwood, G. D. van den Bergh et al. (2014)- Pleistocene cave art from Sulawesi, Indonesia. Nature 514 , p. 223-227. *(ms online at: https://www.researchgate.net/publication/266683667_Pleistocene_cave_art_from_Sulawesi_Indonesia)*
(U-series dating of coralloid speleothems associated with 12 human hand stencils and two figurative animal depictions from cave sites in Maros karsts of S Sulawesi suggest earliest dated image of 39.9 ka, is oldest known hand stencil in world. A painting of babirusa ('pig-deer') dated as >35.4 ka is among earliest dated figurative depictions worldwide. Humans produced rock art by ~40 ka at opposite ends of Pleistocene Eurasia (see also Oktaviana et al., 2026))

Aubert, M., A. Brumm & P.S.C. Tacon (2017)- The timing and nature of human colonization of Southeast Asia in the late Pleistocene. A rock art perspective. Current Anthropology 58, Supplement 17, p. S553-S566.
(online at: https://www.journals.uchicago.edu/doi/epdf/10.1086/694414)
(Dating of rock art in S Sulawesi caves suggests early hunter-gatherers in SE Asia date back to at least ~40 ka)

Audley-Charles, M.G. & D.A. Hooijer (1973)- Relation of Pleistocene migrations of pygmy stegodonts to island arc tectonics in Eastern Indonesia. Nature 241, p. 197-198.
(Pleistocene pygmy stegodonts in Sulawesi, Flores and Timor, areas now separated by deep seas. Dwarf Stegodon populations coexisted in Flores and Timor, and apparently wandered back and forth in Pleistocene)

Aziz, F. (1983)- Notes on a new *Meganthropus* S.33 from the Sangiran Dome, Central Java. Geological Research Development Centre (GRDC), Bandung, Seri Paleontologi 4, p. 56-60.

Aziz, F. (1989)- *Macaca fascicularis* (Raffles) from Ngandong, East Java. Geological Research Development Centre (GRDC), Bandung, Seri Paleontologi 5, p. 50-56.
(Macaque fossil tooth from Pleistocene of Ngandong along Solo River, site of Homo soloensis. Supports earlier interpretations of open-country habitat)

Aziz, F. (1990)- Pleistocene mammal faunas of Sulawesi and their bearings to paleozoogeography. Ph.D. Thesis, Kyoto University, Japan, p. 1-106.

Aziz, F. (2000)- A new insight on the Pleistocene fauna of Sangiran and other hominid sites in Java. Geological Research Development Centre (GRDC), Bandung, Seri Paleontologi 10, p. 49-57.
(Discussion of the De Vos 1982 and Sondaar 1982 Java mammalian biostratigraphy scheme)

Aziz, F. (2000)- The Pleistocene endemic fauna of the Indonesian Archipelago. Tropics 10, 1, p. 135-143.
(online at: www.jstage.jst.go.jp/article/tropics/10/1/10_1_135/_pdf/-char/ja)
(Brief review of Asiatic fauna migrations to Java since 1.5 Ma. Some crossed Wallace Line by sweepstake dispersal. They adapted to island environments and developed into unbalanced endemic island faunas)

Aziz, F. (2001)- New insight on the Pleistocene fauna of Sangiran and other hominid sites in Java. In: T. Simanjuntak et al. (eds.) Sangiran: man, culture, and environment in Pleistocene times, Proc. International

Colloquium on Sangiran, Solo- Indonesia, Solo 1998, Jakarta, National Research Centre of Archaeology, Yayasan Obor Indonesia, Jakarta, p. 260-271.
(Same paper as Aziz (2000))

Aziz, F. (2001)- Hominid fossils housed at the Geological Research and Development Center, Bandung, Indonesia. In: A scientific life: papers in honor of Prof. Dr. T. Jacob, Bigraf Publishing, Yogyakarta, p. 53-66.

Aziz, F. (2002)- New discovery of a hominid skull from Cemeg, Sambungmacan, Central Java: an announcement. Jurnal Sumber Daya Geologi (JSDG) 7, 125, p. 2-7.
(Displaced hominid skull from Solo River sediments near Cemeng, W of Trinil, C Java, here called Sambungmacan 4. Probably Homo erectus of Pleistocene age)

Aziz, F. (2013)- Peran Badan Geologi dalam penelitian manusia purba. Geomagz 3, 2, p. 23-25.
('The role of the Geological Agency in ancient human research')

Aziz, F. & H. Baba (eds.) (2013)- *Homo erectus* in Indonesian. Recent progress of the study and current understanding, Centre for Geological Survey, Bandung, p. 1-106.
(Collection of papers)

Aziz, F., H. Baba & S. Narasaki (1994)- Preliminary report on recent discoveries of fossil hominids from the Sangiran area, Java. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 4, 29, p. 11-16.
(New hominid skull and mandible fragments, found by local collectors in E part of Sangiran Dome, C Java)

Aziz, F., H. Baba & N. Watanabe (1996)- Morphological study on the *Homo erectus* Sangiran 17 skull based on the new reconstruction. Geological Research Development Centre (GRDC), Bandung, Seri Paleontologi 8, p. 11-25.

Aziz, F. & J. de Vos (1989)- Rediscovery of the Wadjak Site (Java, Indonesia). J. Anthropological Society of Nippon 97, 1, p. 133-144.
(online at: www.jstage.jst.go.jp/article/ase1911/97/1/97_1_133/_pdf)
(Site of Wajak cave at Gunung Lawa near Tjermee/ Campur Darat villages in C Java, with 'Wajak man' hominid remains and originally excavated by Dubois in 1890, still exists (latest Pleistocene or Holocene; see Storm et al., 2013)

Aziz, F. & J. de Vos (1999)- The fossil faunas from the Citarum area, West Java, Indonesia. In: J.W.F. Reumer and J. de Vos (eds.) Elephants have a snorkel!, Papers in honor of Paul Y. Sondaar, DEINSEA 7, p. 21-32.
(online at: https://natuurtijdschriften.nl/pub/538618/DEIN1999007001003.pdf)
(Four fossil mammal faunas from Citarum area, Bandung Basin, W Java: (1) Banuraja, with Sus, Panthera, Manis palaeojavanicus, etc., with age of ~0.8 Ma; (2) Cipatik/Cililin lake deposits with fossil fish of possibly Pleistocene age. (3) Ciharuman with fossils dated as ~29.6-42.3 k; (4) Cipeundeuy with Elephas maximus, Rhinoceros sondaicus, Rusa, Elephas maximus with age of ~0.42- 0.36 Ma)

Aziz, F., A.S. Hadiputro & H. Insani (2023)- Atlas fosil vertebrata koleksi Museum Geologi. Badan Geologi, Bandung, p. 1-96. *(online at: https://geologi.esdm.go.id/publikasi/laporan-dan-buku/atlas-fosil-vertebrata-koleksi-museum-geologi)*
('Atlas of vertebrate fossils in the collections of the Geological Museum'. In Indonesian and English. On fossil localities on Java, SW Sulawesi, Flores, etc. and examples of fossil materials in Bandung collected since early 1900s. With overview of Quaternary mammals in Indonesia, biostratigraphy, and descriptions of fossils from Java, Sulawesi and Flores in Geological Museum, Centre for Geological Survey, Bandung)

Aziz. F. & I. Kurniawan (2014)- Atlas of Indonesia *Homo erectus*. LIPI Press, Jakarta, p. 1-98.

Aziz, F., I. Kurniawan & E. Setiyabudin (2013)- The *Homo erectus* collection of the Centre for Geological Survey. In: F. Aziz & H. Baba (eds.) *Homo erectus* in Indonesian- Recent progress of the study and current understanding, Center for Geological Survey, Special Publ., Chapter 2, p. 9-42.
(Well illustrated listing of sizable collection of Homo erectus fossils from C Java (Sangiran, Sambungmacan, Mojokerto, Ngandong), collected since 1931)

Aziz, F. & I. Saefudin (1996)- An isolated tooth of orang-utan (*Pongo pygmaeus*) from the Sangiran area, Central Java, Indonesia. Publ. Geological Research Development Centre (GRDC), Bandung, Seri Paleontologi 8, p. 47-50.

Aziz, F., P.Y. Sondaar, J. de Vos, G.D. van den Bergh & Sudijono (1995)- Early dispersal of man on islands of the Indonesian Archipelago: facts and controls. Anthropological Science 103, 4, p. 349-368.
(online at: https://www.jstage.jst.go.jp/article/ase1993/103/4/103_4_349/_pdf)
(Migration of hominids across sea barriers much earlier than Neolithic. Distance of island to mainland and food supply limiting factors on human colonization of islands. On islands of SE Asia giant rats may have served as food supply for Paleolithic Man. M Pleistocene faunal turnover on Flores. Java Homo erectus s.s. associated with 3 mammalian assemblages Ci Saat (~1.2 Ma), Trinil HK (Grenzbank- lower Bapang/ Kabuh Fm of Sangiran; ~1.0 Ma) and Kedung Brubus (U Bapang/ Kabuh Fm between middle and lower tuff of Sangiran; ~0.8 Ma). Ngandong fauna with Homo erectus soloensis <0.8 Ma. Punung and Wajak faunas with H. sapiens. On Flores two endemic island faunas: (1) dwarf Stegodon and giant tortoise Geochelone, and (2) younger fauna with Stegodon trigonocephalus, giant rats and hominid lithic industry)

Aziz, F., P.Y. Sondaar, J.J.M. Leinders & J. de Vos (1989)- Fossil faunas and early man of Java. Geological Research Development Centre (GRDC), Bandung, Seri Paleontologi 6, p. 1-3.
(Brief summary of succession of seven Pleistocene mammal/ hominid assemblages of Java)

Aziz, F., P.Y. Sondaar, G.D. van den Bergh & J. de Vos (1995)- *Homo erectus* in S.E. Asia: time space and migration routes, II. The Java case. In: J. Gibert et al. (eds.) Proc. Int. Conference The hominids and their environment during the Lower and Middle Pleistocene of Eurasia, Orce 1995, p. 363-368.

Aziz, F. & G.D. van den Bergh (1995)- A dwarf *Stegodon* from Sambungmacan (Central Java, Indonesia). Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 98, 3, p. 229-241.
(New dwarf Stegodon jaw fragment found in 1992 in shallow marine Kalibeng Limestone at Sambungmacan. Age may be latest Pliocene or earliest Pleistocene. Site may have been margin of a paleo-island in Kendeng zone. Overlying clastics at this site yielded 1973 'Solo Man' Homo erectus skull cap discovery and stone tools)

Aziz, F., G.D. van den Bergh, M.J. Morwood, D.R. Hobbs, I. Kurniawan, J. Collins & Jatmiko (2009)- Excavations at Tangi Talo, central Flores, Indonesia. In: F. Aziz et al. (eds.) Pleistocene geology, palaeontology and archaeology of the Pleistocene Soa Basin, Central Flores, Indonesia, Chapter 3, Geological Survey Centre Bandung, Special Publ. 36, p. 41-58.
(Results of 1999 excavations at Tangi Talo, the oldest fossil site in the Soa basin, Flores. Basal tuffaceous interval of Ola Bula Fm with pygmy Stegodon sondaari, giant tortoise and Varanus komodoensis (Komodo dragon). Deposited shortly after massive volcanic eruption at ~900,000 yrs BP. No in situ stone artefacts found. Site probably predates arrival of hominins in basin (earlier excavations here by Sondaar et al. in 1992)

Baab, K.L. (2010)- Cranial shape in Asian *Homo erectus*: geographic, anagenetic, and size-related variation. In: C.J. Norton & D.R. Braun (eds.) Asian Paleoanthropology: from Africa to China and beyond, Springer, Chapter 6, p. 57-79.
(No strong support for linear progression in neurocranial skull shape from Sangiran to Ngandong via Sambungmacan/Ngawi)

Baab, K.L. (2016)- The place of *Homo floresiensis* in human evolution. J. Anthropological Sciences 94, p. 5-18.
(online at: www.isita-org.com/jass/Contents/2016vol94/Baab/26829572.pdf)

(Two evolutionary scenarios for small-bodied Homo floresiensis on Flores in Late Pleistocene: (1) H. floresiensis was dwarfed descendent of H. erectus, or (2) remnant of older lineage, perhaps descended from H. habilis. Could be either)

Baab, K.L. (2021)- Reconstructing cranial evolution in an extinct hominin. Proc. Royal Society (London), B, 288, 20202604, p. 1-9.
(online at: https://royalsocietypublishing.org/doi/10.1098/rspb.2020.2604)
(Homo erectus cranial fossils sorted into six major palaeodemes from sites across Africa, Eurasia and Asia spanning 1.8-0.1 Ma. H. erectus had higher individual and group variation than Homo sapiens)

Baab, K.L., K.P. McNulty & K. Harvati (2013)- *Homo floresiensis* contextualized: a geometric morphometric comparative analysis of fossil and pathological human samples. Plos One 8, 7, e69119, p. 1-11.
(online at: http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0069119)
(Geometric morphometric analyses of LB1 cranium shows Homo floresiensis is distinct from healthy modern humans and from those with pathological conditions (hypothyroidism, Laron syndrome, microcephism), and is most similar to Homo erectus (but smaller))

Baab, K.L. & Y. Zaim (2017)- Global and local perspectives on cranial shape variation in Indonesian *Homo erectus*. Anthropological Science 125, 2, p. 67-83.
(online at: https://www.jstage.jst.go.jp/article/ase/125/2/125_170413/_pdf/-char/en)
(Skull shapes of Homo erectus from Sangiran, Ngandong, Sambungmacan and Ngawi compared to H. erectus from outside of Java. Asian H. erectus fossils can be distinguished from African/Georgian ones. Late Indonesian H. erectus from sites like Ngandong, distinct from all other H. erectus groups, including older C Java fossils. Younger Sangiran fossils more closely approach Ngandong/Sambungmacan/Ngawi pattern)

Baba, H. & F. Aziz (1991)- Hominid skull fragments found in 1979 from Sangiran, Central Java. Bull. National Science Museum, Tokyo, D, 17, p. 1-8.
(online at: https://www.kahaku.go.jp/research/publication/anthropology/download/17/BNSM_D1701.pdf)
(Two new hominid skull fragments with typical Homo erectus characteristics))

Baba, H. & F. Aziz (1992)- Human tibial fragment from Sambungmachan, Java. In: T. Akazawa et al. (eds.) The evolution and dispersal of modern humans in Asia, Tokyo, p. 349-361.
(Shin bone fragment from C Java)

Baba, H., F. Aziz, Y. Kaifu, G. Suwa, R.T. Kono & T. Jacob (2003)- *Homo erectus* calvarium from the Pleistocene of Java. Science 299, 5611, p. 1384-1388.
(online at: https://ftp.soest.hawaii.edu/engels/Stanley/Textbook_update/Science_299/Baba-03.pdf)
(Homo erectus calvarium from Sambungmacan, C Java (Sambungmacan 4; Sm 4). Overall morphology intermediate between earlier and later Javanese Homo erectus)

Baba, H., F. Aziz & S. Narasaki (2000)- Restoration of the face of Javanese *Homo erectus* Sangiran 17 and re-evaluation of regional continuity in Australasia. In: W. Dong (ed.) Proc. 1999 Beijing International Symposium on Paleoanthropology, Acta Anthropologica Sinica 19 (Supplement), p. 34-40.
(Facial characteristic of restored Sangiran 17 skull do not support hypothesis of Thorne and Wolpoff of regional continuity between H. erectus and Late Pleistocene Australians)

Baba, H., F. Aziz, S. Narasaki, Sudijono, Y. Kaifu, A. Supriojo, M. Hyodo, E.E. Susanto & T. Jacob (2000)- A new hominid incisor from Sangiran, Central Java. J. Human Evolution 38, 6, p. 855-862.
(New hominid lower left central tooth found in 1997, in level between lower and upper tuffs in Bapang Fm, near village of Bukuran, ESE Sangiran dome area (latest E Pleistocene))

Baba, H., F. Aziz, S. Narasaki, Sudijono, Y. Kaifu, I. Saefudin & E.E. Susanto (2004)- Frontal bone fragment of *Homo erectus* from Sangiran, Java. Human Evolution 19, 3, p. 197-201.

(Homo erectus frontal bone fragment found in 1994 in Brangkal River floor, Sangiran area. Original stratigraphic level not known, possibly from 'Grenzbank')

Baba, H., F. Aziz & N. Watanabe (1990)- Morphology of the fossil hominid tibia from Sambungmacan, Java. Bull. National Science Museum, Tokyo, D15, p. 9-18.
(online at: http://ci.nii.ac.jp/naid/110000008554/en)
(Hominid tibial (shin bone) fragment Sm 2 collected in 1977 with other vertebrate bones from Sambungmacan, presumably from Kabuh equivalent beds. Rel. advanced character)

Bacon, A.M. & P.O. Antoine (2024)- Environments, terrestrial ecosystems and mammalian species: an overview of Southeast Asia in the Late Pleistocene. In: J. Louys et al. (eds.) Quaternary Palaeontology and Archaeology of Sumatra, Terra Australis 56, ANU Press, Canberra, Chapter 7, p. 145-182.
(online at: https://press-files.anu.edu.au/downloads/press/n12084/pdf/ch07.pdf)
(Sunda Shelf surface in late M- Late Pleistocene affected by tectonic, eustatic and climatic factors, with alternating phases of exposure and flooding. Analysis of mammalian assemblages from W Sumatra caves during two possible periods of faunal dispersion: ~130 ka (MIS 6-5 transition) and ~71 ka (MIS 4. Overall, Sundaland always less rich in large-bodied herbivore diversity. Etc.)

Bacon, A.M., K. Westaway, P.O. Antoine, P. Duringer, A. Blin, F. Demeter, J.L. Ponche, J.X. Zhao, L.M. Barnes et al. (2015)- Late Pleistocene mammalian assemblages of Southeast Asia; new dating, mortality profiles and evolution of the predator-prey relationships in an environmental context. Palaeogeogr. Palaeoclim. Palaeoecology, 422, p. 101-127.
(manuscript online at: https://espace.library.uq.edu.au/view/UQ:352803/UQ352803_OA.pdf?dsi_version =f77691238d4065e9f08494fd6b4d696d)
(On mammal remains in Late Pleistocene karst deposits in N Laos, N Vietnam, Punung (C Java) and Sibrambang (W Sumatra))

Badoux, D.M. (1959)- Fossil mammals from two fissure deposits at Punung (Java) with some remarks on migrations and evolution of mammals during the Quaternary in South East Asia. Doctoral Thesis, University of Utrecht, p. 1-151.
(Description of 'Punung mammal fauna' from karst hills of S Mountains, E Java, collected by Von Koenigswald in 1930's. (see also Storm et al. (2005) for details of locality, paleoenvironment (rainforest) and age (~0.1 Ma))

Balme, J. & S. O'Connor (2014)- Early modern humans in Island Southeast Asia and Sahul- Adaptive and creative societies with simple lithic industries. In: R. Dennell & M. Porr (eds.) Southern Asia, Australia, and the search for human origins, Cambridge University Press, Chapter 13, p. 164-174.
(online at: https://www.researchgate.net/publication/268219198_Early_modern_humans_in_Island_Southeast _Asia_and_Sahul_Adaptive_and_creative_societies_with_simple_lithic_industries)
(Review of possible settlement patterns of early modern humans across E Indonesia islands, New Guinea and northern coastal Australia, around 45 ka B.P. Earliest settlers had simple stone and bone tools and lived mainly of marine and coastal fish and shellfish. Etc.))

Balzeau, A. (2005)- Specificites des caracteres morphologiques internes du squelette cephalique chez *Homo erectus*. Doctoral Thesis, Museum National Histoire Naturelle, Paris, p. 1-394.
(online at: http://hopsea.mnhn.fr/pc/thesis/PhD_Balzeau2005.pdf)
('Internal morphologic characteristics of Homo erectus skull')

Balzeau, A. (2013)- Thickened cranial vault and parasagittal keeling: correlated traits and autapomorphies of *Homo erectus*? J. Human Evolution 64, 6, p. 631-644.

Balzeau, A. & P. Charlier (2016)- What do cranial bones of LB1 tell us about *Homo floresiensis*? J. Human Evolution 93, p. 12-24.
(No support for attribution of holotype of Homo floresiensis (LB1) from Liang Bua, Flores, to H. sapiens)

Balzeau, A., D. Grimaud-Herve & T. Jacob (2005)- Internal cranial features of the Mojokerto child fossil (East Java, Indonesia). J. Human Evolution 48, p. 535-553.

Balzeau, A., T. Jacob & E. Indriati (2002)- Structures craniennes internes de l'*Homo erectus* Sambungmacan 1 (Java, Indonesie). Comptes Rendus Palevol 1, p. 305-310)
(online at: https://www.sciencedirect.com/science/article/pii/S1631068302000489)
('Interior skull structures of the Sambungmacan Homo erectus'. CT data to reconstruct skull endocast suggest morphological character of Sambungmacan 1 is close to Ngandong hominids)

Bandet, Y., F. Semah, S. Sartono & T. Djubiantono (1989)- Premier peuplement par les mammiferes d'une region de Java Est, a la fin du Pliocene: age de la faune du Gunung Butak, pres de Kendungbrubus (Indonesie). Comptes Rendus Academie Sciences, Paris 308, p. 867-870.
(online at: https://core.ac.uk/download/pdf/39865312.pdf)
('First population by mammals of a region of E Java at the end of the Pliocene: age of the Gunung Butak fauna near Kedungbrubus'. Along flanks of Gunung Butak marine sediments abruptly overlain by coarse and slightly transported volcanic breccia. Fossil mammals appear just above, in fluviatile and lahar beds. Top of basal breccia dated 1.87 Ma. Emerged tongues of land due to volcanoes colonized by mammals by latest Pliocene)

Bandi, H.G. (1951)- Die Obsidianindustrie der Umgebung von Bandung in Westjava. Sudsee-Studien, Museum fur Volkerkunde, Basel, Felix Speiser Memorial Volume, p. 127-161.
('The obsidian industry in the surroundings of Bandung in West Java'.Studies of 'Mesolithic', bronze-age obsidian microlithic tools from Bandung area, collected by W. Rothpletz in 1940s, mainly from Dago area)

Barker, G. (2022)- The early settlement of Island Southeast Asia. In: C.F.W. Higham & N.C. Kim (eds.) The Oxford Handbook of Early Southeast Asia, Chapter 4, p. 92-123.

Barker, G., H. Barton, P. Beavitt, M. Bird, P. Daly, C. Doherty, D. Gilbertson, C. Hunt et al. (2014)- Prehistoric foragers and farmers in South-East Asia: Renewed investigations at Niah Cave, Sarawak. Proc. Prehistoric Society 68, p. 147-164.
(Niah cave in Sarawak has been used by humans since at least 45,000 years ago)

Barker, G., H. Barton, M. Bird, P. Daly, I. Datan, A. Dykes, L. Farr, D. Gilbertson, Haarrisson et al. (2007)- The `human revolution' in lowland tropical Southeast Asia: the antiquity and behavior of anatomically modern humans at Niah Cave (Sarawak, Borneo). J. Human Evolution 52, 3, p. 243-261.
(Anatomically modern humans in Niah cave, Sarawak, N Borneo. New dates and lithostratigraphy relate Deep Skull to evidence of human activity between ~46,000- 34,000 years ago)

Barker, G., C. Hunt, H. Barton, C. Gosden, S. Jones, L. Lloyd-Smith, L. Farr et al. (2017)- The 'cultured rainforests' of Borneo. Quaternary International 448, p. 44-61.
(Investigation of the archaeology and palaeoecology of the Niah Caves of Sarawak shows 50,000-year record of Homo sapiens' interactions with rainforest on coastal lowlands)

Barker, G. & M.B. Richards (2013)- Foraging-farming transitions in island Southeast Asia. J. Archaeological Method and Theory 20, p. 256-280.
(online at: www.researchgate.net/profile/Martin-Richards-2/publication/233854184_Foraging-Farming_Transitions_in_Island_Southeast_Asia/links/5453c4df0c Etc)
(Still much debate on when and why Homo sapiens in SE Asia switched from hunting-gathering to farming. Much of this discussion based on Niah cave excavations in N Borneo)

Bartstra, G.J. (1974)- Notes about Sangiran (Java, Indonesia). Quartar 25, p. 1-11.
(online at: www.quartaer.eu/pdfs/1974/1974_01_bartstra.pdf)
(Brief review of Sangiran dome Pleistocene stratigraphy, ~10km N of Solo, and localities of hominid fossils. Author believes that many of the hominid stone tools ("flake industries") of Sangiran are pseudo-artifacts. There are also some real artifacts at Sangiran, but their presumed M Pleistocene age is doubted. Most visitors to

Sangiran in late 1930s-1950s (De Terra, Movius, van Heekeren) appear to agree that the artifacts come from the (basal) Notoporu Beds volcanic breccias)

Bartstra, G.J. (1976)- Contributions to the study of the Palaeolithic Patjitan culture, Java, Indonesia. Thesis Rijksuniversiteit te Groningen, Brill, Leiden, p. 1-121.
(Abstract online at: https://pure.rug.nl/ws/portalfiles/portal/14561086/File0004.PDF)
(Study of Southern Mountains (Gunung Sewu) of C Java geology and geomorphology, incl. Miocene Wonosari limestone karst terranes, Pleistocene river terraces, etc., based on 1972-1973 fieldwork. Pacitanian Paleolithic artifacts, first(?) discovered by Von Koenigswald in 1935 in Baksoko River terrace gravels in Southern Mountains of C Java. Mammals in nearby Punung fissure deposit of M Pleistocene age (Djetis and Trinil associations; Hooijer appendix))

Bartstra, G.J. (1977)- The height of the river terraces in the transverse Solo valley in Java. Modern Quaternary Research in Southeast Asia 3, Balkema, Rotterdam, p. 143-155.
(Quaternary terraces in transverse valley of Solo River N of Ngawi, previously studied by De Terra (1943), Sartono (1976), etc. Highest terrace up to 40-50m above present Solo river level (T1; poorly preserved), second terrace at ~20m above rive (T2), third ~5m above river (T3; best preserved; location of villages). Ngandong Solo Man fossils in T2/20m terrace)

Bartstra, G.J. (1977)- Walanae Formation and Walanae terraces in the stratigraphy of South Sulawesi (Celebes, Indonesia). Quartar 27/28, p. 21-30.
(online at: https://journals.ub.uni-heidelberg.de/index.php/qu/article/view/80461/74507)
(Geologic setting of terraces of Walanae River, which contain Pleistocene vertebrate fossils (Archidiskodon-Celebochoerus fauna of Hooijer, 1948), and stone artefacts (Tjabenge industry). Author believes stone artifacts to be younger than S Sulawesi fossils)

Bartstra, G.J. (1978)- The age of the Djetis Beds in East and Central Java. Antiquity 52, 204, p. 56-58.
(On age of Jetis Fauna (incl. Homo erectus) from Mojokerto area)

Bartstra, G.J. (1978)- The Patjitan culture: a preliminary report on new research. In: F. Ikawa-Smith (ed.) Early Palaeolithic in South and East Asia, Mouton Publishers, The Hague, p. 29-36.
(Paleolithic 'Pacitanian' relatively advanced stone tools from along Baksoko River near Punung, S coast of E Java, first described by Von Koenigswald (1936). 1500 additional artifacts collected in 1972 excavations. Three fluvial terraces, all with stone artifacts but unfossiliferous. Pacitan culture may be work of Homo soloensis)

Bartstra, G.-J. (1978)- Note on new data concerning the fossil vertebrates and stone tools in the Wallanae valley in South Sulawesi (Celebes). Modern Quaternary Research in Southeast Asia 4, p. 71-77.

Bartstra, G.J. (1982)- The river-laid strata near Trinil, site of *Homo erectus*, Java, Indonesia. Modern Quaternary Research in Southeast Asia 7, Balkema, Rotterdam, p. 97-130.
(Historic review of stratigraphic interpretations of Pleistocene Trinil Beds of C Java, the site of first Pithecanthropus and of abundant vertebrate fossils collected by Dubois, Selenka, etc. Two fluvial sand horizons along Solo River at Trinil: (1) Lower horizon (Kabuh Beds) of M and Late Pleistocene age; (2) upper horizon of Late Pleistocene Solo River terrace deposits. Sands composed of andesitic material and unconformably overlie Late Neogene marine marls)

Bartstra, G.J. (1982)- *Homo erectus erectus*: the search for his artifacts. Current Anthropology 23, 3, p. 318-320.
(online at: https://www.rug.nl/research/portal/files/66717894/2742319.pdf)
(Years of fieldwork in C Java between 1977-1981 failed to find conclusive evidence for E-M Pleistocene tools used by Homo erectus. Many stone artifacts found across E Java, but all younger than Homo erectus and may be from modern Homo. Older small crude flakes interpreted as hominid implements 'may just be stones')

Bartstra, G.J. (1983)- The fauna from Trinil, type locality of *Homo erectus*: a reinterpretation, Comment I: The vertebrate bearing deposits of Kedungbrubus and Trinil, Java, Indonesia. Geologie en Mijnbouw 62, 2, p. 329-336.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0TXdLZ3dtNVloTHc/view)
(De Vos et al. (1982) suggested classic Pleistocene vertebrate stratigraphy of Java as established by Von Koenigswald is incorrect, calling Jetis·fauna younger than Trinil fauna. On stratigraphic grounds this view is untenable and Van Koenigswald's stratigraphy is essentially correct. See also Hooijer 1983))

Bartstra, G.J. (1983)- Some remarks upon fossil man from Java, his age, and his tools. Bijdragen Taal Land en Volkenkunde 139, 4, Leiden, p. 421-434.
(online at: www.kitlv-journals.nl/index.php/btlv/article/view/2001/2762)
(Review of stratigraphy and hominid fossils of C Java. Solo River deposits near Trinil two units: (1) upper unit typical modern Solo river terrace deposits with Homo soloensis, (2) lower unit Pleistocene clays, silts, sands and gravels, with Homo erectus)

Bartstra, G.J. (1984)- Dating the Pacitanian: some thoughts. In: P. Andrews & J.L. Franzen (eds.) The early evolution of Man with special emphasis on South East Asia and Africa, Courier Forschungsinstitut Senckenberg 69, p. 253-258.

Bartstra, G.J. (1985)- Sangiran, the stone implements of Ngebung and the Paleolithic of Java. Modern Quaternary Research in Southeast Asia 9, Balkema, Rotterdam, p. 99-113.
(Review of Late Pleistocene archaeological stone industries from Ngebung top-gravel, in Sangiran Dome (also described by Von Koenigswald, 1935))

Bartstra, G.J. (1987)- Late *Homo erectus* or Ngandong man of Java. Palaeohistoria 29, p. 1-7.
(online at: https://ugp.rug.nl/Palaeohistoria/article/download/24867/22315)
(Review of Ngandong man ('Homo soloensis') from 'High Terrace' deposits of Solo river in Kendeng zone of Java, Generally regarded as last representative of Homo erectus in SE Asia. Associated with rich mammal fauna, mainly bovids, indicative of open forest environment. Oldest Solo terrace sediments in C Java must date from beginning of N-ward directed drainage pattern and probably Late Pleistocene in age. U-series ages from Ngandong bone samples mainly between ~40-80 ka. No in-situ stone implements, but nearby surface finds of small chalcedony artefacts ('Ngandong Industry') (chalcedony= silicified coral limestone; Bartstra 1989))

Bartstra, G.J. (1989)- Sangiran for the archaeologist. A short guide for students. Berkala Arkeologi 10, 2, p. 1-20.
(online at: https://berkalaarkeologi.kemdikbud.go.id/index.php/berkalaarkeologi/article/view/540/488)
(Review of the Sangiran Dome site in C Java, where famous Pithecanthropus and Meganthropus (Homo erectus) fossils were found)

Bartstra, G.J. (1994)- Indonesia in the period of *Homo habilis* and *Homo erectus*. In: S.J. de Laet et al. (eds.) History of humanity: prehistory and the beginnings of civilization, 1, Chapter 8, UNESCO, Paris, p. 275-292.
(online at: https://ia801701.us.archive.org/21/items/history-of-humanity-1/History-of-Humanity%201.pdf)
(Popular reviews of Java Pleistocene hominid sites at Trinil and Sangiran, vertebrate stratigrapy, handaxes of Pacitan and Homo erectus, etc.)

Bartstra, G.J. (1994)- Indonesia in the period of *Homo sapiens neanderthalensis.* In: S.J. de Laet et al. (eds.) History of humanity: prehistory and the beginnings of civilization, 1, Chapter 17, UNESCO, Paris, p. 446-456.
(online at: https://ia801701.us.archive.org/21/items/history-of-humanity-1/History-of-Humanity%201.pdf)
(Popular reviews of two hominin sites (1) Ngebung Hill in Sangiran, C Java, and (2) Ngandong, a younger site in Solo Riverterrace deposits in E Java. Discovered in 1931;and hominid fossils were decribed as Homo soloensis by Oppenoorth (debated whether H. soloensis is advanced Homo erectus or a Neanderthal (Von Koenigswald; less likely?)

Bartstra, G.J. (1997)- A fifty years commemoration: fossil vertebrates and stone tools in the Walanae valley, South Sulawesi, Indonesia. Quartaer 47/48, p. 29-50.
(online at: www.quartaer.eu/pdfs/1997/1997_02_bartstra.pdf)
(Review of history of discovery of Pleistocene mammals and hominid artifacts along the Walanae River in S Sulawesi in 1947 by archeologist H.R. van Heekeren and works of vertebrate paleontologist D.A. Hooijer)

Bartstra, G.J. (1998)- Short history of the archaeological exploration of the Maros caves in South Sulawesi. In: G.J. Bartstra (ed.) Bird's Head approaches; Irian Jaya studies; a programme for interdisciplinary research, Modern Quaternary Research in Southeast Asia, Balkema, Rotterdam, 15, p. 193-210.
(online at: https://www.papuaerfgoed.org/sites/default/files/collectie/files/2006-05/Bartstra_1998_Birds.pdf)
(Review of archaeological research in caves of Maros kast area of S Sulawesi, known for its prehistoric Toalean culture. The first European scientists to unearth prehistoric remains in Maros caves were the Swiss Sarasin cousins in 1902, who assigned to stone tools to the prehistoric Toalean culture. Additional work in area by Van Stein Callenfels in late 1933 and 1937 at Lamoncong, Van Heekeren in 1936-1937 and 1950. Modern archeological work since late 1960s)

Bartstra, G.J. & Basoeki (1989)- Recent work on the Pleistocene and the Palaeolithic of Java. Current Anthropology 30, 2, p. 241-244.
(online at: https://pure.rug.nl/ws/portalfiles/portal/66717792/2743557.pdf)
(1989 status review, mainly on C Java Pleistocene stone artifacts)

Bartstra, G.J., M. Basoeki & B. Santosa Azis (1976)- Solo Valley research 1975 Java, Indonesia. Modern Quaternary Research in Southeast Asia 2, Balkema, Rotterdam, p. 23-36.
(Brief review of Pleistocene geology along Solo River in Trinil and Ngawi areas. Discovery of stone implements in high terrace gravels)

Bartstra, G.J. & D.A. Hooijer (1992)- New finds of fossil vertebrates from Sulawesi, Indonesia. Lutra 35, p. 113-122.

Bartstra, G.J., D.A. Hooijer, B. Kallupa & M.A. Akib (1992)- Notes on fossil vertebrates and stone tools from Sulawesi, Indonesia, and the stratigraphy of the northern Walanae depression. Palaeohistoria (University of Groningen) 33/34, p. 1-18.
(online at: https://ugp.rug.nl/Palaeohistoria/article/view/25054/22512)
(Pleistocene Archidiskodon-Celebochoerus vertebrate fauna and artifacts of the Cabenge Industry. Fossils and artifacts may not be contemporaneous. Singkang embayment/ Tempe depression separates SW peninsula of Sulawesi from rest of island and was covered by sea until recently)

Bartstra, G.J., S.G. Keates, Basoeki & B. Kallupa (1991)- On the dispersion of *Homo sapiens* in Eastern Indonesia: the Palaeolithic of South Sulawesi. Current Anthropology 32, 3, p. 317-321.
(online at: https://pure.rug.nl/ws/files/66717477/2743781.pdf)
(Homo sapiens reached Sulawesi around 50,000 B.P. (Walanae Fm); Homo erectus never reached Sulawesi)

Bartstra, G.J., S. Soegondo & A. van der Wijk (1988)- Ngandong man: age and artifacts. J. Human Evolution 17, 3, p. 325-337.
(Homo soloensis found in 1930's in High Terrace of Solo River near Ngandong, with associated small stone implements. Th/U ages for Ngandong vertebrate remains suggest Upper Pleistocene age (~30-100 ka?))

Basilia, P., J.J. Miszkiewicz, J. Louys, U.P. Wibowo & G.D. van den Bergh (2023)- Insights into dwarf stegodon (*Stegodon florensis florensis*) palaeobiology based on rib histology. Annales de Paleontologie 109, 4, 102654, p. 1-12.
(Stegodon florensis florensis example of dwarf insular stegodon from E Middle Pleistocene bonebeds of Mata Menge, So'a Basin, in Flores. First insights into Stegodon rib bone histology, suggesting long-lived individuals in advanced age)

Basilia, P., J.J. Miszkiewicz, K. Nganvongpanit, J. Zaim, Y. Rizal, Aswan, M.R. Puspaningrum et al. (2023)- Bone histology in a fossil elephant (*Elephas maximus*) from Pulau Bangka, Indonesia. Historical Biology 35, 8, p. 1356-1367.
(online at: https://repository.naturalis.nl/pub/801043/Basilia-2022-Bone-histology-in-a-fossil-elephant-A.pdf)
(Something with elephantoid bone structure)

Basilia, P., J.J. Miszkiewicz, J. Zaim, Y. Rizal, Aswan, M.R. Puspaningrum, A. Trihascaryo, G.J. Price & J. Louys (2024)- Investigating super osteons in fossil Asian elephant (*Elephas maximus*) bone from Bangka Island, southeastern Sumatra. In: L. Louys et al. (eds.) Quaternary palaeontology and archaeology of Sumatra, Australian National University Press, Canberra, p. 183-198.
(online at: https://press-files.anu.edu.au/downloads/press/n12084/pdf/ch08.pdf)
(Study of bone structure in fossil elephant fragments from Late Pleistocene alluvial deposits on Bangka Island)

Bednarik, R.G. (1997)- The initial peopling of Wallacea and Sahul. Anthropos 92, p. 355-367.
(online at: www.ifrao.com/wp-content/uploads/2015/02/97Wallacea.pdf)
(Review of Pleistocene migrations of hominids into Indonesia and Australia)

Bednarik, R.G. (2000)- Pleistocene Timor: some corrections. Australian Archaeology 5, p. 16-20.
(Review of Pleistocene mammal fossils (Stegodon, giant tortoise) and some questionable relicts of Pleistocene hominids on Timor)

Bednarik, R.G. (2002)- The maritime dispersal of Pleistocene humans. Migration and Diffusion 3, 10, p. 6-33.
(online at: www.ifrao.com/wp-content/uploads/2014/06/dispersal.pdf)

Bello, S.M. & C.B. Stringer (2025)- The newly uncovered Madura Strait fossil assemblage and its role in Pleistocene hominin dispersals in Southeast Asia. Quaternary Environments and Humans, 100070, p. 1-2 *(in press)*
(online at: https://www.sciencedirect.com/science/article/pii/S2950236525000143)
(Introduction to special volume with four papers on new discovery of Pleistocene mammals in Madura Straits N of Surabaya)

Bellwood, P. (1987)- The prehistory of island Southeast Asia: a multidisciplinary review of recent research. J. World Prehistory 1, 2, p. 171-224.
(Sundaland region in W of SE Asia archipelago and isolated islands of Wallacea in E witnessed complex trajectories of human movement and evolution during Pleistocene)

Bellwood, P. (1997)- *Homo erectus* in Sundaland. In: Prehistory of the Indo-Malaysian Archipelago, Chapter 2, ANU Press, p. 39-68.
(online at: http://press-files.anu.edu.au/downloads/press/p80041/pdf/ch0273.pdf)

Bellwood, P.S. (1998)- Bridging Sunda and Sahul: The archaeological significance of the Aru Islands, southern Moluccas. In: G.J. Bartstra (ed.) Bird's Head approaches; Irian Jaya studies; a programme for interdisciplinary research, Modern Quaternary Research in Southeast Asia 15, Balkema, Rotterdam, p. 157-177.
(online at: https://www.papuaerfgoed.org/sites/default/files/collectie/files/2006-05/Bartstra_1998_Birds.pdf)

Bellwood, P.S. (2007)- Prehistory of the Indo-Malaysian Archipelago. Australia National University (ANU) Press, Canberra, p. 1-384.
(*online at: http://epress.anu.edu.au/pima/pdf/pima-whole.pdf*
(3rd edition of 1985 textbook)

Bellwood, P.S. (2017)- First Islanders: prehistory and human migration in island Southeast Asia, Wiley-Blackwell, p. 1-384.
(Recent review of history of hominids in SE Asia)

Bellwood, P.S. (2017)- *Homo erectus* and *Homo floresiensis*- Archaic hominins in island Southeast Asia. In: P. Bellwood et al. (eds.) First Islanders: prehistory and human migration in island Southeast Asia, Wiley, Chapter 3, p. 34-85.
(Discussion of lithic stone tool industries reportedly associated with Homo erectus in various regions of island SE Asia. Two categories: (1) 'chopper/chopping-tool industries' characterized by Java Pacitanian industry and supposedly work of Homo erectus; (2) 'pebble and flake industries' more characteristic of early Homo sapiens)

Bellwood, P.S., G. Nitihaminoto, G. Irwin, Gunadi, A. Waluyo & D. Tanudirjo (1998)- 35,000 years of prehistory in the northern Moluccas. In: G.J. Bartstra (ed.) Bird's Head approaches; Irian Jaya studies; a programme for interdisciplinary research, Modern Quaternary Research in Southeast Asia 15, Balkema, Rotterdam, p. 233-275.
(online at: https://www.papuaerfgoed.org/sites/default/files/collectie/files/2006-05/Bartstra_1998_Birds.pdf)
(Review of archeological records of Homo sapiens in the N Moluccas, dating back to >32,000 years))

Berghuis, H.W.K., Y. Kaifu, U.P. Wibowo, T. van Kolfschoten, I.Sutisna, S. Noerwidi, S. Adhityatama, G. van den Bergh, E. Pop et al. (2025)- The late Middle Pleistocene *Homo erectus* of the Madura Strait, first hominin fossils from submerged Sundaland. Quaternary Environments and Humans 3, 2, 100068, p. 1-11
(online at: https://www.sciencedirect.com/science/article/pii/S295023652500012X)
(Discovery of two hominin cranial fragments from submerged Sunda Shelf, retrieved during dredging work in Madura Strait, N of Surabaya, off NE Java coast. Specimens derive from sandy fill of late M Pleistocene paleovalley of Solo River and consist of two frontal and parietal fragments, resembling H. erectus crania from Sambungmacan. Madura Strait hominins probably part of MIS6 population that lived along Solo River, flowing E-eastward over exposed shelf area of Madura Strait, during rel. dry late M Pleistocene)

Berghuis, H.W.K., G. van den Bergh, T. van Kolfschoten, U.P. Wibowo,I. Kurniawan, S. Adhityatama, I. Sutisna et al. (2025)- First vertebrate faunal record from submerged Sundaland: the late Middle Pleistocene, hominin-bearing fauna of the Madura Strait. Quaternary Environments and Humans 3, 2, 100047, p. 1-48.
(online at: https://www.sciencedirect.com/science/article/pii/S2950236524000458)
(First vertebrate fossils from subsea Sundaland, from lowstand valley of Solo River in Madura Strait, N of Surabaya, OSL-dated to ~162 and ~ 119 ka (late M Pleistocene). At least 36 species: reptiles (turtles, crocodilians, varanids, pythons), sharks (incl. extinct Hemipristis serra) and stingrays. Lowland plains populated by herbivores (Hippopotamidae, Bovidae, Cervidae, Proboscidea (Stegodon, Elephas), suggesting grass-dominated environment similar to contemporaneous fossil assemblage of Ngandong (Java) (but with more estuarine species, fewer carnivores). Also rare Varanus komodoensis, Macaca sp. and Homo erectus)

Berghuis, H.W.K., T. van Kolfschoten, S. Adhityatama, S.R. Troelstra, S. Noerwidi, R.A.Suriyanto, U.P. Wibowo et al. (2022)- The eastern Kendeng Hills (Java, Indonesia) and the hominin-bearing beds of Mojokerto, a re-interpretation. Quaternary Science Reviews 295,107692, p. 1-25.
(online at: www.sciencedirect.com/science/article/pii/S0277379122003237)
(Re-interpretation of 1000m thick exposed marine-to-fluvial Late Pliocene-Pleistocene deposits in paleo-embayment in E Kendeng zone. Fluvial conglomerate with Mojokerto Homo erectus skullcap is tied to MIS14, with age of ~550ka (younger by 1 Myrs or more than previous age interpretations!). All earlier radiometric and paleomagnetic work discarded as wrong (this radical change in age is based mainly on sequence stratigraphic reasoning in a non-marine series, with no support from any new independent age data; JTvG)

Berghuis, H.W.K., T. van Kolfschoten, S. Adhityatama, S.R. Troelstra, S. Noerwidi, R.A.Suriyanto, U.P. Wibowo et al. (2023)- Response to the comment by Huffman and Zaim. Quaternary Science Reviews 307, 108059, p. 1-3.
(online at: https://www.sciencedirect.com/science/article/pii/S0277379123001075)
(Response to Critical discussion of Berghuis et al. (2022) paper on stratigraphic context and age of the Homo erectus child skull from Mojokerto, E Java)

Berghuis, H.W.K., T. van Kolfschoten, U.P. Wibowo, I. Kurniawan, S. Adhityatama, I. Sutisna et al. (2025)- The taphonomy of the Madura Strait fossil assemblage, a record of selective hunting and marrow processing by late Middle Pleistocene Sundaland hominins. Quaternary Environments and Humans 100055, p. 1-21. *(in press)*

(online at: https://www.sciencedirect.com/science/article/pii/S2950236524000537)
(Late M Pleistocene Madura Strait bones assemblage reflect fluvial size-sorting, but no significant rounding, pointing to short transportation distances. Skeletal remains accumulated in fluvial valley fill or in overlying transgressive lag during subsequent transition to estuarine conditions (linked to peak-highstand conditions around MIS5e (~123 ka)). Extensive fragmentation of ruminant limb bones points to hominin bone battering and marrow processing. Cut marks on turtle bones show that hominins also fed on these aquatic species)

Berghuis, H.W.K., A. Veldkamp, S. Adhityatama, S.L. Hilgen, I. Sutisna, D.H. Barianto, E.A.L. Pop, E.A.L. Reimann, D. Yurnaldi et al. (2021)- Hominin homelands of East Java: revised stratigraphy and landscape reconstructions for Plio-Pleistocene Trinil. Quaternary Science Reviews 260, 106912, p. 1-27.
(online at: www.sciencedirect.com/science/article/pii/S0277379121001190)
(Restudy of Pleistocene stratigraphy of Trinil area. Seven fluvial terraces identified and correlated with terraces of Kendeng Hills (e.g. hominin-bearing Ngandong terrace). Five stratigraphic units: Kalibeng deep marine, Padas Malang shallow marine, Batu Gajah volcanic breccias and black clays, Trinil ('Kabuh') fluvial and volcanoclastic (all S-dipping pre-terrace deposits) and Solo Formations. Between ~550 and 350 ka area part of Ngawi Lake Basin. After 350 ka role was taken over by perennial Solo River)

Berghuis, H.W.K., A. Veldkamp, S. Adhityatama, T. Reimann, A. Versendaalf, I. Kurniawan, E. Pop, T. van Kolfschoten & J.C.A. Joordens (2025)- A late Middle Pleistocene lowstand valley of the Solo River on the Madura Strait seabed, geology and age of the first hominin locality of submerged Sundaland. Quaternary Environments and Humans 3, 2, 100042, p. 1-18.
(online at: https://www.sciencedirect.com/science/article/pii/S2950236524000409)
(Marine sand extraction work in Madura Strait, N of port of Surabaya, yielded vertebrate-rich sandstones. >6000 fossils retrieved from dredged sand. Fossiliferous sandstones are from Solo River lowstand valley, OSL-dated to ~162 and ~119 ka, linking it to lowstand of MIS6. Top of valley fill marine sandstones, probably during MIS5e highstand. Similar age as Solo terrace of Ngandong, with youngest record of Homo erectus)

Berry, E.W. (1916)- The environment of the ape man. The Scientific Monthly 3, 2, p. 161-169.
(Early discussion of environmental setting of Pleistocene Pithecanthropus erectus (Java man). Recognized that during Pleistocene glacial lowstands Sumatra and Java were connected with Borneo and Malay Peninsula, forming landmass. Java Pleistocene mammal faunas of Siamese and Indian affinity and believed to have migrated from SE Asia mainland in NW)

Bettis, E.A., A.K. Milius, S.J. Carpenter, R. Larick, Y. Zaim, Y. Rizal, R.L. Ciochon, S.A. Tassier-Surine, D. Murray, Suminto & S. Bronto (2009)- Way out of Africa: Early Pleistocene paleoenvironments inhabited by *Homo erectus* in Sangiran, Java. J. Human Evolution 56, 1, p. 11-24.
(online at: www.academia.edu/3580806/Way_out_of_Africa_Early_Pleistocene_paleoenvironments_in Etc.)
(Stratigraphy and paleosols at Sangiran, C Java, document environments of Homo erectus in E Pleistocene. Earliest human immigrants encountered low-relief lake-margin landscape dominated by moist grasslands with open woodlands in driest positions. By 1.5 Ma, large streams filled lake and landscape became more riverine. Long-term shift toward regional drying or longer dry seasons through E Pleistocene)

Bettis, E.A., Y. Zaim, R.R. Larick, R.L. Ciochon, Suminto, Y. Rizal, M. Reagan & M. Heizler (2004)- Landscape development preceding *Homo erectus* immigration into Central Java, Indonesia: the Sangiran Formation Lower Lahar. Palaeogeogr. Palaeoclim. Palaeoecology 206, p. 115-131.
(online at: https://www.academia.edu/3580813/Landscape_development_preceding_Homo_erectus_immigration_into_Central_Java_Indonesia_the_Sangiran_Formation_Lower_Lahar)
(Sangiran Lower Lahar Unit debris flow age 1.90 Ma, terminates Late Pliocene shallow marine sedimentation. LLU likely originated from sector collapse on neighboring volcanic edifice.)

Bettis, E.A., Y. Zaim & Y. Rizal (2009)- Plio-Pleistocene climatic and volcanic controls on high to moderate accommodation space systems in the Solo Basin, Central Java, Indonesia. AAPG Hedberg Conference Variations in fluvial-deltaic and coastal reservoirs deposited in tropical environments, Jakarta 2009, p. 1-3.
(online at: www.searchanddiscovery.com/abstracts/pdf/2010/hedberg_indonesia/abstracts/ndx_bettis.pdf)

(Extended abstract. Late Pliocene- Pleistocene marginal marine, lacustrine and fluvial sediments exposed in Sangiran Dome interpreted in terms of interactions between tectonics and climate change over past 2 My. n Abrupt change from limnic -plaudal to fluvial environments marks contact between Sangiran and overlying Bapang (Kabuh) Fm).BapangFm 30-50 m thick, three upward-fining fluvial cycles. Overlying 20-40 m thick Pojarjar (Notoporo) Fm fills large channels incised into Bapang Fm; with common fine-grained volcaniclastics and two laharic diamictons, Upper and Uppermost Lahars)

Beyer, H.O. (1947)- Outline review of Philippine archaeology by islands and provinces. The Philippine J. Science 77, p. 205-374.

Beyer, H.O. & D.J. Steinberg (1957)- New finds of fossil mammals from the Pleistocene strata of the Philippines. National Research Council of the Philippines, Quezon City, Bull. 41, p. 220-238.

Bibi, F. & G. Metais (2016)- Evolutionary history of large herbivores of South and Southeast Asia (Indomalayan Realm). In: F.S. Ahrestani & M. Sankaran (eds.) The ecology of large herbivores in South and Southeast Asia, Springer Verlag, p. 15-88.

Bilsborough, A. (2005)- *Homo erectus* revisited: aspects of affinity and diversity in a Pleistocene hominin species. Anthropologie 43, 2-3, p. 129-158.
(No convincing morphological case for differentiating early African specimens (H. ergaster) or 'Meganthropus' material from Homo erectus. Long interval between early (Sangiran- Trinil- Kedung Brubus) and latest H. erectus (Ngandong- Sambungmacan). Regional trends include increase in brain size and cranial robusticity, dental reduction, etc. Homo floresiensis probably derived from SE Asian Homo erectus via transilience event and selection for endemic dwarfing)

Bird, M.I., D. Taylor & C. Hunt (2005)- Palaeoenvironments of insular Southeast Asia during the last glacial period; a savanna corridor in Sundaland? Quaternary Science Reviews 24, 20-21, p. 2228-2242.
(online at: www.researchgate.net/publication/313759617_Paleoenvironments_of_insular_Southeast_Asi Etc.)
(Geomorphology, palynology, biogeography and vegetation/climate modelling suggests N-S 'savanna corridor' through Sundaland continent during Last Glacial Period at time of lowered sea-level. Minimal interpretation of 50-150 km wide zone of open savanna vegetation along divide between S China and Java Seas, forming land bridge between Malay Peninsula, Sumatra, Java and Borneo and served as barrier to dispersal of rainforest-dependent species between Sumatra and Borneo. Savanna corridor may have provided convenient route for rapid early dispersal of modern humans through region and on into Australasia)

Blain, H. (2012)- An environmental tale from Pleistocene Java. Reconstructing dietary niche and palaeoenvironment by applying stable isotope analysis to selected fossil fauna From Trinil (Java, Indonesia). Master of Arts Thesis, University of Leiden, Faculty of Archaeology, p. 1-61.
(online at: https://openaccess.leidenuniv.nl/handle/1887/19730)
(Dietary and water resource niches for selected fossil bovids from Trinil HK, Java determined from stable isotopes of carbonate fraction of teeth and bones of fossil aquatic fauna (Trinil and Sangiran) suggests Pleistocene environment of site more diverse environment than just grassland)

Bocherens, H., F. Schrenk, Y. Chaimanee, O. Kullmer, D. Morike, D. Pushkina & J.J. Jaeger (2017)- Flexibility of diet and habitat in Pleistocene South Asian mammals: implications for the fate of the giant fossil ape *Gigantopithecus*. Quaternary International 434, p. 148-155.
(Giant fossil ape Gigantopithecus blacki from SE Asia survived until ~100,000 years ago. Known only from isolated teeth and lower jaw fossils. Carbon isotopes of tooth enamel from N Thailand suggest Gigantopithecus was forest-dweller with vegetarian diet. Demise possibly due to forest reduction during glacial periods)

Boediharto, R. (1964)- New finds of vertebrate layers in the Wonogiri and Wonosari areas, Central Java. Geological Survey Indonesia Bull. 1, 2, p. 47-49.

Boivin, N., D.Q. Fuller, R. Dennell, R. Allaby & M.D. Petraglia (2013)- Human dispersal across diverse environments of Asia during the Upper Pleistocene. Quaternary International 300, p. 32-47.
(New, more complex out-of-Africa scenario involving multiple exits, varying terrestrial routes, a sub-divided African source population, slower progress to Australia, and interbreeding with archaic varieties of Homo)

Bonatz, D., D. Neidel & M.L. Tjoa-Bonatz (2006)- The megalithic complex of highland Jambi: an archaeological perspective. Bijdragen Taal Land en Volkenkunde 162, 4, 490-522.
(online at: https://brill.com/view/journals/bki/162/4/article-p490_4.xml?language=en)
(Summary of 2003 and later German archeological work on carved megaliths scattered across Jambi/Barisan highlands. Most likely age believed to be 11th-13th centuries AD, during time of Srivijaya Kingdom hegemony in eastern Sumatran lowlands.)

Bonde, N. & B. Westergaard (2004)- Progress in hominid classification: cladistic approaches. In: Miscelanea en homenaje a Emiliano Aguirre, Paleoantropologia, p. 37-57.
(Elegant general review of hominid evolution)

Borel, A., R. Cornette & M. Baylac (2017)- Stone tool forms and functions: a morphometric analysis of modern humans' stone tools from Song Terus Cave (Java, Indonesia). Archaeometry 59, 3, p. 455-471.
(Stone industries from beginning of Holocene of SE Asia difficult to characterize typo-technologically)

Borel, A., C. Gaillard, M.H. Moncel, R. Sala, E. Pouydebat, T. Simanjuntak & F. Semah (2013)- How to interpret informal flakes assemblages? Integrating morphological description, usewear and morphometric analysis gave better understanding of the behaviors of anatomically modern human from Song Terus (Indonesia). J. Anthropological Archaeology 32, 4, p. 630-646.
(Analysis of thousands of Holocene (~11-5 ka) hominid stone tools from upper ('Keplek') levels of Song Terus cave in Southern Mountains of Central Java)

Bouteaux, A. (2005)- Paleontologie, paleoecologie et taphonomie des mammiferes du Pleistocene moyen ancien du site a hominides de Sangiran (Java central, Indonesie). Doct. Thesis Museum National Histoire Naturelle, Paris, p. 1-368.
(online at: http://hopsea.mnhn.fr/pc/thesis/PhD_Bouteaux2005.pdf)
('Paleontology, paleoecology and taphonomy of the E-M Pleistocene mammals from the Sangiran hominid site, Central Java')

Bouteaux, A. (2008)- Etude taphonomique d'assemblages fauniques de sites a *Homo erectus* du dome de Sangiran (Pleistocene moyen, Java central, Indonesie). Annales de Paleontologie 94, 4, p. 229-243.
('Taphonomic study of faunal assemblages of Homo erectus sites at Sangiran Dome (M Pleistocene, Central Java, Indonesia'. Most bone assemblages from H. erectus sites come from fluvial volcanic-sedimentary Kabuh layers (E-M Pleistocene). Herbivores dominate assemblages (large bovids like Bubalus palaeokerabau or Bibos palaesondaicus and smaller cervids like Axis lydekkeri). Carnivores are rare. High degree of fragmentation of fossils related to fissuration and fluviatile transport)

Bouteaux, A. & A.M. Moigne (2010)- New taphonomical approaches: the Javanese Pleistocene open-air sites (Sangiran, Central Java). Quaternary International 223-224, p. 220-225.
(online at: https://www.academia.edu/37335828/New_taphonomical_approaches_The_Javanese_Pleistocene_open_air_sites_Sangiran_central_Java_)
(Excavations in Sangiran Dome produced numerous mammal fossils, including Homo erectus. Bones most common in M Pleistocene fluvial Kabuh Fm volcanoclastics, dominated by teeth and extremities of large bovids and smaller cervids, mostly in fragments. Modification of assemblages by water action. Carnivores and traces of their actions rare. Anthropic influence at Ngebung 2 site, with occurrence of lithic artifacts)

Bouteaux, A., A.M. Moigne & T. Jacob (2008)- Palaeontology, palaeoecology and taphonomy of Middle Pleistocene: mammals in the hominid site of Sangiran dome. In: E. Indriati (ed.) Recent Advances on Southeast Asian palaeoanthropology and archaeology, Int. Seminar on Southeast Asian Paleoanthropology, Yogyakarta,

p. 160-168.

Bouteaux, A., A.M. Moigne, F. Semah & T. Jacob (2007)- Les assemblages fauniques associes aux sites a *Homo erectus* du dome de Sangiran (Pleistocene moyen, Java, Indonesie). Comptes Rendus Palevol 6, 3, p. 169-179.
(online at: https://www.sciencedirect.com/science/article/pii/S1631068306001485)
('The faunal assemblages associated with Homo erectus sites at Sangiran (M Pleistocene, Java)'. Homo erectus in fluvial deposits outcropping in several localities. Thirteen taxa of M Pleistocene mammals determined. Lithic tools rare at these sites. Mechanical action of water responsible for accumulations)

Bouteaux, A., A.M. Moigne & K. Setiagama (2008)- Etudes archeozoologiques de sites javanais du Pleistocene: les sites de plein air du dome de Sangiran (Java central) et le site en grotte de Song Terus (Java est). In: Archaeozoology of the Near East VIII, Travaux Maison de l'Orient et de la Mediterranee, 49, p. 79-97.
(online at: www.persee.fr/doc/mom_1955-4982_2008_act_49_1_2702)
('Archeozoologic studies at Pleistocene sites of Java: Sangiran Dome (C Java) and Song Terus cava (E Java)')

Braches, F. & R. Shutler (1984)- The Philippines and Pleistocene dispersal of mammals in island Southeast Asia. Philippine Quarterly Culture and Society 12, 2, p. 106-115.
(Presence of Pleistocene mammalian faunas on Luzon and Mindanao led Von Koenigswald (1935) to propose Pleistocene migration route from mainland SE Asia to Borneo/ Java through Philippines. However, Luzon probably island fauna and Philippines probably played no major role in Pleistocene dispersal of 'Sino-Malayan faunas' to Java)

Brandon-Jones, D. (1998)- Pre-glacial Bornean primate impoverishment and Wallace's Line. In: R. Hall & J.D. Holloway (eds.) Biogeography and geological evolution of SE Asia, Backhuys Publishers, Leiden, p. 393-403.
(online at: http://searg.rhul.ac.uk/searg_uploads/2016/01/Brandon-Jones.pdf)

Brandt, R.W. (1976)- The Hoabinhian of Sumatra: some remarks. Modern Quaternary Research in Southeast Asia 2, p. 49-52.
('Hoabinhian' stone tools from Medan area, N Sumatra. Called 'sumatraliths', made of andesite. Named after E Holocene stone artifact assemblages from N Vietnam)

Brasseur, B. (2009)- Dynamique et histoire des depots du Pleistocene inferieur et moyen ancien du dome de Sangiran (Java central, Indonesie): caracterisation des surfaces d'occupation a *Homo erectus*. Ph.D. Thesis, Museum National Histoire Naturelle, Paris, p. 1-360. *(Unpublished)*
(online at: www.researchgate.net/publication/326655192_Dynamique_et_Histoire_des_depots_du_Plei Etc.)
('Dynamics and history of lower and early M Pleistocene deposits of Sangiran dome (central Java, Indonesia): characterization of Homo erectus occupation layers'. Thick Quaternary sediments of Sangiran dome with oldest human fossils dated to 1.5 Ma, but mainly in Bapang/Kabuh Fm fluvio-volcanic layers dated 1- 0.7 Ma (also with tektite horizon). Ngebung 2 hill with preserved human occupation surface dating to 0.8 Ma. Proposes reconstruction of rivers pathways and development at ~1.0 Ma of alluvial fan coming from N and linked to active tectonic phase. Frequent weathering and reworking of volcanic tuffaceous material may explain wide range of radiometric dates in hominid bearing series. Several mudflows rapidly covered Ngebung 2 H. erectus occupation surface)

Brasseur, B. (2020)- A younger “earliest human migration” to Southeast Asia. New dating suggests that hominids arrived at the Sangiran dome later than had been thought. Science 367, 6474, p. 147-148.
(Comment on Matsu’ura et al. (2020). For 25 years, two competing chronological frameworks for Sangiran sedimentary sequence: (1) “younger” chronology for hominid fossil layers (from 1.3- 1.1 Ma to 0.7- 0.6 Ma); and (2) “older” chronology (1.7- 1.6 Ma until 1 Ma). Matsu’ura et al. (2020) support “younger” model, with new dating of 3 tuffs: below hominid-bearing layers (1.34 Ma), Grenzbank (<0.97 Ma) and lowermost Bapang Fm (0.88 Ma). Also Perning hominin age rejuvenated to <1.49 Ma. “Younger” chronology for Sangiran hominids implies humans migrated from Asia to SE Asia ~300,000 years later than previous estimates)

Brasseur, B., M.A. Courty, B. Deniaux, N. Fedoroff, B. Poreda & F. Semah (2007)- The geodynamic context of the ca. 0.8 Ma layers in the Sangiran Dome (Central Java. Indonesia): traces of the fall-event linked to the Australasian tektites strewn field? In: N.R. Catto (ed.) 17th INQUA Congress, The tropics: heat engine of the Quaternary, Cairns 2007, Quaternary International 167-168, Supplement, p. *(Abstract only)*

Brasseur, B., F. Semah, A.M. Semah & T. Djubiantono (2011)- Approche paleopedologique de l'environnement des hominides fossiles du dome de Sangiran (Java central, Indonesie). Quaternaire (Paris) 22, 1, p. 3-11.
(online at: https://journals.openedition.org/quaternaire/5815)
('Palaeopedological approach of the environment of fossil hominids from the Sangiran dome (Central Java, Indonesia)'. Study of paleo-soils in Pleistocene of Sangiran Dome area, C Java. Six paleosoil types. First fully terrestrial level identified at base of U Pucangan Fm, corresponding to development of open landscape on earlier sites of wide coastal swamps. Higher up, environments indicative of seasonal climate with long dry season, alternating with periods of more humid palustrine conditions. Recurrent aridity proxies in Grenzbank and Kabuh series (with most commont hominid fossils). Soils reflect long dry season and open vegetation landscape, in agreement with stratigraphical and palynological observations)

Brasseur, B., F. Semah, A.M. Semah & T. Djubiantono (2015)- Pedo-sedimentary dynamics of the Sangiran dome hominid bearing layers (Early to Middle Pleistocene, Central Java, Indonesia): a palaeopedological approach for reconstructing '*Pithecanthropus*' (Javanese *Homo erectus*) palaeoenvironment. Quaternary International 376, p. 84-100.
(online at: https://www.academia.edu/78543820/Pedo_sedimentary_dynamics_of_Sangiran_dome_hominid_bearing_layers_L_M_Pleistocene_Java_central_Indonesia_a_paleopedological_approach_of_Pithec Etc.)
(Paleosols in Pleistocene of Sangiran dome, C Java. Base of Upper Sangiran (= Pucangan) Mb earliest continental deposits with fresh-water molluscs, corresponding to development of open landscape with wide coastal marshes and mangroves, with rain forest cover on hinterland. Higher in stratigraphic succession, seasonal climate with long dry season alternating with periods of more humid palustrine conditions. From U Sangiran Mb to lower Bapang (= Kabuh Fm) Mb, erosion of soil cover caused accumulation of pedosediments in topographic depressions. Recurrent aridity proxies in paleosols of Bapang (= Kabuh) Fm, reflecting long dry season and open vegetation landscape)

Broadfield, D., R.L. Holloway, K. Mowbray, A. Silver & S. Marquez (2001)- The endocast of Sambungmacan 3 (Sm3): a new *Homo erectus* from Java. The Anatomical Record 262, 4, p. 369-379.
(online at: https://onlinelibrary.wiley.com/doi/10.1002/ar.1047)
(New fossil calvaria, Sambungmacan3 (Sm3; see also Marquez et al., 2001) one of most advanced and complete endocasts from Java. Sm3 unique morphology, with features similar to both Indonesian and Chinese Homo erectus, but also significant characters reminiscent of later hominins)

Brongersma, L.D. (1935)- Notes on some recent and fossil cats, chiefly from the Malay archipelago. Zoologische Mededelingen 18, p. 1-90.
(online at: www.repository.naturalis.nl/document/149407)

Brongersma, L.D. (1937)- On fossil remains of a Hyaenid from Java. Zoologische Mededelingen 20, p. 186-202.
(online at: www.repository.naturalis.nl/document/150150)
(On hyaenid fossils from Kedung Brubus, C Java, in Dubois collection)
(Study of Recent cats in Indonesian region and on Pleistocene fossils in Dubois collection from Trinil, C Java)

Brongersma, L.D. (1937)- Notes on fossil and prehistoric remains of Felidae from Java and Sumatra. Comptes Rendus XIIe Congres International de Zoologie, Lisbon 1935, p. 1855-1865.

Brongersma, L.D. (1941)- On the remains of carnivora from cave deposits in Java and Sumatra, with notes on recent specimens, I. Zoologische Mededelingen, 23, p. 114-148.
(online at: www.repository.naturalis.nl/document/149372)
(Descriptions of Late Pleistocene carnivore fossils from C Java caves: dog from Gua Lawa (=Wajak man locality) and a marten/weasel (Martes) from Gua Jimbe)

Brongersma, L.D. (1941)- De verzameling van Indische fossielen (Collctie Dubois). De Indische Gids 63, March 1941, p. 97-116.
('The Indies fossils collection (Collection Dubois)')

Brongersma, L.D. (1958)- On an extinct species of the genus *Varanus* (Reptilia, Sauria) from the island of Flores. Zoologische Mededelingen 36, 7, p. 113-125.
(online at: www.repository.naturalis.nl/document/149846)
(Late Pleistocene(?) lizard Varanus hooijeri n.sp. from cave deposits on Flores, collected by T.L. Verhoeven. Associated with Mesolithic flake and blade industry)

Bronson, B. & T. Asmar (1975)- Prehistoric investigations at Tianko Panjang Cave, Sumatra: an interim report. Asian Perspectives 18, 2, p. 128-145.
(Excavation in 1974 of obsidian artifacts in cave in W Jambi, which was first tested by Zwierzycki in early 1920s)

Brothwell, D.R. (1960)- Upper Pleistocene human skull from Niah caves, Sarawak. Sarawak Museum Journal 9, p. 323-349.

Brown, P. (1992)- Recent human evolution in East Asia and Australasia. Philosophical Transactions Royal Society London, B, 337, p. 235-242.
(online at: www.peterbrown-palaeoanthropology.net/Brown%201992%20235-242.pdf)

Brown, P. (1994)- Cranial vault thickness in Asian *Homo erectus* and modern *Homo sapiens*. In: J.L. Lorenz (ed.) In: J.L. Franzen (ed.) 4th Int. Conference 100 years of *Pithecanthropus*. The *Homo erectus* problem, Frankfurt 1991, Courier Forschungsinstitut Senckenberg 171, p. 33-46.
(Thickened cranial vault bone argued to distinguished Homo erectus from H. sapiens, but considerable overlap with modern Australian aboriginal populations and (Chinese) archaic Homo sapiens)

Brown, P. (2001)- Chinese Middle Pleistocene hominids and modern human origins in East Asia. In: L. Barham & K.R. Brown (eds.) Human roots- Africa and Asia in the Middle Pleistocene. University of Bristol, Western Academic Specialist Press, Chapter 10, p. 135-147.
(online at: www.peterbrown-palaeoanthropology.net/Brown%202001%20Chinese%20mid%20Pleist.pdf)

Brown, P. (2012)- LB1 and LB6 *Homo floresiensis* are not modern human (*Homo sapiens*) cretins. J. Human Evolution 62, p. 201-224.
(online at: https://www.peterbrown-palaeoanthropology.net/Brown%202012.pdf)
(Late Pleistocene Homo floresiensis from Liang Bua cave, Flores, associated with stone artefacts and bones of Stegodon. Recent arguments that characteristics of H. floresiensis consistent with dwarfism and delayed development in modern human (Homo sapiens) cretins deemed invalid: no modern human skeleton known with attributes of H. floresiensis)

Brown, P. & T. Maeda (2009)- Liang Bua *Homo floresiensis* mandibles and mandibular teeth: a contribution to the comparative morphology of a new hominin species. J. Human Evolution 57, 5, p. 571-596.
(online at: https://www.peterbrown-palaeoanthropology.net/Brown%20and%20Maeda%202009.pdf)
(Morphological and metrical comparisons of mandibles of Homo floresiensis from Liang Bua place them outside H. sapiens and H. erectus ranges of variation. Mandibles, cranial and postcranial anatomy, limb proportions and functional anatomy of wrist and shoulder in many respects closer to African early Homo or Australopithecus than to later Homo)

Brown, P., T. Sutikna, M. Morwood, R.P. Soejono, Jatmiko, E.W. Saptomo et al. (2004)- A new small-bodied hominin from the Late Pleistocene of Flores, Indonesia. Nature 431, p. 1055-1061.
(online at: https://www.peterbrown-palaeoanthropology.net/nature02999.pdf)
(Discovery of new, tiny hominid Homo floresiensis from Liang Bua cave on Flores)

Brumm, A., F. Aziz, G.D. van den Bergh, M.J. Morwood, M.W. Moore, I. Kurniawan, D.R. Hobbs & R. Fullagar (2006)- Early stone technology on Flores and its implications for *Homo floresiensis*. Nature 441, 7093, p. 624-628.
(C Flores Soa Basin sites contain stone artefacts associated with Stegodon florensis, Komodo dragon, rat, etc., dated as 840-700 ka. Apparent technological continuity with those excavated from Late Pleistocene at Liang Bua cave, 50 km to W, dated as 95-74 and 12 ka, and associated with small-bodied Homo floresiensis)

Brumm, A., D. Bulbeck, B. Hakim, B. Burhan, A.A. Oktaviana, I. Sumantri, J.X. Zhao, M. Aubert, R. Sardi et al. (2021)- Skeletal remains of a Pleistocene modern human (*Homo sapiens*) from Sulawesi. PloS One 16, 9, e0257273, p. 1-27.
(online at: https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0257273)
(First Pleistocene human skeletal remains from Sulawesi, at Leang Bulu Bettu, SW Sulawesi. Dated to 25-16 ka)

Brumm, A., B. Hakim, M. Ramli, M. Aubert, G.D. van den Bergh, Bo Li, B. Burhan + 22 others! (2018)- A reassessment of the early archaeological record at Leang Burung 2, a Late Pleistocene rock-shelter site on the Indonesian island of Sulawesi. PloS One 13, 4, e0193025, p. 1-43.
(online at: https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0193025)
(Leang Burung 2 limestone rock shelter early human occupation site in Late Pleistocene of Maros karst area of S Sulawesi. New stratigraphic information collected in 2007 and 2011-2013)

Brumm, A., G.M. Jensen, G.D. van den Bergh, M.J. Morwood, I. Kurniawan, F. Aziz & M. Storey (2010)- Hominins on Flores, Indonesia, by one million years ago. Nature 464, 7289, p. 748-752.
(online at: www.academia.edu/10968013/Hominins_on_Flores_Indonesia_by_one_million_years_ago)
(Wolo Sege, a new site in Soa Basin, with in- situ stone artefacts stratigraphically below previously discovered Mata Menge site. Ignimbrite overlying artefact layers erupted 1.02 Ma, providing new minimum age for hominins on Flores and predates disappearance from Soa Basin of 'pygmy' Stegodon and giant Geochelone)

Brumm, A., I. Kurniawan, M.W. Moore, Suyono, R. Setiawan, Jatmiko, M.J. Morwood & F. Aziz (2009)- Early Pleistocene stone technology at Mata Menge, Central Flores, Indonesia. In: F. Aziz et al. (eds.) Pleistocene geology, palaeontology and archaeology of the Pleistocene Soa Basin, Central Flores, Indonesia, Chapter 4, Pusat Survei Geologi, Bandung, Special Publ. 36, p. 119-137.
(E Pleistocene stone tool assemblage from Mata Menge in Soa Basin, Flores, is oldest Palaeolithic stone assemblage in well-dated stratigraphic context in SE Asia. 91% of 459 artefacts made from volcanic rocks)

Brumm, A., M.C. Langley, M.W. Moore, B. Hakim, M. Ramli, I. Sumantri, B. Burhan, A.M. Saiful, L. Siagian, Suryatman et al. (2017)- Early human symbolic behavior in the Late Pleistocene of Wallacea. Proc. National Academy of Sciences USA (PNAS) 114, 16, p. 4105-4110.
(onlne at: https://www.pnas.org/doi/10.1073/pnas.1619013114)
(Leang Bulu Bettue cave and rock-shelter in SW Sulawesi with relicts of Late Pleistocene (~30-22 ka) Homo sapiens. Include previously unknown items of personal ornamentation, portable art, etc., fashioned from body parts of endemic animals)

Brumm, A. & M.W. Moore (2012)- Biface distributions and the Movius Line: a Southeast Asian perspective. Australian Archaeology 74, p. 32-46.
(online at: http://ro.uow.edu.au/cgi/viewcontent.cgi?article=7783&context=scipapers)
(Movius Line suggests that 'true' Acheulean biface stone tools, especially handaxes, are common only in Africa and W Eurasia, but bifaces relatively common in SE Asia (e.g. Pacitan/Java, Walanae River/Sulawesi, etc.))

Brumm, A, M.W. Moore, G.D. van den Bergh, I. Kurniawan, M.J. Morwood & F. Aziz (2010)- Stone technology at the Middle Pleistocene site of Mata Menge, Flores, Indonesia. J. Archaeological Science 37, p. 451-473.
(Ola Bula Fm (1.0- 0.65 Ma) at Mata Menge on Flores, yielded largest stone artefact assemblage from bedded and securely dated M Pleistocene in SE Asia. Stone flaking technology described here for first time. Reduction sequence based on the centripetal or 'radial' reduction of transported blanks)

Brumm, A., G.D. van den Bergh, M. Storey, I. Kurniawan, B.V. Alloway, R. Setiawan, E. Setiyabudi, R. Grun et al. (2016)- Age and context of the oldest known hominin fossils from Flores. Nature 534, 7606, p. 249-253.
(Excavations in fluvial valley-fill sandstone at M Pleistocene (0.7 Ma) Mata Menge site, Soa Basin, C Flores, yielded hominin fossils ancestral to Late Pleistocene Homo floresiensis. Hominins inhabited savannah-like open grassland habitat with wetland component, in relatively dry climate, Hominin fossils occur alongside remains of insular fauna (Stegodon florensis, giant rat Hooijeromys nusatenggara, Varanus komodoensis, etc.) and simple stone technology)

Bulbeck, D. (2004)- South Sulawesi in the corridor of island populations along East Asia's Pacific Rim. In: S.G. Keates & J. Pasveer (eds.) Quaternary Research in Indonesia, Chapter 12, Modern Quaternary Research in Southeast Asia 18, Balkema, Leiden, p. 221-258.

Bulbeck, D. & I. Caldwell (2000)- Land of iron. The historical archaeology of Luwu and the Cenrana valley. Results of the origin of complex society in South Sulawesi Project (OXIS). Centre for South-East Asian Studies, University of Hull, p. 1-141. *(online at: www.academia.edu/7476872/Land_of_Iron_The_Historical_Archeology_of_Luwu_and_the_Cenrana_Valley)*

Bulbeck, D. & B. Marwick (2022)- Stone industries of mainland and island Southeast Asia. In: C.F.W. Higham & N.C. Kim (eds.) The Oxford Handbook of Early Southeast Asia, Chapter 5, p. 124-C5._125.
(online at: https://faculty.washington.edu/bmarwick/PDFs/Bulbeck-and-Marwick-2021-Oxford.pdf)
(Archaeological sites with concentrations of flaked stones associated with anatomically modern Homo sapiens, are widespread across Southeast Asia. Two main types of lithic industries: (1) core-based (knapping raw stone to produce cores, used for detaching flakes); and (2) cobble-based (flaking surface of cobbles). Quality of locally available stone underpinned distinction. Dominance of core-based industries in Island SE Asia and cobble-based industries in Mainland SEt Asia (with exceptions such as cobble-based industries in N Sumatra, Niah Caves (Sarawak), and N Moluccas))

Bulbeck, D., M. Pasqua & A. di Lello (2000)- Culture history of the Toalean of South Sulawesi, Indonesia. Asian Perspectives (University of Hawaii Press) 39, 1-2, p. 71-108.
(online at: https://scholarspace.manoa.hawaii.edu/bitstream/10125/17135/1/AP-v39n1-2-71-108.pdf)
(Review of the 'Toalean': microlitihic stone tool assemblages from cave/ rock shelter deposits fills in Miocene limestones in SW Sulawesi, with age ranges between ~8000 and 1500 B.P. First excavated and named in 1902 by P & F. Sarasin. Later work by P. van Stein Callenfels in 1930s, R. van Heekeren in 1940s and Indonesian-Australian expeditions since 1969. Etc.etc.)

Bulbeck, D., I. Sumantri & P. Hiscock (2004)- Leang Sakapao 1, a second dated Pleistocene site from South Sulawesi, Indonesia. In: S.G. Keates & J. Pasveer (eds.) Quaternary Research in Indonesia, Chapter 8, Modern Quaternary Research in Southeast Asia 18, p. 111-128.
(Rock shelter at base of limestone cliff in SW Sulawesi with evidence of Late Pleistocene (~31-20 ka) human habitation (stone artefacts, pottery, etc.)))

Burhan, B., B. Hakim, I. Sumantri, A.M. Saiful, A.A. Oktaviana, R. Sardi, Hasliana, M. Ramli, L. Siagian et al. (2025)- A near-continuous archaeological record of Pleistocene human occupation at Leang Bulu Bettue, Sulawesi, Indonesia. PLoS One 20, 12, e0337993, p. 1-51.
(online at: https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0337993)
(Well-illustrated review of deep-trench excavations at Leang Bulu Bettue limestone cave/ rock-shelter complex in Maros-Pangkep karst region of S Sulawesi .With two phases of M? Pleistocene to late Holocene archeological record: Phase I, with cobble-based core and flake stone artefact production (> 132 ka). fauna dominated by extant dwarf bovids (Bubalus sp., anoas) and now-extinct proboscideans, and evidence for animal butchery. Followed around 40 ka by Phase II, with distinct archaeological signature, including first evidence for burning, artistic expression and symbolic culture. Possibly reflects replacement of archaic hominins by modern humans)

Busk, G. (1869)- Notice of the discovery at Sarawak in Borneo of the fossilized teeth of *Rhinoceros* and of a Cervine ruminant. Proc. Zoological Society of London 37, 1, p. 409-416.

Chia, S., L. Yondri & T. Simanjuntak (2007)- The origins of the obsidian artifacts from Gua Pawon, Dago and Bukit Karsamanik in Bandung, Indonesia. Amerta 25, 1, p. 48-57.
(online at: https://jurnalarkeologi.kemdikbud.go.id/index.php/amerta/article/view/680)
(Obsidian artifacts found in Gua Pawon, Dago and Bukit Karsamanik in Bandung came from well-known sources of Gunung Kendan in Nagreg, Kampung Rejeng in Garut or elsewhere (age of tools ~7-10 ka))

Chia, S., L. Yondri & T. Simanjuntak (2011)- Obsidian sourcing in Bandung, Indonesia. Asian Perspectives 49, 1, p. 148-156.
(online at: https://scholarspace.manoa.hawaii.edu/bitstream/10125/29094/1/AP_V49No1_chia.pdf)
(same paper as above)

Choi, K. & D. Driwantoro (2007)- Shell tool use by early members of *Homo erectus* in Sangiran, central Java, Indonesia: cut mark evidence. J. Archaeological Science 34, 1, p. 48-58.
(1.6- 1.5 Ma old cut marks on Pleistocene bovid bones from Black Clay in Pucangan Fm in Sangiran, inflicted by thick clamshell flakes (presumably during butchery by Homo erectus). This documents first use of tools in Sangiran and oldest evidence of shell tool use in world)

Ciochon, R.L. (2010)- Divorcing hominins from the *Stegodon-Ailuropoda* fauna: new views on the antiquity of hominins in Asia. In: J.G. Fleagle et al. (eds.) Out of Africa I: The first hominin colonization of Eurasia, Chapter 8, Springer, p. 111-126.
(online at: www.researchgate.net/publication/226797194_Divorcing_Hominins_from_the_Stegodon-Ail Etc.)
(Pleistocene Stegodon-Ailuropoda (= Panda) fauna of S China and peninsular SE Asia contains ape species previously attributed to early hominins, but no clear evidence. Early hominins may have inhabited parts of S China without forest, but not with heavily forested, humid-climate adapted Stegodon-Ailuropoda mammalian fauna. Homo erectus likely arrived in Java between 1.8-1.6 Ma, but at ~900 ka hominins and most other contemporary large mammals seem to have left area)

Ciochon, R.L. & O.F. Huffman (2018)- Java Man. In: S. Smith (ed.) Encyclopedia of Global Archaeology, Springer International, p. 1-8.
(online at: https://www.researchgate.net/publication/326681417_Java_man)
(Review of 'Java Man', the popular name for Pleistocene Homo erectus of Java. H. erectus widely distributed in Old World, but in SE Asia limited to 100 skeletal specimens from C and E Java. Discussions of Trinil, Sangiran and Ngandong and Mojokerto hominid sites)

Ciochon, R.L., F. Huffman, E.A. Bettis, Y. Zaim, Y. Rizal & Aswan (2009)- Rediscovery of the *Homo erectus* bed at Ngandong: Site formation of a late Pleistocene hominin site in Asia. American J. Physical Anthropology, Supplement 48, p. 110. *(Abstract only?)*

Clarkson, C, S. Haberle & S. O'Connor (2023)- 40,000 years of technological continuity and change at Madja Kuru 2 Timor-Leste. Quaternary Science Reviews 320, 108340, p. 1-15.
(online at: https://www.sciencedirect.com/science/article/pii/S0277379123003888)
(Timor-Leste known for long-term continuity in Homo sapiens lithic manufacturing techniques that span the last 44,000 years. Confirmation of this pattern at Matja Kuru 2 limestone cave in NE-most Timor Leste close to Lake Ira Lalaro. With earliest known evidence for obsidian and possible inter-island transport in Wallacea)

Cooper, A., Stringer. C.B. (2013)- Did the Denisovans cross Wallace's Line? Science 342, 6156, p. 321-323.
(online at: https://www.researchgate.net/publication/258056301_Did_the_Denisovans_Cross_Wallace's_Line)
(DNA data suggest highest % of Denisovan DNA in modern human populations are in New Guinea and Wallacea (E Indonesia) and in Australian Aborigines, suggesting interbreeding of indigenous? Denisovan humans (who may have arrived after 600,000 years ago) with later-arriving Homo sapiens)

Corlett, R.T. (2010)- Megafaunal extinctions and their consequences in the tropical Indo-Pacific. In: S.G. Haberle et al. (eds.) Altered ecologies: fire, climate and human influence on terrestrial landscapes, Terra Australis 32, ANU Press, Chapter 8, p. 117-131.
(online at: www.jstor.org/stable/pdf/j.ctt24h8rj.10.pdf)
(Global Quaternary Megafauna Extinction (QME) event eliminated 2/3 of all mammal genera, with most well-dated extinctions occurring between ~50-30 ka. Java probably had fully modern fauna by 120 ka. In Indo-Pacific, hominin impacts probably major factor behind most large vertebrate extinctions and range restrictions in the past 130 kyrs and probably earlier ones)

Corvinus, G. (2003)- *Homo erectus* in East and Southeast Asia, and the questions of the age of the species and its association with stone artifacts, with special attention to handaxe-like tools. Quaternary International 117, 1, p. 141-151.
(Many fossil remains of H. erectus found In C Java, but not sure which tools belonged to H. erectus. Sangiran and Ngandong industries of small flakes provisionally connected with H. erectus soloensis. Handaxe-like tools from Pacitan, Java and Cabenge, Sulawesi are of uppermost Pleistocene age and work of modern humans)

Cosijn, J. (1931)- Voorloopige mededeeling omtrent het voorkomen van fossiele beenderen in het heuvelterrein ten Noorden van Djetis en Perning (Midden Java). Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 9, 2, p. 113-119.
('Preliminary communication on the occurrence of fossil bones in the hill country N of Jetis and Perning, C Java'. Localities N of Mojokerto. Bone-bearing layers in folded volcanoclastic sediments with Stegodon, Cervus lydekkeri, Sus, Cervus, Crocodilus, etc.Underlying marine claystones with corals and molluscs. Bone beds deemed similar to Trinil beds, and considered as in Pliocene age (now known as 'Djetis fauna', always viewed by Von Koenigswald as one of the older mammal assemblages on Java, older than Trinil, and of Early Pleistocene age; JTvG))

Cosijn, J. (1932)- Tweede mededeeling over het voorkomen van fossiele beenderen in het heuvelland ten Noorden van Djetis en Perning (Java). Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 9, 3, p. 135-148.
('Second communication on the occurrence of fossil bones in the hill country N of Jetis and Perning, C Java'. More details on fossil mammal localities. No paleontology (latest Pliocene molluscs summarized in Martin (1932))

Covert, H.H., M.W. Hamrick, T. Dzanh & K.C. McKinney (2001)- Fossil mammals from the Late Miocene of Vietnam. J. Vertebrate Palaeontology 21, p. 633-636.

Croft, D.A., L.R. Heaney, J. Flynn & A.P. Bautista (2006)- Fossil remains of a new, diminutive *Bubalus* (Artiodactyla: Bovidae: Bovini) from Cebu Island (Philippines). J. Mammalogy 87, 5, p. 1037-1051.
(online at: https://academic.oup.com/jmammal/article/87/5/1037/894807)
(Small Pleistocene- Holocene Bubalus (Bubalus cebuensis, sp. nov .) likely result of island dwarfing. First fossil mammal reported from Cebu Island and only non-proboscidean from Negros-Panay Philippine Faunal Region)

Curnoe, D., I. Datan, J.X. Zhao, C. Leh Moi Ung, M. Aubert, M.S. Sauffi, G.H. Mei, R. Mendoza & P.S.C. Tacon (2018)- Rare Late Pleistocene-early Holocene human mandibles from the Niah Caves (Sarawak, Borneo). PloS One 13, 6, e0196633, p. 1-17.
(online at: https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0196633)
(Uranium-series dating and descriptions of three partial human mandibles from Niah Caves recovered during excavations by Harrisson in 1957: ~30-28 ka, ~11.0-10.5 ka and ~10.0-9.0 ka (= minimum ages))

Curnoe, D., I. Datan, P.S.C. Tacon, C.L.M. Ung & M.S. Sauffi (2016)- Deep skull from Niah Cave and the Pleistocene peopling of Southeast Asia. Frontiers in Ecology and Evolution 4, 75, p. 1-17.
(online at: http://journal.frontiersin.org/article/10.3389/fevo.2016.00075/full)
(Late Pleistocene Deep Skull from Niah Cave in Sarawak the oldest (>50 ka) anatomically modern human from island SE Asia)

Dammerman, K.W. (1934)- On prehistoric mammals from the Sampoeng cave, Central Java. Treubia 14, p. 477-486.
(online at: https://e-journal.biologi.lipi.go.id/index.php/treubia/article/view/2517/2159)
(Diverse fauna found in Sampoeng cave/rock shelter E of Ponorogo, C Java (first described by Van Es (1929) and more systematically excavated by P.V. van Stein Callenfels around 1930). Associated with Melanesian-like human remains and stone tools (N.B.: Erdbrink (1954) noted that Dammermann failed to report the common Varanus remains from this site, which he believed were an important part of the cave dwellers' diet))

Danisworo, C. (1987)- Lithostratigraphy and magnetostratigraphy of the Quaternary deposits in the Sangiran area, Central Java, Indonesia. Doct. Thesis, Vrije Universiteit, Brussel, p. *(Unpublished)*

Danisworo, C. (1992)- Magnetostratigraphy of Plio-Pleistocene deposits in the Sangiran area, Central Java. Proc. 21st Annual Meeting Indonesian Association Geologists (IAGI), Yogyakarta, 2, p. 477-485.
(online at: https://www.iagi.or.id/web/digital/50/21th-Vol-II-(7-10-Des-1992)-107-116.pdf)
(Normal and reversed magnetic polarities identified in Late Pliocene- Pleistocene in Sangiran Dome. Gauss-Matuyama boundary (2.48 Ma) just above Balanus Limestone of Puren Fm (U Kalibeng Fm). Normal polarity in Cemoro (Pucangan) Fm claystone probaly Olduvai event (~1.87-1.67 Ma). Base Jaramillo event (0.97 Ma) below 'Grenzbank' at base Bapang (Kabuh) Fm. Brunhes- Matuyama reverse to normal transition (0.73 Ma) between TB3 and TB4 tuff horizons in Bapang (Kabuh) Fm (see also Hyodo et al. 1988, 2011, Sunardi 2010))

Danisworo, C. (2001)- Stratigraphic position (in the Quaternary stratigraphy) and the age of *Pithecanthropus erectus* VIII discovered in the Sangiran area, Central Java. Proc. 30th Annual Conv. Indonesian Association Geologists (IAGI) and 10th Reg. GEOSEA Congress, Yogyakarta, Majalah Geologi Indonesia (IAGI) 16, Special Edition, p. 131-139.
(Pithecanthropus erectus VIII skull considered to be from within Jagan Tuff Member, lower Bapang Fm., between 0.97- 0.90 Ma old, or in Pleistocene Jaramillo magnetic event)

Das, I. (1997)- A reassessment of *Hardella isoclina* Dubois, 1908 (Testudines: Bataguridae) from the Trinil beds of the Javan Pleistocene. Herpetological Journal 7, 2, p. 71-73.
(online at: https://www.thebhs.org/publications/the-herpetological-journal/volume-7-number-2-april- Etc.)
(Fossil turtle excavated from Trinil, C Java, and described by E. Dubois in 1908; holotype and sole example of this fossil turtle is at the Leiden Nationaal Natuurhistorisch Museum (NNM; now Naturalis). Here attibuted to genus Mauremys (called Duboisemys isoclina (Dubois, 1908) by Karl et al., (2019) and viewed as aquatic river turtle)

Dawson, M.R. (1971)- Fossil mammals of Java I. Notes on Quaternary Leporidae (Mammalia, Lagomorpha) from Central Java. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, B74, p. 27-32.
(On fossil rabbits/ hares from Pleistocene of Sangiran, C. Java)

D'Cunha, M.G.T., A. Montenegro & J.S. Field (2021)- Modeling water crossings leading to the arrival of early Homo in Sulawesi, Indonesia, via paleoclimate drift experiments. J. Archaeological Science: Reports 40, A, 103194, p. 1-12.
(Lithic tools found at Talepu, Sulawesi, in Wallacea suggest that unidenfied hominins (but predating Homo sapiens; Denisovans?) occupied Sulawesi between ~ 118-194 ka. Borneo most likely departure point. Mindanao departures more likely to arrive in Sulawesi than those from Banda Arc)

De Almeida, A. & G. Zbyszewski (1967)- A contribution to the study of the prehistory of Portuguese Timor lithic industries. In: W. G. Solheim (ed.) Archaeology at the Eleventh Pacific Science Congress. (Asian and Pacific Archaeology, Series 1, Honolulu), p. 55-67).
(One of first records of human stone artifacts from E Timor, from Lene Hara cave. Made from jasper and chert (later more systematic excavations at this locality reported by O'Connor et al. 2002))

De Bruyn, M., B. Stelbrink, R.J. Morley, R. Hall, G.R. Carvalho, C.H. Cannon, G. van den Bergh, E. Meijaard, I. Metcalfe, L. Boitani, L. Maiorano, R. Shoup & T. von Rintelen (2014)- Borneo and Indochina are major evolutionary hotspots for Southeast Asian biodiversity. Systematic Biology 63, 6, p. 879-901
(manuscript online at: https://ro.uow.edu.au/articles/journal_contribution/Borneo_and_Indochina_are_major_evolutionary_hotspots_for_Southeast_Asian_biodiversity/27787422?file=50557956)
(SE Asia (in particular Borneo and Indochina) major 'evolutionary hotspots' for diverse range of fauna- flora. Most of SE Asia's biodiversity result of accumulation of immigrants and in situ diversification. Colonization events comparatively rare from younger emergent islands like Java, which show increased immigration events)

Delfino, M. & J. De Vos (2010)- A revision of the Dubois crocodylians, *Gavialis bengawanicus* and *Crocodylus ossifragus*, from the Pleistocene *Homo erectus* beds of Java. J. Vertebrate Paleontology 30, p. 427-441.
(online at: https://www.researchgate.net/publication/232667880_A_Revision_of_the_Dubois_Crocodylians_Gavialis_Bengawanicus_and_Crocodylus_Ossifragus_from_the_Pleistocene_Homo_Erectus_Beds_of_Java)
(Revision of two extinct Javanese crocodylian species Gavialis bengawanicus Dubois 1908 and Crocodylus ossifragus Dubois 1908 (= C. siamensis Schneider 1801). Both found in Trinil, with Stegodon- Homo erectus fauna, which is considered to be result of E Pleistocene dispersal from Siwaliks Hills via Siva-Malayan route)

Delfino, M. & J. De Vos (2014)- A giant crocodile in the Dubois Collection from the Pleistocene of Kali Gedeh (Java). Integrative Zoology 9, 2, p. 141-147.
(Unpublished crocodylian specimen collected by Dubois in latest E Pleistocene of Kali Gedeh tentatively referred to genus Crocodylus. ~1m long lower jaw indicate total length of ~6-7m)

Delson, E., K. Harvati, D. Reddy, L.F. Marcus, K. Mowbray, G.J. Sawyer, T. Jacob & S. Marquez (2001)- The Sambungmacan 3 *Homo erectus* calvaria: a comparative morphometric and morphological analysis. Anatomical Record 262, 4, p. 380-397.
(online at: https://onlinelibrary.wiley.com/doi/10.1002/ar.1048)
(Sambungmacan (Sm) 3 calvaria, discovered on Java in 1977, presumably dredged from bank of Solo River near Sambungmacan. It was illegally removed from Indonesia in 1998 and appeared in New York City natural history shop in early 1999, now at Gadjah Mada University. Age unknown, but Sm 3 skull features intermediate between classic Homo erectus and more modern humans, with greatest similarity to specimens from Ngandong)

De Lumley, H., F. Semah & T. Simanjuntak (1993)- Les outils du Pithecanthrope. Les dossiers d'Archeologie 184, p. 62-68.
('The tools of Pithecanthropus')

De Neve, G.A. (1949)- Note on the occurrence of the remains of a Cetacean in the alluvial tin deposits of the island of Billiton. Chronica Naturae 105, 4, p. 118-120.
(online at: http://colonial.library.leiden.edu/....)
(Vertebra of fossil whale in Quaternary tin ore-bearing deposits near Manggar, Belitung. Related to fin whale Balaenoptera)

De Neve, G.A. (1949)- Opmerking over de fossiele wervel gevonden in Billiton. Chronica Naturae 105, 11, p. 293-294.
('Remark on the fossil vertebra found on Billiton'. Second whale vertebra fossil from Manggar, Belitung, probably from (Quaternary) marine shell layer first identified by Verbeek at ~2m(?) below sea level)

De Neve, G.A. (1950)- Notitie over vertebraat-fragmenten uit de proefboring Kebajoran. De Ingenieur in Indonesia 1950, 5, p. IV.23-IV.25.
(online at: https://colonialarchitecture.eu/islandora/object/uuid%3A6cdd1184-7f8c-4d56-8823-3cc86d06abef/datastream/PDF/view)
('Note on vertebrate fragments from the test well Kebajoran'. Vertebrate remains from 51,50 m. depth in water well drilled by the Geological Survey Water Supply department) near Kampong Kebajoran, SW of Jakarta, include jaw fragment of Sus brachygnatus with two molars, and indicate M-Pleistocene age of river deposit)

Deninger, K. (1910)- Uber einen Affenkiefer aus den Kendeng-Schichten von Java. Centralblatt Mineralogie Geologie Palaontologie 1910, p. 1-3.
(online at: www.biodiversitylibrary.org/item/192869page/25/mode/1up)
('On a monkey jaw from the Kendeng beds of Java'. Pleistocene fossil jaw with molars collected by Elbert near Saradan, Madiun District (younger than Trinil bone bed). Assigned to Inuus nemestrinus (macaque family))

Dennell, R.W. (2004)- Hominid dispersals and Asian biogeography during the Lower and early Middle Pleistocene, c. 2.0- 0.5 Mya. Asian Perspectives 43, 2, p. 205-226.

Dennell, R.W. (2005)- The Solo (Ngandong) *Homo erectus* assemblage: a taphonomic assessment. Archaeology in Oceania 40, 3, p. 81-90.
(Homo erectus site near base of Solo River terrace deposits at Ngandong, excavated by Oppenoorth of Geological Survey in 1931-1933, differs from other sites with hominin remains in fluvial deposits, because 12 crania are present, but few other skeletal elements (fluvial disarticulation, large carnivores or headhunters?). Most of >25,000 mammalian fossils excavated from Ngandong and stored in Bandung now lost)

Dennell, R.W. (2009)- The Palaeolithic settlement of Asia. Cambridge University Press, p. 1-548.

Dennell, R.W. (2014)- Hallam Movius, Helmut de Terra, and the line that never was; Burma 1938. In: K. Boyle et al. (eds.) Living in the landscape: essays in honour of Graeme Barker, McDonald Institute Archaeological Research, Cambridge, p. 11-34.
(online at: www.researchgate.net/publication/303157763_Hallam_Movius_Helmut_de_Terra_and_the Etc.)
(About the 'Movius Line', a supposed Early Paleolithic paleobiogeographic dividing line)

Dennell, R.W., J. Louys, H.J. O'Regan & D.M. Wilkinson (2014)- The origins and persistence of *Homo floresiensis* on Flores: biogeographical and ecological perspectives. Quaternary Science Reviews 96, p. 98-107.
(online at: www.academia.edu/11413646/The_origins_and_persistence_of_Homo_floresiensis_on_Flor Etc.)
(Stone artifacts suggest hominids arrived on Flores before 1 Ma and small hominin species (Homo floresiensis) lived on Flores in Late Pleistocene. Flores was always island, at least 19 km from other islands on Sunda Shelf, suggesting early hominids reaching Flores were capable of using watercraft)

Dennell, R.W. & M.D. Petraglia (2012)- The dispersal of *Homo sapiens* across southern Asia: how early, how often, how complex? Quaternary Science Reviews 47, p. 15-22.
(Timing and the paths of colonization of S Asia by Homo sapiens poorly known. Dispersal from E Africa between 60- 40 ka, but U Pleistocene population history of S Asia likely complex)

Dennell, R.W. & W. Roebroeks (2005)- An Asian perspective on early human dispersal from Africa. Nature 438, 7071, p. 1099-1104.

De Terra, H. (1943)- Pleistocene geology and early man in Java. In: Research on early man in Burma, Transactions American Philosophical Society, N.S. 32, 3, p. 437-464.
(Review of work by Dubois, Von Koenigswald, etc. on Pleistocene stratigraphy and hominid sites of Java, incl. Mojokerto, Sangiran, Trinil, Ngandong, Pacitan. Includes study of Solo River Quaternary terraces from observations during 1938 fieldtrip with Teilhard de Chardin, Movius and Von Koenigswald)

De Terra, H. (1949)- Geology and climate as factors of human evolution in Asia. In: W.W. Howell (ed.) Early man in the Far East, Symposium, American Assoc. Physical Anthropologists, Chicago 1946, p. 7-15.

Detroit, F. (2000)- The period of transition between *Homo erectus* and *Homo sapiens* in East and Southeast Asia: new perspectives by the way of geometric morphometrics. In: W. Dong (ed.) Proc. 1999 Beijing Int. Symposium on paleoanthropology, Acta Anthropologica Sinica 19 (Suppl.), p. 75-81.
(Comparison of morphometric components of human skulls from ~2.5 Ma- present. Always clear distinction between H. erectus and H. sapiens cranial architecture. Ngandong specimens (= 'H. soloensis') sometimes considered archaic Homo sapiens, but typical Homo erectus architecture)

Detroit, F. (2002)- Origin et evolution des *Homo sapiens* en Asie du Sud-Est: descriptions et analyses morphometriques de nouveaux fossiles. Doct. Thesis Museum National Histoire Naturelle, Paris, p. 1-445.
(online at: http://hopsea.mnhn.fr/pc/thesis/Detroit_2002_PhD_thesis.pdf)
(' Origin and evolution of Homo sapiens in SE Asia: overview and morphometric analyses of new fossils'. Study of U Pleistocene- Holocene Homo sapiens populations from Malaysia, Java (Wajak, Tulungagung, Gua Lawa, Gunung Sewu, etc.), Flores, Thailand (Moh Khiew), Palawan (Tabon). Two periods in Pleistocene evolution of Homo: (1) time of Homo erectus, marked by some endemism in SE Asia archipelago, (2) intensified migrations with first arrival of H. sapiens in M Pleistocene)

Detroit, F. (2006)- *Homo sapiens* in Southeast Asian archipelagos: the Holocene fossil evidence with special reference to funerary practices in East Java. In: H.T. Simanjuntak et al. (eds.) Proc. Symposium Austronesian diaspora and the ethnogeneses of people in Indonesian archipelago, Solo, Indonesian Inst. Science (LIPI), Jakarta, p. 186-204.
(On Homo sapiens fossils from Gunung Sewu area, Southern Mountains of Java (Song Terus, Song Keplek, Goa Braholo), and their funeral practices)

Detroit, F., J. Corny, E.Z. Dizon & A.S. Mijares (2013)- ""Small Size" in the Philippine human fossil record: Is it meaningful for a better understanding of the evolutionary history of the Negritos?. Human Biology 85, 1 (Special Issue on revisiting the “Negrito” hypothesis), 3, p. 45-63.
(online at: http://digitalcommons.wayne.edu/humbiol/vol85/iss1/3)

Detroit, F., A.S. Mijares, J. Corny, G. Daver, C. Zanolli, E. Dizon, E. Robles, R. Grun & P.J. Piper (2019)- A new species of *Homo* from the Late Pleistocene of the Philippines. Nature 568, 7751, p. 181-186.
(ms online at: https://hal.archives-ouvertes.fr/hal-02296712/file/Detroit_&_al_2019_Nature_postprint.pdf)
(Hominin foot bone from Callao Cave (N Luzon) dated to 67 ka, providing earliest evidence of human presence in Philippines. Twelve additional hominin elements in same layer combination of primitive and derived morphological features, different from other species and warrants attribution to new species Homo luzonensis)

De Visser, J.A. (2008)- The extinct genus *Hexaprotodon* Falconer & Cautley, 1836) (Mammalia, Artiodactyla, Hippopotamidae) in Asia: paleoecology and taxonomy. Ph.D. Thesis University of Utrecht, p. 1-390.
(online at: https://dspace.library.uu.nl/bitstream/handle/1874/31366/visser.pdf?sequence=2)
(Study of Asian (‘Siwalik’) Pleistocene hippopotamid Hexaprotodon, including H. sivajavanicus Dubois 1908 in Java (Kali Glagah, Kedung Brubus and Ngandong. Two sub-species described from Java (Hippopotamus sivalensis koenigswaldi Hooijer 1942 and H.sivalensis soloensis Hooijer 1950) viewed as younger synonyms and parts of natural variability. Javanese Hexaprorodon tends to be smaller than H. from Siwaliks, India)

De Vos, J. (1983)- The *Pongo* faunas from Java and Sumatra and their significance for biostratigraphical and paleo-ecological interpretations: Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, B86, p. 417-425.
(Fossil faunas from Punung, Java, and Sumatran caves. Biostratigraphically intermediate between Ngandong and Wadjak faunas, and both indicative of humid forest climate)

De Vos, J. (1985)- De Collectie Dubois. Cranium 1985, p. 26-32.
(online at: http://natuurtijdschriften.nl/download?type=document&docid=523096)
(Brief review of life of E. Dubois and his Pithecanthropus discoveries on Java. Very little on other fossils in Dubois collection)

De Vos, J. (1985)- Faunal stratigraphy and correlation of the Indonesian hominid sites. In: E. Delson (ed.) Ancestors, the hard evidence, A.R. Liss, New York, p. 215-220.
(Review of succession of Pleistocene mammalian faunas from E Java, as also described by Sondaar (1984). From old to young: Satir, Ci Saat, Trinil HK, Kedung Brubus, Ngandong, Punung and Wajak. Oldest faunas rel. poor island faunas. Kedung Brubus fauna reflects greatest interchange with Asian mainland. Oldest hominids in Sangiran of Trinil HK or Ci Saat age)

De Vos, J. (1994)- *Homo modjokertensis*; vindplaats, ouderdom en fauna. Cranium 11, 2, p. 103-107.
(online at: http://natuurtijdschriften.nl/download?type=document&docid=523348)
('Homo modjokertensis; locality, age and fauna'. Discussion of Swisher et al. (1994), who suggest new 1.81 Ma radiometric age of Homo modjokertensis beds, indicating Homo erectus-like fossils may have originated in Asia, not in Africa as generally assumed. Magnetostratigraphic work, associated mammals and uncertainty about exact level of H. modjokertensis skull suggest Swisher's Ar/Ar age and conclusions may be wrong, and H. mojokertensis probably younger)

De Vos, J. (1995)- The migration of *Homo erectus* and *Homo sapiens* in SE Asia and the Indonesian Archipelago. In: J.R.F. Bower & S. Sartono (eds.) Human evolution in its ecological context, Proc. Pithecanthropus Centennial Congress, Leiden 1993, vol. 1, Evolution and ecology of *Homo erectus*, DSWO Press, p. 239-260.

De Vos, J. (1996)- Faunal turnovers in Java in relation to faunas of the continent. Odontologie, Association for comparative Odontology, 1, p. 32-36.
(Commonly quoted, but hard to find paper)

De Vos, J. (2002)- A century of Dutch paleo-anthropological research in Indonesia. In: H. Vermeulen & J. Kommers (eds.) Tales from academia; history of anthropology in the Netherlands. Niccos, Nijmegen Studies in Development and Cultural Change 40, 2, p. 1095-1116.

De Vos, J. (2004)- The Dubois collection: a new look at an old collection. In: C.F. Winkler Prins & S.K. Donovan (eds.) VII Int. Symposium 'Cultural Heritage in Geosciences, Mining and Metallurgy: Libraries - Archives - Museums, Leiden 2003, Scripta Geologica, Special Issue, 4, p. 267-285.
(online at: www.repository.naturalis.nl/document/148593)
(Description of large Dubois collection in Leiden Naturalis museum and its role in studies of Java Pleistocene stratigraphy, mammal faunas, faunal migrations, hominid evolution, etc.)

De Vos, J. (2009)- Receiving an ancestor in the phylogenetic tree. Neanderthal Man, *Homo erectus* and *Homo floresienses*: l'histoire se repete. J. History of Biology 42, 2, p. 361-379.
(Each of the three above hominid species generated widespread discussions and criticism when they were first introduced. It took/ will take one generation before the meaning of these finds was/ will be accepted)

De Vos, J. (2013)- Mid-Pleistocene of Southern Asia. In: S.A. Elias (ed.) Encyclopedia of Quaternary Science, Elsevier, 4, 2n Edition of 2007 book, p. 651-663.
(online at: https://www.researchgate.net/publication/288160779_VERTEBRATE_RECORDS_Mid-Pleistocene_of_Southern_Asia)
(SE Asia Pleistocene land fossils 3 groups:(1) E-M Pleistocene from open sites of Siwaliks, etc. in India–Pakistan, Irrawadi (Myanmar), Nakorn Sawan (Thailand), Satir, Ci saat, Trinil, Kedung Brubus, and Ngandong from Java: only extinct species, mainly open woodlands, including Homo erectus; (2) M-L Pleistocene records from caves/ fissures of S China, Vietnam, Laos, Thailand, Sumatra, Java and Borneo:most species still extant, with Pongo (orangutan) and probably with late Pleistocene H. sapiens; (3) Late Pleistocene- E Holocene from Wallacea (Sulawesi, Flores, Timor, Sumba), Sangihe and Philippines: unbalanced endemic island faunas, with few genera of small proboscideans, pig, large mammals (incl. giant rats, but no carnivores))

De Vos, J. (2014)- The history of palaeoanthropological research in Asia: reasons and priorities for future cooperation in research and preservation of sites and collections. In: N. Sanz (ed.) Human origin sites and the World Heritage Convention in Asia, UNESCO World Heritage Papers 39, p. 68-82.
(online at: http://unesdoc.unesco.org/images/0022/002291/229174e.pdf)
(Review of history of paleoanthropology in SE Asia and principal localities in Indonesia)

De Vos, J. & F. Aziz (1987)- Note on two upper canines of *Megantereon* sp. (Mammalia, Felidae) from the Pleistocene of Java. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, B90, p. 57-63.

(Teeth of sabre-tooth cat, found by Indonesian-Japanese team in 'Grenzbank' Bed in Sangiran Dome, C Java, and reported as Homotherium zwierzyckii. These canines belong to Megantereon sp.)

De Vos, J. & F. Aziz (1989)- The excavations by Dubois (1891-1900), Selenka (1906-1908) and the Geological Survey by the Indonesian-Japanese Team (1976-1977) at Trinil (Java, Indonesia). J. Anthropological Society of Nippon 97, 3, p. 407-420.
(online at: https://www.jstage.jst.go.jp/article/ase1911/97/3/97_3_407/_pdf)
(Reconstructions of Dubois' (poorly documented) excavations along both sides of the Solo River at Trinil in 1891-1893 (which were continued until 1900 by sergeants Kriele and De Winter after Dubois' return to The Netherlands in 1895), and compared to Selenka Expedition work of 1906-1908. Both teams excavated down to the bottom of the main bone layer ('Hauptknochenschicht'; ~1.0 Ma)))

De Vos, J., F. Aziz & P.Y. Sondaar (1993)- Les faunes quaternaires de Java. In: F. Semah & D. Grimaud-Herve (eds.) Le Pithecanthrope de Java, a la decouverte du chainon manquant, Les dossiers d'Archeologie 184, p. 56-61.
('The Quaternary faunas of Java'. Age of Ngandong hominids (H. soloensis or 'advanced H. erectus) ~80,000 to 250,000 years)

De Vos, J., F. Aziz, E. Setiabudi, G.D. van den Bergh & E.Y. Patriani (2007)- A new vertebrate fossil locality near Sumberdadi, Mojokerto (East Java, Indonesia). Proc. International Senckenberg conference, Late Neogene and Quarternary biodiversity and evolution: regional developments and interregional correlations, Weimar 2006, 2, Courier Forschungsinstitut Senckenberg (CFS) 259, p. 175-180.
(36 vertebrate fossils from new locality in sand quarry near Sumberdadi, ~30 km N of Mojokerto, E Java, incl. Stegodon trigonocephalus cf. ngandongensis, Bibos palaeosondaicus, Axis lydekkeri, Rusa sp. and crocodile remains. Advanced stage of Stegodon suggests late M- Late Pleistocene, comparable to Ngandong fauna)

De Vos, J., F. Aziz, P.Y. Sondaar & G.D. van den Bergh (1995)- *Homo erectus* in S.E. Asia: time space and migration routes, III. Migration routes and evolution. In: J. Gibert et al. (eds.) Proc. Int. Conference The hominids and their environment during the Lower and Middle Pleistocene of Eurasia, Orce 1995, p. 369-381.
(Brief review of Pleistocene mammal fossil occurrences in SE Asia. E-M Pleistocene migration via Siva-Malayan route from Siwaliks via Birma to Java brought in Homo erectus in M Pleistocene. During Late Pleistocene Sunda Shelf became connected with continent, causing migration from China, Vietnam, Cambodia via 'Sino-Malayan' corridor, bringing in Homo sapiens and leading to extinction of Homo erectus)

De Vos, J. & A. Bautista (2001)- An update on the vertebrate fossils from the Philippines. National Museum Papers 11, p. 58-62.

De Vos, J. & A. Bautista (2001)- 2003. Preliminary notes on the vertebrate fossils from the Philippines. Proc. Society of Philippine Archaeologists 1, p. 46-62

De Vos, J., A. Bouteaux & A. Bautista (2007)- The mammalian faunas chronology in island Southeast Asia. In: A.M. Semah & K. Setiagama (eds.) First Islanders; human origins patrimony in Southeast Asia, p. 81-84.
(online at: http://hopsea.mnhn.fr/pc/brochures/2007HOPseaFI.pdf)
(Brief review of Pleistocene mammal fauna evolution of SE Asia. Parts of Java first emerged above sea level at ~1.8 Ma. First mammals to reach Java unbalanced island fauna (Satir Fauna of Bumiayu and Sangiran, with hippos (Hexaptotodon), cervids and mastodon (Sinomastodon bumiajuensis)). At 1.2 Ma better connection with Java, with arrival of more balanced Ci Saat fauna, including tigers, and more diverse Trinil Fauna with Homo erectus no later than 1.0 Ma. Around 0.8 Ma new migration to Java (Kedung Brubus Fauna, with first Elephas). Next fauna is Ngandong Fauna that includes Solo Man, a Homo erectus with larger brain size than older forms, that lived until ~0.2 Ma. Final faunas Punung Fauna (~120ka) and Wajak Fauna, both tropical rainforest assemblages, with Homo sapiens)

De Vos, J., S. Sartono, S. Hardja-Sasmita & P.Y. Sondaar (1982)- The fauna from Trinil, type locality of *Homo erectus*: a reinterpretation. Geologie en Mijnbouw 61, 2, p. 207-211.

(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0ZlN5anhJdHF5YWs/view)
(Revision of Von Koenigswald's mammal stratigraphy. Fauna at Trinil type locality rel. low in species and is older than 'Jetis-fauna' of Von Koenigswald 1934 (= Kedung Brubus fauna). Many endemic species, suggesting island setting (see also comments of Bartstra (1983) defending Von Koenigswald's work, and discussion of Hooijer and Kurten (1984))

De Vos, J. & P.Y. Sondaar (1982)- The importance of the 'Dubois collection' reconsidered. Modern Quaternary Research in Southeast Asia 7, Balkema, Rotterdam, p. 35-63.
(Review of Dubois collection of Pleistocene mammals from C Java, mainly from excavations at Trinil along Solo River and Kedung Brubus near Madiun in 1890's. Material in Naturalis Museum, Leiden, since. Much of material not collected in stratigraphic context. With locality maps and listings of species)

De Vos, J. & P.Y. Sondaar (1994)- Dating hominid sites in Indonesia. Science 266, p. 1726-1727.
(Question correctness of Swisher et al. (1994) older-than-generally-accepted new radiometric ages of pumice associated with Java hominids at Mojokerto and Sangiran sites of C Java (1.8-1.66 Ma instead of 'conventional' 0.97-0.73 Ma))

De Vos, J., P.Y. Sondaar, G.D. van den Bergh & F. Aziz (1994)- The *Homo* bearing deposits of Java and its ecological context. In: J.L. Franzen (ed.) 4th International Conference 100 years of *Pithecanthropus*. The *Homo erectus* problem, Frankfurt 1991, Courier Forschungsinstitut Senckenberg 171, p. 129-140.
(online at: www.researchgate.net/publication/281085976_The_Homo_bearing_deposits_of_Java_and_i Etc.)
(Discussion of Quaternary faunal succession of Java: (1) Satir (lower Kali Klagah series in Bumiayu; island fauna), (2) Ci Saat (upper Kali Glagah, Sangiran upper Black Clay; 1.2 Ma), (3) Trinil H.K. (1 Ma; with first Homo erectus; large amounts of bovids suggest rel. dry, glacial period), (4) Kedung Brubus Fauna (= upper Bapang Fm at Sangiran, ~0.8 Ma; also rel. dry climate), (5)Ngandong (with Homo erectus soloensis), (6) Punung (Late Pleistocene; common primates indicates humid tropical forest environment; last interglacial?), (7) Wajak (Wajak cave; Holocene with Homo sapiens). All Pleistocene Java hominids are Homo erectus, but with several subspecies)

De Vos, J., L.W. van den Hoek Ostende & G.D. van den Bergh (2007)- Patterns in insular evolution of mammals: a key to island palaeogeography. In: W. Renema (ed.) Biogeography, time, and place: distributions, barriers, and islands, Chapter 10, Springer, p. 315-345.
(online at: https://www.researchgate.net/publication/227064513_Patterns_in_Insular_Evolution_of_Mammals_A_Key_to_Island_Palaeogeography)
(Dwarfism and gigantism in unbalanced faunas on islands attest that only a few non-flying mammals were able to reach island. Pygmy elephants and giant rats evolved in isolation of these insular environments. Includes review of Pleistocene mammal island faunas of SE Asia)

De Vos, J. & T.L. Vu (2001)- First settlements: relations between continental and insular Southeast Asia. In: F. Semah et al. (eds.) Proc. International Symposium Origine des peuplements et chronologie des cultures paleolithiques dans le sud-est asiatique, Paris 1998, 24, p. 225-249.

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('Sedimentological and paleomagnetic study of the last marine deposits of the Solo depression (Java, Indonesia')

Djubiantono, T. (1992)- Les derniers depots marins de la depression de Solo (Java Central, Indonesie): chronostratigraphie et paleogeographie. Doct. Thesis, Museum National Histoire Naturelle, Paris, p. 1-208. *(Unpublished)*
('The final marine deposits of the Solo Depression, Central Java; chonostratigraphy and paleogeography'. Kaliuter region of C Java at S flank of Kendeng Hills with thick regressive marine facies. Marine regression deatd as ~2.4 Ma. Two folding phases in Kendeng zone, one at 0.7 Ma, one before 1 Ma. Paleogeographic evolution of Solo Depression and associated fossiliferous sites)

Djubiantono, T. (1993)- Umur alat batu Kedungcumpleng di daerah Kaliuter, Solo, Jawa Tengah. Proc. 22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 292-303.
(online at: https://www.iagi.or.id/web/digital/61/31.pdf)
('Age of the Kedungcumpleng stone tools in the Kaliuter area, Solo, Central Java'. Pleistocene correlations and chronostratigraphy and correlations of sections in Kaliuter area, 30km N of Solo. Kedungcumpleng site in Jaramillo paleomagnetic episode (0.87-0.97 Ma), and considered site with oldest hominid stone tools in Java)

Djubiantono, T. & F. Semah (1991)- Lower Pleistocene marine-continental transitional beds in the Solo depression and their relation to the environment of the Pucangan hominids. In: P. Bellwood (ed.) Indo-Pacific Prehistory 1990, Bull. Indo-Pacific Prehistory Association (IPPA) 11, p. 7-13.
(Online at: http://ejournal.anu.edu.au/index.php/bippa/article/view/595/584)
(Kaliuter River section 10 km N of Sangiran shows transition from Pliocene folded marine Lower KalibengFm marls and Late Pliocene- E Pleistocene Upper Kalibeng Fm regressive series, unconformably overlain by unfolded M-U Pleistocene non-marine series with hominids. 'Grenzbank' is unconformity surface)

Djubiantono, T. & F. Semah (1993)- L'ile de Java et son peuplement. In: F. Semah et al. (eds.) Le Pithecanthrope de Java, Les dossiers d' Archeologie 184, p. 12-19.
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Djubiantono, T., F. Semah, A.M. Semah, H. Saleki, C. Falgueres & G. Feraud (1994)- Pertanggalan radiometri pada lapisan pengandung *Homo erectus* di Ngebung (Jawa Tengah, Indonesia) hasil pendahuluan. Proc. 23rd Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 1, p. 184-191.
('Radiometric dating of the Homo erectus-bearing layer in Ngebung (Central Java, Indonesia), preliminary results'. Ngebung site at NW side of Sangiran Dome with rather variable results from different radiometric dating methods just above 'Grenzbank' layer: Ar/Ar of amphibole from tuff ~811 ± 25 ka; U/Th and ESR much younger)

Downing, K.F. (1995)- A large tropical rat from the late Pliocene Walanae Formation, Sulawesi, Indonesia. In: 55th Annual Meeting Soc. Vertebrate Paleontology, Pittsburgh 1995, J. Vertebrate Paleontology 15, Supplement to No. 3, p. 26A-27A. *(Abstract only)*
(First small mammal fossils recovered from Sulawesi, in Late Pliocene Walanae Fm near Lakibong, SW Sulawesi: lower molars of large rat)

Downing, K.F., G.G. Musser & L.E. Park (1998)- The first fossil record of small mammals from Sulawesi, Indonesia; the large murid, *Paruromys dominator*, from the Late(?) Pliocene Walanae Formation. In: Y. Tomida

et al. (eds.) Advances in vertebrate paleontology and geochronology. National Science Museum, Tokyo, Monograph 14, p. 105-121.
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(online at: https://press-files.anu.edu.au/downloads/press/n12084/pdf/ch04.pdf)
(Historic review of five phases of exploration and human use of caves in Sumatra, including cave excavations by E. Dubois in late 1800s)

Drieenhuizen, C. & F. Sysling (2021)- Java Man and the politics of natural history: an object biography. Bijdragen Taal Land en Volkenkunde (J. Humanities Social Sciences SE Asia and Oceania) 177, 2-3, p. 290-311.
(online at: https://brill.com/view/journals/bki/177/2-3/article-p290_9.xml?language=en)
(Review of hominid artifacts of Java Man from Indonesia in Dutch museums)

Dubois, E. (1888)- Over de wenschelijkheid van een onderzoek naar de diluviale fauna van Ned. Indie, in het bijzonder van Sumatra. Natuurkundig Tijdschrift voor Nederlandsch-Indie 48, p. 148-165.
('On the desirability of an investigation into the diluvial (= Pleistocene) fauna of the Netherlands Indies'. 'Officer of Health' Eug. Dubois in Padang argues that Pleistocene mammals from Java are still little known (except Martin (1887) paper), and can be compared to Siwalik-fauna of India. Fossil faunas which can be expected in caves also barely investigated. Also argues that great apes are limited to the Tropics, and that ancestors of humans should be expected in the Tropics, possibly in the three larger Sunda islands)

Dubois, E. (1891)- Voorlopig bericht omtrent het onderzoek naar de Pleistocene en Tertiaire vertebraten-fauna van Sumatra en Java, gedurende het jaar 1890. Natuurkundig Tijdschrift voor Nederlandsch-Indie 51, p. 93-100.
('Preliminary report on investigation of Pleistocene and Tertiary vertebrate fauna of Sumatra and Java during the year 1890'. Mentions excavation of Lida Ajer cave in Padang Highlands, with rich Late Pleistocene rainforest mammalian fauna, incl. orang-utan, and two human teeth (see also Hooijer 1948, Westaway et al. 2017))

Dubois, E. (1894)- *Pithecanthropus erectus*. Eine menschenaehnliche Uebergangsform aus Java. Landsdrukkerij, Batavia, p. 1-64.
(online at: https://ia802704.us.archive.org/28/items/Pithecanthropus00Dubo/Pithecanthropus00Dubo.pdf)
(also in Jaarboek Mijnwezen Nederlandsch Oost-Indie 1895, Wetenschappelijk Gedeelte, p. 5-77)
('Pithecanthropus erectus a transitional human-like transitional form from Java' Classic first description of 'Java man'/ Homo erectus, based on skull cap, femur (upper thigh bone)and molar from Trinil)

Dubois, E. (1896)- On *Pithecanthropus erectus*: a transitional form between Man and the apes. Journal of the Anthropological Institute of Great Britain and Ireland 25, p. 240-255.
(English language abstract of Dubois (1894) about Homo erectus discovery at Trinil, Java, with extensive discussions with members of the Royal Anthropological Institute)

Dubois, E. (1896)- On *Pithecanthropus erectus*, a transitional form between man and the apes. Transactions Royal Dublin Society, Ser. 2, 6, p. 1-18.

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('Some results from the Netherlands side regarding the knowledge of the Kendeng (Trinil) fauna'. Brief review of Pleistocene mammal fossils. Most bones in coarser lapilli tuffs, suggesting killing by volcanic eruptions. Fragmentary nature of fossils probably due to crocodiles)

Dubois, E. (1908)- Das geologische Alter der Kendeng- oder Trinil-Fauna. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2), 25, p. 1235-1270.
('The geologic age of the Kendeng or Trinil fauna'. Suggests most likely age of hominid bearing beds is Late Pliocene (subsequent workers all assume Pleistocene age))

Dubois, E. (1920)- De proto-Australische fossiele mensch van Wadjak (Java), I-II. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, B 19, p. 88-105 and p. 866-887.
('The Proto-Australian fossil man of Wadjak (Java)'. Dutch version of Dubois 1922).

Dubois, E. (1922)- The Proto-Australian fossil man of Wadjak, Java. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, B 23, 7, p. 1013-1051.
(online at: https://ia802802.us.archive.org/14/items/proceedingsofsec232koni/proceedingsofsec232koni.pdf)
(On 'Wajak Man', from slopes of Gunung Lawa limstone scarp near Wajak, 2 km SSW of Tjampur Darat, E Java (believed by Dubois to be of Pleistocene age and ancestor of Australian aborigenes, but age too young for that? (6-10 ka or younger; Storm 1995))

Dubois, E. (1924)- On the principal characters of the cranium and the brain, the mandible and the teeth of *Pithecanthropus erectus*. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 27, 3, p. 265-278.
(Dutch version of Dubois 1926 in Proc. KNWAW 29, 5)

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(Illustration of mandible found by Dubois in Kedung Brubus, E Java, in 1890, but not described before (see also Tobias 1966))

Dubois, E. (1926)- *Manis palaejavanica*, het reuzenschubdier van de Kendeng fauna. Verslagen Koninklijke Akademie van Wetenschappen, Amsterdam, 35, 8, p. 949-958.
(Dutch version of Dubois 1926)

Dubois, E. (1926)- *Manis palaejavanica*, the giant pangolin of the Kendeng fauna. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 29, 9, p. 1233-1243.
(online at: https://dwc.knaw.nl/DL/publications/PU00015393.pdf)
(Description of large Pleistocene ant eater from Kedung Brubus, 40 km ESE of Trinil, C Java. Possibly suggesting drier climate than today)

Dubois, E. (1934)- New evidence of the distinct organization of *Pithecanthropus*. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 37, 3, p. 139-145.
(online at: https://dwc.knaw.nl/DL/publications/PU00016532.pdf)

Dubois, E. (1935)- On the gibbon-like appearance of *Pithecanthropus erectus*. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 38, 6, p. 578-585.
(online at: https://dwc.knaw.nl/DL/publications/PU00016738.pdf)
(Thighbones of Pithecanthropus erectus suggest close affinity with gibbon group of apes. In this paper Dubois no longer believes Pithecanthropus is the 'missing link' human ancestor)

Dubois, E. (1935)- The sixth (fifth new) femur of *Pithecanthropus erectus*. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 38, 8, p. 850-852.

Dubois, E. (1936)- Racial identity of *Homo soloensis* Oppenoorth (including *Homo modjokertensis* von Koenigswald) and *Sinanthropus pekinensis* Davidson Black. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 39, 10, p. 1180-1185.
(online at: https://dwc.knaw.nl/DL/publications/PU00016989.pdf)

Dubois, E. (1937)- On the fossil human skulls recently discovered in Java and *Pithecanthropus erectus*. Man (Royal Anthropological Insitute of Great Britain and Ireland) 37, 1, p. 1-7.
(Recently discovered Homo soloensis at Ngandong, E Java, is primitive Homo sapiens and proto-Australian. 'He has nothing in common with Pithecanthropus erectus')

Dubois, E. (1938)- The mandible recently described and attributed to *Pithecanthropus* by G.H.R. von Koenigswald, compared with the mandible of *Pithecanthropus erectus* described in 1924 by Eug. Dubois. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 41, 2, p. 139-147.
(online at: https://dwc.knaw.nl/DL/publications/PU00017147.pdf)
(Critique of information sent in a private letter of July 1937 by Von Koenigswald from Bandung, about discovery of new Pithecanthropus mandible fragment)

Dubois, E. (1940)- The fossil human remains discovered in Java by G.H.R. von Koenigswald and attributed by him to *Pithecanthropus erectus* in reality remains of *Homo wadjakensis* (syn. *Homo soloensis*). Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 43, 4, p. 494-496.
(online at: https://dwc.knaw.nl/DL/publications/PU00017432.pdf)
(Another of cranky-old Dubois criticisms of Von Koenigswald's work, here claiming that all of Von K's Pithecanthropus finds are 'doubtless' Homo soloensis.)

Dubois, E. (1940)- The fossil human remains discovered in Java by G.H.R. von Koenigswald and attributed by him to *Pithecanthropus erectus* in reality remains of *Homo sapiens soloensis*. Continuation. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 43, 7, p. 842-854.
(online at: https://dwc.knaw.nl/DL/publications/PU00017474.pdf)
(Part 2 of Dubois criticisms of Von Koenigswald's work. Interesting comment (p. 851): 'Man did not come into being in the Darwinian way, by gradual transformations required by the outer world power, but by inner world, autonomous, power')

Dubois, E. (1940)- The fossil human remains discovered in Java by G.H.R. von Koenigswald and attributed by him to *Pithecanthropus erectus* in reality remains of *Homo sapiens soloensis*. Conclusion. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 43, 10, p. 1268-1275.
(online at: https://dwc.knaw.nl/DL/publications/PU00017522.pdf)
(Part 3 of Dubois criticisms of Von Koenigswald's work)

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Durband, A.C. (2004)- A test of the multiregional hypothesis of modern human origins using basicranial evidence from Indonesia and Australia. Ph.D. Thesis University of Tennessee, Knoxville, p. 1-236.
(online at: https://trace.tennessee.edu/utk_graddiss/2155)
(Features on cranial base in Ngandong hominids unique to that group. Autapomorphic characters in Ngandong population, in conjunction with previous work on Pleistocene paleoecology of Java, suggests multiple hominid species inhabited Java in Pleistocene. Also provides strong evidence of discontinuity between Indonesian Homo erectus and earliest Homo sapiens in Australasian fossil record)

Durband, A.C. (2006)- Craniometric variation within the Pleistocene of Java: the Ngawi 1 cranium. Human Evolution 21, 3, p. 193-201.
(online at: https://www.researchgate.net/publication/226150468_Craniometric_Variation_within_the_Pleistocene _of_Java_The_Ngawi_1_Cranium)
(Ngawi 1 homonid cranium discovered in 1987 submerged in Solo River near village of Selo puro, E Java. Described earlier by Widianto and Zeitoun (2003). Ngawi calvaria strong shape similarities to Ngandong and Sambungmacan fossils)

Durband, A. (2008)- Mandibular fossa morphology in the Ngandong and Sambungmacan fossil hominids. Anatomical Record 291, p. 1212-1220.

Durband, A. (2009)- Southeast Asian and Australian paleoanthropology: a review of the last century. J. Anthropological Sciences 87, p. 7-31.
(Review of study of hominids of SE Asia and Australia since work of Dubois. Populations represented by fossils from Sangiran and Ngandong, Java, went extinct without contributing genes to modern Australians)

Duval, M., K. Westaway, J. Zaim, Y. Rizal, Aswan, M.R. Puspaningrum, A. Trihascaryo, P.C. H. Albers, H.E. Smith et al. (2021)- New chronological constraints for the Late Pleistocene fossil assemblage and associated breccia from Ngalau Sampit, Sumatra. Open Quaternary 7, 9, p. 1-23.
(online at: https://www.openquaternary.com/articles/10.5334/oq.96/)
(First numerical ages for palaeontological assemblage and associated sediment from Ngalau Sampit cave, near Payakumbuh, first examined by M.E. Dubois in 1889. Three tooth samples Sus, cervid, bovid) U-series/ESR mean age of 105 ± 9 ka. Three breccia samples mean age 93 ± 6 ka.). Third site from Padang Highlands to be radiometrically dated, after Lida Ajer and Ngalau Gupin. Correlates to MIS 5, and Punung site in Java)

Earl of Cranbrook, A.P. Currant & G.W. Davison (2000)- Quaternary mammal fossils from Borneo: *Stegodon* and *Hippopotamus*. Sarawak Museum Journal 55, 76, p. 215-233.
(First report of Pleistocene? Stegodon and Hippopotamus fossils from Borneo. Unfortunately, paper retracted in SMJ 62 (2006); Stegodon and Hippotamus fossils described here were purchased in a curio shop in Kuching and were said to be from Kalimantan, but now believed to be from Sangiran, Java)

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(online at: www.pnas.org/content/111/33/11961.full.pdf
(Homo floresiensis is regional variant of Homo sapiens. Abnormal features of specimen LB1 not necessarily typical of whole assemblage (disputed by Westaway et al. 2015))

Edwards Mackinnon, E. (1991)- The Hoabinhian in the Wampu/Lau Biang Valley of Northeast Sumatra: An update, In: P. Bellwood (ed.) 14th Congress of the Indo-Pacific Prehistory Association, Yogyakarta 1990, Bull. Indo-Pacific Prehistory Association (IPPA) 10, p. 132-142.
(online at: https://journals.lib.washington.edu/index.php/BIPPA/article/view/11302)
(One of the more recent reviews of rel. large prehistoric shell mounds along NE coast of Sumatra N of Medan ('kjokkenmoddinger' of Witkamp (1920), Schurmann (1931), etc., and their vaying states of destruction by native shell mining for lime production. Shell mounds may be as old as 8000- 10,000 years and contain 'Hoabinhian' monofacial pebble-core stone tools ('Sumatraliths') and skeletons of humans with Austro-Melanoid features)

Elbert, J. (1908)- De nieuwste onderzoekingen over het *Pithecanthropus* vraagstuk. Natuurkundig Tijdschrift voor Nederlandsch-Indie 67, 3-4, p. 125-142.
(online at: https://ia800605.us.archive.org/27/items/mobot31753002489901/mobot31753002489901.pdf)
('The latest investigations on the Pithecanthropus question'. October 1907 presentation by J. Elbert, participant in the Selenka expedition. Pithecanthropus is intermediate between humans and apes, as suggested by Dubois. With discussion of Trinil stratigraphy. Age of Pithecanthropus is Pleistocene. Plant fossils and common unweathered feldspars in Trinil Beds suggest climate was 3- 6°C cooler)

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('On the age of the Kendeng beds with Pithecanthropus erectus Dubois'. Overview of Kendeng- Solo River Late Pliocene- Pleistocene stratigraphy. Recognizes two similar-looking fluvial packages at Trinil: lower is true Trinil beds with Pithecanthropus and of Early Pleistocene age ('Unterdiluvial'), the upper one represents younger Solo River terrace deposits)

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(Mesolithic stone implements from Punung (Pacitan) and from area S of Sukabumi, W Java, associated with the macrodont '(large teeth') Melanesoid-Australoid-Papuan people that populated Java before the arrival of non-Melanesoid people with a Neolithic culture. It is here called Sampung stage (later Sampungian by Van Heekeren), based on the type localy at the Guwo Lowo rock shelter at Sampung on the W slope of Wilis volcano, first discovered by Van Es in 1926 and excavated by Van Stein Callenfels (1932))

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(online at: https://repository.unescap.org/server/api/core/bitstreams/898632e4-9825-43c0-bd52-a43677e9034f/content)

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('The bone industry of the Holocene Keplek horizon of Song Terus cave, Punung, E Java'. Gunung Sewu site)

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(Good review of 300-350m thick Late Pliocene- Pleistocene stratigraphy and hominid, mammal and mollusc distributions in Sangiran dome, C Java. From old to young: Shallow marine Late Pliocene Upper Kalibeng Fm, E Pleistocene Pucangan Fm Lower lahar and lacustrine black clay with diatomite beds and rich in Corbicula (first hominids possibly from top of formation), and M Pleistocene fluvial Kabuh Fm (with bulk of Homo erectus finds; tektite layer near top; common reworked marine microfauna). Capped by Notopuro Fm lahars with erosional base. Four mud volcanoes in center of dome, with rock fragments including Eocene Nummulites limestone. Reliable stratigraphic information lacking for most hominid fossils)

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(online at: https://press-files.anu.edu.au/downloads/press/n4569/pdf/ch10.pdf)
(Mid-Holocene faunal remains in Gua Sambangoala rock shelter. Faunal assemblage mainly deposited between

~5500-4500 cal BP. Fauna of rock shelter included anurans, lizards, snakes, birds, bear cuscus, dwarf cuscus, bats, monkeys, rats, squirrels, civet cats, pig-deer (babirusa), Sulawesi warty pig (Sus celebensis) and Anoa)

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(About challenges of chronological framework of early human settlements of Java, from oldest Lower Pleistocene Homo erectus island dwellers, to modern humans dispersals after Last Glacial Maximum)

Falk, D, C. Hildebolt, K. Smith, M.J. Morwood, T. Sutikna, P. Brown, Jatmiko, E. Saptomo et al. (2005)- The brain of LB1, *Homo floresiensis*. Science 308, 5719, p. 242-245.
(online at: https://www.peterbrown-palaeoanthropology.net/Falk%202005.pdf)
(Homo floresiensis type specimen (LB1) shull endocast was compared to great apes and hominids. LB1 not a microcephalic or pygmy. Brain size versus body size scales like an australopithecine, but endocast shape resembles Homo erectus)

Fauzi, M.R., M.M. Ansyori, D. Prastiningtyas, M.F.S. Intan, U.P. Wibowo, Wulandari, H. Rahmanendra, H. Widianto & T. Simanjuntak (2016)- Matar: a forgotten but promising Pleistocene locality in East Java. In: A. Borel et al. (eds.) Southeast Asia: Human evolution, dispersals and adaptation, Quaternary International 416, p. 183-192.
(Matar locality across from Ngandong on E bank of Solo River, 12km N of Ngawi, with fossils and lithic artifacts in terraces of poorly consolidated sand and gravels. Visited earlier by Bartstra et al. (1988). New excavations yielded 4970 vertebrate fossils, incl. Stegodon trigonocephalus, Bubalus paleokarabau, Bibos paleosondaicus and Hexaprotodon sivalensis, typical of dry and open-woodland environment in M-U Pleistocene. Also 112 lithic flake-tools and some crude core-tools, similar to Ngandong)

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('Lithic technology characteristic of progressive Homo erectus based on artifact assemblage from Matar Site, Bojonegoro'. New Matar site on E banks of Solo River (equivalent of 20m terrace of Ngandong?) with stone tool assemblage of 'progressive Homo erectus'. Flakes and massive tools such as bola, spheroidal, polyhedrons, and chopper-chopping tools)

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('The industrial assemblage of Song Keplek, East Java; a new view on stone tools of modern man at the beginning of the Holocene in Indonesia'. Song Keplek stone tool assemblage from Punung area ~6000-4000 years old)

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(Long history of prehistoric stone tool making in Sumatra, incl. Acheulean tools from Ogan River tributaries in S Sumatra, possibly from Homo erectus, 'Hoabinhian' shell middens 30m wide x 5m high in NE Aceh, etc.)

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(The Togi Ndrawa site, Nias Island, Noth Sumatra: the first record of a Hoabinhian cave settlement in Indonesia'. Late Pleistocene- E Holocene classic Hoabinhian pebble artefacts, forest and coastal fauna and human bones in Togi Ndrawa cave, NE Nias)

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shelter sites in the karstic area of the Mangkalihat peninsula. In: A. Borel et al. (eds.) Southeast Asia: Human evolution, dispersals and adaptation, Quaternary International 416, p. 126-150.
(Stone tools in three rock shelter sites in karst area of Mangkalihat Peninsula (Liang Abu, Liang Jon and Liang Pemalawan). Reduction sequences, flaking technology and typology of blanks and tools, persisted across Pleistocene/Holocene boundary for >20,000 years. Also apparent climatic stability over last 40,000 years)

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(Comparative study of parietal (skull) bones from Sangiran, Sambungmacan 1 and Ngandong. Some morphological metrical features allow separation of Sangiran and Ngandong samples. Sambungmacan 1, whose chronological age is not well established, appears closer to Ngandong men)

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(Sangiran 31 damaged cranial remains discovered by Sartono and Djubiantono in Pucangan Fm of Sangiran in 1979. Here deemed to a robust varaint of other known Homo erectus from this site)

Grimaud-Herve, D., A. Balzeau, H. Widianto, T. Djubiantono, F. Detroit, A.M. Moigne, A.M. Semah, A. Purnomo, M. Ansyori, B. Brasseur, T. Ingicco & F. Semah (2016)- Position of the posterior skullcap fragment from Sendang Klampok (Sangiran Dome, Java, Indonesia) among the Javanese *Homo erectus* record. Quaternary International 416, p. 193-209.
(New Homo erectus skullcap fragment fossil from 'Grenzbank' at Sendang Klampok in NNW Sangiran Dome, associated with rel. rich 'Trinil-type' mammal assemblage. Among more ancient hominids from Sangiran dome. Many characters closer to Ngandong hominins, different from those of Kabuh (Bapang) and Zhoukoudian Lower Cave specimens (?))

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(Description of heavily mineralized Homo erectus skull discovered in 1977 near Sendangbusik, Bukuran area, E side of Sangiran dome, C Java. In cross-bedded fluvio-volcanic sands of lower Kabuh (Bapang) Fm, ~14m above 'Grenzbank')

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(Fragmented Homo erectus skull from Kabuh Beds at Grogol Wetan site. Ar-dating indicates 0.78 ± 0.29 Ma. Second hominid skull in 1996 from Kabuh Beds at Bukuran site)

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(Discussion of present-day mammal faunas of Sulawesi and relation to classic faunal province boundaries suggested for Indonesia ((Wallace, Weber, Lydekker Lines))

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(Present day faunal endemism suggests Sulawesi was cluster of islands until quite late in geologic time)

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(Study of animal- and human remains excavated in 1928 by BPM geologist Schurmann from Early Holocene man-made Binjai Tamieng shell midden, along lower course of the Tamiang River in NE Sumatra coastal plain. Original site now completely destroyed, but part of Schurmann collection of vertebrates deposited in Naturalis Museum, Leiden, and briefly examined by Hooijer (1948). These include marine turtles, fish and artiodactyls (deer, pig), while crocodiles and a small whales were probably opportunistically hunted or scavenged. Also rhinoceros and human remains showing traces of disarticulation, possibly indicative of funerary rituals or cannibalism)

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(online at: https://etheses.dur.ac.uk/13666/)
(Paleoenvironmental reconstructions of several Pleistocene sites from Java (Trinil, Kedung Brubus and Sangiran), based on morphologies of cervids (deer fossils). Trinil open woodland, but relatively wet substrate. Kedung Brubus open, but drier conditions, presumably coincided with glacial stage when Java was connected to Asian mainland. Material from Sangiran suggests open conditions, and either dry or wet substrates)

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(Study of deer fossils. Medium sized deer of genus Axis and large sized genus Cervus s. l. in Java. Axis lydekkeri and Axis javanicus are considered valid taxa. Large deer, such as Cervus kendengensis, Cervus stehlini and Cervus problematicus most likely of subgenus Rusa. Sumatran fossils members of subgenus Rusa)

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(online at: https://www.nature.com/articles/s41598-022-15574-z)
(Paleoecology of Miocene and younger apes in SE Asia, like Late Miocene Khoratpithecus ayeyarwadyensis from Myanmar, similar to modern orangutans (Pongo):in woodland forest)

Hakim, B., U.P. Wibowo, G.D van den Bergh, D. Yurnaldi, R. Joannes-Boyau, A. Duli, Suryatman, R. Sardi et al. (2025)- Hominins on Sulawesi during the Early Pleistocene. Nature 646, p. 378-383.
(online at: https://www.nature.com/articles/s41586-025-09348-6)
(Previous excavations on Sulawesi revealed stone artefacts with minimum age of 194 ka in Walanae Depression, long before earliest known Homo sapiens arrived in area (73-63 ka in Sunda). Stone artefacts at Calio in fossiliferous layers dated to at least 1.04 Ma, possibly up to 1.48 Ma (E Pleistocene), suggesting Sulawesi populated by hominins at about same time as Flores hominins, if not earlier)

Hameau, S., C. Falgueres, J.J. Bahain, F. Semah, A.M. Semah & J.M. Dolo (2007)- ESR dating in Song Terus cave (East Java, Indonesia). Quaternary Geochronology 2, p. 398-402.
(Dating on animal teeth from Song Terus cave, Gunung Sewu, E Java shows cave belongs to karstic system which has been in place since M Pleistocene (216, 392 ka))

Handini, R., S. Noerwidi, H.O. Sofian, M.R. Fauzi, U. Prasetyo, I.M. Geria, M Ririmasse et al. (2023)- New evidence on the early human occupation in Sumba Islands. L'Anthropologie 127, 3, Special Issue Prehistoire de l'Indonesie, 103152, p. 1-13.
(Excavations of archaeological sites in Sumba in 2016-2022 revealed individual remains, burial jars and artifacts suggesting Austronesian settlements with a complex culture inhabiting Sumba around 3000 years ago)

Harbowo, D,G. & L.K. Agustina (2024)- Biogeographical land bridges of Bali-Nusa Penida-Lombok: A possible dispersal pathway for terrestrial fauna during the Pleistocene Glacial periods. Proc. 6th EMBRIO International Symposium (EIS 2023), Bogor 2023, BIO Web of Conferences 112, 10001p. 1-11.
(online at: https://www.bio-conferences.org/articles/bioconf/pdf/2024/31/bioconf_eis2024_10001.pdf)
(Migration of prehistoric humans and terrestrial fauna during Pleistocene glacial periods (across Wallace Line) possibly facilitated by possible biogeographical land bridge between Bali and Lombok, via Nusa Penida)

Hardjasasmita, H.S. (1982)- Kehadiran elemen fauna vertebrata Asia di sebelah timur garis Wallacea pada kala Plestosen. Kumpulan Makalah Pertemuan Ilmiah Arkeologi (PIA) II, Jakarta 1980, Pusat Penelitian Arkeologi Nasional, p. 521-532.
('Presence of elements of Asian vertebrate fauna East of the Wallace Line during the Pleistocene')

Hardjasasmita, H.S. (1983)- Evolution of the genus *Sus* (Suidae, Mammalia) in Indonesia. Taxonomy, phylogeny and paleogeography. Ph.D. Thesis Institut Teknologi Bandung (ITB), p. 1-177. *(Unpublished)*
(In Indonesia fossil suids (pig family) known from Pliocene- Holocene, mainly represented by genus Sus. On Sulawesi also Babyrousa and Celebochoerus. Two fossil species (Sus brachygnathus, S. macrognathus), one subspecies (Sus macrognathus terhaari) and two questionable species (Sus stremmi, S. sangiranensis), nine Recent species and subspecies are recognized)

Hardjasasmita, H.S. (1987)- Taxonomy and phylogeny of the Suidae (Mammalia) in Indonesia. Scripta Geologica 85, p. 1-68.

(online at: https://repository.naturalis.nl/pub/317394)
(Overview of ?Pliocene- Recent wild pigs in Indonesia, mainly of genus Sus, mainly from Java)

Harrison, T. (1978)- Present status and problems for Paleolithic studies in Borneo and adjacent islands. In: F. Ikawa-Smith (ed.) Early Palaeolithic in South and East Asia, Mouton Publishers, The Hague, p. 38-57.
(Few or no Paleolithic fossils found on Borneo (unlike Sulawesi, Java, etc.) and some may be Chinese drugstore imports. Niah cave in Sarawak rel. rich record of human and associated fossils dating to ~35 ka. M Pleistocene tektites of coastal NW Brunei cannot be used for dating of 'Jerudong Terrace', as most or all are reworked into younger gravel terraces)

Harrison, T., J. Krigbaum & J. Manser (2006)- Primate biogeography and ecology on the Sunda Shelf islands: a paleontological and zooarchaeological perspective. In: S.M. Lehman & J.G. Fleagle (eds.) Primate biogeography, Springer, New York, p. 331-372.
(Non-human primates on Sundaland taxonomically diverse (27 species), and relatively high provinciality and endemism. By Late Pliocene main islands of Sunda Shelf had primate fauna that included Pongo pygmaeus, Hylobates spp., Macaca nemestrina etc. on Sumatra, Java, Borneo and Mentawai Islands. Most probably arrived during Pretiglian cold phase, starting at ~2.8 Ma, when sea levels fell by >100m)

Hartatik, Sunarningsih, N.M.E. Fajari & H.O. Sofian (2023)- New discoveries of ancient iron smelting sites in Kalimantan. L'Anthropologie 127, 3, 10316, p. 1-16.
(Evidence of iron making in the Meratus mountains, SE Kalimantan and Lamandau watershed in SW Kalimantan. Radiocarbon dating at Cililin 1 Cave site in Meratus Mountains indicates earliest iron ore smelting occurred during early Christian era (2000-1700 BP))

Harvati, K. & H. Reyes-Centeno (2022)- Evolution of *Homo* in the Middle and Late Pleistocene. J. Human Evolution 173, 103279, p. 1-12.
(Review of complex evolution of 19 named species of M-L Pleistocene hominids, incl. Home floresiensis and H. luzonensis in SE Asia)

Hawkins, S., S. O'Connor, T.R. Maloney, M. Litster, S. Kealy, J.N. Fenner, K. Aplin et al. (2017)- Oldest human occupation of Wallacea at Laili Cave, Timor-Leste, shows broad-spectrum foraging responses to late Pleistocene environments. Quaternary Science Reviews 171, p. 58-72.
(online at: http://www.sciencedirect.com/science/article/pii/S0277379117302470)
(Laili Cave in Laleia, Timor-Leste, preserves oldest occupation in Wallacea (~43-45 ka) of modern humans, earlier than other Pleistocene sites known in Wallacea (E Indonesia). Pleistocene humans used abundant local chert and engaged in mobile broad-spectrum foraging)

Hayes, S., G.D. van den Bergh, I. Sutisna, H. Insani, U.P. Wibowo, R. Setiawan, I. Kurniawan & S.T. Turvey (2025)- Insular Mid-Pleistocene giant rats from the So'a Basin (Flores, Indonesia). Quaternary (MDPI) 8, 3, 44 p.
(online at: https://www.mdpi.com/2571-550X/8/3/44)
(M PleistoceneMata Menge site on Flores yielded > 670 fossil murine (rat) molars of Papagomys group from two intervals. Lower interval (0.7 Ma) smaller size molars similar to Hooijeromys nusatenggara Musser 1981. Upper interval (~70 ka) most similar to mid-Holocene Papagomys theodorverhoeveni)

Heaney, L.R. (1985)- Zoogeographic evidence for Middle and Late Pleistocene land bridges to the Philippine islands. Modern Quaternary Research in Southeast Asia 9, p. 127-143.
(In Sunda shelf region rel. widespread faunal distribution, corresponding stronlgy with M and Late Pleistocene land bridge formation. Number of species corresponds with size of island area. Elephant species rel. widespread in SE Asia Pleistocene, probably because they are strong swimmers and do not necessary need land bridges. Unlikely there was land bridge between Asia and The Philippines, except M Pleistocene connection from NE Borneo to Palawan. Therefore unlikely that Homo erectus reached Philippines)

Heaney, L.R. (1986)- Biogeography of mammals in SE Asia: estimates of rates of colonization, extinction and speciation. Biological J. Linnean Society, London, 28, 1-2, p. 127-165.

Heaney, L.R., D.S. Balete & E.A. Rickart (2016)- The mammals of Luzon Island: biogeography and natural history of a Philippine fauna. Johns Hopkins University Press, Baltimore, p. 1-285.

Hemmer, H. (1971)- Fossil mammals of Java II. Zur Fossilgeschichte des Tigers (*Panthera tigris* L.) in Java. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, B 74, 1, p. 35-52.
('Fossil mammals of Java 2: the fossil record of the tiger Panthera tigris in Java'. On presence of extinct tiger 'Trinil Tiger' (Panthera tigris trinilensis) in beds of 1.2 Ma old at Trinil)

Hemmer, H. (1971)- Fossil mammals of Java III. Zur Kenntnis der Evolution javanischer Kleinkatzen: *Prionailurus bengalensis koenigswaldi* ssp. n. und *Felis chaus* ssp. aus dem Neolithikum von Sampung, Mittel-Java. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, B 74, p. 365-367.
('On the knowledge of the evolution of javanese small cats Prionailurus, etc. Two new subspecies from Neolithic of Sampung, C Java')

Hemmer, H. & G. Schutt (1972)- Pleistozane Leoparden (*Panthera pardus*) aus Java und Sudchina. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, B76, p. 37-49.
('Pleistocene leopards from Java and S China')

Hemmer, H. & G.H.R. von Koenigswald (1964)- Fossile Nebelparder (*Neofelis*) aus dem Pleistozan Sudchinas und Javas. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, B 67, p. 1-16.
('Fossil leopards (Neofelis) from the Pleistocene of South China and Java')

Henneberg, M., R.B. Eckhardt, S. Chavanaves & K.J. Hsu (2014)- Evolved developmental homeostasis disturbed in LB1 from Flores, Indonesia, denotes Down syndrome and not diagnostic traits of the invalid species *Homo floresiensis*. Proc. National Academy of Sciences USA (PNAS) 111, 33, p. 11967-11972.
(online at: www.pnas.org/content/111/33/11967.full.pdf)
(LB1 type specimen of Homo floresiensis ('hobbit') viewed as anomalous specimen in small-bodied Australomelanesian Homo sapiens population, possibly afflicted by Down syndrome. Conclusion disputed by Westaway et al. 2015)

Henneberg, M. & J. Schofield (2008)- The Hobbit trap. Money, fame, science, and the discovery of a 'new species'. Wakefield Press, Kent Town, S.A., p. 1-159.
(Book critical of interpretations of Homo floresiensis ('hobbit'), claiming it to be much younger than reported and to be a 'normal' dwarfed Homo sapiens island population. Also 2011 2nd Edition)

Hennig, E. (1911)- Die Fischreste. In: E. Selenka & M. Blanckenhorn (eds.) Die Pithecanthropus Schichten auf Java, Engelmann, Leipzig, p. 54-60.
(Description of Pleistocene fish remains from Trinil, excavated by Selenka expedition)

Herman, D.Z. (2011)- Fossilization type of *Elephas hysudrindicus* from Blora on the basis of petrographic and Scanning Electron Microscopic analyses. Jurnal Geologi Indonesia 6, 2, p. 75-84.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/304)
(2009 discovery of nearly complete skeleton of Pleistocene elephant Elephas hysudrindicus in Solo River terrace in Sunggun area near Medalem Village (not clear from what part of Pleistocene/ terrace level?; JTvG). Some precipitation of calcite and other authigenic minerals)

Herrera, R.J. & R.G.-Bertrand (2022)- Interwoven evolution of *Homo erectus, Homo floresiensis*, and *Homo sapiens*. In: Sex and cohabitation among early humans, Elsevier, Chapter 16, p, 551-573.
(General review. Homo erectus was first of hominin ancestors to have sapiens-like body proportions (shorter arms and longer legs relative to its torso). H. erectus was also first hominin to migrate out of Africa and survived for more than 1.5 Myrs. Etc.)

Hertler, C., A. Bruch & M. Marker (2013)- The earliest stages of hominin dispersal in Africa and Eurasia. In: I. Ness (ed.) The Encyclopedia of Global Human Migration, Blackwell Publishing, Chapter 2, p. 1-9.
(online at: www.academia.edu/5016352/The_earliest_stages_of_hominin_dispersal_in_Africa_and_Eurasia)
(Brief review of earliest movements of hominins (proto-humans) in Africa, starting from ~7 Ma, and focusing on genesis of Australopithecus and Homo and dispersal into Eurasia soon after 2 Ma. Earliest evidence for hominins in E Asia is from C Java (Lower Pleistocene Homo erectus from Sangiran, with age of >1.5 Ma)

Hertler, C. & Y. Rizal (2005)- Excursion guide to the Pleistocene hominid sites in Central and East Java. JW Goethe University, Frankfurt, and ITB Bandung, p. 1-35.
(at www.palaeo.net/biologie/material/Excursion%20guide.pdf)
(Overview of Pleistocene mammal fauna biostratigraphy, paleoanthropology and fossil hominid sites)

Hertler, C., Y. Rizal & Y. Zaim (2007)- Habitat differentiation in the Pleistocene of Jawa- Introduction of the new Pleistocene fossil locality Majalengka. Courier Forschungsinstitut Senckenberg 259, p. 165-175.
(Pleistocene mammal faunas from Java three successive faunas based proboscidean genera: (1) E Pleistocene Mastodon-Geochelone fauna, (2) early M Pleistocene Stegodon- Homo erectus fauna and (3) late M Pleistocene Elephas- Homo sapiens fauna. Stegodon- Homo erectus fauna contains elements from successive migration waves and different ecological settings. Introduce model for endemic evolution in Java and newly discovered Pleistocene mammal locality in W Java)

Hertler, C., A.A.E. van der Geer, M.R. Puspaningrum, J.O Reschke, I.P. Anwar & E. Holzchen (2025)- *Stegodon* SEA-crossing: Swim, shrink, and disperse. Earth History and Biodiversity 4, 100026, p. 1-15.
(online at: https://www.sciencedirect.com/journal/earth-history-and-biodiversity/vol/4/suppl/C)
(Stegodons, an extinct family of proboscideans, managed to settle on roughly a dozen Wallacean (E Indonesia) islands during Pleistocene (Java, Flores, Sangihe, Sumba, Timor, Sulawesi, Luzon, Mindanao, Japan). Distribution interaction of (1) swimming performances and (2) island dwarfing. Reduction of body mass likely negatively affected swimming performance. No fossil record for Stegodon Maluku islands or in New Guinea/ NW Australia. With dispersal routes scenarios across Sundaland- Wallacea)

Hertler, C. & R. Volmer (2005)- Assessing prey competition in fossil carnivore communities- a scenario for prey competition and its evolutionary consequences for tigers in Pleistocene Java. Palaeogeogr. Palaeoclim. Palaeoecology 257, p. 67-80.
(online at: http://www.roceeh.net/fileadmin/download/Publications/Hertler-volmer-2008.pdf)
(Five carnivore species overlapped in time in Java Pleistocene: two pantherines, a hyaenid and two canid species, each in one or more faunal levels. Significant increase in body mass of tigers in Ngandong faunal level reflects intense competition among carnivores in preceding Kedung Brubus level)

Hidayah, A.R., U.P. Wibowo, A. Purwoarminta, G.J. Price & S. Noerwidi (2021)- Palaeoenvironments and palaeontology of the Atambua Basin, West Timor, Indonesia. Proc. 1st Asia-Pacific Conference on Human Evolution, Quaternary International 603, p. 82-89.
(M Pleistocene or earlier vertebrate faunas long known from Timor, but rarely studied. Dwarf proboscideans such as Stegodon once widespread across Timor, including Atambua Basin, but cause of extinction unknown. No example yet of direct association of lithic artefacts with extinct Pleistocene faunas: vertebrate fossils from M Pleistocene or earlier, predating oldest records of modern humans on Timor since~45,000 years ago)

Hilgen, S.L., F.J. Hilgen, S. Adhityatama, K.F. Kuiper & J.C.A. Joordens (2022)- Towards an astronomical age model for the Lower to Middle Pleistocene hominin-bearing succession of the Sangiran Dome area on Java, Indonesia. Quaternary Science Reviews 297, 7, 107788, p. 1-19.
(online at: https://www.sciencedirect.com/science/article/pii/S027737912200419X?via%3Dihub)
(Milankovitch cycle control applied to grain size cyclicity observed in Pleistocene of Sangiran and Bapang Fms. Onset of Mid-Pleistocene Transition with age of ~1.2 Ma in Upper Sangiran Fm ('even though multiple tuning options are still possible'. Tuned ages mostly consistent with 'short' paleoanthropological chronology, i.e. ~1.2 or 1.27 Ma for first arrival of Homo erectus)

Hilgen, S.L., E. Pop, S. Adhityatama, T.A. Veldkamp, H.W.K. Berghuis, I. Sutisna, D. Yurnaldi, G. Dupont-Nivet et al. (2023)- Revised age and stratigraphy of the classic *Homo erectus*-bearing succession at Trinil (Java, Indonesia). Quaternary Science Reviews 301, 107098, p. 1-18.
(online at: https://www.sciencedirect.com/science/article/pii/S027737912200539X)
(New chronostratigraphic framework for Trinil site from 40Ar/39Ar, paleomagnetic and luminescence (pIRIR290) dating methods. Two distinct Pleistocene fossiliferous channel fills (1) lower Bone-bearing channel 1 dates to 830-773 ka, (2) Bone-Bearing Channel 2 ~430-450 ka. Also significantly younger T2 terrace deposits. Dubois may have excavated fossils from three fossiliferous units with different ages)

Hocknull S.A., P.J. Piper, G.D. van den Bergh, R. Awe Due, M.J. Morwood & I. Kurniawan (2009)- Dragon's Paradise Lost: Palaeobiogeography, evolution and extinction of the largest-ever terrestrial lizards (Varanidae). PLoS One 4, 9, e7241, p. 1-15.
(online at: https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0007241)
(Phyletic giantism and westward dispersal from mainland Australia best explanation for palaeodistribution of V. komodoensis and newly identified species of giant varanid from Timor. Pliocene giant varanid fossils from Australia suggest origin for V. komodoensis on mainland Australia (>3.8 Ma))

Holloway, R.L. (1981)- The Indonesian *Homo erectus* brain endocasts revisited. American J. Physical Anthropology 55, p. 503-521.
(online at: http://www.columbia.edu/~rlh2/IndonHerectAJPA1981.pdf)
(New brain endocasts of Homo erectus discoveries from Java. Mean brain volume 930 ml (Homo soloensis 1000-1250 cm3, modern humans ~1250 cm3; JTvG))

Hooijer, D.A. (1946)- Prehistoric and fossil rhinoceroses from the Malay Archipelago and India. Zoologische Mededelingen 26, 1, p. 1-138.
(online at: www.repository.naturalis.nl/document/150703)
(Description of rhinoceros fossils collected by Dubois in caves of C Sumatra in 1888-1890, Trinil, etc. Reprint of doctoral thesis)

Hooijer, D.A. (1947)- On fossil and prehistoric remains of *Tapirus* from Java, Sumatra and China. Zoologische Mededelingen 27, p. 253-299.
(online at: www.repository.naturalis.nl/document/149527)

Hooijer, D.A. (1947)- *Pithecanthropus, Meganthropus* en *Gigantopithecus*. Geologie en Mijnbouw 9, 12, p. 230-239.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0VWdxUXpJQl9fYlU/view)
(Review of Von Koenigswald (1940) and Weidenreich (1945) monographs on Java hominids)

Hooijer, D.A. (1948)- *Rhinoceros sondaicus* Desmarest from kitchen-middens of Bindjai Tamiang, North Sumatra. Geologie en Mijnbouw 10, 5, p. 115-116.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0alp1ZkJOMzhwQkU/view)
(Rhinoceros tooth from Paleolithic (Late Pleistocene?) refuse-heap at Binjai Tamiang, 15km from mouth of Tamiang River in N Sumatra. Mound composed of layers of Meretrix mollusc shells alternating with ashy layers with stone tools and remains of land mammals, fish and crabs. Evidence of cannibalism. Rhinoceros tooth comparable to material from Sibrambang cave (Padang Highlands))

Hooijer, D.A. (1948)- Prehistoric teeth of man and of the orang-utan from Central Sumatra, with notes on the fossil orang-utan from Java and Southern China. Zoologische Mededelingen, Leiden, 29, p. 175-301.
(online at: http://repository.naturalis.nl/document/150691)
(Study of collection of teeth excavated by Dubois in late 1880's from Lida Ajer and other caves in Padang Highlands, C Sumatra. Includes orang-utan skulls and some hominid teeth indistinguishable from modern humans (may be oldest known Homo sapiens in Indonesian region (~70 ka; Westaway et al. 2017). Also extensive study of Pleistocene orang-utan teeth from Java and S China))

Hooijer, D.A. (1948)- Pleistocene vertebrates from Celebes. I. *Celobochoerus heekereni* nov.gen.nov. spec. Proc. Koninklijke Nederlandse Akademie van Wetenschappen 51, 8, p. 1024-1032.
(First of series of descriptions of Pleistocene mammal fossils from around Tjabenge, S Sulawesi, ~100 km NE of Makassar, collected by Van Heekeren)

Hooijer, D.A. (1948)- Pleistocene vertebrates from Celebes. II. *Testudo margae* nov. spec. Proc. Koninklijke Nederlandse Akademie van Wetenschappen 51, 9, p. 1169-1182.
(Pleistocene giant land tortoise fossils from S Sulawesi)

Hooijer, D.A. (1948)- Pleistocene vertebrates from Celebes. III. *Anoa depressicornis* (Smith) subsp. and *Babyrousa babyrussa beruensis* nov. subsp. Proc. Koninklijke Nederlandse Akademie van Wetenschappen 51, 10, p. 1322-1330.

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(online at: www.repository.naturalis.nl/document/150021)
(Pleistocene dwarf elephant fossils from S Sulawesi)

Hooijer, D.A. (1949)- Voorlopige mededeling over vondsten van Pleistocene gewervelde dieren in Zuid-Celebes. Oudheidkundig Verslag 1941-1947, Oudheidkundige Dienst in Indonesia, Jakarta, p. 111-112.
(online at: https://www.delpher.nl/nl/tijdschriften/view?coll=dts&identifier=MMKITLV3:002517002:00126)
('Preliminary communication about discoveries of Pleistocene vertebrate fossils in South Sulawesi'. Brief communication about Pleistocene fossils discovered by H.R. van Heekeren near Tjabenge, 100km NE of Makassar. Previously unknown from Sulawesi, and questioning the validity of the zoogeographic 'Wallace Line'. Parts already published by Hooijer in 1948-1949. Three most interesting finds are an endemic Babirusa-like pig, dwarf elephant and large land tortoise. Fauna different from age-equivalent faunas of Java)

Hooijer, D.A. (1949)- The Pleistocene vertebrates of southern Celebes. Chronica Naturae 105, 5, p. 148-150.

Hooijer, D.A. (1950)- The fossil hippopotamidae of Asia, with notes on the Recent species. Zoologische Verhandelingen, Leiden, 8, p. 3-124.
(online at: https://repository.naturalis.nl/pub/317594)
(Review of fossil Hippopotamus from Asia. Three species in Pleistocene of Java, formerly recored as Hippopotamus antiquus, H. simplex and H. namadicus by Von Koenigswald here renamed Hippopotamus sivalensis koenigswaldi (E Pleistocene Djetis fauna, rel. small, Trinil, Mojokerto, Kedung Brubus), H. sivalensis sivajavanicus and H. sivalensis soloensis n.ssp (M-U Pleistocene, descended from H. koenigswaldi)

Hooijer, D.A. (1950)- Man and other mammals from Toalian sites in south-western Celebes. Verhandelingen Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, Afd. Natuurkunde, 2, 46, p. 1-164.
(online at: https://dwc.knaw.nl/DL/publications/PU00011890.pdf)
(Descriptions of Holocene ('Toalian'; Neolithic) subfossil human and mammal bones from of Bola Batoe cave near Badjo Barebo district, 20 km SW of Watampone in Central Bone and ~100 km NE of Makassar in and other SW Sulawesi sites)

Hooijer, D.A. (1950)- Fossil evidence of Australomelanesian migrations in Malaysia? Southwestern Journal of Anthropology 6, 4, p. 416-422.
(Presence of big-teeth humans resembling Australian aboriginals and Melanesians may once lived in Malaya (=Indonesian) region, as evidenced by Wajak man of Java (Dubois 1920) and subfossil man from Gua Lawa Sampung and Bojonegoro as described by Mijsberg (1932). View disputed by Von Koenigswald 1952)

Hooijer, D.A. (1951)- The geological age of *Pithecanthropus, Meganthropus and Gigantopithecus*. American J. Physical Anthropology 9, 3, p. 265-282.

(Questions some of the ages assigned to Von Koenigswald (1934) Pleistocene vertebrate zonation of Cisande, Cijulang, Kali Glagah, Jetis, Trinil and Ngandong faunas, and places most of them in Pleistocene. Distinctions between zones may also not be as clear-cut as assumed)

Hooijer, D.A. (1951)- Pygmy elephant and giant tortoise. The Scientific Monthly 72, 1, p. 3-8.
(On migration of earliest, Pleistocene mammal 'island fauna' from S Sulawesi, probably from Java)

Hooijer, D.A. (1952)- *Palaeoloxodon* cf. *namadicus* (Falconer et Cautley) from Borneo. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, B55; 4, p. 395-398.
(Molar from Samarinda region, E Kalimantan, is first record of M Pleistocene Stegodon fauna on Borneo. Resembles M Pleistocene elephant Palaeoloxodon namadicus of S and E Asia. Represents link between Stegodon-Ailuropoda fauna of Java and Indochina)

Hooijer, D.A. (1952)- Fossil mammals faunas and the Plio-Pleistocene boundary in Java. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, B55, p. 436-443.
(Tjidjulang and Kali Glagah mammal assemblages of Java, originally considered to be of Middle-Late Pliocene age by Von Koenigswald, etc., should be assigned to Lower Pleistocene)

Hooijer, D.A. (1953)- Pleistocene vertebrates from Celebes. V. Lower molars of *Archidiskodon celebensis* Hooijer. Zoologische Mededelingen, Leiden, 31, 28, p. 311-318.
(On teeth of Pleistocene dwarf elephant from S Sulawesi)

Hooijer, D.A. (1953)- Pleistocene vertebrates from Celebes. VI. *Stegodon* spec. Zoologische Mededelingen, Leiden, 32, 11, p. 107-112.
(online at: www.repository.naturalis.nl/document/149397)
(On Pleistocene small Stegodon sp. elephantoid from Cabenge area, Sopeng District, S Sulawesi, collected by Van Heekeren)

Hooijer, D.A. (1953)- Pleistocene vertebrates from Celebes. VII. Milk molars and premolars of *Archidiskodon celebensis* Hooijer. Zoologische Mededelingen, Leiden, 32, 20, p. 221-232.
(online at: https://www.repository.naturalis.nl/document/150455)

Hooijer, D.A. (1954)- Pleistocene vertebrates from Celebes. VIII. Dentition and skeleton of *Celebochoerus heekereni* Hooijer. Zoologische Verhandelingen, Leiden, 24, p. 1-46.
(online at: www.repository.naturalis.nl/document/149035)
(More on Pleistocene pig-like suid from Cabenge area, S Sulawesi)

Hooijer, D.A. (1954)- Pleistocene vertebrates from Celebes. IX. Elasmobranchii. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, B57, 4, p. 475-485.
(On Pleistocene shark teeth from Tjabenge area, S Sulawesi)

Hooijer, D.A. (1954)- Pleistocene vertebrates from Celebes. X. Testudinata. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, B57, 4, p. 486-489.
(On Pleistocene large tortoise fossils from S Sulawesi)

Hooijer, D.A. (1954)- A pygmy *Stegodon* from the Middle Pleistocene of Eastern Java. Zoologische Mededelingen 33, 14, p. 91-102.
(online at: www.repository.naturalis.nl/document/149695)
(Dwarf elephantoid from area N of Djetis and Perning in E Java, collected by Cosijn)

Hooijer, D.A. (1954)- Pleistocene vertebrates from Celebes. XI. Molars and a tusked mandible of *Archidiskodon celebensis* Hooijer. Zoologische Mededelingen, Leiden, 33, 15, p. 104-120.
(online at: www.repository.naturalis.nl/document/149831)
(?E Pleistocene elephantoids from near Cabenge, 100km NE of Makassar, SW Sulawesi))

Hooijer, D.A. (1954)- Crocodilian remains from the Pleistocene of Celebes. Copeia 1954, p. 263-266.

Hooijer, D.A. (1955)- Fossil Proboscidea from the Malay Archipelago and the Punjab. Zoologische Verhandelingen 28, p. 1-146.
(online at: www.repository.naturalis.nl/document/149023)
(On Pleistocene elephant fossils from Java, Sumatra, Sulawesi, India, etc.: Stegodon, Stegolophodon, Archidiskodon, Elephas, etc.))

Hooijer, D.A. (1956)- The lower boundary of the Pleistocene in Java and the age of *Pithecanthropus*. Quaternaria 3, p. 5-10.
(Mammal fossils suggest Tjidjoelang and Kali Glagah faunas of Java are of basal Pleistocene age)

Hooijer, D.A. (1957)- The correlations of fossil mammalian faunas and the Plio-Pleistocene boundary in Java. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 60, 1, p. 125-128.
(Reiteration of 1952 position that Tjidjulang and Kali Glagah mammal faunas of Java should be assigned to Villafranchian, Early Pleistocene)

Hooijer, D.A. (1957)- Report upon a collection of fossil vertebrates from Ola Bula, Central Ngada, Flores. Berita Madjelis Ilmu Pengetahuan Indonesia, Jakarta, November 1957, p. 6-9.
(Vertebrate remains discovered in 1956 at Ola Bula on Soa Plateau of Flores belong to extinct primitive Asian elephantids Stegodon, similar to S. trigonocephalus Martin from Pleistocene of Java)

Hooijer, D.A. (1957)- A *Stegodon* from Flores. Treubia 24, p. 119-129.
(online at: e-journal.biologi.lipi.go.id/index.php/treubia/article/download/2721/2332)
(Stegodon remains discovered by Verhoeven in 1956 at Ola Bula on Soa Plateau of Flores described as Stegodon trigonocephalus floresiensis. Rel. common Stegodon fossils, but remarkable lack of associated fauna)

Hooijer, D.A. (1957)- Three new giant prehistoric rats from Flores, Lesser Sunda Islands. Zoologische Medelingen 35, p. 229-314.
(online at: www.repository.naturalis.nl/document/150080)
(Three new forms of large Pleistocene rat fossils collected by Verhoeven in cave deposits at Liang Toge near Warukia, Manggarai, W Flores: Papagomys armandvillei besar, P. verhoeveni and Spelaeomys florensis. Associated with Mesolithic flake and blade industry)

Hooijer, D.A. (1958)- Fossil Bovidae from the Malay Archipelago and the Punjab. Zoologische Mededelingen 38, p. 1-110.
(online at: https://repository.naturalis.nl/pub/317642/ZV1958038001.pdf)
(Bovidae (buffaloes, cows, bison, etc.) rel. common in Pleistocene of Java, mainly of genera Bibos, Bubalus, Leptobos, Duboisia, etc.)

Hooijer, D.A. (1958)- The Pleistocene vertebrate fauna of Celebes. Archives Neerlandaises Zoologie 13, Supplement 1, p. 89-96. (also in Asian Perspectives 2, 2, p. 71-76)
(Pleistocene mammal faunas discovered in fluvial deposits of Tjabenge area SW Sulawesi by Van Heekeren in 1948 different from any Pleistocene fauna in Indo-Australian region: island fauna with dwarf elephant and buffalo, giant tortoise, freshwater sharks and rays, etc.)

Hooijer, D.A. (1960)- Quaternary gibbons from the Malay Archipelago. Zoologische Verhandelingen 46, 1, p. 1-42.
(online at: http://repository.naturalis.nl/document/148964)
(Apes (Pongidae) from Indonesian region include Late Pleistocene gibbons (Symphalangus and Hylobates) from limestone caves in Padang Highlands, C Sumatra, collected by Dubois. Possibly also incave material from C Java (Pacitan) and Sarawak)

Hooijer, D.A. (1962)- Quaternary langurs and macaques from the Malay Archipelago. Zoologische Verhandelingen 55, 1, p. 1-64.
(online at: www.repository.naturalis.nl/document/148851)
(Pleistocene monkeys (Presbytis, Trachypithecus, Macaca) from limestone caves in Padang Highlands, C Sumatra, and cave deposits on Java)

Hooijer, D.A. (1962)- Paleontology of hominid deposits in Asia. The Advancement of Science, London, 1962, p. 485-489.

Hooijer, D.A. (1962)- Report upon a collection of Pleistocene mammals from tin-bearing deposits in a limestone Cave near Ipoh, Kinta Valley, Perak. Federation Museums Journal 7 (new series), p. 1-5.
(Study of mammal fossils from depth of ~9 m in tin bearing deposits inside a limestone cave near Ipoh,and sent to Museum of Natural History (Leiden) by B.A.V. Peacock in 1957. 51 specimens from 7 species of mammals, interpreted to be of M Plleistocene age. Includes antelope Duboisia santeng and hippopotamus, known from M Pleistocene of Java, but not recorded yet from mainland SE Asia. Also Java rhinoceros and possible buffalo)

Hooijer, D.A. (1964)- Pleistocene vertebrates from Celebes. XII. Notes on pygmy Stegodonts. Zoologische Mededelingen 40, 7, p. 37-44.
(online at: www.repository.naturalis.nl/document/149873)
(Sulawesi Stegodon decidedly smaller than Stegodon trigonocephalus Martin from Java, but probably similar to newly discovered pygmy stegodonts from Flores. Renamed Stegodon sompoensis n. sp.)

Hooijer, D.A. (1964)- Pleistocene vertebrates from Celebes. XIII. *Sus celebensis* Muller & Schlegel, 1845. Beaufortia 222, 16, p. 215-218.
(online at: www.repository.naturalis.nl/document/548530)

Hooijer, D.A. (1964)- On two milk molars of a pigmy stegodont from Ola Bula, Flores. Bull. Geological Survey Indonesia l, 2, p. 49-52.

Hooijer, D.A. (1964)- New records of mammals from the Middle Pleistocene of Sangiran, Central Java. Zoologische Mededelingen 40, 10, p. 73-87.
(online at: www.repository.naturalis.nl/document/149780)
(On mammal fossils from Sangiran donated to Leiden museum by Van Heekeren and Houboldt. Not much new. Questions Von Koenigswald's perfectly valid suggested use of tektites as dating tool in Sangiran)

Hooijer, D.A. (1965)- Note on *Coryphomis buhleri* Schaub, a gigantic murine rodent from Timor. Israel J. Zoology 14, p. 128-133.
(Large Pleistocene rat fossils from Liang Leluat cave, SW Timor, collected by Verhoeven at Maubesi River)

Hooijer, D.A. (1967)- Indo-Australian insular elephants. Genetica 38, 1, p. 143-162.
(Pleistocene dwarfed elephants known from Celebes, Flores and Timor described and relationships considered. Pygmy forms arose independently on each island as result of isolation and genetic drift favouring small size. Wherever we find pygmy elephants we have also giant rodents)

Hooijer, D.A. (1969)- The *Stegodon* from Timor. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, B72, 3, p. 201-210.
(More detailed description of Pleistocene dwarf elephant mandible and molars collected by Verhoeven E of Atambua, W Timor N coast, and first described as Stegodon timorensis by Sartono 1969)

Hooijer, D.A. (1970)- Pleistocene South-East Asiatic pygmy stegodonts. Nature 225, 5231, p. 474-475.

Hooijer, D.A. (1971)- A giant land tortoise, *Geochelone atlas* (Faulconer & Cautley) from the Pleistocene of Timor. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, B74, 5, p. 504-525.

(Common material of giant land tortoise from Pleistocene gravel deposits at Raebia in Atambua area, W Timor. Originally described as Testudo margae Hooijer (1948), but indistinguishable from Geochelone atlas from E Pleistocene of Java)

Hooijer, D.A. (1972)- *Stegodon trigonocephalus florensis* Hooijer and *Stegodon timorensis* Sartono from the Pleistocene of Flores and Timor. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, B75, p. 12-33.
(Flores and Timor Middle-Late Pleistocene Stegodon elephants much smaller than Java Stegodon, from which they probably evolved)

Hooijer, D.A. (1972)- *Varanus* (Reptilia, Sauria) from the Pleistocene of Timor. Zoologische Mededelingen, Museum Leiden 47, p. 445-448.
(online at: www.repository.naturalis.nl/document/149563)
(On Pleistocene 'komodo dragon'-like lizard fossils from gravel deposits, collected by Verhoeven at Raebia in Atambua area, W Timor)

Hooijer, D.A. (1972)- Pleistocene vertebrates from Celebes. XIV. Additions to the *Archidiskodon-Celebochoerus* fauna. Zoologische Mededelingen 46, 1, p. 1-15.
(online at: www.repository.naturalis.nl/document/150627)
(Descriptions of new mammal material collected by 1970 Dutch-Indonesian expedition to Beru area, Sulawesi. Additional material of Archidiskodon celebensis, Stegodon sompoensis, S. cf. trigonocephalus, Celebochoerus heekerei and Anoa depressicorni)

Hooijer, D.A. (1974)- *Elephas celebensis* (Hooijer) from the Pleistocene of Java. Zoologische Mededelingen 48, 11, p. 85-93.
(online at: www.repository.naturalis.nl/document/150495)

Hooijer, D.A. (1975)- Quaternary mammals west and east of Wallace's line. In: G.J. Bartstra & W.A. Casparie (eds.) Modern Quaternary Research in Southeast Asia, A.A. Balkema, Rotterdam, 1, p. 37-51.
(Introduces concept of hypothetical M Pleistocene 'Stegoland' landmass, comprising Flores, Timor and Sulawesi, characterized by pygmy stegodonts S. sompoensis (based on erroneous assumption that elephants are not good swimmers and therefore unlikely to migrate between islands; JTvG))

Hooijer, D.A. (1975)- Quaternary mammals west and east of Wallace's line. Netherlands J. Zoology. 25, p. 46-56.
(Same paper as above)

Hooijer, D.A. (1981)- What, if anything new, is *Stegodon sumbaensis* Sartono? Modern Quaternary Research in Southeast Asia 6, Balkema, Rotterdam, p. 89-90.
(Nature of Sumba Stegodon described by Sartono (1979) still uncertain. Not necessarily pygmy Stegodon)

Hooijer, D.A. (1982)- The extinct giant land tortoise and the pygmy stegodont of Indonesia. Modern Quaternary Research in Southeast Asia 7, Balkema, Rotterdam, p. 171-176.
(Mainly critical discussion of Sondaar (1981) paper on Geochelone faunas. All known Geochelone tortoises in Indonesia can be grouped in G. atlas and made their way to Indonesian islands by overseas dispersal (not land bridges). All pygmy stegodonts are conspecific, Stegodon sompoensis)

Hooijer, D.A. (1982)- Premolars of *Elephas planifrons* Falconer & Cautley from the Pleistocene of Java. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, B85, 3, p. 265-272.

Hooijer, D.A. (1983)- Comment II: Remarks upon the Dubois collection of fossil mammals from Trinil and Kedungbrubus in Java. Geologie en Mijnbouw 62, p. 337-338.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0TXdLZ3dtNVloTHc/view)

(Comments on De Vos and Sondaar (1982) and De Vos et al. (1982) papers on Dubois collection. Part of problem is that the Dubois collections from Trinil may come from two different deposits: M Pleistocene Kabuh Fm and Late Pleistocene terrace sediments. Also Dubois collection from Kedungbrubus- Gunung Butak is mixture of Late Pliocene- E Pleistocene Jetis and M Pleistocene Trinil fauna)

Hooijer, D.A. (1984)- The mammalian faunas of Trinil and Kedungbrubus in Java once more. Modern Quaternary Research in Southeast Asia 8, Balkema, Rotterdam, p. 95-102.
(Comments on De Vos et al. (1982) and Sondaar et al. (1983) papers. Hooijer does not accept that the more diverse Kedungbrubus fauna is younger than Trinil fauna, but are roughly equivalent)

Hooijer, D.A. & B. Kurten (1984)- Trinil and Kedungbrubus: the *Pithecanthropus*-bearing fossil faunas of Java and their relative age. Annales Zoologici Fennici 21, p. 135-141.
(online at: http://www.sekj.org/PDF/anzf21/anzf21-135-141.pdf
(Authors dispute De Vos (1982) interpretation of Trinil mammal fauna as older than Kedungbrubus fauna)

Hope, G.S. & S.G.Haberle (2005)- The history of the human landscapes of New Guinea. In: A. Pawley et al. (eds.) Papuan pasts: cultural, linguistic and biological histories of Papuan-speaking peoples, Australian National University, Canberra, p. 541-554.
(online at: http://palaeoworks.anu.edu.au/pubs/Hope&Haberle05.pdf)
(Humans have been in highland valleys of New Guinea for at least 30,000 years and presumably occupied savannah plains that then connected New Guinea to Australia for 50,000 years or more)

Houbolt, J.H. (1940)- Bijdrage tot de kennis van der verspreiding van Palaeolithische artefacten in Nederlandsch-Indië. Tijdschrift Indische Taal Land en Volkenkunde 80, p. 614-617.
('Contribution to the knowledge of the distribution of Paleolithic artefacts in the Netherlands Indies')

Hrdlicka, A. (1930)- The skeletal remains of early Man. Smithsonian Miscellaneous Collections 83, p. 1-379.
(online at: https://repository.si.edu/handle/10088/24010)
(Review of fossils of early Man worldwide. Book contains a section on Pithecanthropus fossils of Dubois (which H. was allowed by Dubois to inspect at the Teylers Museum in Haarlem in 1923) and Hrdlicka's visit to the Trinil Site in May 1924. Also describes the 'discovery' of second Pithecanthropus skull cap at Trinil by a Dr. C.E.J. Heberlein from Surabaya in August 1926, which turned out to be a kneecap of a Stegodon elephant)

Huffman, O.F. (1998)- An Early Pleistocene way of life- *Homo erectus* of Sangiran Dome, Central Java. In: P. Lunt, R. Netherwood & O F. Huffman (eds.) Guidebook for field trip to Central Java, Oct 1998, Indonesian Petroleum Association (IPA), Jakarta, p. 1-15.
(online at: www.utexas.edu/cola/files/776909)

Huffman, O.F. (1999)- Pleistocene environmental variety in eastern Java and early *Homo erectus* paleoecology- a geological perspective. Buletin Geologi (ITB) 31, 2, p. 93-107
(Late Pliocene-Pleistocene paleogeography of E Java. Homo erectus homeland was volcanic archipelago)

Huffman, O.F. (2001)- Plio-Pleistocene environmental variety in eastern Java and early *Homo erectus* paleoecology- a geological perspective. In: T. Simanjuntak et al. (eds.) Sangiran: man, culture, and environment in Pleistocene times, Proc. International Colloquium on Sangiran, Solo- Indonesia, Solo 1998, National Research Centre of Archaeology, Yayasan Obor Indonesia, Jakarta, p. 231-256.
(online at: www.utexas.edu/cola/depts/anthropology/projects/huffman/6-SoloProc2001.pdf)
(Same paper as above. Homo erectus' homeland was volcanic archipelago with variety of paleoenvironments like Java today. With Late Pliocene-Pleistocene paleogeography; similar to Huffman (1999))

Huffman, O.F. (2001)- Geologic context and age of the Perning/Mojokerto *Homo erectus*, East Java. J. Human Evolution 40, 4, p. 353-362.
(Perning/Mojokerto Homo erectus from Upper Pucangan Fm in E Kendeng hills of E Java likely to be of latest Pliocene age (1.81 Ma radiometric age of hornblende in associated tuff; Swisher et al.) and reflect early H.

erectus occupation of Java (but relation of tuff and Mojokerto skull debated in later literature, e.g. Huffman et al. 2006; JTvG)

Huffman, O.F., A.W.J. Berkhout, P.C.H. Albers, J. de Vos & F. Aziz (2022)- Geology and discovery record of the Trinil *Pithecanthropus erectus* site, Java. PaleoAnthropology 2022, 2, p. 266-326.
(online at: https://paleoanthropology.org/ojs/index.php/paleo/article/view/83/773)
(Extensive documentation of Trinil type locality of Homo erectus and excavations by the Dubois team in 1891-1893, the Selenka Expedition 1907-1908, etc. Associated Pleistocene mammal fossils of extinct 'Trinil Fauna' in Pithecanthropus erectus discovery bonebed ('Hauptknochenschicht') include Axis lydekkeri, Duboisia santeng and Stegodon trigonocephalus. Terrestrial-vertebrate elements overwhelmingly disarticulated and frequently broken, with little indication of fluvial abrasion. No indication of hominin or carnivore involvement in deaths reported, suggesting catastrophic mortality along floodplain of a paleo-river, followed by lahar-flood deposition of gravel-size lithic and biotic materials)

Huffman, O.F., J. de Vos, A.W. Berkhout & F. Aziz (2010)- Provenience reassessment of the 1931-1933 Ngandong *Homo erectus* (Java), confirmation of the Bone-bed origin reported by the discoverers. PaleoAnthropology 2010, p. 1-60.
(online at: www.paleoanthro.org/journal/content/PA20100001.pdf)
(Geologists of Geological Survey of Netherlands Indies unearthed 14 Homo erectus fossils in 1931-1933 from Excavation site I Ngandong. Hominin discoveries and other vertebrate remains from thin, gravelly volcaniclastic stratum near base of fluvial terrace remnant ~20m above Solo River)

Huffman, O.F., P. Shipman, C. Hertler, J. de Vos & F. Aziz (2005)- Historical evidence of the 1936 Mojokerto skull discovery, East Java. J. Human Evolution 48, p. 321-363.
(Extensive review of history of discovery of Mojokerto child skull (Perning 1) in E Java in 1936, from hill-slope outcrop of folded conglomeratic sandstone in Duyfjes' Pucangan Fm on Kedungwaru anticline. Now accepted as Homo erectus (long believed one of oldest hominids from Java. Radiometric age of 1.81 ± 0.04 Ma from pumice near discovery section by Swisher et al., 1994, but may be from deeper beds; Huffman et al. 2006)

Huffman, O.F. & Y. Zaim (2003)- Mojokerto Delta, East Jawa: paleoenvironment of *Homo modjokertensis*- first results. J. Teknologi Mineral (ITB), 10, 2, p.
(manuscript online at: www.utexas.edu/cola/files/793055)
(Homo modjokertensis remains found in 1936 found in situ in Plio-Pleistocene bedrock at Perning site, SW of Surabaya. With Plio-Pleistocene paleogeographic map. Discovery site formed as fluvial channel on delta plain of ancient Mojokerto Delta)

Huffman, O.F. & Y. Zaim (2003)- Geological age estimate for the Mojokerto child's skull Homo erectus. Comment on Berghuis et al. "The eastern Kendeng Hills (Java, Indonesia) and the hominin-bearing beds of Mojokerto, a re-interpretation" [Quat. Sci. Rev. 295 (2022) 107692]). Quaternary Science Reviews 307, 108058, p. 1-4.
(Disagree with Berghuis et al. (2022) analysis of stratigraphic context of Mojokerto child's skull, unearthed near Perning in 1936)

Huffman, O.F., Y. Zaim, J. Kappelman, D.R. Ruez, J. de Vos, Y. Rizal, F. Aziz & C. Hertler (2006)- Relocation of the 1936 Mojokerto skull discovery site near Perning, East Java. J. Human Evolution 50, p. 431-451.
(Mojokerto skull discovery site was probably in beds 20m higher than ash layer dated as 1.81 Ma by Swisher et al. 1994, 2000)

Husain, M., S. Eko, H.A. Mahfi, W. Sunata & P. Sanyoto (1997)- Magnetostratigrafi daerah Patiayam, Kudus, Jawa Tengah. Proc. 22nd Annual Conv. Indonesian Association Geophysicists (HAGI), Bandung, p.
('Magnetostratigraphy of the Patiayam area, Kudus, C Java'. Hominid fossils in Patiayam area near Top Brunhes normal polarity subchron)

Husson, L., T. Salles, A.E. Lebatard, S. Zerathe, R. Braucher, S. Noerwidi, S. Aribowo et al. (2022)- Javanese *Homo erectus* on the move in SE Asia circa 1.8 Ma. Nature Scientific Reports 12, 19012, p. 1-12.
(online at: https://www.nature.com/articles/s41598-022-23206-9)
(Reappraisals of age dates (including new cosmic nucleids technology; TCN), suggest H. erectus reached Java and dwelled at Sangiran, Java at ~1.8 Ma. Hospitable terrestrial conditions of Sundaland facilitated prior dispersal of hominins to edge of Java, where they waited until Java archipelago emerged from sea and connected to Sundaland. Dispersal of H. erectus across Sundaland occurred over 10s to 100s kyr (N.B: TCN age of Grenzbank here suggested to be 1.78 +/- 0.35 Ma; i.e. much older than the widely accepted age of ~1Ma; JTvG)

Hutterer, K.L. (1983)- Absolute dates for the hominid-bearing deposits in Java: an overview. Asian Perspectives 25, 2, p. 53-65.
(online at: https://scholarspace.manoa.hawaii.edu/bitstream/10125/19247/1/AP-v25n2-53-65.pdf)
(Literature review of published radiometric dates of Upper Pucangan Beds (~0.85-1.2 Ma; with 'Djetis Fauna near top at ~0.8 Ma) and Lower Kabuh Beds (~0.5-0.7 Ma; with Trinil Fauna, ~0.5 Ma) and Notopuro Beds (<0.1 Ma; with Ngandong Fauna). Tektite from Sangiran 730,000 ± 50,000 yrs)

Hyodo, M. (2001)- The Sangiran geomagnetic excursion and its chronological contribution to the Quaternary geology of Java. In: T. Simanjuntak et al. (eds.) Sangiran: man, culture, and environment in Pleistocene times, Proc. International Colloquium on Sangiran, Solo- Indonesia 1998, National Research Centre of Archaeology, Yayasan Obor, Jakarta, p. 320-335.
(Sangiran geomagnetic excursion, characterized by westerly declinations, ranges from below T1 Tuff up to just above diatomite layer in Pucangan Fm. Age estimated 1.56-1.48 Ma. Good time marker for tectonic event in M Matuyama chron in C and E Java)

Hyodo, M., S. Matsu'ura, Y. Kamishima, M. Kondo, Y. Takeshita, I. Kitaba, T. Danhara, F. Aziz, I. Kurniawan & H. Kumai (2011)- High-resolution record of the Matuyama-Brunhes transition constrains the age of Javanese *Homo erectus* in the Sangiran dome, Indonesia. Proc. National Academy of Sciences USA (PNAS) 108, 49, p. 19563-19568.
(online at: https://www.pnas.org/doi/pdf/10.1073/pnas.1113106108)
(Paleomagnetic study in Sangiran area. A reverse-to-normal polarity transition in 7m thick section across Upper Tuff in Bapang (= Kabuh) Fm, showing 3 short reversal episodes overlain by thick normal polarity magnetozone, a pattern that closely resembles Matuyama-Brunhes transition (~0.78 Ma). Hominid last occurrence and tektite level in Sangiran nearly coincident, just below Upper Middle Tuff, which underlies MB transition. Meteorite impact preceded M-B reversal by ~12 ka)

Hyodo, M., H. Nakaya, A. Urabe, H. Saegusa, S. Xue, J. Yin & X. Ji (2002)- Paleomagnetic dates of hominid remains from Yuanmou, China, and other Asian sites. J. Human Evolution 43, 1, p. 27-41.
(Geomagnetic data suggest Homo erectus-affinity Yuanmou, SW China, hominid remains from early Brunhes chron ~0·7 Ma). Hominid fossils from Sangiran and Mojokerto, Java, do not exceed 1·1 Ma in age)

Hyodo, M., W. Sunata & E.E. Susanto (1990)- A long-term geomagnetic excursion from Plio-Pleistocene sediments in Java. In: M. Kono (ed.) Rock magnetism and paleogeophysics 17, Tokyo, p. 31-37. *(online at: http://peach.center.ous.ac.jp/rprep/Rock%20Magnetism%20and%20Paleogeophysics%20vol17%201990.pdf)*
(Similar to Hyodo, Sunata & Susanto et al., 1992))

Hyodo, M., W. Sunata & E.E. Susanto (1992)- A long-term geomagnetic excursion from Plio-Pleistocene sediments in Java. J. of Geophysical Research 97, B6, p. 9323-9335.
(Paleomagnetic records from Sangiran and Mojokerto suggest large-scale declination swing between Olduvai and Jamarillo events, lasting ~130,000 years)

Hyodo, M., W. Sunata, E.E. Susanto & H. Wahyono (1988)- Paleomagnetism of Plio-Pleistocene sediments in Sangiran, Central Java. In: M. Kono (ed.) Rock magnetism and paleogeophysics 15, DELP Publ. 23, Tokyo, p. 31-34. *(online at: http://peach.center.ous.ac.jp/rprep/Rock%20magnetism%20and%20Paleogeophysics%20vol15%201988.pdf)*

Nine polarity boundaries were located in outcrops of Sangiran area. The stratigraphic levels with Pithecantropus fossils (uppermost Pucangan- Kabuh Fms) range from lower boundary of Jaramillo event at 0.97 Ma to Brunhes-Matuyama boundary at 0.73 Ma)

Hyodo, M., N. Watanabe, W. Sunata & E.E. Susanto (1993)- Magnetostratigraphy of hominid fossil bearing formations in Sangiran and Mojokerto, Java. Anthropological Science 101, 2, p. 157-186.
(online at: https://www.jstage.jst.go.jp/article/ase1993/101/2/101_2_157/_pdf)
(Also in Rock magnetism and paleogeophysics 19 (1992). Paleomagnetic study of Plio-Pleistocene formation at Sangiran and Mojokerto. Levels of hominid fossils in Sangiran range from lower Jamarilo event at 0.97 Ma to Brunhes-Matayama boundary at 0.73 Ma. Homo modjokertensis in Mojokerto lies at lower border of Jamarillo event at 0.97 Ma)

Indonesia-Japan Research Cooperation Programme (CTA-41) (1979)- Progress report of the Indonesia-Japan joint research project on geology of human fossil bearing formations in Java. Bull. Geological Research Development Centre (GRDC) 1, p. 47-60.

Indonesia-Japan Joint Research Team (1979)- Stratigraphy and geological structure in the Central Part of the Sangiran Dome. Bull. Geological Research Development Centre (GRDC) 2, p. 55-61.
(Brief description of Late Pliocene- Pleistocene stratigraphy exposed in Sangiran Dome, C Java. Structure is dome, with radial and concentric faults. With four mud volcanoes with exotic blocks and some natural gas seepage. Described in more detail in Watanabe & Kadar, 1985)

Indonesia-Japan Joint Study Team (1991)- Quaternary geology of the northern foot area of Mount Lawu and along the middle course of the Solo river, Central and East Java. Geological Research Development Centre (GRDC), Bandung, p. 1-84.

Indonesia-Japan Joint Study Team (1990)- Stratigraphical correlation of the Quaternary system in the Sangiran area and its surroundings, Central Java. United Nations, CCOP, Technical Bulletin 21, p. 117-134.

Indriati, E. (2004)- Indonesian fossil hominid discoveries from 1889 to 2003: catalogue and problems. In: S. Akiyama et al. (eds.) Proc. Fifth and Sixth Symposia on collection building and natural history studies in Asia and the Pacific Rim, National Science Museum, Tokyo, Monograph 24, p. 163-177.
(Indonesian hominid fossil discoveries catalogue in 1975 listed 57 hominids, in 2003 list more than doubled, albeit lacking provenance for some discoveries)

Indriati, E. & S.C. Anton (2008)- Earliest Indonesian facial and dental remains from Sangiran, Java: a description of Sangiran 27. Anthropological Science 116, 3, p. 219-229.
(online at: https://www.jstage.jst.go.jp/article/ase/116/3/116_070814/_pdf)
(Sangiran 27 only known facial skeleton of Homo erectus. Probably from earliest Pleistocene Sangiran (Pucangan) Fm. Highly mineralized. Ar/Ar dates on bracketing tuffs suggest age of 1.58-1.66 Ma. Sangiran 27 best considered member of H. erectus, but more robust morphology than contemporaneous fossils from Georgia and Kenya)

Indriati, E., C.C. Swisher, C. Lepre, R.L. Quinn, R.A. Suriyanto, A.T. Hascaryo, R. Grun, C.S. Feibel et al. (2011)- The age of the 20 meter Solo River terrace, Java, Indonesia and the survival of *Homo erectus* in Asia. PloS One 6, 6, e21562, p. 1-10.
(online at: www.plosone.org/article/info:doi%2F10.1371%2Fjournal.pone.0021562)
(Wide range and conflicting results of radiometric ages for hominid-bearing beds of Solo River 20m terrace deposits in E Java. New radiometric ages suggest older age than currently accepted. Ar/Ar ages from '20m terrace' at Ngandong and Jigar 546 ± 12 ka, but ESR/U-series results 143 ka± 20 ka, possibly indicating leaching of uranium (N.B.: Rizal et al. (2019) suggest most likely age of bone bed is ~117-108 ka))

Ingicco, T. (2010)- Les primates quaternaires de Song Terus (Java Est, Indonesie): implications paleobiogeographiques et archeozoologiques pour l'Asie du Sud-Est. Doct. Thesis Museum National Histoire Naturelle, Paris, p. 1-281.
('The Quaternary primates of Song Terus (East Java, Indonesia): paleobiogeographic and archeozoological implications for SE Asia'. Bones of non-human primates 70% of E Holocene mammal remains in caves in Punung region of SE Java. Facial parts of monkeys found with pre-Neolithic human burials, as noted by Van Heekeren. Primate speciation patterns in islands of SE Asia suggest continuous connections between Sunda Islands through forested terrain during Pleistocene. Tooth micro-wear suggests commensalism between monkeys (especially Trachypithecus auratus) and humans at SongTerus from 9000-5000 years ago)

Ingicco, T. (2012)- Les primates quaternaires de Song Terus (Java Est, Indonesie): implications paleobiogeographiques et archeozoologiques pour l'Asie du Sud-Est. Bulletins Memoires Societe Anthropologie de Paris 24, p. 199-203.
(Summary of thesis above)

Ingicco, T., N. Amano, K. Setiagama, A.M. Moigne, Budiman, A.M. Semah, T. Simanjuntak & F. Semah (2020)- From food to grave good, Nonhuman primate exploitation in Early to Mid-Holocene Eastern Java (Indonesia). Current Anthropology 61, 2, p. 264-276.
(online at: https://www.researchgate.net/publication/340390122_From_Food_to_Grave_Good_Non-human_Primate_Exploitation_in_Early_to_Mid-Holocene_Eastern_Java_Indonesia)
(On exploitation of Cercopithecidae (monkeys) by E Holocene humans, from acquisition through processing, in two cave sites in Gunung Sewu region of E Java: Song Terus and Braholo. Trachypithecus auratus accounts for more than 90% of monkey remains, suggesting deliberate targeting of this over other monkey species. Placement of butchery marks allowed reconstruction of how monkeys were processed (for food and materials for tool and ornament manufacture))

Ingicco, T., J. de Vos & O.F. Huffman (2014)- The oldest gibbon fossil (Hylobatidae) from insular Southeast Asia; evidence from Trinil (East Java, Indonesia), lower/middle Pleistocene. PloS One 9, 6, E99531, p. 1-15.
(online at: http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0099531)
(Fossil femur excavated by Dubois in 1891-1900 in E-M Pleistocene bone bed of Trinil and now in Dubois collection at Naturalis museum, Leiden, recognized here as that of Hylobatidae (gibbon), making it oldest insular record in SE Asia. Living Hylobatidae inhabit evergreen rain forests, so paleoenvironment in greater Trinil area included forests of this kind in E-M Pleistocene)

Ingicco, T., A.M. Moigne, K.F. Setiagama, N. Amano, A. Kusno, A. Mirza, F.S. Detroit, A.M. Semah & F. Semah (2014)- The fauna of Song Terus cave (East Java, Indonesia) and LGM impact on the Sunda shelf: is the Keplek fauna an impoverished Wajak fauna? In: N. Amano et al. (eds.) Southeast Asia: human evolution, dispersals and adaptations, 17th Congress International Union for Prehistoric and Protohistoric Sciences (UISPP), Burgos 2014, p. 110-115.

Ingicco, T., M.C. Reyes, J. de Vos, M. Belarmino, P.C.H. Albers, I. Lipardo X. Gallet, N. Amano, G.D. van den Bergh et al. (2020)- Taphonomy and chronosequence of the 709 ka Kalinga site formation (Luzon Island, Philippines). Nature Scientific Reports 10, 11081, p. 1-17.
(online at: https://www.nature.com/articles/s41598-020-68066-3.pdf)
(Early Middle Pleistocene Kalinga site with 2.5m thick fossiliferous 'unit F' with 73 stone artefacts along with complete butchered rhinoceros skeleton and two tektites, embedded in mudflow within a paleochannel (see also Ingicco et al. 2018). Most likely, the rhino carcass was transported along with the hominid stone artefacts used for butchering by the mudflow)

Ingicco, T., F. Semah, Y. Zhou, A.M. Semah & H. Forestier (2022)- The early lithic productions of Island Southeast Asia: Traditions or convergences? L'Anthropologie 126, 1, 102997, p. 1-23.
(manuscript online at: https://hal.science/hal-03659596v1/file/S0003552122000024.pdf)

(Recent and old excavations produced stone artefacts as old as 1 My on Flores, 800,000 years on Java, 700,000 on Luzon and >118,000 years on Sulawesi, Java Pacitanian, etc. Surface collections dating back to Lower Paleolithic)

Ingicco, T., G. van den Bergh, J. de Vos, A. Castro, N. Amano & A. Bautista (2016)- A new species of *Celebochoerus* (Suidae, Mammalia) from the Philippines and the paleobiogeography of the genus *Celebochoerus* Hooijer, 1948. Geobios 49, 4, p. 285-291.
(online at: https://ro.uow.edu.au/cgi/viewcontent.cgi?article=5182&context=smhpapers)
(Celebochoerus is suid (pig familiy) with large upper tusks, previously known only from Plio-Pleistocene of Sulawesi. New discovery of canine fragment of Celebochoerus from Cagayan Valley of Luzon, N Philippines, described as Celebochoerus cagayanensis nov. sp. Propose migration route from Philippines to Sulawesi, possibly out of Taiwan, independent from better known Pleistocene migration route from India into Java)

Ingicco, T., G.D van den Bergh, C. Jago-On, J. Bahain, M. G.Chacon, N. Amano, H. Forestier, C. King, K. Manalo et al. (2018)- Earliest known hominin activity in the Philippines by 709 thousand years ago. Nature 557 (7704), p. 233-237.
(manuscript online at: https://ro.uow.edu.au/cgi/viewcontent.cgi?article=6441&context=smhpapers)
(Excavations at Kalinga in Cagayan Valley of N. Luzon since 2013 yielded 57 stone-tools associated with 75% complete disarticulated skeleton of Rhinoceros philippinensis, with clear signs of butchery, together with other fossil fauna. All finds originate from clayey bone bed dated to 777k- 631k years ago using electron-spin resonance method of tooth enamel and fluvial quartz. This pushes back proven period of hominid colonization of Philippines by 100,000s of years. Basal Unit F bone bed was channel filled up to 3.25m thick mudflow, which covered bones, along with in situ tektite and 57 stone-tools and sparse fossils of other animals (Geoemydidae, Varanus cf. salvator, Stegodon cf. luzonensis, Cervus))

Insani, H., U.P. Wibowo, E. Setiyabudi & I. Kurniawan (2015)- On variation of extinct Java Hippopotamuses: a note from a new finding of Hippopotamidae fossil from Subang, West Java, Indonesia. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI, Balikpapan, JCB2015-277, p. 1-4.
(online at: www.researchgate.net/publication/285482685_ON_VARIATION_OF_EXTINCT_JAVA_H Etc.)
(New maxilla fossil of small hippopotamus from conglomeratic sandy layer of E Pleistocene Citalang Fm in Pasir Cabe, Wanareja Village, Subang District. Assigned to Hippopotamus sivalensis sivajavanicus)

Itihara, M., Sudijono, D. Kadar, T. Shibasaki, H. Kumai, S. Yoshikawa, F. Aziz et al. (1985)- Geology and stratigraphy of the Sangiran area. In: N. Watanabe & D. Kadar (eds.) Quaternary geology of the hominid fossil bearing formations in Java. Geological Research Development Centre (GRDC), Bandung, Special Publ. 4, p. 11-43.

Itihara, M., Sudijono, Wikarno & D. Kadar (1985)- Mud volcanoes in the Sangiran Dome. In: N. Watanabe & D. Kadar (eds.) Quaternary geology of the hominid fossil bearing formations in Java. Geological Research Development Centre (GRDC), Bandung, Special Publ. 4, p. 117-124.

Itihara, M., N. Watanabe, D. Kadar & H. Kumai (1994)- Quaternary stratigraphy of the hominid fossil bearing formations in the Sangiran area, Central Java. In: J.L. Franzen (ed.) 4th International Conference 100 years of *Pithecanthropus*. The *Homo erectus* problem, Frankfurt 1991, Courier Forschungsinstitut Senckenberg 171, p. 123-128.

Itihara, M., Wikarno & Y. Kagemori (1985)- Tektites from the Sangiran area. In: N. Watanabe & D. Kadar (eds.) Quaternary geology of the hominid fossil bearing formations in Java. Geological Research Development Centre (GRDC), Bandung, Special Publ. 4, p. 125-128.
(Horizon with tektites, glassy material from widespread M Pleistocene Australasian meteorite strewnfield, present between 2nd and 3rd Tuff Horizon in Bapang/ Kabuh Fm of Sangiran Dome)

Irwanto, D. (2019)- Sundaland. Tracing the cradle of civilizations. Indonesia Hydro Media, Bogor, p. 1-386.

(Paleogeography of Sundaland during the Late Pleistocene Last Glacial Maximum, and its role in the dispersal of modern humans across SE Asia)

Jablonski, N.G. & D.E. Tyler (1999)- *Trachypithecus auratus sangiranensis*, a new fossil monkey from Sangiran, Central Java, Indonesia. International J. of Primatology 20, 3, p. 319-326.
(Description of new subspecies of Javan lutung monkey, based on tooth-bearing upper jaw fragment from volcanic breccia between U Kalibeng Fm and Lower Pucangan Fm, 500m S of Sangiran. Geochronological age 1.9 Ma, making it oldest monkey in SE Asia. Morphologic similarities to living leaf monkeys of Java, but larger (age disputed by Larick et al. 2000; probably younger))

Jacob, T. (1964)- A new hominid skull cap from Pleistocene Sangiran. Anthropologica, n.s. 6, p. 97-104.
(After two decades of slowdown in paleoanthropolical research in Java since start of the Pacific War, a new joint Paleoantropological Research Project of Gadjah Mada University/ Archeological Survey and Geological Survey uncovered new Pithecanthropus skull fragments in 1963, in MPleistocene upper Kabuh Fm ('Trinil Beds'). Possibly belog to same individual as fragments found at same locality earlier by Sartono (1963))

Jacob, T. (1966)- The sixth skull cap of *Pithecanthropus erectus*. American J. Physical Anthropology 25, 3, p. 243-259.
(Sixth Pithecanthropus skull (named skull V) from cross-bedded sandstone of upper Trinil beds in Tanjung village, Sangiran, C Java. Pithecanthropine characteristics, with cranial capacity ~975 cm3. Absence of cranial base does not necessarily indicate that specimen was victim of cannibalism)

Jacob, T. (1967)- Some problems pertaining to the racial history of the Indonesian Region. Doct. Thesis, Rijksuniversiteit Utrecht, p. 1-156. *(Unpublished)*

Jacob, T. (1967)- Recent *Pithecanthropus* finds in Indonesia. Current Anthropology 8, 5, p. 501-504.
(New mandible and skull caps ('Skull VI' and 'Skull VII') of Pithecanthropus from Sangiran, C Java)

Jacob, T. (1972)- The absolute date of the Djetis beds at Modjokerto. Antiquity 46, p. 148.
(online at: https://www.cambridge.org/core/journals/antiquity/article/abs/absolute-date-of-the-djetis-beds-at-modjokerto/EBD86F3E21192C35FAEB8291A1E97C0B)
(Brief note on K-Ar radiometric age of pumice tuff from a few m above horizon with 'Mojokerto child' at Perning, by G.H. Curtis from University of California gave age of 1.9 Ma, with range of +/- 0.4 Ma)

Jacob, T. (1972)- The problem of head-hunting and brain-eating among Pleistocene men in Indonesia. Archaeology & Physical Anthropology in Oceania 7, 2, p. 81-91.
(Many indications, but not enough convincing evidence that Pleistocene men in Java were cannibals)

Jacob, T. (1973)- Palaeoanthropological discoveries in Indonesia with special reference to the finds of the last two decades. J. Human Evolution 2, 6, p. 473-485.
(Reviews of paleoanthropological research in Indonesia since 1889. Three periods, with most finds in second one (1931-1941). Most finds are skull fragments of Pithecanthropus erectus, from M Pleistocene Kabuh Fm in Sangiran. K/Ar dating gives age of 1.9 ± 0·4 Million years for Jetis beds at Perning (site of Mojokerto juvenile calvaria) and 0.83 Ma for (upper?) tuff from Trinil beds (Kabuh Fm) at Sangiran)

Jacob, T. (1974)- Studies on human variation In Indonesia. J. National Medical Association 66, 5, p. 389-399.
(online at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2609252/pdf/jnma00489-0061.pdf)

Jacob, T. (1975)- Morphology and paleoecology of early man in Java. In: R.H. Tuttle (ed.) Paleoanthropology morphology and paleoecology, Mouton, The Hague, p. 311-325.
(Between 1889-1941 at least 31 hominid fossils discovered in Indonesia, mainly pithecanthropines. Since 1952 >17 additional individuals found)

Jacob, T. (1975)- The pithecanthropines of Indonesia. Bulletins Memoires Societe Anthropologie de Paris 13, 2, p. 243-256.
(online at: www.persee.fr/web/revues/home/prescript/article/bmsap_0037-8984_1975_num_2_3_1816)
(Bodily remains of Pithecanthropus of Java consist of cranial and lower limb bones of ~50 individuals, from Lower and Middle Pleistocene beds (~1.9 to 0.2 Ma). Hiatus of at least 150,000 years existed between last Pithecanthropus and first Homo remains in Asia)

Jacob, T. (1976)- Man in Indonesia: past, present and future. Modern Quaternary Research in Southeast Asia 2, Balkema, Rotterdam, p. 39-48.
(Brief review of hominids in Indonesian region in last 2 Myrs)

Jacob, T. (1977)- Evolution of man in Southeast Asia. Berkala Ilmu Kedokteran (J. Medical Sciences) 9, 4, p. 175-186.
(online at: https://journal.ugm.ac.id/bik/article/download/4724/3981)

Jacob, T. (1978)- The puzzle of Solo Man. Modern Quaternary Research in Southeast Asia 4, p. 31-40.
(Solo man from Ngandong first discovered in 1931 is M Pleistocene pithecanthropine (advanced Homo erectus). Solo man made stone tools. May have been cannibalistic, but not necessarily so)

Jacob, T. (1978)- New finds of Lower and Middle Pleistocene hominines from Indonesia. In: F. Ikawa-Smith (ed.) Early Palaeolithic in South and East Asia, Mouton Publishers, The Hague, p. 13-22.
(Brief review of occurrences of Pleistocene hominid fossils of Java. Most new finds of M Pleistocene H. erectus fragments from Kabuh Fm of Sangiran area. K/Ar ages of Kabuh Fm hominid-bearing beds average 830,000 years; associated tektites 710,000 years)

Jacob, T. (1979)- Hominine evolution in South East Asia. Archaeology Physical Anthropology Oceania 14, 1, p. 1-10.

Jacob, T. (1980)- The *Pithecanthropus* in Indonesia: phenotype, genetics and ecology. In L.K. Konigsson (ed.) Current argument on Early Man, Proc. Nobel Symposium, Karlskoga 1978, Pergamon Press, Oxford, p. 170-179.

Jacob, T. (1981)- Solo Man and Peking Man. In: B.A. Sigmon & J.S. Cybulski (eds.) *Homo erectus*: papers in honor of Davidson Black, University of Toronto Press, Toronto, p. 87-104.

Jacob, T. (1981)- *Meganthropus, Pithecanthropus* and *Homo sapiens* in Indonesia: Evidence and problems. In: D. Ferembach (ed.) Les processus de l'hominisation, L'evolution humaine, les faits, les modalites, Colloque 599, CNRS Editions, Paris, p 81-84.

Jacob, T. (1983)- Early Man in Indonesia: the "defossilization" of human fossils. In: A. Bryan (ed.) Symposium on Human evolution, University of Alberta, Edmonton, 1982, Canadian J. Anthropology 3, 2, p. 191-195.
(online at: https://tspace.library.utoronto.ca/bitstream/1807/4410/1/CJA%20Vol%203%20%232%201983.pdf)
(Brief review of three genera of fossil hominids from 7 sites on Java)

Jacob, T. (1984)- The fossil skull cap from Sambungmacan and its implication to human evolution. Berkala Bioanthropologi Indonesia (Indonesian Journal of Bioanthropology) 5, p. 19-27.

Jacob, T., E. Indriati, R.P. Soejono, K. Hsu, D.W. Frayer, R.B. Eckhardt, A. J. Kuperavage, A. Thorne & M. Henneberg (2006)- Pygmoid Australomelanesian *Homo sapiens* skeletal remains from Liang Bua, Flores: population affinities and pathological abnormalities. Proc. National Academy of Sciences USA (PNAS) 103, 36, p. 13421-13426.
(online at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1552106/pdf/zpq13421.pdf)
(Liang Bua 1 skull descrined as new species Homo floresiensis by Brown et al. (2004) and Morwood et al. (2005) not new species, but here placed within modern human ranges of variation, resembling Australomelanesian populations. LB1 probably drawn from earlier pygmy H. sapiens population)

Jacob, T. & D. Kadar (1978)- A new pithecanthropine cranial endocast S34 from the Sangiran Dome area, Central Java. Geological Research Development Centre (GRDC), Bandung, Seri Paleontologi 1, p. 1-7.

Jacob, T., R.P. Soejono, L.G. Freeman & F.H. Brown (1978)- Stone tools from Mid-Pleistocene sediments in Java. Science 202, 4370, p. 885-887.
(Stone chopper and retouched flake from mid-Pleistocene channel fills at Sambungmacan, C Java)

Jaekel, O. (1911)- Die fossilen Schildkrotenreste von Trinil. In: M.Selenka & M. Blanckenhorn (eds.) Die *Pithecanthropus*-Schichten auf Java, Geologische und Palaontologische Ergebnisse der Trinil Expedition (1907 und 1908), Wilhelm Engelmann, Leipzig, p. 75-81.
('The fossil turtle remains from Trinil'. Description of Pleistocene turtle fossils from Trinil beds, collected by Selenka expedition. High degree of fragmentation of thick tortoise shells suggest these are food remains of Pithecanthropus erectus)

Janensch, W. (1911)- Die Reptilienreste (exkl. Schildkroten). In: M. Selenka & M. Blanckenhorn (eds.) Die *Pithecanthropus*-Schichten auf Java, Geologische und Palaontologische Ergebnisse der Trinil Expedition (1907 und 1908), Wilhelm Engelmann, Leipzig, p. 61-74.
('The reptilian remains (excluding turtles) of Trinil, C Java. Descriptions of Gavialis bengawanicus Dubois, Crocodilus ossifragus and varanus vertebrae)

Janssen, R. (2017)- Isotope records in vertebrate fossils: from the Cretaceous seas to Quaternary Sundaland. Ph.D. Thesis Vrije Universiteit, Amsterdam, p. 1-142. *(online at: https://research.vu.nl/en/publications/isotope-records-in-vertebrate-fossils-from-cretaceous-seas-to-qua)*
(Includes chapter on Carbon and Sr isotopes of teeth enamel of Pleistocene mammals from Trinil-Sangiran, C Java, and Padang Highlands))

Janssen, R., J.C.A. Joordens, D.S. Koutamanis, M.R. Puspaningrum, J. de Vos, J.H.J.L. van der Lubbe, J.J.G. Reijmer et al. (2016)- Tooth enamel stable isotopes of Holocene and Pleistocene fossil fauna reveal glacial and interglacial paleoenvironments of hominins in Indonesia. Quaternary Science Reviews 144, p. 145-154.
(online at: https://research.vu.nl/ws/portalfiles/portal/41930773)
(Carbon and oxygen isotopes composition of tooth enamel used to investigate diet and habitat of bovids, cervids and suids from Holocene and Pleistocene sites on Java and Sumatra. Data from Homo erectus bone samples possibly contaminated by diagenetic overprint. C4-dominated isotope signal suggests Trinil specimens in Dubois and Selenka collections were excavated from narrow stratigraphical interval representing dry, glacial climate state (similar in Sangiran))

Jatmiko (2023)- Chronology of lithic culture in Prehistoric at Flores: Case study on Liang Bua site and Soa Basin. In: M. Hasyim (Ed.), Proc. 3rd International Conference on Linguistics and Cultural (ICLC 2022), Makassar, Advances in Social Science, Education and Humanities Research 756, Atlantis Press, p. 618-630.
(online at: https://www.atlantis-press.com/article/125988200.pdf)
(Rel. old (M Pleistocene) stone artefacts from Liang Bua and So'a Basin in Flores)

Jatmiko, G. van den Bergh, M.J. Morwood & I. Kurniawan (2009)- Excavations at Kobatuwa, central Flores, Indonesia. In: F. Aziz et al. (eds.) Pleistocene geology, palaeontology and archaeology of the Pleistocene Soa Basin, Central Flores, Indonesia, Pusat Survei Geologi, Bandung, Special Publ. 36, 6, p. 105-117. *(online at: www.researchgate.net/publication/288965361_6_Excavations_at_Kobatuwa_central_Flores_Indonesia)*
(Pleistocene Stegodon elephantoid molar fragments and stone chopper artefacts from excavations at Kobatua)

Joordens, J.C.A., S. Adhityatama, Y. Dida, T. Reimann, D. R.Ekowati, F. Huffman, B. Didit et al. (2017)- Dating Trinil: towards establishing an age framework for the hominin-bearing deposits at the *Homo erectus* site Trinil (Indonesia). 19th EGU General Assembly, EGU2017, Vienna, p. 11546. *(Abstract only)*
(Dating of Javanese hominin sites is notoriously difficult. No new information in abstract)

Joordens, J.C.A., F. d'Errico, F. Wesselingh, S. Munro, J. de Vos, J. Wallinga, C. Ankjaergaard et al. (2015)- *Homo erectus* at Trinil on Java used shells for tool production and engraving. Nature 518, 7538, p. 228-231.
(online at: www.researchgate.net/publication/269102248_Homo_Erectus_at_Trinil_on_Java_Used_She Etc.)
(Fossil freshwater mussel shells from 'Hauptknochenschicht' of Trinil, C Java (= main bone layer; type locality of Homo erectus) with evidence for freshwater shellfish consumption by hominins, one shell tool and shell with geometric engraving. Sediment in shells dated with 40Ar/39Ar and luminescence dating methods as between ~0.54 and 0.43 Ma, i.e. younger than previously estimated from correlation of mammal assemblages to nearby Sangiran section. Engraving presumably made by Homo erectus)

Joordens, J.C.A., F.P. Wesselingh, J. de Vos, H.B. Vonhof & D. Kroon (2009)- Relevance of aquatic environments for hominins: a case study from Trinil (Java, Indonesia). J. Human Evolution 57, p. 656-671.
(online at: http://www.rhinoresourcecenter.com/pdf_files/131/1313207918.pdf)
(Study of ecological context of Java hominids. Homo erectus site of Trinil contained near-coastal rivers, lakes, swamp forests, lagoons, and marshes with minor marine influence, laterally grading into grasslands. Trinil HK environments yielded edible molluscs and fish. Midden-like characteristics of large bivalve shell assemblages from Trinil HK indicate deliberate collection, possibly by hominins)

Jungers, W. (2013)- *Homo floresiensis*. In: D.R. Begun (ed.) A companion to Paleoanthropology, Chapter 30, p. 582-598.

Jungers, W., S.G. Larson, W. Harcourt-Smith, M.J. Morwood, T. Sutikna, Rokhus Due Awe & T. Djubiantono (2009)- Descriptions of the lower limb skeleton of *Homo floresiensis*. J. Human Evolution 57, 5, p. 538-554.

Junghuhn, F. (1857)- Over de fossiele zoogdierbeenderen te Patihajam, in de residentie Djapara, eiland Java. Natuurkundig Tijdschrift voor Nederlandsch-Indie 14, p. 215-219.
('On the fossil mammal bones at Pati Ayam in the Jepara Residency, Java'. Short note on June 1856 visit to reported 'battlefield of giants' at Pati Ayam hills S of Muiah volcano. Area with black clays rich in mammal bones, including Bos sp., Elephas primigenius and Mastodon elephantoides. Latter species also known from Irrawaddy, India. No figures)

Kadar, A.P. (1994)- A review of the Sangiran (Central Java) Plio-Pleistocene environment from marine and non-marine floras and faunas. In: J.L. Rau (ed.) Proc. 29th Session Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Hanoi 1992, 2, p. 51-60.
(Discussion of paleoenvironments and fossils of Late Pliocene- Pleistocene formations of Sangiran Dome, C Java. Mainly brackish water and fluvial deposits)

Kaharudin, H.A.F., Alifah, L. Ramadhan & S. Kealy (2020)- A review of archaeological dating efforts at cave and rockshelter sites in the Indonesian Archipelago. J. Indo-Pacific Archaeology 44, p. 80-112.
(online at: https://journals.lib.washington.edu/index.php/JIPA/article/view/15659)
(Listings of 99 Pleistocene- Holocene archeological cave and rockshelter sites across Indonesia with published absolute dates)

Kaharudin, H.A.F., G.A.R. Ananda, W.H. Prasetya, M.W. Wibisono & J.S.E. Yuwono (2023)- Hunter-gatherers in labyrinth karst: An Early Holocene record from Gunung Sewu, Java. Archaeological Research in Asia 33, 100427, p.
(Evidence of occupation at Gua Mandung site in Southern Mountains (Gunung Sewu) since at least 11,073 cal BP. With abundant terrestrial fauna remains alongside numerous bone tools. "Van Stein Callenfels is the earliest known archaeologist who recognised the potential of the region in 1927. He identified a substantial lithic industry at the site of Punung in Pacitan Regency that was later called the Pacitanian Culture")

Kaharudin, H.A.F., S. O'Connor, S. Kealey & N. Ririmasse (2024)- Islands on the edge: 42,000-year-old occupation of the Tanimbar islands and its implications for the Sunda-Sahul early human migration discourse. Quaternary Science Reviews 338, 108834, p. 4-13.
(online at: https://www.sciencedirect.com/science/article/pii/S0277379124003354)

(Evidence from NE Tanimbar Islands shows human occupation 42,000 years ago. one of oldest records from Wallacea. Early occupants on Tanimbar had access to medium-sized terrestrial mammals, specifically macropods (marsupials- kangaroos), which are now extinct on island)

Kahlke, H.D. (1972)- A review of the Pleistocene history of the Orang-Utan (*Pongo* Lacepede 1799). Asian Perspectives 15, p. 5-14.
(online at: https://scholarspace.manoa.hawaii.edu/server/api/core/bitstreams/d3fd521d-dc49-4940-82ce-9bb0e9fe4bf2/content)
(Review of Pleistocene orang-utan localities in SE Asia (Java, Sumatra, Kalimantan, China, Laos, Vietnam))

Kaifu, Y. (2006)- Advanced dental reduction in Javanese *Homo erectus*. Anthropological Science 114, 1, p. 35-43.
(online at: https://www.jstage.jst.go.jp/article/ase/114/1/114_1_35/_pdf/-char/ja)
(Postcanine tooth crowns of late E Pleistocene Homo erectus from Sangiran smaller than those of older H. erectus remains of same region. Javanese H. erectus still robust root systems, presumably primitive retention)

Kaifu, Y. (2017)- Archaic hominin populations in Asia before the arrival of modern humans, their phylogeny and implications for the "Southern Denisovans". Current Anthropology 58, Suppl. 17, p. S418-S433.
(online at: http://www.journals.uchicago.edu/doi/pdfplus/10.1086/694318)
(Asian hominid fossil record scant, but suggests presence of regionally different evolutionary lineages of archaic Homo in Pleistocene Asia. Javanese Homo erectus may be 'southern Denisovans')

Kaifu, Y., J. Arif, K. Yokoyama, H. Baba, E. Suparka & H. Gunawan (2007)- A new *Homo erectus* molar from Sangiran. J. Human Evolution 52, 2, p. 222-226.
(online at: https://www.researchgate.net/publication/6673783_A_new_Homo_erectus_molar_from_Sangiran)
(Njg 2005.05 molar originally from Bapang-AG levels of Sangiran region)

Kaifu, Y., F. Aziz & H. Baba (2001)- New evidence of the existence of *Pongo* in the Early/Middle Pleistocene of Java. In: Towards ahead: geological museum in a changing world, Int. Symposium on Geological Museum, Geological Research Development Centre (GRDC), Bandung, Special Publ. 27, p. 55-60.

Kaifu, Y., F. Aziz & H. Baba (2005)- Hominid mandibular remains from Sangiran: 1952-1986 collection. American J. Physical Anthropology 128, 3, p. 497-519.
(Descriptions of 8 hominid mandibular and associated dental remains found between 1952 and 1986 in E Pleistocene deposits of Sangiran, C Java. All specimens are surface finds)

Kaifu, Y., F. Aziz & H. Baba (2013)- The origins and early evolution of Indonesian *Homo erectus*: evidence from Sangiran. In: F. Aziz & H. Baba (eds.) *Homo erectus* in Indonesian- Recent progress of the study and current understanding, Centre for Geological Survey, Bandung, Special Publ., Chapter 3, p. 43-64.
(Significant morphological variation and changes within early Homo erectus from Java)

Kaifu, Y., F. Aziz, E. Indriati, T. Jacob, I. Kurniawan & H. Baba (2008)- Cranial morphology of Javanese *Homo erectus*: new evidence for continuous evolution, specialization, and terminal extinction. J. Human Evolution 55, 4, p. 551-580.
(Morphological changes in H. erectus skulls from Java: brain size expansion, anteroposterior lengthening of midcranial base and an anterior shift of posterior temporal muscle, etc. Crania from Sambungmacan transitional between earlier (Bapang Fm above Grenzbank in Sangiran) and later (Ngandong) morphotypes of Java. Development of unique features in later Javanese H. erectus supports hypothesis that this Javanese lineage went extinct without making significant contributions to ancestry of modern humans)

Kaifu, Y., H. Baba & F. Aziz (2006)- Indonesian *Homo erectus* and modern human origins in Australasia; new evidence from the Sambungmacan region, central Java. In: Y. Tomida et al. (eds.) Proc. 7th and 8th Symposium Collection building and natural history studies in Asia and the Pacific Rim, National Science Museum, Tokyo, Monograph 34, p. 289-294.

(online at: https://www.kahaku.go.jp/research/researcher/papers/28135.pdf)
(Fossil and genetic studies generally support African origins of modern humans. Current fossil evidence still insufficient to reject competing claim of continuity between Javanese Homo erectus and modern aboriginal Australians. New H. erectus fossils from Sambungmacan, C Java, intermediate between earlier and later groups of Javanese H. erectus and support discontinuity between H. erectus and H. sapiens in Australasia)

Kaifu, Y., H. Baba & F. Aziz (2013)- Conclusions: current understanding of Indonesian *Homo erectus*. In: F. Aziz & H. Baba (eds.) *Homo erectus* in Indonesian- Recent progress of the study and current understanding, Centre for Geological Survey, Bandung, Special Publ., chapter 6, p. 103-106.
(Earliest Indonesian hominins (Sangiran Grenzbank, Mojokerto, Trinil?) more primimitive than generally thought. Within global hominin context most comparable to Homo ergaster (~1.7-1.5 Ma). Younger E Pleistocene forms (Homo erectus/Bapang-AG) with evolving characteristics towards Late Pleistocene H. erectus/Ngandong (formerly Homo soloensis). Homo erectus unlikely ancestor of Homo sapiens)

Kaifu, Y., H. Baba, F. Aziz, E. Indriati, F. Schrenk & T. Jacob (2003)- Taxonomic affinities and evolutionary history of the early Pleistocene hominids of Java: dentognathic evidence. American J. Physical Anthropology 128, 4, p. 709-726.
(Study of teeth of E Pleistocene Javanese hominids from Sangiran show morphological differences between younger and older groups. Primitive aspects of oldest Javanese hominids suggest hominids dispersed into E Eurasia in earlier Early Pleistocene)

Kaifu, Y., H. Baba, T. Sutikna, M.J. Morwood, D. Kubo, E.W. Saptomo, Jatmiko, R. Due Awe & T. Djubiantono (2011)- Craniofacial morphology of *Homo floresiensis*: description, taxonomic affinities, and evolutionary implication. J. Human Evolution 61, p. 644-682.
(Description of LB1/1 Homo floresiensis cranium. Reductive trend in facial skeleton comparable to H. sapiens, but craniometrically different. LB1 most similar to older Homo erectus from Sangiran and Trinil, consistent with hypothesis that H. floresiensis evolved from early Javanese H. erectus with dramatic island dwarfism)

Kaifu, Y., E. Indriati, F. Aziz, I. Kurniawan & H. Baba (2010)- Cranial morphology and variation of the earliest Indonesian hominids. In: C.J. Norton & D.R. Braun (eds.) Asian Paleoanthropology: from Africa to China and beyond, Springer Science, Chapter 11, p. 143-157.
(Previous arguments suggest oldest Indonesian/ Sangiran hominids characterized by cranial robusticity, but hominids highly variable, with both robust and gracile morphotypes. Cranial size, shape and dentognathic morphology of earliest Indonesian hominids comparable to ~1.7 Ma early Homo erectus from E Africa)

Kaifu, Y., M. Izuho & T. Goebel (2015)- Modern human dispersal and behavior in Palaeolithic Asia: summary and discussion. In: Y. Kaifu et al. (eds.) Emergence and diversity of modern human behavior in Paleolithic Asia, Texas A&M University Press, College Station, p. 535-566.

Kaifu, Y., R.T. Kono, T. Sutikna, E.W. Saptomo, Jatmiko & R. Due Awe (2015)- Unique dental morphology of *Homo floresiensis* and its evolutionary implications. PLoS One 10, 11, e0141614, p. 1-27.
(online at: http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0141614)
(Dental remains of Homo floresiensis both primitive and advanced molar morphologies, a combination unknown in other hominin species. Consistent with alternative hypothesis that H. floresiensis derived from earlier Asian Homo erectus population and experienced size dwarfism in isolated insular setting)

Kaifu, Y., I. Kurniawan, D. Kubo, E. Sudiyabudi, G.P. Putro, E. Prasanti, F. Aziz & H. Baba (2015)- *Homo erectus* calvaria from Ngawi (Java) and its evolutionary implications. Anthropological Science 123, 3, p. 161-176.
(online at: https://www.jstage.jst.go.jp/article/ase/123/3/123_150702/_pdf)
(Endocranial volume of Ngawi 1 skull 959 cm3. Homo erectus crania from Ngawi and Sambungmacan generally similar to those of U Pleistocene Ngandong H. erectus, but also features close to terminal Pleistocene Bapang AG Homo erectus from Sangiran)

Kaifu, Y., I. Kurniawan, S. Mizushima, J. Sawada, M. Lague, R. Setiawan, I. Sutisna, U.P. Wibowo et al. (2024)- Early evolution of small body size in *Homo floresiensis*. Nature Communications 15, 6381, p. 1-13.
(online at: https://www.nature.com/articles/s41467-024-50649-7)
(Additional hominin fossils Mata Menge shorter and thinner than type specimen of H. floresiensis dated to ~60,000 years ago, and smaller than any other Plio-Pleistocene adult hominin hitherto reported. Teeth also exceptionally small and similar to early Javanese H. erectus. H. floresiensis lineage most likely evolved from early Asian H. erectus and was long-lasting lineage on Flores since at least ~700,000 years ago.

Kaifu, Y., I. Kurniawan, D. Yurnaldi, R. Setiawan, E. Setiyabudi, H. Insani, M. Takai, Y. Nishioka et al. (2022)- Modern human teeth unearthed from below the ~128,000-year-old level at Punung, Java: a case highlighting the problem of recent intrusion in cave sediments. J. Human Evolution 163, p. 103-122.
(Late Pleistocene paleontological site of Punung III, East Java, demonstrates how unexpected intrusion of recent human remains into older stratigraphic levels could occur in cave sediments)

Kaifu, Y., E. Setiyabudi, I. Kurniawan, H. Baba & F. Aziz (2013)- Evolution of Indonesian *Homo erectus* in the Early Pleistocene: significance of Sangiran 17. In: F. Aziz & H. Baba (eds.) *Homo erectus* in Indonesian- Recent progress of the study and current understanding, Centre for Geological Survey, Bandung, Special Publ., chapter 4, p. 65-91.
(Sangiran 17, discovered in situ in Bapang Fm in Sangiran in 1969, is best-preserved cranial specimen of Homo erectus. Some of its features transitional to younger Ngandong Homo soloensis, most others similar to Sangiran Bapang AG Homo erectus group)

Kaifu, Y., Y. Zaim, H. Baba, I. Kurniawan, D. Kubo, Y. Rizal, J. Arif & F. Aziz (2011)- New reconstruction and morphological description of a *Homo erectus* cranium: skull IX (Tjg-1993.05) from Sangiran, Central Java. J. Human Evolution 61, 3, p. 270-294.
(New reconstruction of remarkably complete skull of E Pleistocene Homo erectus skull IX (Tjg-1993.05) from Bapang Fm-AG levels in Sangiran (second best preserved cranium of H. erectus ever). Endocranial volume measured as 870 cc. Neurocranium slightly smaller than smallest cranium found earlier, suggesting individual was female. Numerous similarities to other Bapang-AG Homo erectus specimens)

Karl, H.V. (1983)- Die fossilen Schildkroten von Jawa in den Sammlungen des Paläontologischen Museums im Museum fur Naturkunde Berlin. Unpublished Report, Museum fur Naturkunde; Berlin, p.
('The fossil turtles/tortoises from Java in the collections of the Paleontological Museum in the Museum of Natural History Berlin' (presumably Pleistocene fauna from the Selenka collection))

Karl, H.V. (1987)- Revision der fossilen Schildkroten (Reptilia, Testudines) von Jawa. Abhandlungen Berichte des Museums der Natur Gotha 14, p. 37-44.
('Revision of the fossil turtles/tortoises (Reptilia, Testudines) from Java' (from the Selenka Trinil collection, studied earlier by Jaekel (1911)?))

Karl, H.V., A. Safi & H.D. Philippen (2019)- Evidences of cheloniophagy by early hominid (*Homo erectus*) during middle of Pleistocene from beds of Trinil's layers in central Java (Indonesia), with an updated list of Trinil's testudines, and a redescription of *Duboisemys isoclina* (Dubois, 1908). International J. of Zoology Studies 4, 5, p. 73-84.
(online at: www.researchgate.net/profile/Hans-Volker-Karl/publication/338513109_Evidences_of_che Etc.)
(In-situ archaeological assemblage from Trinil Beds in C Java provides unique combination of faunal remains and evidences of butchery of M Pleistocene tortoise remnants, suggesting Homo erectus predated and butchered terrestrial and aquatic testudines (as already suggested by O. Jaekel in 1911). With review of river turtles/ tortoises from Trinil Beds: Chitra chitra javanensis, Pelochelys cantorii, Amyda cartilaginea, Batagur affinis affinis, Orlitia borneensis, Duboisemys (n.gen.) isoclina (Dubois 1908) and Megalochelys sp.)

Kapid, R., J. Arif & D.E. Irawan (2016)- A review on paleoenvironment suitability for hominid fossils and other early vertebrate faunas: a case from Pucangan and Kabuh Formations, Central and East Java, Indonesia. ScienceOpen Research 2016, DOI: 10.14293/S2199-1006.1.SOR-LIFE.AH9PUY.v1, p. 1-7.

(online at: www.scienceopen.com/hosted-document?doi=10.14293/S2199-1006.1.SOR-LIFE.AH9PUY.v1)
(Sangiran, Ngawi and Mojokerto sites in C and E Java. Vertebrate remains and hominid fossils mainly accumulated in continental sediments associated with lacustrine and fluvial systems. Pucangan Fm and lower part of Kabuh Fm in Mojokerto older than same formations from Sangiran and Ngawi B. In Mojokerto those formations were deposited during U Pliocene. Etc.)

Kealy, S., J. Louys & S. O'Connor (2015)- Islands under the sea: a review of early modern human dispersal routes and migration hypotheses through Wallacea. J. Island Coastal Archaeology 11, 3, p. 364-384.
(online at: https://www.researchgate.net/publication/287798057_Islands_Under_the_Sea_A_Review_of_Early_Modern_Human_Dispersal_Routes_and_Migration_Hypotheses_Through_Wallacea)
(Review of possible Late Pleistocene modern humans migration routes across Wallacea, the transitional island biogeographic zone between Sundaland (SE Asia) and Sahul (Australia-New Guinea))

Kealy, S., J. Louys & S. O'Connor (2017)- Reconstructing palaeogeography and inter-island visibility in the Wallacean Archipelago during the likely period of Sahul colonization, 65-45 000 years ago. Archaeological Prospection 24, 3, p. 259-272.
(online at: https://onlinelibrary.wiley.com/doi/full/10.1002/arp. 1570)

Kealy, S., J. Louys & S. O'Connor (2018)- Least-cost pathway models indicate northern human dispersal from Sunda to Sahul. J. Human Evolution 125, p. 59-70.
(online at: https://www.sciencedirect.com/science/article/pii/S0047248418302136)
(Discussion of possible human migration routes from Sundaland to Australia around 65-70 ka. Most likely route believed to be northern path across Sulawesi to Misool to coasts of New Guinea, not Java-Timor route)

Keates, S.G. (1998)- A discussion of the evidence for early hominids on Java and Flores. In: G.J. Bartstra (ed.) Bird's Head approaches; Irian Jaya studies; a programme for interdisciplinary research, Modern Quaternary Research in Southeast Asia, Balkema, Rotterdam, 15, p. 179-191.
(online at: https://www.papuaerfgoed.org/sites/default/files/collectie/files/2006-05/Bartstra_1998_Birds.pdf)
(Discussion of earliest proposed hominid occupation of island SE Asia, specifically of Flores Island)

Keates, S.G. (2004)- Notes on the Palaeolithic finds from the Walanae Valley, southwest Sulawesi, in the context of the Late Pleistocene of island Southeast Asia. In: S.G. Keates & J. Pasveer (eds.) Quaternary Research in Indonesia, Chapter 7, Modern Quaternary Research in Southeast Asia 18, Balkema, Leiden, p. 95-110.
(Stone artefacts from Walanae valley, SW Sulawesi, may represent earliest human (Homo sapiens) activity in early part of Late Pleistocene (first identified as Cabenge flake industry by Van Heekeren in late 1940's). With review of Late Pleistoce stone tool industries in other parts of Indonesia)

Keates, S.G. & G.J. Bartstra (1994)- Island migration of early modern *Homo sapiens* in Southeast Asia: the artifacts from the Walanae Depression, Sulawesi, Indonesia. Palaeohistoria 33/34, p. 19-30.
(online at: http://rjh.ub.rug.nl/Palaeohistoria/article/view/25055/22513)
(Lithic artifacts from Late Pleistocene river terraces in N Walanae depression, S Sulawesi)

Keates, S.G. & G.J. Bartstra (2001)- Observations on Cabengian and Pacitanian artefacts from island Southeast Asia. Quartar 51/52, p. 9-32.
(online at: http://quartaer.eu/pdfs/2001/2001_01_keates.pdf)
(Paleolithic stone artefact collections from Walanae valley near Cabenge in Sulawesi and from Baksoka valley near Pacitan, S Java, date largely to Late Pleistocene)

Kelley, J. (2002)- The hominoid radiation in Asia. In: W.C. Hartwig (ed.) The primate fossil record, Cambridge University Press, p. 369-384.

Kidder, J.H. & A.C. Durband (2004)- A re-evaluation of the metric diversity within *Homo erectus*. J. Human Evolution 46, p. 299-315.

Kirleis, W., J. Muller, C. Kortemeier, H. Behling & S. Soeghondo (2012)- The Megalithic landscape of Central Sulawesi, Indonesia: Combining archaeological and palynological investigations. In: Crossing Borders: Selected papers from 13th Int. Conf. European Association of Southeast Asian Archaeologists, NUS Press, p. 199-218.

Kleiweg de Zwaan, J. (1943)- De oudste mensheid van de Indische Archipel. Servire, Den Haag, p. 1-112.
(online at: https://resolver.kb.nl/resolve?urn=MMKB18B:051970000:pdf)
('The oldest humanity of the Indies Archipelago'. Popular review)

Kloosterman, F.H. (1989)- Groundwater flow systems in the northern coastal lowlands of West- and Central Java, Indonesia. Ph.D. Thesis, Free University, Amsterdam, p. 1-298.
(online at: dare.ubvu.vu.nl/bitstream/1871/12723/1/tekst.pdf)
(Mainly on groundwater systems on N Java coastal areas, with chapters on regional geologic setting, stratigraphy, Pleistocene tectonics and climate, etc. Emergence of Java as island in Pleistocene resulted not only from huge volumes of Pleistocene volcanic rocks but also major uplifts along axis of island)

Koesoemadinata, S. & M. Situmorang (1985)- Quaternary Geologic map of the Bekasi Quadrangle, Jawa, 1:50,000. Systematic Quaternary Geologic Map of Indonesia, Geological Research Development Centre (GRDC), Bandung, p.

Kotaka, T. & F. Hasibuan (1983)- Molluscan fossils from the Sangiran Dome, Central Jawa. Fossils (Palaeontological Association Japan) 33, p. 1-11. *(in Japanese with English abstract)*
(online at: http://ci.nii.ac.jp/naid/110002703460/en)
(Plio-Pleistocene mollusc assemblages from Sangiran Dome area, C Java: 25 species of marine bivalvia, 25 marine gastropoda, 3 non-marine bivalvia and 9 non-marine gastropoda identified from U Kalibeng Formation and Pucangan Fms. Paleoenvironmental conditions changed gradually from warm, shallow marine during U Kalibeng into tidal zone, then to fresh water facies during lower Pucangan Fm. Return of shallow marine environment during lower U Pucangan. Fresh water conditions returned to area during upper U Pucangan)

Koumans, F.P. (1949)- On some fossil fish remains from Java. Zoologische Mededelingen, Leiden, 30, 5, p. 77-82.
(online at: www.repository.naturalis.nl/document/150405)
(Description of rel. large Pleistocene fresh water fish remains from C Java, mainly Trinil, collected by Dubois)

Kramer, A. (1989)- The evolutionary and taxonomic affinities of the Sangiran mandibles of Central Java, Indonesia. Ph.D. Thesis, The University of Michigan, Ann Arbor, p. *(Unpublished)*

Kramer, A., T. Djubiantono, F. Aziz, J.S. Bogard, R.A. Weeks, D.C. Weinand, W.C. Hames et al. (2005)- The first hominid fossil recovered from West Java, Indonesia. J. Human Evolution 48, 6, p. 661-667. *(online at: https://www.academia.edu/102706667/The_first_hominid_fossil_recovered_from_West_Java_Indonesia)*
(M Pleistocene hominid teeth found during 1999 excavation in Cisanca River, Rancah, W Java, SE of Bandung. EPR dating and Ar-Ar dating of associated tuffs suggest age between 516-606 ka.)

Kretzoi, M. (1950)- *Stegeloxodon* nov. gen, a loxodonta elefantok esetleges azsiai ose. Foldtani Kozlony (Bull. Hungarian Geological Society) 80, p. 405-408.
(online at: https://www.biodiversitylibrary.org/item/205705#page/453/mode/1up)
('Stegeloxodon nov. gen, a possible Asiatic ancestor of true loxodonts'.New name Stegoloxodon indonesicus proposed for dwarfed elephantoid from Ci Pangglosoran near Bumiayu, W Java, based on unique loxodont-like M1 molar, as described in Van der Maarel (1932) who referred it to Elephas planifrons (Considered synonym of Elephas celebensis (Hooijer) by Maglio (1973); likely age E Pleistocene)

Kubat, J., A. Nava, L. Bondioli, C. Dean, C. Zanolli, N. Bourgon, A.M.Bacon, F. Demeter, B. Peripoli et al. (2021)- Dietary strategies of Pleistocene *Pongo* sp. and *Homo erectus* on Java (Indonesia). Nature Ecology Evolution 7, p. 279-289.

(manuscript online at: www.researchgate.net/publication/355017366_Dietary_strategies_of_Pleistocene_Pongo_sp_and_Homo_erectus_on_Java_Indonesia)
(Geochemical analyses of orangutan (Pongo sp.), Homo erectus and other Pleistocene mammalian teeth from Sangiran. Pongo sp. diet displays marked seasonal cycles. Omnivorous H. erectus shows less intra-annual Sr/Ca variability and was less dependent on variations in seasonal resource availability)

Kubo, D., R.T. Kono & Y. Kaifu (2013)- Brain size of *Homo floresiensis* and its evolutionary implications. Proc. Royal Society (London), B 280, 20130338, p.
(online at: http://royalsocietypublishing.org/content/royprsb/280/1760/20130338.full.pdf)
(Homo floresiensis from Late Pleistocene of Flores has extremely small endocranial volume (LB1 type specimen ~400cc). Hypotheses discussed: (1) H. floresiensis experienced dramatic brain size reduction from the Homo erectus (~1000 cc) in isolated insular setting; (2) species derived directly from more primitive and smaller-brained form such as Homo habilis (~600 cc) or Australopithecus (~400 cc))

Kumazawa, S. (1994)- Quaternary geology and hydrogeology of the Madiun Basin, Indonesia. J. Geosciences, Osaka City University, 37, 8, p. 213-242.
(online at: http://dlisv03.media.osaka-cu.ac.jp/infolib/user_contents/kiyo/DB00000180.pdf)
(Madiun basin in E Java with >250m of Quaternary sediments deposited above thick argillaceous sediments of Lower Pleistocene Pucangan stage. M-U Pleistocene Kabuh, Notopuro and Setri Fms consist of thick fluvial sediments and form good aquifers)

Kumai, H., M. Itihara, Sudijono, T. Shibasaki, F. Aziz, S. Yoshikawa et al. (1985)- Geology and stratigraphy of the Mojokerto area. In: N. Watanabe & D. Kadar (eds.) Quaternary geology of the hominid fossil bearing formations in Java. Geological Research Development Centre (GRDC), Bandung, Special Publ. 4, p. 55-61.
(Geological survey around the site of Perning near Mojokerto, site of P. mojokertensis discovery by Andoyo. Exact horizon of discovery uncertain)

Kupper, H. (1930)- Paleolitische werktuigen uit Atjeh, Nord Sumatra. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2) 47, p. 985-989.
(online at: https://resolver.kb.nl/resolve?urn=MMUBA13:001673001:pdf)
('Paleolithic tools from Aceh, North Sumatra'. Paleolithic stone tools near Lho Seumaweh at N and E coasts of Aceh found during geologic survey work. Mainly made from pebbles of dark quartzite)

Kupper, H. (1948)- Zur Kenntnis des prahistorischen Menschen auf West Java. Annalen Naturhistorischen Museums Wien 56, p. 434-439.
(online at: https://www.zobodat.at/pdf/ANNA_56_0434-0439.pdf)
('About the knowledge of the prehistoric people on West Java'. Report of artifacts found in several areas north of Bandung: obsidian tools, ceramic shards, etc. (at various times also collected and studied by R. von Koenigswald, W. Rothpletz, W. Mohler, etc.; JTvG))

Kurniawan, I., E. Setiyabudi, Y. Kaifu, F. Aziz & H. Baba (2013)- Evolution of Indonesian *Homo erectus* through the Middle Pleistocene: significance of Sambungmacan 4. In: F. Aziz & H. Baba (eds.) *Homo erectus* in Indonesian- Recent progress of the study and current understanding, Centre for Geological Survey, Bandung, Special Publ., Chapter 5, p. 93-102.
(Sambungmacan 4, discovered around 2002 in Solo River in C Java, is exceptionally well preserved Homo skull cap. Original stratigraphic position unclear. Some of its morphology transitional between Homo erectus (Sangiran) and Homo erectus (Ngandong; formerly Homo soloensis))

Kurten, B. (1964)- The sabre-toothed cat *Megantereon* from the Pleistocene of Java. Zoologische Mededelingen, Leiden, 38, 6, p. 101-104.
(online at: www.repository.naturalis.nl/document/149473)
(Description of tooth of sabre-toothed cat from unspecified Java location in Dubois collection, Leiden)

Kusumayuda, S.B., M.T. Zen, S. Notosiswoyo & R.S. Gautama (1999)- Distribution of the Gunung Sewu karstic aquifers based on fractal analysis- case study: Semanu and surrounding area, Yogyakarta, Indonesia. In: G.H. Teh (ed.) Proc. 9th Regional Congress Geology Mineral Energy Resources of SE Asia (GEOSEA '98), Kuala Lumpur 1998, Bull. Geological Society Malaysia 43, p. 345-350.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1999034.pdf)

Kusumayuda, S.B., M.T. Zen, S. Notosiswoyo & R.S. Gautama (2000)- Fractal analysis of the Oyo River cave systems and topography of the Gunungsewu karst area, Central Java, Indonesia. Hydrogeological Journal 8, p. 271-278.
(Not much geology; wrong age model?)

Laitman, J.T. & I. Tattersall (2001)- *Homo erectus newyorkensis*: an Indonesian fossil rediscovered in Manhattan sheds light on the middle phase of human evolution. Anatomical Record 262, 4, p. 341-343.

Langbroek M. (2015)- Do tektites really date the bifaces from Bose (Baise) Basin, Guangxi, southern China? J. Human Evolution 80, p. 175-178. *(manuscript online at: www.academia.edu/10029842/Do_tektites_really_date_the_bifaces_from_the_Bose_Baise_basin_ Etc.)*
(Discussion of reported co-ocurrences by Chinese authors of Australasian tektes (~0.8 Ma old) and hominid biface artifacts in Bose Basin in S China (see also Michel et al. 2021))

Langbroek, M. & W. Roebroeks (2000)- Extraterrestrial evidence on the age of the hominids from Java. J. Human Evolution 38, p. 595-600.
(Review of uncertainties of numerical ages assigned to Java Homo erectus fossils. Presence of tektites in middle Bapang deposits can be tied to large Australasian strewnfield from asteroid impact near Laos or Cambodia around 700,000-800,000 years BP. This would make age of most Java hominids 1 Ma or younger)

Larena, M., J. McKenna, F. Sanchez-Quinto, C. Bernhardsson, C. Ebeo, R. Reyes, O. Casel et al. (2021)- Philippine Ayta possess the highest level of Denisovan ancestry in the world. Current Biology 31, 19, p. 4219-4230.
(Ayta Magbukon negrito tribe of SW Luzon, Philippines ~30-40% greater Denisovan ancestry than Australopapuans (highest in world). Together with Homo luzonensis, multiple archaic hominid species probably inhabited Philippines prior to arrival of modern humans, including Islander Denisovans)

Larick, R. & R.L. Ciochon (2014)- The Early Palaeolithic of Southeast Asia. In: C. Renfrew & P. Bahn (eds.) The Cambridge World History, Cambridge University Press, 1.21, p. 346-368.
("Digital access for individuals US$868.00- Kind regards from Cambridge University Press)

Larick, R. & R.L. Ciochon (2015)- Early hominin biogeography in island Southeast Asia. Evolutionary Anthropology 24, p. 185-213.
(online at: https://clas.uiowa.edu/sites/default/files/news-events/Larick-Ciochon-2015-Hominin%20Biogeography-ISEA-Evolutionary-Anthropology.pdf)
(Thorough review of hominid distribution in Indonesian region. Early hominin chronology difficult to resolve. 'Long chronology' suggests Homo erectus arrived in Sunda (Sangiran) before 1.5 Ma. An early form arrived E of Wallace Line (Flores) about 1.1 Ma. In Late Pleistocene, probable ultimate survivors of early dispersals found on Java (Ngandong Homo erectus, 125 ka), Flores (Homo floresiensis, 60 ka), and Luzon (Homo sp. indet, 67 ka). Early hominins responded to changing island conditions for 1.5 million years, likely becoming extinct when Homo sapiens colonized region. (first to suggest Homo erectus disappeared from Java for several 100,000 years after 0.8 Ma?; see also Li et al., 2021))

Larick, R., R.L. Ciochon, Y. Zaim, Sudijono, Suminto, Y. Rizal et al. (2001)- Early Pleistocene 40Ar/39Ar ages for Bapang Formation hominins, Central Jawa, Indonesia. Proc. National Academy of Sciences USA (PNAS) 98, 9, p. 4866-4871.
(online at: https://www.pnas.org/content/pnas/98/9/4866.full.pdf)

(Sangiran dome Plio-Pleistocene ~80 Homo erectus fossils. At 5 locations in Bapang (Kabuh) Fm H. erectus fossils associated with epiclastic pumice. 40Ar/39Ar ages from 1.51 Ma at Bapang/ Sangiran Fm contact, to 1.02 Ma above hominid-bearing sequence. Intermediate level with four crania has ~1.25 Ma age)

Larick, R., R.L. Ciochon & Y. Zaim (2004)- *Homo erectus* and the emergence of Sunda in the Tethys Realm. Contributions of potassium-based chronology in the Sangiran dome, Central Java. Athena Review 4, 1, p. 32-39. *(part online at: www.athenapub.com/13sunda.htm)*

Larick, R., R.L. Ciochon, Y. Zaim, Sudijono, Suminto, Y. Rizal & F. Aziz (2000)- Lithostratigraphic context for Kln-1993.05-SNJ, a fossil colobine maxilla from Jokotingkir, Sangiran Dome. International J. of Primatology 21, 4, p. 731-759.
(New subspecies of colobine monkey described by Jablonski and Tyler (1999) from near Krikilan, Sangiran dome, C Java, unlikely to be from Late Pliocene Lower Lahar volcanic breccia. Not found in situ, and probably derived from Upper Sangiran (Pucangan) or lower Bapang (Kabuh) Fms)

Larson, S.G., W. Jungers, M.J. Morwood, T. Sutikna, Jatmiko, E.W. Saptomo et al. (2008)- *Homo floresiensis* and the evolution of the hominin shoulder. J. Human Evolution 53, 6, p. 718-731.
(online at: www.researchgate.net/publication/6146487_Homo_floresiensis_and_the_evolution_of_the Etc.)
(Homo floresiensis from Liang Bua probably did not have a modern human shoulder configuration)

Larson, S.G., W. Jungers, M. Tocheri, C. Orr, M.J. Morwood, T. Sutikna, R.A. Awe & T Djubiantono (2009)- Descriptions of the upper limb skeleton of *Homo floresiensis*. J. Human Evolution 57, 5, p. 555-570.

Leakey, R.E. & L.J. Slikkerveer (1993)- Man-ape ape-man: the quest for human's place in nature and Dubois' 'missing link'. Netherlands Foundation for Kenya Widlife Service, p. 1-179.
(Account of life and science of Eugene Dubois and debates on 'Java Man')

Lee, S.H. & D.G. Khorasani (2017)- Spread of hominins in Asia. eLS, p. 1-7.
(Review of migration of hominids in Asia. Earliest hominins in Asia almost as old as first appearance of genus Homo in Africa. Most fossil materials from Asia are without reliable dates)

Leinders, J.J.M., F. Aziz, P.Y. Sondaar & J. de Vos (1985)- The age of hominid-bearing deposits of Java: state of the art. Geologie en Mijnbouw 64, 2, p. 167-173.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0ZXh0eVY0UGFkOWc/view)
(New standard biozonation for Plio-Pleistocene continental deposits of Java. Ages of our oldest faunal zones/ mammal assemblages: Satir fauna ~1.5 Ma, Ci Saat/ Satir fauna~1.2 Ma, Trinil HK ~1.0 Ma and Kedung Brubus ~0.8 Ma)

Li, H., M.G. Lotter, K. Kuman, L. Lei & W. Wang (2020)- Population dynamics during the Acheulean at ~0.8 Ma in East and Southeast Asia: considering the influence of two geological cataclysms. Palaeogeogr. Palaeoclim. Palaeoecology 562, 109927, p. 1-10.
(Two sudden penecontemporaneous geological events at ~0.8 Ma (Australasian tektite fall and slightly younger Oldest Toba super-eruption) likely caused severe environmental change (e.g., deforestation), which likely created population bottleneck effect for hominid stone tool makers, who likely occupied the landscape.Oldest Toba supereruption correlates with significant faunal turnover (pygmy stegodon replaced by large-bodied Stegodon, etc,) and Sangiran Homo erectus disappeared for several 100 kyrs after eruption. Study of Acheulean sites in SE and E Asia highlights potential relationship between Acheulean population dynamics and sudden environmental change)

Lilley, I. (1998)- East of Irian: Archaeology in Papua New Guinea. In: G.J. Bartstra (ed.) Bird's Head approaches; Irian Jaya studies; a programme for interdisciplinary research, Modern Quaternary Research in Southeast Asia 15, Balkema, Rotterdam, p. 135-156.
(online at: https://www.papuaerfgoed.org/sites/default/files/collectie/files/2006-05/Bartstra_1998_Birds.pdf)
(Review of archeological reserarch in PNG until 1990))

Lin, S.C., L.T. White, Jatmiko, I.M.A. Julianto, M.W. Tocheri & T. Sutikna (2022)- Characterising the stone artefact raw materials at Liang Bua, Indonesia. J. Paleolithic Archaeology 5, 22, p. 1-32.
(online at: https://link.springer.com/article/10.1007/s41982-022-00133-9)
(At Liang Bua cave (type site of Homo floresiensis) on Flores, stone artefact assemblages dominated by two raw materials:(1) locally available 'silicified tuff' (= actually iron-rich chert) and (2) chert. Both derived from Neogene fossiliferous tuff-bearing limestone with local diagenetic silica nodules. Shift towards increased chert artefacts at Liang Bua after ~46 ka, coincident with arrival of Homo sapiens at site)

Lipson, M., P.R. Loh, N. Patterson, P. Moorjani, Y.C. Ko, M. Stoneking, B. Berger & D. Reich (2014)- Reconstructing Austronesian population history in Island Southeast Asia. Nature Communications 5, 4689, p. 1-7.
(online at: www.nature.com/ncomms/2014/140819/ncomms5689/pdf/ncomms5689.pdf)
(Genetic studies of 31 Austronesian-speaking peoples in SE Asia suggest 'Austronesian expansion,' which began 4000-5000 years ago, likely had roots in Taiwan)

Locatelli, E., R. Awe Due, G.D. van den Bergh & L.W. van den Hoek Ostende (2012)- Pleistocene survivors and Holocene extinctions: the giant rats from Liang Bua (Flores, Indonesia). Quaternary International 281, p. 47-57.
(online at: http://ro.uow.edu.au/cgi/viewcontent.cgi?article=1054&context=smhpapers)
(Liang Bua Cave with common micromammal remains, mainly murids, incl. 3 species of giant rats. Papagomys armandvillei still living on Flores, other (Papagomys theodorverhoeveni, Spelaeomys florensis) went extinct during Holocene. Giant murids examples of insular gigantism. Peak in number of giant rats in cave in Holocene may result from Paleolithic hunting activity

Louys, J. (2007)- Limited effect of the Quaternary's largest super-eruption (Toba) on land mammals from Southeast Asia. Quaternary Science Reviews 26, p. 3108-3117.
(Relatively few species became extinct in SE Asia following the North Sumatra Toba super-eruption at 74 ka)

Louys, J. (2007)- Ecology and extinction of Southeast Asia's megafauna. Ph.D. Thesis University of New South Wales, Sydney, p. 1-290.
(online at: http://unsworks.unsw.edu.au/fapi/datastream/unsworks:1693/SOURCE02)
(On extinction of large Pleistocene mammal species in SE Asia)

Louys, J. (2008)- Quaternary extinctions in Southeast Asia. In: A.M.T. Elewa (ed.) Mass extinction, Springer-Verlag, Heidelberg, p. 159-189.

Louys, J. (2012)- Mammal community structure of Sundanese fossil assemblages from the Late Pleistocene, and a discussion on the ecological effects of the Toba eruption. Quaternary International 258, p. 80-87.
(Mammal community structure of Late Pleistocene W Indonesia fossil sites Punung, Sibrambang and Lida Ajer show community structure more similar to each other than to modern Sundanese communities. Niah Caves exhibits structure consistent with modern communities. Modern community structure in Sundaland may have formed between 128-118 ka and 45-39 ka, possibly result of Toba eruption, although more likely stem from environmental fluctuations accompanying glacial/interglacial cycles)

Louys, J. (2014)- The large terrestrial carnivore guild in Quaternary Southeast Asia. Quaternary Science Reviews 96, p. 86-97.
(SE Asia's Pleistocene large terrestrial carnivores appearances and disappearances from region poorly understood. Two significant extinctions represented by Pachycrocuta and Pliocrocuta. Disappearance of hyenids probably related to climate change. Several large carnivores from Java unique genetic and morphological variations, possibly related to connection between Java and Indochinese mainland in M Pleistocene. At least one endemic large carnivore evolved in Sundaland (Sunda clouded leopard))

Louys, J. (2016)- The giant rats of Timor. Australasian Science 37, 3, p. 24-26.
(Dog-sized giant rats coexisted with humans for 40,000 years on Timor)

Louys, J. (2024)- Quaternary palaeontological and archaeological research in Sumatra. In: J. Louys et al. (eds.) Quaternary Palaeontology and Archaeology of Sumatra, Terra Australis 56, ANU Press, Chapter 1, p. 1-12.
(online at: https://press-files.anu.edu.au/downloads/press/n12084/pdf/ch01.pdf))
(Late Quaternary history of Sumatra experienced relatively little attention. First reports of Pleistocene fossils date to late 1880s through the efforts of E. Dubois in caves of the Padang Highlands. Later finds made by A. Tobler, J. Zwierzycki, P. van Stein Callenfels, Van der Hoop, etc.)

Louys, J , P.C.H. Albers & A.E.A. van der Geer (eds.) (2024)- Quaternary palaeontology and archaeology of Sumatra. Terra Australis 56, ANU Press, p. 1-300.
(online at: https://press-files.anu.edu.au/downloads/press/n12084/pdf/book.pdf)
(Collection of 14 papers)

Louys, J., T.J. Braje, C.H. Chang, R. Cosgrove, S.M. Fitzpatrick M. Fujitah, S. Hawkins, T. Ingicco et al. (2021)- No evidence for widespread island extinctions after Pleistocene hominin arrival. Proc. National Academy of Sciences USA (PNAS) 118, 202023005118, p. 1-8.
(online at: https://www.pnas.org/doi/pdf/10.1073/pnas.2023005118)
(Hominins, including our H.sapiens, have not always had negative impacts on island ecosystems that humans have today. Rather, extinctions accelerated beginning in Holocene. Includes data from Indonesia)

Louys, J., D. Curnoe & H. Tong (2007)- Characteristics of Pleistocene megafauna extinctions in Southeast Asia. Palaeogeogr. Palaeoclim. Palaeoecology 243, p. 152-173.
(online at: http://www.rhinoresourcecenter.com/pdf_files/132/1328059508.pdf)
(Extinction of large-bodied taxa from Pleistocene in mainland SE Asia and Indonesia (incl. proboscideans Stegodon and Palaeloxodon, pygmy hippopotamus Hexaprotodon, hyenas Crocuta and Hyaena, giant panda Ailuropoda, tapirs Tapirus and Megatapirus and giant Asian ape Gigantopithecus, cannot be assigned to single cause. Disappearance likely tied to both climatic and human agents)

Louys, J., M. Duval, G.J. Price, K. Westaway, Y. Zaim, Y. Rizal, Aswan, M. Puspaningrum et al. (2022)- Speleological and environmental history of Lida Ajer cave, western Sumatra. Philosophical Transactions Royal Society (London), B 377, 20200494, p. 1-10.
(online at: https://royalsocietypublishing.org/doi/pdf/10.1098/rstb.2020.0494)
(Lida Ajer in Padang Highlands of W Sumatra believed to contain earliest evidence for presence of modern humans in rainforests in Indonesia. Two human teeth collected here by E. Dubois in 1880s estimated to be 73–63 kyrs old, older than some estimates of modern human migration out of Africa based on genetic data. Associated with abundant orangutan fossils.)

Louys, J. & S. Kealy (2024)- How did *Homo erectus* reach Java? Least-cost pathway models and a consideration of possible Sumatran routes. In: J. Louys et al. (eds.) Quaternary Palaeontology and Archaeology of Sumatra, Terra Australis 56, ANU Press, Canberra, Chapter 9, p. 199-216.
(online at: https://press-files.anu.edu.au/downloads/press/n12084/pdf/ch09.pdf)
(On possible routes that H. erectus could have taken on their journey into Indonesian region. Easiest pathway ran through centre of Sundaland, an area now almost entirely submerged. During periods of higher sea-levels, pathway moved west and could coincide with emergent areas on or just off E coast of Sumatra.Etc.)

Louys, J., S. Kealy, S. O'Connor, G.J. Price, S. Hawkins, K. Aplin, Y. Rizal, J. Zaim et al. (2017)- Differential preservation of vertebrates in Southeast Asian caves. Int. J. Speleology 46, 3, p. 379-408.
(online at: https://digitalcommons.usf.edu/ijs/vol46/iss3/6/)
(Results of three years of cave surveys in Indonesia and Timor-Leste, describing cave systems and their attendant vertebrate accumulations in diverse geological, biogeographical and environmental settings)

Louys, J. & E. Meijaard (2010)- Palaeoecology of Southeast Asian megafauna-bearing sites from the Pleistocene and a review of environmental changes in the region. J. of Biogeography 37, 8, p. 1432-1449.

(Reconstructions of habitat of 25 Pleistocene sites in SE Asia with medium- and large-bodied mammals. Sites classified as closed (continuous tree cover), mixed (heterogeneous tree cover) and open (limited or no tree cover; incl. Trinil)

Louys, J., S. O'Connor, Mahirta, P. Higgins, S. Hawkins & T.Maloney (2018)- New genus and species of giant rat from Alor Island, Indonesia. J. Asia-Pacific Biodiversity 11, 4, p. 503-510.
(online at: https://www.sciencedirect.com/science/article/pii/S2287884X18302152)
(Quaternary giant rat fossils previously reported from Timor, Sumba and Flores. First record of giant rat from Alor island, Makpan Cave: Alormys aplini gen. et sp. nov. Resembles Milimonggamys and Papagomys. Extinction in late Holocene appears coeval with disappearance of giant rats of Timor and Sumba and may be related to increased aridity and deforestation)

Louys, J., G.J. Price & S. O'Connor (2016)- Direct dating of Pleistocene *Stegodon* from Timor Island, East Nusa Tenggara. PeerJ. 2016, 4, e1788, p. 1-16.
(online at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4793331/pdf/peerj-04-1788.pdf)
(U-series dating of Stegodon tusk from Pleistocene Ainaro gravels near Atambua, Timor, indicate presence of stegodons in Timor at or before 130 ka, pre-dating earliest evidence of humans on island)

Louys, J. & P. Roberts (2020)- Environmental drivers of megafauna and hominin extinction in Southeast Asia. Nature 586, 7829, p. 402-406. *(manuscript online at: https://research-repository.griffith.edu.au/bitstream/handle/10072/402368/Louys445678 Etc.)*
(SE Asia home to at least five members of genus Homo. Considerable turnover in Pleistocene megafauna previously linked with hominins or with climate change. Forests of E Pleistocene had given way to savannahs by M Pleistocene, which led to spread of grazers and extinction of browsers. Savannahs retreated by Late Pleistocene and disappeared by Holocene epoch, and replaced by stratified closed-canopy rainforest. Ascendency of rainforest-adapted species as well as Homo sapiens at expense of savannah and woodland specialists, including Homo erectus)

Louys, J. & A. Turner (2012)- Environment, preferred habitats and potential refugia for Pleistocene *Homo* in Southeast Asia. Comptes Rendus Palevol 11, 2-3, p. 203-211.
(online at: https://www.sciencedirect.com/journal/comptes-rendus-palevol/vol/11/issue/2)
(SE Asia dominated by mix of savannah, open woodlands and evergreen forests in much of Pleistocene, conditions ideal for early hominin subsistence. These conditions rare for much of rest of Asia during glacial periods. SE Asia was possible refugium for savannah-adapted species like hominins during these periods)

Louys, J., Y. Zaim, Y. Rizal, G.J. Price, Aswan, M.R. Puspanigrum, H. Smith & A. Trihascaryo (2021)- Palaeontological surveys in Central Sumatra and Bangka. Berita Sedimentologi 47, p. 50-56.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/358/327)
(Results of 2018 -2019 surveys by Australian National University and ITB on Quaternary deposits from caves in West Sumatra and attempt to relocate fossil proboscidean remains reported from Bangka Island)

Lovejoy, C.O. (1970)- The taxonomic status of the '*Meganthropus*' mandibular fragments from the Djetis beds of Java. Man, new series, 5, 2, p. 228-236.
(Material described as Meganthropus palaeojavanicus by Von Koenigswald in 1941 from Djetis beds of Java, lies within expected range of variation of Homo erectus)

Lydekker, R. (1885)- Description of a tooth of *Mastodon latidens*, Clift, from Borneo. Proc. Zoological Society of London 53, 4, p. 777-779.
(online at: https://www.biodiversitylibrary.org/page/31015890#page/905/mode/1up)
(Molar of Pleistocene(?) Mastodon from Brunei. Very similar to M. latidens from Siwalik fauna of India and from Burma, possibly also Java as described by Martin)

Lyras, G.A., M.D. Dermitzakis, A.A.E. van der Geer, S.B. van der Geer & J. de Vos (2009)- The origin of *Homo floresiensis* and its relation to evolutionary processes under isolation. Anthropological Science 117, 1, p. 33-43.

(online at: https://www.jstage.jst.go.jp/article/ase/117/1/117_080411/_pdf)
(Morphometric analysis of skulls separates H. floresiensis (LB1) from all H. sapiens, while not possible to separate H. floresiensis from H. erectus. Neolithic skulls from Flores within range of modern humans and not related to LB1)

Mahirta (2005)- Stone technology and the chronology of human occupation on Rote, Sawu and Timor, Nusa Tenggara Timur, Indonesia. Bull. Indo-Pacific Prehistory Association (IPPA) 29, p. 101-108.
(online at: https://journals.lib.washington.edu/index.php/BIPPA/article/view/9483/8470)
(Human occupation in Nusa Tenggara started from at least 30,000-35,000 years ago. Stone technology in region may have changed at start of Last Glacial Maximum (driest period), as indicated by disappearance of large tools with Hoabinhnian-like technologies. Data for earliest period (30-19 ka) mainly from caves Lua Meko on Rote and Lene Hara in E Timor)

Mahmud, M.I. (2018)- The archaeology of Sulawesi: an update, 2016. In: S. O'Connor et al. (eds.) The archaeology of Sulawesi: current research on the Pleistocene to the historic period, Terra Australis 48, ANU Press, Canberra, Chapter 1, p. 1-8.
(online at: https://press-files.anu.edu.au/downloads/press/n4569/pdf/ch01.pdf)
(Review of status of 2016 knowledge of archeology of Sulawesi)

Maloney, T.R., I.E. Dilkes-Hall, P. Setiawan, A.A. Oktaviana, I. Made Geria, M. Effendy, M. Ririmasse et al. (2022)- A late Pleistocene to Holocene archaeological record from East Kalimantan, Borneo. Quaternary Science Reviews 277, 107313, p. 1-21.
(Archaeological excavations at Liang Jon, in karst region of Sangkulirang-Mangkalihat Peninsula, NE Kalimantan, revealed cultural sequence in limestone rock shelter covering period ~16.7 kyr BP- late Holocene)

Mano, K., Sudijono & U.L. Batu (1991)- Stratigraphy along the middle course area of Solo River and its tributaries between Teluk and Ngawi. In: Quaternary geology of the northern foot area of Mount Lawu and along the middle course of the Solo River, central and East Java, Indonesia-Japan Joint Study Team, Geological Research Development Centre, Bandung, p. 14-36.

Maringer, J. & T. Verhoeven (1970)- Die Steinartefakte aus der *Stegodon*-Fossilschicht von Mengeruda auf Flores, Indonesien. Anthropos 65, 1-2, p. 229-247.
('The stone artifacts from the Stegodon fossil beds of Mengeruda on Flores, Indonesia'. Pleistocene volcanoclastic fossiliferous beds on Soa Plateau, W Central Flores (Matamenge, Olabula, etc.). Contains Stegodon trogonocephalus (Hooijer 1957), crocodiles, rodents, etc., and also Pleistocene tektites and rel. crude stone tools similar to 'Sangiran stone tool industry' of C Java and 'Cabenge industry' of Sulawesi (later dated at Mata Menge as ~880 ka; JTvG))

Maringer, J. & T. Verhoeven (1970)- Die Oberflachenfunde aus dem Fossilgebiet von Mengeruda und Olabula auf Flores, Indonesien. Anthropos 65, p. 530-565.
('The surface discoveries from the fossil areas of Mengeruda und Olabula on Flores'. 158 stone artifacts)

Maringer, J. & T. Verhoeven (1970)- Note on somestone artifacts in the National Archaeological Institute of Indonesia at Djakarta, collected from the *Stegodon*-fossil bed at Boaleza in Flores. Anthropos 65, 3-4, p. 638-639.
(Brief report on 12 of many stone artifacts collected by Verhoeven in 1963-1968 from Stegodon beds in Flores)

Maringer, J. & T. Verhoeven (1972)- Steingerate aus dem Waiklau-Trockenbett bei Maumere auf Flores, Indonesien. Eine Patjitanian-artige Industrie auf der Insel Flores. Anthropos 67, 1-2, p. 129-137.
('Stone tools from the Waiklau dry river bed near Maumere, Flores, Indonesia'. 30 artifacts, collected by Verhoeven in dry bed of Waiklau river in 1965 and 1968. Similaries with Pacitanian of Java)

Maringer, J. & T. Verhoeven (1975)- Die Oberflachenfunde von Marokoak auf Flores, Indonesien. Ein weiterer altpalaolithischer Fundkomplex von Flores, Indonesien. Anthropos 70, 1-2, p. 97-104.

('The surface discoveries of Marakoak on Flores- a new Early Paleolithic occurrence on Flores')
(Description of stone tools from Marokoak locality 16km NW of other localities Olabula and Mengeruda)

Maringer, J. & T. Verhoeven (1977)- Ein palaolithischer Hohlenfundplatz auf der Insel Flores, Indonesien. Anthropos 72, 1-2, p. 256-273.
('A Paleolithic cave deposit on the island of Flores'.Stone tools from Liang Michael cave deposits near Dalong village, West Flores (Manggarei), including choppers, adzes, flakes, etc. Associated with Varanus hooijeri skull (described by Brongersma, 1958), bones of giant rats and mollusc fragments. M-U Paleolithic; similarities with 'Sangiran industry'.)

Maringer, J. & T. Verhoeven (1979)- Recent discovery of a Palaeolithic past in Flores, Indonesia, and its contribution to the research of most ancient Southeast Asia. East and West 29, 1-4, p. 247-263.
(Review of work by Dutch/ German Catholic missionaries and amateur paleontologist/archeologists Theodor T. Verhoeven and Johannes Maringer since 1956 on Flores on Pleistocene mammalian faunas (incl. small Stegodon, Varanus and giant rats) and man-made stone artifacts. These discoveries 'destroyed the Wallace Line hypothesis')

Maringer, J. & J. Verschuuren (1981)- Zum Palaolithikum der Insel Timor, Indonesien. Anthropos 76, 3-4, p. 584-588.
('On the Paleolithic of Timor Island'. Stone tools (mainly multi-colored chert, some obsidian) from Talau River area S of Atambua, E part of W Timor, collected by missionary J. Verschuuren in 1964-1965)

Markov, G.N. & H. Saegusa (2008)- On the validity of *Stegoloxodon* Kretzoi, 1950 (Mammalia: Proboscidea). Zootaxa 1861, 1, p. 55-56.
(Discussion of taxonomic validity of Stegoloxodon, based on dwarf elephantoid molar from Bumiaya, Java)

Marks, P. (1953)- Preliminary note on the discovery of a new jaw of *Meganthropus* Von Koenigswald in the lower Middle Pleistocene of Sangiran, Central Java. Indonesian J. Natural Science (Majalah Ilmu Alam untuk Indonesia) 109, p. 26-33.
(On large fragment of hominid mandible collected by villagers N of Glagahombo village in conglomerate layer probably equivalentto 'Grenzbank'. Attributed to Meganthropus palaeojavanicus)

Marquez, S., K. Mowbray, G.J. Sawyer, T. Jacob & A. Silvers (2001)- New fossil hominid calvaria from Indonesia- Sambungmacan 3. The Anatomical Record 262, p. 344-368.
(online at: http://onlinelibrary.wiley.com/doi/10.1002/ar.1046/pdf)
(On skull cap of M Pleistocene Homo cf. erectus from banks of Solo River near Poloyo village, Sambungmacan district, C Java. Absence of some classic characters attributed to Homo erectus can be interpreted as: (1) known cranial variation of H. erectus from Indonesia and China; (2) calvaria shows evidence of evolutionary change within H. erectus; or (3) more than one species of Homo in M Pleistocene of Java (see also Broadfield et al., 2001, Delson et al. 2001) (Sm3 discovered in Java in 1977 and illegally moved to New York)

Martin, K. (1884)- Ueberreste vorweltlicher Proboscidier von Java und Banka. Sammlungen Geologischen Reichs-Museums Leiden, Ser. 1, 4, p. 1-24.
(online at: www.repository.naturalis.nl/document/552394)
('Remnants of prehistoric elephants from Java and Bangka'. Early paper on molars of Pleistocene elephantoids: Stegodon sp. from Pati Ajam (S of Muriah volcano, C Java) and Elephas sumatranus from tin sands on Bangka)

Martin, K. (1884)- Ueberreste vorweltlicher Proboscidier von Java und Bangka. Jaarboek Mijnwezen Nederlandsch-Indie 13, Wetenschappelijk Gedeelte, Batavia, p. 285-308. *(without plates online at: https://ia600704.us.archive.org/0/items/jaarboekvanhetm04gebigoog/jaarboekvanhetm04gebigoog.pdf)*
('Remnants of prehistoric elephants from Java and Bangka'. Reprint of Martin (1884))

Martin, K. (1886)- Fossile Saugethierreste von Java und Japan. Sammlungen Geologischen Reichs-Museums Leiden, Ser. 1, 4, p. 25-69.

(online at: www.repository.naturalis.nl/document/552399)
('Fossil mammal remains from Java and Japan'. Early description of Pleistocene mammal remains collected by Raden Saleh in 1865-1866, mainly from C Java Solo area. Mainly Stegodon (skull and molars), Elephas, whale bones and deer (also in Jaarboek Mijnwezen Nederlandsch Oost-Indie 16, p. 1-45))

Martin, K. (1887)- Fossile Saugethierreste von Java und Japan. Jaarboek Mijnwezen Nederlandsch Oost-Indie 16, Wetenschappelijk Gedeelte, Palaeontologie Nederlandsch-Indie, Verhandelingen 21, p. 1-45.
('Fossil mammal remains from Java and Japan'. Same as Martin (1886))

Martin, K. (1888)- Neue Wirbelthierreste vom Pati-Ajam auf Java. Sammlungen Geologischen Reichs-Museums Leiden, Ser. 1, 4, p. 87-116.
(online at: www.repository.naturalis.nl/document/552407)
('New vertebrate remains from Pati-Ajam on Java'. Early paper on Pleistocene mammals from Pati-Ajam mountains S of Muriah volcano, near Klaling, Jepara Residency, C Java. Mainly molars of Mastodon, Stegodon, Euelephas, Bos sp. and Cervus sp., Material collected by Koorders, but locality first described by Junghuhn 1857. Similar mammal fauna known from Solo region)

Martin, K. (1888)- Neue Wirbeltierreste vom Pati-Ajam auf Java. Jaarboek Mijnwezen Nederlandsch Oost-Indie 17 (1888), Wetenschappelijk Gedeelte, p. 20-48.
('New vertebrate remains from Pati-Ajam on Java'. Reprint of Martin (1888)

Martin, R.D., A.M. MacLarnon, J.L. Phillips & W.B. Dobyns (2006)- Flores hominid: new species or microcephalic dwarf ? The Anatomical Record, A, 288A, 11, p. 1123-1145.
(online at: http://onlinelibrary.wiley.com/doi/10.1002/ar.a.20389/pdf)
(New hominids 'Homo floresiensis' from Flore, dated at ~18,000 yrs, very small but dentally adult. Commonly interpreted as insular dwarf derived from Homo erectus, but far too small to derive from Homo erectus by normal dwarfing. H. floresiensis most likely microcephalic Homo sapiens with advanced stone tools)

Marwick, B., C. Clarkson, S. O'Connor & S. Collins (2016)- Early modern human lithic technology from Jerimalai, East Timor. J. Human Evolution 101, p. 45-64.
(Jerimalai rock shelter in E Timor with large assemblage of Pleistocene stone artefacts and shell fish hooks dated to 42,000 yrs BP, one of oldest known sites of modern human activity in island SE Asia. Little change in lithic technology over 42,000 year sequence until addition of new types and raw materials in M Holocene. Assemblage dominated by small chert cores and implements rather than pebble tools and choppers (common in island SE Asia as opposed to mainland SE Asia). Jerimalai assemblage resembles Liang Bua assemblage of Flores, associated with Homo floresiensis; both possibly created by modern humans)

Matsumura, H. (2000)- Origins of Southeast Asian people as viewed from cranial and dental morphology. Asian Paleoprimatology, Kyoto, 1, p. 149-160.
(online at: https://core.ac.uk/download/pdf/39322992.pdf)
(Human skeletons of Hoabinian (late Pleistocene- E Holocene) from Malaysia, Indonesia and Vietnam demonstrate Australo-Melanesian- affinity cranial and dental morphology. These were members of population that appeared in late Pleistocene Sundaland, and ancestors of modern Australian Aborigines. Subsequent Neolithic to modern populations in SE Asia have dental and cranial characteristics more similar to modern N and E Asians, suggesting migrants from Asia mainland (China?) expanded into its peninsula and island regions of SE Asia since Neolithic, supporting the "dual ancestry hypothesis" for SE Asia population history)

Matsumura, H., M.F. Oxenham, Nguyen K.T., Nguyen L.C. & Nguyen K.D. (2011)- Population history of mainland Southeast Asia: the Two Layer model in the context of Northern Vietnam. In: N.J. Enfield (ed.) Dynamics of human diversity, Pacific Linguistics, Canberra, p. 153-178.

Matsumura, H., K. Shinoda, T. Simanjuntak, A.A. Oktaviana, S. Noerwidi, H.O. Sofian et al. (2018)- Cranio-morphometric and aDNA corroboration of the Austronesian dispersal model in ancient Island Southeast Asia: support from Gua Harimau, Indonesia. PLoS One 13, 6, e0198689, p. 1-25.

(online at: https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0198689)
(Gua Harimau cave in Padang Bindu, S Sumatra, with 84 human skeletons dating from pre-Neolithic to Neolithic, Bronze and Iron Ages (~5600- 1800 BP). Cranial and DNA evidence for at least 2-3 distinct populations from two separate time periods)

Matsu'ura, S. (1982)- A chronological framing for the Sangiran hominids. Bull. National Science Museum, Tokyo, D8, p. 1-53.
(online at: http://ci.nii.ac.jp/els/...)
(Fluorine dating of ~250 E Pleistocene vertebrate fossils from Grenzbank and Kabuh Fms of Sangiran area, C Java, suggesting age range of ~0.8-1.1 Ma for Pithecanthropus Beds)

Matsu'ura, S. (1985)- A consideration of the stratigraphic horizons of hominid finds from Sangiran by the fluorine method. In: N. Watanabe & D. Kadar (eds.) Quaternary geology of the hominid fossil bearing formations in Java. Geological Research Development Centre (GRDC), Bandung, Special Publ. 4, p. 359-366.

Matsu'ura, S. (1986)- Fluorine and phosphate analysis of fossil bones from the Kabuh formation of Trinil. Bull. National Science Museum, Tokyo, D12, p. 1-9.
(online at: http://ci.nii.ac.jp/naid/110000008540/en)
(Bone samples from lower Kabuh Fm in Trinil area analysed for fluorine and phosphate for comparison with Sangiran other areas. No obvious conclusions?)

Matsu'ura, S. (2022)- Toward the resolution of controversial chronologies for the World Heritage Site of Sangiran: Dating the first appearance of *Homo erectus* in the island of Java. The Quaternary Research (Daiyonki-Kenkyu, Japan) 61, 1, p. 1-25. *(In Japanese)*
(online at: https://www.jstage.jst.go.jp/article/jaqua/61/1/61_2108/_pdf/-char/en)
(Review of radiometric and other age dating of Pleistocene stratigraphy at Sangiran, C Java. First appearance datum for Sangiran hominin fossils best considered as 1.3 Ma (<1.5 Ma), which is significantly later than dates widely accepted over last two decades (looks thorough; JTvG))

Matsu'ura, S., M. Kondo, F. Aziz, Sudijono, S. Narasaki & N. Watanabe (2000)- First known tibia of an early Javanese hominid. Current Anthropology 41, 2, p. 297-300.
(On modern-shaped hominid tibia (shin bone) recovered in 1977 from Sambungmacan, C Java)

Matsu'ura, S., M. Kondo, T. Danhara, S. Sakata, H. Iwano, T. Hirata, I. Kurniawan, E. Setiyabudi, Y. Takeshita et al. (2020)- Age control of the first appearance datum for Javanese *Homo erectus* in the Sangiran area. Science 367, 6474, p. 210-214.
(online at: https://www.science.org/doi/pdf/10.1126/science.aau8556)
(Combination of zircon, etc. dating techniques for hominin-bearing sediments at Sangiran, C Java, suggests arrival of Homo erectus at ~1.3 Ma, at least 200,000 years younger than previously thought by many. Age of zircons in Lower Bapang Fm tuff just above Grenzbank very close to 0.9 Ma. Tuff below base Upper Sangiran Fm <1.55 Ma (below oldest Sangiran hominins))

Matthew, W.D. (1928)- The ape-man of Java. Does this fossil prove that a creature which was in a halfway stage between Man and Ape lived about a million years ago? Natural History 28, p. 576-588.

McAllister, M.S., M.W. Morley, J.J. Tyler, F.A. McInerne & A.J. Blyth (2022)- Investigating the palaeoenvironmental context of Late Pleistocene human dispersals into Southeast Asia: a review of stable isotope applications. Archaeological Anthropological Sciences 14, 86, p. 1-27.
(online at: https://link.springer.com/content/pdf/10.1007/s12520-022-01540-3.pdf)
(Review of stable isotope work in Late Pleistocene archeological sites in SE Asia, mainly on tooth enamel and speleothems (still in its infancy))

McKenzie, K.G. & Sudijono (1981)- Plio-Pleistocene ostracoda from Sangiran, Jawa. Publ. Geological Research Development Centre (GRDC), Bandung, Seri Paleontologi 1, p. 29-51.

(Descriptions of 25 ostracode species in Late Pliocene Upper Kalibeng Fm and Pleistocene Pucangan Fm at Sangiran Dome, C Java. Shallow marine Kalibeng Fm fauna with Neonesidea, Cytherelloidea, Thalmannia, Hemicytheridea, etc. Lower Pucangan Fm with brackish water assemblage of Ishizakiella, Hemicytheridea, Ilyocypris, Stenocypris and Cyprinotus. Lacustrine Upper Pucangan Fm with Physocypria and Indocythere)

Medway, Lord (1972)- The Quaternary mammals of Malesia: a review. In: P. & M. Ashton (eds.) The Quaternary era in Malesia, Transactions of the 2nd Aberdeen-Hull Symposium on Malesian Ecology, University of Hull Dept. of Geography Miscellaneous Series 13, p. 63-98.

Meijaard, E. (2003)- Mammals of South-East Asian islands and their Late Pleistocene environments. J. of Biogeography 30, 8, p. 1245-1257.
(During Last Glacial Maximum several areas in Sunda region remained forest-covered: W Sumatra, NW Borneo, Malacca Straits and around Palawan. Other areas possibly more open vegetation types, like tree savanna or open deciduous forest: Malay/Thai Peninsula, Java Sea (incl. Sunda Strait) and E Borneo)

Meijaard, E. (2004)- Solving mammalian riddles: a reconstruction of the Tertiary and Quaternary distribution of mammals and their palaeoenvironments in island South-East Asia. Ph.D. Thesis Australian National University, Canberra, p. 1-347.
(online at: https://digitalcollections.anu.edu.au/handle/1885/47989)
(New Miocene-Quaternary biogeographic models for SE Asia that help explain present-day distribution patterns and evolutionary relationships between mammal species)

Meijaard, E. & C.P. Groves (2006)- The geography of mammals and rivers in mainland Southeast Asia. In: M. Lehman & J.G. Fleagle (eds.) Primate biogeography- progress and prospects, Springer, New York, p. 305-330.
(Late Pliocene- E Pleistocene environmental changes in mainland SE Asia split up many tropical species leading to diversification, maintained during Pleistocene by further glacial periods. During last glacial maximum this may have led to isolation of rainforest-dependent species in several refugia. M Pleistocene catastrophic comet collision around 0.77 Ma, with center of impact in E Thailand or E Cambodia/S Laos, may have caused widespread extinction in mainland SE Asia in area possibly >1 million km^2)

Meijer, H.J.M. (2014)- The avian fossil record in Insular Southeast Asia and its implications for avian biogeography and palaeoecology. PeerJ 2, e295, p. 1-13.
(online at: https://peerj.com/articles/295.pdf)
(Review of bird fossils from Indonesia/ SE Asia islands. At least 63 species in 54 genera and 27 families recorded. Except for Eocene of Sumatra, all bird fossils are Pleistocene in age)

Meijer, H.J.M. & R.A. Due (2010)- A new species of giant marabou stork (Aves: Ciconiiformes) from the Pleistocene of Liang Bua, Flores (Indonesia). Zoological J. Linnean Society, London, 160, 4, p. 707-724.
(online at: https://academic.oup.com/zoolinnean/article/160/4/707/2625584)
(Fossils of new species of giant marabou stork, Leptoptilos robustus, from Pleistocene of Liang Bua, Flores. Giant bird estimated at 1.80 m in length. Large body size and terrestrial lifestyle responses to unbalanced, island environment with abundant prey and lack of mammalian carnivores)

Meijer, H.J.M., F. d'Errico, A. Queffelec, I. Kurniawan, E. Setiabudi, I. Sutisna, A. Brumm & G.D. van den Bergh (2019)- Characterization of bone surface modifications on an Early to Middle Pleistocene bird assemblage from Mata Menge (Flores, Indonesia) using multifocus and confocal microscopy. Palaeogeogr. Palaeoclim. Palaeoecology 529, p. 1-11.
(online at: https://www.sciencedirect.com/science/article/pii/S0031018219300264)

Meijer, H.J.M., I. Kurniawan, E. Setiabudi, A. Brumm, T. Sutikna, R. Setiawan & G.D. van den Bergh (2015)- Avian remains from the Early/Middle Pleistocene of the So'a Basin, central Flores, Indonesia, and their palaeoenvironmental significance. Palaeogeogr. Palaeoclim. Palaeoecology 440, p. 161-171.

(Soa Basin in C Flores with 16 late Early to early M Pleistocene terrestrial fossil localities with insular endemic faunas. Remains of 6 bird species birds from Mata Menge and Bo'a Leza include a swan (Cygnus sp.) and eagle owl (Bubo sp.), indicative of open environment with open freshwater and nearby grasslands)

Meijer, H.J.M., J. Louys & S. O'Connor (2019)- First record of avian extinctions from the Late Pleistocene and Holocene of Timor Leste. Quaternary Science Reviews 203, p. 170–184
(Late Pleistocene and Holocene bird remains from Jerimalai and Matja Kuru sites on Timor Leste with archaeological sequences dating back to >40 ka. All bird species still present on Timor today, except a crane (Grus sp.) from Late Pleistocene of Jerimalai, and large buttonquail (Turnix sp.) from Matja Kuru)

Meijer, H.J.M., T. Sutikna, E.W. Saptomo, R. Due Awe, Jatmiko, S. Wasisto, H.F. James, M.J. Morwood & M.W. Tocheri (2013)- Late Pleistocene-Holocene non-passerine avifauna of Liang Bua (Flores, Indonesia). J. Vertebrate Paleontology 33, 4, p. 877-894.
(online at: https://repository.si.edu/bitstream/handle/10088/28869/Meijer-13-JVP-Ling%20Bua%20non-passerines.pdf?sequence=1&isAllowed=y;View/Open)
Liang Bua cave deposits on Flores span last 95,000 years, with bird fossils throughout. Late Pleistocene assemblage with 23 taxa. Giant marabou Leptoptilos robustus and vulture Trigonoceps sp. now extinct)

Meijer, H.J.M., T. Sutikna, E.W. Saptomo & M.W. Tocheri (2022)- More bones of *Leptoptilos robustus* from Flores reveal new insights into giant marabou stork paleobiology and biogeography. Royal Society (London) Open Science. 9, 220435, p. 1-32.
(online at: https://royalsocietypublishing.org/doi/epdf/10.1098/rsos.220435)
(Bones of giant marabou storks (Leptoptilos robustus) from Liang Bua site, Flores. Well developed wing bones of L. robustus suggest it was capable of active flight. L. robustus bones broadly similar to Leptoptilos falconeri from sites in Africa and Eurasia (incl. Leptoptilos titan from Ngandong, C Java; Wetmore, 1940). Pleistocene dispersal of L. falconeri into Island SE Asia may have given rise to populations of giant marabou storks in this region. Island SE Asia likely acted as refugium for last surviving members of this lineage)

Meijer, H.J.M., M.W. Tocheri, R. Awe Due, T. Sutikna, E.W. Saptomo & H.F. James (2015)- Continental–style avian extinctions on an oceanic island. Palaeogeogr. Palaeoclim. Palaeoecology 429, p. 163-170.
(Comparison of 25 species of modern non-passerine avifauna of Flores with Late Pleistocene assemblage from cave site of Liang Bua cave. Rel. few extinctions on Flores, except large-bodied avian scavengers Leptoptilos robustus (giant stork) and Trigonoceps (vulture). Possibly linked to extinction of pygmy elephant (Stegodon florensis insularis))

Meijer, H.J.M., L.W. van den Hoek Ostende, G.D. van den Bergh & J. de Vos (2010)- The fellowship of the hobbit: the fauna surrounding *Homo floresiensis*. J. of Biogeography 37, 6, p. 995-1006.
(online at: www.academia.edu/1353347/Five_years_of_Homo_floresiensis)
Flores vertebrate fauna low species richness and disharmonic fauna, resulting from isolated position of island. H. floresiensis associated with common pygmy proboscidean Stegodon florensis insularis, giant rats (Papagomys armandvillei, P. theodorverhoeveni, Spelaeomys florensis) and other murids, bats, Komodo dragon (Varanus komodoensis, V. hooijeri), and large number of birds (incl. giant marabou Leptoptilos). Between fossil-bearing localities Ola Bula Fm (~900-800 ka) and Liang Bua (~95-0 ka) gap of ~700 kyr)

Menzies, J.I. & C. Ballard (1994)- Some new records of Pleistocene megafauna from New Guinea. Science in New Guinea 20, p. 113-139.
(Four new sites with Plio-Pleistocene megafauna in PNG, incl. zygomaturine diprodontid Hulitherium tomasetti (marsupial equivalent of giant panda) and Protemnodon)

Tablizo, M.U., G.D. van den Bergh & A.G.S. Fernando (2025)- Island-hopping across the Wallace Line: A new Pleistocene *Stegodon* fossil skull from Luzon (Philippines) reveals dispersal links to Wallacea. Palaeogeography, Palaeoclimatology, Palaeoecology 677, 113186, p.

(E Pleistocene Stegodon skull from Lannig, Solana, Cagayan (NE Luzon), with affinities to S. trigonocephalus and also S. f. florensis from Flores, Indonesia, suggesting N-S faunal connection between the Philippines and Wallacea)

Mijares, A.S., F. Detroit, P. Piper, R. Grun, P. Bellwood, M. Aubert, G. Champion, N. Cuevas, A. De Leon & E. Dizon (2010)- New evidence for a 67,000-year-old human presence at Callao Cave, Luzon, Philippines. J. Human Evolution 59, 1, p. 123-132.
(Human third metatarsal from Callao Cave in N Luzon dated by U-series ablation as ~67 ka, making it oldest known modern human fossil in Philippines (and SE Asia?). Morphometric analysis indicates gracile structure, close to small-bodied Homo sapiens, but also within ranges of Homo habilis and H. floresiensis)

Mijsberg, W.A. (1927)- Over het in 1926 te Trinil gevonden en ten onrechte als rest van het schedeldak van een praehistorisch mensch beschouwde fossiel. Geneeskundig Tijdschrift Nederlandsch-Indie, 1927, p. 159-165.
('On the fossil found in Trinil in 1926 and erroneously considered to be a skull cap of a prehistoric human'. In August 1926 Dr. C.E.J. Heberlein from Surabaya bought a fossil at Trinil that he identified as a Pithecanthropus skull cap. In December 1926 anatomist Mijsberg at S.T.O.V.I.A in Batavia and H.J.T. Bijlmer identified it as proximal end of the humerus of a fossil elephant, which is not uncommon inTrinil Pleistocene deposits)

Mijsberg, W.A. & H.J.T. Bijlmer (1927)- Report on a fossil found at Trinil in 1926, and erroneously considered as the remains of a skull of *Pithecanthropus*. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 30, 1, p. 126-133.
(online at: https://https://dwc.knaw.nl/DL/publications/PU00015425.pdf)
(English version of paper above)

Mijsberg, W.A. (1932)- Recherches sur les restes humains trouves dans les fouilles de l'abris-sous-roche de Goewa-Lawa a Sampoeng et des sites prehistoriques a Bodjonegoro (Java). In: Hommage du Service Archeologie des Indes Neerlandaises au Premier Congres des Prehistoriens d'Extreme-Orient a Hanoi, Batavia, p. 39-54.
('Investigations on the human remains found in the excavations of the Gua Lawa rock shelter in Sampung and prehistoric sites in Bojonegoro (Java)'. Report on skeletal remains of 'big-teeth' prehistoric people from East Java, reminescent of Papua-Melanesian racial group)

Mishra, S., C. Gaillard, C. Hertler, A.M. Moigne & T. Simanjuntak (2010)- India and Java: contrasting records, intimate connections. Quaternary International 223-224, p. 265-270.
(Comparison of similarities of archeological, paleontological and hominin records of India and Java)

Mohler, W.A. (1946)- Zur Stratigraphie der Saugetierfuhrenden Schichten von Java. Experientia- Monatsschrift fur das gesamte Gebiet der Naturwissenschaft, Basel, 2, 8, p. 287-292.
('On the stratigraphy of mammal-bearing beds of Java'. Mammalian faunas recognized, from old to young: (1) Tji Djolang (M Pliocene), (2) Kali Glagah (U Pliocene), (3) Djetis with Pithecanthropus (Lower Pleistocene), (4) Trinil with Pithecanthropus (M Pleistocene), (5) Ngandong with Homo neanderthalensis soloensis (U Pleistocene), (6) Sampoeng (Sampung; Subrecent, postdating M Pleistocene folding (U Pleistocene Ngandong-terraces not folded))

Moigne, A.M., R. Due Awe, F. Semah & A.M. Semah (2004)- The cervids from Ngebung site ('Kabuh series', Sangiran dome, Central Java) and their biostratigraphical significance. In: S.G. Keates & J. Pasveer (eds.) Quaternary Research in Indonesia, Chapter 3, Modern Quaternary Research in Southeast Asia 18, Balkema, p. 31-44.
(Excavations in Lower Kabuh Fm at Ngebung site with fossil riverbank horizon formerly occupied by Homo erectus, with numerous stone artifiacts and broken bones, dated at ~0.8 Ma (Ar-dating of overlying tuff by Salei 1997). Dominant animal fossils large bovids, smaller cervids and Stegodon, an association probably linked to human activity. Two cervids, Cervus (Rusa) and Axis lydekkeri ngebungensis)

Moigne, A.M., F. Semah & A.M. Semah, A. Bouteaux & R. Due Awe (2004)- Mammalian fossils from two sites of the Sangiran Dome (Central Jawa, Indonesia), in the biostratigraphical framework of the Jawanese Pleistocene.

In: L.C. Maul & R.D. Kahlke (eds.) Late Neogene and Quaternary biodiversity and evolution: Regional developments and interregional correlations, Proc. 18th International Senckenberg Conference, Weimar 2004, Terra Nostra, Stuttgart, p. 176-178. *(Extended Abstract)*
(online at: www.senckenberg.de/fis/doc/abstracts/68_Moigne_etal_2.pdf)
(Brief review of Bukuran and Ngebung 2 sites, Sangiran. Ngebung 2 with 'late Trinil HK' mammalian assemblage and dated as beginning of M Pleistocene (~0.9 Ma?))

Moncel, M.H., M. Arzarello, E. Boeda, T. Bonilauri, B. Chevrier, C. Gaillard, H. Forestier, Y. Li, F. Semah & V. Zeitoun (2018)- Assemblages with bifacial tools in Eurasia (second part). What is going on in the East? Data from India, Eastern Asia and Southeast Asia. Comptes Rendus Palevol 17, 1-2, p. 61-76.
(online at: www.sciencedirect.com/science/article/pii/S1631068315002122)
(Review of Pleistocene stone tools in Asia, incl. Indonesia: Baturaja-S Sumatra, Pacitan-Java, Ngebung/ Sangiran-Java (part 1 of series was on stone tools in Europe))

Moncel, M.H., M. Arzarello, E. Boeda, T. Bonilauri, B. Chevrier, C. Gaillard, H. Forestier, Y. Li, F. Semah & V. Zeitoun (2018)- Assemblages with bifacial tools in Eurasia (third part). Considerations on the bifacial phenomenon throughout Eurasia. Comptes Rendus Palevol 17, 1-2, p. 77-97.
(online at: www.sciencedirect.com/science/article/pii/S163106831630032X)
(Bifacial stone tool technology believed to become widespread from 800-700 ka onwards, probably reaching Levant from Africa before moving toward Asia, then Europe. However, reality may be more complex. In Indonesia lithic pieces compatible with Acheulean traditions found without stratigraphic context in S Sumatra and associated with Homo erectus fossils at base of Kabuh Fm in Sangiran)

Moore, M.W. & A. Brumm (2007)- Stone artifacts and hominins in island Southeast Asia: new insights from Flores, eastern Indonesia. J. Human Evolution 52, p. 85-102.
(online at: www.academia.edu/466208/Stone_artifacts_and_hominins_in_island_Southeast_Asia_new_ Etc.)
(Review of stone tool types in Indonesia. Large-sized 'core tools' commonly believed to be work of Homo erectus while assemblages of small-sized 'flake tools' usually attributed to Homo sapiens, but both are probably part of same sequences)

Moore, M.W., T. Sutikna, Jatmiko, M.J. Morwood & A. Brumm (2009)- Continuities in stone flaking technology at Liang Bua, Flores, Indonesia. J. Human Evolution 57, 5, p. 503-526.
(online at: www.academia.edu/1259545/Biface_distributions_and_the_Movius_Line_A_Southeast_Asia Etc.)
(At Liang Bua, Flores, stratified unchanging artifact sequence spanning 95 kyr, with minor shift to unifacial flaking after 11 ka. Pleistocene pattern associated with Homo floresiensis skeletal remains. Holocene changes correlate with appearance of Homo sapiens)

Morley, M.W. (2017)- The geoarchaeology of hominin dispersals to and from tropical Southeast Asia: a review and prognosis. J. Archaeological Science 77, p. 78-93.
(Review of geoarchaeology of Late Pleistocene modern human dispersals into and out of SE Asia, incl. Indonesian localities Punung/ Wajak (Java) and Liang Bua (Flores))

Morwood, M.J., F. Aziz, G.D. van den Bergh, P.Y. Sondaar & J. De Vos (1997)- Stone artefacts from the 1994 excavation at Mata Menge, West Central Flores, Indonesia. Australian Archaeology 44, p. 26-34.
(online at: https://www.library.uq.edu.au/ojs/index.php/aa/article/download/996/994)
(1994 excavation in fluvial Ola Bula Fm at Mata Menge near Bajawa, C Flores, yielded M Pleistocene stone tool pieces (basalt and chert flakes) and faunal remains (large Stegodon, crocodile, giant rat). Likely Matuyama-Brunhes boundary (and tektites from same site reported by Maringer and Verhoeven 1970 (but below main fossil layers?))

Morwood, M.J., P. Brown, Jatmiko, T. Sutikna, E. Wahyu Saptomo, K.E. Westaway, R. Awe Due et al. (2005)- Further evidence for small-bodied hominins from the late Pleistocene of Flores, Indonesia. Nature 437, 7061, p. 1012-1017.

(Homo floresiensis from Late Pleistocene of Flores has stature, limb proportions and endocranial volume of African Pliocene Australopithecus. Age of population from 95-74 to 12 thousand years ago. Excavation yielded more evidence for behavioural capabilities, including butchery of Stegodon and use of fire)

Morley, R.J., H.P. Morley, Y. Zaim & O.F. Huffman (2020)- Palaeoenvironmental setting of Mojokerto *Homo erectus*, the palynological expressions of Pleistocene marine deltas, open grasslands and volcanic mountains in East Java. J. of Biogeography 47, 3, p. 566-583.
(online at: www.researchgate.net/publication/338691956_Palaeoenvironmental_setting_of_Mojokerto Etc.)
(Facies in Perning and Jetis sections near Mojokerto indicate landscape with four potential Homo habitats: muddy deltas with widespread Nypa swamps; poorly vegetated sandy delta; open savanna grasslands in lowlands up river of delta; and volcanoes in upper reaches of catchment with perhumid montane podocarp and broad-leaf forests and probable open fire-climax Casuarina junghuhniana forest. Palynological data support Early Pleistocene geological age for Mojokerto H. erectus at about 1.43 Ma)

Morwood, M.J. & W.L. Jungers (eds.) (2009)- Paleoanthropological research at Liang Bua, Flores, Indonesia. J. Human Evolution 57, 5, p. 437-648.
(Collection of papers of Flores studies)

Morwood, M.J. & W.L. Jungers (2009)- Conclusions: implications of the Liang Bua excavations for hominin evolution and biogeography. J. Human Evolution 57, 5, p. 640-648.
(Liang Bua excavations on Flores stratified sequence of stone artifacts and faunal remains spanning ~95- 17 ka, and includes skeletal remains of Homo sapiens in Holocene and Homo floresiensis in Pleistocene. Small H. floresiensis not australopithecine and not dwarfing of ancestral H. erectus population, but probably late representative of small-bodied hominid lineage that exited Africa before emergence of Homo erectus)

Morwood, M.J., P.B. O'Sullivan, F. Aziz & A. Raza (1998)- Fission-track ages of stone tools and fossils on the East Indonesian island of Flores. Nature 392, p. 173-176.
(Zircon fission-track dates from two fossil sites on Flores. Tangi Talo, with endemic fauna, dates to 0.90 ± 0.07 Ma, Mata Menge (with stone tools and elements of continental SE Asian fauna) 0.88- 0.80 Ma. Also older, reworked zircons with ages between 7 and 14 Ma (also with Australasian tektites; Von Koenigswald 1957))

Morwood, M.J., P. O'Sullivan, E.E. Susanto & F. Aziz (2003)- Revised age for Mojokerto 1, an early *Homo erectus* cranium from East Java, Indonesia. Australian Archaeology 57, p. 1-4.
(online at: www.library.uq.edu.au/ojs/index.php/aa/article/viewFile/526/1690)
(Field study and redating of two pumice horizons at site of Homo erectus skull found by Duyfjes (1936) at Mojokerto, E Java, indicates age is <1.49 Ma, not much-hyped 1.8 Ma age of Swisher et al. (1984))

Morwood, M.J., R.P. Soejono, R.G. Roberts, T. Sutikna, C.S.M. Turney, K.E. Westaway et al. (2004)- Archaeology and age of a new hominin from Flores in eastern Indonesia. Nature 431, p. 1087-1091.
(Excavations at Liang Bua cave on Flores yielded tiny hominins, assigned to Homo floresiensis n.sp. It existed from before 38 ka until at least 18 ka. Associated deposits contain stone artefacts and animal remains, including Komodo dragon and endemic, dwarfed species of Stegodon. Homo floresiensis originated from early dispersal of Homo erectus and overlapped in time with Homo sapiens in region)

Morwood, M.J., T. Sutikna, E.W. Saptomo, K.E. Westaway, Jatmiko et al. (2008)- Climate, people and faunal succession on Java, Indonesia: evidence from Song Gupuh. J. Archaeological Science 35, 7, p. 1776-1789.
(Song Gupuh cave in Gunung Sewu Limestones, E Java, over 16m of deposits with faunal sequence spanning 70 ka. Terminal Pleistocene- Early Holocene period of maximum biodiversity. Human activity, especially after onset of Neolithic around 2.6 ka, contributed to progressive loss of species from area)

Morwood, M.J. & P. van Oosterzee (2007)- A new human- The startling discovery and strange story of the "hobbits" of Flores, Indonesia. Harper Collins, p. 1-222.
(Popular book on 2004 discovery of Homo floresiensis and its interpretation as a new species. N.B.: There is a school of paleoanthropologists that still dispute this 'startling discovery; see e.g. Jacob et al. (2006), Martin et

al. (2006), Bednarik (2008), Obendorf et al. (2008), Oxnard et al. 2010, Henneberg et al. (2011), Eckhardt et al. (2014) and others, who argue Morwood et al. misrepresented facts and misinterpreted significance of H. floresiensis, which they believe represents aberrant specimens of Homo sapiens)

Movius, H.L. (1948)- The Lower Palaeolithic cultures of southern and eastern Asia. Transactions American Philosphical Society, new series, 38, 4, p. 329-420.
(online at: https://catalog.hathitrust.org/Record/001879951)
(Review of Pleistocene stratigraphy and hominids and stone tools in Java, NW India, Burma and N China)

Movius, H.L. (1949)- Lower Palaeolithic archaeology in southern Asia and the Far East. In: W.W. Howell (ed.) Early man in the Far East, Symposium, American Assoc. Physical Anthropologists, Chicago 1946, p. 17-77.
(Review of Pleistocene stratigraphy and hominids and stone tools in NW India, Burma, N China and Java)

Mubroto, B., Suminto & J. Kimura (1995)- Paleomagnetic analysis of sediments of the Kedungbrubus area. In: Sudijono et al. (eds.) Geology of Quaternary environment of the Solo- Madiun area, Central-East Java, Geological Research Development Centre (GRDC), Bandung, Special Publ. 17, p. 100-104.

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(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/170)
('Developments in Quaternary geology until the beginning of history in the Yogyakarta plain'. Uplift of Southern Mts in E Pleistocene formed Yogyakarta Basin. Merapi volcanic activity took place since ±42 ka or 0.67 Ma)

Mulvaney, D.J. (1970)- The Patjitanian industry: some observations. Mankind (Australian J. Anthropology) 7, 3, p. 184-187.
(Pacitanian stone tools from Java S Mountains contain both hand-axes and flake tools and may not be as old as previously suggested)

Mulvaney, D.J. & R.P. Soejono (1970)- The Australian-Indonesian archaeological expedition to Sulawesi. Asian Perspectives 13, p. 163-177.
(online at: https://typeset.io/pdf/the-australian-indonesian-archaeological-expedition-to-59am14atzv.pdf)
(July-August 1969 joint Indonesian-Australian archeological expedition to Neolithic cave sites in Makassar region of S Sulawesi, to investigate remnants of Toalean culture. Earlier excavation work by Van Stein Callenfels in 1937 was deemed to be very sloppy: many interesting archeological objects remained in the vSC-Noone rubbish piles, and little or none of the 1937 work and findings had been properly documented)

Musser, G.G. (1981)- The giant rat of Flores and its relatives east of Borneo and Bali. Bull. American Museum Natural History 169, 2, p. 67-176.
(online at: http://digitallibrary.amnh.org/handle/2246/568)
(Five Pleistocene- Recent murids (rats) known only from Flores: Papagomys armandvillei and new species P. theodorverhoeveni, Hooijeromys nusatenggara, Floresomys naso and Spelaeomys florensis. Komodomys rintjanus occurs on Flores and Komodo Islands of Rintja and Padar)

Musser, G.G. (1982)- The Trinil rats. Modern Quaternary Research in Southeast Asia 7, Balkema, Rotterdam, p. 65-85.
(Review of extant and fossil murid rodents of Java. Rare murid rodents in Pleistocene Trinil fauna represent two species, incl. small Rattus trinilensis n.sp.)

Musser, G.G. & C. Newcomb (1983)- Malaysian murids and the giant rat of Sumatra. Bull. American Museum Natural History 174, 4, p. 327-598.
(online at: https://digitallibrary.amnh.org/handle/2246/572)
(Three Indo-Malayan murid (rodent) genera: Palawanomys, n. gen., known only from Palawan Island; Berylmys, primarily in Indochina and Sundamys n. gen., containing mountain giant rat of Sumatra, Sundamys is indigenous to W Indonesia (called 'Sunda Shelf' here, but it means onshore around Sunda Shelf; JTvG))

Musser, G.G., A. van de Weerd & E. Strasser (1986)- *Paulamys*, a replacement name for *Floresomys* Musser, 1981 (Muridae), and new material of that taxon from Flores, Indonesia. American Museum (Natural History) Novitates 2850, p. 1-10.
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(On renaming of subfossil endemic rat fossil material collected by T. Verhoeven from caves in Flores)

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(online at: https://www.biodiversitylibrary.org/item/104465#page/217/mode/1up)
('Fossil elephant remains from Mindanao, Sumatra and Malacca'. Stegodon trigonocephalus and S. aff. Insignis from NW Mindanao, Elephas indicus presumably from Malakka, possible Stegodon from Deli, N Sumatra)

Naumann, E. (1890)- *Stegodon mindanensis*, eine neue Art von Uebergangs-Mastodonten. Zeitschrift Deutschen Geologischen Gesellschaft, Berlin, 42, 1, p. 166-169.
(online at: https://www.biodiversitylibrary.org/item/37733#page/176/mode/1up)
('Stegodon mindanensis, a new species of transitional mastodonts'. Brief note on elephantoid tooth from Mindanao, Philippines, in collections of Dresden Museum, Germany. Initially identified as similar to Stegodon trigonocephalus from Java, but it is different. No figures)

Newman, K., B. Hakim, A.A. Oktaviana, B. Burhan, D. McGahan & A. Brumm (2022)- The missing deposits of South Sulawesi: new sources of evidence for the Pleistocene/ Holocene archaeological transition. Archaeological Research in Asia 32, 100408, p.
(Discussion of apparent gap in archeological record of S Sulawesi between ~20,000-10,000 years ago)

Ninkovich, D. & L.H. Burckle (1978)- Absolute age of the base of the hominid-bearing beds in Eastern Java. Nature 275, p. 306-308.
(Analysis of planktonic marine diatoms from marine intercalations in lowermost hominid-bearing beds and from underlying U Kalibeng Fm marine sediments in E Java (~2.1-1.9 Ma age for U Kalibeng assemblage))

Ninkovich, D., L.H. Burckle & N.D. Opdyke (1982)- Palaeogeographic and geologic setting for early Man in Java. In: R.A. Scrutton & M. Talwani (eds.) The ocean floor, Wiley, New York, p. 211-227.

Nishioka, Y. & C. Vidthayanon (2018)- First occurrence of *Duboisia* (Bovidae, Artiodactyla, Mammalia) from Thailand. Fossil Record (Berlin) 21, 2, p. 291-299.
(online at: https://fr.pensoft.net/article/30607/)
(First record from Thailand of ?M Pleistocene antelope-like bovid Duboisia skull with horns from sandpit at Tha Chang, E of Nakhon Ratchasima (Khorat), NE Thailand. Confirms genus not endemic to Java. Assigned to Duboisia aff. D. santeng. From just below tektite-bearing horizon)

Noerwidi, S. (2012)- The significance of the Holocene human skeleton Song Keplek 5 in the history of human colonization of Java: a comprehensive morphological and morphometric study. Masters Erasmus Mundus Thesis, Museum National Histoire Naturelle, Paris, p. 1-13.
(online at: https://www.academia.edu/34744974/The_significance_of_the_Holocene_human_skeleton_Song_Keplek_5_in_the_history_of_human_colonization_of_Java_a_comprehensive_morphological_and_morphometric_study)
(Detailed study of ~3000 yr old skeleton from Song Keplek rock shelter burial site in Gunung Sewu. S Java. Interpreted as Neolithic pioneer of SE Asian ("Southern Mongoloid") affinity, with strong morphological connections with recent Javanese and mainland SE Asian populations, who probably intermixed with indigenous Australo-Melanesian people. Probably multiple Holocene migrations of modern humans into Java)

Noerwidi, S. (2012)- Younger Toba Tephra 74 kya: impact on regional climate, terrestial ecosystem, and Prehistoric human population. AMERTA 30, 1, p. 9-18.
(online at: https://jurnalarkeologi.kemdikbud.go.id/index.php/amerta/article/view/396)

(Review of impact of large Toba eruption in 74 ka, N Sumatra, on vegetation, animals and human environmental change. Some scholars pointed to global consequence of killing most humans)

Noerwidi, S. (2020)- Hominin diversity in the western Indonesian archipelago during the Quaternary: a dental record perspective. Doct. Thesis Museum National Histoire Naturelle, Paris, p. 1-481.
(online at: https://tel.archives-ouvertes.fr/tel-03680512/document)
(Six groups of Pleistocene-Recent hominid teeth types)

Noerwidi, S., Siswanto & H. Widianto (2016)- Primata besar di Jawa: spesimen baru *Gigantopithecus* dari Semedo. Berkala Arkeologi 36, 2, p. 141-160.
(online at: http://berkalaarkeologi.kemdikbud.go.id/index.php/berkalaarkeologi/article/view/96/142)
('Giant primate of Java: a new Gigantopithecus specimen from Semedo'. Two enigmatic mandible specimens found in 2014 at Semedo, SE of Tegal, C Java. Morphologically similar to common primate jaw, but twice size. Semedo specimens close to Gigantopithecus blacki (first occurrence in Java); a species known from China and Himalyas))

Noerwidi, S., A. Vialet, H. Widianto, I. Kurniawan, J. Zaim, R.A. Suriyanto, J. Joordens et al. (2020)- Exploring the diversity of fossil hominin dental patterns in the western Indonesian archipelago during the Quaternary by Geometric Morphometric Analysis. Application on second upper and lower molars. L'Anthropologie 124, 5, 102791, p.
(manuscript online at: https://www.sciencedirect.com/science/article/pii/S0003552120300741)
(At least 4 groups (dental types) of hominins in Indonesia in Pleistocene times. Result suggest overlap among them throughout E and early M Pleistocene. Another group persists until Late Pleistocene, and two other groups of Homo sapiens present during Holocene)

Noerwidi, S., H. Widianto, M. Martinon-Torres, J.M. Bermudez de Castro, A.M. Moigne, A. Vialet & F. Semah (2019)- External dental characters and diversity of *Homo erectus* among the fossil record of Java. UISPP (J. Int Union for Prehistoric and Protohistoric Sciences) 2, Special Issue 2, p. 13-20.
(online at: https://cir.cenieh.es/bitstream/20.500.12136/1556/1/External%20dental%20characters%20 Etc)
(Dental morphological features of Homo erectus from Java (Sangiran, Wajak, etc.) suggest four groups of fossil hominins that supposedly coexisted in Java in lower Middle Pleistocene (see also Noerwidi, 2020 and others))

Noerwidi, S., H. Widianto, A.M. Moigne, A. Vialet, M.M. Ansyori, M.R. Fauzi, Hua Tu, C. Falgueres, A.M. Semah et al. (2023)- Preliminary study of two deciduous human molars from the Late Pleistocene layers of Song Terus (East Java): A window into the last *Homo erectus* and the first *Homo sapiens* in Java. L'Anthropologie 127, 3 (Special Issue Prehistoire de l'Indonesie), 103159, p. 1-22.
(Two previously undescribed human molars from Pleistocene in Song Terus cave near Punung in Southern Mountains. ST06 is dated >80 ka (belongs to Homo erectus s.l. group) and tooth ST04 <60 ka (close to Homo sapiens))

Noerwidi, S., H. Widianto, I.A. Nurani, L. Yondri, T. Setiawan, K. Wiradnyana, T. Simanjuntak et al. (2023)- Variability of the Late Pleistocene-Holocene *Homo sapiens* groups in Western Indonesian archipelago: focus on second molars. L'Anthropologie 127, 3, 103169, p.
(Late Pleistocene-Holocene human populations in W Indonesia two different dental types: (1) "Preneolithic" in E-M Holocene fossils (12- 4.5 ka), and (2) "Neolithic-Paleometallic" in Late Holocene (from 3.2 ka))

Obendorf, P.J., C.E. Oxnard & B.J. Kefford (2008)- Are the small human-like fossils found on Flores human endemic cretins? Proc. Royal Society (London), B, 275, p. 1287-1296.
(online at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2602669/pdf/rspb20071488.pdf)
(Hominid fossils from Liang Bua, Flores, Indonesia, including nearly complete skeleton dated to 18 ka and assigned to new species are probably "myxoedematous endemic (ME)" cretins, part of an inland population of Homo sapiens)

Obradovich, J.D. & C.W. Naeser (1981)- Indonesia- Age of *Homo erectus* from Java. In: Geological Survey Research 1981, U.S. Geological Survey (USGS) Professional Paper 1275, p. 285-286.
(Sample of dacite pumice collected 12m above level of Homo erectus VIII in Kabuh beds dated with K-Ar and fission track methods as 1.05 +/- 0.1 Ma and 1.6 +/- 0.7 Ma respectively)

O'Connell, C.A. & J.M. DeSilva (2013)- Mojokerto revisited: evidence for an intermediate pattern of brain growth in *Homo erectus*. J. Human Evolution 65, p. 156-161.
(online at: https://www.bu.edu/anthrop/files/2013/08/OConnellDeSilvaJHE2013.pdf)

O'Connell, J.F. & J. Allen (2004)- Dating the colonization of Sahul (Pleistocene Australia- New Guinea): a review of recent research. J. Archaeological Science 31, p. 835-853.
(Date for arrival of human colonization of Sahul area (Australia- New Guinea) generally assumed to be at ~40,000 BP or 60,000 BP. Postulated arrival dates before~42-45 ka not well-supported by data)

O'Connell, J.F., J. Allen, M.A.J. Williams, A.N. Williams, C.S.M. Turney, N.A. Spooner, J. Kamminga et al. (2018)- When did *Homo sapiens* first reach Southeast Asia and Sahul? Proc. National Academy of Sciences USA (PNAS) 115, 34, p. 8482-8490.
(online at: www.pnas.org/content/pnas/115/34/8482.full.pdf)
(Anatomically modern humans (Homo sapiens) began spreading across Eurasia from Africa and adjacent SW Asia at ~50-55 ka. Some argued that human genetic, fossil, and archeological data indicate one or more prior dispersals, possibly as early as 120 ka, but remains to be proven)

O'Connor, S. (2007)- Pleistocene Timor: further corrections, a reply to Bednarik. Australian Archaeology 54, p. 46-51.

O'Connor, S. (2007)- New evidence from East Timor contributes to our understanding of earliest modern human colonisation east of the Sunda Shelf. Antiquity 81, p. 523-535.
(New age date of ~38,000-42,000 yrs BP from rock shelter of Jerimalai, E Timor is earliest evidence for migration by modern humans E of Sunda Shelf into Island SE Asia)

O'Connor, S. (2010)- Pleistocene migration and colonization in the Indo-Pacific Region. In: A. Anderson et al. (eds.), The global origins and development of seafaring, McDonald Institute Archaeological Research, Cambridge, p. 41-55.
(Maritime spread was most likely mode of expansion for early modern humans moving out of Africa and along Indian Ocean Rim and reaching Sahul (Pleistocene Australia-New Guinea) at least 60,000 years ago)

O'Connor, S. & K. Aplin (2007)- A matter of balance: an overview of Pleistocene occupation history and the impact of the Last Glacial Phase in East Timor and the Aru Islands, eastern Indonesia. Archaeology in Oceania 42, 3, p. 82-90.
(Late Pleistocene Last Glacial Maximum (~30- 15 ka) increased aridity and lowered sea level had significant impact on human hunter-gatherers in E Timor and Aru Islands)

O'Connor, S., D. Bulbeck & J. Meyer (eds.) (2018)- The archaeology of Sulawesi- Current research on the Pleistocene to the Historic period. Terra Australis 48, Australian National University Press, Canberra, p. 1-357.
(online at: https://press-files.anu.edu.au/downloads/press/n4569/pdf/book.pdf))
(Review of archeology work in Sulawesi: in 30 papers presented at 2016 symposium in Makassar, covering the last ~100,000 years)

O'Connor, S., S. Kealy, A. Black, M. Ririmasse, Mahirta, S. Hawkins, M. Husni, D. Tanudirjo, Alifah et al. (2020)- The rock art of Kisar Island, Indonesia: a small island with a wealth and diversity of artistic expression. J. Indo-Pacific Archaeology 44, p. 19-51.
(online at: https://journals.lib.washington.edu/index.php/JIPA/article/view/15645)

(Kisar island N of Timor with 40 known painted rock art sites, mainly in shelters and caves in uplifted Quaternary reefal limestone terraces along S and E coasts. Some of art likely dates back to Pleistocene period. Many of the figurative motifs similar to those featured in rock art assemblages of Timor-Leste and other sites in E Indonesia)

O'Connor, S., S. Kealy, C. Reepmeyer, S.C. Samper Carro & C. Shipton (2023)- Terminal Pleistocene emergence of maritime interaction networks across Wallacea. World Archaeology 54, 1, p. 1-20.
(online at: https://www.researchgate.net/publication/368405625_Terminal_Pleistocene_emergence_of_maritime_interaction_networks_across_Wallacea)

O'Connor, S., J. Louys, S. Kealy & S.C. Samper Carro (2017)- Hominin dispersal and settlement East of Huxley's Line; the role of sea level changes, island size, and subsistence behavior. Current Anthropology 58, Supplement 17, p. S567-S582.
(online at: https://www.journals.uchicago.edu/doi/pdfplus/10.1086/694252)
(Pleistocene pre-sapiens hominins opportunistic omnivores, probably constrained to environments with plentiful fresh water animals and plants; therefore rel. difficult to migrate across island archipelago. Homo sapiens probably able to subsist on marine resources and more easily moved through islands East of Huxley Line)

O'Connor, S., C. Shipton & S. Kealy (2024)- The southern route to Sahul: modern human dispersal and adaptation in the Pleistocene. In: R. Ono & A. Pawlik (eds.) The prehistory of human migration- human expansion, resource use, and mortuary practice in Maritime Asia, Intech Open, Chapter 1, p. 1-29.
(online at: https://www.researchgate.net/publication/376445965_The_Southern_Route_to_Sahul_Modern_Human_Dispersal_and_Adaptation_in_the_Pleistocene)
(Evidence for modern human dispersal and early settlement to southern islands of Wallacean Archipelago (Flores, Timor Leste, etc.). Modern humans (Homo sapiens) thought to have arrived in Sahul (Australia) at least 60,000 years ago (60 ka),but no firm evidence for settlement of Wallacea prior to ~50- 40 ka. Remarkable onset of obsidian lithics exchange network across islands of Alor, Atauro, Timor, and Kisar in terminal Pleistocene from ~17 ka, coinciding with new forms of personal ornamentation and rock art)

O'Connor, S., M. Spriggs & P. Veth (2002)- Excavation at Lene Hara Cave establishes occupation in East Timor at least 30,000-35,000 years ago. Antiquity 76, p. 45-50.
(First discovery of Late Pleistocene flake-based stone tools from Timor, in Lene Hara cave, Timor Leste (one of rel. many Late Pleistocene occurrences of small 'flake tool industries' in caves and rock shelters across E Indonesia region)

Oktaviana, A.A., R. Joannes-Boyau, B. Hakim, B. Burhan, R. Sardi, S. Adhityatama, Hamrullah, I. Sumantri, M. Tang et al. (2024)- Narrative cave art in Indonesia by 51,200 years ago. Nature 631, p. 814-818.
(online at: https://www.nature.com/articles/s41586-024-07541-7)
(New laser-ablation U-series imaging dating of earliest prehistoric rock art in limestone caves of Maros-Pangkep, SW Sulawesi, resulted in minimum ages of ~50-54 Ma)

Oktaviana, A.A., R. Joannes-Boyau, B. Hakim, B. Burhan, R. Sardi, S. Adhityatama, A. Jalandoni, Hamrullah, I. Sumantri et al. (2026)- Rock art from at least 67,800 years ago in Sulawesi. Nature , 16p. *(in press)*
(online at: https://www.nature.com/articles/s41586-025-09968-y)
(Hand stencil from Liang Metanduno on Muna Island, W of Buton, SE Sulawesi, yielded U-series age of 71.6 ± 3.8 ka, providing minimum-age constraint of 67.8 ka for underlying motif. Older than known rock art in Maros-Pangkep (S Sulawesi) and Spain (attributed to Neanderthals))

Olsen, J.W. & R.L. Ciochon (1990)- A review of evidence for postulated Middle Pleistocene occupations in Viet Nam. J. Human Evolution 19, 8, p. 761-788.
(Several archeological localities across Vietnam originally interpreted as of M Pleistocene age, but age control of many localities unreliable)

Ono, R., R. Fuentes, A.F. Pawlik, H.O. Sofian, Sriwigati, N. Aziz, N. Alamsyah & M. Yoneda (2020)- Island migration and foraging behaviour by anatomical modern humans during the late Pleistocene to Holocene in Wallacea: New evidence from Central Sulawesi, Indonesia. Quaternary International 554, 7521, p. 90-106.
(On maritime migration and island adaptation in SE Asia by anatomically modern humans, with new archaeological research E coast of Sulawesi)

Ono, R., A. Pawlik & R. Fuentes (2024)- The Pleistocene maritime migration of modern humans in northern Wallacea: The cases of Topogaro in Sulawesi and Bubog in Mindoro. In: R. Ono & A. Pawlik (eds.) The prehistory of human migration- human expansion, resource use, and mortuary practice in Maritime Asia, Intech Open, Chapter 2, p. 1-24.
(online at: https://www.academia.edu/122541589/The_Pleistocene_Maritime_Migration_of_Modern_Humans_in_Northern_Wallacea_The_Cases_of_Topogaro_in_Sulawesi_and_Bubog_in_Mindoro)
(Two important Pleistocene sites in N Wallacea important for role in maritime migration and seafaring of modern humans in Wallacea and Sahul: Goa Topogaro cave complex in C Sulawesi (42 ka), and Bubog rock-shelter sites in Mindoro, Philippines (at least 35 ka))

Ono, R., H.O. Sofian, R. Fuentes, N. Aziz, M. Ririmasse & I.M. Geria (2023)- Early modern human migration into Sulawesi and island adaptation in Wallacea. World Archaeology 54, 2, p. 229-243.
(New archaeological research in Goa Topogaro 2, C Sulawesi, a likely entry location for northern route of early modern humans' maritime migration from Asia into Wallacean islands and New Guinea during Late Pleistocene)

Oppenheimer, S. (2009)- The great arc of dispersal of modern humans: Africa to Australia. Quaternary International 202, p. 2-13.
(Late Pleistocene dispersal of anatomically modern humans out of Africa. Routes obeyed limitations placed by drinking water and climate-permissive corridors. First spread N in Eemian interglacial (~125 ka). Reached Indonesian region by 75-81 ka. Crossed Wallace Line to reach Australia at least by 48 ka (possibly 60 ka)

Oppenoorth, W.F.F. (1932)- De vondst van Palaeolithische menschelijke schedels op Java. De Mijningenieur 13, 6, p. 106-110.
('The discovery of Paleolithic human skulls on Java'. On new hominid skull discoveries in lower part of 20m river terrace, left bank of Solo River at Ngandong, C. Java)

Oppenoorth, W.F.F. (1932)- *Homo (Javanthropus) soloensis*, een Plistoceene mensch van Java. Voorloopige mededeeling. Wetenschappelijke Mededeelingen Dienst Mijnbouw Nederlandsch-Indie 20, p. 49-75.
('Homo (Javanthropus) soloensis, a new Pleistocene hominid from Solo River terrace at Ngandong, E Java'. First description of Ngandong hominid fossils (skull caps, etc.). Associated with rich mammal assemblage (H. soloensis now variously viewed as 'advanced Homo erectus' or as separate species; JTvG))

Oppenoorth, W.F.F. (1932)- Een nieuwe fossiele mensch van Java. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2) 49, p. 704-707.
(online at: https://resolver.kb.nl/resolve?urn=MMUBA13:001678001:pdf)
('A new fossil man from Java'. New hominid skull from Solo River terrace deposits near Ngandong, N of Ngawi, C Java. Named Homo (Javanthropus) soloensis)

Oppenoorth, W.F.F. (1932)- Ein neuer diluvialer Urmensch von Java. Natur und Museum, Senckenberg, Frankfurt, 62, 9, p. 269-279.
('A new Pleistocene ancient hominid from Java'. Similar to above papers on Ngandong 'Solo Man' discovery)

Oppenoorth, W.F.F. (1936)- Een prehistorisch cultuurcentrum langs de Solo Rivier. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2) 53, p. 399-411.
(online at: https://resolver.kb.nl/resolve?urn=MMUBA13:001680001:pdf)
('A prehistoric culture center along the Solo River'. On mammal and hominid remains in Pleistocene fluvial terraces near Ngandung, Solo River downstream of Ngawi, E Java. In addition to bones, also various man-made tools made from bones)

Oppenoorth, W.F.F. (1937)- The place of *Homo soloensis* among fossil men. In: G.G. Mac-Curdy (ed.) Early Man, Lippincott Co., New York., p. 348-360.
(Homo soloensis from Ngandong, Java, viewed as oldest known representatives of 'Homo sapiens fossillis'. (Weidenreich 1943 viewed it as transition between Pithecanthropus and modern man; Koenigswald (1956) suggested Ngandong specimens too recent and advanced to be Pithecanthropus, but closer to Neandertals))

Orchiston, D.W. & W.G. Siesser (1982)- Chronostratigraphy of the Plio-Pleistocene fossil hominids of Java. Modern Quaternary Research in Southeast Asia 7, Balkema, Rotterdam, p, 131-149.
(Review of chronostratigraphy of hominid-bearing formations of C and E Java. Most radiometric dates without well documented stratigraphic position or analytical uncertainty, and of dubious value. Most reliable date is 0.83 Ma for pumice in Lower Kabuh Fm. Underlying marine U Kalibeng Fm Late Pliocene microfaunas)

O'Sullivan, P.B., M. Morwood, D. Hobbs, F. Aziz, Suminto, M. Situmorang, A. Raza & R. Maas (2001)- Archaeological implications of the geology and chronology of the Soa Basin, Flores, Indonesia. Geology (GSA) 29, 7, p. 607-610.
(Zircon fission-track dates of tuffaceous deposits associated with stone artifacts attributed to Homo erectus in Soa lacustrine basin on Flores indicate early hominids must have begun colonizing E Indonesia by ~840 ka)

Oxnard C., P.J. Obendorf, B.J. Kefford & J. Dennison (2010)- Post-cranial skeletons of hypothyroid cretins show a similar anatomical mosaic as *Homo floresiensis*. PloS One 5, 9, e13018, p. 1-11.
(online at: http://journals.plos.org/plosone/article/file?id=10.1371/journal.pone.0013018&type=printable)
(LB1and LB6 skulls of 'Homo floriensis' most likely, endemic cretins from population of unaffected Homo sapiens. Consistent with recent hypothyroid endemic cretinism throughout Indonesia, including nearby Bali)

Oxnard C., P.J. Obendorf, B.J. Kefford & J. Dennison (2012)- More on the Liang Bua finds and modern human cretins. Homo 63, 6, p. 407-412.
(More on recent discoveries of Flores island hominids)

Patole-Edoumba, E., A.F. Pawlik & A.S. Mijares (2012)- Evolution of prehistoric lithic industries of the Philippines during the Pleistocene. Comptes Rendus Palevol 11, 2-3, p. 213-230.
(online at: https://www.sciencedirect.com/science/article/pii/S1631068311001230)
(Review of major Pleistocene- Holocene lithic (stone tool) industries in Philippines)

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(Fifteen Late Pleistocene small mammal species from cave in Ordovician limestone hill in S Thailand)

Perston, Y.L., M. Moore, Suryatman, M. Langley, B. Hakim, A.A. Oktaviana & A. Brumm (2021)- A standardised classification scheme for the Mid-Holocene Toalean artefacts of South Sulawesi, Indonesia. PLoS One 16(5): e0251138, p. 1-37.
(online at: https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0251138)

Petraglia, M.D., P. Ditchfield, S. Jones, R. Korisettar & J.N. Pal (2012)- The Toba volcanic super-eruption, environmental change, and hominin occupation history in India over the last 140,000 years. Quaternary International 258, p. 119-134.
(Middle Paleolithic hominins in India appear to have survived the potentially catastrophic effects of the large Toba volcanic eruption in N Sumatra and the resulting climatic fluctuations in Late Pleistocene)

Pickford, M., H. Nakaya, Y. Kunimatsu, H. Saegusa, A. Fukuchi & B. Ratanasthien (2004)- Age and taxonomic status of the Chiang Muan (Thailand) hominoids. Comptes Rendus Palevol 3, 1, p. 65-75. *(online at: www.academia.edu/7814204/Age_and_taxonomic_status_of_the_Chiang_Muan_Thailand_hominoids)*

(Age of Lufengpithecus chiangmuanensis Chaimanee 2003 originally estimated as ~13-13.5 Ma, but previous studies suggest age closer to ~12-11 Ma. L. chiangmuanensis synonym of L. keiyuanensis Wu)

Polanski, J.M., H.E. Marsh & S.D. Maddux (2016)- Dental size reduction in Indonesian *Homo erectus*: implications for the PU-198 premolar and the appearance of *Homo sapiens* on Java. J. Human Evolution 90, p. 49-54.
(Recent recovery of hominin maxillary third premolar, PU-198 in collections from Punung Cave (E Java) was used to suggest Homo sapiens appeared on Java between 143-115, ka. However, PU-198 overlaps in premolar sizes between H. erectus and H. sapiens, and indicate reduction in premolar size between early and late Javan H. erectus. Question appearance of H. sapiens on Java between 143-115 ka)

Polhaupessy, A.A. (1999)- Palynological evidence for a Pleistocene environment in Trinil, East Java. Proc. 35th Session Coord. Comm. Coastal Offshore Geoscience Programmes E and SE Asia (CCOP), Subic Bay 1998, 2, Technical Reports, p. 299-308.
(Two pollen zones in Pleistocene of Trinil (site of first Homo erectus in C Java): (1) Pucangan Fm rel. low diversity grass-dominated vegetation and lacustrine fresh water plants; (2) Lower Kabuh Fm higher diversity mixed freshwater swamp and terrestrial vegetation, perhaps suggesting slightly drier climate than today)

Polhaupessy, A.A. (1999)- Quaternary palynological study of the Trinil area, East Jawa. Geological Research Development Centre (GRDC), Bandung, Seri Paleontologi 9, p. 1-7.

Polhaupessy, A.A. (2006)- Environment of early man in Java. In: T. Simanjuntak et al. (eds.) Archaeology: Indonesian perspective, R.P. Soejono's Festschrift, LIPI Press, Jakarta, p. 83-101.
(Review of palynological analyses of Quaternary deposits of Java, of sites with hominids or other vertebrate fossils (Bumiayu (Cisaat), Sangiran, Trinil, Solo and Madiun areas, etc.) Many Pleistocene sites with abundant Graminae (grass) pollen, suggesting more seasonal climate with savannah grasslands. Pollen during Last Glacial Maximum with common Dacrycarpus, etc., suggest temperatures several degrees cooler than today)

Pop, E., S. Hilgen, S. Adhityatama, H. Berghuis, T. Veldkamp, H. Vonhof, I. Sutisna, G.Alink et al. (2023)- Reconstructing the provenance of the hominin fossils from Trinil (Java, Indonesia) through an integrated analysis of the historical and recent excavations. J. Human Evolution 176, 103312, p. 1-26.
(online at: https://www.sciencedirect.com/science/article/pii/S0047248422001725)
(Detailed fieldwork of Dubois' original Trinil excavation site suggest Dubois excavated multiple fossiliferous channel deposits of different ages (Bone-Bearing Channel 1, 830-773 ka; Bone-Bearing Channel 2, 560-380 ka), resulting in collection of mixed hominin and other fossil assemblages)

Pope, G.G. (1982)- Hominid evolution in East and Southeast Asia. Ph.D. Thesis University of California, Berkeley, p. 1-375.

Pope, G.G. (1983)- Evidence on the age of the Asian Hominidae. Proc. National Academy of Sciences USA 80, 16, p. 4988-4992.
(online at: https://www.pnas.org/doi/epdf/10.1073/pnas.80.16.4988)
(All known Asian hominids <1 Million years old, and all early Asian hominids can be accommodated in Homo erectus. Entire record of Homo erectus in Asia may only span period of ~0.9-0.3 Ma. Maximal exposure of continental shelves such as Sunda occurred at ~3 Ma, 1.25 Ma and 0.65-0.45 Ma. Exposures at 1.25 Ma and 0.65-0.45 Ma most likely provided opportunities for migration of hominids and Pleistocene mammals to Java)

Pope, G.G. (1995)- The influence of climate and geography on the biocultural evolution of the Far Eastern hominids. In: E.S. Vrba et al. (eds.) Paleoclimate and evolution, with emphasis on human origins, Yale University Press, New Haven, p. 493-506.

Pope, G.G., S. Barr, A. Macdonald & S. Nakabanlang (1986)- Earliest radiometrically dated artifacts from Southeast Asia. Current Anthropology 27, 3, p. 275-

(M. Pleistocene stone artifact horizon at Ban Mae Tha, Lampang, Thailand below basalt flow dated as 0.8 et 0.6 Ma with K-Ar and paleomagnetic analysis)

Pope, G.G. & J.E. Cronin (1984)- The Asian hominidae. J. Human Evolution 13, 5, p. 377-396.
(Majority of known Asian hominids less than 1.0 Ma old, with maximum age 1.3 Ma. All can be incorporated in Homo erectus or Homo sapiens. Asian fossil records suggest gradual change over ~1 Million years)

Pope, K.O. & J.E. Terrell (2008)- Environmental setting of human migrations in the Circum-Pacific region. J. of Biogeography 35, p. 1-21.
(Rapid expansion of modern humans from Africa into SE Asia along coastal routes facilitated by period of stable climate and sea level from ~45,000- 40,000 yr BP, enabling them to reach coasts of NE Russia and Japan by 38,000- 37,000 yr BP)

Powley, M. J., I. Sutisna, K.M. Mikac, U.P. Wibowo & G.D. van den Bergh (2021)- The *Stegodon* bonebed of the Middle Pleistocene archaeological site Mata Menge (Flores, Indonesia): taphonomic agents in site formation. Quaternary (MDPI) 4, 4, p. 1-20.
(online at: https://www.mdpi.com/2571-550X/4/4/31/htm)
(M Pleistocene fluvial channel site of upper fossil-bearing interval at Mata Menge in Soa Basin, Flores, yielded earliest fossil evidence for Homo floresiensis in association with stone artefacts and endemic insular vertebrate fauna (Stegodon, giant rats, Komodo dragons, etc). Taphonomic analysis of Stegodon bones suggest deposition in stream channel)

Prasetyo, B. (2014)- Perkembangan budaya Akhir Pleistosen- Awal Holosen di Nusantara. Kalpataru, Majalah Arkeologi 23, 1, p. 1-15.
(online at: http://jurnalarkeologi.kemdikbud.go.id/index.php/kalpataru/article/view/47)
('The cultural development during Late Pleistocene-Early Holocene in the Indonesian Archipelago'. Review of Late Pleistocene- Early Holocene human cultures in various parts of Indonesia)

Prideaux, G. J., I.A.R. Kerr, J.D. van Zoelen, R. Grun, S. van der Kaars, A. Oertle, K. Douka et al. (2022)- Re-evaluating the evidence for late-surviving megafauna at Nombe rockshelter in the New Guinea highlands. Archaeology in Oceania 57, 3, p. 223-248.
(online at: https://onlinelibrary.wiley.com/doi/10.1002/arco.5274)
(Nombe rock shelter in Porol Range in highlands of PNG with large marsupial fossils (diprotodontid, kangaroo, thylacine) dated at 27-22 ka ago, i.e. well after arrival of humans (and after ~40 ka extinction of Pleistocene megafauna in Australia))

Přikryl, T., A. Castro, A.G. Fernando, J.R.C. Nogot, C. Magtoto, K. Garas, D. Mediodia & C.H. Lin (2025)- Fossil fish assemblage of the Laguna Formation, Philippines: unveiling the uniqueness of Pleistocene freshwater ecosystems in Southeast Asia. Swiss J. of Palaeontology 144, 5, p. 1-16.
(online at: https://sjpp.springeropen.com/articles/10.1186/s13358-024-00347-0)
(First description of well-preserved, diverse, unique Pleistocene fossil freshwater fish assemblage from lacustrine facies of Laguna Fm in Rizal Province, S Luzon Island, Philippines. Associated with Stegodon fossils, etc.)

Purnomo, A. (2007)- La sedimentation du lac de Guyang Warak (Punung-Java Est, Indonesie). Master Thesis, Museum National Histoire Naturelle, Paris, C.E.R.P. de Tautavel, p. 1-83.
(online at: http://hopsea.mnhn.fr/pc/thesis/Purnomo_Andri_2007.pdf)
('Sedimentation of Guyang Warak lake (Punung, East Java, Indonesia'. South Central Java'. Study of 'Grenzbank' and Kabuh Formation)

Purnomo, A. (2008)- Stratigraphie et sedimentation au Sud Est de Dome de Sangiran: l'environnement des *Homo erectus* au debut de Pleistocene Moyen. Thesis Universita degli Studi di Ferrara, Italy, p. 1-252 + 34
(online at: http://eprints.unife.it/831/1/Purnomo_tesi.pdf)
('Statigraphy and sedimentation in the SE of Sangiran Dome: the environment of Homo erectus at the start of the Middle Pleistocene'))

Purnomo, A. (2008)- The sedimentation of Lake Guyang Warak (Punung-East Java, Indonesia). Annali dell'Universita degli Studi di Ferrara, Museologia Scientifica Naturalistica, Special Volume 2008, p. 151-154.
(Lake Guyang Warak, Punung, NW of Pacitan in S Mountains of C Java, close to famous Paleolithic Site Song Terus Cave. 6m long core shows almost same environment from at least 2000 BP)

Purnomo, A. (2013)- Stratigraphie et sedimentation au Sud Est de Dome de Sangiran: l'environnement des *Homo erectus* au debut de Pleistocene moyen. Ph.D. Thesis Universita degli Studi di Ferrare, Italy, p. 1-251.
(online at: http://eprints.unife.it/831/1/Purnomo_tesi.pdf)
(Stratigraphy and sedimentation at the SE Sangiran Dome: the environment of Homo erectus at the start of the Middle Pleistocene'. Depositional environments of Upper Pucangan- Grenzbank- Kabuh Formations, identification of soil horizons with human occupation, frequent volcanic eruptions, etc.))

Purnomo, A., F. Semah, A.M. Semah & T. Simanjuntak (2014)- Geological structure, sedimentation dynamics and prehistory in the Southeastern part of the Sangiran Dome (Java-Indonesia): research and conservation strategies. In: N. Amano et al. (eds.) Southeast Asia: Human evolution, dispersals and adaptations, 17th Congress International Union Prehistoric and Protohistoric Sciences (UISPP), Burgos 2014, p. 94-99.

Purnomo, G.A., S. Kealy, S. O'Connor, A. Schapper, B. Shaw, B. Llamasa, J.C. Teixeira, H. Sudoyo & R. Tobler (2024)- The genetic origins and impacts of historical Papuan migrations into Wallacea. Proc. National Academy of Sciences USA (PNAS) 121, 52, e2412355121, p. 1-10.
(online at: https://www.pnas.org/doi/epdf/10.1073/pnas.2412355121)
(Tropical archipelago of Wallacea (E Indonesia) was first settled by anatomically modern humans (AMH) by 50 ka. Descendent populations thought to have remained genetically isolated prior to arrival of Austronesian seafarers around 3.5 ka. Modern Wallaceans exhibit Papuan- and Asian-related ancestries. New genomes from 12 Wallacean and three West Papuan populations confirm thatmost Papuan-related ancestry in Wallacea comes from prehistoric migrations originating in New Guinea and only aminor fraction is attributable to founding AMH settlers. Genes from Austronesian seafarers now ~40- 85% of modern Wallacean ancestry)

Puspaningrum, M.R. (2016)- Proboscidea as palaeoenvironmental indicators in Southeast Asia. Ph.D. Thesis, University of Wollongong, p. 1-318.
(online at: https://ro.uow.edu.au/theses/4944)
(Stable C and O isotope analyses on elephantoid tooth enamel from localities in mainland Asia (Linxia Basin, Siwalik, Irrawaddy, Tha Chang, Laos), continental islands (Java, Sumatra) and oceanic islands (Sulawesi, Sangihe, Luzon, Flores, Timor, Sumba). Diets in M Miocene- Pliocene and latest M Pleistocene- Recent dominantly (leaf) browsing, while Pliocene- M Pleistocene taxa mainly (grass) grazers)

Puspaningrum, M.R., I.P. Anwar, C. Hertler, E. Holzchen, S. Kruger, A.T. Hascaryo, J.O. Reschke & A.A. Bruch (2024)- Living in Sangiran: A spatial reconstruction of hominin environment in Java at 1 Ma. Earth History and Biodiversity 1, 100001, p. 1-13.
(online at: https://www.sciencedirect.com/science/article/pii/S2950475924000017)
(Reconstruction of paleoenvironmental conditions encountered by Homo erectus in (East) Java at 1 Ma (age of the 'Grenzbank' horizon) (paleotopography, drought map, vegetation map). Mainly lowland monsoonal forests landscape in E Java. Sangiran at 1 Ma possibly slightly cooler and longer dry season)

Puspaningrum, M.R., G.D. van den Bergh, A.R. Chivas, E. Setiabudi & I. Kurniawan (2020)- Isotopic reconstruction of Proboscidean habitats and diets on Java since the Early Pleistocene: implications for adaptation and extinction. Quaternary Science Reviews 228, 106007, p. 1-19.
(Six Proboscidean taxa found in Java extending back to Early Pleistocene, successively: Stegoloxodon indonesicus, Sinomastodon bumiajuensis, pygmy Stegodon, Stegodon trigonocephalus, Elephas hysudrindicus and Elephas maximus. C and O isotope analyses suggest earliest fauna (S. indonesicus) feeding in closed canopy rainforest during earliest Pleistocene. Towards late E Pleistocene (S. bumiajuensis) adapted to increasingly drier grassy habitats. Proboscidea in Ngandong Fauna suggests fragmented dense evergreen forests or woodland vegetation reappeared towards end M Pleistocene)

Puspaningrum, M.R., A.R. Chivas, I. Kurniawan, U.P. Wibowo, Y. Zaim & G.D. van den Bergh (2021)- Isotopic reconstruction of Proboscidean habitats and diets on enigmatic island of Sulawesi. Berita Sedimentologi 47, 3, p. 79-80. *(Abstract only)*
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/364/333)
(Stegoloxodon celebensis and Stegodon sompoensis flexible feeders and able to adapt to different niches, from closed canopy forest to open vegetation, while diets of Stegodon sp. B, Celebochoerus heekereni and Palaeoloxodon namadicus suggest they were more specialized)

Puymerail, L., C.B. Ruff, L. Bondioli, H. Widianto, E. Trinkaus, R. Macchiarell (2012)- Structural analysis of the Kresna 11 *Homo erectus* femoral shaft (Sangiran, Java). J. Human Evolution 63, p. 741-749.
(online at: www.academia.edu/13028927/Structural_analysis_of_the_Kresna_11_Homo_erectus_femor Etc.)
(Microtomographic anatomical analyses of Kresna 11, a late E Pleistocene adult H. erectus femoral shaft from 'Grenzbank' horizon at Ngebung site in Sangiran Dome, C Java, discovered in 1992)

Rabett, R.J. & P.J. Piper (2012)- The emergence of bone technologies at the end of the Pleistocene in Southeast Asia: Regional and evolutionary implications. Cambridge Archaeological Journal 22, 1, p. 37-56.
(Unlike during the Paleolithic of Europe, in SE Asia there was shift in technological usage from stone to bone (from a minor component to a medium of choice) during second half of Last Glacial Termination and into Holocene. Suggest this was inventive behaviour demanded of foraging communities)

Raden Saleh (1867)- Over fossiele beenderen van den Pandan. Natuurkundig Tijdschrift voor Nederlandsch-Indie 29, p. 423, 428, 434-435, 449-451 and p. 457-458.
('On fossil bones from the Pandan', C Java. Brief reports of telegrams from Raden Saleh about occurrences of large mammal bones in C Java region, but with little detail. Crates with fossil bones sent to 'Bataviaasch Genootschap van Kunsten en Wetenschappen '. (Pleistocene mammals re-described by K. Martin (1886, 1888); localities SW of Mt. Pandan now commonly known as Kedung Brubus; HvG)

Rahardjo, A.T. (1999)- Perubahan iklim dan batas umur Pliosen-Plistosen berdasarkan analisis foraminifera dan palinologi di daerah Mojoroto, Mojokerto- Jawa Timur. Buletin Geologi (ITB) 3, 1, p. 1-13.
('Climate change and Pliocene-Pleistocene age boundary based on foraminifera and palynology analysis in the Mojoroto area, Mojokerto, East Java')

Rahardjo, A.T. & A.M. Semah (1989)- Penelitian palynology daerah Sangiran. Bull. Dept. Geologi Inst Technologi Bandung (ITB) 1983, 9, p. 23-31.
('Palynology research in the Sangiran area')

Rasmussen, M., X. Guo, Y. Wang, K.E. Lohmueller, S. Rasmussen, A. Albrechtsen et al. (2011)- An aboriginal Australian genome reveals separate human dispersals into Asia. Science 334, 6052, p. 94-98.
(DNA genomic sequence of Aboriginal Australians shows they are descendants of early human dispersal into E Asia, ~62,000- 75,000 yrs ago, separate from dispersal of ancestors of modern Asians 25,000- 38,000 yrs ago)

Reepmeyer, C., S. O'Connor & S. Brockwell (2011)- Long-term obsidian use at the Jerimalai rock shelter in East Timor. Archaeology in Oceania 46,2, p. 85-90.
(online at: https://openresearch-repository.anu.edu.au/server/api/core/bitstreams/47cc4f55-47a4-4882-94b6-166c22b3536f/content)
(Obsidian artefacts from Jerimalai and other rock shelters in E Timor demonstrate exploitation of this rock type began in Pleistocene by 42 ka, and continued periodically into M-L Holocene. High-silicate obsidian from unknown location apparently transported over considerable distance to sites in E of Timor)

Reich, D., N. Patterson, M. Kircher, F. Delfin, M.R. Nandineni, I. Pugach, A.M. Ko, Y.C. Ko et al. (2011)- Denisova admixture and the first modern human dispersals into Southeast Asia and Oceania. American J. Human Genetics 89, 4, p. 516-528.
(online at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3188841/pdf/main.pdf)

(Ancestors of New Guineans, Aboriginal Australians, Near Oceanians, Polynesians, Fijians, E Indonesians, and Mamanwa ('negrito' group from Philippines) inherited part of ancestry from Denisovans, an archaic hominin group from Siberia. However, mainland E Asians, W Indonesians, Jehai (negrito group from Malaysia), and Onge (negrito group from Andaman Islands) have not)

Reis, K.R. & A.M. Garong (2001)- Late Quaternary terrestrial vertebrates from Palawan Island, Philippines. Palaeogeogr. Palaeoclim. Palaeoecology 171, p. 409-412.
(online at: http://users.clas.ufl.edu/krigbaum/6930/Reis&Garong_p3_2001.pdf)
(Humans first colonized Palawan at ~40,000 yr BP. Absence of large carnivores and primates suggests more insular affinity than Borneo, but higher diversity than truly oceanic islands in Late Quaternary)

Reynolds, T. & G. Barker (2014)- Reconstructing Late Pleistocene climates and human activities in northern Borneo from excavations in the Niah caves. In: Y. Kaifu et al. (eds.) Emergence and diversity of modern human behavior in Paleolithic Asia, Peopling of the Americas Publications, Texas A&M University Press, p. 140-157.
(Niah Caves in Sarawak home to oldest anatomically modern 'Deep Skull', now confidently dated as ~37.5 ka. First evidence for associated human activity at caves site goes back to ~50 ka)

Rightmire G.P. (1984)- Comparisons of *Homo erectus* from Africa and Southeast Asia. Courier Forschungsinstitut Senckenberg 69, p. 83-98.

Rightmire G.P. (1985)- The tempo of change in the evolution of mid-Pleistocene *Homo*. In: E. Delson (ed.) Ancestors: the hard evidence, New York, p. 255-264.

Rightmire G.P. (1988)- *Homo erectus* and Later Middle Pleistocene humans. Annual Review of Anthropology 17, p. 239-259.
(Review of worldwide occurrences of H. erectus. No ties between H. erectus and modern humans)

Rightmire, G.P. (1990)- The evolution of *Homo erectus*: comparative anatomical studies of an extinct species. Cambridge University Press, Cambridge, p. 1-276.
(Book including reviews of Homo erectus in Indonesia (Trinil, Sangiran, Sambungmacan, Ngandong))

Rightmire G.P. (1992)- *Homo erectus*: ancestor or evolutionary side branch? Evolutionary Anthropology 1, p. 43-49.

Rightmire G.P. (1994)- The relationship of *Homo erectus* to later Middle Pleistocene hominids. Courier Forschungsinstitut Senckenberg 171, p. 319-326.

Rightmire G.P. (1998)- Human evolution in the Middle Pleistocene: the role of *Homo heidelbergensis*. Evolutionary Anthropology 6, p. 218-227.

Rightmire G.P. (2001)- Patterns of hominid evolution and dispersal in the Middle Pleistocene. Quaternary International 75, p. 77-84.
(At onset of Quaternary Homo erectus spread across Old World from Africa. Populations persisted in Far East until late in M Pleistocene, while H. erectus disappeared relatively early in West. Episode of hominid speciation in mid-Quaternary gave rise to anatomically more modern hominids called Homo heidelbergensis. Relationships of H. heidelbergensis to Neanderthals and recent humans still need clarification)

Rizal, Y. (1998)- Die Terrassen entlang des Solo-Flusses in Mittel- und Ost-Java. Thesis Universitat zu Koln, Cologne, Germany, p. 1-189. *(Unpublished)*
('The terraces along the Solo River in Central and East Java')

Rizal, Y. (2005)- The ages of the Solo Terraces at the Ngancar and Ngandong Region, Middle Jawa, Indonesia. *(Abstract only)*
(online at: http://hopsea.mnhn.fr/doc/2005QP11abstracts.pdf)

(Best estimates of ages of Pleistocene terraces along Solo River: High-terraces ~47 ka, Middle-terraces ~20 ka and Lower-terraces 1.65 + 1.5 ka)

Rizal, Y., W.D. Santoso, A. Rudyawan, R.A. Tampubolon & A.A. Nurfahan (2018)- Sedimentary facies and hydrocarbon reservoir potential of sand flat in the upper part of Tapak Formation in Banyumas area, Central Java. J. RISET Geologi dan Pertambangan (LIPI) 28, 2, p. 251-263.
(online at: http://jrisetgeotam.com/index.php/jrisgeotam/article/view/835/pdf)
(Sedimentology and trace fossils of upper Tapak Fm in Kali Cimande in Banyumas Basin, C Java, suggest tidal flat environments)

Rizal, Y., K.E. Westaway, Y. Zaim, G.D. van den Bergh, E.A. Bettis, M.J. Morwood, O.F. Huffman, R. Grun, R. Joannes-Boyau, R.M. Bailey, Sidarto, M.C. Westaway, I. Kurniawan et al. (2020)- Last appearance of *Homo erectus* at Ngandong, Java, 117,000-108,000 years ago. Nature 577, p. 381-385.
(online at: www.researchgate.net/publication/338021539_Last_appearance_of_Homo_erectus_at_Ngandong_Java_117000-108000_years_ago)
(Twelve H. erectus calvaria (skull caps) and two tibiae (lower leg, shn bones) excavated between 1931-1933 from bone bed in terrace 20m above Solo River at Ngandong, and are youngest form of H. erectus (at that time named Homo soloensis, 'Solo Man'). Bayesian modelling of 52 radiometric ages (U-series dating of speleothems to constrain regional landscape evolution; 40Ar/39Ar and U dating to constrain sequence of terrace evolution, etc.) At least by 0.5 Ma Solo River diverted into Kendeng Hills, and formed Solo terrace sequence between 316 and 31 ka, and Ngandong terrace between ~140- 92 ka. Modelled ages of H. erectus bone bed 117-108 ka)

Rizal, Y., Y. Zaim, Y. Aswan, C. Hertler, S.Mulyaningsih & N. Triany (2009)- Geologi dan paleontologi vertebrata daerah Jembarwangi dan sekitarnya, Kabupaten Sumedang, Jawa Barat. Buletin Geologi (ITB) 39, 2, p. 95-116.
('Geology and vertebrate paleontology of the Jembarwangi area and surroundings, Sumedang Dustrict, West Java')

Rizal, Y., Y. Zaim & Y. Iriani (2005)- Late Tertiary fossil whale from Surade, South Sukabumi, West Java. Buletin Geologi (ITB) 37, 1, p. 29-34.
(Late Miocene whale fossils from Surade, ~60km S of Sukabumi. First record of whale fossils in Indonesia)

Roberts, P. & N. Amano (2019)- Plastic pioneers: hominin biogeography east of the Movius Line during the Pleistocene. Archaeological Research in Asia 17, p. 181-192.
(online at: https://os.pennds.org/archaeobib_filestore/pdf_articles/ArchRAsia/2019_RobertsAmano.pdf)
(E-M Pleistocene Homo erectus and its diminutive descendant(?) Homo floresiensis, was able to move East of the (now defunct) 'Movius Line' and the biogeographic Wallace Line. Migration followed alongside woodland- and grassland-adapted fauna, with some evidence for use of lacustrine and riverine tropical forest settings. By contrast, Homo sapiens, appeared in SE Asia during expansion of rainforest fauna (like today) and adapted to a diversity of tropical rainforest settings. It also developed specialized maritime subsistence strategies that aided its rapid expansion beyond the Wallace Line and Sahul since 45 ka or earlier)

Roberts, P., J. Louys, J. Zech, C. Shipton, S. Kealy, S.S. Carro, S. Hawkins, C. Boulanger et al. (2020)- Isotopic evidence for initial coastal colonization and subsequent diversification in the human occupation of Wallacea. Nature Communications 11, 2068, p. 1-11.
(online at: https://www.nature.com/articles/s41467-020-15969-4.pdf)
(Stable carbon and oxygen isotope analysis of human and faunal tooth enamel reflect diets. Earliest humans to arrive in Wallacea (E Indonesia archipelago) seemingly specialized in use of coastal-marine resources. Rapid initial coastal colonization followed by inland settlement. After 20,000 years BP, diversification in human resource use across Wallacea. On Timor, tropical forest environments remained prevalent in past 45,000 years)

Roberts, R.G., K.E. Westaway, J.X. Zhao, C.S.M.Turney, M.I. Bird, W.J. Rink & L.K. Fifield (2009)- Geochronology of cave deposits in Liang Bua and of adjacent river terraces in the Wae Racang valley, western

Flores, Indonesia: a synthesis of age estimates for the type locality of *Homo floresiensis*. J. Human Evolution 57, 5, p. 484-502.
(Seven dating methods used for cave and nearby terrace deposits at Liang Bua. Hominin- and artifact-bearing deposits spanning the last ~100,000 years)

Rolland, N. (2002)- The initial hominid colonization of Asia: a survey of anthropic evidence from Biogeographic and ecological perspectives. Bull. Indo-Pacific Prehistory Association 22 (Melaka Papers, vol. 6), p. 3-15.
(online at: https://journals.lib.washington.edu/index.php/BIPPA/article/viewFile/11800/10428)

Rothpletz, W. (1951)- Alte Siedlungsplatze bei Bandung (Java) und die Entdeckung bronzezeitlicher Gussformen. Sudsee-Studien, Museum fur Volkerkunde, Basel, p. 77-126.
('Old settlement places near Bandung and the discovery of Bronze Age moulds'. Report of 1941-1947 fieldwork by Swiss national Rothpletz around former Lake Bandung, with occurrences of Bronze Age obsidian artefacts and ceramic shards, especially near Dago, N of Bandung. Artefacts of obsidian industry studied by Bandi (1951))

Rozzi, R. (2017)- A new extinct dwarfed buffalo from Sulawesi and the evolution of the subgenus Anoa: an interdisciplinary perspective. Quaternary Science Reviews 157, p. 188-205.
(open manuscript online at: https://www.sciencedirect.com/science/article/abs/pii/S0277379116306795)
(New species of dwarf buffalo (anoa) Bubalus grovesi, from Late Pleistocene/Holocene of Lamoncong area, S Sulawesi (based on material collected by P. van Stein Callenfels in 1934 and stored in Naturalis, Leiden)

Rozzi, R. & M.R. Palombo (2013)- The morphology of femur as palaeohabitat predictor in insular bovids. Boll. Societa Paleontologica Italiana 52, 3, p. 177-186.
(online at: https://pdfs.semanticscholar.org/3357/23a5ad5a4c439bd39897170ce3d7a26cdbfd.pdf)
(Morphology of long bones of antelope-like insular fossil bovid Duboisia santeng (Dubois, 1891) from E-M Pleistocene Java suggests it was forest dweller)

Rozzi, R., D.E. Winkler, J. De Vos, E. Schulz & M.R. Palombo (2013)- The enigmatic bovid *Duboisia santeng* (Dubois, 1891) from the Early-Middle Pleistocene of Java: a multiproxy approach to its palaeoecology. Palaeogeogr. Palaeoclim. Palaeoecology, 377, p. 73-85.
(online at: https://www.academia.edu/download/98314429/j.palaeo.2013.03.01220230206-1-pmviie.pdf)
(Faunal elements of Indo-Chinese origin entered Java during Pleistocene. Most Javanese mammalian taxa close or identical to mainland relatives, like fossil bovids, common in E-M Pleistocene 'Stegodon-Homo erectus fauna' (Bubalus palaeokerabau, Bibos palaesondaicus, Epileptobos groeneveldtii). Javanese bovid Duboisia santeng from Sangiran regarded as insular endemic species due to small size, but present in late M Pleistocene of what is now Peninsular Malaysia (also in Thailand; Nishioka et al. 2018; JTvG))

Ruff, C.B., L. Puymerail, R. Macchiarelli, J. Sipla & R.L. Ciochon (2015)- Structure and composition of the Trinil femora: functional and taxonomic implications. J. Human Evolution 80, p. 147-158.
(online at: www.academia.edu/33511287/Structure_and_composition_of_the_Trinil_femora_Functional Etc.)
(Trinil Femur I derives from more recent time period than calotte of Homo erectus 'holotype'. Less famous and less complete Femora II-V may represent H. erectus at Trinil)

Ruff, C.B., A.D. Sylvester, N.T. Rahmawati, R.A. Suriyanto, P. Storm, M. Aubert, R. Joannes-Boyau et al. (2022)- Two Late Pleistocene human femora from Trinil, Indonesia: implications for body size and behavior in Southeast Asia. J. Human Evolution 172, 103252, p. 1-19.
(online at: https://ir.cwi.nl/pub/32156/32156.pdf)
(Late Pleistocene hominin partial femora from Trinil dated to ~37-32 ka. Trinil 9 and 10 femora discovered by Prof. Teuku Jacob in 1978 along right bank of Solo River in 'T1' terrace deposits)

Saegusa, H., Y. Thasod & B. Ratanasthien (2005)- Notes on Asian stegodontids. Quaternary International 126-128, p. 31-48.

(Stegodontids (elephant-like proboscideans), flourished in Neogene and Quaternary of Asia. Significant recent finding of new stegodontid fossils at Nakhon Ratchasima, Thailand and Yuanmou Basin, Yunnan, show Late Miocene transition from stegolophodons to stegodons, suggesting stegodons originated in mainland Asia)

Saleki, H. (1997)- Apport d'une intercomparaison de methodes nucleaires (230Th/234U, ESR et 40Ar/39Ar) a la datation de couches fossiliferes pleistocenes dans le dome de Sangiran (Java, Indonesie). Ph.D. Thesis, Museum National Histoire Naturelle, Paris, p. 1-238. *(Unpublished)*
('Contribution to comparison of nuclear methods (230Th/234U, ESR and 40Ar/39Ar) to dating of Pleistocene fossiliferous beds in Sangiran dome, Java'. Proposed chronology for Sangiran dome: (1) volcanic breccia deposited between ~2.05 and 1.56 Ma, followed by Pucangan Fm; (2) Grenzbank in upper limit of Jaramillo period at 0.9 Ma; (3) rapid sedimentation with archeological layer with some bones which supposedly burnt at ~0.8-0.9 Ma, before Brunhes/Matuyama magnetic reversal; (4) Notopuro mud-flow unit deposited at 150 ± 10 ka (incl. 0.8 Ma of tuff overlying Ngebung H. erectus occupation site))

Salles, T., C. Mallard, L. Husson, S. Zahirovic, .A.C. Sarr & P. Sepulchre (2021)- Quaternary landscape dynamics boosted species dispersal across Southeast Asia. Nature Communications Earth & Environment 2, 1, 240, p. 1-12.
(online at: https://www.nature.com/articles/s43247-021-00311-7.pdf)
(Study of Quaternary relief of Sunda Shelf and impact on species migrations. Region was predominantly terrestrial during Late Pleistocene. Four phases of drainage reorganisation and river captures)

Santa Luca, A.P. (1980)- The Ngandong fossil hominids: a comparative study of a Far eastern *Homo erectus* group. Yale University Publications in Anthropology 78, New Haven, p. 1-175.
(Morphological study of Ngandong hominid skulls from Solo River 20m terrace at Ngandong, originally described as Homo soloensis Oppenoorth 1932. Here interpreted as advanced forms of Homo erectus ('Homo erectus s.l.', not H. erectus s.s.') (conclusion followed by many subsequent researchers, but validity questioned in older (Dubois 1937, Von Koenigswald 1956) and more recent studies, e.g., Zaitoun et al. 2010?, M. Westaway et al. 2015)

Sarasin, P. (1914)- Neue lithochrone Funde im Innern von Sumatra. Verhandlungen Naturforschenden Gesellschaft Basel 25, p. 97-111.
(online at: www.zobodat.at/pdf/Verh-natforsch-Ges-Basel_25_1914_0097-0111.pdf)
(Obsidian and chert stone implements from Ngalau Ulu Tjangko (Tiangko) cave between the Merangin and Batang Tabir tributaries of the Jambi River, collected by A. Tobler, and donated to Basel Museum. Some of Sarasin's conclusions disputed by Zwierzycki (1926))

Sarasin, P. & F. Sarasin (1905)- Versuch einer Anthropologie der Insel Celebes: Die Toala-Hohlen von Lamontjong. In: Materialien zur Naturgeschichte der Insel Celebes, C.W. Kreidel's Verlag, Wiesbaden, vol. 5, 1, p. 1-62.
(online at: https://archive.org/details/materialienzurna512sara/page/n6/mode/1up)
('Attempt at an anthropology of the Island Celebes, 1, The Toala caves at Lamontjong'. First account of the well-known mid-late Holocene 'Toalean' cave dwelling people with Toala stone artefact culture in Sulawesi)

Sartono, S. (1961)- Notes on a new find of a *Pithecanthropus* mandible. Djawatan Geologi (Geological Survey), Bandung, Publikasi Teknik- Seri Paleontologi No. 2, p. 1-51.

Sartono, S. (1968)- Early man in Java: *Pithecanthropus* skull VII, a male specimen of *Pithecanthropus erectus*. Proc. Koninklijke Nederlandse Akademie van Wetenschappen B 71, 5, p. 396-422.

Sartono, S. (1969)- On the Plio-Pleistocene boundary of Java. Bull. of National Institute Geology and Mining (NIGM), Bandung 2, 2, p. 1-19.
(In Sangiran area of C Java Plio-Pleistocene boundary should be placed between Corbicula beds and Lower Volcanic Breccia bed. Based on mammalian fauna it should be placed between 'Unterer Wirbeltierhorizont' and 'Oberer Wirbeltierhorizont' of Von Koeningswald)

Sartono, S. (1969)- *Stegodon timorensis*: a pygmy species from Timor (Indonesia). Proc. Koninklijke Nederlandse Akademie van Wetenschappen, B72, p. 192-202.
(First description of Pleistocene dwarf elephant from Timor, collected by Verhoeven in 1964, 5 km E of Atambua. Showing potential migration routes from mainland Asia during Pleistocene)

Sartono, S. (1970)- On the stratigraphic position of *Pithecanthropus* mandible-C. Proceedings Institut Teknologi Bandung (ITB) (now J. Mathematical Fundamental Sciences), 4, 4, p. 91-102.
(online at: https://journals.itb.ac.id/index.php/jmfs/article/view/9737/3712)
(Pithecantropus C mandible collected in 1960 in Sangiran area, C Java, is from surface of Lower Pleistocene Putjangan beds. Encrusting matrix of mandible with planktonic (incl. Globorotalia tumida, Gr. crassa, Globigerinoides obliquus, Pulleniatina) and deeper marine smaller benthic foraminifera, presumably suggesting Lower Pleistocene age (NB: most forams in Sangiran fluvial Pleistocene deposits are reworked from underlying Kalibeng Fm deeper marine marls; JTvG) (see also Siesser & Orchiston 1978))

Sartono, S. (1971)- Observations on a new skull of *Pithecanthropus erectus* (*Pithecanthropus* VIII) from Sangiran, Central Java. Proc. Koninklijke Nederlandse Akademie van Wetenschappen B 74, 2, p. 185-194.

Sartono, S. (1972)- Discovery of another hominid skull at Sangiran, Central Java. Current Anthropology 13, 1, p. 124-126.
(New fossil Homo erectus skull discovered in 1969 at S flank Sangiran dome, at base of low bluff on S side of Putjung creek)

Sartono, S. (1973)- On an additional *Stegodon timorensis* Sartono. Direktorat Geologi, Bandung, Publikasi Teknik- Seri Paleontologie No. 3, p. 1-13.
(Description of additional Stegodon tooth, collected by Verhoeven from sandy conglomerate overlying marine claystones near Umaklaren (Atambua), W Timor)

Sartono, S. (1973)- On cranial measurements of *Pithecanthropus erectus* (*Pithecanthropus* VIII). Direktorat Geologi, Bandung, Publikasi Teknik- Seri Paleontologie No. 4, p. 1-21.

Sartono, S. (1973)- On Pleistocene migration routes of vertebrate fauna in Southeast Asia. In: B.K. Tan (ed.) Proc. Reg. Conf. Geology of Southeast Asia, Kuala Lumpur 1972, Bull. Geological Society Malaysia 6, p. 273-286.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1973018.pdf)
(Pleistocene vertebrates in SE Asia originated on Asian continent and migrated during Pleistocene into the island archipelago of Indonesia. Migration followed two routes, a western route across Sundaland area, and an eastern route via Taiwan and Philippines towards Sundaland area and Sulawesi)

Sartono, S. (1974)- Observations on a newly discovered jaw of *Pithecanthropus modjokertensis* from the lower Pleistocene of Sangiran, central Java. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, B 77, 1, p. 26-31.

Sartono, S. (1975)- Implications arising from *Pithecanthropus* VIII. In: R.H. Tuttle (ed.) Palaeoanthropology, Mouton Publishers, The Hague, p. 327-360.
(Three Pithecanthropus types in C Java: P. erectus (M Pleistocene; Trinil beds), P. modjokertensis (E Pleistocene; Djetis Beds) and P. dubius (lowest Pleistocene of Sangiran). New Pithecanthropus fossil (P VIII) near-complete and rel. large cranium discovered in Kabuh Fm of Sangiran in 1969 and is different from typical Pithecanthropus morphology)

Sartono, S. (1976)- Genesis of the Solo terraces. Modern Quaternary Research in Southeast Asia 2, Balkema, Rotterdam, p. 1-21.
(Three well-known river terrace levels along transverse valley of Solo River, N of Ngawi, C-E Java: Upper Pleistocene High terrace (Ngandong; possibly coinciding with Riss glaciation), Low Terrace and Flood Terrace.

Also three older, less well-known terraces identified, mainly from aerial photos. Highest terraces oldest (Early Pleistocene?) and 97m above Solo River. (see also Bartstra 1977))

Sartono, S. (1978)- The site of *Homo erectus* mandible F. Modern Quaternary Research in Southeast Asia 4, Balkema, Rotterdam, p. 19-24.
(Rel. complete Homo erectus trinilensis lower jaw from black claystones of Pucangan Fm in central part of Sangiran dome)

Sartono, S. (1979)- The discovery of a pygmy *Stegodon* from Sumba, East Indonesia: an announcement. Modern Quaternary Research in Southeast Asia 5, Balkema, Rotterdam, p. 57-63.
(First report of Pleistocene Stegodon mandible from Sumba (Watu Mbaka). Described as Stegodon sumbaensis)

Sartono, S. (1979)- The stratigraphy of the Sambungmacan site in Central Java. Modern Quaternary Research in Southeast Asia 5, Balkema, Rotterdam, p. 83-88.
(Gravels, sands and silts at small Sambungmacan site, off Solo River, C Java, in which Homo erectus cranium was found in 1973, now regarded as of part of Ngandong Fm of Late Pleistocene age. not E-M Pleistocene 'Grenzbank'/ Kabuh Fm- equivalent)

Sartono, S. (1979)- The age of the vertebrate fossils and artifacts from Cabenge in South Sulawesi, Indonesia. Modern Quaternary Research in Southeast Asia 5, Balkema, Rotterdam, p. 65-81.
(Fossiliferous terrace deposits of Walanae River most likely Pleistocene, possibly Holocene)

Sartono, S. (1980)- *Homo erectus ngandongensis*: the possible maker of the 'Sangiran flakes'. Anthropologie 18, 2/3, p. 121-131.
(Primitive stone artefacts named 'Sangiran flakes' limited to Top of Kabuh/ Base Notopuro Formations at Sangiran, none found in lower levels with hominid remains. Appear to be associated with more advanced Homo erectus ngandongensis)

Sartono, S. (1981)- Pre-*Homo erectus* population in Java, Indonesia. Proc. 10th Congreso Union Internacional de Ciencias Prehistoricas y Protohistoricas, Mexico 1981, p. 47-86.

Sartono, S. (1982)- Characteristics and chronology of early man in Java. In: H. and M. De Lumley (eds.) Compte Rendu du 1st Congres International de Paleontologie Humaine, Nice (France), CNRS, 2, p. 495-541.

Sartono, S. (1984)- Notes on the Pleistocene stratigraphy of Java, Indonesia. Modern Quaternary Research in Southeast Asia 8, Balkema, Rotterdam, p. 129-135.

Sartono, S. (1985)- Datings of Pleistocene man of Java, Indonesia. Modern Quaternary Research in Southeast Asia 9, Balkema, Rotterdam, p. 115-125.

Sartono, S. (1985)- Pleistocene peopling of the Southeast Asian Archipelago. Proc. 12th Indo-Pacific Prehistory Association (IPPA) Congress, Penablanca, Cagayan, Phillipines 1985, p. 1-12.

Sartono, S. (1986)- New lights on human evolution in Southeast Asia. In: G.H. Teh & S. Paramananthan (eds.) Proc. 5th Regional Congress Geology Mineral Energy Resources of SE Asia (GEOSEA V), Kuala Lumpur 1984, 2, Bull. Geological Society Malaysia 20, p. 269-288.
(online at: www.gsm.org.my/products/702001-101423-PDF.pdf)
(Until 1980 subdivision of Pleistocene human fossils as proposed by Von Koenigswald (1968) was used. New discoveries in last 5 years necessitate re-assessment. Earliest wave of human migration into SE Asia (Java) at ~1.8 Ma, coincided with onset of Gunz glacial. Before this period most of SE Asia region still inundated by sea, hampering movement of early humans from Asia)

Sartono, S. (1987)- Migrasi manusia Plistocen Indonesia: kaitannya dengan tektonik lempeng. In: Geologi Kuarter dan lingkungan hidup, Geological Research Development Centre (GRDC), Bandung, Special Publ. 7, p. 7-20.
('Pleistocene human migration in Indonesia: relation to plate tectonics')

Sartono, S. (1987)- The long trek to the South. In: N. Thiramongkol (ed.) Proc. Workshop on Economic geology, tectonics, sedimentary processes and environment of the Quaternary in Southeast Asia, Haid Yai, Thailand 1986, IGCP 218/ Chulalongkorn University, Bangkok, p. 193-212.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/1986/5083...)
(Review of hominid material from Pleistocene of Java and latest Pliocene- Pleistocene migration routes of hominids into Indonesian region from Asia. Migrations into Java probably aided by Pleistocene sealevel lowstands and exposed Sunda Shelf. Migrations into East Indonesia and Philippines probably not until Late Pleistocene)

Sartono, S. (1987)- Influence of plate tectonics on dispersals of Quaternary faunas in Southeast Asia. Proc. Seminar on International developments in science, Deutscher Akademie Austauschedienst, Bandung, p. 1-13.

Sartono, S. (1990)- Short guide to Sangiran and Trinil, Java. Guidebook 14th Congress Indo-Pacific Prehistory Association (IPPA), Yogyakarta, p. 1-34.

Sartono, S. (1991)- A new *Homo erectus* skull from Ngawi, East Java. Bull. Indo-Pacific Prehistory Association (IPPA) 11, p. 23-35.
(online at: http://ejournal.anu.edu.au/index.php/bippa/article/view/596/585)

Sartono, S. (1991)- *Meganthropus paleojavanicus* v.K.: its place in human evolution. Fourth International Senckenberg Conference, Frankfurt 1991, p.

Sartono, S. (1991)- *Homo (Pithecanthropus) erectus*: le debat sans fin. L'Anthropologie 95, 1, p. 123-136.
('Homo erectus: the debate without end'. On taxonomic status of Homo (Pithecanthropus) erectus. Two groups of early men are found in Java: Homo (H. robustus and H. erectus) and Australopithecus (A. (Meganthropus) palaeojavanicus). Pleistocene hominids from SE Asia probably subjected to evolution while they migrated from Asia toward Australia. Two migration routes: (1) western (Sunda Shelf) and (2) northern (Philippines), both arriving in Wallacea, possibly also in Sahul (Australia-New Guinea)

Sartono, S. (1993)- Insularity by plate tectonics in Quaternary Indonesia. Buletin Jurusan Geologi ITB, Bandung, 23, 2, p. 1-20.

Sartono, S. (1996)- Java: diversity of Upper Pliocene- Pleistocene hominids. Buletin Geologi (ITB) 26, 1, p. 1-12.
(Final paper by Sartono; overview of hominids distribution, evolution, migration on Java. Age of youngest Pithecanthropus in Sangiran, C Java, ~0.78 Ma, oldest (from 'Grenzbank' ~1.0Ma. Two main Pleistocene migration routes proposed.)

Sartono, S. & D. Grimaud-Herve (1983)- Les parietaux de l'hominide Sangiran 31. L'Anthropologie 87, p. 465-468.
('The parietals of the hominid Sangiran 31'. Recent discovery of Sangiran 31 skull in lower Pucangan Fm allowed us to compare biparietal vault with that of all known hominids from this deposit. Its extraordinary thickness and marked robustness similar to Sangiran 4 fossil man)

Sartono, S. & S. Hadiwisastra (1983)- Fosil vertebrata Plistosen di Busur Banda: implikasi struktural. Proc. 12th Annual Conv. Indonesian Association Geologists (IAGI), p. 153-161.
(online at: https://www.iagi.or.id/web/digital/37/PIT-1983-Paper-15.pdf)
('Pliocene fossil vertebrates in the Banda Arc: structural implications'. On potential migration routes of mammals and hominids. No English abstract)

Sartono, S. & R. Marino (1978)- A mandibula and a maxilla of *Stegodon timorensis.* Modern Quaternary Research in Southeast Asia 4, Balkema, Rotterdam, p. 41-50.
(Additional Pleistocene elephant teeth from Weaiwe region, Atambua, NE part of West Timor)

Sartono, S., D.W. Orchiston, W.G. Siesser & T. Djubiantono (1981)- Upper Pliocene sediments in Sangiran, Central Java (Indonesia). Buletin Geologi (ITB) 5, p. 1-25.
(Base Sangiran Fm between nannofossil zones NN16 and NN18 (1.65- 3.25 Ma); Bettis et al. 2004)

Sartono, S., F. Semah, K.A.S. Astadiredja & T. Djubiantono (1981)- The age of *Homo modjokertensis*. Modern Quaternary Research in Southeast Asia 6, Balkema, Rotterdam, p. 91-102.
(On age of fossil child skull cap originally described by Von Koenigswald in 1936, from locality near Perning, 14 km ENE of Mojokerto. Supposedly from Lower Pleistocene U Pucangan Fm/ volcanic facies, but rocks more likely equivalent of M Pleistocene Kabuh Fm of Sangiran. Underlying clay facies of Lower Pucangan/ Lidah Fm with zone N21 planktonic foraminifera (Globorotalia tosaensis, Globigerinoides obliquus extremus; also Asterorotalia trispinosa). New finds of associated Hippopotamus, Sus, Buffelus bubalus, etc., suggest M-U Pleistocene Trinil or Ngandong fauna)

Sartono, S., F. Semah & T. Djubiantono (1984)- Paleomagnetic results from the Bringinan and Gemolong domes-correlations with the Sangiran section. Bull. Jurusan Teknik Geologi I.T.B. 13, p. 17-21.

Sartono S., D.E. Tyler & G.S. Krantz (1995)- A new *Homo erectus* skull from Sangiran, Java: an announcement. In: R.F. Bower & S. Sartono (eds.), Human evolution in its ecological context, 1: Evolution and ecology of *Homo erectus*, Pithecanthropus Centennial Foundation, Leiden, p. 207-210.
(Discovery in ~1993 of one of more complete Homo erectus skulls in Sangiran, C Java (also known as Skull IX or Tjg-1993-05))

Satyana, A.H. (2007)- Geological disaster in the demise of Jenggala and Majapahit empires: a hypothesis of historical mud volcanoes eruptions based on historical chronicles of Kitab Pararaton, etc. folklore of Timun Mas; analogue to present LUSI eruption, and geologic analysis of the Kendeng depression- Brantas Delta. Proc. Joint Convention 36th IAGI, 32nd HAGI, Bali 2007, p. 1-38.
(Jenggala and Majapahit are two empires of 11th to early 16th centuries at Brantas delta, E Java. Rise and fall related to geological processes in Brantas delta. Large mud volcano eruptions may have caused or contributed to demise)

Satyana, A.H. (2008)- Roles of mud volcanoes eruptions in the decline of the Jenggala and Majapahit Empires, East Java, Indonesia: constraints from the historical chronicles, folklore, and geological analysis of the Brantas Delta-Kendeng Depression. Majalah Geologi Indonesia (IAGI) 23, 1-2, p. 1-10.
(online at: https://www.academia.edu/12238239/ROLES_OF_MUD_VOLCANOES_ERUPTIONS_IN_THE_DECLINE_OF_THE_JENGGALA_AND_MAJAPAHIT_EMPIRES_EAST_JAVA_INDONESIA Etc.)
(Mud volcanoes in Kendeng zone may have lead to demise of 11th- 16th century Jenggala and Majapahit empires. (Also re-published in ISPG Memoir 1, p. 6-15 (2019))

Satyana, A.H. (2009)- Sangiran dome, Central Java: mud volcanoes eruption, demise of *Homo erectus erectus* and migration of later hominid. Proc. 37th Annual Conv. Indonesian Association Geologists (IAGI), Bandung 2008, p. 1-12.
(online at: https://www.iagi.or.id/web/digital/14/2008_IAGI_Bandung_Sangiran-Dome.pdf)
(Diapyric deformation and eruption of Sangiran Dome between 0.7- 0.5 Ma, possibly also at 0.12 Ma. Homo erectus fossils at Sangiran from 1.3- 0.7 Ma; its demise possibly triggered by mud volcano eruption)

Schurmann, H. (1928)- Kjokkenmoddinger en Paleolithicum in Noord Sumatra. De Mijningenieur 12, p. 1-19.
(Report on 1928 excavation of Early Holocene man-made shell midden Binjai Tamieng, along lower course of the Tamiang River in Aceh, NE Sumatra coastal plain, by BPM geologist H.M.E. Schurmann. Mound mainly composed of of shells of the brackish bivalve mollusc Meretrix meretrix. Also contain 'Hoabinhian' stone artifacts

and 'kitchen debris from E Holocene humans, like vertebrate bones of marine turtles, fish, artiodactyls (deer, pig) and some crocodiles, rhinocerus and small whales. Schurmann collection of vertebrates deposited in Naturalis Museum, Leiden, and briefly examined by Hooijer (1948) and Gruwier (2017) (similar excavation conducted in same area by P.V. van Stein Callenfels in 1925) (see also Hooijer 1948, Gruwier(2017))

Schurmann, H.M.E. (1931)- Kjokkenmoddinger und Palaolithicum in Nord-Sumatra. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap Ser. 2, 48, p. 905-923.
(online at: https://resolver.kb.nl/resolve?urn=MMUBA13:001675001:pdf)
(Same as Schurmann (1928), above. On Paleolithic human-made shell mounds ('shell middens'; prehistoric 'kitchen debris'), containing Paleolithic stone tools in coastal NE Sumatra)

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('On the knowledge of Pleistocene hyenas from Java')

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('Pleistocene canids from Java')

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(online at: www.academia.edu/31517054/BEYOND_HOMO_ERECTUS_SANGIRAN_IS_KEY_TO_DE Etc.)
(Homo erectus widespread and highly variable species from which later hominids emerged. Review of relevant specimens from Sangiran, other Javanese sites and Zhoukoudian Lower Cave (China) shows concept 'erectus' masks evidence of taxic diversity in Asian hominid fossil record and raises questions about non-Asian specimens belonging to single species)

Selenka, M.L. & M. Blanckenhorn (eds.) (1911)- Die *Pithecanthropus*-Schichten auf Java. Geologische und palaontologische Ergebnisse der Trinil-Expedition (1907 und 1908). Verlag W. Engelmann, Leipzig, p. 1-342.
(online at: https://ia800303.us.archive.org/23/items/diepithecanthrop00sele/diepithecanthrop00sele.pdf)
(Extensive report of 1907-1908 excavations of Pleistocene beds near Trinil, C Java, by Selenka Trinil Expedition No new hominid fossils found, but extensive documention of localities and good descriptions of Pleistocene vertebrate and invertebrate faunas and flora)

Semah, A.M. (1982)- Etude palynologique de sites a hominides de l'ile de Java. These 3me Cycle, Universite de Provence, Marseille, p. 1-127.
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(Summary of palynology work on U Pliocene- Pliocene of Sangiran Dome, C Java. Rel. common mangrove pollen (Rhizophora, Sonneratia, Nypa) in Upper Kalibeng Fm Blue Clays (absent in Pucangan Black Clay and in younger section). In Pucangan/ Kabuh interval mainly Graminae (grasses))

Semah, A.M. (1984)- Remarks on the pollen analysis of the Sambungmacan section (Central Java). Modern Quaternary Research in Southeast Asia 8, Balkema, Rotterdam, p. 29-34.
(Pollen diagram of Pleistocene deposits of Sambungmacan, E of Solo (site of 1973 discovery of Homo erectus skull). <10m thick poorly-dated fluvial, sandy-tuffaceous section, unconformable over Pliocene limestone)

Semah, A.M. (1984)- Palynology and Javanese *Pithecanthropus* environment. In: P. Andrews & J.L. Franzen (eds.) The early evolution of man with special emphasis on Southeast Asia and Africa, Courier Forschungsinstitut Senckenberg 69, p. 237-243.

(Vegetation changes in the Solo area, CJava, during Early-M Pleistocene. Littoral mangrove environment at end of Pliocene followed by swampy and more continental vegetation. Open character during Lower Pleistocene Pucangan Fm, resembling rainforest. Near transition to Kabuh Fm less humid vegetation and in Kabuh Fm mixed forest environment)

Semah, A.M. (1986)- Le milieu naturel lors du premier peuplement de Java, Resultats de l'analyse pollinique. Doct. Thesis, Universite de Provence, Marseille, 3 vols., p. 1-322.
('The natural environment of the first human seetlement of Java; results of pollen analysis')

Semah, A.M. & F. Detroit (2006)- Sur les premiers peuplements du Pacifique sud. Comptes Rendus Palevol 5, 1, p. 381-393
('About the first human settlements in the South Pacific'. First arrivals of Homo sapiens in Australia >40ka, possibly 50-60 ka. Debate whether these anatomically modern H. sapiens came from recent 'out of Africa' migration (Out-of-Africa hypothesis) or evolved locally from last Indonesian H. erectus (multiregional hypothesis). Morphometric differences between most recent Indonesian H. erectus and 'robust' Australian fossil H. sapiens from Kow Swamp and Cohuna clearly distinct, questioning local direct evolution)

Semah, A.M. & T. Djubiantono (2007)- Outline of climate and vegetation changes in Java during the Quaternary. In: A.M. Semah & K. Setiagama (eds.) First Islanders; human origins patrimony in Southeast Asia, p. 85-91.
(online at: http://hopsea.mnhn.fr/pc/brochures/2007HOPseaFI.pdf)
(Brief review of Pleistocene climate trends on Java. Between ~1 and 0.2 Ma climate rel. cooler and drier and yielding majority of hominid fossils)

Semah, A.M. & F. Semah (2001)- La signification paleoecologique des couches a hominides de l'ile de Java. In: F. Semah et al. (eds.) Origine des peuplements et chronologie des cultures paleolithiques dans le sud-est asiatique, Semenanjung/Artcom, Paris, p. 251-278.
('The paleoecological significance of the hominid beds of Java island')

Semah, A.M. & F. Semah (2012)- The rain forest in Java through the Quaternary and its relationships with humans (adaptation, exploitation and impact on the forest). Quaternary International 249, p. 120-128.
(online at: https://www.academia.edu/download/49792644/j.quaint.2011.06.01320161022-6152-vftwci.pdf)
(Landscape change in Java over last 2.5 million years highly complex, with repeated expansion and fragmentation of rain forest. Evidence of intensive human impact on rain forest observed late, ~1500 years ago)

Semah, A.M., F. Semah, T. Djubiantono & B. Brasseur (2010)- Landscapes and hominids' environments: changes between the Lower and the Early Middle Pleistocene in Java (Indonesia). Quaternary International 223, p. 451-455.
(Change in paleoenvironments in Lower and early M Pleistocene, based on sediment and pollen records in C Java. Late Lower Pleistocene 'Grenzbank' calcareous conglomerate layer at ~0.9 Ma at Sangiran marks tectonic event (folding of Kendeng zone). Second event is major climate change at E-M Pleistocene boundary, with severe fragmentation of rainforest cover during glacials (~0.8 Ma; close to in-situ 0.793 Ma Australasian tektites and Brunhes- Matuyama boundary in lowermost Kabuh Fm). Faunal turnover in Lower Kabuh Fm tied O-isotope zones MIS19-MIS22 interval. Little detail)

Semah, A.M., F. Semah, A.M. Moigne, T. Ingicco, A. Purnomo, T. Simanjuntak & H. Widianto (2016)- The palaeoenvironmental context of the Palaeolithic of Java: a brief review. In: A. Borel et al. (eds.) Southeast Asia: Human evolution, dispersals and adaptation, Quaternary International 416, p. 38-45.
(online at: https://os.pennds.org/archaeobib_filestore/pdf_articles/QI/2016_416_Semahetal.pdf)
(Earliest Paleolithic implements in Java Island >1 Ma old, postdating oldest Homo erectus fossils. Acheulean-like tools in early M Pleistocene ('Sangiran flakes'; 1.0-0.8 Ma), flake tools assemblages in late M/early U Pleistocene sites and development of cave occupations at end Pleistocene and E Holocene. Environment, mostly forested in E Pleistocene, changing climate during M Pleistocene, then at start of Late Pleistocene. Tectonic and volcanic activities affected local climate, paleogeography and floras. Associated vertebrate faunas reflect periods of contact with mainland (increased biodiversity) and periods of isolation (endemism))

Semah, A.M., F. Semah, R. Moudrikah, F. Frohlich & T. Djubiantono (2004)- A Late Pleistocene and Holocene sedimentary record in Central Java and it palaeoclimatic significance. In: S.G. Keates & J. Pasveer (eds.) Quaternary Research in Indonesia, Chapter 5, Modern Quaternary Research in Southeast Asia 18, Balkema, Leiden, p. 63-88.
(40m long cores from Ambarawa Basin (Solo Depression), C Java, provides sedimentary/ palynological record of last 21,000 years, from Last Glacial Maximum to present. Pollen from ~21-15 ka reflect cooler conditions and severe dryness, with grassland and lowland forest. From ~15-10.5 ka increased precipitation with swamp conditions. From 10.5 ka onward more forest vegetation. First evidence of human activity at ~1500 yrs BP)

Semah, F. (1982)- Pliocene and Pleistocene geomagnetic reversals recorded in the Gemolong and Sangiran Domes (Central Java). Modern Quaternary Research in Southeast Asia 7, Balkema, Rotterdam, p. 151-164.
(Notopuro and Kabuh Fms of Sangiran and Gemolong all with normal geomagnetic polarity and tied to Brunhes Epoch. Reversal events in underlying Pucangan Fm, tied to Matuyama Event. Top of U Kalibeng Fm normal polarity, probably Olduvai Event (1.67-1.87Ma))

Semah, F. (1984)- The Sangiran Dome in the Javanese Plio-Pleistocene chronology. In: P. Andrews and J.L. Franzen (eds.) The early evolution of man with special emphasis on Southeast Asia and Africa. Courier Forschungsinstitut Senckenberg 69, p. 245-252.
(Review of Late Pliocene- M Pleistocene stratigraphy of Sangiran, C Java (~2.0- 0.5 Ma))

Semah, F. (1986)- Le peuplement ancien de Java: ebauche d'un cadre chronologique. L'Anthropologie 90, 3, p. 359-400.
(Chronology of human population of Java.Incl. radiometric and paleomagnetic dating of Kali Glagah and Kali Biuk site of oldest Java mammal assemblages (Bumiayu) as 2.2-1.67 Ma))

Semah, F. (1997)- Plio-Pleistocene reference sections in Indonesia. In: J.A. van Couvering (ed.) The Pleistocene boundary and the beginning of the Quaternary, World and Regional Geology 9, Cambridge University Press, p. 264-272.
(Review of Plio-Pleistocene stratigraphy in W and E Central Java areas known for vertebrate fossils (Bumiayu, Sangiran dome. Homo erectus mainly in lower and middle Kabuh Fm of Sangiran Dome. Australasian tektite event, radiometrically dated as 0.7- 0.8 Ma, in middle Kabuh Fm, close to Matuyama-Brunhes paleomagnetic boundary)

Semah, F. (2001)- La position stratigraphique du site de Ngebung 2 (dome de Sangiran, Java Central, Indonesie). In: F. Semah et al. (eds.) Origine des peuplements et chronologie des cultures paleolithiques dans le sud-est asiatique, Paris, p. 299-329.
(The stratigraphic position of Ngebung 2 excavation site, Sangiran Dome)

Semah, F. (2014)- Island Southeast Asia and human evolution heritage. In: N. Sanz (ed.) Human origin sites and the World Heritage convention in Asia, UNESCO World Heritage Papers 39, p. 184-210.
(online at: http://unesdoc.unesco.org/images/0022/002291/229174e.pdf)
(Review of 'journey' of Homo erectus and Homo sapiens across Indonesian archipelago since 1.5 Ma)

Semah, F., C. Falgueres, Y. Yokoyama, G. Feraud, H. Saleki & T. Djubiantono (1997)- Arrivee et disparition des *Homo erectus* a Java, les donnees actuelles. Abstracts 3rd Meeting European Association of Archaeologists, p. 11-12. *(Abstract only)*
('Arrival and migration of Homo erectus on Java, the actual data'. Critique of Swisher et al. (1994), suggesting their 1.66 Ma age assigned to H. erectus skulls from Sangiran is based on radiometric age of volcanic tuff that underlies these skulls and is therefore too old)

Semah, F., H. Saleki, C. Falgueres, G. Feraud & T. Djubiantono (2000)- Did early man reach Java during the Late Pliocene? J. Archaeological Science 27, 9, p. 763-769. *(online at: www.researchgate.net/publication/248578878_Did_Early_Man_reach_Java_during_the_Late_Pliocene)*

(Homo erectus (Pithecanthropus) reached Java from Asian continent and became one of oldest islanders in world. Combined 40Ar/39Ar and paleomagnetic data of 'Lower lahar' at base of fossil-bearing series of Sangiran dome show that emergence of first dry land at Sangiran, took place at end and just after Olduvai subchron. Therefore ~1.7 Ma is max. age for arrival of first hominids at Sangiran)

Semah, F. & A.M. Semah (2006)- Palaeolithic settlements in the Southeast Asian archipelagos: an Indonesian perspective. In: T. Simanjuntak et al. (eds.) Archaeology: Indonesian perspective, R.P. Soejono's Festschrift, LIPI Press, Jakarta, p. 148-161.

Semah, F. & A.M. Semah (2015)- Pleistocene migrations in the Southeast Asian archipelagoes. In: P. Bellwood (ed.) The global prehistory of human migration, Wiley-Blackwell, p. 49-54.
(Describes migrations of early hominins in SE Asia, especially to Java. Flores was also reached at least one million years ago. Early modern human migrations beyond Sunda Shelf also discussed)

Semah, F., A.M. Semah & T. Djubiantono (1998)- From the shoreline to the slopes of the volcanoes: the long *Pithecanthropus* trek. In: T. Simanjuntak et al. (eds.) Sangiran: man, culture, and environment in Pleistocene times, Proc. International Colloquium on Sangiran, Solo- Indonesia, Solo 1998, Jakarta, National Research Centre of Archaeology, Yayasan Obor Indonesia, Jakarta, p. 195-218.

Semah, F., A.M. Semah, T. Djubiantono & H.T. Simanjuntak (1992)- Did they also make stone tools? J. Human Evolution 23, p. 439-446.
(online at: https://www.academia.edu/4556315/Did_they_also_make_stone_tools? Etc.)
(Recent excavations in Ngebung, NW part of Sangiran dome, C Java, found archeological layers in M Pleistocene Kabuh beds with several stone tools (flake artefacts, bolas made of andesite and quartz; older than other stone implements known from Java))

Semah, F., A.M. Semah, C. Falgueres, F. Detroit, X. Gallet, S. Hameau, A.M. Moigne & T. Simanjuntak (2004)- The significance of the Punung karstic area (eastern Java) for the chronology of the Javanese Palaeolithic, with special reference to the Song Terus cave. Modern Quaternary Research in Southeast Asia 18, p. 45-62.
(online at: https://www.academia.edu/37335833/The_significance_of_the_Punung_karstic_area_eastern_Java_for_the_chronology_of_the_Javanese_Palaeolithic_with_special_reference_to_the_Song_Terus_cave)
(Caves in Punung and Wonosari areas in Southern Mountains (Gunung Sewu) of Central Java known for its many prehistoric workshops of Neolithic adzes from local silicified rocks, as well as more archaic Paleolithic artefacts in river beds. The karst deposits in caves existed at least since middle M Pleistocene. Human remains, including numerous stone artifacts, date back to ~200 ka)

Semah, F., A.M. Semah, S. Noerwidi, T. Ingicco, T. Simanjuntak & H. Widianto (2023)- Quelques perspectives concernant le peuplement et la Prehistoire ancienne de l'Indonesie dans le contexte de l'Asie du Sud-Est: des premiers hominides jusqu'a l'arrivee de notre espece. L'Anthropologie 127, 3 (Special Issue Prehistoire de l'Indonesie), 103147, p. 1-11.
('Some perspectives on human settlements and ancient prehistory of Indonesia in the context of Southeast Asia: from the first hominids to the arrival of our species'. Another modern review of the highlights of the early hominid story on Java)

Semah, F., A.M. Semah & T. Simanjuntak (2002)- More than a million years of human occupation in insular Southeast Asia. In: J. Mercader (ed.) Under the canopy- The archaeology of tropical rain forests, Rutgers University Press, New Brunswick, N.J., p. 161-190.

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(online at: http://www.kasekiken.jp/kaishi/kaishi_42(1)/kasekiken_42(1)_1-11.pdf)
(Well-preserved ~1.75m long extinct testidinid tortoise from E Pleistocene lower Kali Glagah Fm, N of Bumiayu, originally studied by Van der Maarel (1932) and part of Java Satir Fauna of ~1.5Ma. Here identified as Megalochelys cf. sivalensis. Giant tortoises also known from Myanmar, Flores, etc.)

Setiyabudi, E. (2016)- Pleistocene reptiles of the Soa Basin (Flores, Indonesia): adaptation and implication for environment. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 17, 2, p. 107-124.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/23/23)
(Presence of fossil reptiles known from mainland Asia in Pleistocene of Soa Basin, Flores: giant tortoise (Megalochelys sp.), fresh water turtle (Geoemydidae), crocodiles and komodo dragon (Varanus komodoensis). After crossing 'Wallace Line' at ~1 Ma lived in isolated conditions and adapted to savannah environment. Vertebrate faunas of Soe basin dominated by extinct proboscideans (Stegodon))

Setiyabudi, E. (2019)- Konservasi geologi lokasi fosil vertebrata dan manusia purba, daerah Tulungagung Selatan, Jawa Timur. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 20, 4, p. 187-197.
(online at: https://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/453/415)
(Geoconservation of vertebrate and human ancient fossils site, the South Tulungagung area, East Java'. Late Pleistocene- E Holocene vertebrate/hominid fossil sites associated with 'Wajak Man' of E. Dubois (1890), in marble mining area S of Tulungagung, deserve conservation protection status: Wajak Cave, Song Gentong, and Tenggar Cave)

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(online at: www.academia.edu/19327889/FOSSILS_OF_STEGODON_AND_VARANUS_KOMODO Etc.)
(Recent field survey in Sumba relocated original locality of Stegodon sumbaensis mandible described by Sartono (1979). At Lewapaku dwarf Stegodon found with tooth of Varanus komodoensis and giant murine rodent. Lewapaku fauna similar to 900 ka old Tangi Talo fauna from Flores. Similarities between Pleistocene fossils from Flores and Sumba make it tempting to assume land connections between two islands, but all taxa belong to groups that are excellent overseas island colonizers)

Setiyabudi, E., B. Prasthisto, I. Kurniawan & T. Jatmiko (2018)- The Early Holocene vertebrate faunas from Seropan Cave, Gunung Sewu, Yogyakarta, Indonesia. Indonesian J. on Geoscience (IJOG) 5, 1, p. 33-45.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/404/253)
(Open woodland mammal fauna from Seropan Cave in Gunung Sewu karst area, Wonosari, with Cervus, Sus verrucosus, Bubalus, Panthera cf. pardus, etc. C14 radiocarbon age dating gave date of 9,450 ± 400 yrs. BP)

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(online at: https://www.jstage.jst.go.jp/article/hsj/35/2/35_75/_article/-char/en)
(Plleistocene turtle fossil identified as Orlitia borneensis from Solo River bottom in Sambungmacan, eastern C Java, presumably eroded from M Pleistocene fluvial deposits on river bank. O. borneensis had wider distribution in past, but Java population would have become extinct by end of M Pleistocene)

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(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/67/69)
('Determination of the ages of the ancient hominid fossils in Java based on magnetostratigraphy'. Review of magnetostratigraphic studies of hominid sites of C Java: Sangiran (hominids between base Jamarillo subchron and Brunhes-Matuyama chron boundary in Upper Kabuh Fm (0.78- 1.07 Ma), Trinil (near top Jaramillo (0.99 Ma), Kedungbrubus, Mojokerto (near lower limit Jaramillo (1.07 Ma) and Patiayam (hominids in Brunhes or younger (<0.78 Ma))

Shipton, C., M.W. Morley, S. Kealy, K. Norman, C. Boulanger, S. Hawkins, M. Litster et al. (2024)- Abrupt onset of intensive human occupation 44,000 years ago on the threshold of Sahul. Nature Communications 15, 4193, p. 1-15.
(online at: https://www.nature.com/articles/s41467-024-48395-x)
(Laili rock shelter in Carboniferous crinoid limestone in northern Timor-Leste, wich is on southern dispersal route of Homo sapiens between Eurasia and Australasia and has earliest record of human occupation in E Wallacean archipelago. Abrupt onset of intensive human habitation in shelter started at ~44 ka (~MIS3). Initial occupation shown by burnt fish bones and damaged chert lithics. Intensive early occupation at Laili represents colonisation phase, which may have overwhelmed previous human dispersals in this part of world.)

Shipton, S. O'Connor & S. Kealy (2021)- The biogeographic threshold of Wallacea in human evolution. Quaternary International 574, p. 1-12.
(Wallacean archipelago (E Indonesia) is critical biogeographic boundary for all kinds of animals. Three stage model for how genus overcame this boundary: (1) Lower Paleolithic hominins (H. erectus) were able to colonize larger islands of W Wallacea through incidental seagoing and subsisting on megaherbivores; (2) arrival of early Homo sapiens around ~70 ka; and (3) during terminal Pleistocene and E Holocene greater connectivity in form obsidian exchange networks, inter-island bead and fish hook traditions, colonization of small islands without terrestrial fauna. Etc.)

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(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/1986/5083...)
(Brief review of Pleistocene Java mammal assemblages and issues regarding dating and interpretation)

Shutler, R., J.M. Head, D.J. Donahue, A.J.T. Jull, M.F. Barbetti, S. Matsu'ura, J. de Vos & P.Storm (2004)- AMS radiocarbon dates on bone from cave sites in Southeast Java, Indonesia, including Wajak. Modern Quaternary Research in Southeast Asia 18, p. 89-93.
(14C apatite dates for bones from Wajak Cave, SE Java. Wajak fauna calibrated age ~12.1- 12.9 ka, Wajak femur ~7.5 ka (older ages obtained by Storm et al. 2013))

Siesser, W.G. & D.W. Orchiston (1978)- Micropalaeontological re-assessment of the age of *Pithecanthropus* mandible C from Sangiran, Indonesia. Modern Quaternary Research in Southeast Asia 4, p. 25-30.
(Pithecanthropus mandible C discovered in 1960 in Pucangan Fm near Mandingan, Sangiran Dome. Sartono (1970) reported 11 planktonic and 15 benthic species of foraminifera in claystone adhered to mandible. Co-occurrence of Globorotalia crassaformis and Globigerinoides obliquus suggests Late Pliocene age, between 4.2-1.6 Ma (N.B.: Sangiran Pleistocene fluvial-lacustrine Pucangan Fm contains locally abundant Pliocene planktonic foraminifera, but all reworked from underlying Kalibeng Fm; Van Gorsel and Troelstra 1981))

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('The Mesolithic of Indonesia: a cultural heterogeneity')

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(online at: http://ejournal.anu.edu.au/index.php/bippa/article/view/272/262)
(Many limestone caves in Gunung Sewu, S Java inhabited in Prehistoric times. Excavations revealed chronology from Early Holocene (possibly Late Pleistocene) to 4500 BP. by 'Australomelanesian' people)

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(C Java Southern Mountains numerous Late Pleistocene- Holocene, Paleolithic- Neolithic prehistoric sites)

Simanjuntak, T. (2006)- Indonesia-Southeast Asia: climates, settlements, and cultures in Late Pleistocene. Comptes Rendus Palevol 5, p. 371-379.
(Late Pleistocene period between Paleolithic culture and E Holocene Preneolithic culture, marked by climate and sea level fluctuations and appearance of modern human (oldest Homo sapiens), replacing H. erectus)

Simanjuntak, T. (2017)- The western route migration: a second probable Neolithic diffusion to Indonesia. In: P.J. Piper et al. (eds.) New perspectives in Southeast Asian and Pacific prehistory, Terra Australis 45, ANU Press, p. 201-211.
(online at: https://www.jstor.org/stable/j.ctt1pwtd26)
(Neolithic in Indonesia generally traced to culture of Austronesian-speaking people who migrated from Taiwan at ~4000 BP. Another earlier probable Neolithic diffusion from mainland SE Asia, probably by Austroasiatic-speaking people. Subsequent dispersal of Austronesian-speaking people into W parts of Indonesia influenced Neolithic cultures there and resulted in replacement of local Austroasiatic languages)

Simanjuntak, T. (2023)- La prehistoire d'Indonesie: une breve synthese. L'Anthropologie 127, 3 (Special Issue Prehistoire de l'Indonesie), 103148, p. 1-19.
('The Prehistory of Indonesia, a brief synthesis'. Prehistory (starting 1.5 Ma with arrival of Homo erectus; seven stages), Protohistoric (cultures linked to metal and megaliths), Historical Period (introduction of Hindu-Buddhist influence in 4^{th}-5^{th} centuries A.D.)

Simanjuntak, T. & I.N. Asikin (2004)- Early Holocene human settlement in Eastern Java. Bull. Indo-Pacific Prehistory Association (IPPA) 24 (Taipei Papers, volume 2), p. 13-19.
(online at: https://journals.lib.washington.edu/index.php/BIPPA/article/view/11867/10494)
(Finds of modern human remains dated back to 45 ka (Late Pleistocene). E Holocene human settlements in E Java called Keplek Phase. Characteristics: exploitations of caves and rock shelters (Gunung Sewu, Sampung, Tulung Agung, Dander, Tuban. Puger, Situbondo), lithic flake industry, shell tool technology, etc. First excavations of E Java caves at Gua Lawah by Van Es (1926) and P. van Stein Callenfels (1928-1931). Etc.)

Simanjuntak, T., B. Prasetyo & R. Handini (eds.) (2001)- Sangiran: man, culture and environment in prehistoric times, Yayasan Obor Indonesia, Jakarta, p. 1-443.

(Collection of papers on Sangiran hominid site, C Java, presented at 1st Int. Colloquium on Sangiran, Solo 1998)

Simanjuntak, T. & F. Semah (1996)- A new insight into the Sangiran flake industry. In: The Chiang Mai papers, 1, Bull. Indo-Pacific Prehistory Association (IPPA) 14, p. 22-26.
(online at: http://journals.lib.washington.edu/index.php/BIPPA/article/view/11584/10215)
(Flake tools made of chalcedony, jasper, etc., and supposedly made by Homo erectus, first discovered by Von Koenigswald in 1936. Flakes can be found throughout Kabuh Fm at Ngebung, NW Sangiran Dome, C. Java)

Simanjuntak, T. & F. Semah (2006)- Indonesia-Southeast Asia: Climates, settlements, and culture in Late Pleistocene. Comptes Rendus Palevol 5, 1-2, p. 371-379.
(online at: www.sciencedirect.com/science/article/pii/S1631068305001314)
(Late Pleistocene period between Paleolithic culture, and Early Holocene Pre-neolithic culture (~45ka-11.8 ka). Climate and sea level fluctuations and appearance of oldest Homo sapiens, replacing Homo erectus)

Simanjuntak, T., F. Semah & C. Gaillard (2010)- The Palaeolithic in Indonesia: nature and chronology. Quaternary International 223-224, p. 418-421.
(Brief review of Indonesian 'older' Paleolithic stone tool assemblages. Human presence on Java dates back to ~1.5 Ma, but no stone tools known older than ~1.0 Ma)

Simanjuntak, T., F. Semah & A.M. Semah (2014)- Tracking evidence for modern human behavior in Paleolithic Indonesia. In: Y. Kaifu et al. (eds.) Emergence and diversity of modern human behavior in Paleolithic Asia, Peopling of the Americas Publications, Texas A&M University Press, p. 158-170.
(Homo sapiens may have colonized Indonesian Archipelago in early U Pleistocene. Most reliable evidence only since ~45 ka (Paleolithic sites with artifacts in Gunung Sewu, S Java))

Simanjuntak, T., F. Semah, A.M. Semah & H. Widianto (2023)- La prehistoire d'Indonesie: une breve synthese. L'Anthropologie 127, 3, 103148, p.
('The Prehistory of Indonesia, a brief synthesis'. Prehistory of Indonesia covers 1.5 million years, punctuated by major changes in evolution, adaptation and culture of human groups. Seven major stages: (1) arrival of Homo erectus; (2) spreading of the Acheulean tradition; (3) arrival of Homo sapiens; (4)) Pleistocene-Holocene transition; (5) arrival of Austro-asiatic populations; (6) arrival of Austronesiens, and (7) influence of megalithic traditions with use of metal, a few centuries before our era. Historical period starts with introduction of Hindu-Buddhist influence at ~4th/5th centuries AD.)

Sipola, M.E. (2018)- Formation of the Ngandong paleoanthropological site and Solo River terrace sequence, Central Java, Indonesia. Ph.D. Thesis University of Iowa, p. 1-246.
(online at: https://ir.uiowa.edu/etd/6286)
(Paleoanthropological excavations in Late Pleistocene fluvial terrace along Solo River at Ngandong uncovered 14 Homo erectus fossils. Preliminary Red Thermo Luminescence analyses of Ngandong terrace deposits did not provide reliable ages. Position at low terrace level and U-series dating suggest these may be the most recent known H. erectus in world (?; Oppenoorth (1932) and many late authors view Ngandong 'Solo Man' as separate species, H. soloensis, and relationship to H. erectus s.s. remains to be determined; JTvG))

Siswanto & S. Noerwidi (2014)- Fosil Proboscidea dari situs Semedo: hubungannya dengan biostratigrafi dan kehadiran manusia di Jawa. Jurnal Berkala Arkeologi 34, 2, p. 115-130.
(online at: http://balaiarkeologiyogya.com/berkalaarkeologi/article/view/20/37)
('Proboscidea fossils from Semedo site: its correlation with biostratigraphy and human arrival in Java'. Semedo site in Tegal district of C Java rich in vertebrate fossils, with high percentage and several species of Proboscidea (elephantoids): Sinomastodon bumiayuensis, Stegodon trigonocephalus, Stegodon 'pygmy' semedoensis, Stegodon hypsilophus, Elephas (Archidiskodon) planifrons and Elephas hysudrindicus)

Siswanto, S. & S. Noerwidi (2017)- Posisi fauna situs Patiayam dalam biostratigrafi Jawa. Berkala Arkeologi Sangkhakala 19, 2, p. 149-166.
(online at: https://sangkhakala.kemdikbud.go.id/index.php/SBA/article/view/31/pdf_1)

('The faunal position of Patiayam site in the biostratigraphy of Java'. Patiayam fauna fits between Cisaat group and Kedungbrubus group, recording environmental change and faunal inhabitants from 1.2-0.8 Ma)

Skeels, A., L.M. Boschman, I.R. McFadden, E.M. Joyce, O. Hagen, O. Jimenez Robles, W. Bach et al. (2023)- Paleoenvironments shaped the exchange of terrestrial vertebrates across Wallace's Line. Science 381, 6653, p. 86-92.
(online at: https://dspace.library.uu.nl/bitstream/handle/1874/429755/science.adf7122.pdf)
(Precipitation tolerance and dispersal ability were key for faunal exchange across the precipitation gradient spanning Indo-Australian region. 'Sundanian' (SE Asian) taxa evolved in humid climate similar to "stepping stones" of Wallacea, facilitating colonization of 'Sahulian' (Australian) continental shelf. Sahulian taxa evolved in more arid conditions, hampering migration into humid Sunda, causing asymmetrical migration)

Smith, H.E., G.J. Price, M. Duval, K. Westaway, J. Zaim, Y. Rizal, Aswan et al. (2021)- Taxonomy, taphonomy and chronology of the Pleistocene faunal assemblage at Ngalau Gupin cave, Sumatra. Quaternary International 603, p. 40-63.
(online at: www.sciencedirect.com/journal/quaternary-international/vol/603/suppl/C)
(Ngalau Gupin caves in Padang Highlands ~90 km from Sawahlunto rich in fossils, mainly isolated animal teeth. Diverse Pleistocene faunal assemblage (Proboscidea, Primates, Rodentia, Artiodactyla, Perissodactyla, Carnivora). Analogous to extant fauna in modern rainforests of Sumatra. Assemblage dated at ~160- ~115 ka)

Smith, T. M., A. Houssaye, O. Kullmer, A. Le Cabec, A.J. Olejniczak, F. Schrenk, J. de Vos & P. Tafforeau (2018)- Disentangling isolated dental remains of Asian Pleistocene hominins and pongines. PLoS One 13, 11, e0204737, p. 1-23.
(online at: https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0204737)
(Examination of enamel thickness, enamel-dentine junction shape, and crown development in 33 molars from Von Koenigswald's Chinese Apothecary collection in Frankfurt (11 Sinanthropus officinalis [= Homo erectus], 21 Hemanthropus peii, and one Hemanthropus peii or Pongo) and 7 molars from Sangiran dome, Java (Homo erectus or Pongo). Homo and Pongo molars overlap in enamel thickness, etc. Need for additional studies)

Smith, T.M., A.J. Olejniczac, K.Kupczik, V. Lazzari, J. de Vos, O. Kullmer, F. Schrenk et al. (2009)- Taxonomic assessment of the Trinil molars using non-destructive 3D structural and development analysis. PaleoAnthropology: p. 117-129.
(online at: https://projects.iq.harvard.edu/files/tanyasmith/files/15.pdf)
(Two molars recovered by E. Dubois in 1891-1892 at Trinil, C Java, have been debate and attributed to several ape (Pongo) and human taxa. X-ray imaging suggests the molars are indeed Homo erectus teeth)

Soares, P., J.A. Trejaut, J.H. Loo, C. Hill, M. Mormina et al. (2008)- Climate change and postglacial human dispersals in Southeast Asia. Molecular Biology and Evolution 25, 6, p. 1209-1218.
(online at: https://academic.oup.com/mbe/article/25/6/1209/1134230)
(Modern humans in Island SE Asia since at least 50,000 years, commonly thought to be from Neolithic dispersal from China. Genome sequencing of modern humans suggest migration of humans from Sundaland across region since start of Holocene, at time of Sundaland breaking up into archipelago by rising sea levels)

Soejono, R.P. (1961)- Kebudatjaan Patjitan. Madjelis Ilmu Pengetahuan Indonesia, Penerbitan 2, p. 243-241.
('The Patjitan Culture')

Soejono, R.P. (1961)- Preliminary notes on new finds of Lower-Palaeolithic implements from Indonesia. Asian Perspectives 5, 2, p. 217-232.
(Review of Lower Paleolithic stone tools from Java, Sumatra, Kalimantan)

Soejono, R.P. (1969)- The history of prehistoric research in Indonesia to 1950. Asian Perspectives 12, p. 69-91.
(online at: https://scholarspace.manoa.hawaii.edu/server/api/core/bitstreams/8c05c190-65fc-4fd9-89a0-bcb9a0863292/content)

(Review of archeological work in the Indonesian region before 1950, incl. Paleolithic-Neolithic stone tools, bronze drums and other object, megalithic remains, fossilized human remains)

Soejono, R.P. (1970)- The study of Prehistory in Indonesia: retrospect and prospect. Asian Perspectives 13, p. 11-15.
(Archeological research in Indonesia in 1800s by naturalists, missionaries, military officers, civil servants, painters and photographers. Among founders of Indonesian archaeology are T.S. Raffles, R.H.T. Friederich and J. W. Ijzerman. Early work focused on Hindu-Javanese history. More systematic prehistoric research by Archaeological Service after 1921, with researchers P. V. van Stein Callenfels, R. von Heine-Geldern and A. N. J. Thomassen a Thuessink van der Hoop. After WW II, H.R. van Heekeren became prehistorian at Archaeological Service in Jakarta and made important contributions on Palaeolithic, Mesolithilithic and Bronze ages. Etc.)

Soejono, R.P. (1982)- New data on the Palaeolithic industry in Indonesia. In: M.A. de Lumley (ed.) Colloque Int. CNRS L'*Homo erectus* et la place de l'Homme de Tautavel parmi les hominides fossiles, Nice p. 578-592.

Soeradi, T., T. Shibasaki, D. Kadar, Sudijono, M. Itihari, H. Kumai et al. (1985)- Geology and stratigraphy of the Trinil Area. In: N. Watanabe & D. Kadar (eds.) Quaternary geology of the hominid fossil bearing formations in Java. Geological Research Development Centre (GRDC), Bandung, Special Publ. 4, p. 49-53.
(Re-examination of Dubois and Selenka mammal locality at Trinil, by an Indonesian-Japanese team in 1976-1977. The main bone bed with Dubois' Pithecanthropus erectus at the base of the 45-53m thick Kabuh Fm at Trinil (Hauptknochenschicht') is unconformably over the Pucangan Fm, and is remarakably similar to Pithecanthropus-bearing 'Grenzbank' in Sangiran)

Soerastopo Hadisoemarno (1972)- Geomorphology of the Sangiran dome, Java, Indonesia. Ilmu Alam, 1, p. 57-65. *(in Indonesian)*

Soergel, W. (1914)- Stegodonten aus den Kendengschichten auf Java. Palaeontographica, Supplement 4, 3, 1, p. 1-24.
(online at: http://sammlungen.ub.uni-frankfurt.de/botanik/periodical/pageview/4499569)
('Stegodont elephants from the Kendeng beds on Java'. Descriptions of Pleistocene Stegodont elephant teeth collected by J. Elbert, described by Prof. Wolfgang Soergel of the University of Freiburg)

Sondaar, P.Y. (1981)- The *Geochelone* faunas of the Indonesian Archipelago and their paleogeographical and biostratigraphical significance. Modern Quaternary Research in Southeast Asia 6, Balkema, Rotterdam, p. 111-120.
(E Pleistocene giant tortoise Geochelone atlas known from Java (Sangiran, Kali Klagah), Sulawesi and Timor. Probably part of island faunas, which became extinct with arrival of Asiatic mammals via land bridge in E Pleistocene. (see also critical discussion by Hooijer 1982))

Sondaar, P.Y. (1984)- Faunal evolution and the mammalian biostratigraphy of Java. In: P. Andrews & J.L. Franzen (eds.) The early evolution of man with special emphasis on Southeast Asia and Africa. Courier Forschungsinstitut Senckenberg 69, p. 219-235.
(Re-interpretation of fossil mammal successions on Java, linked to changes in paleobiogeography. Seven Late Pliocene- Pleistocene vertebrate faunas, from old to young: Satir (early island fauna), Ci Saat, Trinil HK (with arrival of Homo erectus), Kedung Brubus, Ngandong, Punung and Wajak faunas)

Sondaar, P.Y. (1987)- Pleistocene man and extinctions of islands endemics. Memoires Societe Geologique France, N.S., 150, p. 159-165.

Sondaar, P.Y. (1989)- Did man reach Australia via the giant rat and Dingo route? Geological Research Development Centre (GRDC), Bandung, Seri Paleontologi 5, p. 76-83.
(Discussion of possible routes followed by Pleistocene man from China to Australia)

Sondaar, P. (1993)- De *Stegodon* van Flores. Cranium 10, 1, p. 47-48.

(online at: http://natuurtijdschriften.nl/download?type=document&docid=523307)
(Elephantoid Stegodon rel. common in Plio-Pleistocene of SE Asia. Dwarf species known from Sulawesi, Flores, Sumba and Timor (many of these first found by missionary Verhoeven))

Sondaar, P. (1994)- De *Homo erectus* fauna's van Java. Cranium 11, 2, p. 92-96.
(online at: http://natuurtijdschriften.nl/download?type=document&docid=523346)
('The Homo erectus faunas of Java'. Changes in faunal succession in Pleistocene of Java explained by: (1) geographical position of Java at periphery of SE Asia; 2) succession of glacials, causing sealevel lowering, connecting Java, Borneo and Sumatra with continent; 3) reduction of tropical rainforest during glacials (dry periods, favoring migration of mammals living in open habitats). Two major turnovers in faunal succession of Java: (1) ~1.2 Ma change from unbalanced island fauna (Satir fauna) to continental fauna (Ci-Saat fauna; with Homo erectus and disappearance of endemic island forms); (2) Late Pleistocene (~80.000 yrs ago) extinction of M Pleistocene forms (Stegodon, Hexaprotodon, Homo erectus), replaced with new fauna, with extant Elephas maximus and probably Homo sapiens)

Sondaar, P.Y., F. Aziz, G.D. van den Bergh & J. de Vos (1996)- Faunal change and hominid evolution during Quaternary of Jawa. Geological Research Development Centre (GRDC), Bandung, Seri Paleontologi 8, p. 1-10.
(Quaternary vertebrate assemblages, from old to young: (1) Satir (lower Kali Glagah, Bumiayu; unbalanced island fauna; ~1.5 Ma), (2) Cisaat (upper Kali Glagah, Bumiayu;still unbalanced fauna, ~1.2 Ma), (3) Trinil H.K ('Hauptknochenschicht'; with Homo erectus, ~1.0 Ma), (4) Kedung Brubus (upper Bapanmin Sangiran), (5) Ngandong (Solo River terrace deposits), (6) Punung (Late Pleistocene (humid tropical rainforest assemblage; last interglacial?, fissure deposits with Homo sapiens) and (7) Wajak (Wajak cave in E Java; Holocene, with Homo sapiens). Homo erectus in several different stratigraphic levels)

Sondaar, P.Y., J. de Vos & J.J.M. Leinders (1983)- Reply. Facts and fiction around the fossil mammals of Java. Geologie en Mijnbouw 62, p. 339-343.
(Discussion of Bartstra (1983) critique of De Vos, Sartono et al. (1982) reinterpretation of relative ages of mammalian faunas of Trinil and Kedungbrubus of Java. See also Hooijer 1983, Hooijer and Kurten 1984)

Sondaar, P.Y., G.D. van den Bergh, J. de Vos & F. Aziz (1995)- *Homo erectus* in S.E. Asia: time space and migration routes, IV. Overseas traveling of *Homo erectu*s and faunal turnovers. In: J. Gibert et al. (eds.) Proc. International Conference The hominids and their environment during the Lower and Middle Pleistocene of Eurasia, Orce 1995, p. 383-388.
(Homo sapiens generally believed to be first human to cross water barriers (since ~50 ka). Stone tools of 0.7 Ma in age found on Flores suggest the much older Homo erectus probably also had this capability)

Sondaar, P.Y., G.D. van den Bergh, J. de Vos & F. Aziz (2001)- The Flores case: the earliest island colonizers. Geological Research Development Centre (GRDC), Bandung, Special Publ. 27, p. 15-19.

Sondaar, P.Y., G.D. van den Bergh, B. Mubroto, F. Aziz, J. de Vos & U.L. Batu (1994)- Middle Pleistocene faunal turnover and colonization of Flores (Indonesia) by *Homo erectus*. Comptes Rendus Academie Sciences, Paris, II, 319, p. 1255-1262.
(Stone artifacts made of basalt, associated with fossil Stegodon trigonocephalus florensis Hooijer and fresh water molluscs in fluvial sands and tuffs of Ola Bula Fm near Mata Menge, W Central Flores. Tools probably made by Homo erectus and dated as slightly older than 0.73 Ma (based on possibly erroneous Matuyama- Brunhes paleomag interpretation and actually closer to 0.8-0.9 Ma: Morwood et al. 1998). Older endemic island fauna at base Ola Bula Fm at Tangi Talo, with pygmy Stegodon, Geochelone (large tortoise) and Varanus komodoensis)

Spriggs, M., C. Reepmeyer, Anggraeni, P. Lape, L. Neri, W.P. Ronquillo, T. Simanjuntak, G. Summerhayes et al. (2011)- Obsidian sources and distribution systems in Island Southeast Asia: a review of previous research. J. Archaeological Science 38, p. 2873-2881.
(online at: https://faculty.washington.edu/plape/pubs/JAS%202011.pdf)
(Review of distribution and origin of stone age obsidian artifacts in Philippines, Sulawesi, Flores, W and E Java, S Sumatra, Borneo and E Timor. Many probably sourced from islands on which they were found)

Stehlin, H.G (1925)- Fossile Saugetiere aus der Gegend von Limbangan (Java). Dienst Mijnbouw Nederlandsch-Indie, Wetenschappelijke Mededeelingen 3, p. 1-12.
('Fossil mammals from the Limbangan area, Java'. Diverse Pleistocene mammal assemblage in conglomeratic sandstone near Limbangan on Pamali River, Brebes District, C Java (16 km W of Tegal). Incl. Stegodon, Elephas, cervids. By Swiss vertebrate paleontologist Hans Georg Stehlin)

Storm, P. (1992)- Two microliths from Javanese Wadjak Man. J. Anthropological Society of Nippon 100, 2, p. 191-203.
(online at: https://www.jstage.jst.go.jp/article/ase1911/100/2/100_2_191/_pdf)
(Two hominid stone tools made from limestone, from rock shelter known as Wajak site on mountain slope in S Java, S of Mt Willis near village of Wajak, site of human skull first found by Van Rietschoten in 1888)

Storm, P. (1994)- De morfologie van *Homo modjokertensis*. Cranium 11, 2, p. 97-102.
(online at: http://natuurtijdschriften.nl/download?type=document&docid=523347)
(Mojokerto skull from E Java, described by Von Koenigswald (1936) as Homo modjokertensis, is juvenile skull, but not possible to determine if early (Homo erectus erectus) or late (Homo erectus soloensis) Javanese form (Dubois 1940 considered this to be rel. young Homo wadjakensis= H. soloensis))

Storm, P. (1995)- The evolutionary significance of the Wajak skulls. Scripta Geologica 110, p. 1-247.
(online at: https://repository.naturalis.nl/pub/317406)
Two Late Pleistocene- Holocene robust hominid skulls from fissure fill breccia in limestone of the Southern Mountains, Gua Wajak, SE Java, first described by Dubois (1922). Most likely interpretation as Mesolithic robust representatives of present Homo sapiens of Java)

Storm, P. (1997)- Fossielen uit de hete hel van Java. Cranium 14, 2, p. 91-98.
(online at: https://natuurtijdschriften.nl/pub/523415/CRAN1997014002006.pdf)
('Fossils from the hot hell of Java'. Report on a 1996 trip to hominid fossil sites of Java)

Storm, P. (2000)- The evolutionary history of humans in Australasia from an environmental perspective. Anthropological Science 108, 3, p. 225-260.
(online at: https://www.jstage.jst.go.jp/article/ase1993/108/3/108_3_225/_pdf)

Storm, P. (2001)- The evolution of humans in Australasia from an environmental perspective. In: R.A.C. Dam & S. van der Kaars (eds.) Quaternary environmental change in the Indonesian region, Palaeogeogr. Palaeoclim. Palaeoecology 171, p. 363-383.
(Incl. climatic sequence for Java: before and around 135 ka climate considerably drier and hot; between 126- 81 ka mainly humid-warm (with Punung fauna), becoming drier and cooler (with Wajak fauna) before returning to more interglacial conditions in Holocene)

Storm, P. (2006)- De "Hobbit" van Flores: een mensachtige eilandvorm. Cranium 23, 2, p. 3-14.
(online at: http://natuurtijdschriften.nl/download?type=document&docid=523527)
(Prehistoric "hobbit" of Flores with small size (1m tall) and endocranial volume, cannot be compared with anything else in human family tree. Most likely new species, Homo floresiensis, that fits with island evolution)

Storm, P. (2012)- A carnivorous niche for Java Man? A preliminary consideration of the abundance of fossils in Middle Pleistocene Java. Comptes Rendus Palevol 11, 2-3, p. 191-202.
(online at: https://www.sciencedirect.com/journal/comptes-rendus-palevol/vol/11/issue/2)
(Anatomical and archeological aspects of Homo erectus sites Kedung Brubus and Trinil suggest vertebrates meat was important part of hominid diet)

Storm, P., F. Aziz, J. de Vos, D. Kosasih, S. Baskoro, Ngaliman & L.W. van den Hoek Ostende (2005)- Late Pleistocene *Homo sapiens* in a tropical rainforest fauna in East Java. J. Human Evolution 49, 4, p. 536-545.

(online at: www.academia.edu/ 18341302/Late_Pleistocene_Homo_sapiens_in_a_tropical_rainforest_ fauna_in_East_Java)
(Redescription of two original sites of 'Punung fauna', as first described by Von Koenigswald (1939) and Badoux (1959) from karst hills in Southern Mountains of E Java. Punung and new nearby mammal site Gunung Dawung reflect tropical rainforest environment with common Pongo (orangutan) fossils. Punung fauna younger than Ngandong, possibly around 100 ka)

Storm, P. & J. de Vos (2006)- Rediscovery of the Late Pleistocene Punung hominin sites and the rediscovery of a new site Gunung Dawung in East Java. Senckenbergiana Lethaea 86, 2, p. 121-131.
(On re-location of Von Koenigswalds's Pleistocene Punung sites where in 1930s he collected hominin remains and mammals indicative of tropical rainforest like orang-utans (Pongo) and gibbons (Hylobates))

Storm, P. & A.J. Nelson (1992)- The many faces of Wajak Man. Archaeology in Oceania 27, p. 37-46.
(online at: www.oermens.nl/many_faces_wadjak.pdf)
('Wadjak Man' first fossil hominid found in SE Asia (S Java in 1888 by Dubois). Initially believed to be ancestral to Australian Aborigines, but material sub-recent and first occupation of Australia well into Pleistocene (50ka?))

Storm, P., R. Wood, C. Stringer, A. Bartsiokas, J. de Vos, M. Aubert, L. Kinsley & R. Grun (2013)- U-series and radiocarbon analyses of human and faunal remains from Wajak, Indonesia. J. Human Evolution 64, p. 356-365.
(Radiometric dating of human and faunal bone fragments from Wajak, Java, indicate minimum age of 37.4- 28.5 ka, older than previously published radiocarbon estimates, probably due to secondary carbonatisation. Requires reassessment of evolutionary relationships of human remains in SE Asia- Oceania)

Stremme, H. (1911)- Die Saugetiere mit Ausnahme der Proboscidier. In: M.L. Selenka & M. Blanckenhorn (eds.) Die Pithecanthropus-Schichten auf Java, geologische und palontologische Ergebnisse der Trinil Expedition (1907 und 1908), W. Engelmann, Leipzig, p. 82-150.
('The mammals, not including elephants', from Pleistocene of Trinil, from material collected by Selenka expedition, 1907-1908. Descriptions of rodents, Rhinoceros, Sus brachygnathus, Hippopotamus, Cervus (Axis) lydekkeri, Duboisia, Buffelus, Bibos spp., etc.))

Sudijono, K. Mano & R. Wikarno (eds.) (1995)- Geology of the Quaternary environment of the Solo-Madiun area, Central-East Java. Geological Research Development Centre (GRDC), Bandung, Special Publ. 17, p. 1-128.

Suharyogi, I.Y.P., U.P. Wibowo, H. Insani & E. Setiyabudi (2019)- *Duboisia santeng* (Bovidae, Artiodactyla) dari Bumiayu. Bull. Scientific Contribution (UNPAD): Geology 17, 1, p. 1-7.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/20639/pdf)
('Duboisia santeng from Bumiayu', Java. Left bovidae horncore found in 2016 at Santanaya River, Cisaat (Bumiayu). Assigned to Duboisia santeng (Dubois, 1891). Probably from M Pleistocene Gintung Fm, possibly Kedung Brubus Fauna. Environment open woodland)

Suminto, J. Kimura & T. Hirayama (1995)- Subsurface geology in Sangiran, Kedungbrubus and Ponorogo area. In: Sudijono et al. (eds.) Geology of Quaternary environment of the Solo-Madiun area, Central-East Java, Geological Research Development Centre (GRDC), Bandung, Special Publ. 17, p. 81-86.

Suminto, M.J. Morwood, I. Kurniawan, F. Aziz, G.D. van den Bergh & D.R. Hobbs (2009)- Geology and fossil sites of the Soa Basin, Flores, Indonesia. In: F. Aziz et al. (eds.) Pleistocene geology, palaeontology and archaeology of the Pleistocene Soa Basin, Central Flores, Indonesia, Chapter 2, Pusat Survei Geologi, Bandung, Special Publ. 36, p. 19-40.
(online at: https://www.researchgate.net/publication/313226301_Pleistocene_geology_palaeontology_and_ archaeology_of_the_Soa_Basin_Central_Flores_Indonesia)
(Ages from Flores classic Mata Menge site: tuff sealing top of fossil layer (with Stegodon florensis and in-situ stone artefacts) with fission track age of 800 ± 70 Ma, while pink tuffaceous silt immediately below main fossil deposit dated as 880 + 70 ka. Tangi Talo site with pygmy Stegodon sondaari and giant tortoise and FT age 900

± 70 ka. Around 680 ka lake increased in size one leading to deposition of thin-bedded freshwater limestones of Upper limestone. Tektite at surface of Dozu Dhalu site with in-situ artefact and Stegodon florensis)

Suminto, G.D. van den Bergh, I. Saefudin & K. Mano (1996)- The stratigraphy and sedimentology of the hominid skull find site, Grogolan Wetan, Sangiran area, Central Jawa. Geological Research Development Centre (GRDC), Bandung, Seri Paleontologi 8, p. 51-57.
(New H. erectus skull from upper Bapang Fm, between Upper Tuff and Uppermost Lahar. This is youngest level of hominid fossil occurrence in Sangiran)

Sunardi, E. (2010)- Penelitian magnetostratigrafi dan penerapan satuan stratigrafi polaritas magnet sebagai satuan kronostratigrafi: studi kasus di cekungan Bandung serta daerah Mojokerto dan Sangiran, Jawa. Jurnal Geologi Indonesia 5, 2, p. 137-150.
(online at: http://ijog.bgl.esdm.go.id/index.php/IJOG/article/view/99/99)
('Magnetostratigraphy study and application of magnetic polarity stratigraphy units as chronostratigraphy units: a case study in the Bandung Basin and the Mojokerto and Sangiran regions, Java'. Magnetic polarity reversals of rocks in Sangiran Area (C Java), Mojokerto (E Java; 3 Ma) and Bandung Basin (W Java; 4 Ma) correlated to magnetostratigraphy of Pleistocene formations at Mojokerto)

Suryatman, R.R. Triwurjani, S. Adhityatama, D. Bulbeck, D. Yurnaldi, A. Murdihastomo, J. Wahyudiono, Abdullah & M.D.K. Dhony (2021)- Flaking stone activity in the tradition of iron smelting from the 8th to 17th centuries AD in the Matano region, South Sulawesi, Indonesia. J. Archaeological Science: Reports 36, 102817, p. 1-12.
(online at: https://archaeobib.iseaarchaeology.org/files/original/4a3b3b4241d9db83aaa35e4fc6f8ccc0.pdf)
(New iron smelting sites in Lake Matano region, E Sulawesi (NE of S Sulawesi provicnce), including submerged sites. Belonging to iron-smelting industry developed here in 8th-17th centuries AD. Thousands of chert artifacts excavated from Rahumpu'u lakeshore site were used as strike-a-lights for combustion of fuel for iron smelting. Flaking chert was one of skills possessed by Matano indigenous iron smelters,to produce high quality iron)

Sutikna, T. (2016)- New archaeological research at Liang Bua on the island of Flores: implications for the extinction of *Homo floresiensis* and the arrival of *Homo sapiens* in eastern Indonesia. Ph.D. Thesis, School of Earth and Environmental Sciences, University of Wollongong, p. 1-206.
(online at: https://ro.uow.edu.au/theses/4745/)
(Series of new excavations at Liang Bua, Flores, between 2007 and 2014 led to new interpretation of time of H. floresiensis extinction (~50 ka) and H. sapiens arrival (~46 ka) (no longer necessarily overlap in age))

Sutikna, T., M.W. Tocheri, J.T. Faith, R.D. Awe, H.J. Meijer, E.W. Saptomo & R.G. Roberts (2018)- The spatio-temporal distribution of archaeological and faunal finds at Liang Bua (Flores, Indonesia) in light of the revised chronology for *Homo floresiensis*. J. Human Evolution 124, 52e74, p. 52-74.
(online at: https://www.sciencedirect.com/science/article/pii/S0047248417303160)
(Liang Bua limestone cave in Flores is, the type site of Homo floresiensis. Sdimentary deposits range from ~190 ka to present. Skeletal remains of H. floresiensis ~100-60 ka old; cultural evidence until ~50 ka. Major shifts in faunal and stone artifacts reflect marked changes in paleoecology and hominin behavior. H. floresiensis and Stegodon florensis insularis, along with giant marabou stork and vulture, likely extinct by ~50 ka. Increased use of chert occurs at ~46 ka may characterize Homo sapiens assemblages at Liang Bua)

Sutikna, T., M.W. Tocheri, M.J. Morwood, E.W. Saptomo, Jatmiko, R.D. Awe, Sri Wasisto, K.E. Westaway, M. Aubert et al. (2016)- Revised stratigraphy and chronology for *Homo floresiensis* at Liang Bua in Indonesia. Nature 532, 7599, p. 366-369.
(online at: www.academia.edu/23978420/Revised_stratigraphy_and_chronology_for_Homo_floresiensis_Etc.)
(Skeletal remains and deposits with H. floresiensis dated as 100- 60 ka. Stone artefacts range from ~190-50 ka. Not clear if H. floresiensis survived after 50 ka and potentially encountered modern humans on Flores or other hominins dispersing through SE Asia)

Suyanto A. & C.H.S. Watts (2002)- Verhoeven's giant rat of Flores, Indonesia (*Papagomys theodorverhoeveni* Musser, 1981; Muridae) is a modern species. Treubia 32, 1, p. 87-93.
(online at: https://pdfs.semanticscholar.org/fee8/f23bfe0979528dbe13e57c4a222a8afbf16c.pdf)
(Report of recent specimen in collections of Museum Zoologicum Bogoriense of P. theodorverhoevei, which was generally believed to be extinct. See also Zijlstra et al. 2008)

Suyono (2009)- The study of fossil faunas in the Walanae Basin, Indonesia. Ph.D. Thesis University of Wollongong, Australia, p. 1-115.
(online at: http://ro.uow.edu.au/theses/3058/)
(Mainly on morphology and phylogenetic history of Celebochoerus heekereni, an endemic pig species from Pliocene in Walanae Basin, SW Sulawesi)

Suzuki, M., Wikarno, Budisantoso, I. Saefudin & M. Itihara (1985)- Fission track ages of pumice tuff, tuff layers, and javites of fossil hominid fossil-bearing formations in Java. In: N. Watanabe & D. Kadar (eds.) Quaternary geology of the hominid fossil bearing formations in Java, Geological Research Development Centre (GRDC), Bandung, Special Publ. 4, p. 309-357.
(Eight radiometric ages from 21 pumice tuff layers and 2 javites of Pleistocene of Sangiran. Tuffs from Pucangan Fm 1.16 Ma and Kabuh Fm 0.71- 0.78 Ma). Javites (tektites) 0.71 Ma)

Swisher, C.C., G.H. Curtis, T. Jacob, A.G. Getty, A. Suprijo & Widiasmoro (1994)- Age of the earliest known hominids in Java, Indonesia. Science 263, p. 1118-1121.
(40Ar/39Ar ages from pumice from Mojokerto hominid sites 1.81 and 1.66 Ma, 0.6 million years older than Homo erectus fossils from Olduvai Gorge, and comparable to age of H cf. erectus (H. ergaster) in Kenya. Ages would suggest Homo erectus may have evolved in Asia instead of Africa (NB: these Java age dating results widely disputed in subsequent literature due to erroneous locality information (Huffman et al. 2006, etc.))

Swisher, C.C., G.H. Curtis & R. Lewin (2000)- Java Man- how two geologists' dramatic discoveries changed our understanding of the evolutionary path to modern humans. Scribner, New York, p. 1-244.
(Popular account of events leading to new conclusions on human evolution. (This 'dramatic discovery' is highly controversial; the unusually old age date of Mojokerto hominids probably based on erroneous location information; JTvG)

Swisher, C.C., W.J. Rink, S.C. Anton, H.P. Schwartz, G.H. Curtis & A. Suprijo (1996)- Latest *Homo erectus* of Java; potential contemporaneity with *Homo sapiens* in Southeast Asia. Science 274, p. 1870-1874.
(Hominid fossils from Ngandong and Sambungmacan considered the most morphologically advanced Homo erectus. Dating of fossil bovid teeth collected from hominid-bearing levels gave mean ages of 27 to 53 ka, much younger than previous age estimates for these hominids (results unrealistically young?; see also Grun and Thorne 1997, Indriati et al. 2011; JTvG))

Tassy, P., P. Anupandhanant, L. Ginsburg, P. Mein, B. Ratanasthien & V. Suteethorn (1992)- A new *Stegolophodon* (Proboscidea, Mammalia) from the Early Miocene of northern Thailand. Geobios 25, 4, p. 511-523.
(First complete molars of Stegolophodon from Miocene basins of N Thailand: complete M3 from Mae Mob (M Miocene) and partial mandible with M2-M3 from Na Sm (E Miocene))

Tattersall, I. & J.H. Schwartz (2009)- Evolution of the genus *Homo*. Annual Review Earth Planetary Sciences 37, p. 67-92.
(General review of hominid evolution in last ~2 Myrs. Heterogeneity among 'early African Homo erectus' and no clear link to Asian Homo erectus group. Pithecanthropus (now Homo) erectus now reckoned to be ~0.7- 1.5 Myr old. First truly cosmopolitan Homo is H. heidelbergensis, known from Africa, Europe and China 600 kyr ago. Homo sapiens originated in Africa)

Taufik, L., J.C. Teixeira, B. Llamas, H. Sudoyo, R. Tobler & G.A. Purnomo (2022)- Human genetic research in Wallacea and Sahul: Recent findings and future prospects. Genes (MDPI) 13, 12, 2373, p. 1-11.

(online at https://www.mdpi.com/2073-4425/13/12/2373)
(Review of genetic sequence data from human populations in E Indonesia and New Guinea- Australia. All present-day non-African human populations carry at least 2% Neanderthal genetic ancestry, with Denisovan DNA occurring at trace levels in S and E Asians, but considerably more (~2-6%) in populations living today E of Wallace Line)

Teixeira, J.C., G.S. Jacobs, C. Stringer, J. Tuke, G. Hudjashov, G.A. Purnomo, H. Sudoyo, M.P. Cox et al. (2021)- Widespread Denisovan ancestry in Island Southeast Asia but no evidence of substantial super-archaic hominin admixture. Nature Ecology & Evolution 5, p. 616-624
(online at: https://www.researchgate.net/publication/350299475_Widespread_Denisovan_ancestry_in_Island_Southeast_Asia_but_no_evidence_of_substantial_super-archaic_hominin_admixture)
(Hominin fossil record of Island SE Asia (ISEA) shows at least two endemic 'super-archaic' species (Homo luzonensis in Philippines and H. floresiensis on Flores) were present when anatomically modern humans arrived in region >50,000 years ago. Modern humans across SE Asia (and especially in Australo-Papuan populations) carry genomic traces of ancient interbreeding with Denisovans- a hominin lineage without any fossil record in ISEA. New genetic data corroborate widespread Denisovan ancestry in present-day SE Asia human populations, but no super-archaic admixture signals)

Ter Haar, C. (1934)- *Homo-soloensis*. De Ingenieur in Nederlandsch-Indie (IV) 1, 4, p. IV.51- IV.57.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1934-04.pdf)
(Summary of lecture. Discussion of geological setting of Homo soloensis discovery in 1932 in Solo River terrace deposits at Ngandong, Kendeng Hills, C Java. Associated with rich (Late?) Pleistocene mammal fauna, with Stegodon (primarily forest fauna). Ngandong yielded multiple human skulls, but, reamrably, only skull caps.)

Theunissen, B. (1989)- Eugene Dubois and the ape-man from Java; The history of the first "missing link" and its discoverer. Kluwer Academic Publishers, Dordrecht, p. 1-293.
(Study of the life and scientific contributions of Eugene Dubois, discoverer of 'Java Man' in 1891)

Theunissen, B., J. de Vos, P.Y. Sondaar & F. Aziz (1990)- The establishment of a chronological framework for the hominid-bearing deposits of Java: a historical survey. In: L.F. La Porte (ed.) Establishment of a geologic framework for paleoanthropology, Geological Society of America (GSA), Special Paper 242, p. 39-53.
(Brief historical survey of discovery of Pleistocene mammals and hominid-bearing deposits in Java since mid-1850's, and of attempts to establish chronological framework for Javanese hominids)

Thorne, A. & M.H. Wolpoff (1981)- Regional continuity in Australasian Pleistocene hominid evolution. American J. Physical Anthropology 55, 3, p. 337-349.
(Study of Sangiran 17 Homo erectus skull, interpreted to show similarities with Late Pleistocene Australian hominid)

Tiauzon, A. (2011)- Lithic technology in Song Terus during the late Middle Pleistocene and the early Upper Pleistocene. M.Sc. Thesis, Museum National Histoire Naturelle, Paris, p. 1-96.
(online at: http://hopsea.mnhn.fr/pc/thesis/M2%20Archie_TIAUZON.pdf)

Tjia, H.D. (2006)- Geological evidence for Quaternary land bridges in insular Southeast Asia. In: T. Simanjuntak et al. (eds.) Archaeology: Indonesian perspective, R.P. Soejono's Festschrift, LIPI Press, Jakarta, p. 71-78.
(During most of Quaternary (<1.8 Ma) four major land bridges provided access from SE Asia into Wallacea (= mobile region between Sundaland and Sahul-land): (1) Sabah/ Borneo via Palawan-Mindoro (Philippines), (2) Sabah/ Borneo via Sulu Archipelago to Mindanao (Philippines), (3) Kangean Gp via Paternoster platform to S Sulawesi, (4) Java/S Kalimantan via Banda Arc to Alor- Timor or via Sumba- Savu-Rote to Timor. Today these land bridges contain passages >200m deep, but probably result of recent tectonic subsidence, not older than 100 ka when modern humans began to populate region)

Tobias, P. (1966)- A re-examination of the Kedung Brubus mandible. Zoologische Mededelingen, Leiden, 41, p. 307-320.

(online at: http://dare.uva.nl/cgi/arno/show.cgi?fid=150000)
(Description of fragment of Pithecanthropus erectus jawbone collected by Dubois at Kedung Brubus in 1890 and described in 1924. Probably from juvenile individual)

Tobias, P.V. (1971)- The brain in hominid evolution. Columbia University Press, New York, p. 1-170.
(online at: https://ia800208.us.archive.org/21/items/braininhominidev38tobi/braininhominidev38tobi.pdf)
(With chapter 5 on Java Homo erectus. Brain capacity of Sangiran and Trinil Homo erectus average 860 cc))

Tobias, P.V. & G.H.R. von Koenigswald (1964)- A comparison between the Olduvai hominines and those of Java and some implications for hominid phylogeny. Nature 204, 4958, p. 515-518.

Tocheri, M.W., C. Orr, S. Larson, T. Sutikna, Jatmiko, E.W. Saptomo, R.A. Due, T Djubiantono, M.J. Morwood & W.L. Jungers (2007)- The primitive wrist of *Homo floresiensis* and its implications for hominin evolution. Science 317, 5845, p. 1743-1745.
(online at: www.researchgate.net/publication/5958398_The_Primitive_Wrist_of_Homo_floresiensis_and_Its_Implications_for_Hominin_Evolution)
(Wrist bones of holotype of Homo floresiensis (LB1) retains morphology primitive for African ape-human clade, and different from Neandertals and modern humans, indicating LB1 is species descended from hominin ancestor that branched off before origin of the clade that includes modern humans, Neandertals, etc.)

Tocheri, M.W., E.G. Veatch, Jatmiko, E.W. Saptomo & T. Sutikna (2022)- *Homo floresiensis*. In: C.F.W. Higham & N.C. Kim (eds.) The Oxford handbook of Early Southeast Asia, Chapter 2, p. 38-69.

Tokunaga, S., H. Oshima, A.A. Polhaupessy & Y. Ito (1985)- A palynological study of the Pucangan and Kabuh Formations in the Sangiran area. In: N. Watanabe & D. Kadar (eds.) Quaternary geology of the hominid fossil bearing formations in Java. Geological Research Development Centre (GRDC), Bandung, Special Publ. 4, p. 199-217.
(Preliminary palynological study of Pleistocene of Sangiran, C Java. Rel. common grass pollen from M-U Pucangan and Lower Kabuh Fms)

Turvey, S.T., J.J. Crees, J. Hansford, T.E. Jeffree, N. Crumpton, I. Kurniawan, E. Setiyabudi et al. (2017)- Quaternary vertebrate faunas from Sumba, Indonesia: implications for Wallacean biogeography and evolution. Proc. Royal Society (London), B, 284, 20171278, p. 1-10.
(online at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5577490/pdf/rspb20171278.pdf)
(New vertebrate fossil deposits on Sumba. Pleistocene deposit at Lewapaku in interior highlands may be close to 1 Ma old, with small Stegodon sumbaensis, tooth of Varanus komodoensis and fragments of giant murids. Holocene cave deposits at Mahaniwa (~2000-3500 BP) with large rats and extinct frugivorous Varanus hooijeri. Sumba Quaternary vertebrates typical island fauna, comparable to fauna of Flores)

Tyler, D.E. (1991)- A taxonomy of Javan hominid mandibles. J. Human Evolution 6, p. 401-420.
(presumably same as Tyler (1992), below). Seven human mandibular remains from Java (Kedung Brubus, Sangiran 1, 5, 6, 8, 9, and 22) are all from single species, Homo erectus)

Tyler, D.E. (1992)- A taxonomy of Javan hominid mandibles. Acta Anthropologica Sinica 11, 4, p. 292-299 *(in Chinese)*.
(online at: http://www.anthropol.ac.cn/EN/Y1992/V11/I04/285)

Tyler, D.E. (1995)- The current picture of hominid evolution in Java. Acta Anthropologica Sinica 14, 4, p. 313-323.
(online at: http://www.anthropol.ac.cn/EN/abstract/abstract806.shtml#1)
(Brief review of Home erectus and Meganthropus from Java. Present-day 'negritos' hunters-gatherers living in remote rainforests of SE Asia may have descended from Ngandong hominids (Homo soloensis), then became largely displaced by wave of farmers (modern Indonesians) from mainland Asia since ~5000 years ago)

Tyler, D.E. (1997)- New and significant fossil finds from Sangiran, Central Java. In: N. Jablonski (ed.) Changing face of East Asia during the Tertiary and Quaternary, Proc. Fourth Conference Evolution of the East Asian Environment, University of Hong Kong Press, p. 498-515.

Tyler, D.E. (2001)- "*Meganthropus*" cranial fossils from Java. J. Human Evolution 16, 2, p. 81-101.
(3 of 12 Homo erectus skulls from E-M Pleistocene of Sangiran may represent 'Meganthropus'. Meganthropus I, II, and III more massive than any known H. erectus specimens, also higher vaulted, smaller brained, and have thick lower occipital planes. May represent species that separated from H. erectus upon its arrival to Java)

Tyler, D.E. (2001)- Three new *Homo erectus* mandibles from Java. J. Human Evolution 16, 2, p. 103-115.
(online at: https://www.academia.edu/27285526/Three_newHomo_erectus_mandibles_from_Java)
(Eleven known Homo erectus manidublar pieces from E-M Pleistocene of Java, all from Sangiran, one from Kedung Brubus. Sangiran 21 (E), Sangiran 22 (F), and Sangiran 37 (G) first described here. Sangiran 21, 22, and 27 from U Pucangan Fm and dated as ~1.2 Ma)

Tyler, D.E. (2001)- Two new "*Meganthropus*" mandibles from Java. J. Human. Evolution 16, p. 151-158.
(Two new mandibles from U Pucangan Fm of Sangiran, C Java. Dated as ~1.2- 1.4 Ma. Morphologically compatible with other"Meganthropus" mandibles described from Java)

Tyler, D.E. (2003)- Sangiran 5 ("*Pithecanthropus dubius*"), *Homo erectus*, "*Meganthropus*" or *Pongo*? J. Human Evolution 18, 3-4, p. 229-241.
(Eleven E-M Pleistocene jaw fragments now known from Java, all but one from Sangiran. Morphologically, they are a mixture of undoubted H. erectus, 'H. meganthropus' and possibly a pongid. 'Pithecanthropus dubius' (Sangiran 5) may not be hominid, but if it is, must be placed with 'H. meganthropus', not H. erectus)

Tyler, D.E. (2004)- An examination of the taxonomic status of the fragmentary mandible Sangiran 5, *(Pithecanthropus dubius), Homo erectus, "Meganthropus"*, or *Pongo*? Quaternary International 117, p. 125-130.
(Morphology of Sangiran 5 mandible fossil, initially named Sangiran 1939 and recovered by Von Koenigswald, with characteristics beyond known range of any H. erectus and must be pongid ape)

Tyler, D.E., N. Jablonski & S. Sartono (1995)- Earliest known monkey fossil from the Indonesian Archipelago: an announcement. In: J.R.F. Bower & S. Sartono (eds.) Palaeo-anthropology: evolution and ecology of *Homo erectus*, Pithecanthropus Centennial Foundation, Leiden University, p. 213-216.
(Monkey fossil from Sangiran. See also Jablonski & Tyler1999 and Larick et al. 2000: not as old as assumed?)

Tyler, D.E., G.S. Krantz & S. Sartono (1995)- The taxonomic status of the '*Meganthropus*' cranial (Sangiran 31) and the '*Meganthropus*' occipital fragment III. In: J.R.F. Bower & S. Sartono (eds.) Palaeo-anthropology: evolution and ecology of *Homo erectus*, Pithecanthropus Centennial Foundation, Leiden, 1, p. 189-202.

Tyler, D.E. & S. Sartono (2001)- A new *Homo erectus* cranium from Sangiran, Java. Human Evolution 16, 1, p. 13-25.
(New H. erectus cranium found by local farmer in 1993 at Sangiran M Pucangan Fm, ~1.6-1.8 Ma in age. Braincase and most of face. Skull longer and narrower than Trinil, possibly female counterpart to Sangiran 17)

Urciuoli, A., J. Kubat, L. Schisanowski, F. Schrenk, B. Zipfel, M. Tawane, L. Bam et al. (2021)- Cochlear morphology of Indonesian *Homo erectus* from Sangiran. J. Human Evolution 165, 103163, p. 1-16.
(Cochlear morphology (bony labyrinth of inner ear) of two Indonesian H. erectus (Sangiran 2 and 4). Most characters found in later humans already present in Indonesian H. erectus, with exception of Neanderthals, which display an autapomorphic condition relative to other Homo species)

Van den Bergh, G.D. (1988)- *Duboisia santeng*, the endemic Pleistocene bovid from Java (Indonesia). Masters Dissertation, University of Utrecht, p. 1-72.
(Duboisia santeng (Dubois' antelope) extinct antelope-like bovid that was endemic to Indonesia in Pleistocene (since then also found in Thailand; JTvG))

Van den Bergh, G.D. (1990)- Sulawesi (Celebes): faunistisch en geologisch ontmoetingspunt der aardschollen. Cranium 7, 2, p. 68-76.
(online at: http://natuurtijdschriften.nl/download?type=document;docid=523240)
('Sulawesi: faunistic and geologic junction of earth plates'. Discussion of present-day endemic fauna of Sulawesi and low diversity Pleistocene 'island fauna' in SW Sulawesi with endemic pig (Celebochoerus heekereni) and dwarfed proboscideans (Elephas celebensis, Stegodon sompoensis, S. cf. trigonocephalus))

Van den Bergh, G.D. (1999)- The Late Neogene elephantoid-bearing faunas of Indonesia and their paleozoogeographic implications. A study of the terrestrial faunal succession of Sulawesi, Flores and Java, including evidence for early hominid dispersal east of Wallace's Line. Scripta Geologica, Leiden, 117, p. 1-419.
(online at: www.repository.naturalis.nl/document/45937)

Van den Bergh, G.D., B.V. Alloway, M. Storey, R. Setiawan, D. Yurnaldi, I. Kurniawan, M.W. Moore, Jatmiko et al. (2022)- An integrative geochronological framework for the Pleistocene So'a Basin (Flores, Indonesia), and its implications for faunal turnover and hominin arrival. Quaternary Science Reviews 294, 107721, p. 1-41.
(online at: https://www.sciencedirect.com/science/article/pii/S0277379122003523)
(Major review of Pleistocene stratigraphy, fossils and stone artefacts of Soa basin, Flores. Age of Homo floresiensis at Liang Bua 100-50 ka. Giant tortoise and dwarf Stegodon sondaari last occurred at Tangi Talo at ~1.3 Ma, not 0.9 Ma as previously thought, disappearing before, or coincident with, earliest hominin arrival (first records of lithic artefacts directly below 1 Ma Wolo Sege Tephra). Artefacts common in younger layers, associated with mid-sized Stegodon florensis and giant rat Hooijeromys nusatenggara. Paleoenvironment of So'a Basin became drier around time of observed faunal transition and arrival of hominins, possibly related to climate change at onset of M-Pleistocene Transition (~1.25 Ma), with increased aridity and monsoonal intensity. Mata Menge site with H. floresiensis-like fossils dated to~0.7 Ma)

Van den Bergh, G.D. & F. Aziz (1991)- Fossil vertebrates from the Walanae Formation and younger Pleistocene deposits, South Sulawesi. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 1, 3, p. 8-11.
(>1500 Late Pleistocene vertebrate fossils recovered from Walanae Fm grey clay layer, deposited on floodplain of N-flowing Walanae River, S Sulawesi. Most abundant is large pig Celebochoerus heekereni, also dwarf Stegodon, giant tortoise Geochelone atlas and large crocodile. Endemic species show S Sulawesi was isolated from SE Asian mainland)

Van den Bergh, G.D., F. Aziz, P.Y. Sondaar & S.T. Hussain (1992)- Taxonomy, stratigraphy, and paleozoogeography of Plio-Pleistocene Proboscideans from the Indonesian islands. Bull. Geological Research Development Centre (GRDC), Bandung, Seri Paleontologi 7, p. 28-58.
(Taxonomic revision of Plio-Pleistocene proboscideans (elephants) from Indonesian region (Java, Sulawesi, Flores, Timor, Sumba, Sangihe, Sumatra))

Van den Bergh, G.D., F. Aziz, P.Y. Sondaar & J. de Vos (1994)- The first *Stegodon* fossils from Central Sulawesi and a new advanced *Elephas* species from South Sulawesi. Bull. Geological Research Development Centre (GRDC) 17, p. 22-39.
(First Stegodon from M-L Pleistocene Napu Fm near Betue, Poso District, C Sulawesi Very similar to S. trigonocephalus from Java. Also new Elephas species from M-L Pleistocene Tanrung Fm of S Sulawesi)

Van den Bergh, G.D., J. de Vos, F. Aziz & M.J. Morwood (2001)- Elephantoidea in the Indonesian region: new *Stegodon* findings from Flores. In: G. Cavaretta et al. (eds.) The World of Elephants, Proc. 1 Int. Congress, Rome, CNRS p. 623-627.
(online at: http://www.sovraintendenzaroma.it/sites/default/files/storage/original/application/7a278b6cbdcf3e33490dcd342e5f6676.pdf)
(Recent discoveries in 1996-1999 of fossil Stegodon on Flores confirm earlier discoveries: (1) Early Pleistocene island assemblage, dated at 0.9 Ma with dwarfed Stegodon sondaari with Varanus komodoensis and giant tortoise remains; (2) M Pleistocene assemblage dated at 0.85- 0.7 Ma, with intermediate to large- Stegodon florensis,

with giant rat Hooijeromys nusatenggara and V. komodoensis. This fauna is associated with early human stone tools at various localities. S. florensis closely related to S. trigonocephalus group.)

Van den Bergh, G.D., J. de Vos & P.Y. Sondaar (2001)- The Late Quaternary palaeogeography of mammal evolution in the Indonesian Archipelago. Palaeogeogr. Palaeoclim. Palaeoecology 171, p. 385-408.
(online at: http://users.clas.ufl.edu/krigbaum/6930/vandenbergh_etal_p3_2001.pdf)
(Recent sub-faunas from Sundaland preserved broad connections with SE Asia mainland during Last Glacial: all balanced and mainly mainland elements. Wallacea (Sulawesi, Lesser Sunda islands) was always geographically isolated from mainland, with unbalanced faunas with endemic elements. Significant faunal turnover throughout region around 0.8 Ma (also in Japan, Taiwan). On Java Late Pliocene- E Pleistocene Satir Fauna indicates island conditions)

Van den Bergh, G.D., J. de Vos, P.Y. Sondaar & F. Aziz (1995)- *Homo erectus* in S.E. Asia: time space and migration routes, I. The Flores case. In: J. Gibert et al. (eds.) Proc. Int. Conf. The hominids and their environment during the Lower and Middle Pleistocene of Eurasia, Orce 1995, p. 353-362.

Van den Bergh, G.D., J. de Vos, P.Y. Sondaar & F. Aziz (1996)- Pleistocene zoogeographic evolution of Java (Indonesia) and glacio-eustatic sea-level fluctuations: a background for the presence of *Homo*. Bull. Indo-Pacific Prehistory Association (IPPA) 14 (Chiang Mai Papers), 1, p. 7-21.
(online at: http://ejournal.anu.edu.au/index.php/bippa/article/view/425/414)
(Relation of Java mammal faunal changes in last 2.5 My to global sea level changes not clear. No proof for presence of mammals on Java during first marked glacio-eustatic sea level lowering at 2.4 Ma. Oldest recognizable fauna is Satir fauna, age between 2- 1.5 Ma and indicates island conditions. Isolated conditions continue until ~0.8 Ma, suggested by unbalanced Ci Saat (1.2 Ma) and Trinil faunas (0.9 Ma), when Homo erectus arrived. Major faunal immigration at 0.8 Ma with Kedung Brubus fauna, corresponding with marked lowering of glacio-eustatic sea level)

Van Den Bergh, G.D., R. Due Awe, M.J. Morwood, T. Sutikna, Jatmiko & E.W.Saptomo (2008)- The youngest *Stegodon* remains in Southeast Asia from the Late Pleistocene archaeological site Liang Bua, Flores, Indonesia. Quaternary International 182, p. 16-48.
(online at: www.academia.edu/18237457/The_youngest_stegodon_remains_in_Southeast_Asia_from Etc.)
(Stegodon remains from Late Pleistocene of Liang Bua cave, NW Flores, described as new endemic dwarf subspecies: Stegodon florensis insularis. Hominin activities likely played role in Stegodon bone accumulation at cave. Disappearance of Stegodon from Liang Bua sequence coincides with tuff layer in cave around 11 ka)

Van Den Bergh, G.D., Y. Kaifu, I. Kurniawan, R.T. Kono, A. Brumm, E. Setiyabudi, F. Aziz & M.J. Morwood (2016)- *Homo floresiensis*-like fossils from the early Middle Pleistocene of Flores. Nature 534, 7606, p. 245-248.
(online at: http://udel.edu/~mcdonald/vandenbergh2016.pdf)
(Hominin fossils excavated in 2014 from early M Pleistocene Mata Menge site, Soa Basin, C Flores, include mandible fragment and isolated teeth, similar to Late Pleistocene H. floresiensis of Liang Bua cave. Dated as ~0.7Ma, oldest known hominin remains from Flores. Mata Menge fossils tend to support view that H. floresiensis is dwarfed descendent of early Asian Homo erectus)

Van Den Bergh, G.D., I. Kurniawan, M.J. Morwood, C.J. Lentfer, Suyono, R. Setiawan & F. Aziz (2009)- Environmental reconstruction of the Middle Pleistocene archaeological/ palaeontological site Mata Menge, Central Flores, Indonesia. In: F. Aziz et al. (eds.) Geology, palaeontology and archaeology of the Pleistocene Soa Basin, Central Flores, Indonesia, Chapter 4, Pusat Survei Geologi, Bandung, Special Publ. 36, p. 59-94.
(M Pleistocene paleontological- archeological Mata Menge site in Soa basin represents lake shore deposits, aged ~0.80- 0.88 Ma. Common Stegodon florensis bones from aged animals that probably died natural death. Despite abundance of stone artefacts in same layers no evidence for butchering. FT age of overlying white tuff 0.75 ± 0.07 Ma (Morwood et al. 1998). Fossils all in 0.5- 1.3m thick 'Unit B'; overlying Unit C tuffaceous siltstone and sand unfossiliferous)

Van den Bergh, G.D., Bo Li, A. Brumm, R. Grun, D. Yurnaldi, M.W. Moore, I. Kurniawan, R. Setiawan, F. Aziz, R.G. Roberts, Suyono, M. Storey, E. Setiabudi & M.J. Morwood (2016)- Earliest hominin occupation of Sulawesi, Indonesia. Nature 529, 7585, p. 208-211.
(online at: https://www.academia.edu/26879805/Earliest_hominin_occupation_of_Sulawesi_Indonesia)
(New excavations at Talepu in Walanae Basin, NE of Maros, with hominid stone artefacts and fossil megafauna (Bubalus, Stegodon, Celebochoerus) from sediments deposited from before 200 ka until ~100ka)

Van den Bergh, G.D., H.J.M. Meijer, R.A. Due, M.J. Morwood, K. Szabo, L.W. van den Hoek Ostende, T. Sutikna, E.W. Saptomo, P.J. Piper & K.M. Dobney (2009)- The Liang Bua faunal remains: a 95 k.yr. sequence from Flores, East Indonesia. J. Human Evolution 57, 5, p. 527-537.
(online at: www.academia.edu/18237450/The_Liang_Bua_faunal_remains_a_95k_yr_sequence_from_F Etc.)
(Excavations at Liang Bua limestone cave on Flores faunal sequence spanning the last 95 ky. Major climatic fluctuations, and two human species: (1) H. floresiensis from 95- 17 ka, and (2) modern humans from 11 ka-Present. Faunal assemblage comprises island gigantism in small mammals and dwarfing of large taxa. Confirms long-term isolation, impoverishment, and phylogenetic continuity of Flores faunal community)

Van den Bergh, G.D., B. Mubroto, F. Aziz, P.Y. Sondaar & J. de Vos (1996)- Did *Homo erectus* reach the island of Flores? In: P. Belwood (ed.) Bull. Indo-Pacific Prehistory Association (IPPA) 14 (Chiang Mai Papers- 1), p. 27-34.
(online at: https://journals.lib.washington.edu/index.php/BIPPA/article/view/11585)
(Primitive E- M Pleistocene stone artifacts from Ola Bula Fm near Mata Menge, Central Flores (first discovered by T. Verhoeven in 1956), too old for Homo sapiens, probably made by Homo erectus)

Van den Bergh, G.D., P.Y. Sondaar, J. de Vos & F. Aziz (1996)- The Proboscideans of the South-East Asian islands. In: J. Shoshani & P. Tassy (eds.) The Proboscidea; evolution and palaeoecology of elephants and their relatives, Oxford University Press, chapter 23, p. 240-248.
(Present-day elephants are excellent swimmers. Presence of Pleistocene fossil proboscidean remains on several islands surrounded by deep seas suggests they crossed sea barriers. Proboscideans rel. common in fossil impoverished endemic island faunas, sometimes as the only large mammal. In the Lesser Sunda Arc, only Stegodontidae reported as large mammals on islands Flores, Sumba, and Timor)

Van den Bergh, G.D., U. P. Wibowo, E. Setiyabudi, I. Kurniawan, M. Storey, I.Y.P. Suharyogo & M. Puspaningrum (2019)- The Early Pleistocene terrestrial vertebrate faunal sequence of Java, Indonesia. 79th Annual Meeting Society of Vertebrate Paleontology (SVP), Brisbane 2019, 1p. *(Poster)*
(online at: www.researchgate.net/publication/340984466_The_Early_Pleistocene_terrestrial_vertebrate_faunal_sequence_of_Java_Indonesia)
(Summary of work on oldest mammal-bearing beds in Java, the 575m thick Kali Glagah Fm near hamlets Satir and Cisaat, Bumiayu, largely corroborating 1925-1930 and later work. KGF overlies shallow marine Kali Biuk Fm and is overlain by volcanoclastic Mengger Fm. 39Ar/40Ar dating on hornblendes from pumice clast inMengger Fm 1.53 ± 0.08 Ma (providing minimum age for KGF mammal assemblages). Max. age of basal KGF 2.14 Myr, based on published paleomagnetic work. Oldest mammal fauna on Java is Satir Fauna, from basal 50m of KGF, with age estimated at 2 Ma. Satir Fauna succeeded by Ci Saat composite "fauna", based on scattered finds from middle and upper fluvial KGF)

Van den Brink, L.M. (1982)- On the mammal fauna of the Wajak Cave, Java (Indonesia). Modern Quaternary Research in Southeast Asia 7, Balkema, Rotterdam, p. 177-193.
(On Late Pleistocene mammal and hominid fossils from Wajak cave, Lawah Hill, S of Kediri, Java. Rel. modern fauna with Rusa timorensis, Muntiacus muntjac, Sus scrofa, Tapirus indicus, Rhinoceros sondaicus, Hystrix javanica, Panthera tigris, Homo sapiens and Presbytis cristatus)

Van den Hoek Ostende, L., G.D. van den Bergh & R. Awe Due (2006)- First fossil insectivores from Flores. Hellenic J. Geosciences 41, p. 67-72.
(online at: https://www.repository.naturalis.nl/document/160872)

(Hominid bearing strata from Liang Bua cave on Flores yielded common microvertebrate remains, incl. mandibles of shrews)

Van der Geer, A., G. Lyras, J. de Vos & M. Dermitzakis (2010)- Evolution of island mammals: adaptation and extinction of placental mammals on islands. Wiley and Sons, p. 1-461.
(With reviews of Pleistocene mammal localities and biozones of Java (Ch. 12, p. 172-189), Flores (Ch. 13, p. 190-205), Sulawesi (Ch. 14, p. 206-215), The Philippines (Ch. 15, p. 216-227))

Van der Geer, A., G.A. Lyras & R. Volmer (2018)- Insular dwarfism in canids on Java (Indonesia) and its implication for the environment of *Homo erectus* during the Early and earliest Middle Pleistocene. Palaeogeogr. Palaeoclim., Palaeoecology 507, p. 168-179.
(On 'Trinil Dog' from earliest M Pleistocene of Java. Large Xenocyon (previously Megacyon) present in E Pleistocene and replaced by small Xenocyon (previously Mececyon) during earliest M Pleistocene. Change in body size likely effect of increased competition among carnivores on island. Endemism of terrestrial mammals of earliest M Pleistocene horizon of site Trinil indicates Java marginally isolated)

Van der Geer, A.A.E., G.D. van den Bergh, G.A. Lyras, U.W. Prasetyo, R. Awe Due, E. Setiyabudi & H. Drinia (2016)- The effect of area and isolation on insular dwarf proboscideans. J. of Biogeography 43, 8, p. 1656-1666.
(online at: www.academia.edu/27262337/The_effect_of_area_and_isolation_on_insular_dwarf_proboscideans)
(Study of body size evolution of 22 palaeo-insular fossil elephantoid species across 17 islands support ' island rule', as all but one of the elephants experienced dwarfism on islands. Smallest islands generally harbour smallest elephants. Average body size decrease higher when competitors are present)

Van der Hoop, A.N.J. Thomassen a Thuessink (1932)- Megalithic remains in South-Sumatra. Thesis, W.J. Thieme, Zutphen, p. 1-191.
(Originally published as 'Megalithische oudheden in Zuid-Sumatra', Ph.D. thesis, University of Utrecht. Classic treatise of bronze-age? megalithic statues on the Pasemah Plateau in Barisan Range of S Sumatra. (full name of Dr. van der Hoop is rathr long: Abraham Nicolaas Jan Thomassen a Thuessink van der Hoop)

Van der Hoop, A.N.J. Thomassen a Thuessink (1938)- De Praehistorie. In: F.W. Stapel (ed.) Geschiedenis van Nederlandsch Indie, vol. 1, Uitgeversmaatschappij Joost van den Vondel, Amsterdam, p. 9-111.
(online at: https://www.dbnl.org/tekst/thom052gesc01_01/thom052gesc01_01_0001.php)
(Review of knowledge of prehistory of Netherlands Indies)

Van der Kaars, W.A. & M.A.C. Dam (1995)- A 135,000-year record of vegetational and climatic change from the Bandung area, West-Java, Indonesia. Palaeogeogr. Palaeoclim., Palaeoecology 117, p. 55-72.
(online at: www.researchgate.net/profile/Sander-Van-Der-Kaars/publication/248289473_A_135000-year_record_of_vegetational_and_climatic_change_from_the_Bandung_area_West-Java_Indonesia Etc.)
(Sediment cores from Bandung intramontane basin provide paleoclimatic record for Java for last 135,000 years. Anomalously dry conditions in penultimate glacial period, around 135 ka, and very warm and humid interglacial conditions from 126- 81 ka. Reduction in Asplenium ferns from 81-74 ka suggests drier conditions, while increased numbers indicate slightly wetter climate from 74- 47 ka. Distinctly cooler and possibly drier climate from 47- 20 ka. For Last Glacial Maximum 4-7 °C lower temperatures recorded)

Van der Maarel, F.H. (1931)- Mammalia. In: B.G. Escher et al. (eds.) De palaeontologie en stratigraphie van Nederlandsch Oost-Indie ('Feestbundel K. Martin'), Leidsche Geologische Mededelingen 5, p. 471-484.
(online at: www.repository.naturalis.nl/document/549246)
(Listings of Pleistocene mammal species as known from Indonesia in 1931, with bibliography)

Van der Maarel, F.H. (1932)- Contribution to the knowledge of the fossil mammalian fauna of Java. Wetenschappelijke Mededeelingen Dienst Mijnbouw Nederlandsch-Indie 15, p. 1-208.
(online at: https://resolver.kb.nl/resolve?urn=MMKB18:002206000:pdf)
(Also as Doct. Thesis University of Utrecht, under Prof. L. Rutten. Descriptions of vertebrate fossils collected by the Dienst van den Mijnbouw (Geological Survey) in 1925/26 in residencies of Pekalongan, Bojonegoro,

Rembang, Madiun and Solo. First description of E Pleistocene fauna from Bumiayu with Tetralophodon, deer and giant tortoise Geochelone. Unlike Trinil and younger fauna, the Bumiayu (Kali Glagah) faunas do not contain any recent species and are in folded beds (now commonly viewed as 'island fauna'; JTvG))

Van der Meulen, A.J. & G.G. Musser (1999)- New paleontological data from the continental Plio-Pleistocene of Java. In: J.W.F. Reumer & J. de Vos (eds.) Elephants have a snorkel! Papers in honour of Paul Y. Sondaar. Deinsea, 7, p. 361-368. *(online at: www.hetnatuurhistorisch.nl/fileadmin/user_upload/documents-nmr/Publicaties/Deinsea/Deinsea_07/Deinsea_7_028_van_der_Meulen.pdf)*
(Preliminary study of Murinae (rats and mice) from continental Plio-Pleistocene of C and E Java. Correlation of Grenzbank in Sangiran Dome with Trinil H.K. layer confirmed. High numbers of Rattus spp. indicate murid fauna unlike present Sundaic murid fauna and has more Indochinese character. Murids from Satir fauna differ from Trinil H.K. fauna, possibly due to age difference, as indicated by Sondaar et al. biostrat scheme)

Van der Plas, M. (2007)- A new model for the evolution of *Homo sapiens* from the Wallacean islands. PalArch's J. Vertebrate Paleontology 1, 1, p. 1-121.

Van der Vlerk, I.M. (1923)- Een nieuwe vindplaats van fossiele werveldieren op Java. De Mijningenieur 4, p. 67-68.
('A new locality of vertebrate fossils on Java')

Van Es, L.J.C. (1927)- Geologische waarnemingen op Java. II. Trinil. De Mijningenieur. No. 2, 23-24.
('Geological observations on Java, II. Trinil')

Van Es, L.J.C. (1929)- Trinil. Fourth Pacific Science Congress, Batavia/Bandung 1929, Excursion E5, p. 1-14.
(Field guide to Trinil hominid site, C Java)

Van Es, L.J.C. (1929)- The Prehistoric remains in Sampoeng cave, Residency of Ponorogo, Java. Fourth Pacific Science Congress, Batavia/Bandung 1929, 3, Biological Papers, p. 329-340.
(First description of prehistoric arrow heads, bone spatulas, etc. from Goewo Lowo, a rock shelter W of Sampoeng, E of Ponorogo, E Java)

Van Es, L.J.C. (1931)- The age of *Pithecanthropus*. Ph.D. Thesis, Technische Hogeschool Delft, Martinus Nijhoff, The Hague, p. 1-142.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB18:001677000:00159)
(Thorough review of Pleistocene age of Trinil Beds of C Java, distribution of fossil vertebrates in Java, geology of Kendeng zone, etc.)

Van Es, L.J.C. (1936)- De fossiele menschen van Java. Handelingen 7e Nederlandsch-Indisch Natuurwetenschappelijk Congres, Batavia 1935, p. 60-69.
('The fossil hominids of Java')

Van Es, L.J.C. (1936)- L'homme fossile aux Indes neerlandaises. In: International Geological Congress, Report of XVI Session, Washington, 2, p. 1231-1237.
('Fossil Man in the Netherlands Indies; In French')

Van Essen, H., G. van den Bergh & J. de Vos (2006)- The final solution of the *Cryptomastodon* problem. Morphological correlations between supernumerary teeth in stegodonts and elephants (Proboscidea, Mammalia). Courier Forschungsinstitut Senckenberg, Frankfurt, 256, p. 29-41.
(Response to Hooijer 1984. Specimens of Cryptomastodon martini Von Koenigswald 1933 from Sangiran and Mt. Pati Ayam here viewed as supernumerary tooth of Stegodon trigonocephalus)

Van Heekeren, H.R. (1949)- Voorlopige mededeling over Palaeolitische vondsten in Zuid-Celebes. Oudheidkundig Verslag 1941-1947, Oudheidkundige Dienst in Indonesia, Jakarta, p. 109-110.
(online at: https://www.delpher.nl/nl/tijdschriften/view?coll=dts&identifier=MMKITLV3:002517002:00126)

('Preliminary communication about Paleolithic finds in South Sulawesi'.Important late 1947-early 1948 discovery of Pleistocene bones, molars and artefacts by personnel of the 'Oudheidkundige Dienst' (Archeological Survey) along Walanae River, E of Tjabenge village, NE of Makassar, S Sulawesi. Rel. simple stone tools (scrapers) reminescent of Sangiran artefacts, as described by Von Koenigswald (see also Hooijer 1948-1949 papers on associated mammals))

Van Heekeren, H.R. (1955)- Prehistoric life in Indonesia- A new short guide to the prehistoric collection of the Lembaga Kebudajaan Indonesia "Bataviaasch Genootschap van Kunsten en Wetenschappen", Djakarta. Penerbit Soeroengan, Jakarta, p. 1-59.
(Brief guide to the Prehistoric Indonesia and prehistoric collections in what is now Museum Nasional Indonesia, Jakarta: (1) Paleolithic (Sangiran, etc. with Pithecanthropuso erectus, Homo soloensis, Homo wadjakensis, etc.); (2) Mesolithic (Hoabinhian shell mounds of E Sumatra, etc., with early Homo sapiens; Toalean cave dwellers in Sulawesi, Sampung in E Java, etc.) and (3) Neolithic (arrival of proto-Malayan people around 1500-1000 B.C.; across Java, etc.) and (4) Early Metal Age/ Bronze Age (with kettle drums, megalithic tradition, etc.))

Van Heekeren, H.R. (1957)- The stone age of Indonesia. Verhandelingen Koninklijk Instituut Taal Land en Volkenkunde (KITLV) 21, p. 1-141. *(also 1972 second edition, published as Verhandelingen 61, 247p.)*
(online at: www.oxis.org/books/verhandelingen/heekeren-1957.pdf)
(Review of Pleistocene faunas, hominids and Paleolithic, Mesolithic and Neolithic stone tool industries in Indonesia)

Van Heekeren, H.R. (1958)- The bronze-iron age of Indonesia. Verhandelingen Koninklijk Instituut Taal Land en Volkenkunde (KITLV) 22, p. 1-158.
(online at: www.oxis.org/books/verhandelingen/heekeren-1958.pdf)
(Review of numerous archeological objects from 'Bronze-Iron Age' period, which follows Neolithic in Indonesia)

Van Heekeren, H.R. (1958)- The Tjabenge flake industry from South Celebes. Asian Perspectives 2, p. 77-81.

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(online at: http://booksandjournals.brillonline.com/content/books/9789004286917
(Classic review of archeological discoveries in Indonesia prior to 1972)

Van Heekeren, H.R. (1975)- Chronology of the Indonesian prehistory. In: G.J. Bartstra & W. Arnold (eds.) Modern Quaternary Research in Southeast Asia, Balkema, Rotterdam, p. 47-53.
(Two tables with ages of Pleistocene and Holocene prehistoric sites in Indonesia)

Van Heteren, A.H. (2008)- *Homo floresiensis* as an island form. PalArch's J. Vertebrate Palaeontology 5, 2, p. 1-12.
(online at: http://www.leatherandshoes.nl/wp-content/uploads/2020/12/heteren_2008_5_2.pdf)
(Small-bodied Homo floresiensis displays several island adaptations, also observed among other typical island faunas, indicating that Homo floresiensis might very well have been an endemic island form)

Van Heteren, A.H. & J. de Vos (2012)- Stone implements from Java and Flores: a history of the discoveries. Comptes Rendus Palevol 11, 2-3, p. 181-189.
(online at: https://www.sciencedirect.com/journal/comptes-rendus-palevol/vol/11/issue/2)
(*Stone implements found on Flores similar to those found in Sangiran, C Java, by Von Koenisgswald and Ghosh (1973), confirming crossing to Flores by Homo erectus. Primitive stone artefacts at Mata Menge and Boa Leza associated with Stegodon florensis)*

Van Stein Callenfels, P.V. (1925)- Het eerste Paleolithische werktuig in den Archipel. Oudheidkundig Verslag 1924, Oudheidkundige Dienst in Nederlands Indie, Batavia, p. 127-133.
('The first Paleolithic tool in the Archipel'. Hoabinhian biface axe from NE Sumatra, excavated by missionary Neumann near Batu Kemang in the Deli district of NE Sumatra. Now viewed as Late Paleolithic or Mesolithic)

Van Stein Callenfels, P.V. (1925)- Shell middens in North Sumatra. Illustrated London News, p. 127-133.
(One of the first archeological excavations of 'Hoabinhian'; shell middens of NE Sumatra lowlands, at Sukajadi, with common unifacial and chopper-type pebbles (described earlier by Witkamp (1920) and later dated to ~7500 B.P. (McKinnon, 1991))

Van Stein Callenfels, P.V. (1926)- Bijdrage tot de chronologie van het Neolithicum in Zuid-Oost Azie. Oudheidkundig Verslag 1926, Oudheidkundige Dienst in Nederlands Indie, Batavia, p. 174-180.
('Contribution to the chronology of the Neolithic in SE Asia')

Van Stein Callenfels, P.V. (1929)- A trip to the pre-historic remains in Poenoeng, Sampoeng and Dander. Fourth Pacific Science Congress, Batavia/Bandung 1929, Excursion Guide E5, p. 1-7.
(Brief report on trip to Neolithic stone implement workshop at Punung and cave with Neolithic debris at Sampung (first discovered by Van Es in 1926) in Southern Mountains of Central-East Java)

Van Stein Callenfels, P.V. (1932)- Note preliminaire sur les fouilles dans l'abri-sous-roche du Guwa Lawa a Sampung. In: Hommage du Service Archeologique des Indes Neerlandaises au Premier Congres des Prehistoriens d'Extreme-Orient a Hanoi, 1932, p. 16-32.
('Preliminary note on the excavations in the rock shelter of Guwa Lawa in Sampung, contributed by the Netherlands Indies delegation to the first congress of prehistorians in the Far East, in Hanoi 1932'. Classic text on first systematic archeological excavation in C Java, in remnants of Mesolithic-Neolithic cave dwelling. The 'Sampoeng' cave deposits yielded remnants of Papuan/ Melanesoid humans with large teeth, arrow-heads made of deer antlers, remnants of fireplaces, mollusc shells (mixture of marine and non-marine species, numerous mammal fossils, etc.)

Van Stein Callenfels, P.V. (1934)- Implements used by Solo Man at least 40,000 years ago?: tools associated with the mid-Pleistocene Javanese. Illustrated London News 185, 4974, p. 254-255.

Van Stein Callenfels, P.V. (1935)- An advance in Far Eastern prehistory. Prehistoric kitchen-middens in the Straits Settlements. Illustrated London News, 5 January 1935, p. 13-16.
(Mid-Holocene? prehistoric shell-mounds at Guak Kepah, with relics of an AustraloMelanesoid culture in coastal zone of the 'Wellesley Province' in NW Malay Peninsula. Similar tokitchen middens in NE Sumatra, formed by human 'waste disposal' activities on former beach ridges in the coastal plain)

Van Stein Callenfels, P.V. (1936)- L'industrie osseuse de Ngandong. L'Anthropologie 46, p. 359-362.
('The bone tools industry of Ngandong', C Java)

Van Stein Callenfels, P.V. (1936)- The Melanesoid civilization of Eastern Asia. Bulletin Raffles Museum, Singapore, Series B, 1, p. 41-51.

Van Stein Callenfels, P.V. (1938)- Archeologisch onderzoek in Celebes. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap, Ser. 2, 55, p. 138-142.
('Archeological investigations in Celebes (Sulawesi)')

Van Weers, D.J. (1985)- *Hystrix gigantea*, a new fossil porcupine species from Java (Rodentia: Hystricidae). Senckenbergiana Lethaea 66, p. 111-119.
(Fossil porcupine molars from Sangiran (C Java), collected by Von Koenigswald. Three assigned to new species (Hystrix gigantea n. sp.), one may belong to Hystrix brachyura Linnaeus)

Van Weers, D.J. (1992)- *Hystrix vanbreei* n. sp., a new fossil porcupine from the Pleistocene of Java, with notes on the extant species of the Indonesian Archipelago. Senckenbergiana Lethaea 72, p. 189-197.
(Isolated porcupine teeth and two mandible fragments collected by Van Koenigswald from M Pleistocene of Sangiran, C Java, represent new species Hystrix vanbreei. Also present at Trinil)

Van Weers, D.J. (2003)- The porcupine *Hystrix (Acanthion) brachyura punungensis* subsp. nov. from Late Pleistocene fissure deposits near Punung, Java. Scripta Geologica, Leiden, 126, p. 217-225.
(online at: http://repository.naturalis.nl/document/46244)
(Cheek teeth and mandibular fragment of porcupines from Late Pleistocene fissure deposits near Punung considered new subspecies, Hystrix brachyura punungensis subsp. nov. M Pleistocene specimens allocated to Hystrix brachyura subsp.; those from the Holocene to Hystrix javanica)

Veach, E.G., M.W. Tocheri, T. Sutikna, K. McGrath, E.W. Saptomo, Jatmiko & K.M. Helgen (2019)- Temporal shifts in the distribution of murine rodent body size classes at Liang Bua (Flores, Indonesia) reveal new insights into the paleoecology of *Homo floresiensis* and associated fauna. J. Human Evolution 130, p. 45-60.
(Liang Bua cave stratigraphic sequence spans past ~190 kyr. Numerous vertebrate elements, ~80% rats of six genera: Papagomys, Spelaeomys, Hooijeromys, Komodomys, Paulamys, and Rattus. Changes in size distribution due to shifts in abundances of open habitat-adapted medium-sized rats versus closed habitat smaller ones. Modest increase in open habitats at ~3 ka, likely result of farming by modern human populations. At ~60 ka shift from more open habitats to more closed conditions, along with disappearance of H. floresiensis, Stegodon florensis insularis, Varanus komodoensis, Leptoptilos robustus (marabou stork), and Trigonoceps sp.)

Verhoeven, T. (1952)- Stenen werktuigen uit Flores. Anthropos 47, 1-2, p. 95-98.
(First report on discovery of human stone stools in caves and on hilltops in Manggarai, W Flores, in 1950)

Verhoeven, T. (1953)- Eine Mikrolithenkultur in Mittel- und West-Flores. Anthropos 48, 3-4, p. 597-612.
(Pleistocene hominid stone tool artifacts from 'abris' and caves in limestone areas of W and C Flores, discovered during 1950-1952 surveys (see also Van Heekeren (1950s) and Bednarik, 2000)

Verhoeven, T. (1958)- Proto-Negrito in den Grotten auf Flores (Indonesie). Anthropos 53, 1-2, p. 229-232.
('Proto-Negrito in the caves of Flores'. Discussion of multiple Late Pleistocene or E Holocene hominid skeletal remains of relatively small humans (1.46m), found in caves in Flores in 1952-1955. Interpreted as likely 'negrito' or 'proto-negrito' remnants by Huizinga and Von Koenigswald (humans are associated with common 'flake-culture' tools; and their main diet was probably giant rats and freshwater molluscs (see also Hooijer, 1950s)

Verhoeven, T. (1958)- Pleistozane Funde in Flores. Anthropos 53, 1-2, p. 264-265.
(First report of large fossilized E Pleistocene mammal bones Stegodon molars in Ola Bula area, northern C Flores, associated with E Paleolithic hominid stone tools. Includes molars, identified (from photos) by Von Koenigswald and Hooijer as Pleistocene Stegodon trigonocephalus, one of the first reports of crossings of Asian fauna across the Wallace Line. Also report finding Pleistocene tektite near Boawae)

Verhoeven, T. (1959)- Die Klingenkultur der Insel Timor. Anthropos 54, 5-6, p. 970-972.
(online at: https://ur.booksc.me/book/47106085/042bb6)
('The stone tool culture of Timor Island'. Stone tools first found on Timor by F. Sarasin and A. Buhler in caves of Niki-Niki in C Timor. In 1954 Timor expedition additional tools identified in 15 additional caves)

Verhoeven, T. (1964)- *Stegodon*-fossilien auf der Insel Timor. Anthropos 59, 3-4, p. 634-636.
('Stegodon fossils on the island of Timor'.Discovery of molars, tusk and bones of Pleistocene Stegodon elephantoi, E of Atambua in 1964. Associated with Early Paleolithic stone tool, and overlying clay rich in freshwater molluscs (see also Maringer & Verhoeven, 1970))

Verhoeven, T. (1968)- Vorgeschichtliche Forschungen auf Flores, Timor und Sumba. In: Gedenkschrift P.W. Schmidt, Anthropica, Studia Instituti Anthropos 21, 3/4, p. 393-403.
('Prehistoric investigations on Flores, Timor and Sumba')

Veth, P., M. Spriggs, A. Jatmiko & S. O'Connor (1998)- Bridging Sunda and Sahul: The archaeological significance of the Aru Islands, southern Moluccas In: G.J. Bartstra (ed.) Bird's Head approaches; Irian Jaya studies; a programme for interdisciplinary research, Modern Quaternary Research in Southeast Asia 15, Balkema, Rotterdam, p. 157-177.

(online at: https://www.papuaerfgoed.org/sites/default/files/collectie/files/2006-05/Bartstra_1998_Birds.pdf)
(Review of archeological research in Aru Islands and surrounding Maluku islands)

Volmer, R., C. Hertler & A. van der Geer (2015)- Niche overlap and competition potential among tigers (*Panthera tigris*), sabertoothed cats (*Homotherium ultimum, Hemimachairodus zwierzyckii*) and Merriam's Dog (*Megacyon merriami*) in the Pleistocene of Java. Palaeogeogr. Palaeoclim. Palaeoecology 441, 4, p. 901-911.
(online at: www.academia.edu/34299156/Niche_overlap_and_competition_potential_among_tigers Etc.)
(M Pleistocene site of Sangiran where tigers co-occurred with machairodonts (Hemimachairodus zwierzyckii and Homotherium ultimum) and large Merriam's Dog (Megacyon merriami). Tigers did not increase body mass before Ngandong faunal level)

Volmer, R., A.A.E. van der Geer, P.A. Cabrera, U.P. Wibowo & I. Kurniawan (2019)- When did Cuon reach Java? Reinvestigation of canid fossils from *Homo erectus* faunas. Geobios 55, p. 89-102.
(online at: https://www.academia.edu/44261113/When_did_Cuon_reach_Java_Reinvestigation_of_canid_fossils_from_Homo_erectus_faunas)
(Revision of canid (dog) fossi lmaterial from Sangiran Dome. Previously described species Cuon sangiranensis, C. crassidens, C. alpinus, C. javanicus, and C. trinilensis. Cuon already present in Java during E-M Pleistocene and probably arrived as part of immigration events during Kedung Brubus faunal stage)

Volz, W. (1907)- Das geologische Alter der *Pithecanthropus*-Schichten bei Trinil, Ost-Java. Neues Jahrbuch Mineralogie Geologie Palaontologie, 100-year Festband 1907, p. 256-271.
(online at: https://www.biodiversitylibrary.org/item/155807#page/290/mode/1up)
('The geological age of the Pithecanthropus Beds near Trinil. East Java'. Age of Pithecanthropus beds probably Middle Diluvium (=M Pleistocene). Interprets rel. massive, volcanics-rich Pleistocene hominid-bearing Trinil sands as lahar-style mudflow deposits from Lawu volcano. With 3 profile sections (from E. Dubois?))

Von Heine-Geldern, R. (1945)- Prehistoric research in the Netherlands Indies. In: P. Honig & F. Verdoorn (eds.) Science and scientists in the Netherlands Indies, Board for Netherlands Indies, Surinam and Curacao, New York, p. 129-167.
(online at: https://archive.org/details/in.ernet.dli.2015.183759)
(Thorough review of prehistoric research in Indonesian Archipelago until 1940, by Austrian anthropologist-archaeologist Prof. Robert Freiherr von Heine-Geldern, originally from Vienna. "In memory of P.V. van Stein Callenfels")

Von Koenigswald, G.H.R. (1933)- Beitrag zur Kenntnis der fossilen Wirbeltiere Javas I. Wetenschappelijke Mededeelingen Dienst Mijnbouw Nederlandsch-Indie 23, p. 1-127.
('Contribution to the knowledge of the fossil vertebrate fauns of Java, part 1'. Studies of Pleistocene vertebrate faunas of Java, mainly collected during geological survey Java mapping)

Von Koenigswald, G.H.R. (1933)- Ein neuer Urmensch aus dem Diluvium Javas. Centralblatt Mineralogie Geologie Palaontologie 1933, B, 1, p. 29-42.
(On new Pleistocene hominid Homo (Javanthropus) soloensis, discovered recently by Oppenoorth)

Von Koenigswald, G.H.R. (1934)- Zur Stratigraphie des javanischen Pleistocan. De Ingenieur in Nederlandsch-Indie (IV) 1, 11, p. IV.185- IV.201.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1934-11.pdf)
('On the stratigraphy of the Pleistocene of Java'. On characteristics and stratigraphic position of Pleistocene Djetis, Trinil, Ngandong mammal faunas. With map of mammal localities in C and NE Java, etc.)

Von Koenigswald, G.H.R. (1934)- Die Spezialisation des lncisivengebisses bei den javanischen Hippopotamidae. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 37, 9, p. 653-659.
(online at: https://dwc.knaw.nl/DL/publications/PU00016621.pdf)
('The specialization of the incisors of Javanese Hippopotamidae'. Several species of Pleistoceen hippopotamids with reduced incisor teeth)

Von Koenigswald, G.H.R. (1935)- Die fossilen Saugetierfaunen Javas. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 38, 2, p. 188-198.
(online at: https://dwc.knaw.nl/DL/publications/PU00016677.pdf)
('The fossil mammal faunas of Java'. Pliocene-Pleistocene mammals grouped into 7 faunas, from young to old: 1. Sampoeng, 2. Ngandong, 3. Trinil, 4. Djetis/ Jetis, 5. Kali Glagah (Late Pliocene), 6. Tji Djoelang (S of Cirebon; M Pliocene; with anthracotheriid Merycopotamus) and 7. Tji Sande (3 km NW of Loerahgoeng; S of Cirebon; with Aceratherium boschi rhinoceros molar= latest Miocene- earliest Pliocene and oldest mammal fossil from Java). No figures)

Von Koenigswald, G.H.R. (1935)- Bemerkungen zur fossilen Saugetierfauna Javas, I. Uber das Vorkommen von *Nestotherium* und *Hyaena* in der Djetis-Fauna Mittel-Javas. De Ingenieur in Nederlandsch- Indie (IV) 2, 7, p. IV.67- IV.70.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1935-07.pdf)
('Remarks on the fossil mammal faunas of Java, I' On the occurrence of Nestoritherium and Hyena in the Jetis fauna of Central Java'. Perissodactyl fossils from Sangiran, Hyeana from Trinil)

Von Koenigswald, G.H.R. (1935)- Bemerkungen zur fossilen Saugetierfauna Javas, II. Eine Djetis-Fauna aus den Tambakan-Schichten der Gegend von Soebang, West-Java. De Ingenieur in Nederlandsch-Indie (IV) 2, 10, p. IV.85- IV.88.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1935-10.pdf)
('Remarks on the fossil mammal faunas of Java, II. On a Pleistocene Djetis fauna from the Tambakan beds SE of Subang, W Java'. Collected by C. Harloff. With Stegodon, Rhinoceros, Hippopotamus, Bubalus, etc.))

Von Koenigswald, G.H.R. (1935)- Over enkele fossiele zoogdieren van Java. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap, 2, 52, 4, p. 539-543.
(online at: http://resolver.kb.nl/resolve?urn=MMUBA13:001683001:pdf)
('On some fossil mammals of Java'. Popular review of skeletons of mammals from Java in various museums, incuding Late Pliocene hippo Hippopotamus (Hexaprotodon) simplex from Kali Glagah/ Bumiayu), M Pleistocene deer Cervus lydekkeri from Trinil, C Java and Late Pleistocene extinct elephantoid Stegodon trigonocephalusand giant water buffalo Bos bubalis palaeokerabau from Ngandong near Ngawi, C Java)

Von Koenigswald, G.H.R. (1935)- Das Neolithicum der Umgebung von Bandoeng. Tijdschrift Indische Taal Land en Volkenkunde, Batavia, 75, 3, p. 394-419.
(online at: https://ia802905.us.archive.org/12/items/in.ernet.dli.2015.283914/2015.283914.Tijdschrift-Voor.pdf)
('The Neolithic in the surroundings of Bandung')

Von Koenigswald, G.H.R. (1935)- Rapport over de vindplaatsen van fossiele gewervelde dieren uit de Solo-vallei. Dienst van den Mijnbouw, Bandung. *(Unpublished report)*
('Report on the discovery localities of fossil vertebrate animals from the Solo valley')

Von Koenigswald, G.H.R. (1936)- Ein fossiler Hominide aus dem Altpleistocan Ostjavas. De Ingenieur in Nederlandsch-Indie (IV) 3, 8, p. IV.149- IV.157.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1936-08.pdf)
('A fossil hominid from the Early Pleistocene of East Java'. Discovery of a small hominid skull from Upper Pucangan beds near Mojokerto area in February 1936 in area being mapped by J. Duyfjes. Probably skull of a child. Von K here proposes the new name Homo modjokertensis)

Von Koenigswald, G.H.R. (1935)- Eine fossile Saugetierfauna mit *Simia* aus Sudchina. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 38, 8, p. 872-879.
(online at: http://https://dwc.knaw.nl/DL/publications/PU00016780.pdf)
('A fossil mammal fauna with Simia from South China'. On Pleistocene fossils from Chinese pharmacies in Hong Kong and SE Asia. With teeth of various ape species, including giant ape Gigantopithecus blacki n.gen., n.sp. All fossils believed to originate from sites in southern China)

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(online at: https://dwc.knaw.nl/DL/publications/PU00016947.pdf)
('First communication on a fossil hominid from the Early Pleistocene of East Java'. Same paper as above on discovery of fossil child skull in U Pucangan beds at N flank Kedung-Waru anticline near Mojokerto, named Homo modjokertensis)

Von Koenigswald, G.H.R. (1936)- Uber Altpalaeolithisch Artefakte von Java. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2) 53, p. 41-44.
(online at: https://resolver.kb.nl/resolve?urn=MMUBA13:001680001:pdf)
('About Early Paleolithic artifacts from Java'. First reported stone tools from Solo River terrace near Ngandong and Kuwung (von Koenigswald also found stone tools in Trinil Horizon near Solo in 1934, but not published yet))

Von Koenigswald, G.H.R. (1936)- Early Palaeolithic stone implements from Java. Bull. Raffles Museum, Singapore, B, 1, p. 52-60.
(Discoveries of small stone flake tools in fluvial M Pleistocene Kabuh Fm deposits of Ngebung Hills, NW Sangiran Dome, presumably made by Pithecanthropus erectus, mainly from chalcedony. Also Paleolithic stone implements from Solo River High Terrace gravels at Ngandong, C Java. 'Early Acheulian' lithic tools from Baksoka River Valley near Pacitan (for occurrence and position of Sangiran artifacts see also Bartstra, 1974))

Von Koenigswald, G.H.R. (1937)- Ein Unterkieferfragment des *Pithecanthropus* aus den Trinilschichten Mitteljavas. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 40, 10, p. 883-893.
(online at: https://dwc.knaw.nl/DL/publications/PU00017126.pdf)
(On new lower jaw fragment of Pithecanthropus from Trinil Beds at Sangiran Dome, C Java)

Von Koenigswald, G.H.R. (1938)- Ein neuer *Pithecanthropus* Schadel. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam 41, 2, p. 185-192.
(online at: https://dwc.knaw.nl/DL/publications/PU00017154.pdf)
('A new Pithecanthropus skull'. New hominid skull from basal Trinil Beds at Sangiran Dome, C. Java)

Von Koenigswald, G.H.R. (1938)- Nieuwe *Pithecanthropus*-vondsten uit Midden-Java. Natuurkundig Tijdschrift voor Nederlandsch-Indie 98, p. 195-207.
('New Pithecanthropus finds from Central Java'. Review of known hominid fossils from Java)

Von Koenigswald, G.H.R. (1938)- De nieuwe *Pithecanthropus*-vondsten en hun betekenis voor de afstamming van den mensch. Handelingen 8e Nederlandsch-Indisch Natuurwetenschappelijk Congres, Soerabaia, July 1938, p. 486-488.
(online at: https://resolver.kb.nl/resolve?urn=MMKB31:042287000:pdf)
('The new Pithecanthropus discoveries and their significance for the origin of humans'. Very brief review of discoveries at Mojokerto, Trinil, etc.))

Von Koenigswald, G.H.R. (1939)- Das Pleistocan Javas. In: R. Grahmann & L.F. Zotz (eds.) Quartar- Jahrbuch Erforschung des Eiszeitalters und seiner Kulturen, De Gruyter, Berlin, 2, p. 28-53.
(online at: https://journals.ub.uni-heidelberg.de/index.php/qu/article/download/82655/76869)
('The Pleistocene of Java'. Overview of Java Pleistocene stratigraphy and vertebrate/ hominid finds, including 'Punung Fauna' not described elsewhere)

Von Koenigswald, G.H.R. (1940)- Neue *Pithecanthropus*-Funde 1936-1938, ein Beitrag zur Kenntnis der Praehominiden. Wetenschappelijke Mededeelingen Dienst Mijnbouw Nederlandsch-Indie 28, p. 1-233.
('New Pithecanthropus finds 1936-1938; a contribution to the knowledge of the pre-hominids')

Von Koenigswald, G.H.R. (1948)- Aantekeningen bij het *Pithecanthropus*-vraagstuk. Oratie Buitengewoon Hoogleraar in Stratigrafie en Paleontologie, Universiteit van Utrecht (Inaugural Lecture), 29.11.1948, p. 1-19.

('Notes about the Pithecanthropus question'. Inaugural lecture at appointment as Extrordinary Professor in Stratigraphy and Paleontology at the University of Utrecht (followed by promotion to Full Professor in 1951, until retirement in 1968))

Von Koenigswald, G.H.R. (1949)- The fossil hominids of Java. In: R.W. van Bemmelen, The geology of Indonesia and adjacent archipelagos, Nijhoff, The Hague, 1, p. 106-107.

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(online at: https://www.e-periodica.ch/digbib/view?pid=egh-001:1950:43#322)
('An elephant of the planifrons group from the Pliocene of W Java'. Late Pliocene elephant teeth from Kali Glagah Fm beds in 'Tji Djulang' (Tji Djoelang, Cijulang) river, collected in 1935, in Bumiayu area, S of Tegal. Rel. small and more primitive representative of 'A. planifrons' group from Siwaliks, India, described as Archidiskodon praeplanifrons n. sp. Associated with Pliocene 'Cheribonian' mollusc assemblage)

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(online at: https://digitallibrary.amnh.org/handle/2246/297)
(Review of discovery of skull fragments of Solo Man and associated mammal faunas at Ngandong, along Solo River in Kendeng zone, by Geological Survey geologist C. ter Haar in 1931 (the first Elephas molar from the 14m terrace deposits had already been reported by Elbert of the Selenka Expedition). Subsequent skull material excavated by Oppenoorth and Von Koenigswald in 1931-1933. Suggestions of cannibalism by Solo Man)

Von Koenigswald, G.H.R. (1952)- Fossil Sirenians from Java. Proc. Koninklijke Nederlandse Akademie van Wetenschappen B 55, 5, p. 610-613.
(On fossil sea cows ('dugong') from Java, incl. molar of new species Indosiren javanense, from U Miocene at Tji Paringan, Nyalindung, W Java. Also Eocene rib bone from U Eocene of Nanggulan?)

Von Koenigswald, G.H.R. (1952)- Evidence of a prehistoric Australo-melanesoid population in Malaya and Indonesia. Southwestern J. of Anthropology 8, 1, p. 92-96.
(Comment on Hooijer (1950) paper of same title, who suggested presence of big-teeth people resembling Australian aboriginals and Melanesians, who once lived in Malaya-Indonesian region, were result of local evolution. Von K disputes this, and argues that a mainly macrodont human population of Australo-Melanesian affinities was well established across SE Asia, then became extinct or was pushed to the E by the first Indonesians from E Asia in late Neolithic time (most authors believe this happened at ~2000 BC (this two-wave human migration into Malaysia-Indonesia was called the 'Two Layer' model by Prof. Teuku Jacob in 1967)

Von Koenigswald, G.H.R. (1952)- *Gigantopithecus blacki* von Koenigswald, a giant fossil hominoid from the Pleistocene of southern China. Anthropological Papers American Museum Natural History, New York, 43, 4, p. 291-325.
(online at: http://digitallibrary.amnh.org/handle/2246/298)
(Gigantopithecus blacki von Koenigswald known from four molars bought in Chinese drugstores in Hong Kong and Canton. Molars are largest known of any higher primate. Cannot be regarded as ancestral to man. Part of the (early) M Pleistocene Ailuropoda-orang fauna of S China)

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('Topics from the prehistory of Indonesia'. Hard to find publication)

Von Koenigswald, G.H.R. (1953)- Extreme- Orient. In: H.V. Vallois & H. Movius, Catalogue des hommes fossiles, Comptes Rendus 19th Session International Geological Congress, Algeria 1952, 5, p. 329-341.
(Far East chapter in Catalogue of fossil humans)

Von Koenigswald, G.H.R. (1954)- Fossil hominids from Java. Indonesian J. Natural Science (Majalah Ilmu Alam untuk Indonesia) 110, p. 194-199.
(Listing of known hominid discoveries on Java, reprinted from Catalog of hominid fossils published at 19th International Geological Congress, Alger 1952. Localities include Kedung Brubus, Mojokerto, Ngandong, Sonde, Trinil and Wajak)

Von Koenigswald, G.H.R. (1955)- The Pleistocene of Java and the Plio-Pleistocene boundary. Actes IV Congres Association Internationale pour l' l'Etude du Quaternaire (INQUA), Rome 1953, p. 1-11.

Von Koenigswald, G.H.R. (1956)- Remarks on the correlation of mammalian faunas of Java and India and the Plio-Pleistocene boundary. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, B 59, p. 204-210.

Von Koenigswald, G.H.R. (1956)- The geological age of Wadjak man from Java. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, B 59, p. 455-457.

Von Koenigswald, G.H.R. (1956)- Der Solo-Mensch von Java: ein tropischer Neanderthaler. In G.H.R. Von Koenigswald (ed.) Hundert Jahre Neanderthaler, Bohlau, Koln, p. 21-26.
('Solo Man from Java: a tropical Neanderthaler')

Von Koenigswald, G.H.R. (1956)- Meeting prehistoric man. Thames and Hudson, London, p. 1-208.
(Popular book on discovery of early hominids, particularly on Java)

Von Koenigswald, G.H.R. (1956)- Fossil mammals from the Philippines. Proc. 4th Far-Eastern Prehistoric Congress, National Research Council of the Philippines, Quezon City, 1, Paper 22, p. 339-369.
(online at: www.rhinoresourcecenter.com/pdf_files/124/1248937364.pdf)
(Descriptions of Pleistocene mammal fossils collected by O. Beyer. With first descriptions of Rhinoceros philippinensis, Stegodon luzonensis, Elephas beyeri. Also present Stegodon cf. trigonocephalus, S. mindanensis, etc. Incl. probable M Pleistocene association of Stegodon, pre-Neolithic stone implements and tektites on Luzon, off Manila- Ipo road)

Von Koenigswald, G.H.R. (1958)- Preliminary report on a newly-discovered Stone Age culture from northern Luzon, Philippine Islands. Asian Perspectives 2, 2, p. 69-70.
(Common remains of Pleistocene mammals found during visit by Von K to island of Anda in late 1953, Pangasinan, incl. elephants, Stegodon, Bos, Sus and Cervus, in layers that also contained "astonishing assemblage of tektites" ('Anda-type' of Prof. O. Beyer). This is second occurrence of tektites in association with fossil mammals (first in upper Trinil layer at Sangiran, C Java). Specialization of Elephas and Stegodon on Anda suggests both sites are contemporaneous. In late 1957 von K also collected 'Cabalwanian' stone tools in little known site in Cagayan valley, N Luzon, which he believed were made by Homo erectus)

Von Koenigswald, G.H.R. (1959)- A mastodon and other fossil mammals from Thailand. Royal Department of Mines, Bangkok, Report of Investigation 2, p. 25-34.

Von Koenigswald, G.H.R. (1962)- Das absolute Alter des *Pithecanthropus erectus* Dubois. In: G.Kurth (ed.) Evolution und hominisation (Festschrift G. Heberer), Fischer, Stuttgart, p. 112-119.
('The absolute age of Pithecanthropus erectus Dubois')

Von Koenigswald, G.H.R. (1963)- Fossil pygmy Suidae from Java and China. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, B 66, p. 192-197.

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(Incl. mention of 710,000 yr radiometric age of tektite horizon in hominid-bearing Trinil Beds (Kabuh Fm) in Sangiran, C Java)

Von Koenigswald, G.H.R. (1973)- The oldest hominid fossils from Asia and their relation to human evolution. Proc. Symposium L'Origine dell'uomo, Rome 1971, Accademia Nazionale dei Lince 182, p. 97-118.

Von Koenigswald, G.H.R. (1974)- Fossil mammals of Java. VI, Machairodontinae from the Lower Pleistocene of Java. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, B 77, p. 267-273.
(Description of jaw and teeth of two genera of Pleistocene sabre tooth cat from Jetis Fauna, Sangiran, C. Java)

Von Koenigswald, G.H.R. (1975)- Early Man in Java: catalogue and problems. In: R.H. Tuttle (ed.) Paleoanthropology, morhology and paleoecology, Mouton Publishers, The Hague, p. 303-309.
(Ngandong fauna with Homo soloensis ('Solo Man') is Java representative of Neanderthal Man. Associated with bird fossils suggesting colder climate than today, and water buffaloes with horn spreads >2m, indicating more open country, not typical rainforest conditions. Advanced bone culture and completely rounded stone balls also point to younger hominid population than Sangiran/ Trinil Homo erectus. Etc.)

Von Koenigswald, G.H.R. (1976)- Climatic changes in Java and Sumatra during the Upper Pleistocene. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, B79, 4, p. 232-234.
(Mammal fauna of U Pleistocene of Java (Ngandong) not typical of tropical forest, but more open country. Also crane birds on Java and mountain goat on Sumatra suggest 6-9° C temperature drop during last glaciation)

Von Koenigswald, G.H.R. (1976)- Evolution of man. University of Michigan Press, Ann Arbor, Revised edition, p. 1-158.

Von Koenigswald, G.H.R. (1976)- The importance of Java for the early history of man. J. Medical Sciences 8, 3, p. 87-90.
(online at: https://jurnal.ugm.ac.id/bik/article/view/4757/4009)
(Brief review of five different types of early hominids known from Java. Summary of lecture given after receiving Dr. h.c. degree from Gadjah Mada University, Yogyakarta. Oldest mammalian fossils on Java in West Java (Cijulang, Kali Glagah). Two main episodes of mammalian migration: (1) Sivamalayan migration, from India region; (2) Sinomalayan migration, from China region via Philippines, Kalimantan)

Von Koenigswald, G.H.R. (1978)- Selachia (Pisces) from the black clay of Sangiran, Central Java. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, B 81, 3, p. 364-369.
(Lower Pleistocene 'black clay' of Sangiran deposited in fresh water lake according to mollusc fauna. Presence of fossil teeth of marine fish Pristiopsis cf P. microdon (sawfish) and Eulamia gangetica (river shark) that can enter and live in fresh water indicates likely outlet of lake into open sea)

Von Koenigswald, G.H.R. (1978)- Lithic industries of *Pithecanthropus erectus* of Java. In: F. Ikawa-Smith (ed.) Early Palaeolithic in South and East Asia, Mouton Publishers, The Hague, p. 23-27.
(Sangiran area of C Java yielded five skulls of Pithecanthropus erectus since 1937, with average K-Ar ages of 830,000 years. Stone implements known from M Pleistocene fluviatile part of Sangiran section (most not found in-situ). Flakes rarely larger than 5-6 cm)

Von Koenigswald, G.H.R. (1980)- Neue Einblicke in die Geschichte der Hominiden. Annalen Naturhistorischen Museums Wien, 83, p. 181-195.
(online at: https://www.zobodat.at/pdf/ANNA_83_0181-0195.pdf)
('New insights in the history of the hominids'. Review of recent developments in hominid studies in Africa, China and SE Asia. One of the more surprising developments is rel. high K/Ar radiometric age (1.9 Ma) of tuffs associated with 'Mojokerto child' Homo erectus by Curtis & Jacob. Tektites in upper tuffs of Sangiran, 20m above Pithecanthropus II horizon, dated at ~0.72 Ma)

Von Koenigswald, G.H.R. & A.K. Ghosh (1973)- Stone implements from the Trinil Beds of Sangiran, Central Java. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, B76, 1, p. 1-34.
(Crude stone tools from Trinil Beds at Sangiran believed to be of human origin (Pithecanthropus erectus; first discovered by vK in 1936, but these finds were initiallly dismissed until similar tools of similar age were found in Flores in 1970 and 1990s; JTvG))

Von Koenigswald, G.H.R. & F. Weidenreich (1938)- Discovery of an additional *Pithecanthropus* skull. Nature 142 (3598), p. 715.
(Discovery of almost complete brain case of Pithecanthropus in 1937, in Trinil Fm of Sangiran, C Java)

Von Koenigswald, G.H.R. & F. Weidenreich (1939)- The relationship between *Pithecanthropus* and *Sinanthropus*. Nature 144 (3657), p. 926-929.
(online at: https://www.nature.com/articles/144926a0.pdf)
(Great similarities between first skull of Sinanthropus (S. pekinensis) found in China and Pithecanthropus materials from Central Java (P. erectus, from Trinil, Sangiran). Possibly same genus/ species)

Walters, I. (2002)- Early hominids in SE Asia: older, younger, smarter and more. In: P. Kershaw et al. (eds.) Bridging Wallace's Line: the environmental and cultural history and dynamics of the SE Asian- Australian region, Advances in Geology 34, Catena Verlag, p. 255-263

Wastl, J. (1939)- Praehistorische Menschenreste aus dem Muschelhugel von Bindjai-Tamiang in Nord-Sumatra. In: Kultur und Rasse, Otto Reche zum 60. Geburtstag gewidmet von Schulern und Freunden, Munchen, p. 237-243.
('Prehistoric remains from the shell midden of Binjai-Tamiang in North Sumatra'. According to Dr. Josef Wastl from Vienna, the human remains at Binjai Tamiang shell mound in N Sumatra are part of a Papuan/ Melanesoid population (Widianto & Noerwidi (2023) concur with australo-melanesoid interpretation)

Watanabe, N. & D. Kadar (eds.) (1985)- Quaternary geology of the hominid fossil bearing formations in Java. Geological Research Development Centre (GRDC), Bandung, Special Publ. 4, p. 1-378.
(Extensive report of multi-year Indonesian- Japanese Research Project 1976-1979, mainly on Pleistocene of Sangiran area, C Java. Project did not find new hominid fossils, but good documentation of Sangiran stratigraphy, faunas, radiometric and paleomagnetic studies, etc.)

Weesie, P.D.M. (1982)- The fossil bird remains in the Dubois collection. In: G. Batstra & W. Casparie (eds.) Modern Quaternary Research in Southeast Asia 7, Balkema, Rotterdam, p. 87-90.
(Pleistocene bird fossils from Trinil, C Java, incl. Branta, Ephippiorhynchus, Leptoptilos, Pavo, Tadorna. Assemblage include species now restricted to more northern regions, suggests cooler climate than present-day during deposition of Trinil beds)

Weidenreich, F. (1942)- Early man in Indonesia. The Far Eastern Quarterly 2, 1, p. 58-65.
(Early review of Pleistocene hominids in Indonesia)

Weidenreich, F. (1945)- The puzzle of *Pithecanthropus*. In: P. Honig & F. Verdoorn (eds.) Science and scientists in the Netherlands Indies, Board for the Netherlands Indies, Surinam and Curacao, New York, p. 380-390.
(online at: https://archive.org/details/in.ernet.dli.2015.183759)
(Review of research works on 'Java Man' by Dubois, Von Koenigswald, etc.)

Weidenreich, F. (1945)- Giant early man from Java and South China. American Museum Natural History Anthropological Papers 40, 1, p. 5-134.
(online at: digitallibrary.amnh.org/handle/2246/263)
(Discussion of unusually large hominids (Pithecanthropus robustus Weidenreich from China, Meganthropus palaeojavanicus from Sangiran, Java). Partly based on unpublished material from Von Koenigswald)

Weidenreich, F. (1951)- Morphology of Solo man. Anthropological Papers American Museum Natural History 43, 3, p. 203-288.
(online at: http://digitallibrary.amnh.org/handle/2246/297)
(Description of 11 skulls of Homo soloensis, collected between 1931 and 1941 from Late Pleistocene Solo river 20m terrace at Ngandong, left bank of Solo River, 6 miles N of Ngawi, C Java. Associated with rich mammalian fauna (Sus terhaari, Cervus javanicus) and possible bone tools and stone balls. Hominins believed to be younger than those from other parts of Java (Sangiran, Mojokerto, Trinil). Remarkable absence of other hominin body parts. With introduction by Von Koenigswald on geology and associated fauna (NB: unfinished study due to Weidenreich's death in 1948; see also Santa Luca 1980))

Weinand, D.C. (2005)- A reeevaluation of the paleoenvironmental reconstructions associated with *Homo erectus* from Java, Indonesia, based on the functional morphology of fossil bovid Astragali. Ph.D. Thesis University of Tennessee, p. 1-173.
(online at: https://trace.tennessee.edu/utk_graddiss/2315)
(Study of bovid astragali ('cow knuckle bones') from hominid-bearing sites in Java indicate paleoenvironment at Trinil site (~1 Ma) dominated by vegetated river valleys and upland forests, broken by grasslands. Grasslands probably expanded at time of Kedung Brubus locality (~0.8 Ma). Environmental change and immigration of new species important to evolutionary success of Homo erectus in M Pleistocene)

Westaway, K.E. (2006)- Reconstructing the Quatermary landscape evolution of Western Flores: an environmental and chronological context for an archaeological site. Ph.D. Thesis University of Wollongong, p. 1-411.
(online at: http://ro.uow.edu.au/theses/562/)
(Age range for occupation of Liang Bua cave by Homo floresiensis 95-11 ka, most intensive phases of occupation 74-61 and 17-11 ka, depositional age of holotype skeleton 36-14 ka, and age of oldest human skeletal remains found on Flores 95-74 ka)

Westaway, K.E. & C.P. Groves (2009)- The mark of ancient Java is on none of them. Archaeology in Oceania 44, 2, p. 84-95.
(Suggested links between Javanese E Pleistocene Homo erectus and Australian Late Pleistocene Homo sapiens crania (Thorne, etc.) questionable. Hybridization of two species unlikely: no chronological overlap and phylogenetic analysis indicate no close genetic relationship between Ngandong-like population from Java and late Pleistocene Australian fossils from Willandra Lakes)

Westaway, K.E., J. Louys, R. Due Awe, M.J. Morwood, G J. Price, J.X. Zhao, M. Aubert, R. Joannes-Boyau, T.M. Smith et al. (2017)- An early modern human presence in Sumatra 73,000-63,000 years ago. Nature 548, 7667, p. 322-325. *(online at: www.academia.edu/39125826/An_early_modern_human_presence_in_Sumatra_73_000_63_000_years_ago)*
(Reinvestgation of Lida Ajer cave in Padang Highlands, W Sumatra, which yielded Late Pleistocene human teeth (Dubois 1890), associated with rich rainforest fauna. Enamel-dentine junction morphology, enamel thickness and comparative morphology show teeth belong to anatomically modern humans (Homo sapiens). Dating of bone-bearing sediments and U-series/ electron spin resonance dating of Pongo mammalian teeth place modern humans in Sumatra between 73-63 ka. Evidence of rainforest occupation by H. sapiens at ~70 ka is ~20 ka earlier than assumed timing of dispersal of modern humans across SE Asia)

Westaway, K.E., J.M. Morwood, R.G. Roberts, A.D. Rokus, J.X. Zhao, P. Storm, F. Aziz, G. van den Bergh, P. Hadi, Jatmiko & J. de Vos (2007)- Age and biostratigraphic significance of the Punung rainforest fauna, East Java, Indonesia, and implications for *Pongo* and *Homo*. J. Human Evolution 53, p. 709-717.

(Punung Fauna of Java represents faunal turnover when Stegodon and other archaic mammal species were replaced by modern fauna, including rainforest-dependent species such as Pongo pygmaeus (orangutan). Dated as early Last Interglacial age (between 128±15 and 118±3 ka))

Westaway, K.E., M.J. Morwood, R.G. Roberts, J.X. Zhao, T. Sutikna et al. (2007)- Establishing the time of initial human occupation of Liang Bua, western Flores, Indonesia. In: R. Grun & R.G. Roberts (eds.) 11th Int. Conf. Luminescence and electron spin resonance dating (LED 2005), Quaternary Geochronology 2, p. 337-343.
(Liang Bua limestone cave in W Flores existed as subterranean chamber since 400 ka and has archeological-faunal sequence known to span last 95 ka (type locality for small-bodied hominid Homo floresiensis))

Westaway, K.E., M.J. Morwood, T. Sutikna, M.W. Moore, A.D. Rokus, G.D. van den Bergh, R.G. Roberts & E.W. Saptomo (2009)- *Homo floresiensis* and the late Pleistocene environments of eastern Indonesia: defining the nature of the relationship. Quaternary Science Reviews 28, p. 2897-2912.
(online at: www.academia.edu/466213/Homo_floresiensis_and_the_late_Pleistocene_environments_of Etc.)
(Occupation deposits in Liang Bua limestone cave on Flores span ~95 kyrs and contain abundant stone artefacts, well preserved faunal remains and evidence for endemic hominin Homo floresiensis. H. floresiensis endured rapidly fluctuating environmental conditions over last ~100 ka. Peaks in occupation at 100-95, 74-61 and 18-17 ka correlate with episodes of channel formation and erosion in cave, which in turn correspond with high rainfall, thick soils and high bio-productivity outside)

Westaway, K.E., R.G. Roberts, T. Sutikna, M.J. Morwood, R. Drysdale, J.X. Zhao & A.R. Chivas (2009)- The evolving landscape and climate of western Flores: an environmental context for the archaeological site of Liang Bua. J. Human Evolution 57, 5, p. 450-464.
(Reconstruction of landscape history of Liang Bua cave and Wae Racang valley, W Flores, using speleothems, geological structure, tectonic uplift, karst, cave, and terrace development)

Westaway, K.E., J.X. Zhao, R.G. Roberts, A.R. Chivas, M.J. Morwood & T. Sutikna (2007)- Initial speleothem results from western Flores and eastern Java, Indonesia: were climate changes from 47 to 5 ka responsible for the extinction of *Homo floresiensis*? J. Quaternary Science 22, 5, p. 429-438.
(O and C isotopic shifts in stalagmites from W Flores and E Java suggest rapid increase in rainfall around 13 ka or 17-16.5 ka, and may be related to abrupt disappearance of Stegodon and Homo floresiensis in W Flores)

Westaway, M.C. (2002)- Preliminary observations on the taphonomic processes at Ngandong and some implications for a late *Homo erectus* survivor model. Tempus 7, p. 189-193.
(At Late Pleistocene Ngandong site (Solo River, Java) different taphonomic alterations between human and non-human skeletal elements. Homo erectus remains may be older than many non-hominin fossils)

Westaway, M.C., A.C. Durband, C.P. Groves & M. Collard (2015)- Mandibular evidence supports *Homo floresiensis* as a distinct species. Proc. National Academy of Sciences USA (PNAS) 112, 7, p. E604-E605.
(online at: www.pnas.org/content/112/7/E604.full.pdf)
(Mandibular characteristics of Homo floresiensis from Liang Bua, Flores, close to early hominins, and not pathological H. sapiens as suggested in Henneberg et al. and Eckhardt et al. 2014 papers)

Westaway, M.C., A. Durband & D. Lambert (2015)- Human evolution in Sunda and Sahul and the continuing contributions of Professor Colin Groves. In: A.M. Berle & M.F. Oxenham (eds.) Taxonomic tapestries: the threads of evolutionary, behavioural and conservation research, Australian National University (ANU) Press, p. 249-276.
(online at: www.jstor.org/stable/pdf/j.ctt169wd9c.16.pdf)
('Late' Homo erectus from sites like Ngandong/ Sambungmacan/ Ngawi, Java, often viewed as advanced H. erectus or sometimes as 'archaic' H. sapiens, but may be separate species Homo soloensis. Etc.)

Westaway, M., T. Jacob, F. Aziz, H. Otsuka & H. Baba (2003)- Faunal taphonomy and biostratigraphy at Ngandong, Java, Indonesia and its implications for the late survival of *Homo erectus*. American J. Physical Anthropology 120, Abstract, p. 222–223.

Weston, E.M. & A.M. Lister (2009)- Insular dwarfism in hippos and a model for brain size reduction in *Homo floresiensis*. Nature 459, 7243, p. 85-88.

Wetmore, A. (1940)- Avian remains from the Pleistocene of Central Java. Journal of Paleontology 14, p. 447-450.
(Pleistocene bird remains from Ngandong Terrace of Solo River at Watoealang, 5km W of Ngawi, incl. Leptoptilos titan (marabou stork) and humerus of crane (Grus grus), indicating rel. cool temperatures in U Pleistocene (cranes today not found S of China))

Wibowo, U.P. (2016)- Walking with Indonesian elephants: attribution of isolated proboscidean femurs and tibias to genus based on morphological differences. Masters Thesis, School of Earth and Environmental Sciences, University of Wollongong, p. 1-185.
(online at: https://ro.uow.edu.au/theses/4803/)
(Pleistocene- Recent deposits of Java, Sulawesi, Flores, Timor and Borneo contain elephantoid fossils, mainly of genera Sinomastodon, Stegodon and Elephas. In Late Pleistocene- Recent only Elephas maximus (Sumatra))

Wibowo, U.P., A. Ferdianto, N. Laili, D. Yurnaldi & R. Setiawan (2019)- Vestige of the hominid at the Pleistocene ancient estuarine fossils bearing site of Cisaar Valley, Sumedang, West Java. Purbawidya, J. Penelitian Pengembangan Arkeologi 8, 2, p. 65-78.
(online at: https://purbawidya.kemdikbud.go.id/index.php/jurnal/article/view/P8%282%292019-1)
(Cisaar Valley outcrops of Plio-Pleistocene sediments of Kaliwangu and Citalang Fms. Paleoenvironments change upward from shallow marine, estuarine to fluvial. Two horizons with vertebrate faunas:(1) Cisaat fauna (>1 Ma old) and (2) Trinil fauna, associated with stone artifacts (~1-0.9 Ma))

Wibowo, U.P., B. Hakim & A.M. Saiful (2019)- New find of *Stegodon sompoensis* maxilla from Ciangkange Soppeng, South Sulawesi. Walennae (J. Arkeologi Sulawesi Selatan dan Tenggara) 17, 2, p. 143-154.
(online at: https://walennae.kemdikbud.go.id/index.php/walennae/article/view/366/342)
(New maxilla fragment with molar root teeth M1 of archaic elephantoid Stegodon sompoensis from Walanae Fm conglomeratic sandstone at Cangkange, 4 km E of Cabenge Archeological site of S Sulawesi. Likely age ~2.5 Ma (Late Pliocene to E Pleistocene), based on vertebrate fauna biostratigraphy of S Sulawesi)

Wibowo, U.P., E. Setiyabudi & I. Kurniawan (2018)- A *Stegodon* mandible from Cipanaruban, Subang, West Java; description and its position in the Java vertebrate biostratigraphy. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 19, 1, p. 9-14.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/126/333)
(Mandible of Stegodon trigonocephalus at Cipanaruban River near Pasir Cabe paleontological site (Von Koenigswald 1935), ~6 km E of Subang, W Java. Presumably part of Cisaat Fauna, E Pleistocene)

Wibowo, U.P., E. Setiyabudi, I. Kurniawan & H. Insani (2015)- Indonesian Archipelago paleogeography as the natural laboratory of the Proboscidean migration and adaptation pattern. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI, Balikpapan, JCB2015-355, p. 1-4.
(online at: www.researchgate.net/publication/285482789_Indonesian_Archipelago_Paleogeography_as_the_Natural_Laboratory_of_the_Proboscidean_Migration_and_Adaptation_Pattern)
(History of migration elephantoids (Sinomastodon, Stegoloxodon, Stegodon, Elephas) in Pleistocene- Holocene from mainland Asia to Indonesian Archipelago (mainly Java, also Sulawesi, Flores, Timor, etc.). Various degrees of dwarfing, depending on geological conditions, i.e. in island faunas)

Wibowo, U.P., I.Y.P. Suharyogi & E. Setiyabudi (2017)- The enigma of the existence of vertebrate fossils in the Flores Island. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, p. 1-3. *(Extended Abstract)*
(online at: https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_The-Enigma-of-the-Existence.pdf)
(Fossil analyses indicate Pleistocene vertebrate faunas of Flores most likely originated from Java, not Sulawesi (characteristics of Stegodon, giant tortoise and hominids that look like descendants of Homo erectus))

Widianto, H. (1986)- Posisi stratigrafi dan teknologi alat serpih Sangiran. Berkala Arkeologi 7, 1, p. 1-14.
(online at: https://berkalaarkeologi.kemdikbud.go.id/index.php/berkalaarkeologi/article/view/447)
('The stratigraphic position and technology of the Sangiran stone tools')

Widianto, H. (1993)- Unite et diversite des hominides fossils de Java: presentation de restes humains fossils inedits. Doct. Thesis, Museum National Histoire Naturelle, Institut Paleontologie Humaine, Paris, p. 1-277. *(Unpublished)*
('Unity and diversity of Java fossil hominids: presentation of unpublished human fossil remains'. Cranial remains show three Homo erectus groups: robust group, Trinil-Sangiran and Ngandong. Mandibular remains show only one genus, Homo, and one species, erectus, with two subspecies defined here: Homo erectus paleojavanicus and Homo erectus javanicus)

Widianto H. (2001)- Searching for *Homo erectus* artifacts. In: E. Indriati (ed.) A scientific life: papers in honor of Prof. Dr. T. Jacob, Bigraf Publishing, Yogyakarta, p. 75-89.

Widianto, H. (2001)- The perspective on the evolution of Javanese *Homo erectus* based on morphological and stratigraphic characteristics. In: T. Simanjuntak et al. (eds.) Sangiran: man, culture, and environment in Pleistocene times, Proc. International Colloquium on Sangiran, Solo- Indonesia, Solo 1998, Jakarta, National Research Centre of Archaeology, Yayasan Obor Indonesia, Jakarta, p. 24-45.

Widianto, H. (2011)- Human path after Sangiran era. Conservation office Sangiran Early Man site, p. 1-148.

Widianto, H. (2012)- Sangiran. The breadth of hominid sites. Directorate General of History and Archaeology, Conservation Office of Sangiran Early Man Site, Java, p. 1-141.

Widianto, H. & D. Grimaud-Herve (2000)- Un nouveau crane humain fossile dans le dome de Sangiran (Java, Indonesie). Comptes Rendus Academie Sciences, Paris, Ser. IIA, 330, 12, p. 883-888.
('A recently discovered fossil human skull near Grogol Wetan village in Kabuh Fm of in Sangiran dome, Java'. New human remains from Kabuh Fm at Grogol Wetan, Sangiran dome, with morphological characters very similar to other hominids of same horizon. Part of homogeneous population of asiatic Homo erectus)

Widianto, H. & D. Grimaud-Herve (2014)- The latest discoveries of *Homo erectus* in Java. In: N. Amano et al. (eds.) Southeast Asia: human evolution, dispersals and adaptations, 17th Congress International Union Prehistoric and Protohistoric Sciences (UISPP), Burgos 2014, p. 102-106.

Widianto, H., D. Grimaud & S. Sartono (2001)- The evolutionary position of the Ngawi calvaria. Bull. Indo-Pacific Prehistory Association (IPPA) 21, p. 162-169.
(online at: https://journals.lib.washington.edu/index.php/BIPPA/article/view/11778/10407)
(Ngawi 1 hominid skull originally described by Sartono 1991 from left bank Solo River near Selopuro, possibly derived from fluvial Pitu terraces, 5 km W of Ngawi. Probably member of Ngandong and Sambungmacan group of M-U Pleistocene Homo erectus)

Widianto, H.& S. Noerwidi (2020)- 'It is time to look at the West: a new interpretation on *Homo erectus* findings distribution on Java. Berkala Arkeologi 40, 2, p. 153-178.
(online at: https://berkalaarkeologi.kemdikbud.go.id/index.php/berkalaarkeologi/article/view/598/544)
(Occupation of Java by 'Asian' mammals started at Plio-Pleistocene boundary, around 2.4 Ma. Oldest Homo erectus found in Sangiran, around 1.5 Ma. Recent Pleistocene discoveries from W Java (Rancah, Semedo, Bumiayu) shows oldest Homo erectus in W Java between 1.8-1.7 Ma) (Indonesian version "Saatnya menengok ke barat: sebuah interpretasi barutentang distribusi temuan Homo erectus di Jawa" online at: https://berkalaarkeologi.kemdikbud.go.id/index.php/berkalaarkeologi/article/view/598/545))

Widianto, H.& S. Noerwidi (2023)- Long journey of Indonesian *Homo erectus*: Arrival and dispersal in Java Island. L'Anthropologie 127, 3 (Special Issue Prehistoire de l'Indonesie), 103167, p.

(Review paper. Three evolutive stages among Javanese Homo erectus during Pleistocene: archaic Homo erectus, typical Homo erectus, and progressive Homo erectus. Earlier taxonomic names, such as Pithecanthropus (erectus, robustus, dubius, modjokertensis, soloensis) and Meganthropus paleojavanicus do not indicate genus or species differences; there is only one genus (Homo) and one species (erectus) on Java. No evolutive link between last Homo erectus and first H. sapiens in Indonesia can be seen)

Widianto, H.& S. Noerwidi (2023)- The emergence and distribution of early modern human in Indonesia. L'Anthropologie 127, 3 (Special Issue Prehistoire de l'Indonesie), 103161, p. 1-25.
(Discussion of 'Multiregional Evolution" versus "Out-of-Africa" models of Homo sapiens evolution and migration. Early anatomically modern human remains in Indonesia found since second half of U Pleistocene, including Wajak man (age uncertain), Lida Ajer (W Sumatra) and Punung (Java) remains, and also dwarf Homo floresiensis from Liang Bua, Flores)

Widianto, H.& S. Noerwidi (2023)- Australo-melanesian: Human population in Indonesian Archipelago during the Pleisto-Holocene transition. L'Anthropologie 127, 3 (Special Issue Prehistoire de l'Indonesie), 103157, p. 1-19.
(Since the end of the Ice Age (beginning of Holocene, 11,000 years ago), the Indonesian Archipelago has shown significant waves of Early Modern Human migration. Indonesia's current population characterized by Mongoloid group in W and Australo-Melanesian race in E, with common intermixing. Early Australo-Melanesian remains widespread between ~10,000-4,000 years ago, from N Sumatra (Bukit Kerang shell midden), Java (Gunung Sewu), Sulawesi (Toalean culture), Lesser Sunda islands (Liang Toge), etc. Many were cave dwellers. After ~4000 years ago, in W Indonesia, Australo-Melanesia poplation replacedby Mongoloids)

Widianto, H.& S. Noerwidi (2023)- Austronesian diaspora in Indonesian archipelago arrived at the last migration wave. L'Anthropologie 127, 3 (Special Issue Prehistoire de l'Indonesie), 103162, p. 1-15.
(Australo-Melanesian humans dominated in Indonesian Archipelago in first half of Holocene, as revealed by discoveries in Sumatra, Java, and S Kalimantan. Provisional dating data indicates this population has lived in region since around 13,000 (Simanjuntak, 2002) to be slowly replaced by new population of Austronesians around 4000 years ago)

Widianto, H.& S. Noerwidi (2023)- Long journey of Indonesian *Homo erectus*: Arrival and dispersal in Java Island. L'Anthropologie 127, 3 (Special Issue Prehistoire de l'Indonesie), 103167, p. 1-25.
(Review of Early to Late Pleistocene Homo erectus on Java from ~1.5 Ma to 100,000-300,000 years ago. Pithecanthropus (erectus, robustus, dubius, modjokertensis, soloensis) and Meganthropus paleojavanicus all viewed here as one species Homo erectus)

Widianto, H., S. Noerwidi & A.T. Hascarya (2023)- New hominin calvaria discovery from Grenzbank layer of Sangiran Dome (Java, Indonesia): The last archaic *Homo erectus* lived in Java. L'Anthropologie 127, 3 (Special Issue Prehistoire de l'Indonesie), 103165, p. 1-20.
(New find in 2016 by locals of incomplete skullcap in Bokong, Sangiran, believed to be from Grenzbank conglomerate horizon. Bjg 1602 similar morphology and size as robust Sangiran 4 skullcap (first known as Pithecanthropus robustus), which is one of the robust Homo erectus members from E Pleistocene between 1.6-1.2 Ma. Bjg 1602 may represent last survivor of robust Homo erectus in Java in E-M Pleistocene (~0.9 Ma)).

Widianto, H. & T. Simanjuntak (2010)- Sangiran answering the world. Conservation office Sangiran Early Man site, p. 1-146.

Widianto, H., B. Toha & T. Simanjuntak (2001)- The discovery of stone implements in the Grenzbank: new insights into the chronology of the Sangiran flake industry. Bull. Indo-Pacific Prehistory Association 21, p. 157-169.
(online at: http://ejournal.anu.edu.au/index.php/bippa/article/view/273/263)
(Sangiran flake industry stone tools made from chalcedony and silicified tuff found in situ in 'Grenzbank' layer between Kabuh and Pucangan Fms. Age at least 800,000 years ago)

Widianto, H., B. Toha, T. Simanjuntak & M. Hidayat (1997)- Laporan penelitian Situs Sangiran: Proses sedimentasi, posisi stratigrafi dan kronologi artefak pada endapan purba Seri Kabuh dan Seri Notopuro. Berita Penelitian Arkeologi 1, p. 1-136.
('Sangiran site research report: Sedimentation process, stratigraphic position and chronology of artifacts in the ancient deposits of the Kabuh and Notopuro series')

Widianto, H. & V. Zeitoun (2003)- Morphological description, biometry and phylogenetic position of the skull of Ngawi 1 (East Java, Indonesia). Int. J. Osteoarchaeology 13, 6, p. 339-351.
(Rel. complete and well-preserved human skull of Ngawi 1 (Solo River near Selopuro village; Sartono 1991) morphologically closer to Ngandong-Sambungmacan (40,000 yrs) than to Trinil-Sangiran series. Question is whether skull belongs to subspecies of H. sapiens, or to H. soloensis. After local volcano-tectonic events at 71 ka and catastrophic events at 780 ka, first inhabitants of Java may have disappeared and Ngawi 1 may be new invader from Asia. Indonesian human group may have evolved at same time as Neandertals in Europe)

Widiasmoro (1998)- Late Tertiary- Early Quaternary magmatic arc and its relationship to the sedimentation processes in Sangiran, Central Java. In: H.T. Simanjuntak (ed.) Proc. International Colloquium on Sangiran: man, culture and environment in Pleistocene times, Solo 1998, Japan Foundation and National Research Center for Archaeology, Jakarta, p. 45-46.

Widiasmoro & S. Boedhisampurno (2001)- Relationship between the late Tertiary- early Quaternary magmatic activity and the paleoecology of the *Pithecanthropus* in Central-East Java. In: E. Indriati (ed.) A scientific life, Papers in Honor of Prof. Dr. T. Jacob, Proc. Conference on Man: Past, Present and Future, BIGRAF Publishing, Yogyakarta, p. 119-136.

Willemsen, G.F. (1986)- *Lutrogale palaeoleptonyx* (Dubois, 1908), a fossil otter from Java in the Dubois collection. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, B 89, 2, p. 195-200.
(M Pleistocene otter fossil from fluvial deposits Kedung Brubus, C Java)

Williams, E. (1957)- *Hardella isoclina* Dubois redescribed. Zoologische Mededelingen (Leiden), 35, 17, p. 235-240.
(online at: https://repository.naturalis.nl/pub/319310)
(Re-description and first illustration of well-preserved Pleistocene emydine freshwater turtle shell from Trinil Beds at Kedoeng Panas, Java (first briefly described by E. Dubois, 1908). Paper questions relation of H. isoclina with Hardella, and prefers assignment to genus Clemmys? isoclina (Dubois) (see also Das (1997))

Wiradnyana, K., T. Setiawan & H. Forestier (2023)- Le Hoabinhien et la reconstruction de la paleogeographie du Nord de Sumatra. L'Anthropologie 127, 3 (Special Issue Prehistoire de l'Indonesie), 103149, p. 1-12.
('The Hoabinhian and the reconstruction of the paleogeography of North Sumatra'. Hoabinhian Late Pleistocene-Holocene stone tool technocomplex in N Sumatra and mainland SE Asia characterized by presence of unifacial pebbles (sumatraliths). In N Sumatra Hoabinhian sites present as shell-middens in coastal areas and in caves in mountainous areas. Recent 14C dating of several Hoabihian sites in N Sumatra show occupation between 12,000- 3,000 years BP)

Witkamp, H. (1920)- Kjokkenmoddinger ter Oostkust van Sumatra. Tijdschrift Koninklijk Nederlandsch Aardrijkskundig Genootschap 37, p. 572–574.
('Shell middens at the East coast of Sumatra'. First report of presence of several large mounds of sea shells, typically 20m wide and 3-5m high, NW of Bindjai in NE Sumatra. These represent 'kitchen waste' of Mesolithic hunter-gatherer peoples. Many of these prehistoric shell mounds have since been destroyed for use as road cover and in local lime kilns. (later archeological excavation work by P. van Stein Callenfels in 1925 was never properly documented; see also Schurmann, 1931; JTvG)

Wolpoff, M.H. (1984)- Evolution in *Homo erectus*: the question of stasis. Paleobiology 10, 4, p. 389-406.

(Analyses of Homo erectus fossils, incl. Indonesian material. Shows evolutionary changes in increased cranial capacity and mandibular and dental features. Late end of H. erectus range difficult to define, as evidenced by difficulty in agreeing on whether Ngandong (C Java) samples are H. erectus or H. soloensis or H. sapiens)

Wolpoff, M.H., A.G. Thome, J. Jelinek & Y. Zhang (1994)- The case for sinking *Homo erectus*. 100 years of *Pithecanthropus* is enough! In: J.L. Franzen (ed.) 4th International Conference 100 years of *Pithecanthropus*. The *Homo erectus* problem, Frankfurt 1991, p. 341-361.
(online at: https://www.researchgate.net/publication/285136980_The_case_for_sinking_Homo_erectus_100_years_of_Pithecanthropus_is_enough)
(Provocative and probably oversimplified hypothesis that Homo erectus and Homo sapiens are parts of single evolving Homo species in past two million years)

Wurster, C.M. & M.I. Bird (2015)- Barriers and bridges: early human dispersals in equatorial SE Asia. In: J. Harff et al. (eds.) Geology and archaeology: submerged landscapes of the continental shelf, Geological Society, London, Special Publ. 411, p. 235-250.
(Review of paleogeography of W Indonesian region during Last Glacial Period. Hominin fossil sites generally associated with areas of open vegetation. N-S savannah corridor probably existed on Sunda Shelf, facilitating rapid dispersal of early humans in SE Asia)

Yabuki, H. & M. Shima (1981)- Fission track age and chemical composition of tektite from the remain of *Pithecanthropus erectus*. Scientific Papers Institute of Physical and Chemical Research (Tokyo) 75, 2, p. 102-104.
(M Pleistocene age determination of tektite from Sangiran, C. Java)

Yokoyama, Y., C. Falgueres, F. Semah, T. Jacob & R. Grun (2008)- Gamma-ray spectrometric dating of late *Homo erectus* skulls from Ngandong and Sambungmacan, Central Java, Indonesia. J. Human Evolution 55, 2, p. 274-277.
(Hominid fossils from Ngandong and Sambungmacan, C Java, Indonesia considered youngest representatives of Homo erectus (but much younger than, and different from, typical Sangiran H. erectus; JTvG). Dating of three skulls established minimum age of ~40 ka, with upper age limit ~60-70 ka. Ages suggest Homo erectus of Java likely survived Toba eruption and was possibly contemporaneous with earliest Homo sapiens in SE Asia)

Yokoyama, T., S. Hadiwisastra, W. Hantoro, T. Matsuda & S. Nishimura (1980)- K-Ar age of the 'Lahar Tuff' lowest part of the Pucangan formation, Pleistocene of Sangiran, Central Java, Indonesia. J. Riset Geologi dan Pertambangan (LIPI) 3, 1, p. 1-7.
(K-Ar age of 2.06 ± 0.6 Ma from andesite from 'Lahar Tuff' of base of Pucangan Fm in W Sangiran Dome. Layer has normal magnetic polarity, maybe correlated with Olduvai Event (1.67-1.87 Ma))

Yokoyama, T. & I. Koizumi (1989)- Marine transgressions on the Pleistocene Pecangan Formation in the Sangiran area, central Java, Indonesia. Palaeogeogr. Palaeoclim. Palaeoecology 72, p. 177-193.
(Paleomagnetic survey, diatoms and electric conductivity suggest four marine transgressions in Pleistocene Pucangan Fm between 1.8- 0.73 Ma, reflecting glacial eustasy. First major transgression at ~1.5 Ma, after the Olduvai Event and next one just before the Jaramillo Event, presumably reflecting glacial eustasy)

Yudha, D.S. (2008)- Reevaluation du crane Ngawi 1 (*Homo erectus*, Java, Indonesie), apports de l'imagerie 3D et des analyses multivariees. Master Thesis Quaternaire et Prehistoire, Museum National Histoire Naturelle, Paris, p. 1-55.
(online at: http://hopsea.mnhn.fr/pc/thesis/M2_DONAN_S_Y.pdf)
('Reevaluation of the Ngawi 1 skull (Homo erectus, Java, Indonesia); 3D imaging and multivariate analyses'. M-L Pleistocene Ngawi 1 skull found in 1987 morphologically close to 'late Homo erectus' Ngandong and Sambungmacan hominids. Morphological characteristics of Ngawi skull not directly comparable to Chinese (Sinanthropus) and African Homo erectus (H. ergaster), but one African individual (Olduvai 9) fits well in Ngandong-Ngawi group)

Yurnaldi, D., R. Setiawan & E.Y. Patriani (2018)- The magnetostratigraphy and the age of So'a Basin fossil-bearing sequence, Flores, Indonesia. Indonesian J. on Geoscience (IJOG) 5, 3, p. 221-234.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/433/269)
(Three fossil-bearing intervals recognized in Pleistocene Soa Basin of Flores, with upper one holding important hominin fossils. Paleomagnetic sampling of four sections shows two reverse and two normal polarity zones. Reverse magnetozones part of Matuyama Chron, normal magnetozones are Jaramillo and Brunhes chrons. Tangi Talo fossil layer below base Jamarillo, older than previously thought (>1.07 Ma). Mata Menge fossil intervals above Matuyama-Brunhes boundary (<0.78 Ma))

Yuwono, J.S.E. (2009)- Late Pleistocene to Mid-Holocene coastal and inland interaction in the Gunung Sewu karst area, Yogyakarta. Bull. Indo-Pacific Prehistory Association (IPPA) 29 (Manila Congress), p. 33-44.
(online at: https://journals.lib.washington.edu/index.php/BIPPA/article/view/9475)
(On archeological rock shelters in Gunung Sewu (Southern Mountains of Java) karst and prehistoric settlement)

Zaim, Y. (1981)- Umur serta stratigrafi Formasi Pucangan daerah Perning, Mojokerto, Jawa Timur. Proc. 10th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, p. 230-237.
(online at: https://www.iagi.or.id/web/digital/34/PIT-IAGI-1981-Vol-1-Paper-21.pdf
('Revision of age and stratigraphy of the Pucangan Fm in the Perning area, Mojokerto, E Java'. Top Pucangen Fm below mammal-bearing Kabuh Fm with Late Pliocene Globorotalia tosaensis (N21))

Zaim, Y. (1989)- Les formations 'volcano-sedimentaires' Quaternaires de la region de Patiayam (Central Java, Indonesie). Milieu de sedimentation et mineralogie. Doct. Thesis Museum National Histoire Naturelle, Universite de Paris, p. 1-264. *(Unpublished)*
(online at: https://horizon.documentation.ird.fr/exl-doc/pleins_textes/2022-07/010039879.pdf)
('The Quaternary 'volcano-sedimentary' formations of the Patiayam region (C Java, Indonesia); depositional environment and mineralogy'. Young volcanoclastics of Patiayam anticlinal dome in NE Java backarc area, ~20km SSE of Muria volcano. Shoshonitic volcanism ('lower laharic breccias') started at ~ 2 Ma, likely derived from Patiayam volcano and possibly also from Bawean/ Karimunjawa area to NE. Around 1.1- 0.9 Ma onset of Muria I or II-derived leucite-bearing potassic-ultrapotassic volcanoclastics. Underlain by Pliocene marine Jambe Fm mollusc-bearing claystones and associated with Pleistocene 'Trinil-type' mammal fossils (Van Es, 1931), with 1978 discovery of hominid molar identified as Homo erectus ngandongensis. Etc.)

Zaim, Y. (1996)- The age of Pitu Terrace of Watualang region, Ngawi (East Java), Indonesia. Buletin Geologi (Jurusan Geologi Teknik ITB) 26, 2/3, p. 31-36. *(online at: www.academia.edu/73141839/The_Age_of_Pitu_Terrace_of_Watualang_region_Ngawi_East_Java_Indonesia)*
(Six Solo River terraces in area of Watualang (Ngawi). New vertebrate fossils in Pitu Terrace include Buffelus bubalus var sondaicus fosilis (Asian water buffalo) in Terrace V, suggesting age not older than Late Pleistocene, equivalent of Ngandong fauna)

Zaim, Y. (2004)- A new discovery of *Stegodon* in Early Pleistocene sediments from the Sumedang area (West Jawa, Indonesia). 18th International Senckenberg Conference, Weimar 2004, 1p. *(Abstract only)*
(online at: www.senckenberg.de/fis/sngconf18/doc/abstracts/115_Zaim.pdf)
(Summary of Zaim 2002 paper. Dwarf Stegodon tooth from E Pleistocene of W Java, probaby of Satir or Ci Saat fauna indicates E Pleistocene island in this part of W Java)

Zaim, Y. (2010)- Geological evidence for the earliest appearance of hominins in Indonesia. In: J.G. Fleagle et al. (eds.) Out of Africa 1, The first hominin colonization of Eurasia, Vertebrate Paleobiology and Paleoanthropology 2, Springer Science, p. 97-110.
(online at: https://www.researchgate.net/publication/282854129_Geological_Evidence_for_the_Earliest_Appearance_of_Hominins_in_Indonesia_Yahdi_ZaiminOut_of_Africa_I_-_The_First_Hominin_Coloniz Etc.)
(Until end Tertiary most Indonesian regions still in marine environment. Tectonics and glacioeustatic changes during Pleistocene formed Indonesian Archipelago. Sunda Land acted as land bridge and migration route for Homo erectus and vertebrate faunas from Asia mainland to Java. First arrival of vertebrate faunas from Asia to

Indonesia through Sundaland at end of Late Pliocene, followed by arrival of early hominin (Homo erectus paleojavanicus (= Meganthropus paleojavanicus)) to Java in Early Pleistocene (1.6-1.0 Ma))

Zaim, Y. & R. Ardan (1998)- A premolar of *Homo erectus* from Patiayam region, Central Java. Buletin Geologi (ITB) 28, p. 31-36.
(First lower permanent premolar of Homo erectus, in fluvial sandstones of E-M Pleistocene Slumprit Fm)

Zaim, Y., R.L. Ciochon, J. Polanski, F.E. Grine, E.A. Bettis, Y. Rizal, R. Larick, M. Heizler, Aswan, K.L. Eaves & H.E. Marsh (2011)- New 1.5 million-year-old *Homo erectus* maxilla from Sangiran (Central Java, Indonesia). J. Human Evolution 61, 4, p. 363-376.
(*online at: https://www.academia.edu/5900201/New_1_5_million_year_old_Homo_erectus_maxilla_from_Sangiran_Central_Java_Indonesia)*
(New H. erectus left maxilla fragment from cemented gravelly sands at base Grenzbank Zone at Bapang, Sangiran. Pumice hornblende 2m above locality with 40Ar/39Ar age of 1.51 Ma (N.B.: numerical ages proposed in this paper for Sangiran stratigraphy are significantly older than most other dating results and not in agreement with paleomagnetic interpretations, tektite horizon, etc.?; JTvG))

Zaim, Y. & M. Delaune (1990)- Nouvelles donnees sur la stratigraphie et le milieu de sedimentation des formations volcano-sedimentaires quaternaires de la region de Patiayam (Java- Indonesie). Geodynamique 5, 2, p. 135-150.
('New data on the stratigraphy and depositional environment of the volcano-sedimentary formations of the Patiayam region (Java, Indonesia)'. Shoshonitic volcanic activity of Patiayam Dome, S of Muria Volcano in N Java, initiated ~2 Ma ago. During Lower Pleistocene (0.9 Ma) still active and contemporaneous with beginning of activity at Muria 1)

Zaim, Y., J. de Vos, O.F. Huffman, F. Aziz, J. Kappelman & Y. Rizal (2003)- A new antler specimen from the 1936 Perning hominid site, East Jawa, Indonesia, attributable to *Axis lydekkeri* (Martin, 1886). Jurnal Teknologi Mineral, Bandung, 10, 2, p. 45-52.
(Nearly complete left antler, attributed to Axis lydekkeri, found in 2001 in excavation E of relocated site that produced Homo modjokertensis in 1936. Not reported previously from hominid-bearing bed)

Zaim, Y., A.T. Hascaryo, M.R. Puspaningrum, Aswan & Y. Rizal (2022)- Many ways for Quaternary hominin and fauna to reach Indonesian Archipelago. Proc. Workshop on Ecological drivers of Pleistocene hominin and faunal dispersal across Southeast Asia (EPHSEA 2022), Bangkok, p. 20. *(Abstract only)*
(online at: https://drive.google.com/drive/folders/1Xgtqkk-R6c: teD6tBnjFniH6QiERN7PcI)
(Two likely pathways for migration of Quaternary hominins and vertebrates from Asia mainland to SE Asia and Indonesian Archipelago:(1) Siva-Sino Malayan routes of Malay Peninsula- Sumatra- Bangka- Java and Kalimantan in W, and (2) track of Philippines- Sulawesi- Nusa Tenggara in E Indonesia, and vice versa)

Zaim, Y., R. Larick, R.L. Ciochon, Suminto, Y. Rizal & Sujatmiko (1999)- Karakteristik satuan Lahar Bawah dari formasi Pucangan di Sangiran, Jawa Tengah. Buletin Geologi. (ITB) 31, p. 67-84.
('Characteristics of the Lower Lahar unit in the Pucangan Fm in Sangiran'. See also Bettis et al. 2004)

Zaim, Y. & R. Marino (2002)- Pygmy *Stegodon* dari Desa Cariang, Kecamatan Tomo, Kab. Sumedang, Jawa Barat. Buletin Geologi (ITB) 34, 1, p. 45-52.
('Pygmy Stegodon from Cariang Village, Tomo District, Sumedang, West Java'. New species of small elephantoid Stegodon cariangensis in E Pleistocene lacustrine black clay in Majalengka, W Java (deposits unconformable above Late Pliocene marine clays of Kaliwangu Fm))

Zaim, Y., Y. Rizal & Aswan (2007)- The geological background of hominid colonization of Java. In: A.M. Semah & K. Setiagama (eds.) Proc. International Conference First islanders- Human origins patrimony in Southeast Asia, AsiaLink-HOPSea Programme, Paris, p. 92-98.
(online at: http://hopsea.mnhn.fr/pc/brochures/2007HOPseaFI.pdf)

Zaim, Y., Y. Rizal, Aswan & B.S. Fitriyana (2006)- S. Sartono: dari hominid ke delapsi dengan kontroversi. Penerbit Institut Teknologi Bandung, Bandung, p. 1-183.
('S. Sartono: from hominids to 'delapsi' with controversy'. Collection of papers)

Zanolli, C. (2013)- Additional evidence for morpho-dimensional tooth crown variation in a new Indonesian *H. erectus* sample from the Sangiran Dome (Central Java). PloS One 8, 7, e67233, p. 1-15.
(online at: http://journals.plos.org/plosone/article/file?id=10.1371/journal.pone.0067233&type=printable)
(Fifteen new Homo erectus fossil dental remains found in last two decades in Kabuh Fm of Sangiran Dome area, some from excavation of human occupation floors in basal Kabuh Fm)

Zanolli, C. (2015)- Molar crown inner structural organization in Javanese *Homo erectus*. American J. Physical Anthropology 156, 1, p. 148-157.
(Study of 7 Homo erectus permanent molar crowns from late E- early M Pleistocene Kabuh Fm of Sangiran, C Java. Features differ from penecontemporaneous African H. erectus/ergaster and H. heidelbergensis, as well as in Neanderthals, but occur in recent human populations)

Zanolli, C., L. Bondioli, L. Mancini, A. Mazurier, H. Widianto, R. Macchiarelli (2012)- Brief communication: Two human fossil deciduous molars from the Sangiran dome (Java, Indonesia): outer and inner morphology. American J. Physical Anthropology 147, 3, p. 472-481.
(Two deciduous crowns collected near Pucung, probably from E-M Pleistocene Kabuh Fm, or from E Pleistocene 'Grenzbank'. Probably from Homo erectus)

Zanolli, C., F.E. Grine, O, Kullmer, F, Schrenk & R, Macchiarelli (2015)- The early Pleistocene deciduous hominid molar FS-72 from the Sangiran dome of Java, Indonesia: A taxonomic reappraisal based on its comparative endostructural characterization. American J. Physical Anthropology 157, 4, p. 666-674.
(Among 10 fossil hominid deciduous teeth reported from Pleistocene of Sangiran Dome of Java are two isolated lower second molars: PCG.2 from Kabuh Fm and FS-72 from Pucangan Fm. FS-72 originally attributed to Meganthropus paleojavanicus because of large size, but internal morphology suggests more likely a dm2 of Pongo rather than Homo)

Zanolli, C., O. Kullmer, J. Kelley, A.M. Bacon, F. Demeter, J. Dumoncel, L. Fiorenza, F. Grine, J.J. Hublin et al. (2019)- Evidence for increased hominid diversity in the Early to Middle Pleistocene of Indonesia. Nature Ecology Evolution 3, 5, p. 755-764.
(Manuscript online at: https://hal.science/hal-02296699/file/Zanolli_%26_al_2019_NatureEcolEvol.pdf)
(Since first discovery of Pithecanthropus (Homo) erectus by E. Dubois at Trinil in 1891, over 200 hominid dentognathic remains collected from E-M Pleistocene deposits of Java. Dental structures confirm presence of Meganthropus as Pleistocene hominid distinct from Pongo, Gigantopithecus and Homo, and also reveal that Dubois's H. erectus paratype molars from 1891 are not hominin but Meganthropus)

Zeitoun, V. (2000)- Revision de l'espece *Homo erectus* (Dubois, 1893). Bulletins Memoires Societe Anthropologie de Paris, N.S., 12, 1-2, p. 1-200.
(online at: https://journals.openedition.org/bmsap/pdf/5963)
('Reappraisal of the species Homo erectus'. Mainly on details of skull morphology)

Zeitoun, V., V. Barriel & H. Widianto (2016)- Phylogenetic analysis of the calvaria of *Homo floresiensis*. Comptes Rendus Palevol 15, 5, p. 555-568.
(online at: www.sciencedirect.com/science/article/pii/S1631068316000130)
(Metrics of calvariae of human fossils from Liang Bua, Flores, indicate LB1 is part of Homo erectus clade, and less similar to Sambungmacan-Ngandong-Ngawi group. Homo floresiensis not pathological modern human)

Zeitoun, V., F. Detroit, D. Grimaud-Herve & H. Widianto (2010)- Solo man in question: convergent views to split Indonesian *Homo erectus* in two categories. Quaternary International 223-224, p. 281-292.
(online at: https://www.academia.edu/23025566/Solo_man_in_question_Convergent_views_to_split_Indonesian_Homo_erectus_in_two_categories)

(Homo (Javanthropus) soloensis Oppenoorth 1932 from Solo River bank terraces thought to belong to either archaic Homo sapiens, or (most paleoanthropologists:) an evolved Homo erectus. Chronological gap splits two categories, posing question of possibly two separate species. Catastrophic event around Brunhes/Matuyama geomagnetic reversal (Australasian tektite strewn field 770,000 or 803 ka) must have triggered shifting among Asian populations and environments. Toba eruption of 17 ka probably also had drastic global consequences on human ecology and evolution)

Zeitoun, V., H. Widianto & T. Djubiantono (2007)- The phylogeny of the Flores Man: the cladistic answer. In E. Indriati (ed.) Proc. International Seminar Southeast Asian paleoanthropology: Recent advances on Southeast Asian paleoanthropology and archaeology, Gadjah Mada University, Yogyakarta, p. 54-60.

Zeitoun, V., C. Winayalai, P. Auetrakulvit, R. Debruyne, J.B. Mallye & A. Lenoble (2023)- Transgressing the limits of palaeoenvironmental data for Southeast Asian Pleistocene faunal assemblages: A critical review to go further. Annales de Paleontologie 109, 4, 102657, p. 1-18.
(Critical review of Pleistocene 'savannah corridor' hypothesis for SE Asia mammal migrations)

Zhang, H., T. Pape & A.M. Lister (2028)- On the type material of *Elephas hysudrindicus* Dubois, 1908 (Mammalia, Proboscidea). J. Vertebrate Paleontology 38, 1, e1425211, p. 1-3.
(online at: https://www.researchgate.net/publication/323863868_On_the_type_material_of_Elephas_hysudrindicus_Dubois_1908_Mammalia_Proboscidea)
(In a study of a collection of elephantid molars, etc., from multiple location in Kendeng Hills of Java, Dubois (1908), saw E. hysudrindicus from Java as evolutionary intermediate between E Pleistocene E. hysudricus Falconer and Cautley1845 from Siwalik Hills of India-Pakistan and extant Asian elephant E. "indicus" (now E. maximus Linnaeus, 1758))

Zijlstra, J.S., L.W. van den Hoek Ostende & R. Awe Due (2008)- Verhoeven's giant rat of Flores (*Papagomys theodorverhoeveni*, Muridae) extinct after all? Contributions to Zoology, 77, 1, p. 25-31.
(online at: https://www.repository.naturalis.nl/document/98741)
(Giant rat species from Flores Papagomys theodorverhoeveni believed to be extinct, but reported by Suyanto and Watts (2002) as still extant, on basis of single museum specimen. Identification of that specimen disputed here)

Zwierzycki, J. (1926)- Een vondst uit de Palaeolithische cultuurperiode in een grot in Boven-Djambi. De Mijningenieur 7, 4, p. 64-67.
('A discovery from the Paleolithic culture period in a cave in Upper Jambi'. Tianko Panjang cave excavation in early 1920's yielded some animal bones (deer, pangolin) and obidian artifacts (see also Sarasin 1914, Bronson & Asmar 1975))

Zwierzycki, J. (1926)- De beteekenis van nieuwe fossiele werveldiervondsten bij Boemiajoe. De Mijningenieur 7, 12, p. 229-234.
('The significance of new fossil mammal discoveries near Bumiayu'. Localities in river valleys of Kali Glagah and Ci Saat, 'West Kendeng Zone', C Java. Ongoing excavations of mammal bones in several horizons in ~1200m thick series of coarse sandstones, conglomerates and clays with fresh-water molluscs. Fossil elephants (incl. Stegodon, Elephas), hippopotamus, etc., described by Stehlin (1925). Age believed to be Late Pliocene, possibly E Pleistocene like Trinil (lecture summary; no figures) (for more on Bumiayu locality info see Van der Maarel (1932) and Semah (1997))

Zwierzycki, J. (1948)- Przedhistoryczne typy ludzkie na Jawie. Wiadomosci Museum Ziemi 4, Warsaw, p. 137-172.
('Prehistoric types of Man on Java'. In Polish with English summary. Five vertebrate horizons in C and E Java: (1) Tjisande, (2) Tjidjoelang, (3) Lower Boemiajoe, (4) Upper Boemiajoe and (5) Trinil)

XI.3. Cenozoic

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(Tertiary larger foraminifera three major bioprovinces: Americas, Tethys, Indo-Pacific)

Adams, C.G. (1968)- A revision of the foraminiferal genus *Austrotrillina* Parr. Bull. British Museum (Natural History), Geology, 16, p. 71-97.
(Evolutionary changes in Late Oligocene- E Miocene Austrotrillina are of value in stratigraphy)

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(Classic review and update of the Late Paleocene- Recent larger foraminifera zonation, known as East Indian Letter Classification, first proposed by Van der Vlerk & Umbgrove (1927))

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(Notes on biogeography of Eocene- M Miocene larger foram genera)

Adams, C.G. (1976)- Larger foraminifera and the Late Cenozoic history of the Mediterranean region. Palaeogeogr. Palaeoclim. Palaeoecology 20, p. 47-66.
(Larger foram faunas similar between Mediterranean and Indo-West Pacific, but different from Americas. From M Miocene onward diverged rapidly)

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(No major changes in larger foram faunas distribution across Oligo-Miocene boundary. In Indonesia- W Pacific first appearance of Miogypsina best marker event)

Adams, C.G. (1983)- Speciation, phylogenesis, tectonism, climate and eustasy: factors in the evolution of Cenozoic larger foraminiferal bioprovinces. In: R.W. Sims et al. (eds.) The emergence of the biosphere, Syst. Assoc. Special Volume 23, Academic Press, London, p. 255-287.
(Review of evolutionary patterns of Cenozoic larger foraminifera (Miogypsina, Cycloclypeus, Lepidocyclina, etc.), related to climate changes and tectonism. Early Miocene disconnect between Mediterranean and Indian Ocean, etc.)

Adams, C.G. (1984)- Neogene larger foraminifera, evolutionary and geological events in the context of datum planes. In: N. Ikebe & R. Tsuchi (eds.) Pacific Neogene datum planes, Contributions to biostratigraphy and chronology, University of Tokyo Press, p. 47-67.
(Thorough discussion of Oligocene- Recent larger foraminifera 'datum planes', with updated range chart)

Adams, C.G. (1987)- On the classification of the Lepidocyclinidae (Foraminiferida) with redescriptions of the unrelated Palaeocene genera *Actinosiphon* and *Orbitosiphon*. Micropaleontology 33, p. 289-317.
(Three subgenera, Lepidocyclina (Lepidocyclina), L. (Eulepidina), and L. (Nephrolepidina), discriminated on nature and arrangement of peri-embryonic chambers. Two groups of species recognized within L. (Lepidocyclina) on basis of equatorial chamber shape)

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Adams, C.G. & D.J. Belford (1974)- Foraminiferal biostratigraphy of the Oligo-Miocene limestones of Christmas Island (Indian Ocean). Palaeontology 17, p. 475-506.
(Late Oligocene- M Miocene (lower Te- Lower Tf zones) LBF assemblages in ~190m thick limestones capping a truncated basaltic volcanic cone in Indian Ocean off SW Java. Basal part rich in Sproclypeus margaritatus 'globulus', Heterostegina barriei and Gypsina globulus (Lower Te), middle part with Spiroclypeus margaritatus, Miogypsinoides bantamensis and less common Lep. (Eulepidina) and Borelis pygmaeus (Lower Te). Youngest assemblages in thin zone with Austrotrillina howchina and Flosculinella bontangensis. Mention of Eocene limestone, but no details)

Adams, C.G., J. Butterlin & B.K. Samanta (1986)- Larger foraminifera and events at the Eocene-Oligocene boundary in the Indo West Pacific region. In: C. Pomerol & I. Premoli Silva (eds.) Terminal Eocene events, Elsevier, Amsterdam, p. 237-252.
(In most Indo-Pacific localities Eocene terminated by disconformities, with extinction of Discocyclina, Pellatispira, Spiroclypeus vermicularis, etc., as in localities worldwide. Possibly triggered by global sea level fall with climatic deterioration. Only at Melinau, Sarawak, Eocene and Oligocene limestones in apparently unbroken sequence)

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(online at: www.archive.org/details/bulletinofbritis32geollond)
(Genus Katacycloclypeus limited to Middle Miocene (Lower Tf letter stage). Microspheric forms from Fiji up to 90 mm in diameter)

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(Geographic distribution of larger foraminifera shows continuous connection between Mediterranean and Indian Ocean closed by mid-Burdigalian)

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(Paleotemperatures derived from some isotope studies are too low to account for distribution and diversity of many Tertiary tropical- subtropical taxa)

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(Last surviving species of Lepidocyclina, L. radiata, becomes extinct at N18/N19 boundary, near top Miocene)

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(Discussion of larger foram Cycloclypeus subgenera and species. Age of Katacycloclypeus is M Miocene (planktonic foram zone N8-N12). Stellate Radiocycloclypeus may be N12 and younger)

Adisaputra, Mimin K. & Hartono (2007)- Phillipsite mineral in deep sea sediment from single core in Roo Rise, Indian Ocean. Indonesian Mining J. 10, 3, p. 39-43.
(online at: http://jurnal.tekmira.esdm.go.id/index.php/imj/article/view/612/474)
(Core MD982156 in Roo Rise, Indian Ocean/ Java Trench, S of East Jawa, 30m long in water depth 3884m. Upper part of core abundant planktonic foraminifera, lower part mainly phillipsite-rich sediment (± 40%). Late Miocene or older (Paleocene according to Adisaputra & Kusnida (2010))

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Adisaputra, Mimin K. & M. Hendrizan (2008)- Hiatus pada kala Eosen-Miosen Tengah di Tinggian Roo, Samudra Hindia, berdasarkan biostratigrafi nannoplankton. J. Geologi Kelautan 6, 3, p. 154-166.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/159/149)
('Eocene- Middle Miocene hiatus at the Roo Rise, Indian Ocean S of East Java, based on nannoplankton biostratigraphy'. Late Miocene and Paleocene calcareous nannoplankton from Roo Rise piston core MD982156 from MD III-IMAGES IV Expedition)

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(Magnificent dipterocarps, valued for camphor-bearing resin, once dominated lowland tropical rainforests of SE Asia, but overharvesting threatens their species with extinction. Group believed to have migrated into SE Asia from Gondwana in Eocene time)

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(Cycloclypeus larger foram assemblages common in Miocene carbonates of Philippines. Mainly Cycloclypeus carpenteri)

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(Lyell's survivorship percentages of Cenozoic mollusc assemblages re-calculated for Indonesian area)

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('The genera Fasciolites and Neoalveolina in the Pacific area'. Eocene Alveolina spp.and Oligocene Borelis pygmaeus (at that time all assigned to genus Fasciolites), from Timor, Borneo, Java, New Guinea, Sulawesi)

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(online at: https://www.j-micropalaeontol.net/8/113/1989/jm-8-113-1989.pdf)
(On Archaias-type soritid species formerly assigned to Orbitolites. In SE Asia characterizes carbonate platform facies of zone Tf1 (late E Miocene). With meandrine, involute chambers in large microspheric specimens. May be same species as Archaias vandervlerki De Neve from E Kalimantan)

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(Neogene limestones of Nias and Tuangku, W of Sumatra, with new acervulinid forma Alanlordia niasensis niasensis n.gen., n.sp., in Late Pliocene (looks like Maastrichtian Vanderbeekia of Middle East). Serravallian limestones contain ancestral A. niasensis primitiva, n. subsp., and deeper marine and simpler A. banyakensis n. sp. (looks like Eocene Wilfordia))

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(Monograph on foram genus Operculina, including descriptions of Tertiary material from Borneo and Sumatra. Genus comprises nine species)

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('Palynological study of the Tertiary of SE Asia (Kalimantan/Mahakam Delta and S China Sea/ Beibu Permit))

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(Review of Tethyan larger porcelaneous foram Austrotrillina, widespread in M-L Eocene- M Miocene of W Tethys and Indo-Pacific. Four species (A. brunni, A. eocaenica, A. howchini, A. striata). A. asmariensis Adams junior synonym of A. brunni Marie. A. eocaenica first appears in M-L Eocene of Iran. Rupelian descendants A. brunni and A. striata migrated from W Tethys into Indo-Pacific, reaching Indonesia and W Australia in Chattian. From Burdigalian, A. howchini only in IndoPacific, possibly due to closing of Tethyan Seaway)

Bassi, D., M. Bolivar-Feriche, W. Renema, J.C. Braga, J. Pignatti, G. Di Domenico, K. Fujita, J.H. Lipps, J. Reolid & Y. Iryu (2022)- Larger porcelaneous foraminifera with a common ancestor: the Neogene Indo-Pacific *Flosculinella* and *Alveolinella* (Alveolinoidea). Marine Micropaleontology 173, 102124, p. 1-19.
(Thorough review of Miocene-Recent complex Indo-Pacific alveolinids. Borelis philippinensis is common ancestor of Indo-Pacific late Oligocene- M Miocene Flosculinella and M Miocene- Recent Alveolinella. Speciation occurred in E-M Miocene in Coral Triangle of SE Asia. In E Kalimantan, Alveolinella borneensis appeared in E Tortonian, A. quoyi appeared in Late Tortonian)

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('The foraminifera of the Late Eocene to the base of the Miocene in the Pasir Basin, S Kalimantan.' Good documentation of Late Eocene- Oligocene planktonic foraminifera zonation in Pasir Basin, SE Kalimantan)

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('Molluscs from the Tertiary of the East Indies Archipelago'. Three short papers on molluscs from collections in The Netherlands: (1) gastropod Buccinum in E Indies, (2) Notes on some interesting molluscs from E Indies, (3) Observations on small Neogene mollusc fauna from E Kalimantan (collected by Rutten))

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(Late Eocene Biplanispira miriabilis in thin section in British Museum from Kyet-u-bok limestone band between shaly U Eocene Yaw stage and Oligo-Miocene Pegu System. Associated with Nummulits and Discocyclina)

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(Three species of Neogene fossil crabs from Java and Madura)

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(online at: http://nopr.niscair.res.in/bitstream/123456789/57/1/IJMS%2036(4)%20(2007)%20332-341.pdf)
(Deepwater benthic forams at ODP Site 216A suggest shift in deep-sea ventilation at 15-14 Ma, coinciding with M Miocene cooling)

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(online at: http://gf.tmsoc.org/Documents/IWAF-5/Bidgood+Simmons+Thomas-IWAF5-1997.pdf)
(Miocene sediments from Brunei and Sarawak often rich in agglutinated forams. Assemblages characteristic of different depositional environments, including Distal turbidite (often deformed 'Trochammina/ Recurvoides'), Proximal turbidite (fine-grained and thin-walled Trochammina, Cyclammina, Haplophragmoides), Tidal flat/ tidal channel (coarse-grained Trochammina, Recurvoides and occasional Ammobaculites), Lagoon/ distributary channel margin (mangrove swamps with Trematophragmoides, Miliammina fusca), etc.)

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(Species and zonation of rotalid foraminifera successfully used for biozonation of E Kalimantan deltaic series. New species incl. Challengerella brady, Challengerella persica, Asterorotalia gaimardii inermis, Pseudorotalia schroeteriana angusta)

Billman, H.G. & M.E. Scrutton (1976)- Stratigraphic correlation in Indonesia. In: Offshore South East Asia Conference 1976, Singapore, SE Asia Petroleum Exploration Society (SEAPEX), Paper 9, p. 1-13.
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(Classic text on Eocene- Recent planktonic foraminifera zonations, using the N and P-numbered zones, widely used in Indonesia. Parts of this work are based on classic Indonesian sections like Bojonegoro 1 well, Java, etc.)

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(Review of the Oligo-Miocene part of the classic Indo-Pacific larger foram Letter zonation of Van der Vlerk and Umbgrove (1927) and others. 'New' correlation between Far East Letter Stages and Oligo-Miocene planktonic foram stages)

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(online at: https://www.researchgate.net/publication/250084155_The_evolution_of_Lepidocyclina_L_Isolepidinoides_L_Nephrolepidina_Nephrolepidinoides_sp_nov_L_N_Brouweri_and_L_N_Ferreroi_ Etc)
(Re-description of the well-known evolution from Lepidocyclina (L) to Lepidocyclina (N) around the Oligo-Miocene boundary in material from NE and SE Kalimantan and Nias, off Sumatra)

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(Review of Eocene- Miocene lepidocyclinid foraminifera in the American, Mediterranean and Indo-Pacific bioprovinces. Earliest lepidocyclinids in Indo-Pacific Province migrated from Mediterranean in end Rupelian)

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Boudagher-Fadel, M.K. & G.D. Price (2014)- The phylogenetic and palaeogeographic evolution of the nummulitoid larger benthic foraminifera. Micropalaeontology 60, 6, p. 483-508.
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Boudagher-Fadel, M.K. & G.D. Price (2021)- The geographic, environmental and phylogenetic evolution of the Alveolinoidea from the Cretaceous to the present day. UCL Open Environment, 2021, 2, 03, p. 1-34.
(online at: https://journals.uclpress.co.uk/ucloe/article/id/440/)
(Alveolinoids larger forger foraminiferae found globally from Cretaceous to Recent. Exhibit provincialism with characteristic genera often confined to one of American, Tethyan or Indo-Pacific provinces. Alveolinoids originated in Cretaceous in Tethyan province, but went extinct at K-T boundaty. Late Paleocene alveolinoid forms migrated E-ward from Americas to Tethys, and from there to Indo-Pacific province. Alveolinoids still exist today (cosmopolitan Borelis and Indo-Pacific Alveolinella). Indo-Pacific alveolinids range from latest Ypresian (P9) to Bartonian (end M Eocene extinction event at 37.8Ma; same time as extinction of large Nummulites and Assilina). In Neogene of Far East evolution of Borelis-Flosculinella- Alveolinella lineage)

Bramlette, M.N. & W.R. Riedel (1954)- Stratigraphic value of discoasters and some other microfossils related to Recent coccolithophores. Journal of Paleontology 28, p. 385-403.
(Incl. emended re-description of Discoaster brouweri Tan Sin Hok 1927 and new Late Eocene species Discoaster tani and D. tani nodifer)

Bromfield, K. (2013)- Neogene corals from the Indo-Pacific, Indonesia, Papua New Guinea and Fiji. Bull. American Paleontology 387, p. 1-130.
(Descriptions of 155 M Miocene- E Pleistocene coral species (22 new, extinct) from (1) Salayar Lst in S Sulawesi, Yalam Lst in New Britain, PNG, and (3) Tokelau Lst, Fiji)

Bronnimann, P. & J. Resig (1971)- A Neogene Globigerinacean biochronologic time-scale of the Southwestern Pacific. Initial Reports Deep Sea Drilling Project (DSDP) 7, 2, p. 1235-1469.
(online at: http://deepseadrilling.org/07/volume/dsdp07pt2_28.pdf)
(Extensively documented M Miocene- Recent planktonic foram zonation of DSDP holes of Ontong Java Plateua and East Caroline Basin N of PNG, SW Pacific)

Burckle, L.H. (1978)- Early Miocene to Pliocene diatom datum levels for the equatorial Pacific. In: Biostratigraphic datum-planes of the Pacific Neogene, IGCP Project 114, Proc. Second Working group meeting, 1977, Geological Research Development Centre (GRDC), Bandung, Special Publ. 1, p. 25-44.
(Over 40 Early Miocene- Pliocene diatom datum levels in Equatorial Pacific)

Chandra, B.Y. (2010)- Characterization of clastic sediment: a palynofacies approach. Proc. 34th Annual Conv. Indonesian Petroleum Association, Jakarta, IPA10-G-075, p. 1-7.
(General paper describing palynofacies as tool for identification of depositional environment and sequences)

Chaproniere, G.C.H. (1975)- Palaeoecology of Oligo-Miocene larger foraminiferida, Australia. Alcheringa 1, p. 37-58.
(Eight large foram assemblages distinguished in E Miocene of W Australia North-West Cape area, each representing specific environment)

Chaproniere, G.C.H. (1980)- Biometrical studies of Early Neogene larger foraminiferida from Australia and New Zealand. Alcheringa 4, p. 153-181.
(Statistical study of latest Oligocene- M Miocene Cycloclypeus, Heterostegina, Miogypsina and Lepidocyclina from N Australia, New Zealand)

Chaproniere, G.C.H. (1980)- Influence of plate tectonics on the distribution of Late Palaeogene to Early Neogene larger foraminiferids in the Australasian region. Palaeogeogr. Palaeoclim. Palaeoecology 31, p. 299-317.
(Paleogeographic distribution of Oligocene-Miocene larger forams in SE Asia- Australia. Cycloclypeus, Miogypsina and Lepidocyclina invaded Australasian region in M Oligocene)

Chaproniere, G.C.H. (1981)- Australasian mid-Tertiary larger foraminiferal associations and their bearing on the East Indian Letter Classification. BMR J. Australian Geology Geophysics 6, p. 145-151.
(online at: https://d28rz98at9flks.cloudfront.net/81070/Jou1981_v6_n2_p145.pdf)
(Eight latest Oligocene- M Miocene larger foram associations in NW Cape Range, off Exmouth Gulf, NW Australia (LF1-LF8; Te- Lower Tf). No Spiroclypeus or Eulepidina observed (but Heterostegina borneensis in LF2. LF1 assemblage with Lacazinella, probably reworked from underlying Eocene Giralia Limestone)

Chaproniere, G.C.H. (1983)- Tertiary larger foraminiferids from the northwestern margin of the Queensland Plateau, Australia. Paleontological papers 1983, Bureau Mineral Resources Geology Geophysics, Bull. 217, p. 31-57.
(online at: https://d28rz98at9flks.cloudfront.net/12/Bull_217.pdf)
(M Eocene Ta3 with Asterocyclina and Latest Oligocene- E Miocene (around Lower Te/ upper Te boundary) larger foram assemblages in dredge samples from~1500-2500m water depth on Queensland Plateau, off Great Barrier Reef, NE Australia)

Chaproniere, G.C.H. (1984)- Oligocene and Miocene larger foraminiferida from Australia and New Zealand. Bureau Mineral Resources Geology Geophysics, Canberra, Bull. 188, p. 1-98.
(online at: https://www.ga.gov.au/products/servlet/controller?event=GEOCAT_DETAILS&catno=15)
(Larger foraminifera from Late Oligocene-M Miocene outcrops in Carnarvon Basin and W Australia; also Ashmore Reef 1 well in Bonaparte Gulf, Gage Roads 2 well in Perth Basin; Batesford and Bochara Lst in Victoria; Wreck Island 1 well in Queensland; and various localities in New Zealand. Two new subspecies of Lepidocyclina (N): Lepidocyclina (N) howchini praehowchini and Lepidocyclina (N) orakeiensis waikukuensis)

Chaproniere, G.C.H. (1984)- The Neogene larger foraminiferal sequence in the Australian and New Zealand regions and its relevance to the East Indies Letter Stage classification. Palaeogeogr. Palaeoclim. Palaeoecology 46, p. 25-35.
(Neogene larger foraminifera in N Australia range from Late Oligocene-earliest M Miocene, in S Australia restricted to late E Miocene. Longer range in New Zealand: Late Oligocene- mid-M Miocene)

Chaproniere, G.C.H. (1992)- The distribution and development of Late Oligocene and Early Miocene reticulate globigerines in Australia. Marine Micropaleontology 18, p. 279-305.
(Globigerinoides represented by both hispid (Gs. primordius) and reticulate (Gs. quadrilobatus) forms at levels below first appearance of Globoquadrina dehiscens (within Zone N4A in N Australia). Globigerinoides quadrilobatus warm, shallow water dweller. Globigerina bulloides group temperate biogeographic range, but typical of upwelling zones in subtropical and tropical areas)

Cheng , Z., J. Wu, C. Luo, Z. Liu, E. Huang, H. Zhao, L. Dai & C. Weng (2023)- Coexistence of savanna and rainforest on the ice-age Sunda Shelf revealed by pollen records from southern South China Sea. Quaternary Science Reviews 301, 107947, p.
(Marine pollen records from southern South China Sea focusing on Late Pleistocene Last Glacial Maximum (LGM) time show that sites in front of Sunda Shelf paleo-rivers contain substantially more Poaceae (grass) pollen than site offshore North Borneo. Co-occurrence of grass and rainforest pollen suggests longitudinal climate gradient with increasing aridity toward interior of glacial Sundaland. In Borneo rainforest persisted during glacial periods, but vegetation records support hypothesis of a 'savanna corridor' over LGM Sundaland (see also Morley & Morley 2022, Hamilton et al. 2023))

Clarke, W.J. & W.H. Blow (1969)- The inter-relationship of some Late Eocene, Oligocene and Miocene larger foraminifera and planktonic biostratigraphic indices. In: P. Bronnimann & H.H. Renz (eds.) Proc. First Int. Conference on Planktonic Microfossils, Geneva 1967, Brill, Leiden, 2, p. 82-97.
(Key paper from the illustrious 1960s BP paleo lab. One of first papers calibrating the Eocene- Recent larger foraminifera Letter 'Letter Stages' with the planktonic foraminifera zonation (generally difficult, as they are rarely found together due to different facies). Includes chapter on occurrences of Miogypsinidae in Indonesia (W Java, Sumatra))

Cole, W.S. (1939)- Large foraminifera from Guam. Journal of Paleontology 13, 2, p. 183-189.
(Limestones from Guam with larger foraminifera, Spiroclypeus higginsi n. sp., primitive Miogypsinoides dehaartii var. formosensis and Lepidocyclina (N.) parva, Borelis pygmaeus. Age basal Miocene, zone Lower Te (more likely latest Oligocene?; JTvG))

Cole, W.S. (1945)- Larger foraminifera of Lau, Fiji. In: H.S. Ladd & J.E. Hoffmeister (eds.) Geology of Lau, Fiji. Bernice P. Bishop Museum Bull. 181, p. 272-297.

Cole, W.S. (1950)- Larger foraminifera from the Palau Islands. U.S. Geological Survey (USGS) Professional Paper 221-B, p. 21-31.
(online at: http://pubs.usgs.gov/pp/0221b/report.pdf)
(Description of larger foramifera from Palau islands, Micronesia, SW Pacific: Late Eocene (Tab) with Pellatispira and M Miocene (Tf) with Katacycloclypeus, Lepidocyclina rutteni, Lepidocyclina palauensis n.sp. (latter re-assigned to Lepidocyclina radiata by Cole (1963))

Cole, W.S. (1954)- Larger Foraminifera and smaller diagnostic Foraminifera from Bikini drill holes. U.S. Geological Survey (USGS) Professional Paper, 260-O, p. 569-608.
(online at: http://pubs.usgs.gov/pp/0260m/report.pdf)
(Description of 37 Oligocene- Recent foram species from two wells (2556') of Bikini Atoll)

Cole, W.S. (1957)- Larger foraminifera from Eniwetok Atoll drill holes. U.S. Geological Survey (USGS) Professional Paper, 260-V, p. 743-784.
(online at: http://pubs.usgs.gov/pp/0260v/report.pdf

(62 species of Late Eocene (Asterocyclina, Nummulites, Biplanispira, Pellatispira), Late Oligocene (Eulepidina, Heterostegina borneensis, Borelis, Miogypsinoides, Spiroclypeus), Miocene (Miogypsina, Flosculinella) and Pliocene- Recent (Calcarina, Marginopora, Sorites) larger foraminifera from three Eniwetok Atoll drill holes. Deeper water genus Cycloclypeus rare, suggesting continuous shallow marine facies)

Cole, W.S. (1957)- Geology of Saipan, Mariana Islands, Part 3 Paleontology, Larger Foraminifera. U.S. Geological Survey (USGS) Professional Paper 280-I, p. 321-360.
(online at: http://pubs.usgs.gov/pp/0280e-j/report.pdf)
(Larger foram assemblages for Saipan island: Late Eocene Tb (20 species; Pellatispira, Nummulites, Asterocyclina, etc.), Late Oligocene- E Miocene Te (35 species; incl. Miogypsinoides, Heterostegina borneensis) and Pleistocene (7 species))

Cole, W.S. (1960)- Upper Eocene and Oligocene larger foraminifera from Viti Levu, Fiji. U.S. Geological Survey (USGS) Professional Paper 374-A, p. 1-7.
(online at: http://pubs.usgs.gov/pp/0374a/report.pdf)
(Descriptions of Late Eocene (Nummullites, Pellatispira, Spiroclypeus, Discocyclina, Asterocyclina) and Early Oligocene (Nummulites fichteli, Gypsina discus) larger foraminifera from main island of Fiji)

Cole, W.S. (1960)- Problems of the geographic and stratigraphic distribution of certain Tertiary larger foraminifera. In: Hanzawa Memorial Volume, Science Reports Tohoku University, ser. 2 (Geology), Special Volume 4, p. 9-18.

Cole, W.S. (1963)- Analysis of *Lepidocyclina radiata* (Martin). Bull. American Paleontology 46, 208, p. 157-185.
(Study of Lepidocyclina from Tf (Miocene) of Futuna Lst of Lau, Fiji Islands, assigned to Lepidocyclina radiata)

Cole, W.S. (1963)- Tertiary larger foraminifera from Guam. U.S. Geological Survey (USGS) Professional Paper, 403-E, p. 1-28.
(online at: http://pubs.usgs.gov/pp/0403e/report.pdf)
(Late Eocene (Asterocyclina, Nummulites, Pellatispira, Biplanispira, Halkyardia), Oligocene (Nummulites fichteli), E-M Miocene (Miogypsinoides dehaartii, Katacycloclypeus annulatus) and Pleistocene (Calcarina, Baculogypsina, Cycloclypeus carpenteri) larger forams from outcrops on Guam)

Cole, W.S. (1969)- Larger foraminifera from deep sea drill holes on Midway Atoll. U.S. Geological Survey (USGS) Professional Paper, 680-C, p. 1-15.
(online at: http://pubs.usgs.gov/pp/0680c/report.pdf)
(Early Miocene Te larger forams (Miogypsinoides dehaartii, Spiroclypeus, Austrotrillina striata) in deeper part of 1261' deep well)

Cole, W.S. (1970)- Larger foraminifera of Late Eocene age from Eua, Tonga. U.S. Geological Survey (USGS) Professional Paper, 640-B, p. 1-17.
(online at: http://pubs.usgs.gov/pp/0640b/report.pdf)
(Eocene sample with 8 species of larger foraminifera characteristic of Upper Eocene (Tb) from E side of Eua Island, Tonga. Incl. Pellatispira madaraszi, Discocyclina omphala, Nummulites pengaronensis, Asterocyclina matanzensis, Spiroclypeus vermicularis, Heterostegina saipanensis, 'Biplanispira' fulgeria)

Cole, W.S. (1975)- Concordant age determinations by larger and planktonic foraminifera in the Tertiary of the Indo-Pacific region. J. Foraminiferal Research 5, p. 21-39.
(online at: http://jfr.geoscienceworld.org/content/5/1/21.full.pdf)
(Good agreement in age determinations based on larger and planktoic foraminifera from 5 widely separated localities: (1) Sentolo Fm, C Java late E Miocene Lower Tf LBF and Globigerinoides sicanus-Globigerinatella insueta (N8) planktonic foram zone; (2,3) Larat (Moluccas) and Solomon Islands: early E Miocene Te LBF zone and Globigerinita dissimilis zone planktonics, etc.)

Cole, W.S. & J. Bridge (1953)- Geology and larger Foraminifera of Saipan Island. U.S. Geological Survey (USGS) Professional Paper 253, p. 1-45.
(online at: http://pubs.usgs.gov/pp/0253/report.pdf)
(38 species of larger foraminifera from limestone outcrops on Saipan. Most species are Early Miocene forms, but 4 samples contain Eocene fauna and 3 have Plio-Pleistocene faunas)

Conesa, G.A.R., E. Favre, P. Munch, H. Dalmasso & C. Chaix (2005)- Biosedimentary and paleoenvironmental evolution of the Southern Marion Platform from the Middle to Late Miocene (northeast Australia, ODP Leg 194, Sites 1196 and 1199). In: F.S. Anselmetti et al. (eds.) Proc. Ocean Drilling Program (ODP), Scientific Results, 194, p. 1-38.
(Online at: www-odp.tamu.edu/ publications/194_SR/)

Cook, P.L. & R. Lagaaij (1976)- Some Tertiary and Recent conescharelliniform bryozoa. Bull. British Museum (Natural History), Zoology, 29, p. 317-376.
(Includes descriptions of Miocene bryozoa from Madura (3 new species of Lacrimula, L. asymmetrica, L. similis, L. grunaui, from E Miocene Globigerinatella insueta Zone)

Cosijn, A.J. (1938)- Statistical studies on the phylogeny of some foraminifera: *Cycloclypeus* and *Lepidocyclina* from Spain, *Globorotalia* from the East Indies. Doct. Thesis Technical University Delft, p. 1-66.
(online at: https://repository.tudelft.nl/islandora/object/uuid%3A75768866-49a4-43b7-9279-2521a01ffb28
(Not-overly-useful? sets of measurements on Cycloclypeus from Spain and Mio-Pliocene Globorotalia menardii and Gr. tumida from BPM Bojonegoro 1 well, E Java. Thesis supervised by J.H.F. Umbgrove)

Crespin, I. (1956)- Papers on Tertiary micropalaeontology. Bureau Mineral Resources Geology Geophysics, Canberra, Report 25, p. 1-77.
(online at: www.ga.gov.au/products-services/legacy-publications/reports.html)
(Seven papers on foraminifera from Australia, Phillippines, PNG, Bougainville)

Cui, X., Xin Li, J.C. Aitchison & H. Luo (2022)- Paleobiogeographic significance of Tethyan Lower Cretaceous *Cecrops septemporatus* Zone radiolarian faunas. Palaeogeogr. Palaeoclim. Palaeoecology 589, 110836, p.
(Valanginian to lower Hauterivian Cecrops septemporatus Zone radiolaria assemblages widespread across low-latitude Tethys, from Italy to Gonggui section in S Tibet (Purang ophiolitic melange in W part of Yarlung Tsangpo suture zone = likely distal parts of N India continental margin) to W-Pacific (in Indonesia known from Barru Complex of S Sulawesi; Munasri, 2013)

Cui, X., X. Li, J.C. Aitchison & H. Luo (2022)- Early Cretaceous monsoonal upwelling along the northern margin of the Gondwana continent: Evidence from radiolarian cherts. Marine Micropaleontology 181,1, 102247, p.
(Radiolarian-bearing bedded cherts exposed in volcanic-sedimentary sequences of Purang ophiolitic complex in W Yarlung Tsangpo suture zone, Tibet. Diverse Lower Cretaceous (Valanginian–Hauterivian) radiolarian assemblages of Cecrops septemporatus Zone, with 55-five species, including Archaeodictyomitra apiarium, Cecrops septemporatus, Hemicryptocapsa capita Tan, Pseudodictyomitra carpatica and Svinitzium pseudopuga. Geochemistry of cherts indicative of deposition in oceanic basin close to continental margin (in this case N margin of Indian continent, with enhanced upwelling activity(

De Beaufort, L.F. (1931)- Pisces, Reptilia and Aves. In: B.G. Escher et al. (eds.) De palaeontologie en stratigraphie van Nederlandsch Oost-Indie, Leidsche Geologische Mededelingen 5 (K. Martin memorial volume), p. 461-470.
(online at: www.repository.naturalis.nl/document/549718)
(Summary of fossil fish, reptiles and birds known from Indonesia as of 1931. No figures)

De Bock, J.F. (1973)- Embryonal structures of *Miogypsina*. Scripta Geologica, Leiden, 18, p. 1-15.
(online at: https://repository.naturalis.nl/pub/317395/SG1973018001.pdf)
(Detailed study of embryonal features of well-preserved bispiral E-M Miocene Miogypsina, based on material from NE Borneo, E Java and Madura)

De Bock, J.F. (1976)- Studies on some *Miogypsinoides-Miogypsina* s.s. associations with special reference to morphological features. Scripta Geologica, Leiden, 36, p. 1-137.
(online at: https://repository.naturalis.nl/pub/317461/SG1976036001.pdf)
(Detailed study of well-preserved Miocene Miogypsina and Miogypsinoides, partly based on material from Madura and Larat (Kai islands))

Dekkers, A.M., V. Liverani, S. Coric, S.J. Maxwell, & B.M. Landau (2020)- A new genus for Indo-Pacific fossil strombids, and two new species from the Miocene of Java and Borneo (Caenogastropoda, Strombidae). Basteria 84, p. 1-9.
(online at: https://natuurtijdschriften.nl/pub/1001530/BAST2020084001001.pdf)
(New Strombus species from early M Miocene of Wonosari, Gunung Kidul, C Java, in Natural History Museum, Vienna, collections and from E Kalimantan)

Dollfus, G.F. (1908)- Sur quelques polypiers fossiles des Indes neerlandaises. Jaarboek Mijnwezen Nederlandsch Oost-Indie 37 (Verbeek Moluccas Report), p. 676-686.
('On some fossil corals from the Netherlands Indies'. Brief description of five Late Tertiary corals collected by Verbeek from C Timor, E Seram and Daweloo island near Babar)

Donovan, S.K. & R.A. Helwerda (2017)- Neogene crinoids of southeast Asia: preservation, systematics and significance. Alcheringa 41, 2, p. 215-221.
(Cenozoic record of fossil crinoids is poor. Two new, small crinoid faunas reported of moderate diversity from Pliocene of E Kalimantan and Philippines. With Metacrinus?, Democrinus? sp.)

Donovan, S.K., W. Renema, C.A. Pinnington & C.J. Veltkamp (2012)- Significance of diadematid echinoid ossicles in micropalaeontological samples, Miocene-Pliocene of Indonesia. Alcheringa 36, 1, p. 99-105.
(On fragments of diadematoid echinoids from Miocene-Pliocene of Java, Kalimantan and Sulawesi. First report of such fossils from Neogene of the region)

Douville, H. (1923)- Sur quelques foraminiferes des Moluques orientales et de la Nouvelle Guinee. Jaarboek Mijnwezen Nederlandsch-Indie 50 (1921), Verhandelingen 2, p. 107-116.
('On some foraminifera from the eastern Moluccas and from New Guinea'. Brief description of Eocene larger forams in samples collected by Brouwer in Halmahera (Nummulites, Discocyclina, Alveolina), Roti (large Nummulites, Discocyclina), Seram (E Miocene Lepidocyclina in breccia with reworked angular clasts of Upper Cretaceous pelagic limestone), New Guinea, Kai Besar (rounded fragments of Eocene Lacazina in quartz sandstone, etc. No location info)

Douville, H. (1924)- Revision des Lepidocyclines. Memoires Societe Geologique France, N.S., 2, p. 5-49 and (1925) part 2, p. 51-123.
(Revision of lepidocyclinid Tertiary larger foraminifera, including material from various parts of Indonesia)

Doweld, A.B. (2014)- Proposals to conserve the name *Discoaster* against *Eu-discoaster*, *Helio-discoaster* and *Hemi-discoaster*, and the names *Heliodiscoaster* and *Hemidiscoaster* with those spellings (fossil Prymnesiophyta (Algae) vel Haptomonada (Protista)). Taxon 63, 1, p. 195-197.
(Commonly used calcareous nannofossil genus name Discoaster, as first described by Tan Sin Hok (1927), was an informal genus name that lacked a generic description and designation of type species. It combines 3 groups of species of formally described genera Eu-discoaster Tan (star-shaped discosterids; type species Discoaster brouweri Tan), Helio-discoaster Tan (rosette-shaped discoasterids; type species Discoaster barbadiensis Tan and Hemi-discoaster Tan (star-shaped discoasterids with arms welded together; type species Discoaster molengraaffii Tan). This is a proposal to legitimize the common use of Discoaster)

Drooger, C.W. (1953)- Some Indonesian Miogysininae. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, B56, 1, p. 104-123.

(Revision of eight miogypsinid species described from Indonesia by Rutten and Van der Vlerk, before papers of Tan Sin Hok. Four considered valid. Miogypsinella Hanzawa is junior synonym of Miogypsinoides Yabe and Hanzawa. No reason to maintain genus Conomiogypsinoides Tan Sin Hok)

Drooger, C.W. (1955)- Remarks on *Cycloclypeus*. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, B58, p. 415-433.
(Measurements on Cycloclypeus eidae from Tf1 (Burdigalian) of E Borneo, 40 km N of Balikpapan. No peaks of of Tan Sin Hok's 1932 'elementary species' found. Samples represent single populations)

Drooger, C.W. (1963)- Evolutionary trends in the Miogypsinidae. In: R. von Koenigswald (ed.) Evolutionary trends in foraminifera, Elsevier, Amsterdam, p. 315-349.
(Review of evolutionary patterns in Late Oligocene- M Miocene miogypsinid larger foraminifera. Includes some Indonesian/ Indo-Pacific material)

Drooger, C.W. (1984)- Evolutionary patterns in lineages of orbitoidal foraminifera. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, ser. B, 87, p. 103-130.

Drooger, C.W. (1993)- Radial foraminifera; morphometrics and evolution. Verhandelingen Koninklijke Nederlandse Akademie van Wetenschappen, Natuurkunde, I, 41, p. 1-242.
(online at: https://dwc.knaw.nl/DL/publications/PU00011102.pdf)
(Overview of evolution of Cretaceous and Tertiary larger foraminifera)

Dutta, S., S.M. Tripathi, M. Mallick, R.P. Mathews, P.F. Greenwood, M.R. Rao & R.E. Summons (2011)- Eocene out-of-India dispersal of Asian dipterocarps. Review Palaeobotany Palynology 166, p. 63-68.
(Dipterocarpaceae angiosperm trees common in rain forests of SE Asia (>470 species). Earliest dipterocarps in SE Asia from Oligocene of Borneo (Muller 1981). In W India dipterocarp resin and palynomorphs in ~53 Ma old Eocene sediments, suggesting Asian dipterocarps originated in Gondwana and dispersed from India into Asia once land connection between Indian-Asian plates established in M Eocene (49-41 Ma). Many angiosperms did not originate in SE Asian region, but dispersed into area from W Gondwanaland)

Eames, F.E., F.T. Banner, W.H. Blow & W.J. Clarke (1962)- Fundamentals of mid-Tertiary stratigraphical correlation. Cambridge University Press, p. 1-163.
(Classic study on correlations between mid-Tertiary larger and planktonic foraminifera zonations)

Eames, F.E., F.T. Banner, W.H. Blow, W.J. Clarke & A.H. Smout (1962)- Morphology, taxonomy, and stratigraphic occurrence of the Lepidocyclininae. Micropaleontology 8, 3, p. 289-322.

Evans, D., W. Muller, S. Oron & W. Renema (2013)- Eocene seasonality and seawater alkaline Earth reconstruction using shallow-dwelling large benthic foraminifera. Earth Planetary Science Letters 381, p. 104-115.
(Reconstruction of M Eocene tropical sea surface T seasonality using Nummulites djokdjokartae from Nanggulan, C Java (~39-37 Ma). Results indicate 5-6 °C annual T range, implying greater seasonality in M-Eocene (Bartonian) than in modern time (do not seem to mention estimated absolute temperature range; JTvg). Seasonal surface ocean cooling facilitated by enhanced Eocene tropical cyclone-induced upper ocean mixing, as suggested by recent modelling results)

Evans, D., N. Sagoo, W. Renema, L.J. Cotton, W. Muller, J.A. Todd, P.K. Saraswati et al. 2018. Eocene greenhouse climate revealed by coupled clumped isotope-Mg/Ca thermometry. Proc. National Academy of Sciences USA (PNAS) 115, 6, p. 1174-1179.
(online at: https://www.pnas.org/doi/pdf/10.1073/pnas.1714744115)
(Study of Mg/Ca measurements of foraminifera from globally distributed sites in tropics and mid-latitudes (including Eocene Nummulies from Nanggulan, S Java). Dataset constrains range in Eocene tropical Sea Surface Temperatures to 30-36 °C (present-day median tropical SST ~27 ° C))

Fleury, J.J., G. Bignot, A. Blondeau & A. Poignant (1985)- Biogeographie de foraminifers benthiques tethysiens du Senonien a l'Eocene superieur. Bull. Societe Geologique France (8) 1, 5, p. 757-770.
(online at: https://www.researchgate.net/publication/293108139_Biogeographie_de_Foraminiferes_benthiques_tethysiens_du_Senonien_a_l'Eocene_superieur)
(Includes global geographic distributions of Tethyan Eocene larger foram assemblages)

Fornasiero, M. (1996)- Mathematical model in benthic paleobiogeography for the Indonesian Tethyan and Post-Tethyan molluscs. In: Reports of Shallow Tethys 4, Albrechtsburg 1994, Annali Musei Civico Rovereto 11, Supplement, p. 375-386.

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(Coelenterata chapter in 'Our paleontological knowledge of the Netherlands East Indies'. Overview of coral species and occurrences in Indonesia: Devonian (New Guinea), Carboniferous (Sumatra), Permian (Timor mostly endemic solitary species), Triassic (Timor, Ceram, Misool, Sumatra), Jurassic- Cretaceous (very rare; Sumatra only), Tertiary (rel. widespread). No figures)

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(Grade of enclosure of protoconch by deuteroconch good estimate of relative age, but rel. high variation within sample requires statistically sufficient number of measurements. Calibrations may be different for different biogeographic provinces)

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(Larger foraminifera manual for field geologists to help identify genera in field using only a handlens)

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(online at: https://www.biodiversitylibrary.org/partpdf/302413)
(Extensive discussion of post-Triassic statigraphy and paleontology of E Indonesia and New Guinea, in terms of geosynclinal, etc. deposits. Jurassic ammonites useful in New Guinea and the Sula Islands and are similar to Spiti shales of the Himalayas. Marine Cretaceous known from Borneo and Sumatra, Misool, Timor- E Celebes, etc. Lower Cretaceous sediments W of Timor- E Celebes syncline are mostly rich in Orbitolina and Nerinea and show Mediterranean affinities. No Orbitolina in similar-age beds in New Guinea, New Caledonia and Australia. Late Cretaceous Globotruncana limestones more widespread across all regions. Tertiary correlations largely based on Letter zonation of Van der Vlerk & Umbgrove (1927 and Tan Sin Hok. As noted by Umbgrove (1938) there are no known Paleogene deep marine basins in the Indo-Pacific region. The Mesozoic Timor- E Celebes geosyncline is characterized by strong intra-Miocene folding. Widespread Plio-Pleistocene folding. Etc.)

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(Pioneering calibration between Tertiary planktonic foram zones and larger foram 'East Indies Letter Classification' by Shell micropaleontologists)

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('Studies of nannoplankton and Tertiary biostratigraphy in Indonesia'. Summary of analyses of nannoplankton from samples from (1) C Java Karangsambung, Kulunprogo and Nanggulan areas (Eocene- Miocene), (2) C Timor (Batu Putih Fm near Soe): CN12a-CN14b, Late Pliocene- Pleistocene, (3) Yamdena (Tanimbar Islands): Pliocene Batimafudi and Batilembuti Fms; NN5- NN15M Miocene- Pliocene, and Tungustuban Fm sand-shale in Oktofan area, Wermatang; Late Eocene?)

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(Trealla Limestone in S Carnarvon Platform, contains oldest evidence for seagrass meadows in W Australia. Larger foraminifera of Lower Tf1 Letter Stage (Burdigalian, 19-16 Ma) (incl. Austrotrillina, Flosculinella). Some levels with abundant miliolid foraminifera and no corals probably deposited in and around dense seagrass meadows; other levels (e.g. coral floatstone) deposited under normal-marine conditions.Deposited during Burdigalian sea-level rise, and during part of Miocene climate optimum recognized elsewhere)

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(Depth distribution of larger foraminifera controlled by temperature, light, symbionts, substrate, etc. Three major biogeographic provinces: (1) Caribbean, (2) Mediterranean and (3) Indo-Pacific (with Cycloclypeus, Operculinoids, Marginopora, Alveolinella))

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(Abyssamina quadrata, previously recorded from Paleocene- Eocene of Atlantic Ocean, found in upper bathyal sediments of NE Kalimantan (zone N5, E Miocene) and in zones N1-N4 (Late Oligocene) of Malajon 1 well, offshore Palawan Island, Philippines. In both localities associated with upper bathyal benthic species)

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(Review of Neogene stratigraphy and foram datum levels of NW Java, South Central Java (Progo Mts.). NE Java (Cepu area) and East Kalimantan (Kutai Basin; zonation based on rotalid benthic foraminifera))

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(Revision of well-known marine gastropod genus Vicarya from Indo-Pacific region. Six species in Miocene (incl. Vicarya formosa Oostingh 1935 from Bojongmanik Fm of W Java), three in Eocene. Specimens described from Eocene of Nanggulan, C Java, as Vicarya jogjacartensis by Martin 1914 too poorly preserved for identification)

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(online at: https://www.academia.edu/29141101/A_new_cerithioidean_genus_Megistocerithium_Gastropoda_Mollusca_from_the_Miocene_of_Southeast_Asia_a_possible_relict_of_Mesozoic_Eustomatidae_)
(New, large cerithiform gastropod genus/ species Megistocerithium magoi described, based on specimens from M Miocene Nyalindung Fm of W Java and the Philippines. Intertidal sandy mudflat dweller (mangove grazer?). M. magoi possibly relict of Mesozoic Eustomatidae)

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(online at: www.kahaku.go.jp/research/publication/memoir/download/45/4513.pdf)
(Klitik Mb of U Kalibeng Fm along Solo River in Sonde area, E Java, Indonesia contains diverse shallow marine molluscs that have been standards of Neogene mollusc sequences in Indonesia, and were vaguely dated as Late Pliocene. Planktonic foraminifera in Klitik Mb along Solo River at Bangun, 2 km W of Sonde, suggest age between 3.95 Ma- 3.58 Ma, ~mid Pliocene (NB: unusual mix of shallow marine molluscs and siltstones with abundant deeper planktonic forams, which may be reworked from older Kalibeng Fm? Klitik Beds younger than concluded here?; JTvG))

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(Includes summary/discussion of Indonesian Miocene-Recent cowries, which bear legacy of Tethyan ancestry)

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(Species of Cytherelloidea generally dominant element of Neogene-Recent shallow marine ostracode assemblages in the Indo-Malayan region. Two species groups, Seven new species. Etc.)

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(Review of occurrences of four species of Miocene- Recent highly-ornamented ostracode genus Paijenborchella Kingma 1948 in Miocene- Recent of N Borneo, Philippines, E Java, etc. Recent P. malaiensis is deep-water species living in water depths of >100m)

Keij, A.J. (1974)- Review of the Indo-Pacific species of *Triebelina* (Ostracoda). Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, B77, 4, p. 345-358.
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(Suggest closure of Indonesian Seaway around 13-12 Ma)

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(online at: https://academic.oup.com/mollus/article/79/4/346/1014058/Lucinid-bivalves-from-ancient-methane-seeps)
(Lucina-type bivalves reported from late Jurassic- late Miocene methane-seep deposits worldwide. Elliptiolucina hetzeli (Martin 1933), associated with asphalt seeps in Late Miocene sediments of Buton, Indonesia (Martin, 1933, Beets 1942) and E Pliocene seep deposits of Leyte, Philippines (Kase et al. 2007, Majima et al. 2007))

Kingma, J.T. (1948)- Contributions to the knowledge of the Young-Caenozoic Ostracoda from the Malayan region. Doct. Thesis University Utrecht, Kemink, p. 1-119.
(online at: http://dspace.library.uu.nl/handle/1874/236218)
(Late Neogene ostracods from (1) outcrop samples in Aceh (N Sumatra), (2) S Kendeng zone (E Java; 31 species), (3) Miocene-Pliocene of Bojonegoro 1 well (E Java; 41 species), and (4) Recent forms from Snellius Expedition samples in E Java Sea (19 species). Six new genera (Hemicytheridea, Atjehella, Paijenborchella, Tanella, Javanella), 94 species including 40 new. Includes description of Caudites javana Kingma, a widespread species in Indo Pacific. Limited stratigraphy/ stratigraphic results)

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('Name changes of some Tertiary foraminifera from Netherlands East Indies'. Brief note about name changes for species described earlier by Koch (1926): Globigerina aspera= G. binaiensis, Globigerina bulloides var. tripartita= G. tripartita, etc.)

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(Brief review of Neogene fossil fish recordin SE Asia, mainly Java, Madura, Sulawesi, Kalimantan and Brunei)

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(online at: https://gamtostyrimai.lt/uploads/documents/lediniai/Baltica/Vol-30-1-2017/...)
(Indonesian amber or "Borneo amber" widespread and associated with Miocene brown coals, like in Nyalau Fm at Merit Pila coal mine, Sarawak, which yielded world's largest piece of amber (3.5 x 1-2 m). Amber is resin from trees of family Dipterocarpaceae (Dipterocarpus, Hopea, Vateria, Vatica). Intense resin production in Cenozoic trees believed to be induced by active volcanism, when acidic volcanic tuff deposited in peat land)

Kramer, K. (1974)- Die tertiaeren Holzer Sudost-Asiens (unter Ausschluss der Dipterocarpaceae), 1 Teil. Palaeontographica. Abt. B, Palaeophytologie, 144, 3-6, p. 45-181.
('The Tertiary woods of SE Asia (with exclusion of Dipterocarpaceae', Part 1. Includes wood from Sumatra collected by Posthumus, incl. Dammaroxylon kaurioides n.sp., possibly of E Permian age (Booi et al. 2014))

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('The state of knowledge of the Tertiary flora of the Netherlands Indies'. Review of known fossil plant occurrences on Java, Borneo, Sumatra)

Krijnen, W.F. (1931)- Het genus *Spiroclypeus* in het Indo-Pacifische gebied. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 9, 2, p. 77-112.
('The genus Spiroclypeus in the Indo-Pacific region'. Early review of larger foram genus Spiroclypeus Douville 1905, which evolved from involute Heterostegina borneensis by development of lateral chambers. Five species recognized: S. margaritatus, S. pleurocentralis, S. tidoenganensis, S. leupoldi and S. orbitoideus. Main distribution in latest Oligocene- Early Miocene (zone Upper Te) of Tethyan- Indo-Pacific region (in 1937 Spiroclypeus vermicularis n.sp. found in Late Eocene beds by Tan Sin Hok, 1937; part of Spiroclypeus in 1991 re-attributed to genus Tansinhokella- JTvG))

Krijnen, W.F. (1931)- Annotations to the map of the more important fossil localities in the Netherlands East Indies. Leidsche Geologische Mededelingen 5 (K. Martin Memorial Volume), p. 509-551.
(online at: https://repository.naturalis.nl/pub/505607/LGM1931005001019.pdf)
(Map and chronological listing of 330 significant Paleozoic- Recent fossil localities in Indonesia)

Kumar, P. & K.S. Soodan (1976)- Early Palaeocene planktonic foraminifera from Baratang Formation, Middle Andaman Island. Proc. 6th Indian Colloquium on Micropalaeontology and Stratigraphy, Hyderabad, p. 145-150.
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(online at: https://www.stichtingblauwelijn.nl/assets/files/1942-01.pdf)
(Commentary on Crespin (1940) paper on a Cycloclypeus population in Victoria, SE Australia. New species C. victoriensis is probably same as C. indopacificus Tan))

Ladd, H. (1966)- Chitons and gastropods (Haliotidae through Adeorbidae) from the Western Pacific islands. U.S. Geological Survey (USGS) Professional Paper 531, p. 1-98.
(online at: http://pubs.usgs.gov/pp/0531/report.pdf)

Ladd, H. (1970)- Eocene molluscs from Eua, Tonga. U.S. Geological Survey (USGS) Professional Paper 640-C, p. 1-12.

(online at: http://pubs.usgs.gov/pp/0640c/report.pdf)
(Many of the W Pacific islands have Late Eocene shallow marine limestones. On Eua in Tonga Group Late Eocene limestone overlies plutonic- volcanic rocks. Mainly small gastropods, probably slightly deeper marine fauna (see also Storrs Cole (1970) for larger and Todd (1970) for smaller associated foraminifera))

Ladd, H. (1972)- Cenozoic fossil molluscs from Western Pacific islands; gastropods (Turritellidae through Strombidae). U.S. Geological Survey (USGS) Professional Paper 532, p. 1-79 + 20 plates.
(online at: http://pubs.usgs.gov/pp/0532/report.pdf)
(170 species of Eocene- Pliocene gastropods from W Pacific islands. Most molluscs appear reef-associated; many are from lagoonal beds. Molluscs are of Indo-Pacific aspect, with closer ties to Indonesia and N Australia than to Ryukyus and Japan)

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(Indo-Pacific gastropods, mainly from Late Miocene-Pliocene of Fiji, Eniwetok, Guam, Palau, etc.)

Ladd, H. (1982)- Cenozoic fossil molluscs from Western Pacific islands; gastropods (Eulimidae and Volutidae through Terebridae). U.S. Geological Survey (USGS) Professional Paper 1171, p. 1-100 + 41 plates.
(online at: http://pubs.usgs.gov/pp/1171/report.pdf)

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('Contribution to the knowledge of the Tertiary echinoids of the Sonde Islands (=Indonesia)'. On of very few publications on Miocene- Recent regular echinoderms from Indonesia (Java, Borneo, Sumbawa, Timor), based on material collected by Tobler, Leupold, Gerth, Weber, etc. Many new species (manuscript initially submitted in 1934 for publication in 'Wetenschappelijke Mededeelingen' Bandung, was refused due to lack of finances))

Lei, Z.Q. (1997)- Tertiary palynological sequence and the related problems in Pearl River mouth basin. In: P. Dheeradilok et al. (eds.) Proc. International Conference Stratigraphy and tectonic evolution of Southeast Asia and the South Pacific (GEOTHAI'97), Dept. Mineral Resources (DMR), Bangkok, 1, p. 218-222.
(online at: http://library.dmr.go.th/library/Proceedings-Yearbooks/M_1/1997/7641.pdf)
(Tertiary palynology zonation of Pearl River Mouth basin, northern South China Sea. Warmest paleoclimate in M Miocene (common tropical mangroves of Florschuetzia cf. levipoli- Dacrydiumites florinii assemblage), coldest in Late Oligocene (Alnipollenites- Pinuspoleenites assemblage). Tertiary biozonation similarities with SE Asia, but calibration of Oligo-Miocene Florschuetzia zones younger than Morley 1977)

Lelono, E.B. (2001)- Revisi zonasi polen Eosen. Lembaran Publikasi Lemigas 35, 1, p. 16-26.
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Lelono, E.B. (2001)- Climatic effect to the distribution of the Late Paleogene indicator of pollen *Meyeripollis naharkotensis* in Western Indonesia. Lemigas Scientific Contributions 24, 2, p. 12-16.

Lelono, E.B. (2005)- Penelitian palinologi pada sedimen Paleogen di kawasan Indonesia bagian Barat. Lembaran Publikasi Minyak dan Gas Bumi (Lemigas) 39, 2, p. 15-23.
(online at: https://journal.lemigas.esdm.go.id/index.php/LPMGB/article/view/734)
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Lelono, E.B. (2006)- Eocene- Oligocene climate based on palynological records. Lemigas Scientific Contributions 29, 2, p. 10-23.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/1023/812)

(Review of Eocene-Oligocene paleoclimate trends from W Indonesia palynomorphs. M Eocene 'peak' wet climate, Late Eocene- earliest Oligocene gradually drying. Late Oligocene wetter than E-M Oligocene. Etc.)

Lelono, E.B. (2007)- Zonasi polen Tersier Indonesia Timur. Lembaran Publikasi Minyak dan Gas Bumi (Lemigas) 41, 1, p. 1-8.
(online at: https://journal.lemigas.esdm.go.id/index.php/LPMGB/article/view/45
('Tertiary pollen zonation of East Indonesia'. Differences of pollen assemblages between Papua (Australian plate) and Sulawesi- Java (Sundaland/Asian plate) necessitate separate palynozonation for E Indonesia: (1) Spinizonocolpites baculatus (Paleo-Eocene). (2) Metroxyllon salamonense (M Miocene), (3) Foveosporites spp; (4) Nothofagidites emarcida (Late Miocene; 3 sub-zones), (5)(6) Malvacipollis diversus (Pliocene), (7) 'Garcinia cuspidata type' (Late Pliocene) (8) Proteacidites spp. (Pleistocene))

Lelono, E.B. (2009)- The dispersal route of the Australian elements of *Dacrydium* and *Casuarina* from its origin to SE Asia. Scientific Contributions Oil and Gas (SCOG) Lemigas, Jakarta, 32, 3, p. 157-161.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/846)
Australian pollen Dacrydium may have dispersed into SE Asia prior to E Oligocene via Ninety East Ridge and Indian plate, and subsequent distribution across Sunda region and Indochina was limited by paleoclimate, explaining why it is present in some areas of Sunda region, but not others. Dispersal of Casuarina remains unresolved; migration via India unlikely as it is not known from Indian subcontinent)

Lelono, E.B. (2012)- The migration pathway of some selected Australian palynomorphs from their origin to SE Asia. Scientific Contributions Oil and Gas (SCOG) Lemigas, 35, 2, p. 49-56.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/777/564)
(Proposes alternative dispersal route of Australian taxa Dacrydium and Casuarina to SE Asia. Previously thought to have migrated to Sunda region after collision of Australian and Asian plates, or arrival with Gondwanan fragment in Early Oligocene. Records of Dacrydium in Eocene of Ninety East Ridge and Indian subcontinent may support alternative dispersal route into SE Asia via Indian plate)

Lelono, E.B. (2017)- Pollen records from the Oligocene of Western Indonesia as the evidences of climate changes. Scientific Contributions Oil and Gas (SCOG) Lemigas, 40, 3, p. 107-115.
(online at: http://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/46
(Oligocene of SE Asia characterized by dry/ seasonal climate. Samples from offshore wells in Java, W Natuna and C Sumatera. Abundant fresh water algae of Pediastrum and Bosedinia in E Oligocene indicates presence of lacustrine sediments; dry/ seasonal climate marked by rich grass pollen Monoporites annulatus and absent or rare rain forest elements. Late Oligocene with common brackish elements indicate shifting paleoenvironment into transition-shallow marine. More humid climate evidenced by high Dacrydium and Casuarina and other rain forest palynomorphs. Wettest climate in Java region)

Leloux, J. & W. Renema (2007)- Types and originals of fossil Porifera and Cnidaria of Indonesia in Naturalis. Nat. Natuurhistorisch Museum Technical Bull., Leiden, 10, p. 1-305.
(online at: https://repository.naturalis.nl/pub/270361/TheGerthCatalogueLR.pdf)
(Listings and colorillustrations of type material of 229 taxa in large collection (>3000 specimens) of Tertiary and Permian corals in Naturalis Natural History Museum, Leiden, mainly from K. Martin, H. Gerth and J.H.F. Umbgrove collections)

Leloux, J. & F.P. Wesselingh (2009)- Types of Cenozoic Mollusca from Java in the Martin collection of Naturalis. Nationaal Natuurhistorisch Museum (NNM) Technical Bulletin 11, p. 1-765.
(online at: www.repository.naturalis.nl/document/143887)
(Updated, expanded and illustrated version of Van den Hoek Ostende et al. (2002) of 912 type specimens of Tertiary bivalves, gastropods and scaphopods from Java in K. Martin collection at Naturalis Museum, Leiden. With listing of fossil localities and 289 color plates)

Leriche, M. (1954)- Les faunes ichthyologiques marines du Neogene des Indes Orientales. Memoires Societe Paleontologique Suisse, Birkhauser, 70, p. 1-21.

('The marine fish faunas from the Neogene of the East Indies'. Incl. new species of shark tooth Carcharodon megalodon indica)

LeRoy, L.W. (1940)- The ostracode genus *Cytherelloidea* from the Late Tertiary of the Netherlands East Indies. Natuurkundig Tijdschrift voor Nederlandsch-Indie 100, p. 179-196.
(Fourteen new species of ostracode Cytherelloidea from Indonesia, incl. 3 from Late Miocene of NE Kalimantan, 4 from Mio-Pliocene from Bantam, W Java and 7 species from Miocene of C Sumatra)

LeRoy, L.W. (1941)- The ostracode genus *Cytherelloidea* from the Tertiary of the Netherlands East Indies. Journal of Paleontology 15, 6, p. 612-621.
(Same paper as above: 14 new species of ostracode Cytherelloidea from Indonesia, incl. 3 from Late Miocene of NE Kalimantan, 4 from Mio-Pliocene from Bantam, W Java and 7 species from Miocene of C Sumatra)

LeRoy, L.W. (1945)- A contribution to ostracodal ontogeny. Journal of Paleontology 19, p. 81-86.
(Includes discussion and illustrations of growth stages of Cythereis holmani from Telisa Fm of C Sumatra)

LeRoy, L.W. (1948)- The foraminifer *Orbulina universa* d'Orbigny, a suggested middle Tertiary time indicator. Journal of Paleontology 22, 4, p. 500-508.
(Lowest stratigraphic occurrence of pelagic foraminifer Orbulina universa proposed to bea good mid-Miocene markerhorizon. With discussion of stratigraphy and faunas of Kassikan section near Aliantan, Sultanate of Siak, C Sumatra, where this event occurs near top of Telisa Fm)

LeRoy, L.W. (1964)- Smaller foraminifera from the Late Tertiary of Southern Okinawa. U.S. Geological Survey (USGS) Professional Paper 454-F, p. 1-58.
(online at: http://pubs.usgs.gov/pp/0454f/report.pdf)
(Good descriptions of typical Indo-Pacific shallow and shelfal marine smaller benthic foraminifera))

Less, G. & E. Ozcan (2008)- The Late Eocene evolution of nummulitid foraminifer *Spiroclypeus* in the Western Tethys. Acta Palaeontologica Polonica 53, p. 303-316.

Leupold, W. & I.M. van der Vlerk (1931)- The Tertiary. In: B.G. Escher et al. (eds.) Stratigraphie van Nederlandsch Oost-Indie, Feestbundel K. Martin, Leidsche Geologische Mededelingen 5, p. 611-648.
(online at: www.repository.naturalis.nl/document/549456)
(Overview of Tertiary stratigraphy across 'Netherlands East Indies' in the 1931Prof. K. Martin 80st birthday memorial volume. With distribution chart of larger foraminifera and a more detailed version of the 'Letter Classification' zonation of the Tertiary. Added stages/ zones Tg and Th, subdivided Tf into 3 zones, Te into 5 zones, Ta into 2 zones. With rel. extensive review of state of knowledge of Cenozoic stratigraphies of Indonesian basins, especially from Wolfgang Leupold's multi-year geological mapping areas of NE and E Kalimantan)

Lignac-Grutterink, L.H. (1943)- Some Tertiary Corallinaceae of the Malaysian Archipelago. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 13, p. 283-297.
(Brief descriptions of Tertiary calcareous algae from Borneo, Java, etc., in Leiden collection. No location/ stratigraphy info)

Lindley, I.D. (2004)- Some living and fossil echinoderms from the Bismarck Archipelago, Papua New Guinea, and two new echinoid species. Proc. Linnean Soc. New South Wales 125, p. 115-139.
(online at: https://www.biodiversitylibrary.org/item/132499#page/120/mode/1up)

Lloyd, A.R. (1974)- Time measurement of geological time and precision in correlation. Proc. SE Asia Petroleum Exploration Society (SEAPEX) 1, Singapore, p. 31-43.
(On stratigraphic correlations, with examples from SE Asia)

Lloyd, A.R. (1975)- Paleontology and its role on oil exploration. Proc. SE Asia Petroleum Exploration Society (SEAPEX) 2, Singapore, p. 152-159.

(Brief summary of importance of paleontology in oil exploration)

Ludbrook, N.H. (1965)- Tertiary fossils from Christmas Island (Indian Ocean). J. Geological Society of Australia, 12, p. 285-294.
(Christmas Island in Indian Ocean S of W Java is Tertiary atoll formed on volcanic cone rising more >13,000' from ocean floor. Algal limestones in outcrop of Late Eocene (Tb) and Early Miocene (Te-Tf) age. Upper Eocene limestone with Discocyclina, Nummulites, Heterostegina. Lower Miocene limestone lower part with Lepidocyclina (Eulepidina), followed by Miogypsinoides dehaarti, then Flosculinella bontangensis. No rocks younger than Burdigalian identified other than young fringing reef)

Lunt, P. (2003)- Biogeography of some Eocene larger foraminifera, and their application in distinguishing geological plates. Palaeontologia Electronica 6, 1, p. 1-22.
(online at: http://palaeoelectronica.org/paleo/2003_2/geo/issue2_03.htm)
(Eocene larger foram assemblages can distinguish between carbonates from Asian-Pacific-Mediterranean (Pellatispira-Assilina) or Australian- New Guinea (Lacazinella) realms)

Lunt, P. (2013)- Foraminiferal micropalaeontology in SE Asia. In: A.J. Bowden et al. (eds.) Landmarks in foraminiferal micropalaeontology: history and development, The Micropalaeontological Society, Special Publication, Geological Society, London, p. 193-206.
(Elegant account of history of foraminiferal micropaleontology in SE Asia (mainly Indonesia) since late 1800's)

Lunt, P. & T. Allan (2004)- A history and application of larger foraminifera in Indonesian biostratigraphy, calibrated to isotopic dating. 2004 Workshop on Micropaleontology, Geological Research Development Centre Museum, Bandung, p. 1-109.
(online at: http://w.nummulites.net/PC_carbonates/Books/Lunt_Allan_2004.pdf)
(Well-illustrated, modern overview of Indonesian Tertiary larger foraminifera and zonations)

Lunt, P. & X. Luan (2022)- SE Asian Cenozoic larger foraminifera: taxonomic questions, apparent radiation and abrupt extinctions. J. of Earth Science (China) 33, 6, p. 1378-1399.
(online at: http://en.earth-science.net/en/article/doi/10.1007/s12583-022-1614-4)
(From Mediterranean to Indo-Pacific, Latest Eocene-Miocene larger foraminifera more homogenous than previously believed. Lineages show morphological radiation interrupted by extinctions. Pattern superimposed on long-term decline in larger foraminiferal abundance. Classic "large" genera were most severely hit by series of M Eocene -M-Miocene extinction events. Three major and one minor larger foraminiferal extinction events since M Eocene coincide with abrupt tectonic events across SE Asia, but there are probably multiple causes for these extinctions, including global climatic changes)

Lunt, P. & W. Renema (2014)- On the *Heterostegina- Tansinhokella- Spiroclypeus* lineage(s) in SE Asia. Berita Sedimentologi 30, p. 6-31.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/132)
(Detailed discussion of larger foraminifera evolutionary development from Heterostegina (Vlerkina) through Tansinhokella to Spiroclypeus, which can be observed twice in fossil record: (1) in Late Eocene (Tb) and (2) in mid- Oligocene- E Miocene (Te). Morphologically no reliable way to distinguish Late Eocene and Late Oligocene tests. Second evolutionary development of Tansinhokella and Spiroclypeus happened at same time in three geographically separate areas. Tansinhokella important for biostratigraphic subdivision of Letter Stage Te)

MacGillavry, H.J. (1962)- Lineages in the genus *Cycloclypeus* Carpenter. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, B65, 5, p. 429-458.
(Eight Eocene- Recent lineages in larger foram Cycloclypeus group distinguished)

MacGillavry, H.J. (1978)- Foraminifera and parallel evolution- how or why? Geologie en Mijnbouw 57, 3, p. 385-394.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0UE1PRmVLSE1GdHM/view)

(On evolutionary trends in larger foraminifera, by former Stanvac micropaleontologist H.J. MacGillavry. With appendix B and C summarizing larger foraminifera (Cycloclypeus, miogypsinids) from Indonesia and Tertiary stratigraphy near Baturaja, S Sumatra)

Madon, M.B., R.B.A. Karim & R.W.H. Fatt (1999)- Tertiary stratigraphy and correlation schemes. In: Petronas (ed.) The Petroleum Geology and Resources of Malaysia. Petronas, Kuala Lumpur, p. 113-137.
(Review of biozonations and stratigraphic nomenclature of Malay Basin, Penyu Basin, NW Borneo, Sabah)

Malz, H. (1981)- *Atjehella jacobi* n.sp., eine pliozane Ostracoden-Art von Java. Senckenbergiana Lethaea 62, p. 167-171.
(Atjehella jacobi n.sp., a Pliocene ostracod species from Java')

Mao, L. & Swee Yeok Foong (2013)- Tracing ancestral biogeography of *Sonneratia* based on fossil pollen and their probable modern analogues. Palaeoworld 22, p. 133-143.
(online at: www.researchgate.net/publication/257458965_Tracing_ancestral_biogeography_of_Sonneratia_based_on_fossil_pollen_and_their_probable_modern_analogues)
(Review of biostratigraphy and biogeography of tropical mangrove pollen Florschuetzia, which is ancestral to modern Sonneratia. Florschuetzia documented from Late Eocene- M Miocene in paleotropics around Tethyan region. Migrated from center of origin in SE Asia probably during E Eocene, and radiated and expanded to China, Japan, Australia and E Africa. Until warm early M Miocene (Langhian) Sonneratia had largest geographical range)

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('Some remarks on the age determinations of the Indies Tertiary'. In the past, ages of rocks often assumed from lithologic similarities to other known formations, but paleontologic studies often proved them to be wrong (quotes examples from Timor, Nanggulan, etc.). Current problem with interpretation of Tertiary faunas of Indonesia is lack of similarities with European faunas and no clear index fossils identified yet)

Martini, E. (1971)- Standard Tertiary and Quaternary calcareous nannoplankton zonation. In: A. Farinacci (ed.) Proc. of the Second Planktonic Conference, Rome, 1970, Edizioni Tecnoscienza, p. 737-785.
(Classic early synthesis of Cenozoic calcareous nannofossils biozonation (NP and NN zones))

Martino, E., P.D. Taylor, A. Kudryavtsev & J.W. Schopf (2016)- Calcitization of aragonitic bryozoans in Cenozoic tropical carbonates from East Kalimantan, Indonesia. Facies 62, 11, p. 1-15.
(online at: www.researchgate.net/publication/293479447_Calcitization_of_aragonitic_bryozoans_in_C Etc.)
(Calcification of originally aragonitic skeletons of cheilostome bryozoans Reussirella and Reptadeonella in muddy reefs from Miocene of E Kalimantan)

Matsumaru, K. (1974)- The transition of the larger foraminiferal assemblages in the Western Pacific Ocean- especially from the Tertiary period. J. of Geography (Chigaku Zasshi), Tokyo, 83, 5, p. 281-301.
(online at: https://www.jstage.jst.go.jp/article/jgeography1889/83/5/83_5_281/_pdf/-char/en)
(In Japanese. Review of stratigraphic distribution of larger foraminifera in localities across SE Asia- W Pacific, the Letter zonation and its calibration to planktonic foram zones)

Matsumaru, K. (1980)- Cenozoic larger foraminiferal assemblages of Japan, Part 1. A comparison with Southeast Asia. In: T. Kobayashi et al. (eds.) Geology and Palaeontology of Southeast Asia, University of Tokyo Press, 21, p. 211-224.
(Review of Eocene- Recent larger foram occurrences and zonation in Japan and correlation with Indonesian letter zonation. Three abundance peaks: (1) M-L Eocene, (2) Late Oligocene; (3) latest E Miocene-M Miocene)

Matsumaru, K. (2011)- A new definition of the Letter Stages in the Philippine Archipelago. Stratigraphy 8, 4, p. 237-252.
(M Paleocene- Recent Letter Stages for Philippines re-defined in terms of 17 larger foram assemblage zones)

Matsumaru, K. (2012)- Miogypsinid foraminiferal biostratigraphy from the Oligocene to Miocene sedimentary rocks in the Tethys Region. In: I.A. Dar (ed.) Earth Sciences, InTech Open Science, 25, p. 619-648.
(online at: http://cdn.intechopen.com/pdfs/27609/..)
(Good review of late Oligocene- M Miocene miogypsinid larger foram evolution and biostratigraphy

Matsumaru, K. & K. Kimura (2012)- Larger foraminifera from the Eocene Shimizu and Miocene Misaki Formations in Tosa Shimizu City, Kochi Prefecture, Japan. Transactions Proceedings Paleontological Society of Japan 156, p. 255-269.
(online at: www.palaeo-soc-japan.jp/download/TPPSJ/TPPSJ_NS156.pdf)
(Larger foraminifers from Eocene Shimizu Fm (Asterocyclina, Orbitoclypeus. Discocyclina) and Miocene Misaki Fm (Nephrolepidina) in Tosa Shimizu City, Kochi Prefecture, Shikoku, Japan)

McGowran, B. (1986)- Cainozoic oceanic and climatic events: the Indo-Pacific foraminiferal biostratigraphic record. Palaeogeogr. Palaeoclim. Palaeoecology 55, p. 247-265.
(Overall Cenozoic climatic deterioration reversed in Eocene and in Miocene by short-lived, far-reaching, extratropical excursions by tropical-type foraminifera. Widespread oceanic hiatuses appear to correlate with episodes of global warming and transgression)

McGowran, B. (2005)- Biostratigraphy: microfossils and geological time. Cambridge University Press, p.1- 459.
(Text book)

McGowran, B. (2013)- Martin Glaessner's foraminiferal micropaleontology. In: A.J. Bowden et al. (eds.) Landmarks in foraminiferal micropaleontology: history and development, The Micropaleontological Society, Geological Society, London, Special Publ., p. 227-250.
(Review of M.F. Glaessner' contributions in 1940s-1950s to foraminiferal micropaleontology, including Cenozoic larger foraminifera of Papua New Guinea and biostratigraphic correlations in the Indo-Pacific region)

McGowran, B. & Q. Li (2000)- Evolutionary palaeoecology of Cainozoic Foraminifera: Tethys, Indo-Pacific, Southern Australia. Historical Biology 15, p. 3-27.
(Tertiary larger foram extinctions and migrations into higher latitudes tied to major cooling/warming events)

Mohler, W.A. (1946)- Handleiding voor het determineeren van de groot foraminiferen-genera van Nederlandsch Oost Indie. Compiled by W.A. Mohler, Private publication, p. 1-46.
('Manual for the identification of larger foram genera of Indonesia'. Small atlas of key Eocene- Recent larger foraminifera genera of Indonesia, by Swiss BPM-Shell micropaleontologist Willi Mohler, who was based in Balikpapan before and after the Japanese occupation and in Bandung during the Japanese occupation)

Morgenroth, P., A.T. Rahardjo & K.A. Maryunani (2000)- Dinoflagellate cysts- an alternative stratigraphic tool in marine Tertiary strata in Indonesia. Proc. 29th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 4, p. 99-108.
(Initial studies of dinoflagellates from Eocene- Miocene outcrops across Java)

Morley, R.J. (1977)- Palynology of Tertiary and Quaternary sediments in Southeast Asia. Proc. 6th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 255-276.
(Up to eight palynozones in Oligocene- Quaternary, mainly based on evolution of Florschuetzia species of mangrove pollen, building on Germeraad et al. 1968 work)

Morley, R.J. (1982)- Fossil pollen attributable to *Alangium* Lamarck (Alangiaceae) from the Tertiary of Malesia. Review Palaeobotany Palynology 36, p. 65-94.
(On four pollen-morphological evolutionary trends and Eocene-Pliocene fossil record of genus Alangium a flowering plant, in SE Asia)

Morley, R.J. (1991)- Tertiary stratigraphic palynology in Southeast Asia: current status and new directions. Bull. Geological Society Malaysia 28, p. 1-36.
(online at: https://gsm.org.my/products/702001-101072-PDF.pdf)
(Palynology is the only biostratigraphic tool for correlation of non-marine sediments and correlation across facies. Age-restricted palynomorphs are relatively few, so Tertiary palynology seems mainly useful in correlation rather than dating. Higher resolution requires quantitative palynological zonation schemes)

Morley, R.J. (1996)- Biostratigraphic characterization of systems tracts in Tertiary sedimentary basins. In: C.A. Caughey et al. (eds.) Proc. International Symposium on Sequence Stratigraphy in SE Asia, Jakarta 1995, Indonesian Petroleum Association (IPA), p. 49-70.
(On palynomorph distribution patterns in sequences/ systems tracts)

Morley, R.J. (1998)- Palynological evidence for Tertiary plant dispersals in the SE Asian region in relation to plate tectonics and climate. In: R. Hall & J.D. Holloway (eds.) Biogeography and geological evolution of SE Asia, Backhuys Publishers, Leiden, p. 211-234.
(online at; http://searg.rhul.ac.uk/publications/books/biogeography/biogeog_pdfs/Morley.pdf)
(Tertiary plant dispersals reflect tectonic and climatic evolution of SE Asia. Sunda Eocene flora stretched as far East as S arm of Sulawesi, and after Makassar Straits opening, part of this flora became stranded E of Wallace Line. Small number of plant taxa dispersed W across Wallace line since Miocene, at 17 Ma, 14, 9.5, 3.5 and ~1 Ma. Much of Sunda region moisture deficient in Oligocene- earliest Miocene, ever-wet rainforest becoming widespread at ~20 Ma, after which they repeatedly expanded and contracted. Greatest extent of rainforest at beginning of M Miocene. Quaternary 'glacial' periods with low sea levels and more seasonal climates, leading to more pine forests and savannah. New Guinea mountains formed in M Miocene allowing dispersal of Gondwana taxa from S. Some, like Podocarpus imbricatus, Phyllocladus subsequently dispersed into SE Asia)

Morley, R.J. (2000)- Tertiary history of the Malesian flora: a palynological perspective. In: L.G. Saw et al. (eds.) Taxonomy: the cornerstone of biodiversity, Forest Research Institute Malaysia, Kepong, p. 197-210.

Morley, R.J. (2000)- Origin and evolution of tropical rain forests. Hohn Wiley & Sons, Chichester, p. 1-362.
(Incl. SE Asia chapter describing Cenozoic vegetation response to plate tectonic evolution, as reflected in Indonesia palynology records. In M Eocene SW Sulawesi has Laurasian flora, and was attached to E Kalimantan. Makassar Straits became floral-faunal migration barrier in Late Eocene. First Australian- New Guinea floral elements (Casuarina, etc.) start appearing in W Java Sea around 22-21 Ma)

Morley, R.J. (2002)- Tertiary vegetation history of SE Asia, with emphasis on biogeographical relationships with Australia. In: P. Kershaw et al. (eds.) Bridging Wallace's Line: the environmental and cultural history of the SE Asian- Australian region, Advances in Geoecology 34, Catena Verlag, p. 2-28.

Morley, R.J. (2003)- Interplate dispersal paths for megathermal angiosperms. In: Perspectives in plant ecology, evolution and systematics 6, 1-2, Urban & Fischer Verlag, p. 5-20.
(Review of dispersal of megathermal angiosperms between tectonic plates in Cretaceous and Tertiary. Early Cretaceous radiation of angiosperms unrelated to formation of Tethys. Nine dispersal routes, some tied to Late Cretaceous- E Tertiary Gondwana break-up and routes formed since M Eocene phases of plate collision)

Morley, R.J. (2007)- Cretaceous and Tertiary climate change and the past distribution of megathermal rainforests. In: M.B. Bush, J.R. Flenley & W.D. Gosling (eds.) Tropical rainforest responses to climatic change, Chapter 1, Springer-Praxis, p. 1-31. *(see also 2nd Edition, 2011)*
(Review of long term climate patterns and distribution of tropical rainforests)

Morley, R.J. (2011)- Dispersal and paleoecology of tropical Podocarps. Smithsonian Contr. Botany 95, p. 21-41.
(online at: http://smithsonianrex.si.edu/index.php/scb/article/download/175/131)
(Tropical Podocarpaceae family appeared in Triassic of Gondwana and essentially remained southern family. Podocarpus s.l. dispersed into SE Asia in Late Eocene, explained by dispersal from India and possibly multiple dispersal events from Australia. Dacrydium reached SE Asia in E Oligocene and expanded range to Japan during

M Miocene climatic optimum. Dacrycarpus and Phyllocladus dispersed into New Guinea as island emerged in Late Miocene, then island hopped to Borneo in M Pliocene. Dacrycarpus reached Sumatra and Malay Peninsula in Pleistocene)

Morley, R.J. (2012)- A review of the Cenozoic palaeoclimate history of Southeast Asia. In: D.J. Gower et al. (eds.) Biotic evolution and environmental change in Southeast Asia, The Systematics Association, Cambridge University Press, Chapter 6, p. 79-114.
(online at: https://www.researchgate.net/publication/285737329_A_review_of_the_Cenozoic_palaeoclimate_history_of_Southeast_Asia)
(Summary of Cenozoic climatic and environmental history of Sunda region, from Sulawesi to S Vietnam, based on palynological records, occurrence of coals (= everwet climate) and paleosols)

Morley, R.J. (2018)- Assembly and division of the South and South-East Asian flora in relation to tectonics and climate change. J. Tropical Ecology 34, 4, p. 209-234.
(online at: www.researchgate.net/publication/326628937_Assembly_and_division_of_the_South_ Etc.)
(On main phases of plant dispersal into and out of SE Asia. Late Cretaceous poorly understood. India's drift into perhumid low latitudes during Eocene brought dispersal into SE Asia of megathermal angiosperms which originated in W Gondwana, and became established since ~49 Ma, with terrestrial connection after ~41 Ma. Oligocene was time of seasonally dry climates except along E and S seaboard of Sundaland. At end of Oligocene widespread perhumid conditions across region. Uplift of Himalaya during M Miocene thermal maximum, created dispersal of E Asian evergreen taxa into N India. After Australasia- Sunda collision and uplift of New Guinea and islands of Wallacea, Gondwanan montane taxa also found their way into region)

Morley, R.J. & J.R. Flenley (1987)- Late Cainozoic vegetational and environmental changes in the Malay Archipelago. In: T.C. Whitmore (ed.) Biogeographic evolution of the Malay Archipelago, Oxford Monographs Biogeography 4, Clarendon Press, Oxford, p. 50-59.

Morley, R.J. & Jaizan H.M. Jais (2024)- Pollen and spore atlas for the Cenozoic of the Malay Basin, Malaysia. Geological Society of Malaysia, p. 1-272.
(online at: https://gsm.org.my/articles/pollen-and-spore-atlas-for-the-cenozoic-of-the-malay-basin-malaysia/)
(Milestone atlas with descriptions of 186 Cenozoic pollen, spore and algal form-taxa that are important in evaluation of palynostratigraphy and environment interpretation in Oligocene-Pliocene of Malay Basin. With 7 new genera, 55 new form-species, 4 new forms and 10 new combinations. With summaries of PR1-PR15 bio-zonation, vegetation types, basin evolution, paleogeography and extensive references list)

Morley, R.J., E.B. Lelono, L. Nugrahaningsih & Nur Hasjim (2000)- LEMIGAS Tertiary palynology project: aims, progress and preliminary results from the Middle Eocene to Pliocene of Sumatra and Java. Geological Research Development Centre (GRDC), Paleontology Series 10, Bandung, p. 27-47.
(Summary of palynology work in Java (Eocene of Nanggulan and Bayah), Sumatra (E Oligocene Pematang Fm, Late Oligocene Talang Akar Fm, E Miocene Gumai Fm, M Miocene Air Benakat Fm. No positive records of Paleocene- Early Eocene deposits in W Indonesia)

Morley, R.J. & H.P. Morley (2013)- Mid Cenozoic freshwater wetlands of the Sunda region. J. Limnology 72, 2s, p. 18-35.
(online at: www.jlimnol.it/index.php/jlimnol/article/view/704)
(On development of widespread rift lake systems in Oligocene of SE Asia and their eventual demise following marine transgression. Pollen and spores illustrate multitude of fresh and brackish water swamp communities around margins)

Morley, R.J. & H.P. Morley (2013)- Improving stratigraphic resolution in Indonesia using the method of sequence biostratigraphy. Proc. 47th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA23-G-63, p. 1-17.
(online at: https://www.researchgate.net/publication/373546134_Improving_stratigraphic_resolution_in_Indonesia_using_the_method_of_sequence_biostratigraphy)

(About dating non-marine successions by analyzing cyclical patterns in palynological, etc., data that reflect astronomically-driven sea level changes. Palaeogene non-marine basins such as Cuu Long and Song Hong Basins in Vietnam exhibit depositional cycles reflecting 406 kyr eccentricity-driven astronomical cycles. In Mahakam Delta Miocene multiple sands within main reservoir interval driven by 106 ka eccentricity and 41 ka obliquity changes. Etc.)

Morley, R.J. & H.P. Morley (2022)- The prelude to the Holocene: tropical Asia during the Pleistocene. Holocene Climate Change and Environment 2022, p. 1-32.
(Review of climate and vegetation history for tropical Asia for last 3 Myrs. Pliocene witnessed demise of humid tropical forests across India, which were replaced at least in the north by open grasslands, which supported a diverse fauna, elements of which migrated to Java during E Pleistocene. Fauna did not migrate along a "savanna corridor"(no representatives of Indochina deciduous forests or savanna). During Pleistocene glaciation, rain forests remained along equatorial SE Asia, with savanna in Indochina and expansion of seasonal evergreen and deciduous forests across emergent Java Sea and Java)

Muller, J. (1972)- Palynological evidence for change in geomorphology, climate and vegetation in the Mio-Pliocene of Malesia. In: P.S. & M. Ashton (eds.) The Quaternary era in Malesia, University of Hull, Department of Geography Miscellaneous Series 13, p. 6-16.

Muller, J. (1978)- New observations on pollen morphology and fossil distribution of the genus *Sonneratia* (Sonneratiaceae). Review Palaeobotany Palynology 26, p. 277-300.
(Study of mangrove pollen Sonneratia, and fossil representatives Florschuetzia. May have originated in Eocene in Tethys area, but earliest reliable occurrence (Florschuetzia trilobata) from E Miocene in Sunda area)

Murgese, D.S. & P. De Deckker (2005)- The distribution of deep-sea benthic foraminifera in core tops from the eastern Indian Ocean. Marine Micropaleontology 56, p. 25-49.
(57 core tops between 700- 4335m from E Indian Ocean between Australia and Indonesia. Seven key-species useful for environments. Two species groups: (1) Oridorsalis tener umbonatus, Epistominella exigua and Pyrgo murrhina (cold, well-oxygenated, low carbon flux to sea floor) and (2) Nummoloculina irregularis and Cibicidoides pseudoungerianus (upper-bathyal). Uvigerina proboscidea mainly at low latitudes, with high carbon flux due to higher primary productivity at sea surface, and low oxygen levels due to organic matter oxidation and presence of oxygen-depleted Indonesian Intermediate Water and N Indian Intermediate Water)

Nishida, S. (1987)- Calcareous nannoplankton biostratigraphy in the Sunda Arc. Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas, CCOP, Technical Bull. 19, p. 69-72.
(online at: https://ncloud.dotdream.co.th/index.php/s/xCwHAtAFYxzBtC9)
(Bottom samples from S Java continental slope and both flanks of Sunda Trench contain modern nannofossil assemblages dominated by Umbellosphaera irregularis and Gephyrocapsa oceanica)

Novak, V. (2014)- Larger benthic foraminifera in Miocene carbonates of Indonesia. Ph.D. Thesis Universiteit Utrecht, Utrecht Studies in Earth Sciences 64, p. 1-211.
(online at: https://dspace.library.uu.nl/handle/1874/300544)
(Collection of papers on Miocene larger benthic foraminifera from Kutai Basin and Taballar Lst from Mangkalihat Peninsula (E Kalimantan), Bulu Fm (C Java))

Novak, V. & W. Renema (2018)- Ecological tolerances of Miocene larger benthic foraminifera from Indonesia. J. Asian Earth Sciences 151, p. 301-323.
(online at: https://www.sciencedirect.com/science/article/pii/S1367912017306235)
(Paleoenvironmental models for distribution of Miocene larger foraminifera, based on cluster analysis of assemblages from E-M Miocene mixed carbonate-clastic series in Kutai Basin, E Kalimantan, and Serravallian Bulu Fm of NE Java)

Nuttall, W.L.F. (1926)- A revision of the *Orbitoides* of Christmas Island (Indian Ocean). Quart. J. Geological Society, London, 82, p. 22-43.

(Eocene limestones with Discocyclina, and E Miocene limestones with Lepidocyclina, Miogypsina, Spiroclypeus)

O'Dogherty L., J.P. Caulet & P. Dumitrica & N. Suzuki, (2021)- Catalogue of Cenozoic radiolarian genera (Class Polycystinea). Geodiversitas 43, 21, p. 709-1185.
(online at: https://sciencepress.mnhn.fr/sites/default/files/articles/pdf/g2021v43a21.pdf)
(Extensively illustrated revision of Cenozoic polycystine radiolaria: 1683 revised genera, many originally described by Ehrenberg and Haeckel in the late 1800s)

O'Dogherty L., N. Suzuki, J.P. Caulet & P. Dumitrica (2022)- Inventory of Cenozoic radiolarian species (Class Polycystinea) - 1834-2020. Geodiversitas 44, 5, p. 75-205.
(online at: https://sciencepress.mnhn.fr/sites/default/files/articles/pdf/g2022v44a5.pdf
(Complete list of Cenozoic Polycystinea radiolaria, reported between 1834 and 2020 (6898 names))

O'Herne, L. (1972)- Secondary chamberlets in *Cycloclypeus*. Scripta Geologica, Leiden, 7, p. 1-35.
(Biometrical study of Miocene Cycloclypeus from Van der Vlerk collection from NE Java, Madura and Larat)

O'Herne, L. (1974)- A reconsideration of *Amphistegina lessonii* d'Orbigny, 1826, sensu Brady, 1884 (Foraminifera). Scripta Geologica, 26, p. 1-53.
(online at: www.repository.naturalis.nl/document/148755)
(Discussion of Oligocene-Recent Amphistegina species, mainly from Java)

O'Herne, L. (1976)- A comparison of *Lepidocyclina ferreroi* (Provale, 1909) and *Lepidocyclina multilobata* (Gerth, 1939). Scripta Geologica, Leiden, 35, p. 1-48.
(online at: www.repository.naturalis.nl/document/148824)
(Comparison of two stellate Lepidocyclina species from E-M Miocene of Java, Madura and Borneo)

O'Herne, L. & I.M. van der Vlerk (1971)- Geological age determinations on a biometrical basis (comparison of eight parameters). Boll. Societa Paleontologica Italiana 10, 1, p. 3-18.

Ong Goan Eng (1960)- The development of Shell micropaleontological studies in South Sumatra. Contributions Department of Geology, Institute of Technology Bandung (ITB) 47, p. 3-9.
(Very general paper on use of micropaleontology since 1930 by BPM/ Shell in S Sumatra. Discussion of biofacies versus lithostratigraphy and time. No details on faunas, stratigraphy, etc.)

Oostingh, C.H. (1938)- Mollusken als gidsfossielen voor het Neogeen in Nederlandsch Indie. Handelingen 8e Nederlandsch-Indisch Natuurwetenschappelijk Congres, Soerabaja 1938, p. 508-516.
(online at: https://resolver.kb.nl/resolve?urn=MMKB31:042287000:pdf)
('Molluscs as index fossils for the Neogene in the Netherlands Indies'. Crude succession of mollusc assemblages (no range charts), based on Tertiary collections from Banten (SW Java) by Koolhoven and Musper. Gastropod Vicarya callosa is M Miocene (Tf2-3) index species. Other potential marker species mainly Turritella spp. No illustrations, range charts, etc. Very few of Neogene Java species known from elsewhere (unlike Eocene species; JTvG))

Osberger, R. (1956)- Korallen als Hilfsmittel der Tertiar und Quartar-Stratigraphie Indonesiens. Djawatan Geologi (Indonesia Geol. Survey), Publikasi Keilmuan 32, p. 1-79.
('The use of corals as a tool in Tertiary and Quaternary stratigraphy of Indonesia'. Elegant review with listings of all Eocene- Pliocene fossil coral faunas described from Indonesia. Percentage of living coral species increases from 0% in Eocene-Oligocene, 6-9% in Early Miocene, 15-30% in M Miocene, 30-60% in Late Miocene-Pliocene and ~80% in Pleistocene. With range charts)

Ozcan, E., A.O. Yucel, L.S. Erkızan, M.N. Gultekin, S. Kaygılı & S. Yurtsever (2022)- Atlas of the Tethyan Orthophragmines. Mediterranean Geoscience Reviews 4, p. 3-213.
(online at: https://link.springer.com/article/10.1007/s42990-022-00072-1)

(Brilliantly illusrrated review of larger foraminifera of the Paleo-Eocene Discocyclina-Asterocyclina-etc. group from the Tethys region. Not much information from Indonesian region, except to mention common occurrence in Borneo of Discocyclina omphalus Von Fritsch)

Pandita, H., Y. Zaim, Aswan & Y. Rizal (2012)- The evolution pattern of Turritelline shell morphology in Java; relationship with geochronological aspects. Proc. 1st Earth Science Int. Seminar, Yogyakarta, 1, p. 187-197.

Panuju (2010)- The high resolution Neogene and Quaternary nannoplankton zonation for Indonesian basins. Proc. 39th Annual Conv. Indonesian Association Geologists (IAGI), Lombok, PIT-IAGI-2010-265, p. 1-14.
(online at: https://www.iagi.or.id/web/digital/12/2010_IAGI_Lombok_The-High-Resolution-Neogene.pdf)
(New high resolution Neogene-Quaternary nannoplankton zonation for Indonesia, mostly based on material from NE Java, NW Java, Sumatra, Kutei, S Sulawesi, Salawati, Bintuni and Waipoga-Waropen Basins. The 21 standard zones of Martini (1971) can be further subdivided into 58 subzones)

Parker, F.L. (1967)- Late Tertiary biostratigraphy (planktonic foraminifera) of tropical Indo-Pacific deep-sea cores. Bull. American Paleontology. 52, 235, p. 115-208.
(Late Miocene- Pliocene planktonic foram zonation on samples from deep sea cores and Fiji outcrop samples)

Piccoli, G. (1984)- Cenozoic molluscan associations of Mediterranean and Southeast Asia: a comparison. Memorie di Scienze Geologiche, Padova, 36, p. 499-521.

Piccoli, G. (2002)- Tethyan exchange of benthic molluscs between SE Asia and Mediterranean in the Paleogene Memorie di Scienze Geologiche, Padova, 54, p. 1-8.

Piccoli, G., E. Robba, C. Chonglakmani, P. Dheeradilok & R. Ingavat (1984)- Paleogene Tethyan and Neogene Indo-Pacific shallow benthic molluscs: some thoughts. J. Geological Society Thailand 7, 1, p. 13-18.
(online at: https://library.dmr.go.th/multim/JGST/26.pdf)
(Eocene molluscs of Nanggulan, Java, many affinities with coeval European species (not endemic as usually suggested by K. Martin a.o.), pointing to Tethyan seaway connection). Most of Miocene molluscs from Java different from Mediterranean suggesting seaway closed by E Miocene (Neogene- Recent Indo-Pacific province). Also discussion of Quaternary molluscs from subsurface near Bangkok)

Posthumus, O. (1929)- On paleobotanical investigations in the Dutch East Indies and adjacent regions. Bull. Jardin Botanique Buitenzorg, ser. 3, 10, 3, p. 374-384.
(Historic, brief review of papers on plant fossils since Goppert (1854; Java), Heer (1874, 1879; Ombilin, Sumatra), Geyler (1877; S Borneo), etc. until 1927)

Postuma, J.A. (1971)- Manual of planktonic foraminifera. Elsevier Publishing Co., Amsterdam, p. 1-417.
('Classic' Shell Oil Company manual of Mid-Cretaceous- Recent planktonic foraminifera)

Poumot, C. (1989)- Palynological evidence for eustatic events in the Tropical Neogene. Bull. Centres Recherches Exploration-Production Elf-Aquitaine 13, 2, p. 437-453.

Prakash, U. (1971)- Fossil woods from the Tertiary of Burma. The Palaeobotanist 20, 1-3, p. 48-70.
(online at: https://jpsonline.co.in/index.php/jop/article/view/887/874)
(Fossil woods of genera Dipterocarpus and Shorea-Pentacme (Dipterocarpaceae), Gluta-Melanorrhoea (Anacardiaceae), Sterculia, Acacia, Cynometra, Cassia, etc, from Tertiary beds of Burma. Collected by unknown Burmese collector and sent to Prof. B. Sahni in India. Ages and locality uncertain)

Prakash, U. & M.B. Bande (1980)- Some more fossil woods from the Tertiary of Burma. Palaeobotany 26, 3, p. 261-78.
(online at: https://jpsonline.co.in/index.php/jop/article/view/1071/1058)
(Fossil woods comparable to Shorea ovata (Dipterocarpaceae), Swintonia, Albizia, Careya, Lagerstroemia and Araucaria-Agathis from Burma Neogene. Most species also in present day flora of Burma and nearby areas)

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(60 species of Eocene-Oligocene Nummulites reported from Indonesia, only 7 believed to be valid. Sangiran mud volcano boulders of Nummulites-Pellatispira limestone with Nummulites gerthi/ N. pengaronensis and planktonic foraminifera (zone P15; around Middle-Late Eocene boundary. Samples from Miomaffo, Timor (= from allochthonous Sundaland-derived'Banda Terrane') with Nummulites and Pellatispira)

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(Radiolaria from Leg 26 Sites 250-258 in Indian Ocean W of Australia. Dictyomitra lilyae Tan Sin Hok, 1927= Early Cretaceous (Albian?) age range. Pages 773-774: unpublished nannofossil work on Tan Sin Hok's Bebalain 150 sample from Roti island by Bukry: presence of Cretarhabdus crenulatus, Eiffellithus turriseiffeli, Manivitella pemmatoidea, Parhabdolithus embergeri, Vagalapilla matalosa, Watznaueria barnesae and W. biporta, indicating Aptian-Turonian age. Other samples of Tan Sin Hok from Roti (no. 149, 154, and 384) contain similar radiolarian assemblages and probably of same age)

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('On the composition and origin of chalks and marls of the Moluccas'. Pioneering study of radiolarians and calcareous nannoplankton (Discoaster) from deep water sediments of Timor, Roti, Yamdena, Halmahera, etc. Very little stratigraphic context of samples. ((N.B. Radiolaria described from Roti are not of Late Tertiary age as assumed by TSH, but are of Early Cretaceous age (e.g. Eucyrtidium (now Archaeodictyomitra) brouweri; Baumgartner 1992, Jasin & Haile 1996, O'Dogherty 2009). Many of the new 'Late Tertiary' radiolarian species from Roti described by TSH are also present in Early Cretaceous of SW Sulawesi; Munasri 2013))

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(Listings of calcareous nannoplanton and radiolaria species reported from the Indonesian region by 1931)

Tan Sin Hok (1932)- On the genus *Cycloclypeus* Carpenter, Part 1 and an appendix on the Heterostegines of Tjimanggoe, S. Bantam, Java. Wetenschappelijke Mededeelingen Dienst Mijnbouw Nederlandsch-Indie, 19, p. 1-194.
('About the genus Cycloclypeus Carpenter, part 1 with an appendix on the heterosteginids of Cimanggu, South Banten, Java'. Classic paper on evolution and species of Early Oligocene- Recent Cycloclypeus in West Java)

Tan Sin Hok (1935)- Die peri-embryonalen Aquatorialkammern bei einigen Orbitoiden. De Ingenieur in Nederlandsch-Indie (IV, Mijnbouw en Geologie) 2, 12, p. IV.113- IV.126.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1935-12.pdf)
('The peri-embryonal chambers in some orbtoidal foraminifera'. General discussion of initial chamber morphologies in Cretaceous and Tertiary orbitoidal foraminifera (not focused on Indonesian material))

Tan Sin Hok (1936)- Beitrag zur Kenntnis der Lepidocycliniden. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 39, 8, p. 990-999.
('Contribution to the knowledge of the Lepidocyclinids'. First (Eocene) Polylepidina-type Lepidocyclina from Indo-Pacific, from tributary of Mahakam River, E Borneo)

Tan Sin Hok (1936)- Zur Kenntnis der Lepidocycliniden. Natuurkundig Tijdschrift voor Nederlandsch-Indie 96, p. 235-280.
('About the knowledge of the Lepidocyclinids'. Mainly critical review of Barker & Grimsdale (1936) paper on American lepidocyclinids. No figures or data)

Tan Sin Hok (1936)- Zur Kenntnis der Miogypsiniden. De Ingenieur in Nederlandsch-Indie (IV) 3, 3, p. 45-61.

('On the knowledge of Miogypsinids'. First of series of five papers on miogypsinid evolution and stages/species in Indonesia. Miogypsinids probably evolved from Rotalia. Comprehensive dission of the five main stages in Late Oligocene-Middle Miocene miogypsinids: Miogypsinoides complanata, Miogypsina borneensis, M. ecuadorensis, M. indonesiensis and M. bifida. Mainly based on samples from East Kalimantan)

Tan Sin Hok (1936)- Zur Kenntnis der Miogypsiniden. I Fortzetsung. De Ingenieur in Nederlandsch-Indie (IV) 3, 5, p. IV.84- IV.98.
('On the knowledge of the Miogypsinids- First continuation'. Discussion of more 'obscure' Miogypsina species and details of chamber patterns and stolons)

Tan Sin Hok (1936)- Zur Kenntnis der Miogypsiniden. II Fortzetsung und Schlusz. De Ingenieur in Nederlandsch-Indie (IV) 3, 7, p. IV.109- IV.123.
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('On the different paleontological criteria for the subdivision of the Tertiary'. Discussion of value of various larger foram genera for biostratigraphic subdivision of the Tertiary. Proposes to use the new genus name Vacuolispira for the Pellatispira inflata Umbgrove 1928 group)

Tan Sin Hok (1937)- Note on *Miogypsina kotoi* Hanzawa. De Ingenieur in Nederlandsch-Indie (IV) 4, 2, p. IV.31- IV.33.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1937-02.pdf)
(Description of material of Miocene Miogypsina kotoi Hanzawa from Honsyu island, Japan)

Tan Sin Hok (1937)- Weitere Untersuchungen uber die Miogypsiniden I. De Ingenieur in Nederlandsch-Indie (IV) 4, 3, p. IV.35- IV.45.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1937-03.pdf)
('Further investigations on the Miogypsinids- I'. Miogypsinid population from the late Aquitanian of Madura. Contains Miogypsina kotoi, M. kotoi bispiralis, M. thecidaeformis, M. aff. Polymorpha spiralis and Miolepidocyclina excentrica n.sp. (with excellent illustrations; JTvG))

Tan Sin Hok (1937)- Weitere Untersuchungen uber die Miogypsiniden II. De Ingenieur in Nederlandsch-Indie (IV) 4, 6, p. IV.87- IV.111.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1937-06.pdf)
('Further investigations on the Miogypsinids- II'. Mainly on Miogypsina indonesiensis group, an advanced member of the Miogypsina lineage, (Tf; early M Miocene), here reclassified as subspecies of M. cushmani)

Tan Sin Hok (1937)- On the genus *Spiroclypeus* Douville with a description of the Eocene *Spiroclypeus vermicularis* nov. sp. from Koetai in East Borneo. De Ingenieur in Nederlandsch-Indie (IV) 4, 10, p. 177-193.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1937-10.pdf)
(Review of larger foram genus Spiroclypeus. Stratigraphic range of Spiroclypeus not only Late Oligocene- E Miocene (zone Upper Te), but also in Late Eocene (Tb). On p. 179: mention of Biplanispira in Wani series of Buton)

Tan Sin Hok (1939)- The results of phylomorphogenetic studies of some larger foraminifera (a review). De Ingenieur in Nederlandsch-Indie (IV) 6, 7, p. IV.93- IV.97.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1939-07.pdf)
(Brief general review on evolutionary studies on larger foraminifera lineages, incl.the Cycloclypeus, Miogypsina and Lepidocyclina groups)

Tan Sin Hok (1939)- Remarks on the "Letter classification" of the East Indian Tertiary. De Ingenieur in Nederlandsch-Indie (IV) 6, 7, p. IV.98- IV.101.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1939-07.pdf)
(Brief paper with comments on larger foram 'letter zonation'. Miogypsinoides appears in Late Oligocene, etc.)

Termier G. & A.F. Poignant (1982)- Une symbiose algue rouge-spongiaire dans le Miocene inferieur de l'Indonesie. Comptes Rendus hebdomadaires Seances de l'Academie Sciences Paris, Serie 2, 294, D, p. 349-353.
(online at: https://gallica.bnf.fr/ark:/12148/bpt6k6327319s/f363.item.r=indonesie)
('A red algae-sponge symbiosis from the Lower Miocene of Indonesia'. Basal Miocene from offshore West Java (= Baturaja Fm?; JTvG) with encrusting calcareous red algae Lithophyllum johnsoni and Solenomeris sp., in apparent symbiotic relationship with sponge))

Thalmann, H.E. (1933)- Zwei neue Vertreter der Foraminiferen-Gattung *Rotalia* Lamarck 1804: *R. cubana* nom. nov. und *R. trispinosa* nom. nov. Eclogae Geologicae Helvetiae 26, 2, p. 248-251.
(online at: https://www.e-periodica.ch/digbib/view?pid=egh-001:1933:26#301)
('Two new representatives of the genus Rotalia Lamarck: R. cubana new name and R. trispinosa'. Short paper. New name Rotalia trispinosa for Rotalia pulchella, described by Brady (1884) from Bangka Straits)

Thalmann, H.E. (1934)- Mitteilungen uber Foraminiferen I. Eclogae Geologicae Helvetiae 27, 2, p. 428-440.
(online at: http://retro.seals.ch/cntmng?type=pdf&rid=egh-001:1934:27::628&subp=hires)
('Communications on foraminifera- I'. Brief review of Miocene- Pleistocene Pseudorotalia species from Indonesia. Includes chapters 1 on Rotalia gaimardi, 2 on Rotalia conoides from Cepu area, E Java, and 4 on two new species from Plio-Pleistocene of Java, Rotalia catilliformis and Rotalia alveiformis)

Thalmann, H.E. (1935)- Mitteilungen uber Foraminiferen II. Eclogae Geologicae Helvetiae 28, 2, p. 592-606.
(online at: https://www.e-periodica.ch/digbib/view?pid=egh-001%3A1935%3A28%3A%3A667)
('Communications on foraminifera- II'. Includes chapter 8, brief description of Rotalia Pseudorotalia indopacifica n.sp. from Late Tertiary and E Quaternary of N Java (no figures))

Thalmann, H.E. (1937)- Mitteilungen uber Foraminiferen III. Eclogae Geologicae Helvetiae 30, 2, p. 337-356.
(online at: http://retro.seals.ch/cntmng?type=pdf&rid=egh-001:1937:30::563&subp=hires)
('Communications on foraminifera- III'. Nothing on SE Asia)

Thalmann, H.E. (1938)- Wert und Bedeutung morphogenetischer Untersuchungen an Gross-Foraminiferen fur die Stratigraphie. Eclogae Geologicae Helvetiae 31, 2, p. 333-337.
(online at: http://retro.seals.ch/digbib/view?pid=egh-001:1938:31::352)
('Value and meaning of morphogenetic investigations on larger foraminifera for stratigraphy'. Mainly a brief review in the importance of work by Tan Sin Hok (1932-1937) on the 'morphogenetic' evolution of Cenozoic larger foraminifera Lepidocyclina, Spiroclypeus, Miogypsina, Cycloclypeus, etc. from Indonesia)

Thalmann, H.E. (1942)- Occurrence of the genus *Lacazina* Munier-Chalmas in the East Indies. Geological Society of America (GSA) Bull. 53, 12, p. 1838-1839. *(Abstract only)*
(Eocene limestones with larger foram Lacazina (= Lacazinella) often associated with Nummulites, Discocyclina and Alveolina. Known only from E half of East Indies Archipelago: E Sulawesi (Boealemo Peninsula), W Papua (Pisang Island E of Misool; Onin Island, Dramai Island; S and E of Triton Bay; Setawka River in SW New Guinea; Birds Head between Rumberpon and Horna, and Sungei Ingsiim; on Wilhelmina Peak of Central Range; S and E of Paniai Lake), PNG (Chimu aerodrome), Kai Besar Island (between Riamroe and Yamtimur))

Thalmann, H.E. (1946)- New occurrences of the foraminiferal genus *Hantkenina* in Europe and Asia. Geological Society of America (GSA) Bull. 57, 12, 2, p. 1236-1237. *(Meeting abstract only)*
(Incl. presence of Eocene planktonic foraminifera of genus Hantkenina in E Kalimantan (many localities along upper reaches and tributaries of Mahakam River; Long Iram area), and C Seram (Wai Tali, Cape Pasanea; Germeraad, 1946))

Theodoridis, S. (1983)- On the legitimacy of the generic name *Discoaster* Tan Sin Hok, 1927 ex Tan Sin Hok, 1931. Int. Nannoplankton Assoc. (INA) Newsletter 5, 1, p. 15-21.
(online at: http://ina.tmsoc.org/JNR/NINA/INANewsl5(1).pdf)
(Commonly used genus name Discoaster is technically invalid because at the time of first description no type species was designated by Tan Sin Hok (instead spp. assigned to 'subgenera' Eu-Discoaster and Helio-Discoaster)

Theodoridis, S. (1984)- Calcareous nannofossil biozonation of the Miocene and revision of the Helicoliths and Discoasters. Utrecht Micropaleontological Bulletin 32, p. 1-271.
(online at: http://dspace.library.uu.nl/handle/1874/205891)
(Miocene nannofossil zonation, partly based on Miocene material of Solo River section, Kendeng zone, E Java. Returns to emended definitions of Helio-discoaster Tan and Eu-discoaster Tan for Discoaster species)

Tobler, A. (1925)- Uber eine ostindische *Lepidocyclina* mit mehrkammeriger nucleoconch. Eclogae Geologicae Helvetiae 19, p. 269-274.
(online at: https://www.e-periodica.ch/digbib/view?pid=egh-001:1925-1926:19#284)
('On an East Indies Lepidocyclina with multi-chambered embryon'. Lepidocyclina (probably Eulepidina) from E Miocene at Sungi Tjengal, N margin of Gumai Mts, S Sumatra, with multi-chambered embryon (not unusual aberrant growth in orbitoidal foraminifera, with no apparent ecological or biostratigraphic significance; JTvG))

Tobler, A. (1927)- Verkalkung der Lateralkammern bei *Miogypsina*. Eclogae Geologicae Helvetiae 20, 2, p. 323-330.
(online at: https://www.e-periodica.ch/digbib/view?pid=egh-001%3A1926%3A20%3A%3A338)
('Calcification of the lateral chambers in Miogypsina'. Incl. new species Miogypsina tuberosan.sp. from Popoh in Kediri Residency in SE Java (Coll. W. Hotz) and M. abunensis n.sp. from limestone in Sungei Abun in Sarawak (Coll. M. Muhlberg)

Umbgrove, J.H.F. (1928)- Het genus *Pellatispira* in het Indo-Pacifische gebied. Dienst Mijnbouw Nederlandsch-Indie, Wetenschappelijke Mededeelingen 10, p. 43-71.
(online at: https://resolver.kb.nl/resolve?urn=MMKB24:065531000:pdf)
('The genus Pellatispira in the Indo-Pacific area'. Review of Late Eocene (Ta-Tb) larger foram genus Pellatispira in Indonesian region. Seven species, five of which new)

Umbgrove, J.H.F. (1930)- Tertiary sea connections between Europe and the Indo-Pacific area. Proc. Fourth Pacific Science Congress, Java 1929, vol. IIA, p. 91-104.
(Describing difficulties in Indonesia- Europe biostratigraphic correlations due to faunal provincialism)

Umbgrove, J.H.F. (1931)- Tertiary foraminifera. In: B.G. Escher et al. (eds.) De palaeontologie en stratigraphie van Nederlandsch Oost-Indie, Feestbundel K. Martin, Leidsche Geologische Mededelingen 5, p. 36-91.
(online at: http://dare.uva.nl/cgi/arno/show.cgi?fid=549641)
(Chapter in K. Martin memorial volume, listing >640 foraminifera species reported from Tertiary of Indonesia)

Umbgrove, J.H.F. (1954)- Tertiary stratigraphy of the Far East; a protest. American Journal of Science 252, p. 503-504.
(online at: https://ajsonline.org/article/58514.pdf)
(Umbgrove objects to use in a publication of the 'East Indies Letter Classification' without properly referencing the main person who first developed it in 1925 (subsequent refinements followed by Van der Vlerk & Umbgrove (1927) and Leupold and Van der Vlerk (1931). No detail data)

Van Cappelle, H. (1885)- Het karakter van de Nederlandsch--Indische Tertiaire fauna. Doct. Thesis Rijksuniversiteit Leiden, p. 1-198.
('The nature of the Tertiary fauna of the Netherlands Indies'. Early interpretation of nature of Indonesian Tertiary faunas by student of K. Martin, with comparisons of Recent and Tertiary fossil faunas)

Van der Vlerk, I.M. (1923)- Een overgangsvorm tusschen *Orthophragmina* en *Lepidocyclina* uit het Tertair van Java. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 7, 2, p. 91-98.
('A transitional form between Orthophragmina and Lepidocyclina from the Tertiary of Java'. Description of new genus and species Orthocyclina soeroeanensis from Kali Soeroean, Bagelen area, C Java. Looks like an advanced M-L Miocene radiate Lepidocyclina (Trybliolepidina). Names never used by later workers; JTvG)

Van der Vlerk, I.M. (1924)- *Miogypsina Dehaartii* nov. spec. de Larat (Moluques). Eclogae Geologicae Helvetiae 18, p. 429-431.
(online at: http://retro.seals.ch/cntmng?type=pdf&rid=egh-001:1923-1924:18::764&subp=hires)
(New miogypsinid larger foram species from Larat, an island off SW coast of New Guinea, collected by BPM geologist De Haart. No locality info. No lateral chambers, so should be assigned to genus Miogypsinoides. See also Van der Vlerk 1966)

Van der Vlerk, I.M. (1924)- De verspreiding van het foraminiferengeslacht *Lepidocyclina* en haar beteekenis voor de palaeogeographie. Handelingen 3e Nederlandsch-Indisch Natuurwetenschappelijk Congres, Buitenzorg 1924, p. 371-380.
('The distribution of the foraminiferal genus Lepidocyclina and its significance for paleogeography')

Van der Vlerk, I.M. (1925)- Het foraminiferen genus *Spiroclypeus* en zijn beteekenis voor de stratigraphie van het Tertiair van den Indo-Australischen Archipel. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 8 (Gedenkboek Verbeek, memorial volume), p. 561-568.
(online at: https://books.google.com/books?id=Yy0RAAAAIAAJ&pg)
('The larger foram genus Spiroclypeus and its significance for the stratigraphy of the Tertiary of the Indo-Australian Archipelago')

Van der Vlerk, I.M. (1928)- Het genus *Lepidocyclina* in het Indo-Pacifische gebied. Wetenschappelijke Mededeelingen Dienst Mijnbouw Nederlandsch-Indie, 8, p. 7-86.
(Classification of Indo-Pacific Lepidocyclina, primarily based on characteristics of embryon: Eulepidina, Trybliolepidina, Nephrolepidina, Isolepidina and Pliolepidina. Incl. Lepidocyclina boetonensis n.sp. from Eo-Oligocene of Buton)

Van der Vlerk, I.M. (1928)- The genus *Lepidocyclina* in the Far East. Eclogae Geologicae Helvetiae 21, 1, p. 182-211.
(online at: http://retro.seals.ch/cntmng?type=pdf&rid=egh-001:1928:21::604&subp=hires)
(Early review of Oligo-Miocene larger foram genus Lepidocyclina. With species determination table)

Van der Vlerk, I.M. (1931)- Cenozoic Amphineura, Gastropoda, lamellibranchiata, Scaphopoda. In: B.G. Escher et al. (eds.) De palaeontologie en stratigraphie van Nederlandsch Oost-Indie, Leidsche Geologische Mededelingen 5 (K. Martin memorial volume), p. 206-296.
(online at: https://repository.naturalis.nl/pub/505678)
(Listing of all (100s) Cenozoic mollusc species described from Indonesia before 1931, mainly by K. Martin)

Van der Vlerk, I.M. (1950)- Stratigraphy of the Caenozoic of the East Indies based on foraminifera. Report 18th International Geological Congress, Great Britain 1948, 15, p. 61-63.
(Summary of Tertiary larger foram Ta-Tg 'Letter zonation' used in shallow marine carbonates of Indonesia)

Van der Vlerk, I.M. (1951)- Tabulation of determinations of larger foraminifera. In: M. Reinhard & E. Wenk (eds.) Geology of the Colony of North Borneo, Bull. Geological Survey Department, British Territories in Borneo 1, p. 137-145.
(Incl. samples from Banggi and Kudat areas of E Miocene limestones with reworked Eocene Pellatispira, Discocyclina, etc.)

Van der Vlerk, I.M. (1955)- Correlation of the Tertiary of the Far East and Europe. Micropaleontology 1, p. 72-75.
(One of the first and basically correct, correlations of the 'Far East Letter Classification' (Cenozoic larger foraminifera zonation) with successions in Pakistan, Middle East and France)

Van der Vlerk, I.M. (1959)- Problems and principles of Tertiary and Quaternary stratigraphy. Quarterly J. Geological Society, London, 115, p. 49-63.

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(Description of type specimen of M-L Miocene Lepidocyclina radiata from south coast of W Java)

Van der Vlerk, I.M. (1963)- Biometric research on *Lepidocyclina*. Micropaleontology 9, p. 425-426.
(On evolutionary tendency in iso-, nephro- and trybliolepidine embryons in Lepidocyclina embryon of deuteroconch to enclose protoconch to an increasing degree. Measured as 'grade of enclosure, maximum values increase from 25-30% in Late Eocene, 40-45% in Late Oligocene, 45-50% at Te-Tf boundary and 50-55% in E Miocene/ Burdigalian)

Van der Vlerk, I.M. (1966)- Stratigraphie du Tertiare des domaines Indo-Pacifiques et Mesogeen (essai de correlation). Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, B69, 3, p. 336-344.
('Stratigraphy of the Tertiary of the Indo-Pacific and Mesogean domains (attempt of correlation)'. Stratigraphic correlations between Far East and Europe using evolutionary stages of Lepidocyclina)

Van der Vlerk, I.M. (1968)- Evolutie van een embryo. Geologie en Mijnbouw 47, 2, p. 121-125.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0TklUS0F0Zkt5T0k/view)
('Evolution of an embryon'. Evolution of Late Oligocene- Miocene Lepidocyclina embryon can be measured as 'degree of curvature', which can then be used for age determination and correlations. With example of values in East Java- Madura stratigraphy)

Van der Vlerk, I.M. (1968)- Two methods of worldwide correlation. Micropaleontology 14, 3, p. 334-338.
('Degree of curvature' preferred over 'Grade of enclosure' method to characterize evolutionary stage of Lepidocyclina)

Van der Vlerk, I.M. (1973)- Nomenclature and numerical taxonomy (name and number). Verhandelingen Naturforschenden Gesellschaft Basel 84, 1 (Kugler memorial Volume), p. 245-255.
(On the different ways of classifying Lepidocyclina)

Van der Vlerk, I.M. (1973)- An improved method of biometric research. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, B76, 4, p. 245-259.

Van der Vlerk, I.M. & D.D. Bannink (1969)- Biometrical investigations on *Operculina*. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, B 72, 3, p. 169-174.
(Includes measurements on Operculina foram material from SE Asia. Observed gradual decrease in grade of enclosure of second chamber by third in specimens from Eocene- Recent)

Van der Vlerk, I.M. & R.E. Dickerson (1927)- Distinctions among certain genera of larger foraminifera for the field geologist of the East Indies. Journal of Paleontology 1, 3, p. 185-192.
(Brief paper on how larger foraminifera genera can be used by field geologists to determine broad ages of Tertiary limestones)

Van der Vlerk, I.M. & H. Gloor (1968)- Evolution of an embryo. Genetica 39, p. 45-63.
(Measurements on embryonic shambers of Lepidocyclina from Java and Madura. Extent to which deuteroconch encloses protoconch or extent to which dividing-wall between them is curved ("degree of curvature") increases from 10% in M Oligocene to 67% in M Miocene. Rate of evolution changes from very slow to very fast to slow

again and to fast again. First rapid change in M Oligocene when genus migrated from America to Europe and to Far East- Australia. Second phase of rapid evolution from earliest Miocene up to extinction of genus)

Van der Vlerk, I.M. & J.H.F. Umbgrove (1927)- Tertiaire gidsforaminiferen van Nederlandsch Oost Indie. Wetenschappelijke Mededeelingen Dienst Mijnbouw Nederlandsch Oost-Indie 6, p. 1-45.
(online at: https://resolver.kb.nl/resolve?urn=MMKB24:067734000:pdf)
('Tertiary index fossils from the Netherlands East Indies'. Small guidebook describing and illustrating the main index larger foram genera in the Tertiary of Indonesia. The first paper to define a 'Letter Table' for subdivision of the Tertiary of the Netherlands Indies, with subdivisions a-f, based on vertical distribution of larger foraminifera genera. This would become known as the 'East Indies Letter Classification' (Adams, 1970))

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(online at: www-odp.tamu.edu/publications/121_SR/VOLUME/CHAPTERS/sr121_03.pdf)
(Upper Cretaceous- Oligocene planktonic foram biostratigraphy of Indian Ocean ODP sites along Ninety-East Ridge, W and SW of Sumatra. Most intervals reflect temperate- subtropical climate)

Van Eijden, A.J.M. & G.M. Ganssen (1995)- An Oligocene multi-species foraminiferal oxygen and carbon isotope record from ODP Hole 758A (Indian Ocean): paleoceanographic and paleo-ecologic implications. Marine Micropaleontology 25, p. 47-65.
(Oligocene- basal Miocene (Zones P19-P22/N4) O and C isotope stratigraphy of benthic and plankonic forams from E Indian Ocean ODP Hole 758A. Lack of covariance in planktic and benthic δ18O ratios indicates that many Oligocene sea level fluctuations, including major fall at 30 Ma, not of glacio-eustatic origin)

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Van Gorsel, J.T. (1987)- Depositional sequence stratigraphy. Short Course, Indonesian Association of Geologists (IAGI), Jakarta, p. 1-180.
(Course notes for first 2-day sequence stratigraphy course in Indonesia)

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(online at: https://www.researchgate.net/publication/323775420_Biostratigraphy_in_Indonesia_methods_pitfalls_and_new_directions)
(Overview of methods, zonations, facies interpretations, etc., in Indonesian Tertiary biostratigraphy)

Van Gorsel, J.T. (2014)- An introduction to Cenozoic macrofossils of Indonesia. Berita Sedimentologi 30, p. 63-76.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/137)
(Brief overview of principal groups and literature of Cenozoic macrofossils known from outcrops in Indonesia. Prior to 1930's macrofossils (mainly molluscs), were principal objects of paleontological and biostratigraphic studies in Indonesia. Since then focus shifted to microfossils. Cenozoic marine macrofossil assemblages from Indonesia all represent tropical faunas of Indo-Pacific province affinity)

Van Gorsel, J.T., P. Lunt & R. Morley (2014)- Introduction to Cenozoic biostratigraphy of Indonesia- SE Asia. Berita Sedimentologi 29, p. 6-40.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/download/140/110)
Overview of Cenozoic biostratigraphy and biofacies interpretation of SE Asia. Principal microfossil groups used in region are foraminifera, calcareous nannofossils and palynology. Also brief reviews of work on ostracodes, diatoms and radiolaria)

Van Konijnenburg-van Cittert, J.H.A., I.M. van Waveren & J. Jonkers (2004)- Catalogue of the Mesozoic and Cenozoic holotypes in the collection of plant fossils in the Nationaal Natuurhistorisch Museum, Leiden. Nationaal Natuurhistorisch Museum (NNM) Technical Bulletin 7, p. 1-27.
(online at: www.repository.naturalis.nl/document/43244)
(Inventory of holotypes of fossil plants in Leiden Naturalis museum collections, mainly from Tertiary in Java, in 'Martin Collection'. Incl. Jurassic Novoguineoxylon lacunosum from Kamundan (W Papua), species from Java Mio-Pliocene described by Goeppert (1854), Crie (1888), Krausel) (1926, etc.)

Van Regteren Altena, C.O. (1938)- Renamed Mollusca from the Dutch East Indian Tertiary. Natuurkundig Tijdschrift voor Nederlandsch-Indie 98, p. 209-212.
(Listing of proposed nomenclatural changes for mollusc names described from Indonesia by K. Martin)

Van Straelen, V. (1931)- Arthropoda. In: B.G. Escher et al. (eds.) Onze palaeontologische kennis van Nederlandsch Oost Indie, Leidsche Geologische Mededelingen 5 (Feestbundel K. Martin), p. 156-163.
(online at: www.repository.naturalis.nl/document/549583)
(Listings of arthropod fossils from Indonesia, as known in 1931: (1) Permian trilobites (Phillipsia, Neoproetus indicus, Griffithides sumatrensis) from Timor, Leti, Sumatra, W Papua; (2) Neogene ostracodes, (3) Cenozoic crab fossils from Java, Kalimantan, Sulawesi, W Papua and M Jurassic Eryma boehmi n.sp. from of Jefbie, Misool)

Van Straelen, V. (1938)- Crustaces decapodes Cenozoiques des Indes Orientales neerlandaises. Leidsche Geologische Mededelingen 10, p. 90-103.
(online at: www.repository.naturalis.nl/document/549700)
('Cenozoic decapod crustaceans from the Netherlands East Indies'. Review of Neogene crab fossils from Neogene of Java (Calappa sangiranensis n.sp., Philyra, Ixoides, Cancer javanicus n.sp, etc.), Madura (Calappa madoerensis n. sp.), Eocene of Sumba (Ranina (Lophoranina) soembaensis n.sp.), etc.)

Van Vessem, E.J. (1977)- The internal structure of *Miogypsina polymorpha* and *Miogypsina bifida*. Proc. Koninklijke Nederlandse Akademie van Wetenschappen B80, 5, p. 421-428.
(Study of two Miogypina (Lepidosemicyclina) species, originally described by Rutten (1911, 1912) from E Kalimantan, based on material from E Kalimantan and E Java. M. (L) polymorpha may be ancestor of M (L.) bifida))

Van Vessem, E.J. (1978)- Study of Lepidocyclinidae from Southeast Asia, particularly from Java and Borneo. Utrecht Micropaleontological Bulletin 19, p. 1-163.
(online at: https://dspace.library.uu.nl/handle/1874/205830)
(Quantitative study of lepidocyclinids of Nephrolepidina group from 42 samples from N Borneo (Klias Peninsula, Kinabatangan River), E Kalimantan (Kutei, Sangkulirang), C and E Java (Lodan, Tremboel, Boegoel wells) and Madura. Assemblages subdivided into five successive biometric units, called species: L. isolepidinoides, L. sumatrensis, L. angulosa, L. martini and L. rutteni)

Varol, O. (1983)- Proposed calcareous nannofossil zonation scheme for the Miocene to Holocene of Southeast Asia. Bull. Geological Society Malaysia 16, p. 37-46.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1983004.pdf)
(Miocene- Recent SE Asia calcareous nannofossil zonation, modified from schemes of Martini (1971) and Okada & Bukry (1980))

Vermeij, G.J. & H. Raven (2009)- Southeast Asia as the birthplace of unusual traits: the Melongenidae (Gastropoda) of northwest Borneo. Contributions to Zoology 78, 3, p. 113-127.
(online at: http://dpc.uba.uva.nl/cgi/t/text/get-pdf?idno=m7803a03;c=ctz)
(On characteristics of large Melongena-type gastropods from Miocene-Recent of Sarawak- Brunei)

Vincent, E. (1977)- Indian Ocean Neogene planktonic foraminiferal biostratigraphy and its paleoceanographic implications. In: J. Heirtzler (ed.) Indian Ocean geology and biostratigraphy, American Geophysical Union (AGU) Memoir, Chapter 20, p. 469-584.
(Classic documentation of northern Indian Ocean Neogene planktonic foraminifera)

Wade, B.S., P.N. Pearson, W.A. Berggren & H. Palike (2011)- Review and revision of Cenozoic tropical planktonic foraminiferal biostratigraphy and calibration to the geomagnetic polarity and astronomical time scale. Earth-Science Reviews 104, p. 111-142.
(Modern review of calibration of planktonic foraminiferal datum levels to the geomagnetic polarity and astronomical time scale)

Wagner, C.W. (1964)- Manual of larger foraminifera. Bataafsche Internationale Petroleum Mij (BPM), The Hague, p. 1-307.
(Well-illustrated Shell manual of worldwide Mesozoic-Cenozoic and Paleozoiclarger foraminifera. Unpublished, but distributed among various academic institutions (although not always specifically mentioned, several of the illustrated genera are from the Indonesian region; JTvG)

Whipple, G.L. (1934)- Larger foraminifera from Vitulevu, Fiji. In: H.S. Ladd, Geology of Vitulevu, Fiji, Bernice P. Bishop Museum Bull. 119, p. 141-154.
(3 larger foram horizons on Fiji, all Te, Early Miocene)

Wright, J.D. & R.C. Thunell (1988)- Neogene planktonic foraminiferal biogeography and paleoceanography of the Indian Ocean. Micropaleontology 34, 3, p. 193-216.
(Indian Ocean planktonic foraminiferal biogeography examined in DSDP sites for 5 Neogene time-slices and used to reconstruct surface circulation patterns. Closure of Indo-Pacific passage at end of E Miocene strengthened low-latitude circulation in Indian Ocean and led to development of distinct tropical and subtropical faunal provinces. Global cooling during M-L Miocene resulted in steeper latitudinal temperature gradients and enhanced faunal provincialization)

Yabe, H. (1921)- Notes on some Eocene foraminifera, III. Notes on *Pellatispira* Boussac. Science Reports Tohoku Imperial University, 2nd ser. (Geol.), 5, p. 106-108.
(online at: https://tohoku.repo.nii.ac.jp/record/10618/files/KJ00004176256.pdf)
(General discussion of Eocene larger foram Pellatispira, partly based on material from Borneo and Japan)

Young, J.R. (1998)- Neogene. In: P.R. Bown (ed.) Calcareous nannofossil biostratigraphy, Chapter 8, British Micropalaeontological Society Publications Series, Chapman & Hall, p. 225-265.
(Thorough review of Miocene-Pliocene calcareous nannofossils and biozonations)

Zachariasse, W.J., W.A. Berggren, W. Si & B.T. Huber (2017)- On the taxonomic identity of the planktonic foraminiferal species *Globorotalia barisanensis* Le Roy, 1939. J. Foraminiferal Research 47, 4, p. 389-398.
(online at: https://pdfs.semanticscholar.org/fc9d/05e55c75424d1fd9590ca8ec7cbfe39d4a51.pdf)
(Holotype of Globorotalia barisanensis Le Roy 1939 from M Miocene Lower Palembang Fm in upper Kassikan section, Tapung Kiri River, C Sumatra, is non-keeled species, transitional between Gr. peripheroacuta and Gr praefohsi (zones N10-N11). Holotype should be viewed as senior synonym of Gr. peripheroacuta, but more practical to conserve latter name)

Zachariasse, W.J. & Sudijono (2012)- New data on the morphology and classification of the Oligocene-Miocene planktonic foraminifer *Paragloborotalia siakensis* (LeRoy, 1939). J. Foraminiferal Research 42, 2, p. 156-168.
(SEM images of specimens of 'Globigerina siakensis' from near its type locality in C Sumatra show spinose test and straight intercameral sutures on spiral side of test. Globorotalia mayeri has curved spiral-side intercameral sutures and lacks spinosity)

XI.4. Jurassic- Cretaceous

Numerous additional papers with Jurassic-Cretaceous biostratigraphy content but are case studies specific to certain areas, are listed under those areas, and are not repeated here.

This chapter does include several papers on Jurassic-Cretaceous faunas-floras outside Indonesia that may help in the interpretation of related occurrences in Indonesia.

Arkell, W.J. (1954)- Indo-China, Hongkong and Indonesia (Ch. 17) and New Guinea, New Caledonia, New Zealand and Australia. In: Jurassic geology of the world, Oliver and Boyd, Edinburgh, Chapter 18, p. 431-462.
(Old review of knowledge of Jurassic stratigraphies, incl. the Indonesian region (Sumatrra, Borneo, eastern Indonesia, New Guinea). Late Jurassic deposition in eastern Indonesia (Misool, Sula islands, Rotti, Timor, etc.), and New Guinea is in direct communicaton with that of the Himalayas, as suggested by macrofossil assemblages (Tethyan N Gondwana))

Baumgartner, P.O., A. Bartolini, E.S. Carter, M. Conti, G. Cortese, T. Danelian, P. De Wever et al. (1995)- Middle Jurassic to Early Cretaceous radiolarian biochronology of Tethys based on Unitary Associations. In: P.O. Baumgartner et al. (eds.) Middle Jurassic to Lower Cretaceous Radiolaria of Tethys: occurrences, systematics, biochronology, Memoires Geologie, Lausanne, p.

Baumgartner, P.O., L. O'Dogherty, S. Gorican, E. Urquhart, A. Pillevuit & P. de Wever (eds.) (1995)- Middle Jurassic to Lower Cretaceous radiolaria of Tethys: occurrences, systematics, biochronology. InterRad Jurassic-Cretaceous Working Group, Memoires Geologie (Universite de Lausanne) 23, p. 1-1172.
(Key publication on M Jurassic- E Cretaceous radiolaria from Tethys region, mainly western Tethys and Japan)

Baumgartner, P.O., L. O'Dogherty, S. Gorican, R. Dumitrica-Jud, P. Dumitrica, A. Pillevuit, E. Urquhart, A. Matsuoka et al. (1995)- Radiolarian catalogue and systematics of Middle Jurassic to early Cretaceous Tethyan genera and species. In: P.O. Baumgartner et al. (eds.) Middle Jurassic to Lower Cretaceous Radiolaria of Tethys: occurrence, systematics, biochronology. Memoires Geologie (Universite de Lausanne) 23, p. 37-685.

Beauvais L. (1989)- Jurassic corals of the Circum-Pacific area. Memoir Assoc. Australasian Palaeontologists (AAP) 8, p. 291−302.

Beauvais, L., M.C. Bernet-Rollande & A. Maurin (1985)- Reinterpretation of Pretertiary classical reefs from Indo-Pacific Jurassic examples. In: C. Gabrie & M. Harmelin (eds.) Proc. Fifth International Coral Reef Congress, Tahiti 1985, 6, Misc. Paper (B), p. 581-586.
(Jurassic carbonate mounds in W Thailand (M-U Jurassic, Mae Sot basin), C Sumatra (U Jurassic, Padang-Tembesi River) and Philippines (M Jurassic, Mindoro, U Jurassic Calamian Isl.) not 'reefs' like present day reefs. Corals typically float in lime mud matrix and are mainly digitate or lamellar, to cope with muddy conditions. Calcareous sponges also common. Main rock-building organisms are Bacinellid- Lithocodium- stromatolite assemblage, as encrusters over exotic grains or as single builder. Jurassic corals, sponges etc., have no major rock building potential)

Beauvais, L., H. Fontaine & A. Maurin (1987)- A review of recent data on mud-mounds discoveries in Asia. Oil and Gas Geology 1987, 12, p. 373-376.
(Many of Mesozoic carbonates in SE Asia are probably microbial mud mounds, not reefs: Jurassic of Sumatra, Thailand, Burma, Philippines, Sarawak-Kalimantan)

Belford D.J. & V. Scheibnerova (1971)- Turonian foraminifera from the Carnarvon Basin, Western Australia, and their palaeogeographical significance. Micropaleontology 17, p. 331-344.
(Presence of E-M Turonian planktonic foraminifera Praeglobotruncan stephani, P. hagni, P. imbricata, P. helvetica and Hedbergella spp from wells in Carnarvon Basin show Tethyan character)

Bolli, H.M. (1974)- Jurassic and Cretaceous calcisphaerulidae from DSDP Leg 27, Eastern Indian Ocean. In: J.J. Veevers et al. (eds.) Initial Reports Deep Sea Drilling Project (DSDP) 27, p. 843-907.

(online at: www.deepseadrilling.org/27/volume/dsdp27_39.pdf)
(19 new species of Pithonella, family Calcisphaerulidae, from U Jurassic and Cretaceous sediments from Sites 259, 260, 261, and 263 of Leg 27 in E Indian Ocean. Previously, calcisphaerulidae (av. size 40-120μ) described only from thin sections, like Stomiosphaeridae and Cadosinidae from Late Jurassic- earliest Cretaceous pelagic limestones of Seram, Timor, Roti, Buton and Misool by Wanner 1940 and Vogler 1941)

BouDagher-Fadel, M.K. (2008)- The Mesozoic larger benthic foraminifera: the Jurassic. In: Evolution and geological significance of larger benthic foraminifera, Chapter 4, Developments in Palaeontology and Stratigraphy, Elsevier, 21, p. 157-213.
(General review of Jurassic larger foraminifera)

Boudagher-Fadel, M.K. & G.D. Price (2019)- Global evolution and paleogeographic distribution of mid-Cretaceous orbitolinids. UCL Press, University College London, p. 1-21.
(online at: https://www.scienceopen.com/document?vid=c36a0eb8-aaf1-4f37-87e7-009f3718bea3)
(Review of Aptian- Cenomanian larger foraminifera Orbitolina. Includes new material from W flank of Meratus Mountains, S Kalimantan, identified here as Late Aptian- E Albian Mesorbitolina texana, Palorbitolinoides orbiculata, Mesorbitolina subconcava and Conicorbitolina sp.)

Brunnschweiler, R.O. (1963)- A review of the sequence of *Buchia* species in the Jurassic of Australasia. Proc. Royal Society of Victoria 76, p. 163-168.
(On ranges of Buchia (= Aucella) bivalve mollusc species in Oxfordian-Tithonian. Now assigned to genus Malayomaorica)

Challinor, A.B. (1989)- The succession of *Belemnopsis* in the Late Jurassic of Eastern Indonesia. Palaeontology 32, 3, p. 571-596.
(online at: https://www.palass.org/publications/palaeontology-journal/archive/32/3/article_pp571-596)
(Belemnopsis from Misool and Sula all part of B. moluccana lineage. Misool Late Jurassic stratigraphy condensed rel. to Sula. Misool: 85m of Oxfordian Demu Fm carbonate/ shale overlain by ~100m of Kimmeridgean-Tithonian Lelinta shale with minor sandstone)

Challinor, A.B. (1991)- Belemnite successions and faunal provinces in the Southwest Pacific, and the belemnites of Gondwana. BMR J. Australian Geology Geophysics 12, 4, p. 301-325.
(online at: www.ga.gov.au/corporate_data/81298/Jou1991_v12_n4_p301.pdf)
(M Jurassic- E Cretaceous belemnites from SW Pacific, New Guinea, Misool, Sula, tied to dinoflagellate zonations. Two belemnite provinces in SW Pacific region from M Jurassic- E Cretaceous: (1) Tethyan: E Indonesia, W Papua, PNG, parts of N and W Australia; (2) S Pacific: New Zealand, most of Australia)

Challinor, A.B. (1992)- Belemnites of the Southwest Pacific. In: G.E.G. Westermann (ed.) The Jurassic of the Circum-Pacific, World and Regional Geology 3, Cambridge University Press, p. 308-309.
(Brief summary of Jurassic belemnites in E Indonesia, PNG, New Zealand. Three main assemblages Dicoelites-Conodicoelites (Late Bajocian- E Oxfordian), Hibolithes (late Callovian- Oxfordian) and Belemnopsis (basal Oxfordian- latest Tithonian))

Cloos, H. (1916)- Doggerammoniten aus den Molukken. I. Text. Habilitationsschrift, Hohen Phil. Fakultat Konigliche Universitat Marburg, Schweizerbart, Stuttgart, p. 1-50.
('Dogger (= M Jurassic) ammonites from the Moluccas'. 'Habilitation' thesis on Hammoceratid ammonites from Misool and Mangoli, and Stephanoceratids from Mangoli and Taliabu. Text volume only; part 2 never published due to WWI)

Colom, G. (1965)- Essais sur la biologie, la distribution geographique et stratigraphique des Tintinnoidens fossiles. Eclogae Geologicae Helvetiae 58, 1, p. 319-334.
(online at: http://dx.doi.org/10.5169/seals-163267)

('Review of the biology, geographic and stratigraphic distribution of the fossil Tintinnids'. Classic paper on Jurassic-Cretaceous tintinnid nannofossils, incl. records of Late Jurassic Calpionella alpina group in PNG (Maril Shale; Rickwood 1955) N Australia (Brunnschweiler, 1960))

Cookson, I.C. & A. Eisenack (1958)- Microplankton from Australia and New Guinea Upper Mesozoic sediments. Proc. Royal Society of Victoria 70, p. 19-79.
(online at: http://takata.slv.vic.gov.au/...)
(Early paper of Late Jurassic- Early Cretaceous dinoflagellates. Mainly taxonomic descriptions of 75 species from Australian NW shelf, some from PNG (Omati River, Era River))

Cookson, I.C. & A. Eisenack (1960)- Upper Mesozoic microplankton from Australia and New Guinea. Palaeontology 2, 2, p. 243-261.
(online at: http://cdn.palass.org/publications/palaeontology/volume_2/pdf/vol2_part2_pp243-261.pdf)
(Upper Jurassic- basal Cretaceous dinoflagellates and hystrichospheres from Canning basin, W Australia and other localities in Australia and New Guinea)

Cookson, I.C. & A. Eisenack (1974)- Mikroplankton aus Australischen Mesozoischen und Tertiaeren Sedimenten. Palaeontographica, B, Palaeophytologie, 148, p. 44-93.
('Microplankton from Australian Mesozoic and Tertiary sediments')

Crame, J.A. (1983)- The occurrence of the Upper Jurassic bivalve *Malayomaorica malayomaorica* (Krumbeck) on the Orville Coast, Antarctica. J. Molluscan Studies 49, p. 61-76.
(online at: http://mollus.oxfordjournals.org/content/49/1/61.full.pdf
(First record of Malayomaorica malayomaorica in Antarctica. Late Jurassic bivalve species (originally assigned to Aucella, then Buchia) mainly limited to Kimmeridgean. Appears to be typical of Late Jurassic margins of Gondwanaland, including NW Australia, New Zealand, New Caledonia and E Indonesia (Misool, Timor, New Guinea, Sula, E Sulawesi, Ceram, Buru; JTvG)

Dhondt, A.V. (1992)- Cretaceous inoceramid biogeography: a review. Palaeogeogr. Palaeoclim. Palaeoecology 92, p. 217-232.
(Cretaceous inoceramid bivalves did not thrive in shallow or warm seas, and therefore rare in Tethyan shallow deposits. Occur mainly in temperate seas, and distribution often bipolar. Not much on SE Asia)

Fontaine, H. & L. Beauvais (1986)- Distribution of the Jurassic corals in Southeast Asia. In: P.Q. Tuong (ed.) Proc. First Conf. Geology of Indochina, Ho Chi Minh City 1986, Gen. Dept. of Geology Vietnam, 1, p. 137-145.
(On Jurassic corals from S Vietnam, Cambodia, S Laos, Philippines (Mindoro, Calamian Islands, NE Palawan), Borneo (W Sarawak, W Kalimantan), Sumatra, Thailand (Mae Sot))

Hallam, A. (1977)- Jurassic bivalve biogeography. Paleobiology 3, p. 58-73.
(No maps. Incl. Late Jurassic SW Pacific Province: with Malayaomaorica as only endemic bivalve genus. Same or closely re lated species in Spiti Shales of Himalayas. Buchia and Retroceramus abundant in the Arctic/ Antarctic, but also common in lower latitudes)

Hayami, I. (1984)- Jurassic marine bivalve faunas and biogeography in Southeast Asia. In: T. Kobayashi et al. (eds.) Geology and Palaeontology of Southeast Asia 25, University of Tokyo Press, p. 229-237.
(Unique E Jurassic (Pliensbachian?) heavy bivalve assemblage from Timor with Lithiotis, Pachymegalodon, Gervilleioperna, etc. described from Fatu Lst of Timor by Krumbeck (1923). Upper Jurassic bivalves in W Borneo part of East Asian Province with Philippines and Japan. Timor-Roti, Seram, Misool, etc., are part of Maorian Province with Malayomaorica and Retroceramus haasti)

Hofker, J., Jr. (1963)- Studies on the genus *Orbitolina* (Foraminiferida). Leidsche Geologische Mededelingen 29, p. 181-253.
(online at: https://repository.naturalis.nl/pub/505874)

(Study of mid-Cretaceous (Barremian-Cenomanian) 'Tethyan' larger foram genus Orbitolina. Includes material from W Kalimantan Seberuang area (collected by Van Schelle and Wing Easton), and classified as relatively primitive 'Group I- Lower Aptian' species (N.B. Schlagintweit and Simmons (2023) assigned 'Orbitolina' from Borneo to subgenus Palorbitolina lenticularis, signifying late Barremian- E Aptian age; JTvG)

Iba, Y. & S. Sano (2006)- *Mesorbitolina* (Cretaceous larger foraminifera) from the Yezo Group in Hokkaido, Japan and its stratigraphic and paleobiogeographic significance. Proc. of the Japan Academy, B, 82, 7, p. 216-223.
(online at: https://www.jstage.jst.go.jp/article/pjab/82/7/82_7_216/_pdf)
('Tethyan' low-latitude Aptian Orbitolina (Mesorbitolina) parva from limestone olistoliths from olistostrome horizon in lower Yezo Group, Hokkaido, represent first report of this species from Circum-North Pacific)

Iba, Y., S. Sano & T. Miura (2011)- Orbitolinid foraminifers in the Northwest Pacific: their taxonomy and stratigraphy. Micropaleontology 57, 2, p. 163-171.

(Four 'Tethyan' orbitolinid larger foram species ('Palorbitolina lenticularis', Praeorbitolina cf. wienandsi, Mesorbitolina parva, M. texana) recognized in Late Hauterivian- Early Albian of Japan and South Sakhalin)

Jaworski, E. (1931)- Ueber *Arnioceras geometricum* Oppel 1856 und verwandte Spezies; nebst einem Anhang uber *Arnioceras natrix* v. Schlotheim 1820. Neues Jahrbuch Mineralogie Geologie Palaontologie, Beilage Band 65, B, p. 83-140.
('Arnioceras geometricum Oppel (1856) and related species; with Appendix on Arnioceras natrix v. Schloth. 1820'. Preliminary results of study on Early Jurassic ammonites from Netherlands Indies (Babar island, etc.))

Jaworski, E. (1933)- Revision der Arieten, Echioceraten und Dactylioceraten des Lias von Niederlandisch-Indien. Neues Jahrbuch Mineralogie Geologie Palaontologie, Abhandlungen, Beilage Band 70, B, p. 251-333.
(online at: http://mmtk.ginras.ru/pdf/Jaworski_1933_J_Arieten_Indonesia_HI.pdf)
('Revision of the Arietidae, Echioceratidae and Dactylioceratidae from the Liassic of Netherlands Indies'. Mainly taxonomic descriptions of Early Jurassic ammonites from Roti, Babar, Timor and Sula Islands from collections in Amsterdam, Leiden, Utrecht, Delft, Bonn, Berlin and Basel: Arnioceras spp., Arieticeras, Dactylioceras spp., Coeloceras moermanni, Euechioceras wichmanni, etc. Little on stratigraphy, no locality maps)

Jeletzky, J.A. (1963)- *Malayomaorica* gen. nov. (Family Aviculopectinidae) from the Indo-Pacific Upper Jurassic, with comments on related forms. Palaeontology 6, p. 148-160.
(online at: http://palaeontology.palass-pubs.org/pdf/Vol%206/Pages%20148-160.pdf)
(S Hemisphere Late Jurassic bivalves described as Buchia and Aucella differ from N Hemisphere-Boreal Buchia, therefore assigned to new genus Malayomaorica. Typical of Kimmeridgean of Gondwana margin, including NW Australia, New Zealand New Guinea, Misool, Sula, E Sulawesi, Timor, Ceram, Buru; JTvG)

Kobayashi, T. (1978)- The Jurassic palaeogeography of Japan and Southeast Asia. Proc. of the Japan Academy, Series B, 54, 10, p. 583-588.
(online at: https://www.jstage.jst.go.jp/article/pjab1977/54/10/54_10_583/_pdf/-char/en)
(Review of Jurassic facies in Japan and across SE Asia, Shallow marine E Jurassic facies inSumatra and NW Kalimantan. Also Jurassic--Cretaceous marine sequence in Sarawak. With one small E Jurassic facies map (no mention of widespread marine Jurassic in East Indonesia- New Guinea; JTvG))

Kobayashi, T. (1979)- The *Trigonioides* basins and the Cretaceous palaeogeography of East and Southeast Asia. Proc. of the Japan Academy, Series B, 55, B 1, p. 1-5.
(online at: https://www.jstage.jst.go.jp/article/pjab1977/55/1/55_1_1/_pdf)
(On distribution of Early-Middle Cretaceous non-marine bivalve mollusc Trigonioides in SE Asia, including in continental facies of Rantaulajung Fm near Martapura, SE Kalimantan with Upper Cretaceous conchostracans)

Kruizinga, P. (1931)- Cephalopoda. In: B.G. Escher et al. (eds.) De palaeontologie en stratigraphie van Nederlandsch Oost-Indie, Leidsche Geologische Mededelingen 5 (K. Martin memorial volume), p. 297-389.

(online at: www.repository.naturalis.nl/document/549628)
(Summary of state of knowledge of ammonites and belemnites in Indonesia in 1931. Highest number of species known is from Timor. Other significant cephalopd faunas on Roti, Sula Islands, Buru and Misool. Most known species of Triassic age, other rich faunas of Jurassic and Permian, but relatively few species from Cretaceous)

Leinfelder, R.R., D.U. Schmid, M. Nose & W. Werner (2002)- Jurassic reef patterns- the expression of a changing globe. In: W. Kiessling et al. (eds.) Phanerozoic Reef Patterns, Society for Sedimentary Geology (SEPM) Special Publ. 72, p. 465-520.
(online at: http://userpage.fu-berlin.de/leinfelder/palaeo_de/leinfelder/rrlprints/Leinfelder_etal_2002_lr.pdf)
(Includes brief discussions of Jurassic carbonates of W Thailand, Sumatra and Philippines. Early- Middle Jurassic reefs absent in SE Asia, except small Lithiotis bivalve mounds on Timor, due to end-Triassic extinction event, etc. Minor Late Jurassic reefs in Sumatra and Bau Limestone of Sarawak- NW Kalimantan border area)

Leupold, W. & W. Maync (1935)- Das Auftreten von *Choffatella*, *Pseudocyclammina*, *Lovcenipora* (*Cladocoropsis*) und *Clypeina* im alpinen Faziesgebiet. Eclogae Geologicae Helvetiae 28, p. 129-139.
(online at: http://retro.seals.ch/digbib/view?pid=egh-001:1935:28::191)
('The occurrences of Choffatella, Pseudocyclammina, Lovcenipora (Cladocoropsis) and Clypeina in the Alpine facies region'. First record of Late Jurassic Pseudocyclammina associated with Cladocoropsis mirabilis Felix from Switzerland. Assemblage formerly known from Japan and Barisan Mts of Sumatra (see also Maync 1952))

Livsey, A.R., D.J. Mantle, C.D. Bates & A.J. Charles (2024)- The use of quantitative palynology in Pre-Tertiary hydrocarbon exploration and development in Eastern Indonesia. Proc. 48th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA24-SS-03, p. 2006-2015.
(Review of Jurassic- E Cretaceous palynology method and zonation, as used in NW Australian shelf and in Bintuni Basin of W Papua. With biozonation charts. (thin on stratigraphic results in E Indonesia; JTvG))

Mamgain, V.D. & B.R.J. Rao (1965)- Orbitolines from the limestone intercalations of Dras Volcanics, Jammu and Kashmir State. J. Geological Society India 6, p. 122-129.
(Rich and well-preserved E Cretaceous Orbitolina (incl. Orbiqia drasensis n.sp.) in limestone intercalations in volcanic rocks of Dras, in Jammu and Kashmir state (Ladakh, N India). Also Orbitolina trochus. Barremian-Aptian age (Orbiqia now accepted as Mesorbitolina; = part of the intra-Neo?Tethyan Dras-Kohistan-Ladakh volcanic arc? = related to Woyla terrane of Sumatra?; JTvG))

Matsumaru, K., M. Aizawa, K. Mukai & A. Furusawa (2007)- Note of orbitolinid foraminifera from the Lower Aptian (Cretaceous) Shimanoshita Mudstone, Lower Yezo Group, Hokkaido, Japan. J. Saitama University Fac. Educ. 56, l, p. 367-372.
(Mid-Cretaceous 'Tethyan' larger foram genus Orbitolina at several localities across accretionary prism of SE Japan and also Taiwan Shimanoshita location E Aptian with Palorbitolina lenticularis, Mesorbitolina parva, Praeorbitolina)

Matsumaru, K., M. Ehiro & S. Kojima (2006)- On *Orbitolina* (Foraminiferida) from the Shyok suture zone, Ladakh, NW India. J. Palaeontological Society India 51, 2, p. 43-49.
(online at: http://palaeontologicalsociety.in/vol51_2/v4.pdf)
(E-M Albian Orbitolina from Lower Shyok Fm in Shyok suture zone, Ladakh, NW India, in sediments overlying ultramafic unit. Incl. Mesorbitolina texana, M. minuta, Simplorbitolina cf. conulus)

Matsumaru, K. & A. Furusawa (2007)- On orbitolinid foraminifera from the lower Aptian (Cretaceous) of Hokkaido, Japan. J. Palaeontological Society India 52, 1, p. 39-44.
(online at: http://palaeontologicalsociety.in/vol52_1/v4.pdf)
(Five E Aptian orbitolinid species in Takisato Orbitolina Lst of Hokkaido: Palorbitolina lenticularis, Mesorbitolina parva, M. minuta, M. libanica, Paleodictyoconus conica (compares to Paleo-Pacific active margin of Borneo?; JTvG))

Matsuoka, A. (1995)- Jurassic and Lower Cretaceous radiolarian zonation in Japan and in the western Pacific. The Island Arc 4, p. 140-153.
(Radiolarian zonation for Jurassic- Lower Cretaceous from Japan outcrop sections and W Pacific seafloor; applicable to low and middle paleolatitude portions of Paleo-Pacific ocean. 11 zones proposed)

Maync, W. (1952)- Critical taxonomic study and nomenclatural revision of the Lituolidae based upon the prototype of the Family, *Lituola nautiloidea* Lamarck, 1804. Contr. Cushman Foundation Foraminiferal Research 3, 2, p. 35-56.
(online at: https://cushmanfoundation.allenpress.com/portals/_default/files/pubarchive/CCFFR/03ccffr2.pdf)
(Includes discussion of Lacazina lamellifera Silvestri 1925 and Loftusia bemmeleni Silvestri 1932 from Saling Lst of S Sumatra (not species of Pseudocyclammina). Confirms presence of true Late Jurassic- E Cretaceous Loftusia and Pseudocyclammina in samples from Gumai Mts of S Sumatra (= Woyla Terrane; JTvG))

Munasri (2000)- Microfossils radiolaria in Indonesia: introducing the technique of preparation. Proc. 29th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 4, p. 259-264.

Munasri (2001)- Radiolarian research in some Mesozoic provinces in Indonesia. Berita Sedimentologi 16, p. 26-30.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/242)
(Brief review of radiolaria studies from Cretaceous of C Java (Karangsambung), M Cretaceous from S Sulawesi (Bantimala), Jurassic-Cretaceous from SE Kalimantan (Meratus Range), M-L Triassic and E Cretaceous from W Timor (Nefokoko, Kefamenanu, Kolbano) and M Jurassic from Roti island)

Munasri (2012)- Penggunaan fosil radiolaria dalam sintesis geologi. Pros. Pemaparan Hasil Penelitian Pusat Penelitian Geoteknologi LIPI, Bandung 2012, p. 337-350.
('The use of fossil radiolaria in geological synthesis'. Review of Mesozoic radiolarian research in Indonesia. Radiolarian fossils found in deep-sea environments and are used for biostratigraphy, tectonic reconstructions, paleo-oceanography and paleogeography. With summary of 15 areas in Indonesia with radiolarian sediments)

Munasri, K. Wakita & K. Sashida (1999)- Fosil radiolaria sebagai alat biostratigrafi yang baru di Indonesia. Proc. 27th Annual Conv. Indonesian Association Geologists (IAGI), 2 (Sedimentology Paleontology Stratigraphy), Yogyakarta, p. 48-52.
(https://www.iagi.or.id/web/digital/56/31.pdf)
('Fossil radiolaria as a new biostratigraphic tool in Indonesia'. Review of radiolaria studies in Cretaceous subduction complexes in Java (Karangsambung), S Sulawesi (Bantimala, Barru), SE Kalimantan (Pulau Laut), Timor (Kolbano))

O'Dogherty, L. (2009)- Inventory of Mesozoic radiolarian species (1867-2008). Geodiversitas (Museum National d'Histoire Naturelle, Paris) 31, 2, p. 371-481.
(online at: https://sciencepress.mnhn.fr/sites/default/files/articles/pdf/g2009n2a6.pdf)
(Comprehensive listing 6296 Mesozoic radiolarian species names, in combinations as originally described, with approximate ages. E.g. helpful in confirming correctness of Hojnos (1934) Late Jurassic- E Cretaceous age assignments of E Sulawesi radiolarian rocks)

O'Dogherty L., E.S. Carter, P. Dumitrica, S. Gorican, P. De Wever, A.N. Bandini, P.O. Baumgartner & A. Matsuoka (2009)- Catalogue of Mesozoic radiolarian genera. Part 2: Jurassic-Cretaceous. Geodiversitas 31, 2, p. 271-356.
(online at: https://www.researchgate.net/publication/232690604_Catalogue_of_Mesozoic_Radiolarian_Genera_Part_2_Jurassic-Cretaceous
(Key work. Illustrated catalogue of type species of 581 genera of Jurassic- Cretaceous radiolaria. No range charts)

Oloriz, F. & G.E.G. Westermann (1998)- The perisphinctid ammonite *Sulaites* n. gen. from the Upper Jurassic of the Indo-Southwest Pacific. Alcheringa 22, 3-4, p. 231-240.

(New genus Sulaites comprises Oxfordian group of 'Perisphinctes' sularus and moluccanus, described from Sula Islands, and Late Oxfordian-?E Kimmeridgian 'Pseudoparaboliceras aramaraii' group described from W Papua. Genus Sulaites also known from W Papua, PNG and probably New Zealand and Nepal)

Oosting, A.M. (2004)- Palaeoenvironmental and climatic changes in Australia during the Early Cretaceous. Thesis University Utrecht, p. 1-203.
(online at: http://dspace.library.uu.nl/handle/1874/1578)
(Biochronostratigraphy for Tethyan and Boreal M Cretaceous traditionally based on ammonites, but because of lack of useful ammonites in Australian M Cretaceous, and faunal and floral latitudinal contrasts, correlations between different realms is not straightforward. Dinoflagellate cyst events combined with changes in carbon-isotope stratigraphy used here to assess Barremian- Albian stage boundaries in Australia)

Pannekoek, A.J. (1931)- Brachiopoda. In: B.G. Escher et al. (eds.) De palaeontologie en stratigraphie van Nederlandsch Oost-Indie, Leidsche Geologische Mededelingen 5, 1 (K. Martin memorial volume), chapter 12, p. 396-435.
(online at: https://repository.naturalis.nl/pub/505703)
(Summary of state of knowledge in 1931 of Late Paleozoic- Mesozoic- Tertiary brachiopod species and distribution in Indonesia)

Philippe, M., A. Boura, C. Oh & D. Pons (2014)- *Shimakuroxylon* a new homoxylous Mesozoic wood genus from Asia, with palaeogeographical and palaeoecological implications. Review Palaeobotany Palynology 204, p. 18-26.
(New type of (Late?) Jurassic-E Cretaceous fossil wood with radial pitting of 'japonicum type', named here Shimakuroxylon. Geographic distribution limited to terranes which lined S-most E Asia during Jurassic (Lhasa, Indochina, Semitau, etc.). W Kalimantan specimen in British Museum collected from Buduk (Boedak) 100km N of Pontianak, associated with bivalves identified as M Jurassic by Newton (1903) (probably Late Jurassic?). Also present in Outer Zone of SW Japan. Probably indicator for warm and wet climates)

Philippe, M., H.E. Jiang, K. Kim, C. Oh, D. Gromyko, M. Harland, I.S. Paik & F. Thevenard (2009)- Structure and diversity of the Mesozoic wood genus *Xenoxylon* in Far East Asia: implications for terrestrial palaeoclimates. Lethaia 42, p. 393-406.
(Mesozoic fossil wood Xenoxylon is indicator of wet temperate biotopes and is common in Far East Asia in Carnian-Maastrichtian. It is part of 'Northern-type' leaf-flora (also call Tetori-type or Siberian-Canadian), although still present in Vietnam. Diversity peak of Xenoxylon spp. centered on NE China, where wet-temperate climate probably prevailed through Late Triassic- Cretacous (genus not known from Indonesia or Gondwana))

Remane, J. (1985)- Calpionellids. In: H.M. Bolli, J.B. Saunders & K. Perch-Nielsen (eds.) Plankton Stratigraphy, Cambridge University Press, p. 555-572.
(Review of Late Tithonian- E Valanginian planktonic protozoans of unknown affinities. Includes reported, but not illustrated, presence of calpionellids in PNG by Rickwood (1955))

Renz, G.W. (1974)- Radiolaria from Leg 27 of the Deep Sea Drilling Project. In: J.J. Veevers et al. (eds.) Initial Reports Deep Sea Drilling Project (DSDP) 27, p. 769-841.
(online at: www.deepseadrilling.org/27/volume/dsdp27_38.pdf)
(Study of Cretaceous radiolarians from Leg 17 sites, mainly Site 261 in eastern Indian Ocean and Site 262 in Timor Trough of SW Timor. Succession of three assemblages, from young to old: (1) Bathropyramis timorensis, (2) Eucyrtis columbarius and (3) Spongocyclia lanigera Assemblage, of uncertain ages (but placed in ~Berriasian-Aptian range by Sanfilippo and Riedel 1985, Fig. 2; JTvG). Includes brief discussion of Tan Sin Hok (1927) Roti sample 149 assemblage, which is believed to be younger than this DSDP material)

Riding, J.B. (2012)- A compilation and review of the literature on Triassic, Jurassic, and earliest Cretaceous dinoflagellate cysts. American Assoc. Stratigraphic Palynologists (AASP), Contributions Series 46, Dallas, p. 1-126. *(also 2020 edition, 325 p.)*

(online at: https://nora.nerc.ac.uk/id/eprint/19423/1/Jurassic_dinocyst_reference_list_-_revised_manuscript_March_2012_word_2003.pdf)
(Parts of latest documentation of the highly successful Mesozoic dinolagellate biostratigraphy, applicable of Australia NW Shelf and New Guinea margins)

Riding, J.B. (2013)- The literature on Triassic, Jurassic and earliest Cretaceous dinoflagellate cysts: supplement 1. Palynology 37, 2, p. 345-354.

Riding, J.B., E. Mariani & R.A. Fensome (2022)- A review of the Jurassic dinoflagellate cyst genus *Gonyaulacysta* Deflandre 1964 emend. nov. Review Palaeobotany Palynology 299, 104605, p. 1-37.
(Review of M-L Jurassic gonyaulacacean dinoflagellate cyst genus Gonyaulacysta Deflandre, including material from Australia NW Shelf)

Sahni, M.R. & V.V. Sastri (1957)- A monograph of the orbitolines found in the Indian continent (Chitral, Gilgit, Kashmir), Tibet and Burma, with observations on the age of the associated volcanic series. Memoirs Geological Survey India, Palaeontologia Indica 33, 3, p. 1-50.
(online at: http://histdept.crma.ac.th:8011/ebooks/20100511-the-geological-survey-of-india.pdf)
(Mid-Cretaceous larger foraminifera Orbitolina from localities in collision zones around N and NE margin of Indian subcontinent. Including multiple Myanmar localities (Yanbo, Ku Taung, Mesan, etc.), initially sampled by Clegg. Two Orbitolina limestone horizons in Burma: (1) Barremian- Aptian with Orbitolina bulgarica, O wadiai n.sp., O. raoi n.sp. and O. hukawngensis n.sp.; (2) Cenomanian with Orbitolina birmanica Sahni 1937 (species with great affinity with Orbitolina concava)

Sano, S.I. & P.W. Skelton (2010)- *Epidiceras* (Bivalvia, Hippuritoidea) from the Tithonian-Berriasian Torinosu-type Limestones of the Sakawa Area, Southwest Japan. Turkish J. Earth Sciences 19, p. 733-743.
(online at: http://journals.tubitak.gov.tr/earth/issues/yer-10-19-6/yer-19-6-5-0905-2.pdf)
(Primitive rudists Epidiceras speciosum and E. guirandi from Tithonian-Berriasian Torinosu limestones in SW Japan. Epidiceras speciosum also present in Kimmeridgean-Tithonian Bau Limestone of SW Sarawak. Tethyan rudists proven here to extend into W Pacific province)

Sarjeant, W.A.S., W. Volkheimer & W.P. Zhang (1992)- Jurassic palynomorphs of the Circum-Pacific region. In: G.E.G. Westermann (ed.) The Jurassic of the Circum-Pacific, World and Regional Geology 3, p. 273-292.
(Includes discussion of Jurassic palynomorphs/ dinoflagellates of Papua New Guinea, Australia. The only Jurassic palynoflora from SE Asia is partly published work from Misool by Helby and Hasibuan: Yefbie Shale has characteristic Toarcian Susadinium assemblage and Bajocian- E Bathonian Dissioliodinium association;base Demu Fm has Late Callovian- E Oxfordian Rigaudella aemula zone, Late Oxfordian- E Kimmeridgean Wanaea spectabilis zone in rest of Demu Fm and basal Lelinta shale; later assemblages suggest age as young as Kalyptea wisemaniae zone, E Berriasian)

Sato, T. (1956)- Correlation du Jurassique inferieur japonais en basant sur les ammonites fossiles. J. Geological Society Japan 62, 732, p. 490-503. *(Japanese with French abstract)*
(online at: www.jstage.jst.go.jp/article/geosoc1893/62/732/62_732_490/_pdf)
(Incl. circum-Pacific 'Aalenian' (Late Toarcian?) ammonite distribution map, showing distribution of Hammatoceras in E Indonesia)

Sato, T. (1975)- Marine Jurassic formations and faunas in Southeast Asia and New Guinea. In: T. Kobayashi & R. Toriyama (eds.) Geology and palaeontology of Southeast Asia, University of Tokyo Press, 15, p. 151-189.
(Review of Jurassic macrofossils and stratigraphy in SE Asia, including Sumatra, Timor,New Guinea, E Sulawesi, Sula, Buru, Ceram and Misool)

Sato, T. & T. Ishibashi (1984)- Ammonoids of Southeast Asia. In: T. Kobayashi, R. Toriyama & W. Hashimoto (eds.) Geology and palaeontology of Southeast Asia, University of Tokyo Press, 25, p. 267-272.
(Brief review of Triassc- Cretaceous ammonoids in Indonesia and surrounding SE Asia. No figures)

Sato, T. & G.E.G. Westermann (1991)- 4. Japan and Southeast Asia. In: G.E.G. Westermann & A.C. Ricardi (eds.) Jurassic taxa ranges and correlation charts fror the Circum-Pacific. Newsletters on Stratigraphy 24, 1-2, p. 81-108.
(Useful compilation of distribution and ranges of Jurassic macrofossils in Indonesia)

Scrivenor, J.B. (1912)- Radiolaria-bearing rocks in the East Indies. Geological Magazine (V), 9, 6, p. 241-248.
(Review of mainly Mesozoic radiolarian-bearing rocks on the Malay Peninsula and Indonesia. Radiolarites of Danau Fm of C Borneo (probable Jurassic age) do look like oceanic deposits, but other radiolaria-bearing rocks often associated with clastic material and may be of shallower marine origin)

Sha, J. (2007)- Cretaceous trigonioidid (non-marine Bivalvia) assemblages and biostratigraphy in Asia with special remarks on the classification of Trigonioidacea. J. Asian Earth Sciences 29, 1, p. 62-83.
(Seven zones distinguished in distribution of Cretaceous Trigonioides-group fresh water molluscs. Mainly on mainland Asia (China, Korea, some Thailand) and Japan; nothing on Indonesia although Cretaceous non-marine bivalves are present in SE Kalimantan)

Sha, J. (2010)- Historical distribution patterns of trigonioidids (non-marine Cretaceous bivalves) in Asia and their palaeogeographic significance. Proc. Royal Society (London), B (Biological Science), 277, p. 277-283.
(online at: http://rspb.royalsocietypublishing.org/content/early/2009/07/15/rspb.2009.0936.full.pdf)
(Non-marine trigonioidid bivalves five phases of radiation in Cretaceous of Pal-Asia: pre-Aptian (?Valanginian/ Hauterivian- Barremian), Aptian, Albian, Cenomanian and Turonian-Maastrichtian. Distribution patterns show two distinct paleo-river systems feeding trigonioidids. Trigonioidid distribution pattern suggests Japan was attached to part of E China and/or Korea in Valanginian-Cenomanian (no discussion of records from Indonesia))

Sha, J., A. Meesook & X.K. Nguyen (2012)- Non-marine Cretaceous bivalve biostratigraphy of Thailand, Southern Lao PDR and Central Vietnam. J. of Stratigraphy 36, 2, p. 382-399.
(online at: https://dcxz.cbpt.cnki.net/portal/journal/portal/client/paper/448cc2031c16a43c1e8e5005490a83d6)
(Bivalve molluscs from non-marine Cretaceous basin of Thailand, Laos and Vietnam (Khorat Group). Two trigoniodid bivalve assemblages: Aptian Trigonioides kobayashii- Plicatounio assemblages and mainly Albian Trigonioides diversicostatus- Pseudohyria assemblage)

Skelton, P.W. (1985)- Preadaptation and evolutionary innovation in rudist bivalves. Special Papers in Palaeontology 33, p. 159-173.
(Includes mention of early rudists Epidiceras speciosum (Goldfuss) and Valletia sp. from Bau Limestone in SW Sarawak, in collections of British Museum of Natural History, London)

Skelton, P.W., S.I. Sano & J.P. Masse (2013)- Rudist bivalves and the Pacific in the Late Jurassic and Early Cretaceous. J. Geological Society, London, 170, p. 513-526.
(Rudist distribution in Pacific region. (very little on SE Asia region rudists (Borneo, Misool))

Skwarko, S.K. & F. Hasibuan (1989)- A brief review of literature on the larger marine invertebrates in the Cretaceous of Indonesia with list of fossils hitherto identified. Geological Research Development Centre (GRDC), Bandung, Seri Paleontologi 6, p. 44-52.
(Listing of 32 papers with descriptions of Cretaceous marine macrofossils from Indonesia since 1883. 22 faunas documented, 8 from Kalimantan, 3 each from Sumatra, Sula Islands, Misool and W Papua, one from Sulawesi. Bivalve molluscs (80 species) and cephalopods (70 species) are most diverse groups. Most determinations in need of revision)

Stevens, G.R. (1963)- Designation of a lectotype for the nominal species *Belemnopsis alfurica* (Boehm) 1907 (Cephalopoda, Dibranchiata). Trans. Royal Society of New Zealand, Geology, 2/6, p. 101-104.
(Designation of a lectotype for U Jurassic Belemnopsis alfurica (Boehm) from Upper Wai Lagoi River, Taliabu, Sula Islands. Also known as Belemnites alfurica from N India Himalayas, N Australia and New Zealand)

Stevens, G.R. (1964)- The belemnite genera *Dicoelites* Boehm and *Prodicoelites* Stolley. Paleontology 7, 4, 9, 606-620.
(online at: http://palaeontology.palass-pubs.org/pdf/Vol%207/Pages%20606-620.pdf)
(Belemnite genus name Dicoelites first used by Boehm (1906) for D. dicoelus Rothpletz from Callovian-Lower Oxfordian of Roti Island, then in 1912 for material from Callovian-Kimmeridgean? of Wai Miha, Taliabu, Sula islands (Dicoelites keeuwensis). Both have two grooves, but latter re-assigned to new genus Conodicoelites)

Stevens, G.R. (1965)- The Jurassic and Cretaceous belemnites of New Zealand and a review of the Jurassic and Cretaceous belemnites of the Indo-Pacific region. New Zealand Geological Survey, Paleontological. Bulletin 36, p. 1-283.
(Major review of J-K belemnites. In Oxfordian development of Indo-Pacific province. Kimmeridgean abundant Belemnopsis developed in Indo-Pacific, incl. Belemnopsis uhligi complex (Belemnopsis spp., incl. uhligi, indica, moluccana, etc.; formerly comonly called B. gerardi). Usually associated with Buchia and Inoceramus. In Tithonian uhligi complex persists, but progressively replaced by Hibolithes and Duvalia assemblage. Etc.)

Stolley, E. (1929)- Uber Ostindische Jura-Belemniten. Palaontologie von Timor, Schweizerbart, Stuttgart, 16, 29, p. 91-213.
('On East Indies Jurassic belemnites'. Belemnites from Molengraaff, Jonker and Weber collections from Timor, Roti, Misool, Sula islands, Seram, E Sulawesi and Yamdena/Tanimbar. Includes reports of Belemnopsis aucklandica from Timor (Ofu) and Roti (re-assigned to Belemnopsis uhligi-jonkeri group by Stevens 1964. B. aucklandica from Yamdena, re-described as Belemnopsis stolleyi by Stevens 1964; JTvG)

Street, C. & P.R. Bown (2000)- Palaeobiogeography of Early Cretaceous (Berriasian-Barremian) calcareous nannoplankton. Marine Micropaleontology 39, p. 265-291.
(Early Cretaceous nannoplankton biogeography Watznaueria spp. dominant in all settings. Assemblage composition relatively uniform between ~50° N and S. High-paleolatitude assemblages less rich, lower diversity and with more Crucibiscutum salebrosum, Stradnerlithus silveradius, Broinsonia matalosa, etc. Argo Abyssal Plain, NW of Australia, carries southern high-latitude nannofossil assemblages)

Thierry, J. (1976)- Paleobiogeographie de quelques Stephanocerataceae (Ammonitina) du Jurassique moyen et superieur; une confrontation avec la theorie mobiliste. Geobios 9, 3, p. 291-331.
(Paleogeography of Middle-Late Jurassic ammonites, showing distribution of 'Tethyan' Macrocephalites-Mayaites group (also known from E Indonesia and New Guinea; JTvG)

Van Gorsel, J.T. (1978)- Late Cretaceous orbitoidal foraminifera. In: R.H. Hedley and C.G. Adams (eds.) Foraminifera 3, Academic Press, London, p. 1-120.
(General review of Campanian-Maastrichtian orbitoidal larger foraminifera. In SE Asia members of 'Caribbean-Tropical Pacific' assemblage with Pseudorbitoides, Orbitoides, Asterorbis, etc. present in PNG, W Papua and E Philippines. Occurrence of Maastrichtian Omphalocyclus in Kalimantan never described elsewhere)

Van Gorsel, J.T. (2014)- An introduction to Mesozoic faunas and floras of Indonesia. Berita Sedimentologi 31, p. 27-56.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/123/93)
(Review of Mesozoic fossils of Indonesia. Mesozoic-age faunas relatively widespread in Indonesia, from Sumatra, Java and Kalimantan in W to Sulawesi, Outer Banda Arc (Sumba, Timor, Tanimbar, Seram), Sula Islands and New Guinea in East. Triassic low-latitude Tethyan faunas present in both W and E Indonesia. Late Jurassic ammonites and bivalves from E Indonesia- New Guinea of more temperature character)

Vitacca, J.J., N. Sinclair, D.J. Mantle, N. Marshall & D. Peyrot (2022)- The taxonomy of selected marine microplankton from the Middle and Upper Jurassic (Callovian-Kimmeridgian) of the North West Shelf, Australia. Review Palaeobotany Palynology 304, 104668, p. 1-31.
(11 new species of M-U Jurassic dinoflagellates from Australia NW Shelf)

Von Hillebrandt, A., P. Smith, G.E.G. Westermann & J.H. Callomon (1992)- Ammonite zones of the Circum-Pacific region. In: G.E.G. Westermann (ed.) The Jurassic of the Circum-Pacific, Cambridge University Press, p. 247-272.
(Jurassic ammonite zonations of Circum-Pacific region. Lower Jurassic (Toarcian) ammonites known from Kalimantan, Sula Islands, Misool and Timor and Roti. M Jurassic ammonites mainly on Sula Islands and New Guinea (Bajocian-Bathonian Sulaites, Lower Callovian Macrocephalites keeuwensis assemblage. U Jurassic (Oxfordian Mayaites) also rich on Sula Islands; Kimmeridgean ammonites virtually unknown)

Von Hillebrandt, A., G.E.G. Westermann, J.H. Callomon & R.L. Detterman (1992)- Ammonites of the Circum-Pacific region. In: G.E.G. Westermann (ed.) The Jurassic of the Circum-Pacific, Cambridge University Press, New York, p. 342-359.
(Review of Jurassic ammonite stratigraphic and geographic distributions in Pacific region. Sula- New Guinea sub-province of Indo-Pacific Province in Bajocian- Bathonian, characterized by endemic Irianites, Satoceras and Praetulites. In Oxfordian more extended Indo-SE Pacific realm, with mayaitids also in New Zealand)

Wan, X., Y. Wu & G. Li (2003)- Distribution of Mid-Cretaceous Orbitolinids in Xizang (Tibet) and its paleobiogeographic implications. Acta Geologica Sinica 77, 1, p. 1-8. *(Chinese with English Abstract)*
(online at: www.jourlib.org/paper/4876549#.V9XKwvkrKUk)
(Mid-Cretaceous Orbitolinid larger foraminifera common in Barremian- Cenomanian of shallow marine Neotethys margins. In Tibet limited to Lhasa Block (= SE Eurasia margin during M Cretaceous) and parts of Qiantang, extending E to Myanmar and W to Ladakh. Not present on India Plate (also known from Sumatra, Java, Borneo; JTvG))

Wandel, G. (1936)- Beitrage zur Kenntnis der Jurassischen Molluskenfauna von Misol, Ost Celebes, Buton, Seran und Jamdena. In: J. Wanner (ed.) Beitrage zur Palaeontologie des Ostindischen Archipels 13, Neues Jahrbuch Mineralogie Geologie Palaeontologie, Beilage Band 75B, p. 447-526.
('Contributions to the knowledge of Jurassic molluscs from Misool, East Sulawesi, Buton, Seram and Yamdena'. Description of Mollusca, mainly collected by F. Weber. Misool faunas include upper Liassic Harpoceraten beds, lower Dogger Hammoceraten beds, Oxfordian Aucella malayomaorica marls (also in E Sulawesi). 'Lithacocera' from E Sulawesi is a Tithonian form (Arkell, 1954). Etc.)

Yabe, H. & S. Hanzawa (1926)- *Choffatella* Schlumberger and *Pseudocyclammina*- a new genus of arenaceous foraminifera. Science Reports Tohoku Imperial University, 2nd series, Geology, 9, p. 9-13.
(online at: http://ir.library.tohoku.ac.jp/re/bitstream/10097/30196/1/KJ00004178170.pdf)
(New genus name Pseudocyclammina for Late Jurassic foram 'Cyclammina' lituus from Torinosu Limestone of Japan, which species is very similar to Choffatella cyclamminoides n. sp. described by Silvestri (1925) from Sungi Tuni in Korinci, Jambi Province, Sumatra)

Yabe, H. & S. Toyama (1927)- *Cladocoropsis mirabilis* Felix from the Torinosu Limestone of Japan. Japanese J. Geology and Geography 5, p. 107-110.
(online at: https://babel.hathitrust.org/cgi/pt?id=nyp.33433110166588&seq=351)
(On (Late) Jurassic Cladocoropsis, a reefal sponge or branching stromatoporoid, in Pacific accreted terranes belt of SW Japan (frequently erroneously assigned to (Triassic) genus Lovcenipora). Widespread in Tethyan reefal limestone facies (Leinfelder et al. 2005) (also known from Sumatra (Gumai Mts= Woyla Terrane), Borneo, Timor, possibly same as Lovcenipora vinassai from Triassic of Buru- Seram?; JTvG))

Yin, J. & R. Enay (2004)- Tithonian ammonoid biostratigraphy in eastern Himalayan Tibet. Geobios 37, 5, p. 667-686.
(Rich ammonoid faunas in Tithonian- Lw Berriasian in E Himalayas of Tibet, with Tithonian Virgatosphinctes-Aulacosphinctoides and Uhligites-Aulacosphinctes; U Tithonian dominated by Blanfordiceras wallichi, etc. Also presence of Kimmeridgean Sulaites and Belemnopsis galoi. (NB: strong affinities between M-L Jurassic ammonite faunas of N India- Tibetan Himalayas area and E Indonesia (Sula islands, New Guinea)- SW Pacific ammonoid faunas, typical of the Jurassic North Gondwana margin- southern Meso- or Neo-Tethys; JTvG)

XI.5. Triassic

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umerous additional papers recording Jurassic-Cretaceous biostratigraphy content, but are case studies of specific areas, are listed under those areas;and are not repeated here.

This chapter does also Include many Jurassic-Cretaceous faunas-floras outside Indonesia that may help unravel genetically related related geologic settings)

1. As mentioned for the other sub-chapters on Biostratigraphy, many papers documenting occurrences of Triassic fossils from Indonesia as well as surrounding areas are grouped with their respective areas, and are not duplicated here;
2. This listing below captures more general papers on Triassic fossils, including papers from outside Indonesia, that may be relevant for determining paleobiogeographic affinities of Triassic faunas and floras of Indonesia
3. Of particular interest are Late Triassic limestones, with Tethyan faunas are particularly widespread, from mainland SE Asia (Thailand, Laos, Vietnam, Indonesia (Sumatra, Timor, Seram), NW Australia (Wombat Plateau) to 'Panthalassan' seamount carbonates in accretionary complexes in Japan

Ager, D.V. (1968)- The supposedly ubiquitous Tethyan brachiopod *Halorella*. J. Paleontological Society of India 5-9, p. 54-70.
(online at: http://palaeontologicalsociety.in/vol5/v11.pdf)
(Late Triassic rhynchonellid brachiopod Halorella common in Europe. Halorella nimassica described from Timor by Krumbeck (1921-1924) not true Halorella, but assigned to Timorhynchia n. gen., Halorella spp. described from Seram by Wanner (1907) look more like true Halorella, but here placed in Halorelloidea)

Al-Shaibani, S., D. Altiner, P. Bronnimann, D.J. Carter & L. Zaninetti (1982)- *Triasina hantkeni* Majzon, 1954 (Foraminifere), dans le Trias superieur de la Tethys (Europe et Asie). Archives Sciences Geneve 35, 2, p. 137-142.
('Triasina hantkeni Majzon 1954 (foraminifer), in the Upper Triassic of the Tethys (Europe and Asia)'. Norian-Rhaetian small benthic foram Triasina, known in Tethys from Europe to E Indonesia (Seram))

Ando, H. (1987)- Paleobiological study of the Late Triassic bivalve *Monotis* from Japan. The University of Tokyo Museum Bull. 30, p. 1-110.
(online at: http://umdb.um.u-tokyo.ac.jp/DKankoub/Bulletin/no30/no30000.html)
(Monograph of Late Triassic 'flat clam' Monotis in Japan, with discusssion of global distribution)

Carter, E.S. (2007)- Global distribution of Rhaetian radiolarian faunas and their contribution to the definition of the Triassic-Jurassic boundary. In: S.G. Lucas & J.A. Spielmann (eds.) The global Triassic, New Mexico Museum of Natural History and Science Bulletin 41, p. 27-31.
(online at: http://paleo.cortland.edu/globaltriassic/Bull41/09-Carter%20(radiolarians).pdf)
(Includes comparison with Rhaetian radiolarian faunas from Meto River, West Timor as described by Rose (1994). Assemblages not typically Tethyan, but mix of cosmopolitan taxa and species with stronger affinities to Japan and Philippines)

Chablais, J. (2010)- Sedimentology and biostratigraphy of the Upper Triassic atoll-type carbonates of the Sambosan Accretionary Complex (Panthalassan domain; Japan). Doct. Thesis Universite de Geneve, Sc.4212, p. 1-204.
(online at: https://archive-ouverte.unige.ch/unige:8438)
(Part of series of papers on U Triassic (Norian-Rhaetian) carbonates from limestone-capped seamount in Sambosan Accretionary Complex. With typical 'Tethyan' Late Triassic benthic foram assemblages, incl. Aulotortus friedli, etc. (related assemblages also in Timor; JTvG))

Chablais, J., R. Martini, F. Kobayashi, G.M. Stampfli & T. Onoue (2011)- Upper Triassic foraminifers from Panthalassan carbonate buildups of Southwestern Japan and their paleobiogeographic implications. Micropaleontology 57, 2, p. 93-124.

(online at: https://www.researchgate.net/publication/230776641_Upper_Triassic_foraminifers_from_Panthalassan_carbonate_buildups_of_Southwestern_Japan_and_their_paleobiogeographic_implications)
(60 species of foraminifera in U Triassic 'Panthalassan' seamount atoll-type carbonates in Late Jurassic- E Cretaceous Sambosan Accretionary Complex of SW Japan. Four associations: (1) lagoonal with common Aulotortidae, Nodosariidae and Endotebidae; (2) Back- and fore-reef: mainly Duostomina and Variostoma; (3) reefal: Galeanella, Hoyenella, Ophthalmidium and Cucurbita; (4) Shoal facies rich in ooids and near-monospecific Pilammina sulawesiana association (as also known from E Sulawesi). Carnian-Norian age similar to Tethyan carbonate platform/ reefs in European Alps, Asinepe Limestone in Seram, etc.. Foraminifera of Tethyan tropical affinity, suggesting paleoposition at low-middle latitude in S Hemisphere, in agreement with presence of endemic foraminifers and corals of Timor and Sulawesi. Sambosan AC seamounts moved >15000 km to be accreted against Asian blocks, which fits with velocity/direction of plates during Neotethys ridge opening)

Chablais, J., R. Martini, E. Samankassou, T. Onoue & H. Sano (2010)- Microfacies and depositional setting of the Upper Triassic mid-oceanic atoll-type carbonates of the Sambosan Accretionary Complex (southern Kyushu, Japan). Facies 56, p. 249-278.
(Of interest for comparison with Triassic 'Fatu Limestones' of Timor;also Seram?; JTvG)

Chonglakmani, C. & J.A. Grant-Mackie (1984)- Handbook of Triassic index fossils (preliminary). Dept. Mineral Resources (DMR) , Bangkok, p. 1-21.
(online at: http://library.dmr.go.th/Document/DMR_Technical_Reports/1984/24271.pdf)
(Selection of age-significant Triassic microfossils from Thailand and adjacent regions. Ammonites and thin-shelled molluscs (Daonella, Halobia, Monotis) most important. With 5 plates and range chart)

Cirilli, S. (2010)- Upper Triassic- lowermost Jurassic palynology and palynostratigraphy: a review. In: S.G. Lucas (ed.) The Triassic timescale, Geological Society, London, Special Publ. 334, p. 285-314.
(Late Triassic- E Jurassic palynostratigraphy and latitudinal control on distribution of 'Onslow' (rel. warm, southern Tethys margin) vs. 'Ipswich' (cool, high-latitude Gondwanan) microfloral provinces in S Hemisphere)

De Franceschi, D. & C. Vozenin-Serra (1997)- The Upper Vietnamese Triassic flora: palaeogeographical significance. Comptes Rendus Academie Sciences, Paris, ser. 2, 324, 4, p. 333-340.
(Vietnamese Triassic flora belongs to coastal floristic assemblage of SW Pacific. Affinities of plant-fossil assemblage with 'Krusin flora' of NW Borneo)

Diener, C. (1918)- Nachtrage zur Dibranchiatenfauna der Halstatter Kalke. Jahrbuch Geologischen Reichsanstalt, Wien, 1918, 68, 3, p. 475-492
(online at: https://opac.geologie.ac.at/ais312/dokumente/JB0683_475_A.pdf)
('Additions to the Dibranchiate fauna of the Halstatter Limestone'. Mainly comparison of Late Triassic belemnoid faunas from Timor and North Calcareous Alps in Austria. In both areas very similar thin-ribbed Aulacoceras sulcatum group. Prefers to maintain Aulacoceras timorense Wanner as separate species)

Dobruskina, I.A. (1994)- Triassic floras of Eurasia. Osterrreichische Akademie der Wissenschaften, Erdwissenschaftlichen Kommissionen, Band 10, Springer Verlag, Vienna, p. 1-422.
(online at: http://jurassic.ru/pdf/Dobruskina1994.pdf)
(Extensive review of Triassic plant fossils from Europe and Asia. Brief discussions on Far East Asia, incl. Triassic floras from Thailand (Norian- Rhaetian, near base of Khorat Group), Vietnam (Norian-Rhaetian 'Tonkin flora') and Sarawak (Carnian 'Krusin flora', near basal conglomerates of Halobia clastics series))

Dolby, J.H. & B.E. Balme (1976)- Triassic palynology of the Carnarvon Basin, Western Australia. Review Palaeobotany Palynology 22, p. 105-168.
(Five Triassic palynological assemblage zones in wells from Carnarvon Basin: I. Kraeuselisporites saeptatus (Griesbachian-Smithian, II. Tigrisporites playfordii (Smithian-Anisian), III. Staurosaccites quadrifidus (Anisian-Carnian), IV. Samaropollenites speciosus (Carnian) and V. Minutosaccus crenulatus (Carnian-?Norian). Provincialism in M-L Triassic floras:(1) Onslow microflora on NW Shelf, with mixed Gondwanan- European

elements; (2) Ipswich microflora: less diverse Falcisporites-dominated assemblages in E and S Australia; European elements not present)

Foster, C.B., B.E. Balme & R. Helby (1994)- First record of Tethyan palynomorphs from the Late Triassic of East Antarctica. BMR. J. Australian Geology Geophysics 15, p. 239-246.
(online at: www.ga.gov.au/corporate_data/49409/Jou1994_v15_n2.pdf)
(Remarkable 'Onslow-type' ('Tethyan') Norian microflora from Prince Charles Mts, E Antarctica, with Minutosaccus crenulatus, Ovalipollis ovalis, Samaropollenites speciosus, Falcisporites australis, etc. (also known from Australian NW Shelf, Timor, etc; JTvG.))

Gardin, S., L. Krystyn, S. Richoz, A. Bartolini & B. Galbrun (2012)- Where and when the earliest coccolithophores? Lethaia, 10.1111, p. 1-17.
(First coccoliths appear in Late Triassic, with oldest species Crucirhabdus minutus and Prinsiosphaera triassica appearing in latest Norian. Across Norian-Rhaetian boundary increase in abundance of Prinsiosphaera triassica and appearance of Euconusphaera zlambachensis (two most important Rhaetian pelagic carbonate producers). Both present on Timor and the Wombat Plateau (off NW Australia) (also on Seram?; JTvG))

Goudemand, N., M.J. Orchard, H. Bucher & J. Jenks (2012)- The elusive origin of *Chiosella timorensis* (conodonts, Triassic). Geobios 45, 2, p. 199-207.
(online at: https://www.zora.uzh.ch/id/eprint/57300/1/1-s2.0-S0016699511000969-main.pdf)
(First occurrence of conodont Chiosella timorensis is good marker for Anisian age (species originally described as Gondolella timorensis from Lacan, Manatuto district, Timor, by Nogami (1968))

Grant-Mackie, G.A. (1975)- The stratigraphy and taxonomy of the Upper Triassic bivalve *Monotis* in New Zealand. Ph.D. Thesis University of Auckland, p. 1-380.
(online at: https://researchspace.auckland.ac.nz/handle/2292/2580)
(20 taxa recognized in New Zealand Late Triassic bivalve genus Monotis (of interest for comparisons with M-L Triassic Monotis species from Borneo, Buton, Seram, etc.; JTvG))

Grant-Mackie, G.A. (1978)- Subgenera of the Upper Triassic bivalve *Monotis*. New Zealand J. Geology Geophysics 21, 1, p. 97-111.
(online at: www.tandfonline.com/doi/abs/10.1080/00288306.1978.10420726)
(Proposal of five subgenera of Monotis. Monotis s.s. resembles salinaria group, M. (Entomonotis) includes M. ochotica, subcircularis, and zabaikalica groups; M. (Eomonotis) typha group and M. (Maorimonotis))

Hasibuan, F. (2010)- The Triassic marine biota of Eastern Indonesia and its interregional and global correlation: a review. Jurnal Geologi Indonesia (IJOG) 5, 1, p. 31-47.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/91/91)
(Marine macrofossil biostratigraphy of Triassic in Indonesia. Mainly on ammonoids from Triassic of Timor (E-M and Late Triassic) and Misool (M-L Triassic), and correlations with regions outside Indonesia)

Hasibuan, F. & Purnamaningsih (1998)- Pre-Tertiary biostratigraphy of Indonesia. In: J.L. Rau (ed.) Proc. 34th Session Coord. Comm. Coastal Offshore Geoscience Programmes E and SE Asia (CCOP), Taejon, Korea 1997, 2, Technical Reports, p. 40-54.
(Review of Paleozoic- Mesozoic marine macrofossil biostratigraphy of Indonesia, particularly in Misool island)

Hautmann, M. (2001)- Die Muschelfauna der Nayband-Formation (Obertrias, Nor- Rhat) des ostlichen Zentraliran. Beringeria 29, p. 1-181.
(online at: http://opus.bibliothek.uni-wuerzburg.de/frontdoor/index/index/docId/1817)
('The bivalve fauna of the Nayband-Formation (U Triassic, Norian-Rhaetian) of east-central Iran'. Well-preserved bivalve fauna with >100 species. Paleogeographic analysis of Tethyan bivalve faunas suggests E Tethys province, with northern (Iran, Yunnan, Vietnam, Burma, W Sumatra) and southern subprovinces (Lhasa-block, E Indonesia terranes; attached to Gondwana until end Triassic and separated later by opening of 'Ceno-Tethys' Ocean (= Mesotethys?; JTvG))

Hautmann, M., M.J. Benton & A. Tomasovych (2008)- Catastrophic ocean acidification at the Triassic-Jurassic boundary. Neues Jahrbuch Geologie Palaontologie, Abhandlungen 249, p. 119-127.
(On end-Triassic extinction of reefal organisms and end of carbonate deposition at Triassic- Jurassic boundary in many parts of world, caused by ocean acidification, tied to volcanic degassing (this may be a potential explanation why Late Triassic carbonate platform limestones are rel. widespread in E Indonesia, but Early Jurassic carbonates are rare to absent; JTvG))

Hautmann, M. (2012)- Extinction: end-Triassic mass extinction. In: eLS online, John Wiley & Sons, p. 1-10.
(On mass extinction at end of Triassic, at ~200 Ma. This event eliminated conodonts and nearly annihilated corals, sphinctozoan sponges and ammonoids. Probably caused by volcanic activity of Central Atlantic Magmatic Province. Lead to virtual absence of reef systems for nearly 10 Myrs in E Jurassic).

Helby, R., V.D. Wiggins & G.J. Wilson (1987)- The circum-Pacific occurrence of the Late Triassic dinoflagellate *Sverdrupiella*. Australian J. Earth Sciences 34, p. 151-152.
(Late Triassic dinoflagellate genus Sverdrupiella Bujak and Fisher widespread, abundant and relatively diverse in Norian strata. Reported from Seram, E Indonesia, in Norian Kanikeh Fm, associated with undescribed dinoflagellate suite including suessioids and Heibergella (=Hebecysta balmei zone?; JTvG). Circum-Pacific distribution of Sverdrupiella in Late Triassic similar to distribution of Late Triassic bivalve Monotis)

Hinde, G.J. (1908)- Radiolaria from Triassic and other rocks of the Dutch East Indian Archipelago. In: R.D.M. Verbeek, Molukkenverslag. Geologische verkenningstochten in het oostelijke gedeelte van den Nederlandsch Oostindische Archipel. Jaarboek Mijnwezen Nederlandsch Oost-Indie 37 (1908), Wetenschappelijk Gedeelte, p. 694-736.
(Radiolaria from Timor, Savu, Ceram, Sulawesi, Buru and Mangoli collected by Verbeek, probably mainly of Late Triassic-Jurassic age. 83 species identified, 74 new. Richest assemblages found in Halobia-Daonella-bearing cherty limestones from Rote and Savu and Halobia limestone from Timor. Fewer, but similar species in loose chert pebbles collected at Seram and E Sulawesi)

Ichikawa, K. (1958)- Zur Taxonomie und Phylogenie der triadischen „Pteriidae" (Lamellibranchiata) mit besonder Berucksichtigung der Gattungen *Claraia, Eumorphotis, Oxytoma* und *Monotis*. Palaeontographica, A111, 5-6, p. 131-212.
('On the taxonomy and phylogeny of the Triassic 'Pteriidae' (Lamellibranchiata), with particular emphasis on the genera Claraia, Eumorphotis, Oxytoma und Monotis'. Includes description of new species Monotis (Entomonotis) timorica from Timor (which is same as Monotis subcircularis Gabb; Westermann 1962))

Ishibashi, T. (1975)- Some Triassic ammonites from Indonesia and Malaysia. In: T. Kobayashi & R. Toriyama (eds.) Geology and Palaeontology of Southeast Asia, University of Tokyo Press, 16, p. 45-56

Jasin, Basir (2018)- Radiolarian biostratigraphy of Malaysia. Bull. Geological Society Malaysia 65, p. 45-58.
(online at: https://gsmpubl.files.wordpress.com/2018/08/bgsm201805.pdf)
(Two types of radiolarian cherts in Malaysia:bedded chert and chert blocks. Bedded cherts in Peninsular Malaysia mainly in Western Belt (Kubang Pasu, Kenny Hill and Semanggol Fms). In Sabah in Sabah Ophiolite Complex. In Sarawak bedded cherts in Serian Volcanic Fm and basal part of Pedawan Fm. Chert blocks mainly in Bentong Raub Suture Zone of Peninsular Malaysia and melanges of Sabah and Sarawak. Radiolarians from Peninsular Malaysia Late Devonian-Triassic, with 16 biozones identified. Radiolarians from Sabah and Sarawak E Jurassic- Cretaceous ages. Five hypersiliceous periods, related to volcanism: Late Devonian-E Carboniferous, Permian, Triassic, E Jurassic and Late Jurassic-Cretaceous)

Kanmera, K. (1964)- Triassic coral faunas from the Konose Group in Kyushu. Memoirs Faculty of Science, Kyushu University, Ser. D, Geology, 15, 1, p. 117-147.
(online at: https://catalog.lib.kyushu-u.ac.jp/opac_download_md/1543615/15_01_p117.pdf)
(Corals from U Triassic U Konose Gp in the southern accretionary belt of Japan (Pacific seamount limestones). associated with common basic volcanoclastics. Close affinities to (Tethyan) Norian-Rhaetian corals of Austrian

Alps and from Timor (author mentions species previously known only from Timor;like Montlivaltia timorica, M. norica, JTvG))

Kobayashi, F., R. Martini & L. Zaninetti (2005)- Anisian foraminifers from allochthonous limestones of the Tanoura formation (Kurosegawa Terrane, West Kyushu, Japan). Geobios 38, 6, p. 751-763.
(35 species of M Triassic foraminifera in allochthonous oolitic limestone blocks in Carnian Tanoura Fm in Kurosegawa Terrane of W Kyushu. Blocks of Anisian in age, based on Pilammina densa and Meandrospira dinarica, associated with Triadodiscus, Aulotortus, etc. Terrane was part of N Gondwana margin, then isolated eastwards before E Cretaceous amalgamation with S China in E Cretaceous)

Kobayashi, T. & T. Kimura (1944)- A study on the radiolarian rocks. J. Faculty of Science, Imperial University of Tokyo, Section 2, 7, 2, p. 75-187.
(Includes review of Paleozoic- Mesozoic radiolaria data from Sumatra, Kalimantan, etc. Kalimantan Danau Fm radiolaria transitional between Jurassic and Carboniferous faunas, therefore possibly more likely of Triassic age. Cherts in Tuhul Fm of S Sumatra are M-L Triassic or Permo-Triassic in age)

Kobayashi, T. & M. Tamura (1983)- On the Oriental Province of the Tethyan Realm in the Triassic Period. Proc. of the Japan Academy, Series B, 59, 7, p. 203-206.
(online at: https://www.jstage.jst.go.jp/article/pjab1977/59/7/59_7_203/_pdf/-char/en)
(Short paper on provinciality in Triassic bivalves. In addition to cosmopolitans, many Triassic bivalve genera are distributed from Alps to China, Indochina and USSR. Oriental Province of Tethys with species indigenous to E and SE Asia. Stretches from Kashmir, Burma, S China, Malay Peninsula, to E Indonesia. Krumbeckia Diener 1908 is known from Upper Triassic in Sumatra and Yunnan. No maps)

Kobayashi, T. & M. Tamura (1983)- The Arcto-Pacific Realm and the Trigoniidae in the Triassic Period. Proc. of the Japan Academy, Series B, 59, 7, p. 207-210.
(online at: https://www.jstage.jst.go.jp/article/pjab1977/59/7/59_7_207/_pdf/-char/en)
(Family Trigoniidae evolved from Myophoriidae polyphyletically in M and Late Triassic. Triassic bivalves of New Zealand, New Caledonia and New Guinea constitute distinct fauna. U Triassic cosmopolitan genus Monotis with paleogeographically restricted species; Borneo is junction of three Monotis seas: (1) M. salinaria group, distributed from Europe-Himalaya to Borneo; (2) M. ochotica group from Siberia to Borneo through Japan and (3) M. subcircularis group from Canada to New Zealand and Borneo through E Pacific coast. No figures)

Kobayashi, T. & M. Tamura (1984)- The Triassic Bivalvia of Malaysia, Thailand and adjacent areas. In: T. Kobayashi et al. (eds.) Geology and Palaeontology of Southeast Asia 25, University of Tokyo Press, p. 201-227.
(Review of Triassic bivalves Claraia, Daonella-Halobia, Monotis, Trigoniaceae (incl. Myophoria, Costatoria), megalodontids in Malay Peninsula, Thailand and Sumatra)

Koike, T. (1984)- Summary of Triassic conodonts of Southeast Asia. In: T. Kobayashi, R. Toriyama & W. Hashimoto (eds.) Geology and Palaeontology of Southeast Asia, University of Tokyo Press, 25, p. 295-302.
(Brief review of Triassic conodont faunas in Malay Peninsula, Thailand and Indonesia (Carnian of Lake Toba, Sumatra; Anisian-Ladinian and Carnian and W Timor; Norian of Timor Leste))

Kristan-Tollmann, E. (1988)- A comparison of Late Triassic agglutinated foraminifera of Western and Eastern Tethys. Abhandlungen Geologischen Bundesanstalt, Vienna, 41, p. 245-253.
(online at: www.landesmuseum.at/pdf_frei_remote/AbhGeolBA_41_0245-0253.pdf)
(Examples of common species of Triassic arenaceous and calcareous agglutinated foraminifera across Tethys realm (mainly from Austrian Calcareous Alps, PNG Kuta Limestone and Timor). Timor fauna includes Verneulinoides mauritii and Variostoma helictum)

Kristan-Tollmann, E. (1991)- Triassic Tethyan microfauna in Dachstein limestone blocks in Japan. In: T. Kotaka, J.M. Dickins et al. (eds.) Proc. International Symposium in Shallow Tethys 3, Sendai 1990, Saito Hoon Kai Special Publ. 3, p. 35-49.

(First description of U Triassic foraminifera from Panthalassan seamount reefal limestone in Sambosan accretionary complex in Japan; see also Chablais et al. 2008)

Kristan-Tollmann, E. (1995)- Weitere Beobachtungen an Rhatischen nannofossilien der Tethys. Geologisch-Palaontologische Mitteilungen Innsbruck 20, p. 1-11.
(online at: www2.uibk.ac.at/downloads/c715/gpm_20/20_001-011.pdf)
('Additional observations on Rhaetian nannofossils of the Tethys'. Eoconusphaera zlambachensis and Prinsiosphaera triassica are most common species in uppermost Triassic of Calcareous Alps; also present off Wombat Plateau, NW Australia, confirming Tethys-wide distribution)

Kummel, B. (1969)- Ammonoids of the Late Scythian (Lower Triassic). Bull. Museum Comparative Zoology, Harvard University, 137, p. 311-701.
(online at: www.archive.org/details/bulletinofmuseum13719681969harv)
(Treatise on Early Triassic/ Scythian ammonoids, including material from Timor (p. 349-351), mainly from 'Block E near Nifoekoko', described previously by Welter (1922). Contains Hungarites, Pronorites spp, etc.)

Lehrmann, D.J., J.Y. Wei & P. Enos (1998)- Controls on facies architecture of a large Triassic carbonate platform: the Great Bank of Guizhou, Nanpanjiang Basin, south China. Journal of Sedimentary Research 68, p. 311-326.
(Model of E-M Triassic carbonate platform deposition on S China block. E Triassic low relief bank with cyanobacterial limestones in platform interior and oolites along margins. M Triassic higher relief platform margins composed of Tubiphytes boundstone, with cyclic tidal flats formed ine platform interior)

Mantle, D.J., J.B. Riding & C. Hannaford (2020)- Late Triassic dinoflagellate cysts from the Northern Carnarvon Basin, Western Australia. Review Palaeobotany Palynology 281, 104254, p. 1-53.

McRoberts, C.A. (2008)- Rhaetian (Late Triassic) *Monotis* (Bivalvia: Pectinoida) from the eastern Northern Calcareous Alps (Austria) and the end-Norian crisis in pelagic faunas. Palaeontology 51, 3, p. 721-735.
(Species of marine bivalves of pectinoid genus Monotis provide useful biochronologic indices for Late Triassic (M Norian-earliest Rhaetian). Profound extinction event in pelagic realm at Norian-Rhaetian boundary where ~15 monotids became extinct. Surviving Monotis dwarfed compared to Norian predecessors)

McRoberts, C.A. (2010)- Biochronology of Triassic bivalves. In: S.G. Lucas (ed.) The Triassic Timescale, Geological Society, London, Special Publ. 334, p. 201-219.
(General zonation scheme for Triassic based on bivalves Claraia, Peribositria, Enteropleura, Daonella (M Triassic), Halobia (Carnian-M Norian), Eomonotis and Monotis (Late Norian). Widely distributed across Tethys, Panthalassa and Boreal regions)

Nicoll, R.S. & C.B. Foster (1998)- Triassic biozonation and stratigraphy, 1998 Chart 20. Australian Geological Survey Organisation (AGSO), 1p. *(chart)*
(online at: www.ga.gov.au/corporate_data/76687/Chart_20_NWS_Triassic.pdf)

O'Dogherty L., E.S. Carter, P. Dumitrica, S. Gorican, P. De Wever, A. Hungerbuhler, A.N. Bandini & A. Takemura (2009)- Catalogue of Mesozoic radiolarian genera. Part 1: Triassic. Geodiversitas 31, 2, p. 213-270.
(online at: https://www.researchgate.net/publication/232694009_Catalogue_of_Mesozoic_radiolarian_genera_Part_1_Triassic)
(Systematic revision of Triassic radiolarian genera, validating 282 genera, of which only 30 genera crossed Triassic-Jurassic boundary

O'Dogherty L., E.S. Carter, S. Gorican & P. Dumitrica (2010)- Triassic radiolarian biostratigraphy. In: S.G. Lucas (ed.) The Triassic Timescale, Geological Society, London, Special Publ. 334, p. 163-200.
(General discussion of Triassic radiolarian biostratigraphy. Work on Triassic in Indonesia limited to Sashida et al. (1999) on Timor. Many studies on Thailand Triassic)

Payne, J.L. & B. van de Schootbrugge (2007)- Life in Triassic oceans: links between planktonic and benthic recovery and radiation. In: P. Falkowski & A.H. Knoll (eds.) Evolution of primary producers in the sea, Academic Press, Amsterdam, p. 165-189.
(Review of faunal trends through Triassic. E Triassic global reef gap after end-Permian extinctions, commonly associated with black shale. Increase in coral and algal diversity through M Triassic, but reefs dominated by Tubiphytes. E-M Carnian reefs dominated by Porifera, Norian-Rhaetian reefs dominated by corals. E Jurassic is another reef gap, again with common black shale)

Peybernes, C. (2016)- Upper Triassic mid-oceanic shallow water ecosystems of the Panthalassa Ocean: insights from the Sambosan Accretionary Complex, Southwest Japan. Doct. Thesis Universite de Geneve, Sc 4914, p. 1-229.
(online at: https://archive-ouverte.unige.ch/unige:84250)
(U Triassic carbonates of Sambosan Accretionary Complex in SW Japan: (1) limestone clasts embedded in volcaniclastic matrix with microbialite-rich Ladinian?- Lower Carnian reef biota; (2) sponge-dominated Late Carnian- Norian (Rhaetian?) reefs (built on top of basalts of low-latitude Panthalassic seamount). Paleogeographic affinities with S. Tethys. Limestone commonly as clasts in volcanoclastic breccias, probably mass-movement deposits from seamount collapse in mid-oceanic realm (very few ooids?))

Peybernes, C., J. Chablais & R. Martini (2015)- Upper Triassic (Ladinian?-Carnian) reef biota from the Sambosan Accretionary Complex, Shikoku, Japan. Facies 61, 4, p. 1-27.
(M-L Triassic (Ladinian?-Carnian) reef limestone from Sambosan Accretionary Complex, Shikoku Island, SW Japan, with scleractinian corals, calcified sponges, calcareous algae, foraminifera and microproblematica (older than previously identified reef limestones in Sambosan Complex))

Peybernes, C., J. Chablais, T. Onoue, G. Escarguel & R. Martini (2016)- Paleoecology, biogeography, and evolution of reef ecosystems in the Panthalassa Ocean during the Late Triassic: Insights from reef limestone of the Sambosan Accretionary Complex, Shikoku, Japan. Palaeogeogr. Palaeoclim. Palaeoecology 457, p. 31-51.
(U Triassic sponge-coral- Tubiphytes reef limestone from Sambosan Accretionary Complex at Shikoku Island, Japan, with two types of reefs, Ladinian?- E Carnian and Late Carnian-Rhaetian? Strong paleobiogeographic affinity of Late Triassic W Panthalassa reef biota with those of S Tethys Ocean)

Rigaud, S., R. Martini, R. Rettori & G.D. Stanley (2010)- Stratigraphic potential of the Upper Triassic benthic foraminifers. Albertiana 38, p. 34-39.
(online at: http://archive-ouverte.unige.ch/unige:6737)
(Summary of rich Carnian-Norian benthic foraminiferal assemblages in isolated limestone remnant of Panthalassa Ocean in N Wallowa Mts, Oregon. Foraminifera ~75% well-known Tethyan species, with comparable stratigraphic distribution, incl. Triasina oberhauseri, Aulotortus tumidus, A. communis, A. tenuis, etc. Also with Norian Heterastridium conglobatum)

Rigaud, S., R. Martini & R. Rettori (2013)- A new genus of Norian involutinid foraminifers: its morphological, biostratigraphic, and evolutionary significance. Acta Palaeontologica Polonica 58, 2, p. 391-405.
(online at: www.app.pan.pl/archive/published/app58/app20110072.pdf)
(New genus name Aulosina for Late Triassic (Norian- E Rhaetian) involutinid foram Triasina oberhauseri, morphologically transitional between Aulatortus and (Rhaetian) Triasina hantkeni)

Schafer, P. & J.A. Grant Mackie (1998)- Revised systematics and palaeobiogeography of some Late Triassic colonial invertebrates from the Pacific region. Alcheringa 22, 1-2, p. 87-122.
(Revision of U Triassic colonial organisms from New Zealand, New Caledonia, Timor, etc. Heterastridium conglobatum, a hydrozoan of uncertain affinity and possible pelagic lifestyle, is known from Norian of Tethys (Hallstatt Lst in Alps, Middle East, etc.), Timor, New Caledonia, New Zealand and W North America. 'Monotrypella timorica' is calcareous demosponge)

Stanley, G.D. & T. Onoue (2015)- Upper Triassic reef corals from the Sambosan Accretionary Complex, Kyushu, Japan. Facies 61, 1, p. 1-27.

(Ten U Triassic coral taxa, incl. Retiophyllia, from limestones of Sambosan accretionary complex of Japan, with remains of reefs and carbonate sediment deposited on Pacific volcanic atolls. High degree of endemism; some paleogeographic connection with W Tethys, Pamir Mts and Timor (Craspedophyllia ramosa Roniewicz))

Schatz, W. (2004)- Revision of the subgenus *Daonella* (Arzelella) (Halobiidae; Middle Triassic). Journal of Paleontology 78, 2, p. 300-316.
(Mainly taxonomic revision of M Triassic Daonella (thin-shelled 'paper mollusc'). Includes Late Ladinian- E Carnian species Daonella indica Bittner 1899, known from SE Europe, through Turkey, Pamir, Himalayas (Spiti, etc.), SW China, Malay Peninsula (Pahang), Timor, Japan (in N Thailand and Malay Peninsula in area of Paleotethys suture; JTvG))

Thenius, E. (1980)- Zum Problem der „zirkumpazifischen" und der Tethys-Verbreitung mariner Evertebraten in der Trias. Annalen Naturhistorischen Museum Wien 83, p. 285-301
(online at: www.landesmuseum.at/pdf_frei_remote/ANNA_83_0285-0301.pdf)
('On the problem of 'Circum-Pacific' and the Tethys distribution of marine invertebrates in the Triassic'. Figure 2 shows distribution of Norian bivalve Monotis, modified from Westermann (1973), showing Indonesia assemblages with 'Arctic- W Pacific' Monotic ochotica and M. subcircularis in NW Kalimantan, while 'Tethyan' Monotis salinaria and M. subcircularis are present on Timor)

Vachard, D. & H. Fontaine (1988)- Biostratigraphic importance of Triassic foraminifera and algae from South-East Asia. Revue de Paleobiologie, Geneve, 7, 1, p. 87-98.
(Triassic forams from Thailand, NW Malay Peninsula, Indonesia (Sibaganding limestone of Sumatra, Seram), Philippines (Malajon Island), Myanmar, Vietnam)

Van Voorthuysen, J.H. (1940)- Beitrag zur Kenntnis des inneren Baus von Schale und Sipho bei triadischen Ammoniten. Doct. Thesis, University of Amsterdam, p. 1-143.
(Study of internal structure of U Triassic ammonites from Timor (Tropitida, Placites spp., Cladiscitidae, Phylloceratidae and Arcestidae))

Vozenin-Serra, C. (1971)- Notes sur des bois Mesozoiques et Cenozoique du Viet-nam et du Cambodge. Archives Geologiques Vietnam 14, p. 1-47.
('Notes on the Mesozoic and Cenozoic fossil wood from Vietnam and Cambodia')

Vozenin-Serra, C. (1977)- Contribution a l'etude de la paleoflore du Sud-est Asiatique (Cambodge, Laos, Vietnam). These Doctoral Etat., Universite de Paris, p. 1-310. *(Unpublished)*
('Contribution to the study of the paleoflora of SE Asia (Cambodia, Laos, Vietnam)')

Vozenin-Serra, C. (1983)- Etat de nos connaissances sur les flores mesozoiques du Sud-Est Asiatique. Comptes Rendus 108e Congres National des Societes Savantes, Grenoble 1983, 1, Sciences de la Terre, 2, p. 101-116.
('Status of our knowledge of the Mesozoic floras of SE Asia'. Review of Triassic-Cretaceous floras, mainly from Vietnam, Thailand, etc. For Indonesian region only mentions W Sarawak Krusin flora of Kon'no 1972, which is part of Late Triassic 'Dictyophyllum- Clathropteris floral province' of SW Pacific at end-Triassic (also known from Vietnam, Thailand, W Japan))

Vozenin-Serra, C. (1984)- Etat de nos connaissances sur les flores du Paleozoique superieur et du Mesozoique du Sud-Est Asiatique. Interpretations paleogeographiques. Memoires Societe Geologique France 147, p. 169-181.
('Status of our knowledge of the Upper Paleozoic and Mesozoic floras of SE Asia and paleogeographic interpretations')

Westermann, G.E.G. (1973)- Species distribution of the world-wide Triassic pelecypod *Monotis* Bronn. Proc. 22nd International Geological Congress, India 1964, Section 8, p. 374-389.

Zammit, M. (2010)- A review of Australasian ichthyosaurs. Alcheringa 34, 3, p. 281-292.

(Ichthyosaur fossils recorded from M Triassic of Timor (Mixosaurus sp.), from U Triassic of New Caledonia (Shonisauru) and Lower Cretaceous of Australia and New Zealand (Platypterygius))

Zaninetti, L. (1976)- Les foraminiferes du Trias, essai de synthese et correlation entre les domaines mesogeens europeen et asiatique. Rivista Italiana Paleontologia Stratigrafia 82, p. 1-258.
(Synthesis of Triassic foraminifera and correlation between European and Asian domains)

XI.6. Paleozoic

Numerous additional papers with Paleozoic biostratigraphy content that are case studies specific to certain areas, are listed under those areas, and are not repeated here.

This chapter does include several papers on Paleozoic faunas-floras outside Indonesia that may help in the interpretation of related occurrences in Indonesia.

Permian stratigraphies and fossils are particulary useful for distinguishing higher latitude Gondwanan terranes (with Early Permian glacial deposits, Glossopteris flora, Eurydesma mollusc fauna,etc.), separated by the Paleotethys Ocean from low latitude Asian (Cathaysian) terranes during Permian time, as well as the 'Cimmerian ribbon terranes' (Sibumasu- Baoshan- Qiangtang) that rifted off Gondwana during the Early Permian opening of the Mesotethys Ocean.

Remarkable occurrences of 'East Paleotethys- Panthalassan' low-latitude Middle? Permian low-latitude fusulinid limestones deposited on basic seamount volcanics, now found from West Sumatra to Timor(?), Japan, New Zealand and NW North America

Aitchison, J.C., N. Suzuki, M. Caridroit, T. Danelian & P. Noble (2017)- Paleozoic radiolarian biostratigraphy. Geodiversitas 39, 3, p. 501-532.
(online at: https://sciencepress.mnhn.fr/sites/default/files/articles/pdf/geodiversitas-2017-n3a5-biostratigraphy-of-paleozoic-radiolarian-genera.pdf)
(Paleozoic (Cambrian-Permian) radiolarian biostratigraphy, with references to papers from Thailand, etc. (see also companion papers in same Geodiversitas volume 39, by Noble, Caridroit))

Archbold, N.W. (1983)- West Australian Permian brachiopoda: their taxonomy, biostratigraphy and provincialism; with an Appendix of published articles including a description of Permian brachiopoda from Irian Jaya, Indonesia. Ph.D. Dissertation, University of Melbourne, 2 vols.

Archbold, N.W. (2001)- Permian Productida of Australasia: palaeobiogeographical and palaeoclimatological implications. In: S.L. Long et al. (eds.) Brachiopods, Chapter 37, CRC Press, p. 363-371.
(Permian Productid brachiopods few genera in common between Westralian (rel. warm, S Tethys margin) and Austrazean (colder water, mainly endemics, strong links with New Zealand) provinces)

Archbold, N.W. & T. Hogeboom (2000)- Subsurface brachiopoda from borehole cores through the Early Permian sequence of the Carnarvon Basin, Western Australia: correlations with palynological biostratigraphy. Proc. Royal Society of Victoria 112, 1, p. 93-109.
(Early Permian brachiopods from five wells in onshore Carnarvon Basin, tied to spore-pollen zonation. Four earliest Permian brachiopod zones of W Australia (Lyonia lyoni, Trigonotreta occidentalis, Strophalosia irwinensis and Strophalosia jimbaensis zones, in ascending order) correlated with palynological zones (Granulatisporites confluens, Pseudoreticulatispora pseudoreticulata, Striatopodocarpites fusus, Didecitriletes byroensis and Microbaculispora trisina zones, in ascending order))

Asama, K., A. Hongnusonthi, J. Iwai, E. Kon'no, S.S. Rajah & M. Veeraburas (1975)- Summary of the Carboniferous and Permian plants from Thailand, Malaysia and adjacent areas. In: T. Kobayashi & R. Toriyama (eds.) Geology and Palaeontology of Southeast Asia, University of Tokyo Press, 15, p. 77-101.
(online at: http://library.dmr.go.th/library/DMR_Technical_Reports/1975/324.pdf)
(Oldest plants in SE Asia from Lower Carboniferous: known from Malaysia only (Kuantan flora, with Lepidodendron, on E Malaya Block). Five known Permian floras. Permian Jambi flora of Sumatra greatest similarities with Artinskian-Kungarian Shansi Fm of N China. Four other U Permian Cathaysian floras with Gigantopteris: Linggiu and Jengka floras from E Malay Peninsula; Phetchabun and Loei floras of N Thailand. Permian plants from W New Guinea are Gondwana-type flora, but some apparent Cathaysian elements)

Belasky, P. (1994)- Biogeography of Permian corals and the determination of longitude in tectonic reconstructions of the Paleopacific region. Canadian Society of Petroleum Geologists, Special Publ., p. 621-646.
(Mainly focused on American terranes. South China was center of diversity of Permian Tethyan coral province and was located near Permian Equator and W margin of Paleopacific Ocean)

BouDagher-Fadel, M.K. (2008)- The Palaeozoic larger benthic foraminifera: the Carboniferous and Permian. In: Evolution and geological significance of larger benthic foraminifera, Chapter 2, Developments in Palaeontology and Stratigraphy, Elsevier, 21, p. 39-118.
(General review of Paleozoic larger foraminifera, mainly Carboniferous-Permian fusulinids. End of Permian is major extinction event)

Bronnimann, P., J.E. Whittaker & L. Zaninetti (1978)- *Shanita*, a new pillared Miliocean foraminifera from the Late Permian of Burma and Thailand. Rivista Italiana Paleontologia 84, p. 63-92.
(New late Middle- Late Permian pillared miliolid Shanita amosi from W margin of Shan Plateau, E Myanmar. Species believed to be mainly characteristic of M Permian of Sibumasu/ Cimmerian terranes)

Broutin, J., J. Yu, X. Shi, W. Shu & X. Qing (2020)- Terrestrial palaeofloral succession across the Permian-Triassic boundary in the North and South China blocks: a brief review. Palaontologische Zeitschrift 94, p. 633-644.
(From Late Cisuralian (E Permian) to M Lopingian, N and S China blocks located in the equatorial domain. Both with homogeneous 'Cathaysian Palaeoflora', resulting from Cisuralian southern extension and diversification from northern cradle of Cathaysian plants to South. Progressive change in floral successions due to N-ward drift of N China block, while S China block remained in sub-equatorial domain)

Cantrill, R.C. (2003)- Aspects of Ordovician conodonts and the stratigraphy of Thailand, Malaysia, and Tasmania. Ph.D. Thesis, University of Tasmania, p. 1-158.
(online at: http://eprints.utas.edu.au/19158/1/whole_CantrillRobinCrawford2003_thesis.pdf)
(Incl. Ordovician conodonts from shallow tropical Lower Setul Lst from Langkawi Island (Tremadoc- Ashgill), Thung Song Lst of mainland Thailand and Ko Tarutao, Karmberg Lst of central S Tasmania)

Cantrill, R.C. & C. Burrett (2003)- The Greater Gondwana distribution of the Ordovician conodont *Panderodus nogamii* (Lee) 1975. Courier Forschungsinstitut Senckenberg, Frankfurt, 245, 1, p. 407-421.
(Panderodus nogamii (formerly Scolopodus nogamii), first described from N Korea, also in Lower Ordovician of Thailand, Malaysia, N and S China, Australia and Argentina. It ranged through Middle- early Late Ordovician and was restricted to shallow water carbonates in tropical- subtropical paleolatitudes of Greater Gondwana)

Caridroit, M., T. Danelian, L. O'Dogherty, J. Cuvelier, J.C. Aitchison, L. Pouille, P. Noble et al. (2017)- An illustrated catalogue and revised classification of Paleozoic radiolarian genera. Geodiversitas 39, 3, p. 363-417.
(online at: https://sciencepress.mnhn.fr/sites/default/files/articles/pdf/geodiversitas-2017-n3a3-catalogue-of-paleozoic-radiolarians_0.pdf)

Chapman, F. & W.J. Parr (1937)- On the discovery of fusulinid foraminifera in the Upper Palaeozoic of Northwest Australia. Victorian Naturalist 53, p. 175-179.
(Describe presence of fusulinid genera Verbeekina and Neoschwagerina in NW Australia. Identifications were later shown to be erroneous, they are fish remains (Crespin 1958, Quilty 1975) (still no fusulinid forams recorded yet from Australia, but are present on Timorisland and also in Birds Head of New Guinea; JTvG)

Cleal, C.J. (2017)- A global review of Permian macrofloral biostratigraphical schemes. In: S.G. Lucas & S.Z. Shen (eds.) The Permian Timescale, Geological Society, London, Special Publ. 450, p. 349-363.
(Incl. mention of Djambi flora of Sumatra, which may be regarded as transitional flora with taxa characteristic of both Euramerica (e.g. medullosaleans and marattialean ferns) and Cathaysia (e.g. Tingia, Cathaysiodendron) plant Paleokingdoms)

De D. Hornibrook, N. (1951)- Permian fusulinid foraminifera from the North Auckland Peninsula, New Zealand. Trans. Royal Society of New Zealand 79, 2, p. 319-321.
(online at: http://rsnz.natlib.govt.nz/volume/rsnz_79/rsnz_79_02_004230.pdf)
(Permian fusulinid foraminifera from limestone blocks associated with spilitic pillow lavas from Whangaroa Harbour, North Island, are first record of fusulines from New Zealand. Verbeekina, Neoschwagerina margaritae,

Yabeina multiseptata probably of M Permian (Wordian- Capitanian) age (and signify non-Gondwana low latitude; JTvG))

De Neve, G.A. (1961)- Correlation of fusulinid rocks from southern Sumatra, Bangka, and Borneo, with similar rocks from Malaya, Thailand and Burma. Proc. 9th Pacific Science Congress, Bangkok 1957, Geology and Geophysics 12, p. 249. *(Abstract only)*
(Four occurrences of U. Paleozoic rocks with fusulinids in Indonesia, incl. Sumatra localities of limestone with Neoschwagerina and Fusulina spp. in Palembang area, S Sumatra, (3a) E of Bukit Pendopo, discovered by Keil and (3b) 18 km W of Palembang, in Sekaju area pebbles with fusulinids in Old Neogene conglomerate by Van Tuijn (1931))

Dickins, J.M. (1956)- Permian pelecypods from the Carnarvon Basin, Western Australia. Bureau Mineral Resources Geology Geophysics, Bull. 29, p. 1-42.
(online at: https://s3-ap-southeast-2.amazonaws.com/corpdata/224/Bull_029.pdf)
(Documentation of Permian bivalve molluscs from northern Gondwana margin in NW Australia)

Dickins, J.M. (1957)- Permian pelecypods and gastropods from the Carnarvon Basin, Western Australia. Bureau Mineral Resources Geology Geophysics, Bull. 41, p. 1-75.
(online at: https://d28rz98at9flks.cloudfront.net/173/Bull_063.pdf)
(More documentation of Permian bivalve molluscs from northern Gondwana margin in NW and W Australia. Including the supposedly cool-water genus Atomodesma spp.))

Dickins, J.M. (1963)- Permian pelecypods and gastropods from Western Australia. Bureau Mineral Resources Geology Geophysics, Bull. 63, p. 1-203.
(online at: https://d28rz98at9flks.cloudfront.net/173/Bull_063.pdf)
(>150 species of pelecypods and 60 gastropods from 'Gondwanan' Permian of Carnarvon Basin and Canning/ Fitzroy Basins. Lower Permian four stages, lower stage characterized by 'Eurydesma fauna')

Edgell, H.S. (2004)- Upper Devonian and Lower Carboniferous Foraminifera from the Canning Basin, Western Australia. Micropaleontology 50, p. 1-26.
(Foraminifera from U Devonian reef complex and overlying Lower Carboniferous in N Canning Basin of NW Australia 20 species of tournayellids and endothyrids. Striking resemblance to microfaunas of Russia, Kazakhstan and South China)

Fortey, R.A. & L.R.M. Cocks (1986)- Marginal faunal belts and their structural implications, with examples from the Lower Palaeozoic. J. Geological Society, London, 143, p. 151-160.
(Record of Ordovician (Llanvirn) graptolites in Heluk River, E Irian Jaya (4°25'S, 139°17'E). Assigned to isograptid biofacies and taken as evidence of Ordovician ocean margin here. Oldest fossils in Indonesia ?)

Foster, C.B. (1982)- Spore-pollen assemblages of the Bowen Basin, Queensland (Australia): their relationship to the Permian/Triassic boundary. Review Palaeobotany Palynology 36, p. 165-183.
(Five palynofloral zones in M Permian- E Triassic of Bowen Basin, from old to young: 'Upper Stage 5' (= Dulhuntyipora zone of authors; commonly associated with Glossopteris); Playfordiaspora crenulata Zone (M Permian; = youngest coal seams and with last known Glossopteris), Protohaploxypinus microcorpus Zone (also with P. samoilovichii), Lunatisporites pellucidus Zone (also contains Falcisporites= Alisporites?; latest Permian or E Triassic?) and Protohaploxypinus samoilovichii Zone (= E Triassic). No range charts (Morante 1996 suggests Base P. microcorpus is ~Base E Triassic = base of Mt Goodwin shale in Bonaparte basin)

Foster, C.B., G.A. Logan, R.E. Summons, J.D. Gorter & D.S. Edwards (1997)- Carbon isotopes, kerogen types and the Permian-Triassic boundary in Australia: implications for exploration. The APPEA Journal 37, p. 472-489.
(Permian- Triassic boundary characterized by massive extinction of marine fauna. In non-marine sections in E Australia, top of coal measures used as top Permian. Carbon isotopic (δ13C) shift of either organic matter or carbonates may be used to delimit P-T boundary)

Furnish, W.M. & B.F. Glenister (1970)- Permian ammonoid *Cyclolobus* from the Salt Range, West Pakistan. In: Stratigraphic boundary problems: Permian and Triassic of West Pakistan, p. 153-175.
(On M Permian ammonite Cyclolobus, incl. mentions of occurrences in Basleo and Ruasnain, W Timor)

Gerth, H. (1931)- Porifera. In:B.G. Escher et al. (eds.) Onze palaeontologische kennis van Nederlandsch Oost Indie, Leidsche Geologische Mededelingen 5 (Feestbundel K. Martin), p. 115-119.
(online at: www.repository.naturalis.nl/document/549435)
(Porifera (sponges) chapter in 'Our paleontological knowledge of the Netherlands East Indies'. Isolated sponge needles known from various formations in Indonesia, but whole sponges mainly known from Permian and Triassic of Timor. Permian of Timor 25 species, mainly siliceous sponges. Triassic of Timor mainly calcareous sponges. No figures)

Gobbett, D.J. (1967)- Palaeozoogeography of the Verbeekinidae (Permian foraminifera). In: C.G. Adams & D.V. Ager (eds.) Aspects of Tethyan biogeography: A Symposium, The Systematics Association, London, Special Publication 7, p. 77-91.
(Fusulinid formifera of Verbeekinidae family largely restricted to M Permian of Tethys seaway. In Malaya and Hapan (and ASumatra; JTvG) verbeekinid limestones are associated with volcanics. With M Permian distribution map from Mediterranean area, through the Asia Minor-C Asian Tethyan belt to SE Asia and Japan. In Indonesia limited to Neoschwagerina fauna in Sumatra and Timor)

Gould, R.E. (1975)- The succession of Australian Pre-Tertiary megafossil floras. The Botanical Review 41, 4, p. 453-483.
(Review of Devonian- Cretaceous floras of Australia, incl. Devonian Baragwanathia flora, Permian Glossopteris flora, Triassic Dicroidium flora, etc.)

Hahn, G. & C. Brauckmann (1975)- Revision zweier Trilobiten Arten aus dem Perm Asiens. Geologica et Palaeontologica 9, p. 117-124.
('Revision of two trilobite species from the Permian of Asia'. With distinction of new subgenus of Pseudophillipsia (Carniphillipsia))

Hayasaka, I. (1917)- On the brachiopod genus *Lyttonia* with several Japanese and Chinese examples. J. Geological Society Japan, Tokyo, 24, 288, p. 43-53.
(online at: https://www.jstage.jst.go.jp/article/geosoc1893/24/288/24_288_43/_pdf/-char/en)
(Discussion of Permian brachiopods of Lyttonia/ Leptodus type in Japan and China and Indochina (also known from Sumatra, Malay Peninsula, Timor, etc.; JTvG)

Heritsch, F. (1937)- Die rugosen Korallen und die Stratigraphie der Permformation. In: F.E. Suess Festschrift, Mitteilungen der Geologischen Gesellschaft in Wien, 29, p. 307-328.
(online at: https://www.zobodat.at/pdf/MittGeolGes_29_0307-0328.pdf)
('The rugose corals and the stratigraphy of the Permian'. Review of Permian coral zonation, including discussion of M Permian Basleo coral fauna of Timor, as first described by Gerth (1921))

Heritsch, F. (1937)- Rugose Korallen aus dem Salt Range, aus Timor und aus Djoulfa, mit Bemerkungen uber die Stratigraphie des Perms. Sitzungsberichte Akademie Wissenschaften, Wien, Math.- Naturwissenschaftliche Klasse, Abt. 1, 146, p. 1-16.
('Rugose corals from the Salt Range (Himalaya), from Timor and from Djoulfa, with remarks on the stratigraphy of the Permian'. Brief descriptions of some Permian rugose corals)

Hess, H. (1999)- Permian. In: H. Hess et al. (eds.) Fossil crinoids, Cambridge University Press, Chapter 20, p. 160-165.
(Timor Permian crinoid faunas most diverse and abundant in world, with 320 species described by Wanner, most new and unique to Timor. Permian crinoids from Australia cooler water faunas, with much lower diversity than Timor faunas)

Hill, D. (1957)- The sequence and distribution of Upper Palaeozoic coral faunas. Australian J. Science 19, p. 42-61.
(Review of Permian corals, including Timor material)

Igo, H. (1984)- Summary of the Palaeozoic conodonts from Malaysia and Thailand. In: T. Kobayashi, R. Toriyama & W. Hashimoto (eds.) Geology and Palaeontology of Southeast Asia, University of Tokyo Press, 25, p. 289-293.
(Brief review of Paleozoic conodonts in SE Asia. Oldest conodonts are of Ordovician age, from S Thailand)

Ishii, K.I. (1975)- On the genus *Colaniella* and its biostratigraphic significance. J. Geosciences, Osaka City University 19, 6, p. 107-138.
(online at: http://dlisv03.media.osaka-cu.ac.jp/infolib/user_contents/kiyo/DBe0190006.pdf)
Small latest Permian benthic foram genus Colaniella, generally associated with fusulinids (Palaeofusulina, Reichelina, Staffella) and small foraminifera (Pachyphloia, Globivalvulina, Agathammina, Endothyra, etc.). Common in Japan, S China, Himalayas, Mediterranean, also in Thailand, Malay Peninsula (Kelantan))

Ishii, K., Y. Okimura & K. Ichikawa (1985)- Notes on Tethys biogeography with reference to Middle Permian fusulinaceans. In: K. Nakazawa & J.M. Dickins (eds.) The Tethys: her paleogeography and paleobiogeography from Paleozoic to Mesozoic, Tokai University Press, Tokyo, p. 139-155.

Isozaki, Y. (2006)- Guadalupian (Middle Permian) giant bivalve Alatoconchidae from a mid-Panthalssan paleo-atoll complex in Kyushu, Japan: a unique community associated with Tethyan fusulines and corals. Proc. of the Japan Academy, B82, 1, p. 25-32.
(online at: http://ea.c.u-tokyo.ac.jp/earth/Members/Isozaki/06Alatoconchidae.pdf)
(Large Alatoconchidae bivalves in M Permian, with typical Tethyan fusulinids of Neoschwagerina and Lepidolina zones. Range up to end-Guadalupian extinction level)

Isozaki, Y. & D. Aljinovic (2009)- End-Guadalupian extinction of the Permian gigantic bivalve Alatoconchidae: end of gigantism in tropical seas by cooling. Palaeogeogr. Palaeoclim. Palaeoecology 284, p. 11-21.
(Large, thick Permian Alatoconchidae bivalves from E-M Permian shallow-marine carbonates in 9 areas in low-latitudes of Tethyan and Panthalassan domains, incl. Thailand, Malaysia, Philippines, and Japan. Always in association with large fusulines (Verbeekinidae) and/or rugose corals (Waagenophyllidae). This 'tropical trio' became extinct near Guadalupian-Lopingian boundary, probably due to temperature drop (Kamura cooling))

Kanmera, K., K. Ishii & R. Toriyama (1976)- The evolution and extinction patterns of Permian Fusulinaceans. In: T. Kobayashi & W. Hashimoto (eds.) Geology and Palaeontology of Southeast Asia, University of Tokyo Press, 17, p. 129-154.
(Review of parallel evolution of several lineages of fusulinid foraminifera, each with short periods of rapid diversification, interspersed with longer periods of relative stability. No sudden and catastrophic extinctions of fusulinaceans, but gradual waning of group through later Permian)

Kawamura, T. & H. Machiyama (1995)- A Late Permian coral reef complex, South Kitakami Terrane, Japan. Sedimentary Geology 99, p. 135-150.
(M Permian Iwaizaki Lst of S Kitakami Terrane in NE Japan, represents coral reef complex. With rugose and tabulate corals, solenoporacean algae, calcisponges, Tubiphytes, Archaeolithoporella, etc. High diversity unique among Permian reefs, most of which are mainly formed by calcisponges and calcareous algae. Coral reefs developed mainly around S China and Indochina continents, in tropics. Calcisponge reefs and Tubiphytes-algal crust reefs common in tropical- subtropical regions; stromatolite-bryozoan reefs in arid areas)

Kemp, E.M., B.E. Balme, R.J. Helby, R.A. Kyle, G. Playford & P.L. Price (1977)- Carboniferous and Permian palynostratigraphy in Australia and Antarctica: a review. BMR J. Australian Geology Geophysics 2, p. 177-208.
(online at: www.ga.gov.au/corporate_data/80927/Jou1977_v2_n3_p177.pdf)

Kobayashi, F. (2005)- Permian foraminifers from the Itsukaichi-Ome area, West Tokyo, Japan. Journal of Paleontology 79, 3, p. 413-432.
(Continuous carbonate deposition of >70 My on Panthalassan buildup in Carboniferous-Permian limestone blocks in Itsukaichi- Ome area. Blocks and breccias resulted from collapse of seamount and tectonic mixing with trench-fill deposits in Jurassic accretionary complexes of Chichibu Terrane. 105 species of Permian and 65 species of Carboniferous forms in 24 fusulinacean zones)

Kobayashi, F. (2011)- Permian fusuline faunas and biostratigraphy of the Akasaka Limestone (Japan). Revue de Paleobiologie, Geneve, 30, 2, p. 431-574.
(online at: www.ville-ge.ch/mhng/paleo/paleo-pdf/30-2/pal_30_2_01a.pdf)
(Mainly M Permian Akasaka Lst in C Japan with 63 species of fusulinids, divided into 7 zones: Parafusulina nakamigawai (U Kungurian), Cancellina nipponica (Lw Roadian), Neoschwagerina simplex (U Roadian), N. craticulifera (Lw Wordian), N. colaniae (U Wordian) Yabeina globosa (Capitanian) and Nanlingella suzukii Zone (Wuchiapingian))

Kobayashi, F. (2012)- Permian non-fusuline foraminifers of the Akasaka Limestone (Japan). Revue de Paleobiologie, Geneve, 31, 2, p. 313-335.
(online at: www.ville-ge.ch/mhng/paleo/paleo-pdf/31-2/pal_31_2_03.pdf)
(Description of diverse Permian smaller foram assemblages with Tethyan affinities, from 250m thick Akasaka Lst, deposited on Permian Panthalassan seamount and emplaced as exotic block in Jurassic-E Cretaceous accretionary complexes of Mino Terrane in C Japan. Associated with rich fusulinid assemblages, with 7 zones.)

Kobayashi, F. (2012)- Middle and Late Permian foraminifers from the Chichibu Belt, Takachiho Area, Kyushu, Japan: implications for faunal events. Journal of Paleontology 86, p. 669-687.
(M-L Permian- Triassic carbonates (<100m thick?) with fusulinids in S Chichibu Belt of C Kyushu, originated as Panthalassan seamount, now in ?Jurassic accretionary complex. Permian (Guadalupian-Lopingian) and Triassic ages)

Kobayashi, F., C.A. Ross & J.R.P. Ross (2010)- *Thailandina* and *Neothailandina*, and their subfamily Thailandininae: an example of an invalid taxonomic group of Permian fusuline foraminifera. Journal of Paleontology 84, 2, p. 360-361.
(Thailandina and Neothailandina genera of Permian fusulinids from Rat Buri Limestone in Thailand first proposed by Toriyama and Kanmera (1968), based on unique wall structure. However, thailandina-type wall is secondary mineralization of calcite as seen in specimens of Staffellidae, Misellina, etc.)

Kobayashi, T. & T. Hamada (1978)- Three suites of Carboniferous trilobites in Southeast Asia. Proc. of the Japan Academy, Series B, 54, 3, p. 92-95.
(online at: https://www.jstage.jst.go.jp/article/pjab1977/54/3/54_3_92/_pdf)
(18 species of trilobites known from Carboniferous of SE Asia. Oldest assemblage in Langgon Red Beds in NW Malay Peninsula (Langgonbole, Waribole, Macrobole, etc.). Younger assemblage (Dinantian) with Linguphillipsia (= Phillipsia of older authors?))

Krassilov, V.A. (2000)- Permian phytogeographic zonality and its implications for continental position and climates. Paleontological Journal (Moscow) 34, Supplement 1, p. 587-598.
(online at: http://paleobotany.ru/pdf/Krassilov%202000%20-%20Permian%20Phytogeographic%20Zonality%20and%20Its.pdf)
(Revised scheme of Permian plant geography. Contrary to prevalent opinion views Sumatra (Jambi) and West Irian Jaya floras as 'mixed Eurogondwana' floras, and mapped in 'subtropical humothermic belt' with 'Gondwanan' India- Australia floras)

Krijnen, W.F. (1931)- Palaeozoic and Mesozoic Gastropoda, Lamellibranchiata and Scaphopoda. In: B.G. Escher et al. (eds.) De palaeontologie en stratigraphie van Nederlandsch Oost-Indie, Leidsche Geologische Mededelingen 5 (K. Martin Memorial Volume), p. 164-205.
(online at: www.repository.naturalis.nl/document/549430)

(Extensive listings of Paleozoic- Mesozoic molluscs (gastropods, bivalves) known from Indonesia in 1931. No figures)

Laveine, J.P., S. Zhang & Y. Lemoigne (2003)- Additional documentation to the knowledge of the Late Palaeozoic floras of East and Southeast Asia: general conclusions and references. Revue de Paleobiologie, Geneve, 22, p. 831-849.
(Floras suggest that Indochina, E Malaysia, and S and N China were closely connected during Carboniferous)

Leven, E.Y. (1997)- Permian stratigraphy and fusulinida of Afghanistan with their paleotectonic implications. Geological Society of America (GSA), Special Paper 316, p. 1-134.
(Complete Permian section in Afghanistan, with rich fusulinid faunas: 58 genera, 282 species, incl. 41 new. Asselian- Sakmarian in N Afghanistan and N Pamir tropical shelf carbonates and fusulinid assemblages. Age-equivalent rocks of S Afghanistan- S Pamir all siliciclastic, lacking fusulinids, with cold-water macrofaunas typical of Peri-Gondwanan seas. In S Afghanistan first fusulinids in Sakmarian, low diversity, mainly species of Pseudofusulina. By late Yahtashian- Bolorian (late E Permian= ~late Artinskian-Kungurian; JTvG), due to milder climate and widespread transgression, distinction between S and N fusulinid assemblages starts to disappear. In C-S Afghanistan occurrences of Monodiexodina in Bolorian (= Kungurian; late E Permian), Neoschwagerina- Verbeekina- Sumatrina in Murgabian-Midian (M Permian) and miliolid Shanita amosi-Hemigordiopsis renz in Midian-Dzhulfian (M-L Permian))

Leven, E.Y. (2003)- The Permian stratigraphy and Fusulinids of the Tethys. Rivista Italiana Paleontologia Stratigrafia 109, 2, p. 267-280.
(online at: https://riviste.unimi.it/index.php/RIPS/article/view/5507/5553)

Leven, E.J. & H.J. Campbell (1998)- Middle Permian (Murgabian) fusuline faunas, Torlesse Terrane, New Zealand. New Zealand J. Geology Geophysics 41, p. 149-156.
(online at: www.tandfonline.com/doi/pdf/10.1080/00288306.1998.9514799)
(Two fusuline foram limestone localities in Torlesse Gp of Canterbury, S Island, New Zealand. Limestones associated with volcanics and hemipelagic sediments which appear 'allochthonous' (fortuitous accumulations associated with oceanic seamounts). Low diversity fauna dominated by Parafusulina (Skinnerella) japonica, also Parafusulina (S.) cuniculata. Fauna correlates best with late M Permian (E Murgabian) sequences of Tethyan affinity in Eurasia)

Leven, E.J. & J.A. Grant-Mackie (1997)- Permian fusulinid foraminifera from Wherowhero Point, Orua Bay, Northland, New Zealand. New Zealand J. Geology Geophysics 40, p. 473-486.
(online at: www.tandfonline.com/doi/pdf/10.1080/00288306.1997.9514777)
(Abundant, diverse E-M Midian fusulinids (24 species) from Waipapa Terrane, N Island. Probably East Paleotethys-Panthalassa seamount fauna. Key species Neoschwagerina margaritae, Yabeina spp, Reichelina sp, Lepidolina shiraiwensis, etc. Much more diverse than Murgabian faunas from Torlesse, S Island)

Long, J.A. (1990)- Late Devonian Chondrichthyans and other microvertebrate remains from Northern Thailand. J. Vertebrate Paleontology 10, 1, p. 59-71.
(Microvertebrates from limestones near Burmese border town of Mae Sam Lap, N Thailand, dated as Late Famennian by conodonts. Fauna contains chondrichthyans, several types of chondrichthyan scales, actinopterygian scales and teeth, and rare acanthodian scales. Taxa suggest close affinity between Shan-Thai, East Gondwana, and S China Terranes at end of Devonian)

Macurda, D.B. (1983)- Systematics of the fissiculate Blastoidea. University of Michigan Papers on Paleontology, Ann Arbor, 22, p. 1-291.
(Strictly taxonomic review of Permian blastoids, much of which based on Timor material. No location info, biostratigraphic succession, etc.)

Mamet, B.L. & E. Saurin (1970)- Sur la microfaune des foraminiferes carboniferes du Sud-est asiatique. Bull. Societe Geologique France (7) 12, 2, p. 356-363.

('On the Carboniferous foraminiferal microfauna of Southeast Asia'. Eight Carboniferous foram assemblages, similar to Europe/ Asia, described from Laos, Vietnam, Malaysia)

Martodjojo, Sujono (1964)- A study of the superfamily Adrianitaceae. Contributions Department of Geology, Institute of Technology Bandung (ITB) 58, p. 75-81.
(Two groups recognized in ?Permian ammonoid family, from Timor?)

McLoughlin, S. (1993)- Glossopterid megafossils in Permian Gondwanic non-marine biostratigraphy. In: R.H. Findlay et al. (eds.) Proc. Gondwana Eight- Assembly, evolution and dispersal, Balkema, Rotterdam, p. 253-264.
(Review of Permian Glossopteris floras, characteristic of Gondwana. NE Australian Strong provincialism: Bowen Basin Glossopteris present, but no species in common with Indian or South African successions))

McLoughlin, S. (1995)- New records of *Bergiopteris* and glossopterid fructifications from the Permian of Western Australia and Queensland. Alcheringa 19, 3, p. 175-192.

Metcalfe, I. & Y. Isozaki (2009)- Current perspectives on the Permian-Triassic boundary and end-Permian mass extinction: Preface. J. Asian Earth Sciences 36, p. 407-412.
(End-Permian mass extinction nowwell dated at 252.6 ± 0.2 Ma (U-Pb) and Permian-Triassic GSSP level is dated by interpolation at 252.5 Ma. Conodonts evolved rapidly in first 1 million years following mass extinction leading to high-resolution conodont zones. Nature of double-phased Late Permian extinction (at Guadalupian-Lopingian boundary and P-T boundary, linked to large igneous provinces, suggests superplume activity that involved geomagnetic polarity change and massive volcanism)

Morante, R. (1996)- Permian and early Triassic isotopic records of carbon and strontium in Australia and a scenario of events about the Permian-Triassic boundary. Historical Biology 11, p. 289-310.
(Organic carbon in wells in Australian basins showed negative d13C excursions of 6-10%, believed to correlate with negative d13C excursion in marine carbonates at Permian-Triassic boundary around world. Shift consistently near base of miospore Protohaploxypinus microcorpus Zone of Helby et al. (1987))

Nestell, M.K. & G.P. Pronina (1997)- The distribution and age of the genus *Hemigordiopsis*. In: C.A. Ross et al. (eds.) Late Paleozoic foraminifera; their biostratigraphy, evolution, and paleoecology; and the mid-Carboniferous boundary, Cushman Foundation Foraminiferal Research, Special Publ. 36, 3, p. 105-110.
(online at: https://www.academia.edu/62505006/The_Distribution_and_age_of_the_genus_Hemigordiopsis)
(M-L Permian (Late Midian) foraminifer Hemigordiopsis appears to be characteristic of 'Cimmerian' terranes (including Sibumasu) which rifted off N Gondwana margin in Permian, now as remnants in Tethyan belt from Mediterranean to Peninsular Thailand and W Malay Peninsula. Hemigordiopsis evolved into Shanita in Late Midian; both go extinct at end of Late Midian))

Newell Arber, E.A. (2005)- Catalogue of the fossil plants of the *Glossopteris* flora in the Department of Geology, British Museum (Natural History); being a monograph of the Permo-Carboniferous flora of India and the Southern Hemisphere. British Museum (Natural History). Dept. of Geology, London, p. 1-255.
(online at: www.books.google.com/...)
(Old monograph on Carboniferous-Permian plant fossils of Gondwanaland (mainly India))

Nicoll, R.S. & I. Metcalfe (2011)- The Permian conodont biostratigraphy of Australia and New Zealand. In. XVII Int. Congress Carboniferous and Permian, Perth 2011, Geological Survey West Australia, Record 2011/20, p. 96.
(Abstract only)
(Summary of Permian conodont studies. High paleolatitude Permian conodont faunas of W Australia dominated by Vjalovognathus with occasional Hindeodus, Mesogondella and Sweetognathodus. Lower latitude faunas from Timor, Pakistan, Nepal/Tibet higher diversity, attributed to warmer temperatures)

Okimura, Y., K. Ishii & C.A. Ross (1985)- Biostratigraphical significance and faunal provinces of Tethyan Late Permian smaller foraminifera. In: K. Nakazawa & J.M. Dickins (eds.) The Tethys: her paleogeography and paleobiogeography from Paleozoic to Mesozoic, Tokai University Press, Tokyo, p. 115-138.

Ota, A. & Y. Isozaki (2006)- Fusuline biotic turnover across the Guadalupian-Lopingian (Middle-Upper Permian) boundary in mid-oceanic carbonate buildups: biostratigraphy of accreted limestone in Japan. J. Asian Earth Sciences 26, p. 353-368.
(Fusulinid biostratigraphy of upper M- lower U Permian shallow-water limestones at Kamura and Akasaka in SW Japan. Both sections represent seamount carbonate buildups developed on basaltic basement in mid-oceanic environment. Sections contain abundant Tethyan fusulines and record extinction of M Permian large-sized fusuline family Verbeekinidae at Guadalupian- Lopingian boundary in mid-Panthalassa Ocean, similar to shallow-water Tethyan shelf areas)

Ozawa, T. (1970)- Notes on the phylogeny and classification of the Superfamily Verbeekinoidea: Studies of the Permian Verbeekinoidean Foraminifera-I. Memoirs Faculty Science, Kyushu University, Ser. D, Geology, 20, 1, p. 17-58.
(online at: https://catalog.lib.kyushu-u.ac.jp/opac_download_md/1543907/20_01_p017.pdf)
(Review of evolution and paleogeography of Tethyan M-L Permian Verbeekina group fusulinid foraminifera)

Ozawa, T. (1975)- Evolution of *Lepidolina multiseptata* (Permian foraminifer) in East Asia. Memoirs Faculty of Science, Kyushu University, Ser. D, Geology, 23, 2, p. 117-264.
(online at: https://catalog.lib.kyushu-u.ac.jp/opac_download_md/1544173/23_02_p117.pdf)
(Review of evolution in M-U Permian verbeekinoid foraminifer Lepidolina multiseptata (Deprat), which occurs in SE Asia (Sumatra, Malay Peninsula (C Pahang), W Cambodia,), S China, Japan and New Zealand (in E Asia Lepidolina now viewed as typicalof the E Tethyan- Cimmerian Province (Sibumasu/ Lhasa Block, etc.;Huang et al. 2022) and late M Permian?))

Palmieri, V. (1994)- Permian foraminifera in the Bowen Basin, Queensland. Queensland Geology 6, p. 1-125.

Palmieri, V., C.B. Foster & E.V. Bondareva (1994)- First record of shared species of Late Permian small foraminiferids in Australia and Russia: time correlations and plate reconstructions. AGSO J. Australian Geology Geophysics 15, p. 359-365.
(online at: https://d28rz98at9flks.cloudfront.net/81403/Jou1994_v15_n3_p359.pdf)
(At least 12 species of small calcareous foraminiferids from early Late Permian assemblages from Arctic Russia also occur in assemblages from E Australian Ingelara Fm of Bowen Basin)

Pia, J. (1937)- Die wichtigsten Kalkalgen des Jungpalaeozoicums und ihre geologische Bedeutung. Comptes Rendus 2nd Congres Avancement Etudes de Stratigraphie du Carbonifere, Heerlen 1935, 2, p. 765-856.
('The most important calcareous algae from the Late Paleozoic and their stratigraphic significance'. Incl. description of M Permian algae assemblages with Vermiporella sumatrana n.sp. from Sumatra (Fontaine 1989))

Pickett, J.W. (2011)- Fossil corals of Australia, New Zealand, New Guinea and Antarctica: bibliography and index. Memoir Assoc. Australasian Palaeontologists (AAP) 40, p. 1-189.
(Bibliography and index of published fossil coral research from Antarctica, Australia, New Guinea and New Zealand, covering 1343 species names, 607 genus names and 639 references)

Posthumus, O. (1931)- Plantae. In: B.G. Escher et al. (eds.) Onze palaeontologische kennis van Nederlandsch Oost Indie, Leidsche Geologische Mededelingen 5 (Feestbundel K. Martin), p. 485-508.
(online at: www.repository.naturalis.nl/document/549382)
(Listings of Permian- Pleistocene fossil plant and calcareous algae species from Indonesia, as known in 1931: mainly from Permian of Sumatra and Tertiary of Java, Sumatra, Kalimantan)

Ross, J. (1978)- Biogeography of Permian ectoproct bryozoa. Palaeontology 21, 2, p. 341-356.
(online at: http://palaeontology.palass-pubs.org/pdf/Vol%2021/Pages%20341-356.pdf)
(Overview of Permian bryozoa distribution, incl. comments on Timor assemblages)

Segroves, K.L. (1969)- Saccate plant microfossils from the Permian of Western Australia. Grana Palynologica 9, p. 174-227.
(online at: www.tandfonline.com/doi/pdf/10.1080/00173136909436435)
(29 species of saccate spores from Permian of N Perth Basin)

Shen, S.Z. (2018)- Global Permian brachiopod biostratigraphy: an overview. In: S.G. Lucas & S.Z. Shen (eds.) The Permian timescale, Geological Society, London, Special Publ. 450, p. 289-320.
(Permian brachiopod successions in five major paleobiogeographical realms. For Gondwanaland and peri-Gondwanan regions including Cimmerian blocks, Bandoproductus, Cimmeriella characteristic of Cisuralian (E Permian). Lower Permian brachiopods from Mengkareng Fm in Sumatra (Crippa et al. 2014) viewed as Sakmarian in age and grouped with S Thailand- Malaysia Cimmerian/ Sibumasu faunas (despite association with 'Jambi Flora, which is generally viewed as 'Cathaysian'?; JTvG)))

Shen, S.Z. & G.R. Shi (2002)- Paleobiogeographical extinction patterns of Permian brachiopods in the Asian-western Pacific region. Paleobiology 28, p. 449-463.
(End-Permian extinction eliminated ~90% of genera and 95% of species of Brachiopoda. End-Guadalupian extinction less profound)

Shen, S.Z., H. Zhang, W.Z. Li, L. Mu & J.F. Xie (2006)- Brachiopod diversity patterns from Carboniferous to Triassic in South China. Geological Journal 41, p. 345-361.
(Carboniferous to Triassic includes (1) 100 My-long stable biodiversity stage from Late Carboniferous- late Middle Permian, with highly diverse brachiopod faunas; (2) end-Permian most severe mass extinction in Phanerozoic; (3) bleak stage in E Triassic and (4) rapid recovery stage in M Triassic)

Smith, T.E., T. Bernecker, S. Bodorkos, J. Gorter, L. Hall, T. Hill, E. Holmes, A. Kelman, K. Khider, J. Laurie et al. (2017)- The impact of recalibrating palynological zones to the chronometric timescale: revised stratigraphic relationships in Australian Permian and Triassic hydrocarbon-bearing basins. AAPG/SEG 2017 Int. Conf. Exhibition, London, Search and Discovery Article 51443, p. 1-9. *(Poster Presentation)*
(online at: http://www.searchanddiscovery.com/documents/2017/51443smith/ndx_smith.pdf)
(Recalibration of Permian and Triassic spore-pollen palynozones and numerical ages from high-precision radiometric dating of tuffs)

Smith, T.E. & D. Mantle (2013)- Late Permian palynozones and associated CA-IDTIMS dated tuffs from the Bowen Basin, Australia. Geoscience Australia Record 2013/46, p. 1-39.
(onine at: https://d28rz98at9flks.cloudfront.net/72990/Rec2013_046.pdf)
(Calibration of Late Permian palynozones with radiometric ages of associated tuffs. Dulhuntyispora parvithola zone APP5 spans >5 Myrs (~254.4- 263 Ma). Latest Permian Playfordiaspora crenulata and Protohaploxypinus microcorpus palynozones APP6 between ~252-254.4 Ma) (see also Laurie et al. 2016))

Stehli, F.G. (1961)- New genera of Upper Paleozoic Terebratuloids. Journal of Paleontology 35, 3, p. 457-466.
(New genus and species name Timorina broili for small terebratulid brachiopod, originally described as Notothyris minuta by Broili (1916) from M Permian of Basleo, Timor)

Stephenson, M.H. (2008)- A review of the palynostratigraphy of Gondwanan Late Carboniferous to Early Permian glacigene successions. In: C.R. Fielding et al. (eds.) Resolving the Late Paleozoic ice age in time and space, Geological Society of America (GSA), Special Paper 441, p. 317-330.
(E Permian W Australian, Arabian and S African sequences can be correlated using taxa like Converrucosisporites confluens and Pseudoreticulatispora pseudoreticulata. C. confluens and P. pseudoreticulata zones considered to be Sakmarian, and Striatopodocarpites fusus zone is Artinskianin age. Difficult to correlate Gondwana palynological assemblages precisely to Russian type areas because of scarcity of marine fauna in Gondwana and different paleolatitudes, so Carboniferous-Permian boundary cannot be precisely correlated in Gondwana by palynology)

Stephenson, M.H. (2017)- Permian palynostratigraphy: a global overview. In: S.G. Lucas & S.Z. Shen (eds.) The Permian timescale, Geological Society, London, Special Publ. 450, p. 321-347.
(online at: https://www.lyellcollection.org/doi/10.1144/SP450.2)

Sun, K. (1999)- Origin, evolution and extinction of Cathaysia flora. Chinese Science Bull. 44, 2, p. 100-108.
(Carboniferous- Permian Cathaysia flora mainly distributed in China, Korea, Japan, Laos, Thailand, Sumatra and Malaysia. Mixed Cathaysian and Gondwanan flora known in S Tibet, Kashmir, Turkey and New Guinea. Cathaysian flora developed from global uniform E Carboniferous Lepidodendropsis flora)

Taboada, A.C., A.J. Mory, G.R. Shi, D.W. Haig & M.K. Pinilla (2015)- An Early Permian brachiopod-gastropod fauna from the Calytrix Formation, Barbwire Terrace, Canning Basin, Western Australia. Alcheringa 39, 2, p. 207-223.
(Small brachiopod-gastropod fauna from core near base of Calytrix Fm in glacially-influenced Grant Group on Barbwire Terrace, Canning Basin. Age probably Sakmarian, but possibly as old as Asselian. With palynomorphs of Pseudoreticulatispora confluens Zone)

Teichert, C. & B.F. Glenister (1952)- Fossil nautiloid faunas from Australia. Journal of Paleontology 26, p. 730-752

Tien, Nguyen D. (1989)- *Sphairionia sikuoides* gen. et sp. nov., a Permian incertae sedis organism: *Sphairionia*. In: Comptes Rendus 11th Congress Carboniferous Stratigraphy and Geology, Beijing 1987, 3, p. 73-78.
(Description of 'small bubble', either lagenid foraminifer or charophyte algae from M Permian of W Thailand and Cambodia. Also already described in 1988 'Note on two 'Incertae Sedis' from the Permian of West Thailand', CCOP Technical Bulletin 20. (also reported from Thailand and other areas of Tethys; Pronina 1996))

Tong, J. & G.R. Shi (2000)- Evolution of Permian and Triassic foraminifera in South China. In: H. Yin, J.M. Dickins et al. (eds.) Permian-Triassic evolution of Tethys and Western Circum-Pacific, Developments in palaeontology and stratigraphy 18, Elsevier, Amsterdam, p. 291-307.
(Paper mainly on stratigraphic distribution of foram genera. No paleobiogeography, no fossil illustrations)

Tripathi, C. & G. Singh (1985)- Carboniferous flora of India and its contemporaneity in the world. Comptes Rendus 10me Congres International Stratigraphie et Geologie du Carbonifere, Madrid 1983, p. 295-306.

Tripathi, C. & G. Singh (1987)- Gondwana and associated rocks of the Himalaya and their significance. In: G.D. McKenzie (ed.) Gondwana Six: Stratigraphy, Sedimentology, and Paleontology, 6th Int Gondwana Symposium, Columbus, Ohio, 1985, American Geophysical Union (AGU), Geophysical Monograph 41, p. 195-205.
(Along N margin of India Plate (Permian rift margin) two Permian Gondwanan domains, both with widespread diamictite, Glossopteris flora and Eurydesma fauna: (1) (S) Lesser Himalaya belt with Permian Volcanics directly on Precambrian/ Cambrian basement and with Glossopteris flora; (2) (N) Tethyan Himalaya belt (Salt Range-Ladakh- Thakkola- Lingshi) with more complete Cambrian- Permian section, more marine influence (limestones) and mixed Gondwana-Cathaysia flora. In Kashmir Basin Artinskian? Mamal Fm above Panjal Volcanics with rich E Permian flora, incl. Gondwanan Glossopteris, endemic Gangamopteris kashmirensis, also common 'Cathaysian' elements like Taeniopteris, Rajahia, Lobatanularia, Gingkophyllum and Parasphenophyllum. Also endemic vertebrate fauna. In Karakorum Basin (= Lhasa or Qiantang Block?) Fenestella Shale, overlain by diamictite, Gangamopteris plant bed and fusulinid lst)

Ueno, K. (2022)- Carboniferous fusuline foraminifera: taxonomy, regional biostratigraphy, and palaeobiogeographic faunal development. In: S.G. Lucas et al. (eds.), The Carboniferous timescale, Geological Society, London, Special Publ. 512, p. 327- 496.
(online at: https://www.lyellcollection.org/doi/10.1144/SP512-2021-107)
(Major review of Carboniferous fusulinid foraminifera worldwide, incl. mainland SE Asia and Timor)

Vachard, D. (2018)- Permian smaller foraminifers: taxonomy, biostratigraphy and biogeography. In: S.G. Lucas & S.Z. Shen (eds.), The Permian Timescale, Geological Society, London, Special Publ. 450, p. 205-252.

(online at: www.academia.edu/40553701/Permian_smaller_foraminifers_taxonomy_biostratigraphy_and_biogeography)

Vachard, D. & J. Ferriere (1991)- Une association a *Yabeina* (foraminifere fusulinoide) dans le Midien (Permien superieur) de la region de Whangaroa (Baie d'Orua Nouvelle-Zelande). Revue de Micropaleontologie 34, p. 201-230.
('A Yabeina association (fusulinid foraminifera) in the Midian (U Permian) of the Whangaroa region (Orua Bay, New Zealand'. Microfauna/ microflora from exotic limestone blocks embedded in volcanic and volcano-sedimentary units in Whangaroa area, New Zealand. Algae dominated by Tubiphytes. Smaller foraminifera common Tethyan species. Fusulinids mainly Reichelina, Codonofusiella, Chusenella, also Yabeina parvula. Outcrop is terrane that belonged to Cathaysia and which had migrated 3000 km S across Paleopacific)

Vachard, D., L. Pille & J. Gaillot (2010)- Palaeozoic foraminifera: systematics, palaeoecology and responses to global changes. Revue de Micropaleontologie 53, p. 209-254.
(Review of biostratigraphy and facies models of Paleozoic forams)

Van Gorsel, J.T. (2014)- An introduction to Paleozoic faunas and floras of Indonesia. Berita Sedimentologi 31, p. 6-26.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/122)
(Review of Ordovician-Permian fossils of Indonesia. E Paleozoic faunas mainly in W Papua. Late Paleozoic (mainly Permian) faunas and floras more widespread, mainly on Sumatra, Timor and NW Borneo. Paleozoic fossils from Indonesia are mainly marine organisms, but non-marine Permian plant fossils are also known from Jambi (Sumatra) and Bird Head (West Papua). Some assemblages or species signify 'low-latitude Tethyan' settings; others have 'anti-tropical/subtropical Tethyan' or 'Gondwanan' affinities)

Von Staff, H. (1909)- Beitrage zur Kenntnis der Fusuliniden. Neues Jahrbuch Mineralogie Geologie Palaontologie, Beilage Band 27, p. 461-508.
('Contribution to the knowledge of the fusulinids'. Permian larger foram Schwagerina verbeeki Geinitz from Padang Highlands, W Sumatra, should be classified in new genus Verbeekina (see also Thompson 1936; Genus name Verbeekina still used today, and is viewed as 'Tethyan' genus, also known from S China, Thailand, Tibet, Crimea, etc.; JTvG))

Wahlmann, G.P. (2002)- Upper Carboniferous- Lower Permian (Bashkirian- Kungurian) mounds and reefs. In: W. Kiessling et al. (eds.) Phanerozoic reef patterns, Soc. Sedimentary Geology (SEPM) Special Publ. 72, p. 271-338.
(Includes mention of Timor Permian (Sakmarian) Tubiphytes (= Shamovella) grainstones)

Waterhouse, J.B. (1973)- Permian brachiopod correlations for South-East Asia. In: B.K. Tan (ed.) Proc. Regional Conference on the Geology of SE Asia, Kuala Lumpur 1972, Bull. Geological Society Malaysia 6, p. 187-210.
(online at: https://gsm.org.my/wp-content/uploads/gsm_file_2/702001-101346-PDF.pdf)
(Correlations of Permian brachiopod assemblages in Indonesia (Timor), Malaysia, Thailand, Vietnam, Burma, etc., using fusulinids and ammonoids as main age framework)

Weidlich, O. (2002)- Middle and Late Permian reefs- distributional patterns and reservoir potential. In: W. Kiessling et al. (eds.) Phanerozoic reef patterns, Soc. Sedimentary Geology (SEPM) Special Publ. 72, p. 339-390.
(Includes SE Asia info: prolific Permian rugose coral faunas found in mainland SE Asia, Sumatra and Timor)

Xu, G. & R.E. Grant (1994)- Brachiopods near the Permian-Triassic Boundary in South China. Smithsonian Contr. Paleobiology 76, p. 1-68.
(online at: www.sil.si.edu/smithsoniancontributions/paleobiology/pdf_hi/SCtP-0076.pdf)
(Latest Permian (Changxingian) in S China with Cathaysian Tethyan brachiopod assemblage of 164 species, incl. Leptodus spp. After major extinction event 20 species in E Triassic (lower Griesbachian))

Yabe, H. & S. Hanzawa (1931)- Palaeozoic and Mesozoic foraminifera. In: B.G. Escher et al. (eds.) De palaeontologie en stratigraphie van Nederlandsch Oost-Indie (Feestbundel K. Martin), Leidsche Geologische Mededelingen 5, p. 23-34.
(online at: https://repository.naturalis.nl/pub/505689/LGM1931005001003.pdf)
(Listings of Paleozoic- Mesozoic foraminifera species reported from Indonesia: Carboniferous- Permian (Sumatra, Timor, Leti, Luang), Triassic- Jurassic (Sumatra) and Cretaceous (Sumatra, Java, Borneo, Timor, Roti, Ceram, etc.). Mid-Cretaceous Orbitolina known from Java, Sumatra and Borneo: typical Tethyan fauna, adapted to warm-water, carbonate bank environments, Borneo Orbitolina not O.concava, but O. scutum. probably U Aptian age)

Yancey, T.E. & D.W. Boyd (1983)- Revision of the Alatoconchidae: a remarkable family of Permian bivalves. Palaeontology 26, p. 497-520.
(online at: http://cdn.palass.org/publications/palaeontology/volume_26/pdf/vol26_part3_pp497-520.pdf)
(Review of M Permian large, thick-walled bivalves, including material from Kinta Valley, Malay Peninsula (H.S. Lee mine, etc.). Oldest known alatoconchids Shikamaia (Tanchintongia) perakensis and Saikraconcha (Dereconcha) kaparensis, of probable E Artinskian age)

Zaninetti, L., J. Whittaker & D. Altiner (1979)- The occurrence of *Shanita amosi* Bronnimann, Whittaker and Zaninetti (Foraminifera) in the Late Permian of the Tethyan region. Notes du Laboratoire Paleontologie Universite de Geneve 5, 1, p. 1-7.
(Late Permian small miliolid foraminifer Shanita appears to be marker for M-L Permian of N Gondwana margin; see also Jin & Yang, 2005)

Zhou, W., M. Wan, R.A. Koll & J. Wang (2018)- Occurrence of the earliest gigantopterid from the basal Permian of the North China Block and its bearing on evolution. Geological Journal 53, 2, p. 500-509.
(Gigantopterid plants characteristic floral element in Permian Cathaysian floras. However, in China oldest known occurrences later than in N America (Artinskian) and Sumatra/Indonesia (Asselian-Sakmarian). New gigantopterid Gigantonoclea cf. mira from basal Permian (Asselian) strata in N China Block represents oldest unequivocal evidence for gigantopterids)

XII. INDONESIA- SE ASIA: HYDROCARBONS, COAL, MINING

XII.1. Hydrocarbon Occurrences/ Assessment

Numerous additional papers on hydrocarbons/ fields that are specific to one region are listed under those areas and are not repeated here.

Agustiyar, F. (2021)- Indications of the potential of shale gas for non-conventional energy sources in Indonesia. Tadulako Science and Technology J. 2, 1, p. 17-25.
(online at: https://bestjournal.untad.ac.id/index.php/sciencetech/article/download/15553/11532/)
(Review of shale gas development in Indonesia. Potential shale gas reserves in N, C and S Sumatra Basins)

Akil, I., H.M.S. Hartono, J. Widartoyo, K. Roeslan et al. (1980)- Note on the hydrocarbon potential of Eastern Indonesia. Proc. 17th Session Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Bangkok, p. 334-356.
(online at: https://repository.unescap.org/items/7e5623b0-bcfc-4f92-96d3-0d07128db168)
(Old review of sedimentary basins and oil production in Indonesia (17 in Eastern Indonesia). Only 5% of Indonesia current oil production from E Indonesia, but higher potential. With sections of Bula oilfield in Seram, Kasim field in Salawai, etc,)

Akil, I. & L. Pekar (1977)- Ten years of petroleum exploration, offshore Indonesia. United Nations ESCAP, CCOP, Technical Bulletin 11, p. 69-96.
(online at: https://repository.unescap.org/items/62741596-bd53-4f3d-b9bd-fc94701cbe59)
(Brief Pertamina review of early phase of offshore hydrocarbon exploration in Indonesia, where drilling started in 1968, with first discovery in Java Sea. First production in 1971 (Arjuna, Cinta). Etc.)

Arman, D. (2020)- Eksploitasi minyak de Jambi tahun 1922-1948. J. Hasil Penelitian Ilmu Sosial dan Humaniora 6, 1, p. 131-144.
(online at: https://jurnalpangadereng.kemdikbud.go.id/index.php/pangadereng/article/view/141)
('Exploitation of Jambi oil in 1922-1948'. Review of oil production by NIAM (Nederlandsch-Indische Aardolie Maatschappij, a BPM-Government joint venture 1922-1942), the Japanese occupation and PERMIRI era (1945-1948). Peak production in late 1930s, from Tempino and Kenali fields

Arisandy, M. & I. Wayan Darma (2017)- An emergent play: overlooked potential of Eo-Oligocene sediments in Western Indonesia. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, p. 1-5 *(Extended Abstract) (also as AAPG Search and Discovery Article #11008)*
(online at: https://www.iagi.or.id/web/digital/5/2017_IAGI_Malang_An-Emergent-Play.pdf)
(Brief, general review)

Atkinson, C., M. Renolds & O. Hutapea (2006)- Stratigraphic traps in the Tertiary rift basins of Indonesia: case studies and future potential. In: M.R. Allen et al. (eds.) The deliberate search for the stratigraphic trap. Geological Society, London, Special Publ. 254, p. 105-126.
(Stratigraphic traps require charged petroleum system, favourable basin and reservoir architectures, low dips and good seal integrity. Paleogene rift basins: syn-rift source and reservoir sands; 'early post-rift' phase with better quality reservoir sandstones and reef carbonates; 'late post rift' transgression with marine shale regional seal. Late Tertiary 'orogenic' phases trigger migration up flanks and create structures at shallower levels. Potential for large reserves in stratigraphic traps. Unexplored basins in Asahan Offshore PSC, N Sumatra and Biliton PSC, W Java discussed)

Barber, C.T. (1935)- The natural gas resources of Burma. Memoirs Geological Survey India 66, 1, p. 1-172.
(Review of oil and gas fields and seeps in Tertiary of Myanmar. Descriptions of gas fields Yenangyaung, Singu, Lanywa, Yenangyat-Yethaya, Minbu-Palanyon, Indaw, etc.)

Bataafsche Petroleum Maatschappij (BPM) (1957)- Oil in Netherlands New Guinea. Bataafsche Petroleum Maatschappij, Public Relations Department, Mouton, The Hague, p. 1-32.

Beddoes, L.R. (ed.) (1973)- Oil and gas fields of Australia, Papua New Guinea and New Zealand. Tracer Petroleum and Mining Publ., p. 1-391.
(78 oil-gas fields in 12 basins in Greater Australia region with reserves and production data to end 1972)

Beddoes, L.R. (1980)- Hydrocarbon plays in Tertiary basins of Southeast Asia. SEAPEX Offshore South East Asia Conference, Singapore 1980, p. 1-18.

Beddoes, L.R. (1981)- Hydrocarbon plays in Tertiary basins of Southeast Asia. In: M.J. Valencia (ed.) Proc. EAPI/CCOP Workshop, Honolulu 1980, Energy 6, 11, p. 1141-1163.
(Eight basin areas, peripheral to Sunda Shield exhibit general continuity of Tertiary sedimentary cycles, but each basin unique structural, stratigraphic and temperature gradient character, reflecting its individual plate tectonic setting. With examples of Tertiary depositional cycles and hydrocarbon occurrences from E Java Sea and NW Palawan)

Beers, H.W. (ed.) (1970)- Indonesia: resources and their technological development. University Press of Kentucky, Lexington, p. 1-282.
(Papers and discussions from seminar held in Lexington,KY, in May 1967)

Brouwer, H.A. (1926)- Oil provinces in the Netherlands East Indies. Proc. 2nd Pan-Pacific Science Congress, Melbourne and Sydney, Australia 1923, 2, p. 1280-1284.
(Oil producing areas in Netherlands Indies in 'geosynclinal areas' of Tertiary sediments, that were subsequently folded)

Brown, J.L. & J.E. McCallum (1997)- An atlas of sealing faults in SE Asia. In: J.V.C. Howes & R.A. Noble (eds.) Proc. Conf. Petroleum systems of SE Asia and Australasia, Jakarta, Indonesian Petroleum Association (IPA), p. 837-841.

Carlson, R.M.K., S.C. Teerman, J.M. Moldowan, S.R. Jacobson, E.I. Chan et al. (1993)- High temperature gas chromatography of high-wax oils. Proc. 22nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 483-507.

Caughey, C., T.C. Cavanagh, J.N.J. Dyer, A. Kohar, H. Lestarini, R.A. Lorentz et al. (eds.) (1994)- Seismic atlas of Indonesian oil & gas fields, vol. 1 (Sumatra). Indonesian Petroleum Association (IPA), Jakarta.

Caughey, C., J.N.J. Dyer, A. Kohar, H. Lestarini, W.R. Lodwick et al. (eds.) (1995)- Seismic atlas of Indonesian oil & gas fields, vol. 2 (Java, Kalimantan, Natuna and Irian Jaya). Indonesian Petroleum Association (IPA), Jakarta, p.

CCOP (1974)- The offshore hydrocarbon potential of East Asia: a review of investigations 1966- 1973. Technical Report, p. 1-67.

CCOP (2002)- Energy overview in East and Southeast Asia. Petromin, August 2002, p. 8-36.

Champeny, J.D. (1981)- Petroleum potential in the Far East. In: M.T. Halbouty (ed.) Energy resources of the Pacific region, American Assoc. Petroleum Geol. (AAPG), Studies in Geology 12, p. 189-194.

Chung, S.K., A.S. Gan, K.M. Leong & C.H. Kho (1977)- Ten years of petroleum exploration in Malaysia. United Nations ESCAP, CCOP, Technical Bulletin 11, p. 111-142.
(online at: https://repository.unescap.org/items/62741596-bd53-4f3d-b9bd-fc94701cbe59)

Clement, M. (1910)- Le petrole aux Indes neerlandaises. Annales des Mines 10, 17, p. 386-433.
('Petroleum in the Netherlands Indies'. Very old review from the early days of onshore oil exploration and production in Indonesia)

Cockcroft, P., J. Anli & J. Duignan (1988)- EOR potential of Indonesian reservoirs. Proc. 17th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 73-108.

Cockroft, P.J., G.A. Edwards, R.S.K. Phoa & H.W. Reid (1987)- Applications of pressure analysis and hydrodynamics to petroleum exploration in Indonesia. Proc. 16th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 1-40.
(General paper on pressure, hydrodynamics, etc.)

Cockroft, P.J. & K. Robinson (1988)- Chemistry of oilfield waters in South East Asia and their application to petroleum exploration. Proc. SE Asia Petroleum Exploration Society (SEAPEX) 8, p. 221-238.
(Most subsurface formation waters in SE Asia fresh-brackish and range from meteoric bicarbonate to connate chloride-calcium waters. Predominance of fresh waters may be related to depositional environment and relatively young age of sediments which are typically undergoing compaction and dewatering)

Courteney, S. (1996)- The future hydrocarbon potential of Western Indonesia. In: C.A. Caughey, D. Carter et al. (eds.) Proc. International Symposium on Sequence Stratigraphy in SE Asia, Jakarta 1995, Indonesian Petroleum Association (IPA), p. 397-415.
(Correlative framework based on sequence stratigraphy established for productive basins in Sumatra, Java and Kalimantan. Examples of 'hydrocarbon system' from perspective of source, reservoir, seal and timing)

Courteney, S., P. Cockroft, R.S.K. Phoa & A.W.R. Wight (eds.) (1989)- Indonesia Oil and Gas Fields Atlas. Indonesian Petroleum Association (IPA), 6 volumes.

Courteney, S., P. Cockroft, R. Lorentz, R. Miller et al. (eds.) (1990)- Indonesian Oil and Gas Fields Atlas, VI Eastern Indonesia. Indonesian Petroleum Association (IPA), Jakarta, p. 1-119.

Darissalam, M.M. (1992)- Peluang dan tantangan lapangan-lapangan minyak tua di Indonesia. Proc. 21st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta,1, p. 35-44.
(online at: https://www.iagi.or.id/web/digital/51/3.pdf)
('Chance and challenge of old oil fields in Indonesia'. Listing of early 1900's oil fields in N, C and S Sumatra (12+6+35), Java- Madura (33), Kalimantan (11) and West Papua (8) with potential for redevelopment. With cumulative production, number of wells and year of abandonment)

De Greve, W.H. (1865)- Petroleum en aardolie en haar voorkomen in Nederlandsch Indie. Tijdschrift Nijverheid en Landbouw in Nederlandsch Indie 11, p. 281-356.
('Petroleum and its occurrence in Netherlands Indies'. Very early paper on petroleum occurrences and surface seeps in Netherlands Indies, and description of oil samples in now defunct 'Colonial Museum' in Haarlem. All seeps on Java N of volcanic arc (except one in Banyumas), and not related to volcanism. Most seeps in sandstone beds of Lower Tertiary and commonly associated with gas seeps, mud volcanoes and salt water wells. Listing of seeps in West Java (Priangan, Cirebon), C Java (Semarang, Rembang, Banyumas, Madiun, Solo), East Java (Surabaya, Madura, Pasaruan, Kediri). Also in Sumatra (Palembang), Kalimantan (SE), Sulawesi (Manado) and East Seram. No maps, figures)

De Jongh, C.A. (1922)- Geschiedenis van de petroleumindustrie op Java. De Mijningenieur 3, 5, p. 63-66.
(online at: https://babel.hathitrust.org/cgi/pt?id=coo.31924081565537&view=1up&seq=283)
('History of the petroleum industry on Java'. Brief history of petroleum exploration on Java-Madura since the first Cirebon concession in C Java in 1874. With total production figures from 300 to 33,625 tons in 1890-1918)

De Loos, D. (1899)- Gesteenten en mineralen van Nederlandsch Oost-Indie, 4: Petroleum. Koloniaal Museum Haarlem, Erven Loosjes, p. 1-59.
('Rocks and minerals from Netherlands East Indies- 4: Petroleum'. Early, popular review of occurrence and properties of petroleum in Indonesia)

De Stoppelaar, L.P. (1897)- De petroleum industrie, in het bijzonder die van Nederlandsch Oost-Indie: overzicht bewerkt ten behoeve van houders van petroleumwaarden. De Bussy, Amsterdam, p. 1-225. *(online at: https://ia801408.us.archive.org/12/items/depetroleumindu00stopgoog/depetroleumindu00stopgoog.pdf)*
('The petroleum industry, in particular that of Netherlands East Indies: overview modified for holders of petroleum shares'. Not much technical detail. No figures)

Du Bois, E.P. (1981)- Synoptic review of some hydrocarbon-bearing and potentially hydrocarbon-bearing basins of Southeast Asia. Proc. 17th Session Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Bangkok 1980, Paper 13, p. 245-285.
(online at: https://repository.unescap.org/items/7e5623b0-bcfc-4f92-96d3-0d07128db168)
(Elegant 1980 status review of SE Asia hydrocarbon basins (Thailand, Malay Basins, Natuna, N Borneo, etc.)))

Du Bois, E.P. (1981)- Major gas reserves of Southeast Asia and Australasia: an overview. Proc. 17th Session Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Bangkok 1980, Paper 14, p. 286-303.
(online at: https://repository.unescap.org/items/7e5623b0-bcfc-4f92-96d3-0d07128db168)
(Now dated review of natural gas occurrences in SE Asia and Australiasia. Generally relatively small fields)

ECAFE (1967)- Case histories of oil and gas fields in Asia and the Far East (Second Series). United Nations ECAFE Mineral Resources Development Ser. 29, p. 1-96.

Energy Information Administration (1984)- The petroleum resources of Indonesia, Malaysia, Brunei, and Thailand. U.S. Department of Energy, Washington D.C., p. 1-183.
(Brief review and tables of fields discovered oil-gas, wells drilled, production histories, etc. from 1880s- early 1980s)

Fletcher, G.L. & R.A. Soeparjadi (1976)- Indonesia's Tertiary basins- the land of plenty. Proc. Offshore South East Asia Conference 1976, Singapore, SE Asia Petroleum Exploration Society (SEAPEX), Paper 8, p. 1-54.

Fletcher, G.L. & R.A. Soeparjadi (1977)- The land of plenty: Indonesia's 28 Tertiary basins hold 99 percent of production. Oil and Gas Journal 75, 1, p. 150-156.
(Abbreviated version of Fletcher and Soeparjadi (1976) paper in SEAPEX 1976 Conference)

Gunawan, B.K., S.E. Saputra, M.K. Utama, C. Armandita & J.A. Paju (2008)- Play system from the last decade discoveries in Indonesia basins. Presentation AAPG Annual Convention, San Antonio, April 2008, p. 1-24.
(online at: https://www.searchanddiscovery.com/documents/2008/08119gunawan/images/gunawan.pdf)
(Overview of old and new plays in Indonesian basins)

Harris, M. (2020)- Oil discoveries and production in the Nederlandsch Oost-Indie, 1890-1945: fueling empires and World War in the Asia-Pacific Theater. SE Asia Petroleum Exploration Society (SEAPEX) Press, 23, 2, p. 58-106.
(Elegant review of history of oil discoveries and production in Indonesia, from first wells in W Java in 1872 by J. Reerink to the first oil discoveries in the late 1800s in N and S Sumatra, E Java, E Kalimantan and Ceram, until the end of the Japanese occupation in 1945)

Hatley, A.G. (1976)- Offshore petroleum exploration in East Asia, an overview. Proc. Offshore South East Asia Conference 1976, Singapore, SE Asia Petroleum Exploration Society (SEAPEX), Paper 1, p. 1-22.

Hatley, A.G. (1978)- Asia's oil prospects and problems: an overview of petroleum exploration activity in East Asia. Proc. Offshore South East Asia Conference 1978, Singapore, SE Asia Petroleum Exploration Society (SEAPEX), p.

Heriyanto, N. & S. Aloy (1995)- Mesozoic petroleum exploration in the eastern part of Indonesia: status, concept and future activity. In: IPA Symposium on Mesozoic stratigraphy of eastern Indonesia, p. 1-8.

Hiller, K. (1994)- Thailand/ Thailand. In: H. Kulke (ed.) Regional petroleum geology of the world, I, Borntraeger, Berlin, p. 709-722.
(Brief review of oil-gas basins and fields of Thailand, Sarawak, Sabah; in German)

Hiller, K. (1994)- Malaysia/ Malaysia. In: H. Kulke (ed.) Regional petroleum geology of the world, I, Borntraeger, Berlin, p. 723-738.
(Brief review of oil-gas basins and fields of Malay Basin, Sarawak and Sabah; in German)

Hiller, K. (1988)- On the petroleum geology of Bangladesh. Geologisches Jahrbuch, D 90, p. 3-32.
(Five petroleum-geological provinces distinguished in Bangladesh. Gas fields in Miocene sandstones of foldbelt province)

Holloway, N. (2011)- SE Asia exploration, still going strong or heading for eclipse? Proc. 2011 SE Asia Petroleum Exploration Society (SEAPEX) Conference, Singapore, 18, p. 1-38. *(Abstract + Presentation)*
(IHS review. SE Asia still attractive for independents)

Howes, J.V.C. (1997)- Petroleum resources and petroleum systems of SE Asia, Australia, Papua New Guinea and New Zealand. In: J.V.C. Howes & R.A. Noble (eds.) Proc. Conf. Petroleum Systems of SE Asia and Australasia, Jakarta, Indonesian Petroleum Association (IPA), p. 81-100.

Howes, J.V.C. (2001)- Future petroleum production from Indonesia and Papua New Guinea. In: M.W. Downey et al. (eds.) Petroleum provinces of the Twenty-first century. American Assoc. Petroleum Geol. (AAPG), Memoir 74, p. 281-286.

Howes, J.V.C. & R.A. Noble (eds.) (1997)- Proceedings International Conference Petroleum Systems of SE Asia and Australasia, Jakarta 1997, Indonesian Petroleum Association (IPA), p. 1-1025.

Howes, J.V.C. & S. Tisnawijaya (1995)- Indonesian petroleum systems, reserve additions and exploration efficiency. Proc. 24th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 1-18.
(Indonesia EUR ~50 BBOE, roughly even oil- gas)

Hundling, I.E. (1942)- Oil-possibilities in Ceram, New Guinea, Celebes, and Boeton. Geological Survey Report 1942, Archives Bureau of Mines 37/dy, Bandung, p. . *(Unpublished; presumably WW-II vintage English translation of Dutch BPM? report))*

Ibrahim, A., N. Pudyo, A. Satyana & S. Saputra (2006)- Exploration hot zones in Kalimantan and Eastern Indonesia: a two decade review. Proc. SEG Annual Meeting, New Orleans 2006, p. 1-5. *(Extended Abstract)*
(>160 exploration wells drilled in last two decades with success ratio of 41% and discovered in place reserves of 6 BBOE. Most attractive plays are Jurassic Roabiba-Plover Play system (Tangguh, Abadi gas fields), Jurassic carbonates (Oseil), and Miocene carbonate in collision zone (Tomori))

Iskandar, U.P., Usman &, & S. Sofyan (2013)- Ranking of Indonesia sedimentary basin and storage capacity estimates for CO_2 geological storage. Energy Procedia 37, p. 5172-5180.
(Lemigas ranking of Indonesia sedimentary for CO_2 storage capacity of depleted oil and gas reservoirs. Top 3 of 60 identified sedimentary basins:, Kutai, Tarakan and S Sumatera)

Jumiati, W., D.Maurich, A.S. Wibowo & I. Nurdiana (2020)- The development of non-conventional oil and gas in Indonesia. Case study on hydrocarbon shale. J. Earth Energy Engineering (J-E3) 9, 1, p. 11-16.
(online at: https://journal.uir.ac.id/index.php/JEEE/article/view/4074)
(Hydrocarbon shales with commercial characteristics in C Sumatra, Akimeugah, Bintuni, Barito (Tanjung Fm), Kutai (Batu Kelau Fm), Melawi and Ketungau basins)

Junghuhn, F. (1865)- Brief gerigt aan Zijne Excellentie den Gouverneur-Generaal van Ned. Indie omtrent de exploitatie van aardolie op Java. Tijdschrift Nijverheid Landbouw in Nederlandsch-Indie 11, p. 357-361.
(online at: https://babel.hathitrust.org/cgi/pt?id=coo.31924096303676;view=1up;seq=375)
('Letter to His Excellency the Governor-General of Netherlands Indies regarding the exploitation of petroleum on Java'. Oil seeps are present at several localities in Cirebon Residency, but bitumen is tar-like. None of the thousands of hot springs contain oil,so the chance of successful exploitation of petroleum from wells on Java is deemed to be low. Junghuhn recommends to drill saltwater wells in the Grobogan Plain of NE Java instead)

Kingston, J. (1988)- Undiscovered petroleum resources of Indonesia. U.S. Geological Survey (USGS), Open File Report 88-379, p. 1-217.
(online at: https://pubs.usgs.gov/of/1988/0379/report.pdf)
(Nearly all of Indonesia's petroleum resources in 13 of 44 sedimentary basins. W Indonesia, underlain by Sunda continental block, contains >% of present petroleum reserves and exploration reached early-middle maturity. Undiscovered recoverable petroleum resources of Indonesia are 10 BBO and condensate, and 95 Tcf gas (not including 60 Tcf of discovered-undeveloped gas))

Koesoemadinata, R.P. (1964)- A brief outline of the stratigraphic occurrence of oil in the Tertiary basins of West Indonesia. Contributions Department of Geology, Institut Teknologi Bandung (ITB) 56, p. 37-55.

Koesoemadinata, R.P. (1969)- Outline of the geologic occurrence of oil in Tertiary basins of West Indonesia. American Assoc. Petroleum Geol. (AAPG) Bull. 53, 11, p. 2368-2376.
(Many W Indonesian Tertiary basins similar geologic history, beginning with transgression, followed by bathyal conditions, and terminating with regression ate end of basin evolution. Transgressive facies with excellent petroleum potential in all basins, and greater reserves than regressive facies. Heavy paraffinic oil expected in transgressive strata, light paraffinic or asphaltic oil in regressive facies)

Koesoemadinata, R.P. (1980)- Geologi minyak dan gas bumi, 2nd Edition. Institut Teknologi Bandung (ITB), vol. 1, p. 1-259, vol. 2, p. 1-295.
('The geology of oil and natural gas'. Textbook, in Indonesian, with examples from Indonesian basins)

Koning, T. (2003)- Oil and gas production from basement reservoirs: examples from Indonesia, USA and Venezuela. In: N. Petford & K.J.W. McCaffrey (eds.) Hydrocarbons in crystalline rocks. Geological Society, London, Special Publ. 214, p. 83-92.
(Basement reservoirs main contributor of oil production in Vietnam. In Indonesia production from basement rocks has been minimal, but recent large gas discovery in pre-Tertiary fractured granites in S Sumatra)

Kusumastuti, A., A. Mortimer, C. Todd, E. Guritno, G. Goffey, M. Bennet & S. Algar (2001)- Deep-water petroleum provinces of SE Asia: a high level overview. In: A. Setiawan et al. (eds.) Proc. Deep-water sedimentation of Southeast Asia, FOSI 2nd Regional Seminar, Jakarta 2001, p. 10-15. *(Extended Abstract)*

Lasthuijzen, D.J. (1914)- Petroleum in Nederlandsch-Indië. In: M.G. van Heel (ed.) Gedenkboek van de Koloniale Tentoonstelling Semarang 1914, Mercurius, Batavia, 2, p. 157-169.
(online at: https://digitalcollections.universiteitleiden.nl/view/item/1098175#page/1/mode/1up)
(Brief, elegant overview of petroleum in the Netherlands Indies from 1890 (first oil, by 'Koninklijke' at Telaga Said in N Sumatra) until 1914, incl. known occurrences (N and S Sumatra, E Java, E Borneo, Tarakan), types of products, processing, companies histories, etc. No figures)

Longley, I. (2015)- Counter-cyclic strategic thinking and symbiotic serendipity- will they work in Australasia? Or are we all doomed to work for myopic engineers in the onshore USA? A personal view of the future. Proc. 2015 SE Asia Petroleum Exploration Society (SEAPEX) Conference, Singapore, 5.3, p. 1-3. *(Extended Abstract + Presentation)*
(Australasia (SE Asia, Australia, PNG and NZ) viewed by many as mature exploration province since glory days of 1960's-1970's, but at least seven lightly drilled provinces with significant remaining potential)

MacFarlane, A. (1998)- Indonesian Hydrocarbon Basin Assessment Project - Phase 3: Final report. British Geological Survey (BGS) Overseas Division, Technical Report WC/98/8, p. *(Unpublished; not online))*

Masters, C.D. & J.P. Riva (1981)- Assessment of conventionally recoverable petroleum resources of Indonesia. U.S. Geological Survey (USGS), Open File Report 81-1142, p. 1-7.
(online at: https://pubs.usgs.gov/of/1981/1142/report.pdf)
(Summary of 1981 USGS oil-gas resource estimate of Indonesia. See also later version by Riva (1983))

Molengraaff, G.A.F. (1920)- De geologische ligging der petroleumterreinen van Nederlandsch Oost Indie. Verslagen Koninklijke Akademie van Wetenschappen, Amsterdam, 29, p. 141-149.
('The geological setting of petroleum terrains of the Dutch East Indies'. Dutch version of Molengraaff 1921, below)

Molengraaff, G.A.F. (1921)- On the geological position of the oil-fields of the Dutch East-Indies. Proc. Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 23, 2-3, p. 440-447.
(online at: https://dwc.knaw.nl/DL/publications/PU00014628.pdf)
(Majority of large oil-fields in world was found in long enduring geosynclines, where these are marginal areas of sedimentation along coasts of continents. In Indonesia main proven oil basins all along edge of Sundaland. (GAFM also accurately predicted NW Java and C Sumatra as settings favorable for new oil-gas fields; JTvG))

Murphy, R.W. & I. Longley (2005)- Main producing systems in Southeast Asia. Proc. 2005 SE Asia Petroleum Exploration Society (SEAPEX) Conference, Singapore, 64p.
(Three main petroleum systems in SE Asia: (1) rift-sag basins on continental crust (Sumatra- W Java, Malay basin, etc.), (2) Miocene platform carbonates (Sumatra, Luconia shoals, Salawati, Malampaya) and (3) shallow to deep water deltas, largely M- Late Miocene in age (E Bengal, Kutei, NW Borneo))

Nayoan, G.A.S. (1981)- Offshore hydrocarbon potential of Indonesia. In: M.J. Valencia (ed.) Proc. EAPI/CCOP Workshop, Honolulu 1980, Energy 6, 11, p. 1225-1246.
(Offshore producing Tertiary sedimentary basins in Indonesia account for 34% of total daily oil production and 12% of cumulative production. Most ofoffshore production from basins that are geological continuation of onshore basins (NW Java, Sunda, Kutai))

Nayoan, G.A.S., L. Samuel, M.G. Rukmiati & D.N. Imanhardjo (1991)- Regional aspects of Pre Tertiary hydrocarbon potential in Eastern Indonesia. Proc. 20th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 11-25.
(online at: https://www.iagi.or.id/web/digital/49/20th-(10-12-Des-1991)-1.pdf)
(Five main Pre-Tertiary hydrocarbon plays identified in Eastern Indonesia (only two proven successful to date): (1) Paleozoic peri-cratonic grabe play (Aru grabens); (2) Mesozoic marginal rift graben pla y(Triassoic-M Jurassic clastics play; succesful in Bintni Basin;(3) fold-thrust belt play (New Guinea; successful in PNG, not yet in Indonesian part); (4)Microcontinenal blocks (Buton, Banggai-Sula recent discoveries), (5) (Cenozoic?) Island Arc play (no prospects to date))

Ooi Jin Bee (1980)- Offshore oil in Indonesia. Ocean Management 6, 1, p. 51-73.
(Review of history and status of Indonesia offshore oil in 1980. Started with first offshore Production Sharing Contracts in 1966, which triggered series of significant discoveries between 1969-1974, mainly off NW Java and E Kalimantan. First offshore production in 1971, from NW Java basin)

Ooi Jin Bee (1982)- The petroleum resources of Indonesia. Oxford University Press, p. 1-256.
(Somewhat dated and mostly non-technical book on the Indonesian oil industry and history)

Owen, N.A. & C.H. Schofield (2012)- Disputed South China Sea hydrocarbons in perspective. Marine Policy 36, 3, p. 809-822.
(Geological evidence does not indicate vast hydrocarbon reserves in S China Sea)

Patmosukismo, Suyitno, A. Pulunggono, Mulhadiono & L.Samuel (1989)- Hydrocarbon potential of Eastern Indonesia and required research direction. In: J.E. van Hinte et al. (eds.) Proc. Snellius II Symposium, Jakarta 1987, Netherlands J. of Sea Research 24, 2-3, p. 153-164.
(E Indonesia underexplored. Structural and stratigraphic trapping models and geochemical data on E Sulawesi, Seram and Irian Jaya indicate possibilities for exploration plays in Tertiary and Mesozoic)

Patria, A.A. & F. Anggara (2021)- A preliminary economic evaluation of Rare Earth Element and Yttrium (REY) in Indonesian coal: progress and future prospect. Indonesian J. of Economic Geology (IJEG) 1,1, p. 19-22.
(online at: https://journal.iagi.or.id/index.php/IJEG/article/view/339)

Pattinama, S. & L. Samuel (1992)- Petroleum exploration in deep water and frontier areas of Indonesia. Proc. 21st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 479-497.
(86% of E Indonesia basins are deep sea basins and rel. little explored frontier areas; little or no G&G)

Poley, J.P. (2000)- Eroica- the quest for oil in Indonesia (1850-1898). Kluwer Academic Publishers, Dordrecht, p. 1-175.
(History of 19th century oil exploration in Sumatra, E Java, E Kalimantan. Elegant overview from earliest seepages, drilling, and the rise of the 'Koninklijke Olie/ Royal Dutch and its successor BPM-Shell as the dominant petroleum company in Indonesia by the early 1900s)

Prijono, R., J. Widjonarko, E. Sunardi & B. Adhiperdana (2007)- Petroleum potential of the East Java - Lombok Basin, North and South Makassar Strait and offshore Kutei Basin. Proc. 21st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA07-G-068, p. 1-12.
(Review of six Oligocene- Miocene hydrocarbon plays along E and SE Sundaland margin)

Pulunggono, A. (1976)- Recent knowledge of hydrocarbon potentials in sedimentary basins of Indonesia. In: M. Halbouty et al. (eds.) Proc. Circum-Pacific Energy and mineral resources Conference, Honolulu 1974, American Assoc. Petroleum Geol. (AAPG), Memoir 25, p. 239-249.
(Early, general paper on Indonesian basins. S part of Sunda Shelf many Tertiary sedimentary basins and intervening uplifts. Main oil production in W Indonesia is from Oligocene-Miocene regressive and deeper transgressive sandstone series, except in E Kalimantan, where producing zones range from Eocene- Pliocene. Carbonate rocks becoming prime objective, especially in E Java-Madura basinal area)

Rachmat, J.B. & T. Wibowo (1992)- Peringkat potensi hidrokarbon cekungan-cekungan Tersier Indonesia. Proc. 21st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 1, p. 19-34.
(online at: https://www.iagi.or.id/web/digital/51/2.pdf)
('Hydrocarbon potential ranking of Indonesian Tertiary basins'. 23 of 60 Tertiary basins of Indonesia tested hydrocarbons; 14 are producing by 1991. Ranking for oil: 1. Central Sumatra, 2. Kutei, 3. NW Java, 4. South Sumatra, 5. West Natuna and 6. East Natuna)

Ramdhan, A.M., L.M. Hutasoit & A. Bachtiar (2012)- Some Indonesia's giants: 'unconventional' hydrodynamic trap? Proc. 36th Annual Conv. Indonesian Petroleum Association (IPA) Jakarta, 12-G-004, p. 1-15.
(Peciko and Tunu gas fields and some reservoirs in Nilam Field, Kutai Basin proven unconventional hydrodynamic traps. Arun (N Sumatra) and Tangguh (W Papua) possibly also hydrodynamic traps)

Ramdhan, A.M., L.M. Hutasoit & E. Slameto (2018)- Lateral reservoir drainage in some Indonesia's sedimentary basins and its implication to hydrodynamic trapping. Indonesian J. on Geoscience (IJOG) 5, 1, p. 65-80.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/394/255)
(Lateral reservoir drainage is hydrodynamic flow type driven by differences in overpressure and can lead to hydrodynamically tilted hydrocarbon-water contacts. Tilted contacts present in fields in Lower Kutai Basin, Arun Field in N Sumatra, Vorwata Field in Bintuni and BD Field of East Java)

Ramli, N. (1985)- The history of hydrocarbon exploration in Malaysia. Energy 10. 3-4, p. 457-473.

(First offshore petroleum exploration in Malaysia in 1950's offshore Sarawak, with first commercial discovery Temana in 1962. Malay Basin exploration, E of Malay Peninsula, began in 1968. First well Tapis 1 by EPMI, with first production in 1978 from Pulai and Tapis fields)

Redfield, A.H. (1922)- Petroleum in Borneo. Economic Geology 17, 5, p. 313-349.
(Early review of petroleum discoveries on Borneo, including Tarakan, Sanga Sanga in E Kalimantan and Miri district of Brunei, North Borneo)

Reminton, C.H., N. Mujahidin & T. Yunus (2000)- Opportunity and challenge beyond the year 2000: the role of exploration in maintaining the oil and gas business in Indonesia. Proc. 27th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 1-12.

Renolds, M. & C. Atkinson (2013)- Stratigraphic traps in the Tertiary rift basins of Indonesia: case studies and future potential. SEAPEX Press 73, 16, 3, p. 54-78.
(Reprint of Atkinson et al. (2006), Geological Society, London, Special Publ. 254))

Rice-Oxley, E.& A. Abu-Bakar (2022)- Historical and emerging super basins of Southeast Asia. American Assoc. Petroleum Geol. (AAPG) Bull. 106, 3, p. 633-653.
(Five basins in SE Asia categorized as super basins: Malay, Greater Luconia, NW Sabah, Greater Sumatra, and Kutei Basins. Main plays include Miocene clastics and carbonates, Oligocene carbonate, and sub-Cenozoic basement. Source rocks Eocene-Oligocene lacustrine to marine shales and Miocene marine shales. Etc.)

Riva, J.P. (1983)- Assessment of undiscovered conventionally recoverable petroleum resources of Indonesia. U.S. Geological Survey (USGS) Circular 899, p. 1-17.
(online at: https://pubs.usgs.gov/circ/1983/0899/report.pdf
(Estimates of undiscovered conventionally recoverable petroleum in Indonesia (means 16 BB Oil, 42 TCF gas) in five types of basins. See also more elaborate version of USGS assessment by Kingston (1988))

Robinson, K. (1984)- Assessment of undiscovered recoverable petroleum resources in Tertiary sedimentary basins of Malaysia and Brunei. U.S. Geological Survey (USGS), Open File Report 84-328, p. 1-19.
(online at: http://pubs.usgs.gov/of/1984/0328/report.pdf)

Robinson, K. (1984)- Assessment of undiscovered conventionally recoverable petroleum resources in Tertiary sedimentary basins of Thailand. U.S. Geological Survey (USGS) Open-File Report OF, 84-0330, p. 1-14.
(online at: http://pubs.usgs.gov/of/1984/0330/report.pdf)

Robinson, K. (1985)- Assessment of undiscovered conventionally recoverable petroleum resources in Tertiary sedimentary basins of Malaysia and Brunei. Bull. Geological Society Malaysia 18, p. 119-132.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1985005.pdf)
(Undiscovered petroleum resources assessment suggests mean 8 billion B Oil and 80 TCF gas remaining to be discovered in Malaysia and Brunei)

Ruf, H. (1949)- Ueber die Entwicklung der Erdolindustrie und die Verarbeitung von Erdol in Niederlandisch-Ostindien. Bull. Vereinigung Schweizer. Petroleum-Geologen und Ingenieure 16, 51, p. 22-32.
(online at: https://www.e-periodica.ch/cntmng?pid=vsp-002:1949:16::112)
('On the development of the oil industry and the processing of crude oil in the Netherlands Indies'. Brief review of history of oil exploration and refining in Netherlands East Indies, from the early days of the foundation of the Royal Dutch up to World War II, the nature of the crude oils and the refining methods and facilities. By 1940 oil production by only 2 companies: BPM-Shell (75%) and NKPM-Stanvac (25%), and 50% of all from S Sumatra)

Said, M. (1982)- Overview of exploration for petroleum in Malaysia under the Production Sharing Contracts. In: Offshore Southeast Asia 82 Conference, Singapore, SE Asia Petroleum Exploration Society (SEAPEX), p. 1-14.

Satyana, A.H. (2014)- Successful and prospective exploration play concepts of Indonesia: lessons from history and recent progress - anticipating future challenges. Proc. 38th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA14-G-276, p. 1-19.
(10 proven economic hydrocarbon play types in Indonesia: (1) Paleogene regressive clastics of Java- Sumatra- Kalimantan (Talang Akar, Tanjung); (2) Neogene regressive clastics of Java- Sumatra- Kalimantan (Wonocolo, Warukin); 3. Neogene deltaic complex of Kutai- Tarakan (Handil, Tarakan); (4) Neogene deep water clastics of Kutai- Tarakan (W Seno); (5) Oligo-Miocene carbonate platforms of Sumatra- Java (Kaji Semoga); (6) Neogene pinnacle reefs (Arun, Banyu Urip, Kasim); (7) Fractured volcanics of Sumatra- Java (Suban, Jatibarang); (8) Australian Mesozoic marginal rift grabens (Vorwata- Tangguh); (9) Neogene microcontinental collisions (Tiaka, Donggi- Senoro); (10) Neogene island arc- Australian passive margins (Oseil- Bula). Five additional play types with indications of hydrocarbons: (11) Subvolcanic North Serayu, C Java (Karangkobar- Cipluk); (12) Paleogene rifted structures of Makassar Straits (Kaluku type); (13) Neogene reefs of Sumatra- Java forearcs (Singkel Ibu Suma); (14) Papuan fold- thrust belt (Cross Catalina) and (15) N Papua Neogene volcanoclastic sediments (Niengo))

Satyana, A.H. (2016)- Review of Indonesia's petroleum exploration 2000-2015: where from. Proc. IPA 2016 Technical Symposium, Indonesia exploration: where from- where to, Indonesian Petroleum Association (IPA), Jakarta, 28-TS-16, p. 1-26.
(online at: www.academia.edu/43213647/REVIEW_OF_INDONESIA_S_PETROLEUM_EXPLORATI Etc.)
(In Indonesia 974 exploration and appraisal wells drilled from 2002-2015, 617 onshore and 357 offshore. Of 676 new field wildcats 310 encountered hydrocarbons, adding in-place resources of 18,500 MMBOE. Discoveries in W Indonesia in 5 plays: (1) Paleogene rift sections of Sumatra, W Java, W Natuna; (2) pre-Cenozoic fractured basement in S Sumatra, W Java, E Java; (3) Oligo-Miocene carbonate build ups of E Java and U Kutai; (4) Mio-Pliocene deep-water turbidites of N Makassar and Tarakan; (5) Mio-Pliocene growth-faults of delta progradation of Tarakan Basin. In E Indonesia in 2 plays (Jurassic and Miocene). With details on significant discoveries and dry wells)

Satyana, A.H. (2019)- Giant fields of Indonesia: play types, geologic factors, and prospectivities of future giant fields. Proc. 43rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA19-G-271, p. 1-33.
(online at: https://tektonesiana.org/2019/11/12/satyana-a-h-2019-giant-fields-of-indonesia-play-types-geologic-factors-and-prospectivities-of-future-giant-fields/)
(17 oil and gas fields of Indonesia classified as giant fields, in 6 play types)

Satyana, A.H. (2022)- The biggest risks in hydrocarbon exploration that are often overlooked: cases of exploration failures in Indonesia and the solutions. Proc. 46th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA22-G-312, p. 1-19.
(online at: https://tektonesiana.org/wp-content/uploads/2024/07/satyana-2022-ipa_big-risk-explor-hc.pdf)
(Hydrocarbon exploration failures are generally related to overlooking of some elements and processes of the petroleum system, including tendency to think of seismic low as a kitchen, being too optimistic in basin modelling, assuming that it is sufficient if kitchens have generated hydrocarbons whereas expulsion threshold is more critical, not mapping migration pathways in detail, and not evaluating carrier beds and regional sealing. Etc.)

Satyana, A.H., C. Armandita & J.A. Paju (2012)- Acceleration in regional exploration of Indonesia: requirement for survival. Proc. 36th Annual Conv. Indonesian Petroleum Association, Jakarta, IPA12-G-158, p. 1-14.
(online at: https://www.academia.edu/12104674/ACCELERATION_IN_REGIONAL_EXPLORATION_OF_INDONESIA_REQUIREMENT_FOR_SURVIVAL)
(Peak oil production in Indonesia was reached in 1977: production of 615 MM barrels oil (= 1.68 MMBO/ day. Exploration has been in serious decline for 15 years. Accelerated massive exploration required for survival of Indonesia as significant oil producer)

Schenk, C.J. (2012)- Assessment of undiscovered conventional oil and gas resources of Thailand. In: International Petroleum Technical Conference (IPTC), Bangkok, IPTC, p. 38-42.

(US Geological Survey estimated mean 1.6 billion barrels of undiscovered conventional oil and 17 trillion cubic feet of undiscovered conventional natural gas in three geologic provinces of Thailand. Most of undiscovered conventional oil and gas in offshore Thai Basin Province)

Schenk, C.J. (2012)- Potential unconventional oil and gas resource accumulations, Onshore Thailand. In: Int. Petroleum Technical Conference (IPTC), Bangkok 2012, p. 1-3. *(Extended Abstract)*
(Tight gas and shale gas accumulations may exist in Triassic clastics of Khorat Plateau Province. Shale oil and shale gas may be present in extensional structures in Thai Cenozoic Basins Province. Coalbed gas does not appear to be viable resource in N Thailand)

Schenk, C.J., M.E. Brownfield, R.R. Charpentier, T.A. Cook, T.R. Klett et al. (2010)- Assessment of undiscovered oil and gas Resources of SE Asia, 2010. U.S. Geological Survey (USGS) Fact Sheet 2010-3015, p. 1-4.
(online at: http://pubs.usgs.gov/fs/2010/3015/pdf/FS10-3015.pdf)
(SE Asia undiscovered conventional oil and gas resources in 23 geologic provinces. Oil mean total is 21.6 Billion BO (range 8.9- 41.6); gas mean total 299 TCFG (range 129- 557) and mean natural gas liquids 9.1 Billion barrels. About 70% of oil in 6 provinces: Baram Delta/Brunei-Sabah, Kutei, S China Sea Platform, E Java, Cuu Long and Thai Basins. About 60% of gas in 6 provinces: Kutei, Greater Sarawak Basin, East Java, Baram Delta/Brunei-Sabah, S China Sea and Nam Con Son Basin)

Schenk, C.J., M.E. Brownfield, R.R. Charpentier, T.A. Cook, T.R. Klett, J.K. Pitman & R.M. Pollastro (2012)- Assessment of undiscovered oil and gas resources of Papua New Guinea, eastern Indonesia, and East Timor, 2011. U.S. Geological Survey (USGS) Fact Sheet 2012-3029, 2p.
(online at: http://pubs.usgs.gov/fs/2012/3029/FS2012-3029.pdf)
(USGS assessed undiscovered conventional oil and gas in five geologic provinces of the PNG, E Indonesia, and E Timor: (1) oil mean total 5.78 MMBO (2) gas mean total is 115.2 BCFG. Of undiscovered oil 36% in Timor Thrust and Seram Thrust provinces, 37% in fold- thrust belts of PNG and Irian Jaya. Undiscovered Gas mean estimates for PNG Fold Belt 18.1 BCFG, Arafura Platform 15.9 BCFG and Bintuni Basin 20.8 BCFG)

Schuppli, H.M. (1946)- Oil basins of the East Indian Archipelago. American Assoc. Petroleum Geol. (AAPG) Bull. 30, p. 1-22.
(Oil fields of Tertiary basins of Sumatra, Java, and Borneo produced >1 billion barrels of oil to end of 1940. Oil produced almost exclusively from sands of Miocene and Pliocene age. Shortly before the Japanese invasion commercial accumulations discovered in Eocene beds. Bula field in Seram, probably produces Triassic oil, accumulated in overlapping Plio-Pleistocene sands)

Siddayao, C.M. (1980)- The off-shore petroleum resources of South-East Asia- potential conflict situations and related economic considerations. Oxford University Press, Kuala Lumpur, p. 1-205.

Siddiq, F., Z.M. Rubianto, J. Prasetyo & S. Damayanti (2018)- Evaluation and assessment of all play and resources of petroleum system Indonesia to optimize big resources exploration for big oil and gas discoveries in Indonesia. Proc. 42nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA18-267-G, p. 1-13.
(Play assessment: 563 plays in 1954 prospects and 2173 leads in 43 sedimentary basins in Indonesia. Total in-place resources at P90 is 45.5 BBO and 155 TCF (cut-off of big resources is 500 MMBO for oil, 1 TCF for gas). Current oil production in Indonesia ~810,000 BOPD, against demand of >1.5 MMBOD)

Singh, H. (2005)- The occurrence and exploitation of Malaysian oil and gas resources. Oil Industry History (Petroleum History Institute), 6, 1, p. 129-152.

Siregar, Y.R.C., Firman Cahya Putra Adistia & R. Hidayat (2021)- History of 50 years deepwater drilling activities in Indonesia (1968-2020). Proc. 45th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA21-E-94, p. 1-14.
(First deepwater well drilled in Indonesia was drilled in 1972 by Shell, off S Java (Alveolina-1). About 276 deepwater wells drilled in 1972-2020, but only 5 producing fields, all offshore Kutai basin))

Situmorang, B. (1986)- Offshore exploration for hydrocarbons in Indonesia. Lemigas Scientific Contributions 9, 2, p. 3-8.
(Brief review of hydrocarbon exploration in Indonesia until 1985)

Situmorang, B., A. Muhartanto, Suliestyah, B. Satiawira & M. Ginting (2013)- Notes on the Indonesian CO_2 reservoirs and greenhouse gas emissions. PKESDM Universitas Trisakti, p. 129-192.
(online at: http://www.karyailmiah.trisakti.ac.id/uploads/kilmiah/dosen/15)_Indonesia_CO2_Reservoir.pdf)
(Review of high-CO_2 gas occurrences in Indonesia. Four Tertiary basins in W Indonesia have high CO_2 gases: Natuna (60-88%), N Sumatra (15-81%), S Sumatra- Jambi (30-81%) and onshore NW Java (42-99%). Extremely high CO_2 in Pamanukan Field in Baturaja Fm of NW Java Basin (85-99%). Etc.)

Soeparjadi, R.A., G.A.S. Nayoan, L.R. Beddoes & W.V. James (1975)- Exploration play concepts in Indonesia. Proc. 9th World Petroleum Congress, Tokyo, 3, p. 51-64.
(Brief review of 6 oil-gas play types in 15 Tertiary basins of Indonesia: (I) Transgressive clastics. (II) Regressive clastics, (III) Deltaics, (IV) Carbonate platform complex, (V) Pinnacle reeefs and (VI) Fractured Volcanics/ Basement)

Soepraptono (1973)- Review of the results of petroleum exploration in offshore areas of Indonesia, 1966-1972. CCOP Reports of the 10th Session (Bangkok, 1973), p. 123-131.
(in 1966, Indonesia's 'New Order' government signed the first Production Sharing agreements with foreign oil companies for the then never-explored offshore areas of Indonesia. First signings were withs IIAPCO in August 1966 (SE Sumatra) and Japex-Kyushu (E Kalimantan), with first oil discovery in 1969 by ARCO (NW Java). Soon followed by discoveries by Union Oil (E Kalimantan), Total (E Kalimantan), Cities Service (Java Sea), Agip (S China Sea Block A), Conoco (S China Sea, etc. By late 1972 20 foreign oil companies were active off Indonesia. Mobil Oil discovered Arun gas field onshore N Sumatra in 1971 and operated the first deep water block in Makassar Straits))

Suardy, A., B. Simbolon & P.J. Taruno (1987)- Two decades of hydrocarbon exploration activities in Indonesia. In: M.K. Horn (ed.) Trans. 4th Circum Pacific Energy Mineral Resources Conference, Singapore 1986, p. 243-261.
(Statistics on hydrocarbon acreage and drilling in Indonesia 1966-1985. Sixty sedimentary basins identified)

Sujanto, F.X. (1986)- Hydrocarbon geology of producing basins in Indonesia and future exploration for stratigraphic traps. Proc. Joint ASCOPE ECOP Workshop I, Jakarta, p.

Sujanto, F.X. (1997)- Substantial contribution of petroleum systems to increase exploration success in Indonesia. In: J.V.C. Howes & R.A. Noble (eds.) Proc. International Conference Petroleum Systems of SE Asia and Australasia, Jakarta 1997, Indonesian Petroleum Association (IPA), p. 1-14.
(Broad overview Indonesia basins exploration and hydrocarbons)

Sujanto, F.X., L. Kartanegara, Y.R. Sumantri & L. Gultom (1993)- An assessment of Indonesian natural gas reserves and resources. Proc. 22nd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 2, p. 638-652.
(online at: https://www.iagi.or.id/web/digital/53/22nd-Volume-2-(6-9-Des-1993)-32-46.pdf)
(June 1993 Pertamina gas assessment in 60 basins of Indonesia: remaining 'proven' recoverable gas reserves ~105 TCF and expected additional reserves 54.5 TCF. Most basins in E Indonesia small speculative resources)

Sujanto, F.X. & Pramu Hartoyo (1984)- Observasi atas status eksplorasi migas di Indonesia Awal Pelita IV. Proc. 13th Annual Conv. Indonesian Association Geologists (IAGI), p. 423-438.
('Observations on the status of oil and gas exploration in Indonesia')

Sumantri, Y.R. & E. Sjahbuddin (1994)- Exploration success in the Eastern part of Indonesia and its challenges in the future. Proc. 23rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 1-20.

(General overview E Indonesia discoveries, plays)

Supraptono (1973)- The status of petroleum exploration in the offshore areas of Indonesia. United Nations ECAFE, CCOP, Technical Bulletin 7, p. 75-79. *(online at: https://repository.unescap.org/server/api/core/bitstreams/02824758-88df-4f2d-a237-e8aa33c9b57e/content)*
(Offshore oil exploration in Indonesia started in 1967. In 1973 exploration by 21 companies in 27 (some very large) contract areas. 91 offshore exploration wells drilled in 1971)

Suryana, A. & Fatimah (2008)- Tinjauan terhadap bitumen padat dan gas metan batubara di Indonesia. Colloquium Fossil Energy, p. 1-13.
(online at: http://psdg.bgl.esdm.go.id/kolokium%202008/ENERGI%20FOSIL/ etc.)
('Review of heavy oil and coalbed methane gas in Indonesia'. With maps of occurrences and assessed volumes)

Tiratsoo, E.N. (1973)- Oilfields of the world (Indonesia). Scientific Press, Beaconsfield, United Kingdom, p. 171-189.

Tjia, H.D. (2006)- Potential of impact-structure hydrocarbon plays in continental Southeast Asia. Proc. Petroleum Geology Conference Exhibition (PGCE), Kuala Lumpur2003, Bull. Geological Society Malaysia 49, p. 111-117.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm2004018.pdf)
(Pre-Tertiary of continental SE Asia, Indosinia and Sundaland tectonic blocks, most probably hosts number of brecciated impact structures with good reservoir properties. Three areas onshore Peninsular Malaysia with proven products of meteorite impacts and several dozen of circular features identified)

Todd, D.F. & A. Pulunggono (1971)- The Sunda basinal area, an important new oil province. Oil and Gas Journal, June 14, p. 104-110.

US Energy Information Administration (EIA) (2015)- Technically recoverable shale oil and shale gas resources: Indonesia. EIA/ARI World Shale Gas and Shale Oil Resource Assessment Report XXIII, p. 1-25.
(online at: https://www.eia.gov/analysis/studies/worldshalegas/pdf/Indonesia_2013.pdf)
(Highest shale gas and shale oil potential in Indonesia in oil-prone, lacustrine shales in C and S Sumatra basins. Kutei and Tarakan basins of Kalimantan also thick lacustrine source rock shales with oil- gas potential. Indonesia has estimated 46 TCF gas and 7.9 BBO of risked, technically recoverable shale gas and shale oil resources out of 303 TCF and 234 BBO of risked shale gas and shale oil in-place)

US Energy Information Administration (EIA) (2015)- Technically recoverable shale oil and shale gas resources: Thailand. EIA/ARI World Shale Gas and Shale Oil Resource Assessment Report XXII, p. 1-18.
(online at: www.eia.gov/analysis/studies/worldshalegas/pdf/Thailand_2013.pdf)

US Embassy, Jakarta (2006)- Petroleum report Indonesia 2005-2006, p. 1-121.
(One of annual overview reports on Indonesia petroleum industry. Available from www.usembassyjakarta.org)

Von Baumhauer, E.H. (1869)- Over de aardolien der Nederlandsch Oost Indische bezittingen. Verslagen Koninklijke Akademie van Wetenschappen, Amsterdam, Afd. Natuurkunde (2), 3, p. 340-383.
(online at: https://books.google.com/....)
('On crude oils in the Netherlands Indies'. Review of 44 oil seeps in Java, with some physical (density, etc.) and chemical (C, H, O percentages) properties. Also oil seepage occurrences on Borneo, Sumatra, Ceram, E Sulawesi. Oils commonly biodegraded. Oil from Rembang and Cirebon of high quality)

Von Baumhauer, E.H. (1869)- Over de aardolien der Nederlandsch Oost Indische bezittingen. Tijdschrift Nederlandsche Maatschappij ter bevordering van Nijverheid, 310, Haarlem, p. 190-246.
('On crude oils in the Netherlands Indies'. Same paper as above)

Warga Dalem, M.A. & S. Padmosubroto (1988)- The occurrence of heavy crude and tar sands in Indonesia. In: R.F. Meyer (ed.) Proc. Third UNITAR/UNDP International Conference on Heavy crude and tar sands, Long Beach 1985, Alberta Oil Sands Technology and Research Authority, Edmonton, p. 171-183.

Warga Dalem, M.A., S. Padmosubroto & A. Khazoom (1985)- The occurrences of heavy crude and tar sands in Indonesia. Proc. Third Int. Conference Heavy crude and tar sands, UNITAR/UNDP, New York, p. 205-216.

Whitehouse, J. (2011)- Manganese resource potential Banda Arc region, Eastern Indonesia. Stratum Resources Report, p. 1-31. *(Unpublished) (online at: https://www.academia.edu/7399929/Manganese_resource_potential_Banda_Arc_region_eastern_Indonesia)*
(Overview of manganese resources in Timor, Rote and Flores islands. Manganese deposits of E Indonesia are associated with manganese nodules in deep-sea (pelagic) sediments or stratabound ore deposits in mostly red calcareous shales in limestone-dolomite masses. On Timor manganese mainly in (Mesozoic) pelagic limestone blocks in Bobonaro melange.On Java manganese nodule deposits were mined at Kliripan before World War II. Individual mineable deposits rel. small, but may be more widespread than current exploration indicates)

Widarsono, B. (2014)- Porosity versus depth characteristics of some reservoir sandstones in Western Indonesia. Scientific Contributions Oil and Gas (SCOG) Lemigas, Jakarta, 37, 2, p. 87-104.
(online at: https://journal.lemigas.esdm.go.id/index.php/SCOG/article/view/629)
(Porosity depth models derived from core samples from 549 wells in 8 producing sedimentary basins in W Indonesia)

Widarsono, B. (2016)- Petrophysical characteristics of some Indonesian reservoir rocks. Lemigas, LIPI Press, Jakarta, p. 1-257.

Widarsono, B., A. Muladi & I. Jaya (2007)- Vertical-horizontal permeability ratio in Indonesian sandstone and carbonate reservoirs. Proc. Simposium Nasional IATMI, Yogyakarta 2007, TS-09, p. 1-20.
(Permeablity anisotropy in both sandstones and carbonate rocks inwells in Indonesia (KV/KH) generally below 1.2. Carbonate rocks greater portion of data above 1.2)
(online at: www.iatmi.or.id/assets/bulletin/pdf/2007/2007-09.pdf)

Winderasta, W. & M.H. Amlan (2025)- Understanding the various potentials of unconventional oil and gas reservoirs in Indonesia. Berita Sedimentologi 51, 2, p. 63-74.
(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/516/457)
(Review of unconventional oil and gas potential from the Paleogene - Early Miocene in Indonesia, especially in Sumatra region)

Wiratno, J. & W.M. Ernata (2020)- What will be next? After a decade of exploration activities towards giant discovery in Indonesia Proc. Digital Technical Conference 2020, Indonesian Petroleum Association (IPA), IPA20-BC-124, p. 1-12.

Witkamp, H. (1917)- Onze koloniale Mijnbouw, II. De Petroleum. Tjeenk Willink, Haarlem, p. 1-96.
(online at: www.delpher.nl/nl/boeken/view?coll=boeken&identifier=MMKB02%3A100003992%3A00007)
('Our colonial mining industry, II, Petroleum'. Early popular overview of oil industry in Indonesia)

Witoelar Kartaadipura, L. & L. Samuel (1988)- Oil exploration in Eastern Indonesia, facts and prospective. Proc. 17th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 1-8.

Yazid, A., Sunoto & D. Djatmiko (1992)- Development of oil and gas exploration activities in Indonesia. Proc. 21st Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta,1, p. 1-18.
(Brief review of hydrocarbon exploration activities in Indonesia. Of 60 sedimentary basins in Indonesia only 38 explored. 14 basins produce oil and gas)

Yulihanto, B. (2002)- Reanalisis cekungan sedimen Indonesia; suatu tantangan dan harapan untuk menunjang perolehan cadangan migas baru di masa mendatang. Lembaran Publikasi Minyak dan Gas Bumi (Lemigas)36, 2. p. 49-59.
(online at: https://journal.lemigas.esdm.go.id/index.php/LPMGB/article/view/1248/1030)
('Re-analysis of Indonesia's sedimentary basins: a challenge and hope for supporting the acquisition of new oil and gas reserves in the future'. Lemigas reanalysis of Tertiary mature and frontier basin, focused on Paleogene rift system, timing of Miocene inversion tectonics,sequence stratigraphy of Miocene sediments, and evaluation of Tertiary carbonates)

Zhu, W., Z. Zhou, H. Sun, W. Peng, S. Zhao, X. Fu & K. Feng (2026)- Status and prospect of hydrocarbon resources in Southeast Asian petroliferous basins. J. Asian Earth Sciences 295, 106869, p. 1-18.
(online at: https://www.sciencedirect.com/science/article/pii/S1367912025003840)
(Review of SE Asia hydrocarbon basins (Indonesia, Malaysia, Thailand, Myanmar, Philippines, Vietnam). Newly discovered reserves are 93 % gas, and reservoirs typically small. Stratigraphic trap play concepts did not meet expectations. Undiscovered-Recoverable hydrocarbons resources in main basins of SEA ~3.15 × 10^4 mmboe - 5.07 × 104 mmboe, respectively. Undiscovered hydrocarbon resources are mainly in mature basins, especially in deep-water areas of mature basins).

XII.2. Hydrocarbon Geochemistry: Source Rocks, Oils, Gases

Numerous additional papers on hydrocarbons geochemistry and source rocks that are specific to one region are listed under those regions and are not repeated here.

Amijaya, H. (2010)- Indonesian low rank coal as petroleum source rock: high petroleum potentional but no expulsion? Proc. 34th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA10-G-071, p. 1-6.
(Petrographic and geochemichal study on low rank coals from Muara Enim Fm, S Sumatra. Coals can generate gas and oil, but with huminite reflectance 0.35-0.52% threshold to generate and expel oil not yet reached)

Astawa, I.N., D. Setiady, P.H. Wijaya, G.M. Hermansyah & M.D. Saputra (2016)- Indikasi gas biogenik di perairan Delta Mahakam, Provinsi Kalimantan Timur. J. Geologi Kelautan 14, 2, p. 103-114.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/354/282)
('Indications of biogenic 'swamp gas' in waters of the Mahakam Delta. Numerous indications of biogenic methane in shallow seismic profiles and cores in shallow sediments of Mahakam Delta distributary channels)

Astawa, I.N., P.H. Widjaja & W. Lugra (2011)- Pola sebaran gas charged sediment dasar laut di perairan Sidoarjo, Jawa Timur. J. Geologi Kelautan 9, 2, p. 66-77.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/201/191
('The distribution pattern of gas charged sediment in seabed of waters of Sidoarjo, East Java'. Belt of biogenic shallow gas-charged sediments on shallow seismic profiles off Porong Delta, Madura Straits)

Atkinson, C.D. & A. Livsey (2000)- Role of resinite in hydrocarbon generation from Indonesian coals. AAPG International Conference Exhib. Abstracts, American Assoc. Petroleum Geol. (AAPG) Bull. 84, 9, p. 1400.
(Abstract only) (Liptinite maceral 'resinite' important constituent of Tertiary coals in W Indonesia, probably from resins of Dipterocarp family tropical lowland trees. Samples from Miocene of Kutei Basin and Oligocene of Arjuna Basin (off NW Java) have abundant resinite, particularly in vitrinite-rich delta plain coals. Resinites hydrogen-rich, but not paraffinic, suggesting resinite not significant contributor to terrestrially-derived oils in these basins, but contribute cyclic hydrocarbons and biomarkers to these oils)

Barber, P.M. & J. Winterhalder (2013)- The Northern Australia- Eastern Indonesia- PNG Super Gas Province: why so much gas and so little oil? AAPG International Convention Exhib., Singapore 2012, Search and Discovery Article 10475, p. 1-32. *(Abstract + Presentation)*
(online at: www.searchanddiscovery.com/documents/2013/10475barber/ndx_barber.pdf)
(N Australia-E Indonesia-PNG Gas Province of Late Paleozoic-Mesozoic age overwhelmingly gas-prone (80% of all hydrocarbons discovered to date). Distribution of oil- vs. gas-prone source rocks controlled by successive Permian-Mesozoic passive margin extension, rifting and breakup, overprinted by global eustatic cycles and tectonic interaction with W Papua-PNG foldbelt. Two major source rock types: (1) oil-prone Organofacies B (only in local Oxfordian-Kimmeridgian syn-rifts and PNG foreland basins); (2) Organofacies D/E much more widespread, in U Permian-Jurassic lower delta-plain coals)

Bernard, B.B., J.M. Brooks, P. Baillie, J. Decker, P.A. Teas & D.L. Orange (2008)- Surface geochemical exploration and heat flow surveys in fifteen (15) frontier Indonesian basins. Proc. 32nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 45-58.
(Piston core survey in E Indonesia delivered many samples with migrated hydrocarbon. Not much detail)

Bernard, B.B., D.L. Orange, J.M. Brooks & J. Decker (2013)- Interstitial light hydrocarbon gases in jumbo piston cores offshore Indonesia: thermogenic or biogenic? Proc. Offshore Technology Conference (OTC), Houston 2013, OTC 24228, p. 1-12.
(Interstitial light hydrocarbons in 12m long piston cores from deepwater offshore NW Papua (no locality details; all deemed to be of biogenic origin)

Bertrand, P. (1984)- Geochemical and petrographic characterization of humic coal considered as possible oil source rocks. Organic Geochemistry 6, p. 481-488.

Bradshaw, M., D. Edwards, J. Bradshaw, C. Foster, T. Loutit et al. (1997)- Australian and Eastern Indonesian petroleum systems. In: J.V.C. Howes & R.A. Noble (eds.) Proc. International Conference Petroleum Systems of SE Asia and Australasia, Jakarta 1997, Indonesian Petroleum Association (IPA), p. 141-153.
(Six Phanerozoic petroleum supersystems in Australia, three of these also in E Indonesia. Source rock intervals in Cambrian, Ordovician, Late Devonian, E Carboniferous, Permian, Triassic, Late Jurassic and Cretaceous. Petrel gas field in Bonaparte Basin example of Gondwanan Supersystem accumulation in Late Permian sandstones with earliest Triassic marine shale seal. Similar system may be operating in Bintuni Basin)

Brown, S. (1989)- The "mangrove model", can it be applied to hydrocarbon exploration in Indonesia? Proc. 18th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 385-401.
(On mangrove-derived organic matter as likely hydrocarbon source, and mangrove forests as a highly productive ecosystem and ideal place for accumulation and preservation of organic matter)

Carlson, R.M.K., S.C. Teerman, J.M. Moldowan, S.R. Jacobson, E.I. Chan, K.S. Dorrough, W.C. Seetoo & B. Mertani (1993)- High temperature gas chromatography of high-wax oils. Proc. 22nd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 483-507.
(High Temp Gas Chromatography can provide paleoenvironmental information on geologic source of oils and bitumens. Oil from Salawati Basin in Irian Jaya and Telisa Shale extracts from C Sumatra show profiles consistent with marine sources. C Sumatran high-wax oils consistent with fresher water lacustrine source)

Carr, A.D. (2008)- Suppression and retardation of vitrinite reflectance, part 2. Derivation and testing of a kinetic model for suppression. J. Petroleum Geology 23, 4, p. 475-496.
(Vitrinite reflectance may be suppressed and lead to erroneous predictions of hydrocarbon generation in sedimentary basins. Case studies include Bunga Orkid-1 (Malay Basin))

Caughey, C.A. & J.V.C. Howes (eds.) (1999)- Gas habitats of SE Asia and Australasia. Proc. International Conference, Indonesian Petroleum Association (IPA), Jakarta, October 1998, p. 1-237.

Cole, J.M. & S. Crittenden (1997)- Early Tertiary basin formation and the development of lacustrine and quasi-lacustrine/ marine source rocks on the Sunda Shelf of SE Asia. In: S.J. Matthews & R.W. Murphy (eds.) Petroleum Geology of Southeast Asia, Geological Society, London, Special Publ. 126, p. 147-183.

Cook, A.C. (1989)- Source potential and maturation of hydrocarbon source rocks in Indonesian sedimentary basins. In: B. Situmorang (ed.) Proc. 6th Regional Conference Geology, Mineral Hydrocarbon Resources of SE Asia (GEOSEA VI), Jakarta 1987, IAGI, p. 319-342.
(General overview of petroleum source rocks in Indonesia)

Cooper, B.A., M.J. Raven, L. Samuel & S.W. Hardjono (1997)- Origin and geological controls on subsurface CO_2 distribution with examples from Western Indonesia. In: J.V.C. Howes & R.A. Noble (eds.) Proc. International Conference Petroleum systems of SE Asia and Australasia, Jakarta 1997, Indonesian Petroleum Association (IPA), p. 877-892.
(Potential sources of CO_2 include mantle degassing, reaction (metamorphic and diagenetic) of carbonates and catagenesis of coals)

Core Laboratories Indonesia (1993)- A non-exclusive study of the hydrocarbon potential and stratigraphic occurrence of coals in Indonesia. Report BS-01, 5 vols. *(Unpublished)*

Courteney, S. (1996)- Middle Eocene, older sequences in rifts key to potential in western Indonesia. Oil and Gas Journal, May 27, p. 71-74.
(Part 2 of Western Indonesia paper. M Eocene most effective source interval in W Indonesia rift basins)

Curiale, J.A. (2006)- The occurrence of norlupanes and bisnorlupanes in oils of Tertiary deltaic basins. Organic Geochemistry 37, p. 1846-1856.

(On the occurrence of the C28 and C29 lupanoid hydrocarbons in crude oils and their use in oil-source correlations. With examples from Kutai Basin, E Kalimantan)

Curiale, J. & J. Decker (2007)- Eocene oil-prone source rock potential of Central Indonesia. American Assoc. Petroleum Geol. (AAPG) Bull. 91, Program Abstracts 2007 AAPG Annual Convention Long Beach.
(Occurrence of oil-prone, terrigenous Eocene source potential in extensive areas of E Borneo and W Sulawesi, and oil-prone, lacustrine Eocene potential in S part Makassar Strait. Eocene-sourced oil accumulations known in Barito Basin (Tanjung Field). Extent of other Eocene-sourced accumulations (e.g., Tengkawang oil of E Kalimantan, surface seeps in SW Sulawesi, Pangkat oil tests in S Makassar Strait) not determined)

Curiale, J.A., J. Decker, C.A. Caughey & H.F. Schwing (2003)- Oil-prone lacustrine source rock potential in Central Indonesia. 2003 AAPG/ SEPM Convention, p. 35-36. *(Abstract only)*
(E Borneo and W Sulawesi oils show partial or total lacustrine signature. C Indonesian oils with partial or complete lacustrine signature include Pantai-1 (off E coast Borneo) and Pangkat-1 (S Makassar Strait). Both oils elevated 4-methylsteranes. Pangkat-1 oil with beta-carotane, elevated sulfur (S = 2.1%) and very light carbon isotope ratios (d13C = -30.3 ppm). Very low maturity levels, possibly early generation from Type I-S kerogen deposited in hypersaline setting. Other C Indonesian oils reveal lacustrine source signature indicating freshwater depositional setting. Paleogene rifting between Borneo and Sulawesi provided potential development of oil-prone lacustrine source rocks)

Curiale, J.A., E. Lumadyo & R. Lin (2002)- Petroleum and source rock geochemistry of the Salayar Basin (offshore Sulawesi), Indonesia. AAPG-SEPM Annual Convention, Houston 2002, p. *(Abstract only).*
(online at: https://www.searchanddiscovery.com/abstracts/pdf/2002/annual/SHORT/ndx_21622.pdf)
(Salayar Basin off SW Sulawesi, at S-most extent of Makassar Strait in Indonesia. Cretaceous- M Eocene rifting created Dewakang graben, followed by inversion through M Miocene. Depositional models and regional data suggest lacustrine, oil-prone sources in Paleocene, and oil-prone coaly sequences in M Eocene. Both source facies proven to E and NE at basin margins. Eocene 'Kelara Limestone' source for low-wax, low-asphaltene oil in basin center. Underlying Eocene coals- coaly shales analogous to oil-prone Barito Basin sapropelic coals, and responsible for oil seeps in SW Sulawesi. Possible occurrence of older, lacustrine oil-prone sources in Salayar Basin significant upside to exploration. Oil-prone sources mature in deepest parts of basin)

Curiale, J.A., P. Kyi, I.D. Collins, D. Aung, N. Kyaw, N.M. Nyunt & C.J. Stuart (1994)- The Central Myanmar (Burma) oil family-composition and implications for source. Organic Geochemistry 22, 2, p. 237-255.
(Geochemical characteristics of 31 Eocene-Miocene oils/seeps, Eocene coal and Eocene resin from C Myanmar suggest Eocene resinous shale/coal is source for oils)

Daulay, B. & H. Panggabean (2001)- Batubara sebagai sumber hidrokarbon: studi kasus cekungan Kutai dan Barito. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 11, 118, p. 26-34.
('Coal as a source of hydrocarbons: a case study in the Kutai and Barito Basins'. Coals good potential petroleum source rocks)

Davis, R.C., S.W. Noon & J. Harrington (2004)- Influence of depositional environment on the petroleum potential of Tertiary Indonesian coals. Abstracts 21th Annual Meeting Soc. Organic Petrology, Sydney, 21, p. 61-63.
(see more extensive version, below)

Davis, R.C., S.W. Noon & J. Harrington (2007)- The petroleum potential of Tertiary coals from Western Indonesia: relationship to mire type and sequence stratigraphic setting. Int. J. Coal Geology 70, p. 35-52.
(online at: www.academia.edu/79203303/The_petroleum_potential_of_Tertiary_coals_from_Western_I Etc.)
(500 deltaic sediments analysed from 14 basins in W Indonesia. Main peat-forming episodes: (1) Paleogene syn-rift transgressive, (2) Paleogene-Neogene post-rift transgressive, (3) Neogene regressive. Paleogene syn-rift coals more hydrogen-rich than Neogene coals and more oil-prone. Pliocene coals from regressive sequence in Sumatran fore-arc very hydrogen-poor. Systematic increase in HI with increasing rank suggests pyrolysis underestimates petroleum potential in low rank coals. Vitrinite type more important for petroleum potential than liptinite content. Four coal sub-types: I, II and III low ash coals and likely deposited in raised mires. Sub-type IV

hydrogen-rich, high-ash Eocene coals, deposited in submerged mire. Highly degraded peats result in hydrogen-rich coals with higher proportion of detrital vitrinite. Degree of degradation related to time peat spends in zone of influence of water table; unlikely related to tectonostratigraphic setting)

Doust, H. (2017)- Petroleum systems in Southeast Asian Tertiary basins. Bull. Geological Society Malaysia 64 (50th Anniversary Issue 2), p. 1-16.
(online at: https://gsmpubl.wordpress.com/wp-content/uploads/2018/08/bgsm201708.pdf)
(Productive Tertiary basins in SE Asia similar geodynamic developments, with 5 facies associations: (1) lacustrine (early synrift of Sundaland; mainly oil) (2) paralic (late synrift); (3) open marine shelf (post-rift, E Indonesia and Philippines) (4) deeper marine (post-rift; mainly gas) and (5) pre-Tertiary (E Indonesia and Thailand, mainly terrestrial). Around Borneo thick late postrift passive margin delta sequences with oil- and gas-prone coaly source rock; transported terrigenous organic material common in related deep marine environments and contributes to marine source facies. In SE Asia terrestrial and lacustrine source rocks rel. difficult to locate, variable in quality and often distributed in thin beds)

Doust, H. & G. Lijmbach (1997)- Charge constraints on the hydrocarbon habitat and development of hydrocarbon systems in Southeast Asia Tertiary Basin. In: J.V.C. Howes & R.A. Noble (eds.) Proc. Int. Conf. Petroleum Systems of South East Asia and Australasia, Jakarta, Indonesian Petroleum Association (IPA), p. 115-125.
(Most SE Asia basins similar geological history of Early Tertiary graben formation, fill and transgression, followed by E-M Miocene marine transgression and Late Tertiary regressive deltaic progradation. Main source rocks: (1) Early synrift lacustrine (Oligocene- E Miocene), oil prone; (2) Late synrift transgressive deltaic (Oligocene- E Miocene), oil and gas prone; (3) Early postrift marine (E-M Miocene transgression), mainly gas prone; and (4) Late postrift regressive deltaic (M Miocene-Pliocene), oil and gas prone. Lacustrine shales, fluvio-deltaic coals/coaly shales and organic-rich marine shales generated light waxy oils and abundant gas of region. Proximal basins and environments more oil prone, more distal basins and environments more gas potential; intermediate basins and environments both oil and gas prone)

Doust, H. & R.A. Noble (2008)- Petroleum systems of Indonesia. Marine and Petroleum Geology 25, 2, p. 103-129.
(online at: https://www.academia.edu/es/27950629/Petroleum_systems_of_Indonesia)
(Four Petroleum System Types (PSTs) corresponding to main stages of geodynamic basin development (1) oil-prone Early Synrift Lacustrine in Eocene-Oligocene deeper parts of synrift grabens, (2) oil and gas-prone Late Synrift Transgressive Deltaic in shallower Oligocene- E Miocene portions of synrift grabens, (3) gas-prone Early Postrift Marine of E Miocene transgressive period, and (4) oil and gas-prone Late Postrift Regressive Deltaic of shallowest late Tertiary basin fills. Mixing of predominantly lacustrine to terrestrial charge has taken place. Grouped basins according to dominant PSTs and identified 'basin families', termed proximal, intermediate, distal, Borneo and E Indonesian, according to paleogeographic relationship to Sunda craton)

Doust, H. & H.S. Sumner (2007)- Petroleum systems in rift basins- a collective approach in Southeast Asian basins. Petroleum Geoscience 13, p. 127-144.
(Shell view of SE Asia Tertiary basins. Four types of petroleum systems, correlating with basin evolution stages (early and late synrift, early and late postrift). Petroleum system types characteristic environmentally-controlled source, reservoir and seal lithofacies which, in combination with structural trap style, determine hydrocarbon habitat. Variations in tectonostratigraphic evolution due to differences in paleogeographical position and proximity to late Tertiary collisions. This is reflected in volumes, field sizes and oil- gas ratios)

Dowling, L.M., C.J. Boreham, J.M. Hope, A.P. Murray & R.E. Summons (1995)- Carbon isotopic composition of hydrocarbons in ocean-transported bitumens from the coastline of Australia. Organic Geochemistry 23, 8, p. 729-737.
(Bitumens stranding along coastlines of Northern Territory, W Australia, S Australia, Victoria and Tasmania with biomarker signatures similar to SE Asian oils. Comparison with C Sumatra Minas and Duri lacustrine oils shows very similar isotopic patterns to waxy bitumens from Australian coastline. Asphaltic bitumens from S Australian coastline lighter carbon isotopes)

Escher, B.G. (1920)- The composition of the crude-oils of the Netherlands East Indian Archipelago in connection with the oil bearing strata. In: Algemeen Ingenieurs Congres (General Engineering Congress), Batavia 1920, Sectie 5, Mijnbouw en Geologie, Intro. Paper 1, p. 1-33.
(On composition of crude oils from BPM fields in N and S Sumatra (oils with asphalt base, rich in benzine), E Kalimantan (medium oils with paraffin or with asphalt base with common aromatic and unsaturated hydrocarbons), Tarakan (heavy oils with asphalt base) and Java (oils with paraffin and asphalt base))

Geneau, M.E. (1990)- A discussion of 'sniffer' geochemical surveying offshore Malaysia. Bull. Geological Society Malaysia 25, p. 57-73.
(online at: https://gsmpubl.wordpress.com/wp-content/uploads/2014/09/bgsm1990018.pdf)
(Methane anomaly detected by Sun Malaysia 1988 sniffer survey in Malacca Straits overlays a seismically defined structure)

GEOMARK (1993)- Far East oil study. 15 volumes. *(Unpublished multi-client report on oils chemistry)*

George, S.C., H. Volk & M. Ahmed (2004)- Oil-bearing fluid inclusions: geochemical analysis and geological applications. Acta Petrologica Sinica 20, 6, p. 1319-1332.
(On fluid inclusion geochemistry, with examples from Timor Sea, etc., NW Australia)

Gibling, M.R. (1988)- Cenozoic lacustrine basins of Southeast Asia, their tectonic setting, depositional environment and hydrocarbon potential. In: A.G. Fleet, K. Kelts & M.R. Talbot (eds.) Lacustrine petroleum source rocks, Geological Society, London, Special Publ. 40, p. 341-351.
(Cenozoic strike-slip tectonism in SE Asia generated many short-lived, but deep basins. Formed ideal sites for lakes during Oligocene- Miocene early basinal history. Examples from N Thailand basins with lacustrine mudstone and coal with Type I, hydrogen-rich kerogen, with good hydrocarbon generation potential)

Gordon, T.L. (1985)- Talang Akar coals; Ardjuna subbasin oil source. Proc. 14th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 91-120.

Grantham, P.J., J. Posthuma & A. Baak (1983)- Triterpanes in a number of Far-Eastern crude oils. In: M. Bjoroy et al. (eds.) Proc. Int. Meeting on Organic Geochemistry 1981, Wiley & Sons, New York, Advances in Organic Geochemistry 10, p. 675-683.
(First authors to suggest relation between triterpanes in crude oils from SE Asia and dammar (resinous material from Dipterocarpaceae angiosperm hardwood trees common in SE Asia))

Grunau, H.R. & U. Gruner (1978)- Source rocks and the origin of natural gas in the Far East. J. Petroleum Geology 2, p. 3-56.
(Most source rocks of SE Asia and Australia have strong humic component and therefore high gas-generating capacity, so Far East largely a gas province. Most source rocks Paleocene- Miocene age. Source rock maturity and post-maturity in many cases reached in Neogene to Recent times. Retention of gas may have been inadequate in areas of strong Neogene folding (e.g. Sumatra, E Kalimantan, Burma Tertiary basins)

Hoffmann, C.F., A.S. MacKenzie, C.A. Lewis, J.R. Maxwell, J.L. Oudin, B. Durand & M. Vandenbroucke (1984)- A biological marker study of coals, shales and oils from the Mahakam Delta, Kalimantan, Indonesia. Chemical Geology 42, p. 1-23.
(Distributions of steroidal and triterpenoidal alkanes and aromatic hydrocarbons in oils, coals and shales from Mahakam Delta suggest high relative abundances of components of higher-plant origin, agreeing with Type III organic matter interpretation. Source for Handil oils must have present depth of at least 3000m)

Horsfield, B., K.L. Yordy & J.C. Crelling (1988)- Determining the petroleum-generating potential of coal using organic geochemistry and organic petrology. Proc. 13th International Meeting on Organic Geochemistry, Organic Geochemistry 13, p. 121-129.

(Arjuna Basin of NW Java contains high-wax crude oil. Pyrolysis-gas chromatography shows potential precursors of long chain (waxy) paraffins in coals of Talang Akar formation, and are most abundant in those that are rich in 'matrix liptinite' (better expulsion potential than vitrinite-rich coals))

Howes, J.V.C. & S. Tisnawijaya (1995)- Indonesian petroleum systems, reserve additions and exploration efficiency. Proc. 24th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 1-17.

Imbus, S.W., B.J. Katz & T. Urwongse (1998)- Predicting CO_2 occurrence on a regional scale: Southeast Asia example. Organic Geochemistry 29, p. 325-345.
(In SE Asia gas fields CO_2 may vary from <10% to 90% in same basin. Multiple possible origins for CO_2, incl. from mantle, carbonate metamorphism, maturation of organic material, etc.). Tectonic setting, basement fault density, reservoir temperature and reservoir pressure are key elements controlling CO_2 abundance)

Jyalita, J., D.H. Amijaya & F. Anggara (2023)- Preliminary geochemical appraisal on Sumatera, Java, and Kalimantan coaly source rocks. J. Applied Geology (UGM) 8, 2, p. 66-75
(online at: https://jurnal.ugm.ac.id/jag/article/view/72588/38851)
(Geochemical analyses of 25 coal and coaly shale samples from outcrops and wells in C Sumatra (Petani Fm), S Sumatra (Talang Akar, Muara Enim Fms), S Central Java (Nanggulan, Eocene), Barito (Warukin Fm, M Miocene) and Kutai (Balikpapan Fm; M Miocene) Basins. Many with good hydrocarbon potential but most are immature)

Kang An & Yang Lei (2010)- Lacustrine source rock occurrence and its petroleum reservoir distribution of Paleogene fault basins in offshore China and Southeast Asia. Xinjiang Petroleum Geol. 2010, 4, p.
(Hydrocarbons generated from lacustrine source rocks in Paleogene rift basins of offshore China and SE Asia account for 95% and 48% of total petroleum resources in these areas. Two models of source rock distribution (1) Bohai Bay basin model with widely distributed, thick, deep lacustrine shale; (2) Asri- C Sumatra basin model with rel. thin, shallow lacustrine shale of limited distribution)

Katz, B.J. (1991)- Controls on lacustrine source rock development for Indonesia. Proc. 20th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 587-619.
(Lacustrine source rocks >80% of Indonesia's known petroleum reserves. Nonmarine source systems not universally distributed. Factors favoring lacustrine source development: tectonic development of narrow basins, subsidence rates in excess of sedimentation rates, rainfall rates in excess of evaporation but insufficient to support growth of rain forests, lack of winter storms, and limited seasonality of surface temperatures)

Katz, B.J. (1995)- Biogenic gas- its formation and economic significance. Proc. 24th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 461-474.
(Significant proportion of global gas reserve-base not thermogenic but of bacterial origin. Several Indonesian basins, with high sedimentation rates, locally high TOC and rel. low T gradients, may be suitable for biogenic gas generation)

Katz, B.J. (1995)- A survey of rift basin source rocks. In: J.J. Lambiase (ed.) Hydrocarbon habitat of rift basins, Geological Society, London, Special Publ. 80, p. 213-240.
(Rift basins contain disproportionate amount of petroleum relative to their area and sediment volume, but not all rifts contain organic-rich deposits, nor are all organic-rich deposits volumetrically significant. Includes examples from C Sumatra, etc.)

Katz, B.J. (2001)- Gas geochemistry- a key to understanding formation and alteration processes. Proc. 28th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 789-802.
(Multiple gas formation mechanisms, reflected in bulk and isotope geochemistry; can be used to decipher gas accumulation history)

Katz, B.J. & B. Mertani (1989)- Central Sumatra- a geochemical paradox. Proc. 18th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 403-425.

(Crude oil data suggest four crude oil families in C Sumatra. Source rock data indicated only one effective oil source, Pematang Brown Shale. Facies variations in Brown Shale may explain differences in crude oils)

Katz, B.J., R.A. Royle & B. Mertani (1990)- Southeast Asian and Southwest Pacific coals contribution to the petroleum resource base. Proc. 19th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 299-329.
(Considerable variation in ability of coals to generate hydrocarbons. With exception may be of algal-dominated coals, coals generally do not contribute to petroleum resource base. Lacustrine source rocks account for 90% of petroleum resource base of Indonesia, 95% of China's)

Kelley, P.A., K.K. Bissada, B.H. Burda, L.W. Elrod & R.N. Pheifer (1985)- Petroleum generation potential of coals and organic rich deposits: significance in Tertiary coal rich basins. Proc. 14th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 2, p. 3-21.
(Contribution of coal to accumulated hydrocarbons controversial. Only alginite produces molecular fingerprint that resembles crude oil, hydrocarbons generated by vitrinite do not. Vitrinite generates minor quantities of hydrocarbons and is not viable oil source. Algae and bacteria probably represent basis for all crude oils)

Kewley, J. (1921)- The crude oils of Borneo. Petroleum Times, London, 5, p. 337-339.
(also in J. Inst. Petroleum Technologists 7, 37, p. 209-233)
((Plummer 1921 AAPG review): In Kutei region in E Borneo Miocene Pliocene deltaic deposits overlie glauconitic marls, limestones and marls of E Miocene and Eocene age. Oil originated in lower Miocene and Eocene marls and limestones and migrated upward, saturating delta deposits. Oil accumulated along Sanga Sanga fold (Sanga Sanga and Sambodja oil fields). Deeper oil rich in paraffin wax; oils from higher levels in or above coal beds poorer in paraffin and richer in aromatic and asphaltic constituents. In Miri field where coal is absent, oil also low in aromatic and asphaltic content. At Perlak in Sumatra, where coal is also absent, oils lower in aromatic and asphaltic constituents than oils of Moera Enim, Sumatra, where coal seams present)

Kjellgren, G.M. & H. Suguharto (1989)- Oil geochemistry: a clue to the hydrocarbon history and prospectivity of the Southeastern North Sumatra Basin, Indonesia. Proc. 18th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 363-385.
(Oils from Pertamina wells in N Sumatra basin suggest two oil sources: (1) E Oligocene synrift Bampo Fm (early generation, now overmature; oils mostly biodegraded) and (2) post-rift Late Oligocene- M Miocene Baong-Belumai Fms)

Kristadi, H.J. & D.W. Dati (2012)- Gas metana batu bara: energi baru untuk rakyat. Pusat Penelitian dan Pengembangan Teknologi Minyak dan Gas Bumi (LEMIGAS), Jakarta, p. 1-129.
(online at: www.lemigas.esdm.go.id/id/pdf/buku_populer/Buku%20Gas%20Metana%20Batubara.pdf)
('Coal methane gas: new energy for the people'. Review of coalbed methane principles, occurrences in Indonesia (Sumatra, Kalimantan), extraction, economics, etc.)

Lawrence, G., A. Fleming, M. Broadley & N.A. Press (1997)- Offshore seepage mapped from space high-grades unexplored parts of Southeast Asia basins. In: J.V.C. Howes & R.A. Noble (eds.) Proc. International Conference Petroleum Systems of SE Asia and Australasia, Jakarta 1997, Indonesian Petroleum Association (IPA), p. 995-999.
(General discussion of offshore satellite slicks in SE Asia)

Leckie, A.J. & H.R. Woltjer (1935)- Het Helium-gehalte van aardgassen der petroleumbronnen. Handelingen 7e Nederlandsch-Indisch Natuurwetenschappelijk Congres, Batavia 1935, p. 170-181.
('The Helium content of natural gases from the oil wells'. Analyses of 15 gases from Java, Sumatra, Borneo and Seram. Highest He content in Bula field, Seram)

Liaw, K.K. (2019)- Coaly petroleum source rocks In Malaysia - is the present the key to the past? Berita Sedimentologi 42, p. 22-32.
(online at: www.iagi.or.id/fosi/files/2019/01/FOSI_BeritaSedimentologi_BS42_January2019.pdf)

(Except for Central Luconia, Malaysia's oil-producing regions (Malay, Sarawak and Sabah Basins) broadly similar petroleum systems with Neogene clastic reservoirs, hydrocarbons sourced mainly from Type III coaly source rocks. Low-lying forest peats often inundated by floods, and oil-prone (Type III/II) coals;raised peat domes, forming above seasonal flood levels result in gas-prone (Type III) coals)

Link, W. (1952)- Significance of oil and gas seeps in world exploration. American Assoc. Petroleum Geol. (AAPG) Bull. 36, 8, p. 1505-1549.
(General discussion of oil-gas seepage. Most common in young sediments that were folded, faulted and eroded and on basin margins. With 3 maps showing oil seep distribution on Sumatra (fig. 38), Borneo (fig. 39) and Java (fig. 40), based on information from Standard-Vacuum Oil Company)

Livsey, A.R., N. Duxbury & F. Richards (1992)- The geochemistry of Tertiary and Pre-Tertiary source rocks and associated oils in eastern Indonesia. Proc. 21st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 707-761.
(Overview of E Indonesia source rocks. Main source rock ages Late Permian, Late Triassic (restricted marine oil-source in Buton, Seram, Timor, Buru), E-M Jurassic (coaly and marine facies in New Guinea), Miocene (Salawati, Sengkang basins))

Longley, I. (2005)- Topical tropical non-marine deep water deltaic charge systems in SE Asia. a model to explain why some are oily and some are not. Proc. 30th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 625-646.
(General Asia hydrocarbon source discussion, mainly dealing with Borneo Baram and Mahakam deltas)

MacGregor, D.S. (1994)- Coal-bearing strata as source rocks- a global overview. In: A.C.Scott & A.J. Fleet (eds.) Coal and coal-bearing strata as oil-prone source rocks? Geological Society, London Special Publ. 77, p. 107-116.
(Coal-bearing sequences are significant oil generators only in very specific and relatively uncommon settings. Coals primary or important secondary source facies in Australasia/ SE Asia. In other regions of world no evidence they expelled major oil, but sourced significant amounts of gas. Liquid hydrocarbons restricted to two 'fairways'. (1) Tertiary angiosperm assemblages within 20° of Paleo-Equator and (2) Late Jurassic-Eocene gymnosperm assemblages formed on Australian and associated plates)

MacGregor, D.S. (1995)- The exploration significance of surface oil seepage: an Indonesian perspective. Proc. 24th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 97-109.
(Majority of Indonesian oil provinces with belt of seeps on basin edge. Relationship between seeps and reserves good on basin scale, but poor at sub-basin and field scale. Seeps in W Indonesia controlled by extent of Plio-Pleistocene structural inversion over oil-bearing portions of backarc basins. Less disturbed extensional fabric of C. Sumatra less seepage than inverted fabric of N and S Sumatran basins, despite higher oil reserves. Active seeps frequent over active reverse faults and eroded steep anticlinal crests. High success rate of wells near seeps, but most seeping fields shallow and small. In inverted areas, oil generation usually no longer active and surface oil shows represent destruction of oil pools. Larger fields generally basinward of seep belt)

MacGregor, D.S. (2018)- Physics and biology of biogenic gas plays: implications for SE Asia In: PEGSB SEAPEX Asia Pacific E&P Conference, London, p. 1-26. *(Abstract + Presentation)*
(Surge in biogenic gas discoveries worldwide, particularly in deepwater settings. In SE Asia represented by Rakhine Basin, Myanmar. Also Terang-Sirasun (NE Java - Madura Straits), Niengo (N West Papua), Pandora (Gulf of Papua), etc. Biogenic gas generation shut off at ~60-70° C.,)

Mann, A.L., N.S. Goodwin & S. Lowe (1987)- Geochemical characteristics of lacustrine source rocks: a combined palynologial/ molecular study of a Tertiary sequence from offshore China. Proc. 16th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 241-258.
(Study of Eocene-Miocene lacustrine source rocks from undisclosed well offshore China)

Marty, D.G. & J.E. Garcin (1987)- Presence de bacteries methanogenes methylotrophes dans les sediments profonds du detroit de Makassar (Indonesie). Oceanologica Acta 10, 2, p. 249-253.

(online at: http://archimer.ifremer.fr/doc/00109/22074/19716.pdf)
('Occurrence of methylotrophic methane-producing bacteria in deep-sea sediments from Makassar Strait (Indonesia)'. Competition between sulfate reducing and methane producing bacteria one of main factors controlling biogenic methane genesis in anoxic marine sediments. Methylotrophic methanogenic bacteria found in shallow marine sediments, and methanogenic bacteria able to produce methane from methylamines in sediments from oceanic trench at depth of 2000m in Makassar Strait)

McKirdy, D.M. & A. Horvath (1976)- Geochemistry and significance of coastal bitumen from southern and northern Australia, Australian Petroleum Exploration Assoc. (APEA) Journal 16, p. 123-136.
(Bitumen strandings in Northern Territory of Australia are paraffinic oils, probably from natural submarine oil seeps in Money Shoal Basin. Probably derived from Cretaceous or younger non-marine or deltaic source rocks (see also Summons et al. 1993))

Michels, R., N. Enjelvin-Raoult, E. Marcel, L. Mansuy, P. Faure & J.L. Oudin (2002)- Understanding of reservoir gas compositions in a natural case using stepwise semi-open artificial maturation. Marine and Petroleum Geology 19, 5, p. 589-599.
(Two types of variations with depth of d13C values of gases observed in multilayered gas fields in SE Asia (E Kalimantan?). In normally pressured zones steady increase of d13C values of methane with depth; in overpressured zones first decrease with depth, then regular trend. Experiments on pyrolysis of Mahakam Delta coal show closed pyrolysis carbon isotope trends very similar to high pressured reservoirs; normal pressured reservoirs follow values of semi-open pyrolysis. Gas distributions and d13C isotope composition may be explained in terms of degree of opening of system: high P reservoirs fairly closed systems, with in situ gas generation, normally pressured zones more open and subject to lateral migration)

Munir, N., S. Sanusi, S. Gunawan, T. Nugroho & M. Dwiantoro (2015)- Early screening tools to determine the hydrocarbon potential from unconventional coals and shales source rocks: organic petrology and geochemistry. Proc. Joint Convention HAGI-IAGI-IAFMI-IATMI, Balikpapan, JCB2015-096, p. 1-12.
(online at: https://www.iagi.or.id/web/digital/3/2015_IAGI_Balikpapan_Early-Screening-Tools.pdf)
(Organic petrology and geochemistry of lignite from Muara Enim Fm (S Sumatra), shales from Sangkarewang Fm (Ombilin Basin) and Brown Shale Fm (C Sumatra). All potential for unconventional oil and gas)

Murray, A.P., I.B. Sosrowidjojo, R. Alexander, R.I. Kagi, C.M. Norgate & R.E. Summons (1997)- Oleananes in oils and sediments: evidence of marine influence during early diagenesis? Geochimica Cosmochimica Acta 61, 6, p. 1261-1276.
(Oleananes biomarker derived from angiosperm plants. Abundance of oleananes in terrigenous oils and sediments may be sensitive to changes in early diagenetic conditions and need to be used with caution as age and source markers in fluvio-deltaic and lacustrine petroleum systems. Oleananes absent from base of Eocene coal seam affected by postdepositional seawater intrusion. In deltaic sediments from S Sumatra Basin, oleanane/hopane ratio is strongly correlated with indicators of marine influence. Angiosperm-derived Miocene coal from Philippines, deposited under freshwater conditions, abundant aromatic oleanoids but no oleananes)

Murray, A.P., I.B. Sosrowidjojo, R. Alexander & R.E. Summons (1997)- Locating effective source rocks in deltaic petroleum systems; making better use of land-plant biomarkers. In: J.V.C. Howes & R.A. Noble (eds.) Proc. International Conference Petroleum Systems of SE Asia and Australasia, Jakarta 1997, Indonesian Petroleum Association (IPA), p. 939-945.
(Distribution of oleananes and bicadinanes, land plant biomarkers in many SE Asian oils, can be used to better define maturity and depositional environment of effective source rocks)

Murray, A.P., R.E. Summons, C.J. Boreham & L.M. Dowling (1994)- Biomarker and n-alkane isotope profiles for Tertiary oils: relationship to depositional setting. Organic Geochemistry 22, p. 521-542.
(Biomarker and n-alkane isotope profiles for Late Cretaceous/Tertiary oils from SE Asia, China, PNG, etc., interpreted with respect to six kinds of source rock depositional settings: fluvio-deltaic (S Sumatra, NW Java, NE Kalimantan, etc.), freshwater transitional, lacustrine (C Sumatra), saline lacustrine, marine deltaic and marine carbonate. Oleanane/hopane ratio may overestimate higher plant contribution to marine oils)

Murtrijito, N.A., F.M. Naibaho & W. Ashuri. (2014)- Shale gas: geological perspective of Baong Formation for future chances of North Sumatra Basin; compared to Fort Worth Basin in USA. Majalah Geologi Indonesia (IAGI) 28, 1, p. 41-49.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/719)
(Interbedded black shale and limestone of M Miocene Baong Fm in N Sumatra Basin similarities with Barnett Shale of Fort Worth Basin, therefore Baong Fm may also become commercial gas resource)

Noble, R., D. Orange, J. Decker, P. Teas & P. Baillie (2009)- Oil and gas seeps in deep marine sea floor cores as indicators of active petroleum systems in Indonesia. Proc. 33rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA09-G-044, p. 385-394.
(Results of geochem analysis of deep sea floor samples from ten 'Black Gold- TGS' areas in Indonesia, suggesting presence of mainly marine-origin Mesozoic and Tertiary source rocks)

Nytoft, H.P., G. Kildahl-Andersen & O.J. Samuel (2010)- Rearranged oleananes: structural identification and distribution in a worldwide set of Late Cretaceous/Tertiary oils. Organic Geochemistry 41, p. 1104-1118.
(Angiosperm biomarkers include oleanane isomers 18a(H) and 18b(H) oleanane, also C30 angiosperm markers lupane and taraxastanes. Rearranged oleananes probably formed by dehydration and rearrangement of higher plant triterpenoids; present in all 25 oleanane-containing oils used. Include analyses from Kutei Basin and Lufa seep, PNG)

Nurachman, Z., Hartati, S. Anita, E.E. Anward, G. Novirani, B. Mangindaan et al. (2012)- Oil productivity of the tropical marine diatom *Thalassiosira* sp. Bioresource Technology 108, p. 240-244.
(Successful laboratory experiment in generating biofuel from cultures of marine diatoms)

Okui, A. (2005)- Characteristics of non-marine dual petroleum systems in Southeast Asia. In: Oil and gas from the Cenozoic non-marine source rocks in East Asia; a point of contact between petroleum system and Earth system, Sekiyu Gijutsu Kyokaishi (J. Japanese Association for Petroleum Technology), Tokyo, 70, 1, p. 91-100.
(Miocene coal formerly thought to be main source rock in basins in and around Indochina Peninsula in SE Asia. However, new investigations reveal important role of Oligocene lacustrine source rocks)

Orange, D.L., P.A. Teas, J. Decker, P. Baillie & T. Johnstone (2009)- Using SeaSeep surveys to identify and sample natural hydrocarbon seeps in offshore frontier basins. Proc. 33rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA09-G-090, p. 363-383.
(Black Gold-TGS methodology of deep water hydrocarbon seeps detection from multibeam bathymetry and backscatter surveys)

Orange, D.L., P.A. Teas, J. Decker, & J. Gharib (2023)- Use of multibeam bathymetry and backscatter to improve seabed geochemical surveys- Part 2: Best practices and case studies in seep hunting for exploration, with an emphasis on Indonesia. Interpretation (SEG-AAPG) 11, 2, p. T249-T275.
(Indonesia regional projects demonstrated value of multibeam-based exploration through successful farm-out of exploration blocks with promotion where farm-in-ee(s) pay higher % of costs than their % of equity. Review of several examples of seep studies, target selection philosophy, criteria, and ranking; and target types)

Permana, A.K. (2017)- Aplikasi petrologi organik dalam analisis cekungan dan eksplorasi hidrokarbon pada beberapa cekungan di Indonesia dan Australia. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 18, 3, p. 117-135.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/235/289)
('Application of organic petrology in basin analysis and hydrocarbon exploration in several basins in Indonesia and Australia'. Brief review of organic petrology in Miocene of S Sumatra, Triassic of W Timor and Permian-Triassic of Bowen Basin, NE Australia)

Peters, K.E., T.H. Fraser, W. Amris, B. Rustanto & E. Hermanto (1999)- Geochemistry of crude oils from Eastern Indonesia. American Assoc. Petroleum Geol. (AAPG) Bull. 83, 12, p. 1927-1942.

(online at: https://www.academia.edu/92984526/Geochemistry_of_Crude_Oils_from_Eastern_Indonesia1)
(Oils from Irian Jaya and Sulawesi from Tertiary marine source. Seram oils from Triassic-Jurassic marine carbonate source. Timor seep oil Triassic-Jurassic clastics. Irian Jaya Wiriagar field oil from Jurassic, gas from Permo-Carboniferous)

Peters, K.E., C.C. Walters & J.M. Moldowan (2005)- The biomarker guide: Vol. 2, Biomarkers and isotopes in petroleum systems and Earth history, 2nd Edition, Cambrige University Press, p. 1-1150.
(Geochemistry text book, with sections on petroleum source rocks of Mahakam Delta, etc.)

Petersen, H.I., C. Andersen, P.H. Anh, J.A. Bojesen-Koefoed, L.H. Nielsen et al. (2001)- Petroleum potential of Oligocene lacustrine mudstones and coals at Dong Ho, Vietnam- an outcrop analogue to terrestrial source rocks in the greater Song Hong Basin. J. Asian Earth Sciences 19, p. 135-154.

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(Oil-prone source rocks in lacustrine syn-rift successions of inverted Bach Long Vi Graben exposed on Bach Long Vi island. Cored 500m dominated by lacustrine mudstones interbedded with gravity flow deposits. Mudstones thermally immature, eith sapropelic Type I and mixed Types I- III kerogen. Average TOC 2.88%, Hydrogen Index 566 mg HC/g TOC. Net-source rock thickness of ENRECA-3 well ~233 m)

Petersen, H.I., H.P. Nytoft, M.B.W. Fyhn, N.T. Dau, H.T. Huong, J.A. Bojesen-Koefoed & L.H. Nielsen (2012)- Oil and condensate types in Cenozoic basins Offshore Vietnam: composition and derivation. Proc. International Petroleum. Technical Conference (IPTC), Bangkok 2012, 1, IPTC 14383, p. 612-621.
(online at: https://www.researchgate.net/publication/259495257_Oil_and_Condensate_Types_In_Cenozoic_Basins_Offshore_Vietnam_Composition_And_Derivation#fullTextFileContent))
(Vietnamese shelf several offshore petroleum-producing Cenozoic rift basins, including Song Hong, Cuu Long, Nam Con Son and Malay-Cho Thu basins. Cuu Long Basin is main oil-producing basin, with paraffinic oils from lacustrine source. Lacustrine oils also known from N margin of Song Hong Basin. Oil with coaly biomarker signature in the Nam Con Son Basin; also condensates from Song Hong Basin contain high proportions of higher land plant biomarkers. Oils from N margin of Malay Basin suggestive of coaly source)

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(Oil in B10-STB-1x well in NE Song Hong Basin, Vietnam, has typical lacustrine-coaly geochemical features. Presence of lacustrine source rocks in basin indicated by high-amplitude seismic reflectors in undrilled half-grabens and outcrops of Oligocene immature mudstones and humic coals at Dong Ho (Type I kerogen, TOC 8-17%, HI >500) and on Bach Long Vi Island (TOC 2-7%, HI 200-700))

Petersen, H.I., Vu Tru, L.H. Nielsen, Nguyen A. Duc & H.P. Nytoft (2005)- Source rock properties of lacustrine mudstones and coals (Oligocene Dong Ho Formation), onshore Song Hong Basin (northern Vietnam). J. Petroleum Geology 28, p. 19-38.
(Oligocene lacustrine mudstones and coals outcropping at N margin of mainly offshore Song Hong Basin include oil-prone potential source rocks. Organic material in mudstones mainly amorphous (Type I), up to 19.6.% TOC and Hydrogen Index values 436-572 mg HC/g TOC. Only 0.5 wt.% TOC required to saturate source rock to expulsion threshold. Coals and coaly mudstones dominated by huminite (Type III kerogen) and contain terrestrial-derived liptodetrinite. Coals generate at or before maturity of vitrinite 0.97%Ro)

Philp, R.P. & T.D. Gilbert (1986)- Biomarker distributions in Australian oils predominantly derived from terrigenous source material. Organic Geochemistry 10, p. 73-84.

Pillon, P., L. Jocteur-Monrozier, C. Gonzalez & A. Saliot (1986)- Organic geochemistry of Recent equatorial deltaic sediments. Organic Geochemistry 10, p. 711-716.
(Study of organic matter of recent deltaic sediments cored in Misedor core hole, Mahakam delta, E Kalimantan)

Prabowo, B. & G.B. Sulistyo (1999)- Organic geochemical study for hydrocarbon generation identification. Proc. 28th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, 2, p. 79-98.
(online at: https://www.iagi.or.id/web/digital/65/6.pdf)
(Geochemistry of 22 oils from C Sumatra basin. Two groups, both sourced from lacustrine facies in Pematang Fm: (1) Minas, Oki and Libo fields (with botryococcane, heavy C-isotopes, etc.); (2) Kotabatak area, Kotagaro, Nusa, NW Minas (Telisa Fm) (no botryococcane, light C-isotopes, etc.))

Pramana, A.A., S. Rachmat, D. Abdassah & M. Abdullah (2012)- A study of asphaltene content of Indonesian heavy oil. Modern Applied Science 6, 5, p. 64-72.
(online at: https://ccsenet.org/journal/index.php/mas/article/view/15690/11133)

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Robertson Utama (2000)- Eastern Indonesia and northern Papuan New Guinea- a review of Tertiary oil occurrences. Mult-client study, p. 1-9 + figs., tables *(Unpublished)*
(Geochemical study of Tertiary-sourced oils and oil stains from Salawati Basin, Bintuni Basin, E Sulawesi Basin and oil seeps from PNG N New Guinea Basin. Presence of angiosperm-derived biomarkers (oleanane) used to distinguish Tertiary-sourced oils, but oil stains lacking oleanane from S Salawati Basin included, due to similarity to main group of Salawati oils. All oils similar and derived from mixture of marine-derived organic matter and terrigenous debris, deposited in marine facies, and deeper marine time-equivalents of carbonate reservoir horizons or slightly younger, more open marine horizons)

Robertson Research (Singapore) Pte Ltd. (1983)- Petroleum geochemistry of Indonesian basins. Unpublished multi-client study, 5 vols.

Robinson, K.M. (1987)- An overview of source rocks and oils in Indonesia. Proc. 16th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 97-122.
(Indonesia source rocks lacustrine, fluvio-deltaic and marine. Lacustrine source most productive (most oil in C Sumatra, some Sunda Basin, possibly oil in W Natuna). Fluvial-deltaic source rocks sourced oil in majority of foreland/back-arc basins of W Indonesia. Marine source rocks in E Indonesia (Salawati, E Sulawesi). Pre-Tertiary (Permian/Jurassic) oil source in Bintuni and Bula (Seram) and possible source in E Sulawesi and Banggai-Sula. Lacustrine oils low-medium gravity, waxy, low sulfur and often high C30 4-methyl steranes. Marine oils low-medium gravity, low wax, medium-high sulfur oils and high C27-C29 diasteranes and steranes. Fluvio-deltaic oils from higher plants medium-high gravity, waxy, low sulfur and abundant C30 alkanes)

Saller, A., R. Lin & J. Dunham (2006)- Leaves in turbidite sands; the main source of oil and gas in the deep-water Kutei Basin, Indonesia. American Assoc. Petroleum Geol. (AAPG) Bull. 90, 10, p. 1585-1608.
(Gas-oil- condensate in Upper Miocene in deep-water Kutei Basin, off E Kalimantan, derivated from land-plant source material. Best source rocks are deep-water sandstones with coaly fragments, pieces of wood, resinite, and other coaly debris. Laminar coaly fragments are dominant, and were leaf fragments, carried into deep water by turbidity currents during lowstands of sea level. Kutei Basin deep-water shales contain mainly silt-size vitrinite grains with poor generative qualities. Liquids from leaves high wax contents)

Saptorahardjo, A. (1985)- Diagenese precoce de la matiere organique dans la serie sedimentaire du delta de la Mahakam, Indonesie: aspects moleculaires. Doct. Thesis Universite Louis Pasteur, Strasbourg, p. 1-181.
(Unpublished)
('Early diagenesis of organic matter in the sedimentary series of the Mahakam Delta: molecular aspects')

Saptorahardjo, A., J.M. Trendel & P. Albrecht (1987)- Diagenese precoce de la matiere organique dans la serie sedimentaire du delta de la Mahakam, Indonesie: aspects moleculaires. In: A. Combaz (ed.) Geochimie organique des sediments plio-quaternaires du delta de la Mahakam (Indonesie) - le sondage Misedor, Editions TECHNIP, Paris, p. 307-316.
('Early diagenesis of organic matter in the sedimentary series of the Mahakam Delta, Indonesia: molecular aspects'. Analysis of lipids of shales and coals from Misedor cored well (0-617m), to study molecular transformations of organic matter during early stages of diagenesis)

Satyana, A.H. (2005)- Possible an-organic petroleum formation in collision zones of eastern Indonesia: abiogeneic genesis of petroleum by "Fischer-Tropsch" synthesis. Proc. Joint 34th Annual Conv. Indonesian Association Geologists (IAGI), 30th Indonesian Association Geophysicists (HAGI), Surabaya, Poster JCS2005-G059, p. 886-898.
(online at: https://www.academia.edu/13804507/POSSIBLE_AN_ORGANIC_PETROLEUM_FORMATION_IN_COLLISION_ZONES_OF_EASTERN_INDONESIA_ABIOGENIC_GENESIS_OF_PETROLEUM_ Etc.)
(Possibility of abiogenic petroleum formation from CO_2 and H_2 by FT synthesis is reviewed for collision zones of E Sulawesi-Banggai, Buton-Tukang Besi, Timor-Seram-Buru, Halmahera, and Papua. Stratigraphy and tectonics of these collision zones fulfill requirements for organic petroleum formation by FT synthesis. Gas discovered recently in E Sulawesi- Banggai collision may represent such hydrocarbon)

Satyana, A.H. (2010)- Regional petroleum geochemistry of Mesozoic and Paleozoic systems of Indonesian Basins. International Symposium Mesozoic- Paleozoic petroleum basins in Indonesia, Indonesian Association Geologists (IAGI), Bandung 2010, p. 1-9.
(Mesozoic and Late Paleozoic source rocks identified in Indonesian basins, primarily in basins with Australian crustal affinity; accordingly they are all located in E Indonesia)

Satyana, A.H. (2010)- Proven and potential Mesozoic and Paleozoic exploration play types of Indonesia. International Symposium Mesozoic- Paleozoic petroleum basins in Indonesia, Indonesian Association Geologists (IAGI), Bandung 2010, p. 1-4.
(Brief review of pre-Tertiary play types in Indonesia)

Satyana, A.H. (2016)- The power of oil biomarkers for regional tectonic studies: how the molecular fossils imply exploration ventures- cases from Indonesia. Proc. 40th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA16-582-G, p. 1-28.
(Three case studies of use of biomarkers in identifying source rock depositional environments: (1) Paleogene rift basins of Sumatra, with different biomarkers for early rift lacustrine facies, late rift fluviodeltaic and marine facies; (2) Eocene of Makassar Straits and W Sulawesi (with Eocene waxy lacustrine oil in Kaluku 1), and (3) Salawati Basin, with Tertiary anoxic marine, possibly lagoonal source rocks)

Satyana, A.H. (2017)- Regional petroleum geochemistry of Indonesian basins: updated, and implications for future exploration. Proc. 41st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA17-555-G, p. 1-32.
(Comprehensive review of petroleum geochemistry of Indonesian basins. Oils of W Indonesian basins three broad families: (1) lacustrine (C Sumatra, Sunda-Asri, partly W Natuna, and W Sulawesi offshore/N Makassar Straits); (2) fluvio-deltaic (S Sumatra, W Java, E Java, Barito, Kutai, Tarakan), and (3) marginal-shallow marine (N Sumatra. W Sulawesi onshore). Most oils from E Indonesia basins marginal-shallow marine; sourced from Neogene (Salawati, Banggai), Jurassic (Bintuni), Triassic-Jurassic (Timor, Buton, Seram, Timor). Both thermogenic and biogenic gases)

Satyana, A.H. (2017)- Future petroleum play types of Indonesia: regional overview. Proc. 41st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA17-554-G, p. 1-33.
(Review of 8 future hydrocarbon play types (proven and unproven) in Indonesia: (1) Paleogene synrift and pre-Tertiary Basement (Sumatra-Java-Natuna-Barito); (2) Neogene delta and deepwater of E Kalimantan-Makassar Straits, (3) Paleogene synrift and postrift of W Sulawesi offshore-Bone-Gorontalo; (4) Gondwanan Mesozoic sections of Sumatra-Java-Makassar Straits; (5) Paleogene-Neogene sub- and intra-volcanic of Java-W Sulawesi,

(6) collided Mesozoic Australian passive margin sediments (Gorontalo-Buton-Banggai-Sula-Outer Banda Arc-Lengguru-Central Ranges of Papua); (7) Paleozoic of Arafura Sea- S Papua; (8) Neogene Pacific province of North Papua)

Satyana, A.H. (2025)- Natural hydrogen systems in various geotectonic settings of Indonesia bottom-up approach.Proc. 49th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA25-IS-387, p. 1-23.
(Natural hydrogen (H_2) may be generated from ultramafic rocks, from oxidation of iron-rich minerals. So far, only one example:in Indonesia of hydrogen gas seeps: Tanjung Api, Ampana, C Sulawesi (e.g. Van Gorsel & Subroto (2022); not referenced here, although it triggered this new round of research). Other geotectonic settings may have potential for generation of hydrogen)

Satyana, A.H., L.P. Marpaung, M.E.M. Purwaningsih & M.K. Utama (2007)- Regional gas geochemistry of Indonesia: genetic characterization and habitat of natural gases. Proc. 31st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA07-G-050, p. 1-31.
(Geochemistry of natural gases in Indonesian basins, using 350 gas occurrences. Both thermogenic and biogenic (bacterial) gas types recognized. Thermogenic gases generally <95% methane and heavier C isotope ratios (>-45‰). Biogenic gases >98% methane and lighter C isotope ratios (<-60‰). Thermogenic gases dominate in Indonesia. Biogenic gases mainly in W Sumatra fore-arc basins, E Java Basin and foredeep of Sorong Fault Zone, NW Papua. High CO_2 mainly inorganic origin (thermal destruction of carbonates or volcanic degassing). H2S in some gas fields due to thermo-chemical sulfate reduction of deep, hot carbonates)

Satyana, A.H. & M.E.M. Purwaningsih (2013)- Variability of Paleogene source facies of circum- and drifted Sundaland Basins, Western Indonesia: constraints from oil biomarkers and Carbon-13 isotopes. AAPG Int. Conv. Exhib., Singapore 2012, Search and Discovery Article 10474, p. 1-36. *(Abstract + Presentation)*
(online at: www.searchanddiscovery.com/documents/2013/10474satyana/ndx_satyana.pdf)
(Tertiary basins around Sundaland of W Indonesia and its drifted parts (S Makassar Strait, W & S Sulawesi, and Bone Basins) initially formed in Mid- Late Eocene. Thick Paleogene sediments in rift and early post-rift phases of basins contain important hydrocarbon source rocks. Biomarkers and carbon isotopes of oils allow identification of Paleogene lacustrine, fluvio-deltaic and marine source facies)

Satyana, A.H. & M.E.M. Purwaningsih (2013)- Variability of Paleogene source facies of Circum-Sundaland basins, Western Indonesia: tectonic, sedimentary and geochemical constraints- implications for oil characteristic. Proc. 37th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA13-G-162, p. 1-23.
(Similar to paper above. Paleogene source rocks in Sundaland basins include lacustrine facies (most significant; C Sumatra, Sunda-Asri, S Sumatra, W Natuna) to carbonaceous shales and coals of fluvio-deltaic and paralic facies (S Sumatra, W Java, E Java, Barito, W Sulawesi) and marine facies (N Sumatra))

Schiefelbein, C.F., J.E. Zumberge & S.W. Brown (1997)- Petroleum systems in the Far East. In: J.V.C. Howes & R.A. Noble (eds.) Proc. Internatonal Conference Petroleum Systems of SE Asia and Australasia, Jakarta 1997, Indonesian Petroleum Association (IPA), p. 101-113.
(~350 crude oils analyses used to identify different petroleum systems in Far East. Oils separated into three groups: terrigenous, lacustrine, and marine. More specific geochemical criteria allowed establishment of sub-groups of oils according to specific source environment)

Schiefelbein, C. & N. Cameron (1997)- Sumatra/Java oil families. In: A.J. Fraser, S.J. Matthews & R.W. Murphy (eds.) Petroleum Geology of Southeast Asia. Geological Society, London, Special Publ. 126, p. 143-146.
(122 oils analyzed. Majority of oils either 'lacustrine' or 'terrigenous' Tertiary source. Two oils from N Sumatra marine signature. Several oils from C and S Sumatra mixed characteristics)

Schumacher, D. & L. Clavareau (2015)- Geochemical exploration strategies for Southeast Asia. Proc. Asia Petroleum Geoscience Conference and Exhibition (APGCE), Kuala Lumpur, 25954, 2015, p. 1-5.
(Brief review of hydrocarbon microseepage surveys. Microseepage predominantly vertical, so surface anomalies may approximate size and shape of hydrocarbon accumulation. Little detail)

Shanmugam, G. (2008)- Leaves in turbidite sands: The main source of oil and gas in the deep-water Kutei Basin, Indonesia: Discussion. American Assoc. Petroleum Geol. (AAPG) Bull. 92, 1, p. 127-137.
(online at: https://www.researchgate.net/publication/249898004_Leaves_in_turbidite_sands_The_main_source_of_oil_and_gas_in_the_deep-water_Kutei_Basin_Indonesia_Discussion)
(Critical discussion of Saller et al. (2006) leaves in turbidite sands as oil source (GS basically agrees, but follows with discussion of seemingly unrelated lowstand vs highstand and turbidite models, tsunamis, etc.; JTvG)

Sosrowidjojo, I.B., A.P. Murray, R. Alexander, R.I. Kagi & R.E. Summons (1996)- Bicadinanes and related compounds as maturity indicators for oils and sediments. Organic Geochemistry 24, p. 43-55.
(Maturity of oils and sediments derived from catagenetic products of plant material. Polycadinene indices tested for Tertiary oils from S Sumatra, PNG, New Zealand and Australia. Bicadinane maturity indicator continues to change into oil window and may be useful in ranking relative maturity of oils)

Stout, S.A. (1995)- Resin-derived hydrocarbons in fresh and fossil dammar resins and Miocene rocks and oils in the Mahakam Delta, Indonesia. In: K.B. Anderson & J.C. Crelling (eds.) Amber, resinite, and fossil resins, Chapter 3, American Chemical Society, Washington, Symposium Series 617, p. 43-75.
(Hydrocarbons derived from fresh dammar resin are compared to those in Miocene fossil resins and Miocene-sourced oils in Mahakam Delta. Dammar resins undergo few chemical changes during early diagenesis. Bicadinanes are absent in immature resins, but form upon heating in lab or subsurface)

Subono, S. (1996)- Hydrocarbon generation and multiprocess thermal model in oil basins of Indonesia. In: S.Y. Kim et al. (eds.) Proc. 32nd Annual Session CCOP, Tsukuba 1995, p. 53-68.

Subroto, E.A. (1990)- 30-NOR-17 [alpha] (H) - hopanes and their applications in petroleum geochemistry. Ph.D. Thesis Curtin University, Perth, p. 1-186.
(online at: http://espace.library.curtin.edu.au)
(22 oils and sediments analysed for biological marker compounds. Compounds typical of carbonate-rich source rocks identified. Sediments and oils from N Sumatra Basin contain very different biomarkers)

Subroto, E.A. (1990)- 30-Norhopane, biomarker baru penunjuk lingkungan karbonat: suatu studi geokimia petroleum terhadap sampel batuan dan minyak mentah. Proc. 19th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 230-241.
('30-Norhopane, a new biomarker as carbonate environment indicator: a study of petroleum geochemistry of rock and crude samples'. Study of rocks and oil samples from Seram and other countries identify C30 biomarker as typical of carbonate hydrocarbon source rocks)

Subroto, E.A., B.Y. Afriatno & P. Sumintadireja (2007)- Prediction of the biogenic gas occurrences in Indonesia based on studies in East Java and Tomori (Central Sulawesi). Jurnal Teknologi Mineral 14, 2, p. 115-124.
(online at: www.fttm.itb.ac.id/galeri/prediction.pdf)
(Some Indonesian gas fields with biogenic gas, characterized by dryness (>99% methane) and light carbon-isotopes (-61 to -67‰). One field producing biogenic gas in E Java Basin, probably derived from Plio-Pleistocene. Similar situation in Tomori, Sulawesi. Plio-Pleistocene sediments in Indonesia generally high sedimentation rates, low thermal gradients and high organic content, thus potential source for biogenic gas)

Subroto, E.A., R. Alexander & R.I. Kagi (1991)- 30-Norhopanes: their occurrence in sediments and crude oils. Chemical Geology 93, 179-192.
(Ratios of hopanes types geochemical biomarker in oils and sediments reflect sample maturity, with higher norhopanes in more mature samples. Incl. examples from Triassic oils from Seram and Buton asphalt)

Subroto, E.A., R. Alexander, U. Pranjoto & R.I. Kagi (1992)- The use of 30-Norhopane series, a novel carbonate biomarker, in source rock to crude oil correlation in the North Sumatra Basin, Indonesia. Proc. 21st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 145-163.
(30-norhopanes as carbonate biomarker proposed recently. Three types of source rocks in N Sumatra Basin: shale, carbonaceous shale and calcareous shale. n-Alkanes and steranes can only be used to distinguish two

source types since shale and calcareous shale show similar characteristics. Recognition of three source types can only be observed using the hopane distribution. One crude oil can be correlated to calcareous shale and two crude oils are correlative to shale source rock. Crude oil of coaly shale type is not found during this study)

Subroto, E.A., A. Bachtiar, B. Priadi, R.P. Koesoemadinata & D. Noeradi (1998)- Could oleanoids, substances found abundantly in coaly sediments, be used as geochemical maturity indicator? A case study in the Kutai Basin. Proc. 27th Annual Conv. Indonesian Association Geologists (IAGI), Yogyakarta, 1, p. 129-139.
(Oleanoid ratio OR1 correlates with vitrinite reflectance, and may be maturity indicator)

Subroto, E.A., D. Noeradi & B.Y. Afriatno (2009)- Geochemical identification of favorable basins for biogenic gas exploration in Indonesia. Proc. 33rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA09-G-185, p. 405-415.
(Biogenic gas formed at T <75°C is dry (>95% methane) and isotopically light (<-55‰). May contribute >20% of global gas resources. Biogenic gas large component of gas produced from E Java. Other favorable sites for biogenic gas are basins with young sediments (Plio-Pleistocene), high sedimentation rates (>50 m/My) and low Temp (0-75°C))

Sudarmono, T. Suherman & B. Eza (1997)- Paleogene basin development in Sundaland and its role to the petroleum systems in Western Indonesia. In: J.V.C. Howes & R.A. Noble (eds.) Proc. International Conference Petroleum Systems of SE Asia and Australasia, Jakarta, Indonesian Petroleum Association (IPA), p. 545-560.
(ARCO paper with Eo- Oligocene paleogeography maps based on Daly (1987) reconstructions. Syn-rift continental deposits followed by late rift marine incursion and fully marine facies during post-rift. Paleogene basins commonly complete petroleum systems with source, reservoirs and seals. Maturity only after Neogene deposition. Lacustrine source rocks during rifting; marine carbonaceous shales and coals during late rift to post-rift. Productive reservoirs mostly upper syn-rift or post-rift. E Java- E Kalimantan- W Sulawesi rifts older (Late Paleocene- E Eocene) than Sumatra- W Java- W Kalimantan systems (Late Eocene- E Oligocene)

Sujanto, F.X. (1997)- Substantial contribution of petroleum systems to increase exploration success in Indonesia. In: J.V.C. Howes & R.A. Noble (eds.) Proc. International Conference Petroleum Systems of SE Asia and Australasia, Jakarta, Indonesian Petroleum Association (IPA), p. 1-14.
(Overview of Indonesia basins and petroleum systems)

Summons, R.E., M. Bradshaw, J. Crowley, D.S. Edwards, S. George & J.E. Zumberge (1998)- Vagrant oils; geochemical signposts to unrecognised petroleum systems. In: P.G. & R.R. Purcell (eds.) The sedimentary basins of Western Australia 2., Proc. Petroleum Exploration Society Australia (PESA) Symposium 2, p. 169-184.
(Study of biodegraded oils and stains from wells in Arafura, Bonaparte and Carnarvon basins. Biodegraded Arafura 1 oil shares many characteristics with E Paleozoic oils of Canning Basin)

Sunarjanto, D. & S. Widjaja (2013)- Potential development of hydrocarbon in Basement reservoirs in Indonesia. Jurnal Geologi Indonesia 8, 3, p. 151-161.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/165)
(Review of hydrocarbon occurrences in Pretertiary 'basement' in Sumatra (granitoids and metamorphics in NE Beruk, Suban, Sei Teras), Kalimantan (Tanjung granitoid, volcanics, metamorphics) and Seram (Oseil Mesozoic limestone))

Suwarna, N., H. Panggabean, M.H. Hermiyanto & A.K. Permana (2007)- Characterization of unconventional fossil fuels of selected areas, in Sumatera and Kalimantan, using organic petrography and geochemistry. Proc. 31st Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA07-G-079, p. 1-15.
(Oil shale and coalbed methane studies in Sumatra and Borneo)

Sykes, R. & I. Cibaj (2010)- Peat biomass and early diagenetic controls on oil generation from Mahakam Delta coals, Kutei Basin: preliminary study of coals from the Jalan Baru section near Samarinda. Proc. 34th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA10-G-105, p. 1-17.

(Geochem study of 11 outcrop coal samples from M Miocene Balikpapan Group near Samarinda. Analysed coals have potential to expel oils ranging from borderline gas condensate to high-wax, paraffinic- naphthenic-aromatic oil. Non-volatile, paraffinic oil potential of Mahakam Delta coals controlled primarily by abundance of leaf- and cork-derived macerals. These macerals expected to be more abundant in thin, planar mire coals and coaly mudstones than in thicker, raised mire coals owing to better preservation potential of surface leaf biomass under higher groundwater levels in planar mires)

Tahir, N.T., H.M. Abd. Rahim, Tay Joo Hui, Tan Hock Seng, M.F. Fadzil & M.R. Abas (2009)- Distribution and sources of hydrocarbons in lagoon sediments of Setiu Wetland, Terengganu, Malaysia. Aquatic Ecosystem Health and Management 12, 4, p. 344-349.
(Hydrocarbon compounds in surface sediment of Setiu Wetland analysed and characterized using GCMS. Terrestrial plants input (epicuticular plant waxes) are dominant contributor of organic compounds in the sediments with a minor input from marine phytoplankton (algae) as well as bacteria)

Takada, M., S. Shimada & H. Takahashi (2016)- Tropical peat formation. In: M. Osaki & N. Tsuji (eds.) Tropical Peatland Ecosystems, Springer, p. 127-135.
(Classification/ characterization of peatlands in SE Asia, mainlyin Kalimantan. Ombrotrophic and eutrophic peatlands, or topogenous and ombrogenous peatlands developed by accumulation of plant debris in coastal and sub-coastal areas, inland areas and high altitude areas. Along coastline, youngest peat formation started at 3500-6000 yr BP in response to rising sea levels at end of ast glacial period. Peat in inland peatland areas formed from ~20,000 yr BP. In SE Asia peatland common formation of convex-shaped peat dome formed beyond extent of river floodwater and under rain-dependent conditions; known as ombrogenous peat)

Teerman, S.C. & R.J. Hwang (1989)- Evaluation of the source rock potential of Sumatran coals by artificial maturation of coal. Proc. 18th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 469-489.
(Hydrous pyrolysis experiments on Miocene Muara Enim Fm lignite from Bukit Asam, S Sumatra. Lignite is liptinite-rich (32% of total macerals); resinite is the most abundant liptinite maceral (13.7%). Rock Eva1 Hydrogen Index values of 483 mg HC/g OC. Significant amounts of liquid hydrocarbons assimilated by vitrinitic matrix of coal prior to expulsion, making vitrinite-rich coals poor oil source rocks. Only liptinite-rich coals (>15-20% of total macerals) appear capable of generating significant amounts of liquid hydrocarbons but expelled product will probably be low. Most Sumatran coals not liptinite-rich (typically 5-10%))

Teerman, S.C., R.J. Hwang, Y.C. Tang, B. Mertani, M. Stauffer & T.T. Ta (1994)- Geochemical evaluation of the liquid hydrocarbon potential of "marginal source rocks"- application to Indonesian basins. Proc. 23rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 457-478.
(Expulsion efficiency is critical factor in potential of marginal source rocks to provide adequate hydrocarbon charge. Expulsion efficiency in marginal source rocks highly variable due to amount of hydrocarbon generation and adsorptive capacity of certain organic matter assemblages. Numerous examples of marginal source rocks in Indonesian region. With case study of Telisa Fm in Sumatra.)

Ten Haven, H.L. & C. Schiefelbein (1995)- The petroleum systems of Indonesia. Proc. 24th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 443-459.
(>200 oil analyses. W Indonesia 2 main petroleum systems: Tertiary lacustrine and Tertiary terrigenous, with additional marine petroleum system in N Sumatra and E Natuna. E Indonesia 3 main systems: Tertiary marine carbonate, Mesozoic marine carbonate and Mesozoic marine siliciclastic)

Thompson, M., C. Remington, J. Purnomo & D. MacGregor (1991)- Detection of liquid hydrocarbon seepage in Indonesian offshore frontier basins using Airborne Laser Fluorosensor (ALF); the results of a Pertamina/ BP joint study. Proc. 20th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, p. 663-689.
(ALF surveys by BP over offshore Sumatra Forearc, Java Forearc, Billiton Basin, Salayar, Spermonde, S and N Makassar, Bone, Gorontalo and Halmahera Basins. Hydrocarbons seeping from all basins except Java forearc, though further analysis is required. Areas of greatest interest are Billiton, S Bone and S Makassar basins)

Thompson, S., B.S. Cooper & P.C. Barnard (1994)- Some examples and possible explanations for oil generation from coals and coaly sequences. In: A.C. Scott & A.J. Fleet (eds.) Coal and coal-bearing strata as oil-prone source rocks?, Geological Society, London, Special Publ. 77, p. 119-137.
(Coals and associated shales important oil source rocks in some deltaic environments. Formation of hydrogen-rich kerogen either by concentration of plant cuticles and spores after reworking of delta top freshwater peats, or by accumulation of delta margin peats under saline conditions. Examples include Oligo-Miocene Talang Akar Fm of S Sumatra-NW Java (perhydrous vitrinite source of isotopically light waxy oils with biomarkers from tree resins). Waxy oils also produced in Sunda Basin (derived from algal kerogen in older, lacustrine Banuwati Fm shales (low contents of land plant biomarkers and heavier carbon isotopic signature))

Thompson, S., R.J. Morley, P.C. Barnard & B.S. Cooper (1985)- Facies recognition of some Tertiary coals applied to prediction of oil source rock occurrence. Marine and Petroleum Geology 2, 4, p. 288-297.
(Coals are oil source rocks in many Tertiary basins of SE Asia. Precursors of these are coastal plain peats in everwet tropical climate. Distribution, petrography and chemistry of coaly Miocene source rocks present in Kutai Basin described)

Thompson, S., B.S. Cooper, R.J. Morley & P.C. Barnard & (1985)- Oil-generating coals In: B.M. Thomas et al. (eds.) Petroleum Geochemistry in exploration of the Norwegian Shelf, Proc. Norwegian Petroleum Society (NPF) Conference, Stavanger 1984, Graham & Trotman Ltd., London, p. 59-73.
(On hydrogen-rich and oxygen- poor coals as oil source rocks in Tertiary basins of SE Asia. Precursors of these are coastal plain peats, mainly developed in everwet and tropical climate. In these environments water flow and reworking can concentrate liptinitic kerogen in preference to vitrinitic kerogen. Distribution, petrography and chemistry of coaly Miocene source rocks in Kutai Basin described)

Todd, S.P., M.E. Dunn & A.J.G. Barwise (1997)- Characterizing petroleum charge systems in the Tertiary of SE Asia. In: A.J. Fraser, S.J. Matthews & R.W. Murphy (eds.) Petroleum Geology of Southeast Asia, Geological Society, London, Special Publ. 126, p. 25-47.
(Most SE Asian Tertiary petroleum from paralic (higher land plant) source, although larger proportion of oil from lacustrine algal sources. Lacustrine sources mainly in Paleogene syn-rift lakes, paralic coals and coaly mudrocks in Miocene post-rift. Oil-prone source rocks preferentially paralic between lower coastal plain and lower estuary/delta front facies, perhaps involving mangrove system. Younger plays more gas prone. Significance of biogenic gas poorly understood. Vertical migration common; lateral migration restricted to ~20 km or less from kitchen)

Tran Cong Tao (1994)- Maturation of organic matter in Tertiary sediments of the Mekong Basin, offshore South Vietnam. In: J.L. Rau (ed.) Proc. 29th Session Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Hanoi 1992, Bangkok, 2, p. 169-181.

Van Aarssen, B.G.K., H.C. Cox, P. Hoogendoorn & J.W. De Leeuw (1990)- A cadinene biopolymer present in fossil and extant dammar resins as a source for cadinanes and bicadinanes in crude oils from Southeast Asia. Geochimica Cosmochimica Acta 54, p. 3021-3031.
(Chemical composition of fossil resin from Miocene outcrop in Lumapas, Brunei, compared to Recent counterpart dammar from trees of family Dipterocarpaceae, to establish nature of precursor of bicadinanes)

Van Aarssen, B.G.K., J.K.C. Hessels, O.A. Abbink & J.W. de Leeuw (1992)- The occurrence of polycyclic sesqui-, tri-, and oligoterpenoids derived from a resinous polymeric cadinene in crude oils from southeast Asia. Geochimica Cosmochimica Acta 56, 3, p. 1231-1246.
(Structurally related hydrocarbons consisting of one or more sesquiterpane units in saturated and aromatic hydrocarbon fractions of crude oils from SE Asia (Java, Sumatra, Malaysia). Thought to originate from cadinene polymer present in dammar resins from angiosperms like Dipterocarpaceae trees, which depolymerises on thermal stress)

Wahab, A. & Harun Nasir (1987)- Petroleum geochemistry of Western Indonesia Basins. Proc. 16th Annual Conv. Indonesian Association Geologists (IAGI), p.

Williams, H.A., M. Fowler & R.T. Eubank (1992)- Geochemical characteristics of Paleogene and Cretaceous hydrocarbon source basins in Southeast Asia. Proc. 9th Offshore Southeast Asia Conference, Singapore 1992, SE Asia Petroleum Exploration Society (SEAPEX) 10, OSEA 92101, p. 35-66.
(Lacustrine rift systems sourced large portion of SE Asia hydrocarbons. Description of rift systems Bandar Jaya- S Sumatra, Kampar Kanan- C Sumatra, Petchabun-Thailand (all Paleogene- humid) and Dongting- China (Cretaceous-Paleogene; arid))

Williams, H.H., M. Fowler & R.T. Eubank (1995)- Characteristics of selected Palaeogene and Cretaceous lacustrine source basins of Southeast Asia. In: J.J. Lambiase (ed.) Hydrocarbon habitat in rift basins. Geological Society, London, Special Publ. 80, p. 241-282.
(Rift architecture, sequences and sedimentary geochemistry of four Paleogene and one Cretaceous/ Paleogene graben systems: Bandar Jaya Basin (S Sumatra), Kampar Kanan Basin (C Sumatra), Ombilin Basin (W Sumatra), Phetchabun Basin (N Thailand) and Dongting Basin (China). Geochemical characteristics of source rocks described in context of depositional systems)

Williams, H., E.N. Reyes & R.T. Eubank (1992)- Geochemistry of Palawan oils, Philippines: source implications. In: 9th Offshore Southeast Asia Conf. (OFFSEA 92), Singapore 1992, Proc. SE Asia Petroleum Exploration Society (SEAPEX) 10, OSEA 92103, p. 115-129.
(Palawan non-waxy oils traditionally interpreted as marine sourced. Oils from recent Calauit fields characteristics of non-marine algal source)

Williams, S.L. & H.H. Williams (1994)- Carbon isotopes in Southeast Asian lacustrine sourced oils and source rocks. In: 10th Offshore South East Asia Conference, Singapore 1994, p. 167-183.
(Review of Carbon isotopes of 174 lacustrine sourced oils and 109 lacustrine source rocks suggest C isotopes can not be used to differentiate between marine and lacustrine environments)

XII.3. Coal - Peat deposits

Numerous additional papers on coal and modern peat deposits that are specific to one region are listed under those regions and are not repeated here.

Adhi, R.N., A. Pujobroto, C.K.K. Gurusings, U. Kuntjara, D.N. Sunuhadi et al. (2004)- National resources and reserves of mineral, coal, and geothermal. Indonesian Directorate General Geology and Mineral Resources, Special Publ. 103, p. 1-130.

Anderson, J.A.R. (1961)- The ecology and forest types of the peat swamp forests of Sarawak and Brunei in their relation to sylviculture. Ph.D. Thesis Edinburgh University, p. *(Unpublished*

Anderson, J.A.R. (1964)- The structure and development of peat swamps of Sarawak and Brunei. J. Tropical Geography, Singapore, 18, p. 7-16.

Anderson, J.A.R. (1983)- The tropical peat swamps of western Malesia, In: A.J.P. Gore (ed.) Ecosystems of the World: mires, swamp, bog, fen and moor, 4B. Regional studies, Elsevier, New York, p. 181-199.

Andriesse, J.P. (1974)- The characteristics, agricultural potential and reclamation problems of tropical lowland peats in Southeast Asia. Communication Koninklijk Instituut voor de Tropen, Amsterdam, 63, 63p.

Anshari, G.Z., M. Ruwaimana, R. Ritonga, A. Gangga, J. Loisel, A.V. Galego-Sala, S. van der Kaars & N. Novita (2026)- Peatland inception and development across Kalimantan, Indonesia. Nature Scientific Reports *(in press)*
(online at: https://www.nature.com/articles/s41598-026-35152-x_reference.pdf)
(Radiocarbon ages of 15 peat core from inland and coastal peatlands in W and E Kalimantan suggest coastal peat initiation occurred during M Holocene postglacial sea-level high stands (~7 ka?), whereas inland peat formation in Upper Kapuas basin began in Late Pleistocene (~40 ka?). Carbon accumulation rates peaked in middle Holocene. Etc.)

Atkinson, C.M. (1989)- Coal and oil shale in Tertiary intermontane basins of Indonesia and eastern Australia. In: T. Thanasuthipitak & P. Ounchanum (eds.) Proc. International Symposium Intermontane basins: geology and resources, Chiang Mai 1989, p. 77-88.

Bainton, C.S. (1978)- Coal formations in Indonesia. In: S. Wiryosujono & A. Sudradjat (eds.) Proc. Regional Conference Geology and Mineral Resources of SE Asia (GEOSEA), Jakarta 1975, Indonesian Association Geologists (IAGI), p. 55-63.
(Organized coal mining in Indonesia started in 1849 at Pengaron, SE Kalimantan. Most important surface mine in Indonesia Bukit Asam in S Sumatra, opened in 1919. Coal deposition requires paralic- limnic environments with slow subsidence, mainly in backarc basins)

Belkin, H.E. & S.J. Tewalt (2007)- Geochemistry of selected coal samples from Sumatra, Kalimantan, Sulawesi, and Papua, Indonesia. U.S. Geological Survey (USGS) Open-File Report 2007-1202, p. 1-34.
(online at: http://pubs.usgs.gov/of/2007/1202/ofr2007-1202.pdf)
(Brief report on geochemical analysis of 8 coal samples from Sumatra (3; Eocene- Miocene), Kalimantan (3; Eocene-Miocene), W Papua (Timika, Permian) and S Sulawesi (1; Eocene))

Belkin, H.E., S.J. Tewalt, J.C. Hower, J.D. Stucker & J.M.K. O'Keefe (2008)- Geochemistry and petrology of selected coal samples from Sumatra, Kalimantan, Sulawesi, and Papua, Indonesia. Int. J. Coal. Geol. 77, 4, p. 260-268.
(online at: www.academia.edu/26960991/Geochemistry_and_petrology_of_selected_coal_samples_from)
(Most of Indonesian coal Paleogene and Neogene age, low- moderate rank and low ash and sulfur. Tectonic and igneous activity resulted in significant rank increase in some basins. Eight coal samples described from Sumatra, Kalimantan, Sulawesi and Papua)

Biagioni, S., V. Krashevska, Y. Achnopha, A. Saad, S. Sabiham & H. Behling (2015)- 8000 years of vegetation dynamics and environmental changes of a unique inland peat ecosystem of the Jambi Province in central Sumatra, Indonesia. Palaeogeogr. Palaeoclim. Palaeoecology 440, p. 813-829.
(Study of 7.3m peat core from Air Hitam peatland in Jambi Province. In last ~7800 years site covered by dipterocarp-swamp mixed rainforest during first 2000 years, after which freshwater swamp taxa more important, in particular Durio trees. At ~4500 years ago swamp vegetation shifted to pole forest with Pandanus thickets in response to change from minerotrophic to ombrotrophic conditions)

Bowe, M. & T.A. Moore (2015)- Coalbed methane potential and current realisation in Indonesia. In: AAPG Asia Pacific Region GTW, Opportunities and advancements in coal bed methane in the Asia Pacific, Brisbane, Search and Discovery Article 90234, p. 1-5. *(Extended Abstract)*
(Estimates for CBM potential ranged up to 450 TCF, but realisation of resource limited so far. Main CBM targets Miocene coal seams in S Sumatra and Kutai Basins. S Sumatra coal seams generally thicker (5-25 m) than Kutai Basin and laterally continuous over 10s of km. 54 PSCs since 2008. 84 CBM core and pilot wells drilled by 18 operators. Gas contents generally higher in Kutai Basin (2-10 m3/t) than in S Sumatra Basin (<3 m3/t). Gas saturations tend to be >80% at depths >300m. Gas dominated by biogenically-derived methane)

Boudou, J. (1983)- Chloroform extracts of a series of coals from the Mahakam Delta. Organic Geochemistry 6, p. 431-437.
(Study of changes in organic matter during early thermal maturation in Mahakam delta Tertiary coals)

Boudou, J.P., B. Durand & J.L. Oudin (1984)- Diagenetic trends of a Tertiary low-rank coal series. Geochimica Cosmochimica Acta 48, 10, p. 2005-2010.
(Mahakam delta coals all stages between peat, lignites and bituminous coals. Mechanisms of early maturation are loss of oxygenated compounds, aromatisation and condensation of organic matter, similar to other coals)

Boudou, J., R. Pelet & R. Letolle (1984)- A model of diagenetic evolution of coaly sedimentary organic matter. Geochimica Cosmochimica Acta 48, 6, p. 1357-1362.
(Diagenetic evolution of coal from Mahakam delta. Carbon loss during diagenesis mainly as CO_2, hydrogen loss mainly as H2O. Hydrocarbon production negligible, in accordance with absence of bacterial methane accumulations in Mahakam Delta. δ13C of coals becomes ~2 per mil more positive with diagenesis)

Brady, M.A. (1997)- Organic matter dynamics of coastal peat deposits in Sumatra. Ph.D. Thesis, University of British Columbia, Vancouver, p. 1-258.
(online at: https://open.library.ubc.ca/cIRcle/collections/ubctheses/831/items/1.0075286)
(Organic matter characteristics of Holocene surface peat layers in 3 raised ombrothrophic peat deposits on E coast of Sumatra. Thickness of peat 3-12m, age 4500/4000 yrs and younger)

Bruenig, E.F. (1990)- Oligotrophic forested wetlands in Borneo. In: A.E. Lugo et al. (eds.) Ecosystems of the World 15, Elsevier, p. 299-334.

Calvert, G.D., J.R. Durig. & J.S. Esterle (1991)- Controls on the chemical variability of peat types in a domed peat deposit, Baram River Area, Sarawak, Malaysia. Int. J. Coal Geology 17, p. 171 188.
(Chemical analyses of domed peat deposits of Baram River delta. Four end members distinguished, which can be traced to type of plants and degree of degradation. Pollen from center of deposit indicates succession from mangrove substrate followed by fresh water peat forest, then stunted vegetation)

Cameron, C.C., J.S. Esterle & C.A. Palmer (1989)- The geology, botany and chemistry of selected peat-forming environments from temperate and tropical latitudes. Int. J. Coal Geology 12, p. 105-156.
(Peat studied in several geologic settings, including coast of Sarawak and delta of Batang Hari River, Sumatra. Most deposits are domed bogs in which peat accumulation continued above surface of surrounding soil. Typical sequence of environments from pond stage, through grassy marsh, through forested swamp to heath dome stage, with associated changes in acidity and ash, volatile matter, carbon, hydrogen, nitrogen, sulfur and oxygen

contents, as well as trace elements. Ombrotrophic peat deposits of tropical Sarawak and Sumatra thick and extensive, low-ash and low-sulfur, and high heating values)

Casdira, R. Budiana & E.R. Tantoro (2014)- Coal Bed Methane exploration in Sumatera. In: I. Basuki & A.Z. Dahlius (eds.) Sundaland Resources, Proc. Annual Conv. Indonesian Soc. Economic Geologists (MGEI), Palembang, p. 461-466.
(Although gas resource probably huge, CBM is yet to be proved that it can be produced economically)

Chen, S.P. (1993)- Coal as an energy resource in Malaysia. Proc. Tectonic framework and energy resources of the western margin of the Pacific basin, Kuala Lumpur 1992, Bull. Geological Society Malaysia 33, p. 399-410.
(online at: www.gsm.org.my/products/702001-100999-PDF.pdf)
(Review of coal resources in Malaysia: 98% in Sarawak and Sabah. All coal of Tertiary age and quality ranges from lignite to anthracite, with bituminous coal predominant. Largest known coal deposits in Merit Pila and Mukah- Balingian in Sarawak and in Meliau basin in south C Sabah.)

Choi, Y., B. Kim, Y. Song, G. Keum, J. Sung & C. Seo (2022)- A review on coal exploration in Indonesia: The cases of Korean public private cooperation. Economic and Environmental Geology (Korea) 55, 2, p. 149-169.
(online at: https://www.kseeg.org/journal/view.html?uid=2115)
(Review of coal basins in E/SE Kalimantan (Barito, Kutai) and S Sumatra. In Korean with English Abstract)

Cole, J.M. (1987)- Some fresh/brackish water depositional environments in the SE Asian Tertiary with emphasis on coal-bearing and lacustrine deposits and their source rock potential. Proc. 16th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 429-449.
(Review of terrestrial coal bearing sedimentary sequences where oil-prone organic material was deposited in SE Asian Tertiary. Autochthonous coal deposits more favourable oil sources than allochthonous coals. Lacustrine environments may be most prolific (Botryococcus-derived) oil source in SE Asia)

Cook, A.C. & B. Daulay (2000)- Comparative analysis of Indonesian coal fields. In: H. Darman & F.H. Sidi (eds.) Tectonics and sedimentation of Indonesia, FOSI-IAGI-ITB Regional Seminar to commemorate 50th anniversary of Van Bemmelen's Geology of Indonesia, Bandung 1999, p. 16-17. *(Abstract)*

Cook, A.C. & B. Daulay (2000)- The Indonesian coal industry. The Australian Coal Review, April 2000, p. 4-15.
(online at: www.australiancoal.csiro.au/pdfs/cook_daulay.pdf)

Cosijn, E.J.A. (1939)- De Oembilin-steenkolenmijnen. De Mijnbond (Bandung), 20 Jaar Jubileumnummer, p. 36-40.
(online at: https://resolver.kb.nl/resolve?urn=MMKB31:034173000:pdf)
('The Ombilin coal mines'. Brief history of government coal mines at Sawahlunto, C Sumatra, in 20-year jubilee volume of 'De Mijnbond' (labor union of government mining personnel in Netherlands Indies, first organized at the Sawahlunto coal mine in 1919). Ombilin coalfield in Padang Highlands was first discovered in 1867. Major evaluation by R.D.M. Verbeek completed in 1875. Three main coal horizons, each 2-10m thick. In 1893 completion of construction of export rail line to Emmahaven port near Padang and start of exploitation in Soengei Doerian field (still producing in 1939, with 2800 mainly Javanese contract laborers (coal mining stopped in 1998 and Sawahlunto is now a historic World Heritage Site ; JTvG))

Croockewit, J.H. (1854)- Scheikundig onderzoek van steenkolen. Natuurkundig Tijdschrift voor Nederlandsch-Indie 6, p. 123-130.
('Chemical analysis of coal samples'. Four samples from Oranje Nassau mine in SE Kalimantan)

Daulay, B. (1985)- Petrology of some Indonesian and Australian Tertiary coals. M.Sc. Thesis University of Wollongong, p. 1-265. *(Unpublished)*

Daulay, B. (1998)- Exsudatinite in Eastern Kalimantan coals. Indonesian Mining J. 4, 1-2, p.
(Five types of exsudatinite in E Kalimantan coals)

Daulay, B. (2005)- Petrography of raw coal and its UBC product. Indonesian Mining J. 8, 3, p.

Daulay, B. (2010)- Evaluation of Kalimantan coal quality in order to select the appropriate and effective utilizaton tecnologies. In: N.I. Basuki & S. Prihatmoko (eds.) Proc. Kalimantan coal and mineral resources, MGEI-IAGI Seminar, Balikpapan 2010, p. 49-59.
(Most Kalimantan coal mainly low rank with high moisture content. Most coal currently exploited medium-high rank)

Daulay, B. & A.C. Cook (1988)- The petrology of some Indonesian coals. J. Southeast Asian Earth Sciences 2, p. 45-64.
(Indonesian coals rich in vitrinite and variable contents of liptinite. Inertinite rare to sparse, with exception of a few (typically Neogene) coals. No major differences between Paleogene and Neogene coals. Most coals low in rank. Coals, and associated dispersed organic matter, important source rocks for some oil accumulations)

Daulay, B., N.S. Ningrum & A.C. Cook (2000)- Coalification of Indonesian coal. Proc. Southeast Coal Geology Conference, Directorate General of Geology and Mineral Resources Indonesia, Bandung, p. 85-92.

Daulay, B., B. Santoso & N.S. Ningrum (2015)- Evaluation of selected high rank coal in Kutai Basin, East Kalimantan, relating to its coking properties. Indonesian Mining J. 18, 1, p. 1-10.
(online at: http://jurnal.tekmira.esdm.go.id/index.php/imj/article/view/301/186)
(Abundant coal seams of Miocene age (up to 4.7 m thick) in Kutai Basin. Selected higher rank coals of bituminous rank with vitrinite reflectance of 0.57-0.97% are found in high gradient T zone or near intrusive bodies. Vitrinite reflectances lower than Australian coking coals (~1.05%), but higher than normal Indonesian coals. Etc.)

De Groot, C. (1865)- Eene bijdrage tot de kennis van de Nederlandsch Indische steenkolen. Kramers, Rotterdam, p. 1-55.
('A contribution to the knowledge of the Netherlands Indies coals'. Mainly on composition and quality of coal in 'Oranje Nassau' government-operated coal mine at Pengaron, Barito Basin, SE Kalimantan, which produced coal since 1848. Five Eocene coal horizons, three of which deemed suitable for use on navy steam ships. Ash content 2.7-6.3%)

De Gruyter, P. (1940)- Een voorloopige classificatie der Indische steenkolen, gericht op hun technische toepassing. De Ingenieur in Nederlandsch-Indie (III) 7, 12, p. III.25- III.39.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1940-12.pdf)
('A provisional classification of the Indonesian coals, aimed at their technical application'. First part mainly of general coal classification properties)

De Gruyter, P. (1941)- Een voorloopige classificatie der Indische steenkolen, gericht op hun technische toepassing- vervolg. De Ingenieur in Nederlandsch-Indie (III) 8, 1, p. III.1- III.14.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1941-01.pdf)
('A provisional classification of the Indonesian coals, aimed at their technical application- continued'. Second part mainly on properties of Bukit Asam coal. S Sumatra, also Ombilin, Borneo)

De Loos, D. (1899)- Gesteenten en mineralen van Nederlandsch Oost-Indie, 3: Steenkolen. Koloniaal Museum Haarlem, Erven Loosjes, p. 1-42.
('Rocks and minerals from Netherlands East Indies- 3: Coal'. Early, popular booklet on occurrences and quality of coal in Indonesia, mainly on Java, Sumatra and Borneo)

Dehmer, J. (1993)- Petrology and organic geochemistry of peat samples from a raised bog in Kalimantan (Borneo). Organic Geochemistry 20, 3, p. 349-362.
(Peat cores, from margin and center of tropical raised bog from Sebangau River near Palangkaraya. Peats from margin of raised bog more decomposed than center and basal peats more decomposed than peats from upper layers. Basal peats deposited under mesotrophic conditions and more seasonal climate)

Dommain, R., J. Couwenberg & H. Joosten (2011)- Development and carbon sequestration of tropical peat domes in south-east Asia: links to post-glacial sea-level changes and Holocene climate variability. Quaternary Science Reviews 30, p. 999-1010.
(Three peat dome regions distinguished:(1) inland C Kalimantan, (2) Kutai basin and (3) coastal areas across entire SE Asia. With onset of Holocene, first peat domes developed in C Kalimantan as response to rapid post-glacial sea-level rise over Sunda Shelf and intensification of Asian monsoon. Peat accumulation rates in C Kalimantan declined after 8500 BP with lower rate of sea-level rise. Kutai basin peat domes younger than ~8300 BP, driven by accretion rates of Mahakam River. Most coastal peat domes initiated between 7000-4000 BP as consequence of Holocene maximum in regional rainfall and stabilisation and regression of sea-level)

Dommain, R., J. Couwenberg. P.H. Glaser, H. Joosten, I. Nyoman & N. Suryadiputra (2014)- Carbon storage and release in Indonesian peatlands since the last deglaciation. Quaternary Science Reviews 97, p. 1-32.
(Kalimantan and Sumatra largest global concentration of tropical peatlands since 20 ka, mainly driven by sealevel rise. Coastal peatlands formed mainly after 7 ka, when sea-level rise slowed to 2.4 mm/yr. Falling sea levels after 5 ka led to rapid peatland expansion (and carbon storage) in coastal lowlands, doubling total peatland area in W Indonesia. Due to human activities in recent decades, Indonesian peat swamps switched from important carbon sinks to significant carbon sources, contributing to rising atmospheric CO_2 levels)

Douglas, E.A. (1913)- The coal resources of the Netherlands-India. In: The coal resources of the World, XIIth International Geological Congress, Toronto, Canada, Vol. 1, p. 95-106. *(with two maps)*

Dunlop, N.F. & R.B. Johns (1999)- Thermally induced chemical changes in the macromolecular structure of an Indonesian coal. Organic Geochemistry 30, p. 1301-1309.

Esterle, J.S. (1990)- Trends in petrographic and chemical characteristics of tropical domed peats in Indonesia and Malaysia as analogues of coal formation. Ph.D. Thesis University of Kentucky, Lexington, p. 1-270. *(Unpublished)*

Esterle, J.S. (1999)- Can peats be used to discriminate local subsidence from regional tectonism? Examples from Sarawak, Malaysia and Sumatra, Indonesia. In: H. Darman & F.H. Sidi (eds.) Tectonics and sedimentation of Indonesia, FOSI-IAGI-ITB Regional Seminar to commemorate 50th anniversary of Van Bemmelen's Geology of Indonesia, Bandung 1999, p. 24-28.
(Holocene peats of E Sumatra and Sarawak started forming at ~6000 BP and are models for formation of coal measures. Two modes of peat accumulation, one where it keeps up with clastic sedimentation (rel. high preservation potential), and one where it outstrips clastic sedimentation (rel. poor preservation potential))

Esterle, J.S., G. Calvert, D. Durig et al. (1992)- Characterization and classification of tropical woody peats from Baram River, Sarawak and Jambi, Sumatra. In: B.Y. Aminuddin (ed.) Proc. International. Symposium on Tropical Peatland, Kuching, MARDI, Kuala Lumpur, p. 33-48.

Esterle, J.S. & J.L. Ferm (1994)- Spatial variability in modern tropical peat deposits from Sarawak, Malaysia, and Sumatra, Indonesia. Int. J. Coal Geology 26, p. 1-41.
(Study of two Recent (<5,000 yrs) domed peat deposits at Baram River (Sarawak) and Jambi area (Sumatra), examined as modern analogues for coal. Both in microtidal alluvial-deltaic plain settings, similar vegetation. One deposit convex, mature dome, rising 10m above river level; the other is low-gradient dome, rising only x m above river level but with concave base up to 6m below. Both deposits eroded by adjacent rivers)

Fatimah (2008)- Potensi Batubara bawah permukaan di Indonesia. Proc. 37th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 501-512.
(online at: https://www.iagi.or.id/web/digital/14/2008_IAGI_Bandung_Potensi-Batubara-Bawah.pdf)
(Assessment of potential volumes of deep-seated coal in South Sumatra and Kalimantan (Tarakan, Kutai, Barito basins))

Flores, R.M. & Hadiyanto (2006)- Patterns of Sumatran domed peatlands; from alluvial to coastal settings. Geological Society of America (GSA), 2006 Annual Meeting, Abstracts with Programs 38, 7, p. 233.
(Sumatran rain-fed and domed (ombrogenous) mires used as models for thick coal deposits worldwide. Kumpeh and Dendang peatlands between anastomosing Batang Hari and Kumpeh Rivers domed topography despite meander channels and tributaries forming re-entrants into peatlands and flood-plain levee sediments. Resulting peat deposits small area (240-540 km^2), discontinuous, lenticular, <9 m thick. Endapan domed to flat peatland from edge of Batang Hari and Kumpeh Rivers to coast, is blanket-like (4000 km^2) peat deposit, >11m thick. Raised peatlands along rivers reflect buildup of flood sediments that sustained robust vegetation, which in turn, accumulated raised peat (<9 m) that reduced extent of flooding. Flat coastal peatlands (Endapan) reflect peat accumulation (>11m) from stunted vegetation removed from flood-sustaining nutrients)

Friederich, M., J. Esterle, T. Moore & C. Nas (2009)- Variations in the sedimentological characteristics of Tertiary coals in SE Asia; and climatic influences on Tertiary coals and modern peats. In: Variations in fluvial-deltaic and coastal reservoirs deposited in tropical environments, AAPG Hedberg Conference, Jakarta 2009, p. 1-6.
(Extended abstract)
(online at: www.searchanddiscovery.com/abstracts/pdf/2010/hedberg_indonesia/abstracts /ndx_friederich.pdf)
(Elegant summary of modern domed peat swamps in Sumatra and Sarawak, which may be used as analogues of Tertiary coals of Kalimantan)

Friederich, M.C., R.P. Langford & T.A. Moore (1999)- The geological setting of Indonesian coal deposits. In: G. Weber (ed.) Proc. PACRIM '99 Congress, Bali 1999, Australasian Institute of Mining and Metallurgy Publ. 4/99, p. 625-631.
(Indonesia economic coal deposits mainly of Eocene and Miocene-Pliocene age and mainly in Kalimantan and Sumatra. Formed from peat deposits in equatorial paleoclimate. Some peats domed peats, which grew above normal water tables in climate of year-round rainfall, are low in ash and sulphur and locally thick (Miocene coals). Eocene coals typically thinner, with higher contents of ash and sulfur. Eocene coals formed mainly in extensional tectonic settings. Miocene-Pliocene coals formed in range of tectonic settings)

Friederich, M.C., G. Liu, R.P. Langford, C. Nas & B. Ratanasthien (2000)- Coal in Tertiary rift systems in Southeast Asia. Proc. Proceedings International Conference on Southeast Asian Coal Geology, Bandung 2000, Directorate of Mineral Resources/ IAGI, p. 33-43.

Friederich, M.C., T.A. Moore & R.M. Flores (2016)- A regional review and new insights into SE Asian Cenozoic coal-bearing sediments: why does Indonesia have such extensive coal deposits? Int. J. Coal Geology 166, p. 2-35.
(SE Asia Cenozoic coal-bearing basins grouped in five regions: N Sundaland, S Sundaland, Philippines, W Myanmar and E Indonesia; first three discussed here. Most significant coal deposits of SE Asia in Neogene of S Sundaland (Borneo, Sumatra), over extensive coastal plains in regressive setting. Coal deposits of N Sundaland (i.e. SE Asian continental) in small disconnected non-marine grabens, and are areally restricted. S Sundaland resided mainly within ± 10° of equator, with paleoclimate conducive to ever-wet conditions. N Sundaland resided >10°N of equator, probably monsoonal with annual dry periods. Etc.)

Friederich, M.C., T.A. Moore, M.S.W. Lin & R.P. Langford (1995)- Constraints on coal formation in Southeast Kalimantan, Indonesia. Proc. 6th New Zealand Coal Conference, Coal Research Ltd., 1, p. 137-149.

Friederich, M.C. & T. van Leeuwen (2017)- A review of the history of coal exploration, discovery and production in Indonesia: the interplay of legal framework, coal geology and exploration strategy. Int. J. Coal Geology 178, p. 56-73.
(Review of geologic setting and 160 years history of coal exploration and commercial production in Indonesia. Coal exploration and production of Eocene and Miocene coal started in late 1800's in SE Kalimantan and W and S Sumatra. Very limited production from World War 2 until 1980s when modern coal mining industry started to develop. In 2005 Indonesia became world's largest coal exporter)

Furukawa H (1988)- Stratigraphic and geomorphic studies of peat and giant podzols in Brunei: 1. Peat. Pedologist 32, 1, p. 26-42.

Gastaldo, R.A. (2010)- Peat or no peat: Why do the Rajang and Mahakam Deltas differ? Int. J. Coal Geology 83, p. 162-172.
(Borneo Holocene peats are models for Tertiary coals. Sarawak Rajang River delta- coastal plain with extensive peat up >13 m thick in ombrogenous peat domes, deposited over Pleistocene podzols when sea level stabilized at 7.5 ka and delta progradation started. Mahakam River delta also began progradation at this time, but no peat accumulation. Rajang River clays up to 60% mixed layer and expandable clays that restrict pore water flow in tidal and overbank deposits, promoting accumulation of organic matter. Mahakam River low % mixed-layer and expandable clays in system)

Gastaldo, R.A. & J.R. Staub (1999)- A mechanism to explain the preservation of leaf litter lenses in coals derived from raised mires. Palaeogeogr. Palaeoclim. Palaeoecology 149, p. 1-14.
(Leaves are easily degradable and rarely preserved in coals. May be preserved in acid-water filled depressions)

Gastaldo, R.A., G.P. Allen & A.Y. Huc (1993)- Detrital peat formation in the tropical Mahakam River delta, Kalimantan, eastern Borneo: sedimentation, plant composition, and geochemistry. In: J.A. Cobb & C.B. Cecil (eds.) Modern and ancient coal-forming environments, Geological Society of America (GSA), Special Paper 286, p. 107-118.
(In Mahakam Delta fluvial distributary channels are main conduits for transport of plant parts to delta front, where they are commonly reworked into up to 2.5m thick accumulations, onlapping interdistributary tidal flats. Allochthonous peat composed of fragmented canopy detritus from various sources, including leaves, cuticles, wood, petiole parts, damar (dipterocarp resins), fruits, and seeds. Deposits occur as high-tide beach ridges)

Godfrey, P., Tan Ee & T. Hewitt (2010)- Coal Bed Methane development in Indonesia: golden opportunity or impossible dream ? Proc. 34th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA10-BC-180, p. 1-19.
(Mainly on commerciality and regulatory environment of Indonesian CBM projects)

Grady, W.C., C.F. Eble & S.G. Neuzil (1993)- Brown coal maceral distributions in a modern domed tropical Indonesian peat and a comparison with maceral distribution in Middle Pennsylvanian-age Appalachian bituminous coal beds. In: J.C. Cobb & C.B. Cecil (eds.) Modern and ancient coal-forming environments, Geological Society of America (GSA), Special Paper 286, p. 63-82.

Hadianto (2000)- Coal bed methane resources of Indonesia. Proc. 36th Session Coord. Comm. Coastal and Offshore Program East and SE Asia (CCOP), Hanoi 1999, p. 51-65.
(Statistics of coal and coalbed methane resources in Indonesia. CBM resource of Indonesia estimated 2.89 Tm3, with greatest resource in S Sumatra, followed by Ketungau and Kutai basins on Kalimantan)

Hadiyanto & S.H. Stevens (2005)- Coal bed methane prospects in lower rank coals of Indonesia. In: S. Prihatmoko et al. (eds.) Indonesian mineral and coal discoveries, IAGI Special Issue, p. 152-162.
(Brief overview of Indonesian basins with coalbed methane potential. Over 12.7 Tm3 (450 TCF) of CBM resources identified in 11 basins (similar paper to to Stevens and Hadiyanto 2004))

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(online at: https://www.iagi.or.id/web/digital/56/25.pdf)
(Brief Abstract only. Total coal resources in Indonesia 34 billion tonnes)

Haris, A., A. Mujiantoro & R.E Kurniawan (2010)- Evaluation of Coal Bed Methane potential of Bentian Besar, Kutei Basin. Proc. 34th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA10-G-139, p. 1-10.

Harrington, J. (2016)- CBM Indonesia- dull past, bright future. In: 2016 Technical Symposium Where from, where to, Indonesian Petroleum Association (IPA), Jakarta, p.

Hooze, J.A. (1892)- Overzicht der voornaamste kolenterreinen van den Nederlandsch Indischen Archipel. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap (2) 9, p. 129-160.
(online at: https://www.delpher.nl/nl/tijdschriften/view identifier=MMUBA13:001625001:00163)
('Overview of the principal coal terrains of the Netherlands East Indies Archipelago'. Coal in Netherlands Indies only in Tertiary formations. Best quality coal in Eocene. Main exploitation on Sumatra and Kalimantan. No figures)

Hooze, J.A., R.A. Eekhout & R.A. van Sandick (1892)- The coal-fields of Malaysia. Trans. Federated Institution Mining Engineers, London, p. 1-36.
(online at: https://books.google.com/...)
(Review of the principal coal fields of the Netherlands East Indies (misleadingly named Malaysia/ Malay Archipelago). From a lecture delivered by Eekhout at Manchester General Meeting in Febr. 1892)

Hope, G., U. Chokkalingam & S. Anwar (2005)- The stratigraphy and fire history of the Kutai Peatlands, Kalimantan, Indonesia. Quaternary Research 64, p. 407-417.
(Equatorial peatlands of Kutai lowland generally 4-10m thick, but some sections >16m thick. Deposition of peat started ~8000 yrs ago after flooding of basin by Mahakam River. Earliest vegetation is Pandanus swamp which grades upwards to dipterocarp-dominated swamp forest. Peatland expanded laterally and rivers maintained narrow levee-channels through swamp. Fires of 1982 and 1997 burnt up to 85% of vegetation)

Horkel, A. (1990)- On the plate tectonic setting of the coal deposits of Indonesia and the Philippines. Austrian J. Earth Sciences (Mitteilungen Osterreichischen Geologischen Gesellschaft) 82 (1989), p. 119-133.
(online at: http://geologie.or.at/index.php/downloads2/category/7-archiv-mitteilungen)
Geodynamic evolution of SE Asian archipelago controls development of Tertiary sedimentary basins that contain coal deposits of Indonesia and Philippines. Plate-tectonic setting and associated geothermal gradients and tectonic stress are more relevant for quality and rank of Tertiary coals than age. With brief discussions of coal in Sumatra and E Kalimantan)

Hovig, P. (1928)- De rentabilteit can de Ombilin-mijnen. De Ingenieur 1928, 12, M. Mijnbouw 3, p. M23-M26.
(online at: https://resolver.kb.nl/resolve?urn=dts:2945098:mpeg21:pdf)
('The profitability of the Ombilin mines'. Annual financial statements of Ombilin government coal mines in W Sumatra suggest financial losses for most years, but Hovig argues that this is partly due to bookkeeping of railroad charges and interest re-payments, and that coal mining itself was profitable)

Hutton, A., B. Daulay, Herudiyanto, C. Nas, A. Pujobroto and H. Sutarwan (1994)- Liptinite in Indonesian Tertiary coals. Energy Fuels 8, 6, p. 1469-1477.
(online at: https://www.academia.edu/30148489/Liptinite_in_Indonesian_Tertiary_Coals)
(Indonesian Tertiary coals similar compositions with vitrinite dominant maceral group. Most coals abundant secondary liptinite, especially exsudatinite but also fluorinite. Association of exsudatinite with oil suggests it is an indicator of early stage oil generation, and probably intermediate product in pathway vitrinite/ liptinite to oil. Where exsudatinite present in other rocks it should be termed bitumen)

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(online at: http://edoc.ub.uni-muenchen.de/11761/2/Jaenicke_Julia.pdf)

Jaenicke J., J.O. Rieley, C. Mott, P. Kimman & F. Siegert (2008)- Determination of the amount of carbon stored in Indonesian peatlands. Geoderma 147, p. 151-158.

Katili, J.A. (1984)- Coal and peat in Indonesia: potentials and prospects. Indonesian Quarterly 12, 1, p. 49-61.

Kelling, M.A.J. (1918)- Het steenkolenvraagstuk voor Ned-Indie. Koloniale Studien 2, Extra Nummer, Albrecht & Co, Weltevreden, p. 37-118.
(online at: https://kitlv-docs.library.leiden.edu/open/Metamorfoze/Koloniale%20studien/MMKITLV01_AF_TS2372_1918_extra_nummer.pdf)
('Coal issues for the Netherlands Indies'. Early, comprehensive review of coal occurrences, production, distribution and consumption in Nethelands Indies (Indonesia. In early 1900s, Netherlands Indies was a net coal importer, mainly from Japan, also from Australia and British Indies. Main coal production in Indonesia from Ombilin mines (Sawahlunto, W Sumatra) and Poeloe Laoet (SE Borneo). With 191 references of historic papers on coal in region. No figures/maps)

Kendarsi, R. (1985)- The coal resources of Indonesia and South East Asia. In: M.B. Katz & E. Langevad (eds.) Geosciences in International Development, Assoc. Geoscientists for International Development (AGID), Report 11, p. 23-57.

Khozin, M.N., Y. Zetra & R.Y.P. Burhan (2025)- Organic geochemical aspects of aliphatic hydrocarbon fractions for determining Coal Bed Methane exploration Strategies of Sawahlunto and Sangatta coals. Petroleum Research 10, 2, p. 320-330.
(online at: https://www.sciencedirect.com/science/article/pii/S209624952500002X)
(Geochemical analyses of Sawahlunto (Oligocene, W Sumatra) and Sangatta (Miocene, E Kalimantan) coals, focused on biomarkers and biogenenic Coalbed Methane potential. Coals relatively immature; CBM deemed to have biogenic origin.)

Kleinschmiede, J. (1937 or 1942)- Coal in the East Indian Archipelago. IV. Borneo. Geological Survey Indonesia, Bandung, Open File Report F37-04, p. 1-36.
(Part of a collection of unpublished reports at the Bandung Geological Survey, by BPM mining engineer, (probably compiled or translated from Dutch report during Japanese occupation of 1942-1945; JTvG)

Kleinschmiede, J. (1939 or 1942)- Coal in the East Indian Archipelago. VI. New Guinea. Geological Survey Indonesia, Bandung, Open File Report. F39-01, p. 1-39. *(Unpublished)*

Koesoemadinata, R.P. (1978)- Sedimentary framework of Tertiary coal basins of Indonesia. In: P. Nutalya (ed.) Proc. 3rd Regional Conference Geology and Mineral Resources of SE Asia (GEOSEA III), Bangkok, p. 621-639.

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(online at: https://journal.iagi.or.id/index.php/FOSI/article/view/235)
(Tertiary coals found mainly in basins of W Indonesia, on continental crust of Sunda shield. Tectonostratigraphic settings include (1) syn-rift deposits, (2) post-rift Transgressive sequence and (3) 'syn-orogenic' Timing of these episodes varies between basins. Regressive sequence In E Indonesia lignite/ coal in West Papua syn-orogenic basins)

Koesoemadinata, R.P. & Harjono (1977)- Kerangka sedimenter endapan Batubara Tersier di Indonesia. Proc. 6th Annual Conv. Indonesian Association Geologists (IAGI), p. 1-21.
('Depositional framework of Tertiary coals in Indonesia')

Koesoemadinata, R.P., Hardjono, I. Usna & H. Sumadirdja (1978)- Tertiary coal basins of Indonesia. United Nations- ESCAP, CCOP, Technical Bulletin 12, p. 43-86. *(online at: https://repository.unescap.org/server/api/core/bitstreams/5863e474-3590-41cc-aaa8-f671730d78a3/content)*
(Overview of Indonesian Tertiary basin types and coal basins of Sumatra, Kalimantan, W Java and W Sulawesi. More detailed discussions of W Sumatra Ombilin Basin, S Sumatra Bukit Asam and E Kalimantan)

Korasidis, V.A., M.W. Wallace & B. Jansen (2017)- The significance of peatland aggradation in modern and ancient environments. Palaios 32, 10, p. 658-671.
(Modern and ancient Cenozoic peat cycles commonly evolve from inundated wetland assemblages to more elevated and well-drained forest. Changing floral compositions result from changes in substrate wetness during peatland aggradation in high rainfall settings. Includes some discussion of SE Asian peatlands)

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(Account of Medco S Sumatra work on Sekayu and Rambutan CBM projects)

Lanzing, A. (1939)- De Boekit Asam steenkolenmijnen. De Mijnbond (Bandung), 20 Jaar Jubileumnummer, p. 40-43.
(online at: https://resolver.kb.nl/resolve?urn=MMKB31:034173000:pdf)
('The Bukit Asam coal mines'. Brief history of government coal mines near Lahat, S Sumatra, in 20-year jubilee volume of 'De Mijnbond' (labor union of government mining personnel in Netherlands Indies, first organized at Sawahlunto coal mines in 1919). Miocene lignitic coals locally thermally altered by Pleistocene andesite intrusions. Main exploration phase 1917-1918, start of surface coal exploitation 1919, first tunnels in 1920-1922. In late 1930s half of production exported across SE Asia)

Lucarelli, B. (2010)- The history and future of indonesia's coal industry: impact of politics and regulatory framework on industry structure and performance. PESD Stanford Working paper 93. p. 1-87.
(online at: https://fsi-live.s3.us-west-1.amazonaws.com/s3fs-public/WP_93_Lucarelli_revised_Oct_2010.pdf)
(Review of history of coal exploitation in Indonesia, mainly since 1980's. Focused on business; no maps, little or nothing on geology)

Macke, A. (1927)- Beitrage zur Kenntnis einiger Erzlagerstatten in Peridotitgebieten Niederlandisch-Indiens. Dr-Ing Dissertation Bergakademie Freiberg, p. 1-66.
('Contributions to the knowledge of some ore deposits in peridotite areas in the Netherlands Indies'. Study of peridotites in C Sulawesi (Verbeek Mountains) in 1917 and SE Borneo (Meratus?) in 1918 by Ing. Ch.A.F. Macke, while working with the Dienst van het Mijnwezen between 1913 and 1919. Main purpose of the Mijnwezen Celebes-Borneo work together with Ir. W. Dieckmann was prospecting for iron ores, but also nickel, chromium and platinum. No maps)

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(Most of Indonesian's coalbed methane resources from low-rank coals and of biogenic origin, requiring different assessment than more mature strata. Macroporosity- permeability in low rank coal largely function of cleat spacing, which may vary with coal composition. High moisture content reduces gas holding capacity)

Moore, T. (ed.) (2015)- Hydrocarbons in the tropics: on the edge. A field trip guide to ancient and modern organic-rich environments in Kalimantan Timur (Borneo), Indonesia. 32nd Annual Meeting Society for Organic Petrology, Yogyakarta 2015, Field guide, p. 1-107.
(Guidebook to 4-day fieldtrip in Paleo-Mahakam delta deposits around Samarinda-Balikapapan)

Moore, T.A. & C.I. Butland (2005)- Coal seam gas in New Zealand as a model for Indonesia. In: S. Prihatmoko et al. (eds.) Indonesian mineral and coal discoveries, Indonesian Association Geologists (IAGI), Special Issue, p. 192-200.
(On similarities between Indonesian and New Zealand low rank coal seam gas reservoirs)

Moore, T.A. & J.C. Ferm (1988)- A modification of procedures for petrographic analysis of Tertiary Indonesian coals. J. Southeast Asian Earth Sciences 2, p. 175-183.
(Study of SE Kalimantan Eocene coals required new procedures which relates megascopic appearance to petrographic character. Highest concentration and best preservation of plant parts in banded coal)

Moore, T.A., T.E. Mares & C.R. Moore (2010)- Assessing uncertainty of coalbed methane resources. Proc. Indonesian 33rd Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA09-G-056, p. 1-11.

Moore, T.A. & S.J. Zarrouk (2011)- The origin and significance of gas saturation in Coalbed Methane plays: implications for Indonesia. Proc. 35th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, IPA11-G-195, p. 1-10.

Morley, R.J. (1981)- Development and vegetation dynamics of a lowland ombrogenous peat swamp in Kalimantan Tengah, Indonesia. J. of Biogeography 8, p. 383-404.
(Palynological study of 6 sediments cores from Holocene lowland peat swamp along Sebangau River near Palangkaraya, C Kalimantan. Peat formation started abruptly over freshwater topogenous swamp with common Graminae and Lycopodium. Local river patterns may have changed markedly during Holocene)

Morley, R.J. (2013)- Cenozoic ecological history of Southeast Asian peat mires based on comparison of coals with present day and Late Quaternary peats. J. Limnology 72, 2s, p. 36-59.
(online at: www.jlimnol.it/index.php/jlimnol/article/view/jlimnol.2013.s2.e3/573)
(Tropical peat swamps more widespread in Sundaland than any other equatorial region, with ombrotrophic, rheotrophic and brackish mangrove peat swamps. Cenozoic deposits from area rich in coals. Extensive brackish water peats formed M-L Eocene and M-L Miocene, often laterally very extensive. Rheotrophic peats formed widely through most of Cenozoic. Extensive Oligocene coals known only from Sawahlunto Fm (Ombilin basin), where they form part of initial rift infill sequence, and from Pematang Fm of Jambi province. Ombrotrophic kerapah type peats are first recognised in Late Oligocene. Kerapah peats sometimes developed great thickness. Basinal peats increased during Miocene. No convincing evidence for doming in Cenozoic peats has yet been noted)

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(Brief review of coal seam geometries and coal sedimentology)

Nas, C. (2005)- Coking coals in Indonesia: occurrences and properties. In: S. Prihatmoko et al. (eds.) Indonesian mineral and coal discoveries, Indonesian Association Geologists (IAGI), Jakarta, Special Publ., p. 163-176.

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(Kalimantan coals wide variation in quality. Neogene coals generally low rank. Eocene coals locally high rank and of coking coal quality. Descriptions of coking coal deposits in N Barito (Buntok) and Upper Kutai (Muara Teweh) basins)

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(Same paper as above?)

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Nas, C. & A. Pujobroto (2000)- Vitrinite macerals in Indonesian coal. Proc. Southeast Asian Coal Geology Conference, Bandung 2000, p. 215-226.

Neuzil, S.G. (1997)- Onset and rate of peat and carbon accumulation in four domed ombrogenous peat deposits, Indonesia. In: J.O. Rieley & S.E. Page (eds.) Biodiversity and Sustainability of tropical peatlands, Samara Publishing Ltd, Cardigan, p. 73-80.

Neuzil, S.G., Supardi, C.B. Cecil, J.S. Kane & K. Soedjono (1993)- Inorganic geochemistry of domed peat in Indonesia and its implications for the origin of mineral matter in coal. In: J.C. Cobb & C.B. Cecil (eds.) Modern and ancient coal-forming environments, Geological Society of America (GSA), Special Paper 286, p. 23-44.
(Inorganic geochemistry of three domed ombrogenous peat deposits in Riau (Siak, Bengkalis peats) and W Kalimantan (Keramat peat). Mineral matter limited to small amounts from allogenic sources of dryfall, rainfall and diffusion from substrate pore water. In interior of deposits much of mineral matter is authigenic. Ash yield (av. 1.1%) and sulfur content (av. 0.14%) generally low, but exceed 5% and 0.3% near base of deposits. Domed ombrogenous peat deposits will result in low ash and sulfur coal, even if marine rocks adjacent to coal)

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(online at: https://www.sciencedirect.com/science/article/pii/S0012825222002331)
(Compilation of geological data from 52 peatlands from insular and continental SE Asia. SE Asian peatlands mostly ombrogenous. Most SE Asian peatlands formed right after Last Glacial Period (11,000 years ago). Almost 40% of sites are on Borneo, where many peatlands already deforested and drained and converted to plantations. Characterisation of peatlands based on ash yield, thickness and oldest age, and includes study of relation to climatic periods, peatland type, region and substrate. Peatlands developed during warming periods share similar physical parameters (accumulation rates, ash yield, peatland type, environment of substrates))

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Osman, T.H. (2013)- The development of the Indonesian coal industry. Australasian Institute of Mining and Metallurgy (AusIMM), Bull. 2013, 3, p. 38-40.

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(online at: www.ncbi.nlm.nih.gov/pmc/articles/PMC1692688/pdf/11605630.pdf)
(Study of peat swamp forest composition in upper Sungai Sebangau area, S of Palangkaraya, C Kalimantan. Peat thickness up to 10m. Radiometric age dating suggest young peat (~400- 1760 yr BP) overlying older peat (~6-10.3 ka))

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(Review of SE Asia peatlands. Most AE Asia peatlands in low altitudes, and almost all domed/ ombrogenous. Geogenous peatlands confined to edges of coastal lagoons, banks and floodplains of rivers and margins of upland lakes. C Kalimantan peatland surface rel. flat: gradient (7.6m over 5500m). Ash in ombrogenous peats generally <1%. Most SE Asia peat deposits started to form around 4000- 5500 yr BP.; some Borneo peats older, up to 29,000 yr BP.)

Page, S., R. Wust & C. Banks (2010)- Past and present carbon accumulation and loss in Southeast Asian peatlands. PAGES news 18, 1, p. 25-27.
(online at: www.pages-igbp.org/products/newsletters/2010-1/)
(Peat accumulation rates in SE Asia studied peatlands average 1.3 mm/year, highside 4-6 mm/year)

Page, S., R.A.J. Wust, J.O. Rieley, W. Shotyk & S.H. Limin (2004)- A record of Late Pleistocene and Holocene carbon accumulation and climate change from an equatorial peat bog (Kalimantan, Indonesia): implications for past, present and future carbon dynamics. J. Quaternary Science 19, p. 625-635.

Pei, C.S. (1993)- Coal as an energy resource in Malaysia. In: G.H. Teh (ed.) Proc. Symposium on tectonic framework and energy resources of the Western margin of the Pacific Basin, Kuala Lumpur 1992, Bull. Geological Society Malaysia 33, p. 399-410.
(98% of Malaysian coal in Tertiary of Sarawak and Sabah. Quality ranges from lignite to anthracite, mainly bituminous coal. Summaries of Merit Pila and Mukah-Balingin coal fields, Sarawak, and Meliau coal, Sabah)

Phua, M.H., O. Conrad, K.U. Kamlun, M. Ficher & J. Bohner (2008)- Multitemporal fragmentation analysis of peat swamp forest in the Klias Peninsula, Sabah, Malaysia using GIS and remote sensing techniques. Hamburger Beitrage zur Physische Geographie und Landschaftsokologie 19, p. 81-90.

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(online at: https://dwc.knaw.nl/DL/publications/PU00011853.pdf)
('On peat and swamps in the Netherlands Indies'. Swamp areas subdivided into: (1) regionally extensive coastal peat swamps of Sumatra and Borneo and (2) 'topogenous' raised mires on the plains of Java, Sumatra and mountains of Java, Sulawesi and Buru. Mainly on plant and pollen distributions)

Polak, B. (1933)- Over veen in de Tropen. De Tropische Natuur 22, 7, p. 117-124.
(online at: https://natuurtijdschriften.nl/pub/511010/TN1933022007001.pdf
('About peat in the tropics'. Popular review of extensive peat swamps in coastal plains of East Sumatra and West Borneo and small peat deposits on Java)

Polak, B. (1941)- Veenonderzoek in Nederlandsch Indie. 1. Stand en expose der vraagstukken. Mededeelingen Algemeen Proefstation voor den Landbouw 53, Buitenzorg, p. 1-30.
('Peat research in the Netherlands Indies: an outline of the problems')

Polak, B. (1948)- Waarnemingen betreffende het gedrag van cultuurgewassen op veen. Landbouw (Bogor) 20, 5/6 (E.C.J. Mohr volume), p. 249-264.
(online at: https://edepot.wur.nl/211179)
('Observations on the performance of agricultural crops on peat')

Polak, B. (1952)- Veen en veenontginning in Indonesia. Majalah Ilmu Alam Indonesia (Indonesian J. Natural Science) 5-6, p. 146-160.
('Peat and peat exploitation in Indonesia'. Brief general overview with map of distribution of peat deposits in Indonesia)

Polak, B. (1975)- Character and occurrence of peat deposits in the Malaysian tropics. In: G.J. Bartstra & W.A. Casparie (eds.) Modern Quaternary Research in Southeast Asia, A.A. Balkema, Rotterdam, 1, p. 71-81.
(Brief review of peat distribution and peat types in Indonesia)

Prijono, A. (1988)- Review of coal development in Indonesia. Proc. First Asia-Pacific Mining Conference & Exhibition, Bangkok, Thailand, Asean Federation of Mining Associations, p. 1-27.

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(Review of coal reserves, coal properties, production, transportation, etc. in Indonesia. Little or no geology)

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(online at: www.ccop.or.th/download/pub/43as_ii.pdf)
(Recent studies identified approximately 450 TCF of prospective CBM resources in 11 onshore coal basins in Indonesia including S Sumatra, Kutai and Barito Basins)

Rachman, R.S., R. Hidayat, S.B. Rahmat & S.A. Wibisono ((2024)- Characteristics variability of coals from Sumatera, Kalimantan, and Sulawesi: An insight from statistical and clustering analysis. J. Applied Geology (UGM) 9, 2, p. 76-83.
(online at: https://journal.ugm.ac.id/jag/article/view/95095/41268)
(Fifty-five coal samples Sumatra, Kalimantan and Sulawesi show that the coal on these islands has different geochemical characteristics and can be divided into 9 clusters with 50% similarity)

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Ramdhani, M.R., Y. Rizal, S.A. Wibisono, S.B. Rahmat, M.A. Ibrahim & E.B. Cahyono (2024)- Characteristic analysis of Indonesian low and medium rank coals and their influence on Carbon Dioxide Adsorption Capacity. Indonesian J. on Geoscience (IJOG) 11, 3, p. 391-407.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/1072/486)
(Discussion of potential Carbon Capture and Storage (CCS) potential of Miocene Lakat and Muaraenim coals in S Sumatra)

Ratanasthien, B. (1981)- Properties of Tertiary coal in northern Thailand. Proc. GEOSEA IV Conference, Manila, p. 785-789.
(online at: https://library.dmr.go.th/elib/cgi-bin/opacexe.exe Etc.)
(Northern Thailand with 43 Cenozoic basins. At least 25 localities known to contain coal-bearing formations Coal rank ranges from lignite to high volatile C bituminous coal. Etc.)

Ratanasthien, B., W. Kandharosa, S. Chompusri & S. Chartprasert (1999)- Liptinite in coal and oil source rocks in northern Thailand. J. Asian Earth Sciences 17, 1-2, p. 301-306.
(N Thailand Tertiary coal and oil deposits similar palynological associations to Borneo region. Oldest coal-oil deposits of Late Oligocene- E Miocene age and dominated by Botryococcus or related algae. Thick-walled lamaginites and temperate spores- pollen in some areas. Thin-walled lamaginite dominant in late M Miocene time. Resinite, suberinite, and cutinite dominant in forest swamp coals; alginite, cutinite and lycopodium spores dominant in lacustrine environments. Liptinite macerals can be major source of oil and gas)

Rieley, J.O., A.A. Ahmad-Shah & M.A. Brady (1996)- The extent and nature of tropical peat swamps. In: E. Maltby et al. (eds.) Tropical lowland peatlands of Southeast Asia, Gland, Switzerland, p. 17-53.

Rieley, J.O., S.E. Page & B. Setiadi (1996)- Distribution of peatlands in Indonesia. In: E. Lappalainen (ed.) Global peat resources, International Peat Society, Jyvaskyla, Finland, p. 169-178.

Rieley, J.O., G. Sieffermann, M. Fournier & F. Soubies (1992)- The peat swamp forests of Borneo: their origin, development, past and present vegetation and importance in regional and global environmental processes. 9th Int. Peat Congress, Uppsala, Sweden, p. 78-95.

Riyanto, A. (2009)- Ensiklopedia batu bara. Puslitbang Teknologi Mineral dan Batu Bara, Bandung, Tekmire, Bandung, p. 1-296.
('Encyclopedia of coal'. Alphabetically-arranged topics)

Robertson Research International (1977)- Coal in Indonesia. Multi-client study, Sydney, p. *(Unpublished)*
(Major study of coal occurrences and analyses of coal samples from Indonesia. Copy deposited in library of Geological Survey, Bandung)

Roeslan, K. (1984)- The coal resources of Indonesia and Southeast Asia. In: M.B. Katz (ed.) Geosciences for development- The Australian role, Proc. AGID-ILP Workshop, 7th Australian Geological Convention, Sydney, p.

Ruwaimana, M., G.Z Anshari, L.C.R. Silva & D.G. Gavin (2020)- The oldest extant tropical peatland in the world: a major carbon reservoir for at least 47 000 years. Environmental Research Letters 15, 11, 114027, p. 1-10.
(online at: https://iopscience.iop.org/article/10.1088/1748-9326/abb853/pdf)
(Tropical peatlands in SE Asia cover ~25 Million hectares and exert strong influence on global carbon cycle. Present-day coastal peatlands formed after mid-Holocene sea-level stabilization, while inland peatlands are older: Upper Kapuas Basin inland peat formation since at least ~48 ka. Hiatus in peat genesis during cool- dry period from 30-20 ka (= Last Glacial Maximum). Mean peat depth over Upper Kapuas is ~ 5 ± 2.7 m)

Santoso, B. (2015)- Petrologi batu bara Sumatra dan Kalimantan: jenis, peringkat dan aplikasi. Lembaga Ilmu Pengetahuan Indonesia (LIPI) Press, Jakarta, p. 1-132.
(online at: https://penerbit.brin.go.id/press/catalog/view/35/34/87-1)
('Petrology of coals from Sumatra and Kalimantan: types, ratings and applications'. Textbook on coal deposits on Sumatra (Bukit Asam, Ombilin,), Kalimantan (Eocene and Miocene in Barito basin) and Java, and review of coal petrography)

Santoso, B. (2017)- Petrographic characteristics of selected Tertiary coals from Western Indonesia according to their geological aspects. Indonesian Mining J. 20, 1, p. 1-30.
(online at: http://jurnal.tekmira.esdm.go.id/index.php/imj/article/view/178/110)
(Tertiary coals from W Indonesia (Sumatra, Kalimantan, Java) similarities and differences. Coals dominated by vitrinite (detrovitrinite, telovitrinite), common liptinite (resinite, cutinite, suberinite) and rare inertinite (semifusinite, sclerotinite, inertodetrinite) and mineral matter. Differences reflect differences in climate and peat conditions. Vitrinite reflectance variations caused by variations in burial and effects of igneous intrusions)

Santoso, B. & N. Suwarna (1998)- Indonesian coal: its potential, production and utilization. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 8, 78, p. 20-26.
(Indonesia coal reserves 36.6 billion tonnes. Economic coal resources mainly in Tertiary basins of Sumatra (67.4% of total) and Kalimantan (32.2%). Minor resources on Java (0.2%), Sulawesi (0.1%) and W Papua (0.2%). 59% of coal classified as lignite, 26.6% sub-bituminous, 14.4% bituminous and 0.4% anthracite)

Sanusi, S., A. Kuswandi, Radian M. Jufri & K.S. Anggarini (2014)- Evaluation of Coalbed Methane potential of Muara Enim Formation in the Muara Enim Area, South Sumatera. In: I. Basuki & A.Z. Dahlius (eds.) Sundaland Resources, Proc. Annual Conv. Indonesian Soc. Economic Geologists (MGEI), Palembang, p. 467-483.
(Three well drilling program for CBM evaluation in Late Miocene lignite- sub-bituminous coals of Muara Enim Fm indicates favourable gas content: average 3.55 m3/t (125.31 scf/t) at depth of 410- 812m)

Shearer, J.C., J.R. Staub & T.A. Moore (1994)- The conundrum of coal bed thickness: a theory for stacked mire sequences. Journal of Geology 102, 5, p. 611-617.
(Modern peat deposits up to ~20m thick and will compact appreciably during burial, whereas coal beds can be 90m thick. Thick coal beds likely composed of multiple, stacked paleo-peat bodies. Three types of bounding surfaces seen in modern peat bodies can be used to distinguish individual paleo-peats in coal beds)

Shimada, S., H. Takahashi, A. Haraguchi & M. Kaneko (2001)- The carbon content characteristics of tropical peats in Central Kalimantan, Indonesia: estimating their spatial variability in density. Biogeochemistry 53, 3, p. 249-267.

Sia, S.G. & W.H. Abdullah (2011)- Concentration and association of minor and trace elements in Mukah coal from Sarawak, Malaysia, with emphasis on the potentially hazardous trace elements. Int. J. Coal Geology 88, p. 179-193.

Sieffermann, G., M. Fournier, S. Triutomo, M. Sadelman & A. Semah (1988)- Velocity of tropical forest peat accumulation in Central Kalimantan Province, Indonesia (Borneo). Proc. 8th International Peat Society Congress, Leningrad, p. 90-98.

Sieffermann, G., S. Triutomo, M.T. Sadelman, A. Kristijono & S.A. Parhadimulyo (1987)- The peat genesis in the lowlands of Central Kalimantan province, the respective influence of podzolisation and bad drainage, the two main processes of peat genesis in Kalimantan. Int. Peat Congress, Yogyakarta, ORSTOM, p. 1-17.
(online at: http://horizon.documentation.ird.fr/exl-doc/pleins_textes/pleins_textes_5/b_fdi_18-19/26068.pdf)
(Profiles of modern peat deposits in Sebangau valley (<1 to >5m thick) near Palangkaraya, S Central Kalimantan. Peat formation tied to podzolization led to decrease of microbiological activity, thus facilitating accumulation of non-decomposed organic matter, and to bad drainage)

Sigit, S. (1964)- A brief explanatory note to the distribution map of coal deposits, industrial minerals and rocks of Indonesia, scale 1:5000,000. Direktorat Geologi, p. 1-12.

Sigit, S. (1981)- Pengembangan batubara Indonesia, prospek dan permasalahannya. Proc. 10th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, p. 1-6.
(online at: https://www.iagi.or.id/web/digital/34/PIT-IAGI-1981-Vol-1-Paper-1.pdf)
('Development of coal in Indonesia, prospects and its issues'. Brief review, no figures)

Sigit, S. (1981)- Coal development in Indonesia: past performance and future prospects. Journal Indonesian Association Geologists (IAGI) 8, p. 3-9.

Singh,A.L., P.K. Singh, M.P. Singh & A. Kumar (2015)- Environmentally sensitive major and trace elements in Indonesian coal and their geochemical significance. Energy Sources, Part A: Recovery Utilization, and Environmental Effects 37, 17, p.
(Coal samples from Tarakan basin of NE Kalimantan analyzed for selected major and trace elements)

Soehandojo (1989)- Coal exploration and exploitation review in Indonesia. Geologi Indonesia (J. Indonesian Association Geologists IAGI) 12, 1 (Katili Commemorative Volume (60 years)), p. 279-325.
(Overview of Indonesia coal concessions, mine operators, etc. Most reserves on Sumatra and Kalimantan, lesser reserves on Sulawesi, Java, Irian Jaya)

Stanford, C.E. (2013)- Coal resources, production and use in Indonesia. The Coal handbook: Towards cleaner production, Chapter 9, Woodhead Publishing, Elsevier, p. 200-219.

Staub, J.R. & J.S. Esterle (1994)- Peat-accumulating depositional systems of Sarawak, East Malaysia. Sedimentary Geology 89, p. 91-106.
(Sarawak prograding coastal depositional systems contain domed peat-accumulating environments in which low-ash, low-sulfur peats are deposited in areas of active siliciclastic sedimentation. Depositional systems up to 11,400 km^2 large, individual peat deposits >20m thick and 1000 km^{2}in area. Basal high-ash, high-sulfur, degraded peats overlain by low-ash, low-sulfur, well preserved peats)

Staub, J.R., J.S. Esterle & A.L Raymond (1991)- Comparative geomorphic analysis of Central Appalachian coal beds and Malaysian peat deposits. Bull. Societe Geologique France 162, p. 339-351.

Stevens, S.H. & Hadiyanto (2004)- Indonesia: coalbed methane indicators and basin evaluation. Proc. SPE Asia Pacific Oil and Gas Conference, Perth 2004, Paper SPE 88630, Soc. Petroleum Engineers (SPE), p. 1-8.
(Indonesia has many untested thick, low-rank coal deposits, prospective for coalbed methane development. Assessed resource 12.7 trillion m3 (450 Tcf) of prospective CBM in 11 onshore basins)

Stevens, S.H. & K. Sani (2001)- Coalbed methane potential of Indonesia: preliminary evaluation of a new natural gas source. Proc. 28th Annual Conv. Indonesian Petroleum Association (IPA), Jakarta, 1, p. 727-738.

(Study sponsored by Caltex estimates 337 TCF of potentially completable CBM resources in S and Central Sumatra, Barito, Kutei and other coal basins in Indonesia. 10% of this resource (~30 TCF) may be in high-quality, gas-saturated, permeable 'fairways', where development may be economic)

Stevens, S.H., K. Sani & S. Hardjosuwiryo (2001)- Indonesia's 337 TCF CBM resource a low-cost alternative to gas, LNG. Oil and Gas Journal 99, 43, p. 40-45.
(337 TCF of coalbed methane (CBM) resource potential in 11 Indonesian coal basins)

Suparka, S., M. Djuwansah & S. Siregar (1996)- Peat in Indonesia: a dilemma of utilization and environmental impact. In: B. Ratanasthien & S.L. Rieb (eds.) Proc. Int. Symposium on Geology and Environment, Chiang Mai, Thailand, p. 109-121.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/1996/)

Supardi, A.D. Subekty & S.G. Neuzil (1993)- General geology and peat resources of the Siak Kanan and Bengkalis Island peat deposits, Sumatra, Indonesia. In: J.C. Cobb & C.B. Cecil (eds.) Modern and ancient coal-forming environments, Geological Society of America (GSA), Special Paper 286, p. 45-62.
(Modern peat deposits cover 48,000 km^2 on lowlands of Riau Province, Sumatra. Two peat dome areas studied. Domes formed in last 5000 yrs, on flat surface, growing 4-5 mm/yr in first 1000 yrs, then 2 mm/yr for past 3500-4000 years. Low ash and sulfur content)

Supiandi, S. (1988)- Studies on peat in the coastal plains of Sumatra and Borneo Part I: physiography and geomorphology of the coastal plains. Southeast Asian Studies 26, p. 308-335.

Supiandi, S. (1990)- Studies on peat in the coastal plains of Sumatra and Borneo Part IV: a study of the floral composition of peat in coastal plain of Brunei, Borneo. Southeast Asian Studies 27, p. 461-484.

Susilawati, R., S.L. Papendick, P.C. Gilcrease, J.S. Esterle, S.D. Golding & T.E. Mares (2013)- Preliminary investigation of biogenic gas production in Indonesian low rank coals and implications for a renewable energy source. J. Asian Earth Sciences 77, p. 234-242.
(Indonesia has abundant coal resources. Most coals thermally immature, but composed of hydrogen-rich organic components suitable for biogenic methane production. Gas isotope results from pilot wells in S Sumatra interpreted to indicate biogenic origins for methane)

Suwarna (2002)- Coalbed methane in Indonesia. Bull. Geological Research Development Centre (GRDC) 22, p. 19-39.
(Review of coalbed methane potential of Indonesia. Most prospective basins in descending order: S. Sumatra, Barito, Kutai, C Sumatra, N Tarakan, Berau, Bengkulu, etc.)

Teodosio, N.R. (1987)- An overview of coal deposits in the Philippines. ESCAP Series on Coal. 5, p. 142-150.

Tie, Y.L. & J.S. Esterle (1992)- Formation of lowland peat domes in Sarawak, Malaysia. In: B.Y. Aminuddin (ed.) Proc. International Symposium on Tropical Peatland, Kuching, MARDI, Kuala Lumpur, p. 81-89.

Tromp, H. (1925)- De invloed van de chemische en physische eigenschappen der Ned.-Indische kolen op hun verdere verwerking. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie 8 (Gedenkboek Verbeek, memorial volume), p. 537-550.
('The influence of the chemical and physical properties of the Netherlands Indies coals on further processing')

Umar, D.F., B. Santoso & B. Daulay (2012)- Susceptibility to spontaneous combustion of some Indonesian coals. Indonesian Mining J. 15, 2, p. 100-109.
(online at: https://core.ac.uk/download/pdf/233590607.pdf)
(Primary cause of spontaneous combustion of coal is exothermic oxidation at low T. Vitrinite maceral group most susceptible to spontaneous combustion. Higher moisture content coals more susceptible to spontaneous combustion, but complex issue that needs further study)

Van de Meene, E.A. (1984)- Geological aspects of peat formation in the Indonesian- Malayan lowlands. Bull. Geological Research Development Centre (GRDC) 9, p. 20-31.
(Good overview of modern peat formation and distribution in W Indonesia)

Van der Waerden, J. (1927)- Het cokesvraagstuk der Indische kolen. Publ. Comm. Ontwikkeling Fabrieksnijverheid in Nederlandsch-Indie 7, p. 1-181.
(online at: https://resolver.kb.nl/resolve?urn=MMKB21:029140000:pdf)
('The cokes question of coal in the Netherlands Indies. Study of suitability of Indies coals as cokes for steel industry. Results not good)

Van Diest, P.H. (1871)- De kolenrijkdom der Padangsche Bovenlanden en de mogelijkheden van de voordeelige ontginning. Stemler, Amsterdam, p. 1-76. *(online at: https://books.google.com/books?id=OciQ-IByCc4C&pg=PA1&dq=De+kolenrijkdom+der+Padangsche+Bovenlanden.+Amsterdam+1871 Etc.)*
('The coal resources of the Padang Highlands and the possibilities of profitable exploitation'. Historic economic evalution of Ombilin coalfield at Sawahlunto in West Sumatra. Ombilin coals relatively high in carbon (79-80%) and low in ash (0.27-0.95%), sulfur (0.34-0.87%))

Van Dijk, P. (1858)- Over de waarde van eenigen Nederlandsch-Indische koolsoorten. Natuurkundig Tijdschrift voor Nederlandsch-Indie 15, p. 139-158.
('On the value of some Indonesian coal types'. Brief discussion of coals SE Kalimantan, Bengkulu-Sumatra)

Van Doorn, Z. (1959)- Enkele waarnemingen aan oorspronkelijke Indonesische veenmoerassen ter vergelijking met de Hollands-Utrechtse venen. Boor en Spade 10, p. 156-170.
(online at: http://edepot.wur.nl/109967)
('Some observations on original Indonesian peat bogs for comparìson with the Holland-Utrecht peat area')

Van Lier, R.J. (1917)- Onze koloniale mijnbouw, III, De steenkolenindustrie. Tjeenk Willink, Haarlem, p. 1-87.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB02:100003993:00007)
('Our colonial mining industry, III, the coal industry'. Popular 1917 booklet on coal mining industry in Indonesia by mining engineer and former chief engineer of Ombilin mines)

Wichmann, A. (1909)- De venen in den Indischen Archipel. Verslagen Koninklijke Akademie van Wetenschappen, Amsterdam, Vergaderingen Wis- en Natuurkunde Afdeling, 29 May 1909, p. 5-9.
('Peat in the Indies Archipelago'. Early overview paper on extensive peat lands on Sumatra, Java, Borneo and New Guinea)

Winarno, T. & C. Drebenstedt (2014)- Opportunity of low rank coal development in Indonesia. In: C. Drebenstadt & R. Singhal (eds.) Mine planning and equipment selection, Proc. 22nd International Conference on Mine Planning and Equipment Selection (MPES), Dresden 2013, Springer International Publ., p. 1485-1494.
(Coal production in Indonesia reached 386 million tons in 2012, dominated by medium coal, with 75% of coal for export. Utilization of low rank coal is still lacking, due to the limited markets. Etc.)

Wolff, I. (2023)- Coal resources, production, and use in Indonesia. In: The Coal Handbook, Chapter 12, Elsevier, p. 361-430.
(Review of coal industry in Indonesia: history, resources and production (mainly Sumatra, Kalimantan), coal-fired power plants (20), exports/imports, mining, transportation, etc.)

Wust, R., J. Rieley, S. Page, S. van der Kaars, W.M. Wang, G. Jacobsen & A. Smith (2007)- Peatland evolution in Southeast Asia during the last 35,000 cal years: implication for evaluating their carbon storage potential. In: J.O. Rieley et al. (eds.) Carbon-climate-human interaction on tropical peatland. Proc. International Symposium Tropical Peatland, Yogyakarta 2007, Gadjah Mada University, Indonesia and University of Leicester, p. 1-19.
(online at: www.geog.le.ac.uk/carbopeat/media/pdf/yogyapapers/p2.pdf)

Zamroni, A., O. Sugarbo, R. Prastowo, F.R. Widiatmoko,Y., Safii & R.A. Wijaya (2020)- The relationship between Indonesian coal qualities and their geologic histories. Proc. International Conference on Earth Science, Mineral and Energy, Yogyakarta 2019, 2, AIP Conference Proceedings 2245, p. 1-7.

Zetra, Y., M. Fitriyyah, R.Y.P. Burhan & Z.V. Nugraheni (2019)- Organic geochemistry characteristics of Aliphatic hydrocarbon fraction of crude oil from Tarakan Basin, North Borneo, Indonesia. Jurnal Teknik Institut Teknologi Sepuluh Nopember (ITS) 8, 2, p. B39-B45.
(online at: http://www.ejurnal.its.ac.id/index.php/teknik/article/viewFile/49742/5673)
(Organic geochemistry of crude oil from Pamusian field, Tarakan Basin, N Borneo. Presence of long chain n-alkanes, cadinane, 4β(H) eudesmane, and 18α (H) oleanane indicates organic matter derived from dammar resin dammar of Dipterocarpaeae. Also indicators of photosynthetic bacteria. Pr/Ph ratio of 3.76 and drimane/ homodrimane ratio of 1.058 indicate oxic depositional environment. Crude oil from Tarakan Basin mature.)

Zetra, Y., J. Kholik, R.Y.P. Burhan, A. Wahyudi, Z.V. Nugraheni & E.M.M. Putri (2018)- Organic geochemistry characteristic of aliphatic hydrocarbon fraction of Sawahlunto coal, Ombilin Basin, West Sumatra. In: 3rd Int. Seminar on Chemistry (ISOC), ITC, Surabaya, AIP Conference Proceedings 2049, 020018, p. 1-7.
(online at: https://aip.scitation.org/doi/pdf/10.1063/1.5082423)
(Organic chemistry of two sub-bituminous coal samples from Sawahlunto, W Sumatra. Presumed to of E Eocene age)

Zetra, Y., H.S. Kusuma, F. Riandra, I.B. Sosrowidjojo & R.Y.P. Burhan (2018)- The oxygenated biomarker as an indicator of origin and maturity of Miocene brown coal, Sangatta coal mines, East Kalimantan. Indonesian J. on Geoscience (IJOG) 5, 2, p. 107-116.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/289/260)

Ziegler, K.G.J. (1915)- Kritische Studie uber die auf Java bekannten Kohlenvorkommen. Geological Survey, Bandung, Open File Report E15-04, p. 1-107.
('Critical study of the known coal occurrences on Java')

Zulkifley, M.T.M., Ng T.F., W.H. Abdullah, J.K. Raj, S.P. Param, R. Hashim & M.A. Ashraf (2013)- Distribution, classification, petrological and related gochemical (SRA) characteristics of a tropical lowland peat dome in the Kota Samarahan-Asajaya area, West Sarawak, Malaysia. Open Geosciences (C. European J. Geoscience) 5, 2, p. 285-314.
(online at: www.degruyter.com/downloadpdf/j/geo.2013.5.issue-2/s13533-012-0130-y/s13533-012-0130-y.pdf)
(Lateral variations in Plaie peat forest W of Samarahan, Sarawak. Peat thickness 0.2-2.3m, increasing to W)

Zwierzycki, J. (1922)- De ouderdomsbepaling van formaties volgens het watergehalte van kolen. De Mijningenieur 3, 8, Weltevreden, p.
(Age determinations of formations according to the water content of coals)

Zwierzycki, J. (1930)- De metamorphose van kolen. De Mijningenieur 11, p.
('The metamorphism of coals')

XII.4. Economic Minerals, Mining

The listing below contains general papers on Economic minerals and Mining in the Indonesian region. papers Numerous additional papers on mineral deposits that are specific to one region or locality are listed under those regions and are not repeated here.

Abendanon, E.C. (1922)- Het voorkomen en de economische beteekenis van mineralen in Ned. Oost-Indie. Economische Berichten, Ministerie van Buitenlandse zaken, p. 1-10.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:037711000:00001)
('The occurrence and economic significance of minerals in the Netherlands East Indies'. With distribution map (part of Inaugural address of Abendanon's inauguration as Professor of Economic Geology at University of Amsterdam in December 1921)

Abidin, H.Z. & A.S. Hakim (2005)- Endapan sulfida masif volkanogenik: ciri dan sebarannya di Indonesia. Publikasi Ilmiah Pendidikan dan Pelatihan Geologi. 1, 1, p. 47-57.
('Volcanogenic Massive Sulphide deposits: characteristics and distribution in Indonesia'. Reprinted in Metalogeni Sundaland I (2014), p. 263-273. Polymetallic Massive Sulfide deposits always associated with volcanics and sediments. VMS deposits in Indonesia two types (1) Kuroko-type Sangkaropi (S Sulawesi, Cu-Pb-Zn), (2) Lerokis and KaliKuning (Wetar), with stratabound Au-Ag bodies of sedimentary exhalative origin)

Adam, J.W.H. (1941)- Een "top-hypothese voor de verklaring van de primaire aanrijkingen in the jonge zilver-goud gangen. De Ingenieur in Nederlandsch-Indie (IV) 8, 8, p. IV.69- IV.74.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1941-08.pdf
('A "top-hypothesis" for the explanation of primary enrichments in the young silver-gold veins'. Experience in the Netherlands Indies suggest gold-silver enrichment in young epithermal deposits is mainly near tops of quartz veins, and may impoverish rapidly from certain depth downnward))

Adam, J.W.H. & W. van Tongeren (1941)- Over het nut van systematische geologische waarnemingen voor den mijnbouw. De Ingenieur in Nederlandsch-Indie (IV) 8, 11, p. IV.96- IV.99.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1941-11.pdf)
('On the utility of geological observations for mining'. Former chief geologist of Billiton Maatschappij J.W.H. Adam argues for the importance of geology in mining exploitation. One example is primary tin mineralization in Klappa Kampit mine in Belitung, which closely follows a radiolarite zone, which aided in mine exploitation))

Agoes, E. (1988)- Uranium exploration in Indonesia: an overview. Proc. Conference Uranium deposits in Asia and the Pacific; geology and exploration, Jakarta 1985, Int. Atomic Energy Agency (IAEA), Vienna, IAEA-TC-543/12, p. 167-178.
(online at: https://inis.iaea.org/records/m2jpy-cpy74)
(BATAN review of radioactive minerals identified in several areas in W (Sumatra, Kalimantan) and E Indonesia (W Sulawesi,Banggai-Sula, W Papua). In W Indonesia generally linked to Mesozoic granites)

Anonymous (1918)- Voorkomen en gebruik van mangaanertsen. Verslagen Mededeelingen Indische delfstoffen en hare toepassingen, Dienst Mijnwezen Nederlandsch Oost-Indie, 5, p. 1-51.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB24:078917000:00039)
('Occurrences and application of manganese ores'. Review of manganese ore occurrences around world and in Indonesia. Manganese ore occurrences known from Java (mined at Kliripan, Kulun Progo; Also near Tasikmalaya, W Java), SE Kalimantan (Gunung Besi near Pengaron). Also possibly in Sumatra, Timor)

Anonymous (1919)- Phosphaat. Verslagen Mededeelingen Indische delfstoffen en hare toepassingen, Dienst Mijnwezen Nederlandsch Oost-Indie, 6, p. 1-23.
(online at: https://resolver.kb.nl/resolve?urn=MMKB24:078918000:pdf)
('Phosphate'. Brief review of phosphate occurrences in Indonesia. Usually associated with bat guano in caves. No commercially significant deposits. No maps)

Anonymous (1919)- Ijzerertsen in Nederlandsch-Indie. Verslagen Mededeelingen Indische delfstoffen en hare toepassingen, Dienst Mijnwezen Nederlandsch Oost-Indie, 7, p. 1-71.
(online at: https://resolver.kb.nl/resolve?urn=MMKB24:078919000:pdf)
('Iron ores in the Netherlands Indies'. Iron ore widespread in Netherlands Indies, but rarely commercially viable: Tanah Laut (SE Kalimantan), C Sulawesi, Lampung (S Sumatra), etc. Incl. lateritic and detrital iron ores)

Anonymous (1920)- Magnesiet. Verslagen Mededeelingen Indische delfstoffen en hare toepassingen, Dienst Mijnwezen Nederlandsch Oost-Indie, 11, p. 1-18.
(online at: https://resolver.kb.nl/resolve?urn=MMKB24:078903000:pdf)
('Magnesite'. Review of occurences of magnesite (magnesium carbonate) in Indonesia. Associated with weathered serpentinite in E Sulawesi and Leti. No economic deposits known)

Anonymous (1922)- Jodium. Verslagen Mededeelingen Indische delfstoffen en hare toepassingen, Dienst Mijnwezen Nederlandsch Oost-Indie, 14, p. 1-64.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB24:078906000:00016)
('Iodine'. Review of iodine occurrences in Indonesia, mainly from brine in wells in Tertiary basins of East Java, north of the volcanic arc)

Aspinall, C. (2001)- Small-scale mining in Indonesia. Mining Minerals and Sustainable Development (MMSD) 79, p. 1-30.
(online at: https://pubs.iied.org/sites/default/files/pdfs/migrate/G00725.pdf)
(Brief overview of legal and illegal small-scale mining methods and regulations in Indonesia)

Balce, G.R. (1990)- Coastal and offshore mineral development in the East Asian region:the CCOP experience. In: Second Asia/Pacific Mining Conf. Exhib., Jakarta 1990, ASEAN Federation of Mining Association, Manila, p. 141-170.

Bartels, T.T. (1950)- Bauxietwinning der Nederlandsch-Indische Bauxiet Exploitatie Maatschappij op Bintan. De Ingenieur in Indonesie 2, 1, IV, p. 1-5.
('Bauxite exploitation of the Netherlands Indies Bauxite Exploitation Company on Bintan'. Brief history of exploitation of bauxite in SE Bintan island, which started in 1935, continued during Japanese occupation, then resumed in 1947. Bauxite believed to have formed from lateritic weathering of hornfels (Van Bemmelen 1940))

Barthel, F.H. (1988)- Sandstone uranium deposits in central Sumatera, Indonesia and northern Thailand. In: Uranium Deposits in Asia and the Pacific: geology and exploration. Int. Atomic Energy Agency, Vienna, p. 179-192.
(Regional stream sediment surveys combined with radiometric measurements carried out over large areas in C Sumatera, but results disappointing. In NE Thailand more favourable conditions in Tertiary sandstone basins)

Binns, R.A. (2013)- Seafloor massive sulfide deposits and 'black smokers': the potential in Maluku and Papua, and guides for exploration. Proc. Annual Conv. Indonesian Soc. Economic Geologists (MGEI), Kuta 2013, p. 1-9.

Bothe, A.C.D. (1920)- Ores and mining. In: Sluyter's Monthly, East Indian Magazine 1, 8, p 177-189.
(Notes on mines in the Netherlands Indies, Redjang Lebong; Sawah Loento, etc.)

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(Presentation online at: www.aig.org.au/images/stories/Resources/Garwin_AIG_Bali_27May2013_final.pdf)
(Gold- copper deposits in SE Asia and W Pacific mainly in Neogene (25- 1 Ma) magmatic arcs, and mainly in porphyry and epithermal deposits. Region contains >160 deposits, including porphyry, skarn, epithermal, volcanic-associated massive sulfide, disseminated sediment -hosted and other mineralization styles)

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(Tin belt of SE Asia composed of two parallel East and West belts, with primary tin deposits of different ages and types in each. Intensely red-pale cassiterites with Ta and possibly Nb in lattice, restricted to West belt and are paramagnetic; brown-pale colour pleochroic (also due to Nb/Ta or W in lattice) in both belts and may be ferromagnetic. Tin sources in both belts crustal, in West belt comparatively rich in Ta and Nb, East belt rel. rich in iron)

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('The country's mining enterprises'. Booklet on Netherlands Indies mining companies, mainly on coal mines and mainly on the business side of the industry, with little or no geological information. Author is pessimistic about profitability of government-operated coal mines, but these are important for strategic reasons)

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(Review of native mining operations in Indonesia before and during the Dutch colonial period. No figures)

Hovig, P. (1928)- Java, het goud- en zilvereiland. De Ingenieur, M. Mijnbouw, 45, p. M79-M85.
(online at: resolver.kb.nl/resolve?urn=dts:2945105:mpeg21:pdf)
('Java, the gold- and silver island'. In old historic texts Java is often quoted as being rich in gold and silver. VOC did some evaluation work in Krawang, etc. More recent surveys (e.g. Verbeek and Fennema 1896) downplayed presence of precious metals, and argued that gold reported from Java probably came originally from Sumatra or Borneo. However, Java may still have potential for gold and silver deposits)

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('Gold mining in British New Guinea'. Gold first dicovered in PNG in 1877 in Laloki River. In former (German) Kaiser Wilhelmsland rapid development of gold industry, especially in Morobe district. With comparisons to Netherlands New Guinea)

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(Review of 'impurities' in tin ore concentrates from smelters in W Malay Peninsula, SW Thailand and Bangka-Belitung, Indonesia. Tin concentrate generally of cassiterite with 70-75% Sn content)

Hutchison, C.S. (1988)- The tin metallogenic provinces of S.E. Asia and China: a Gondwanaland inheritance. In: C.S. Hutchison (ed.) Geology of tin deposits in Asia and the Pacific, Selected papers from Int. Symposium Geology of tin deposits, Nanning, China, 1984, Springer Verlag, p. 225-234.
(online at: https://repository.unescap.org/items/f0e6c175-01e9-4218-9d43-94ae4ec4573e)
(SE Asia is composite of stable continental blocks which rifted from N margin of Australia. Tin was carried in continental infrastructure of these blocks, which are all of Gondwanaland ancestry. Tectonic events which have greatest continental crustal involvement are most important in mobilizing tin into economic concentrations. Main metallogenic events are Malayan-type collisions between two continental blocks, resulting in crustal thickening and S-type granite batholiths: (1) Mesozoic belt formed by collision of Sinoburmalaya, Burma Plate, Qantang-Tangla, and Lhasa-Gandise blocks with E Asian Continent, (2) Caledonian E China belt)

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Hutchison, C.S. & K.R. Chakraborty (1979)- Tin: a mantle or crustal source? In: C.H. Yeap (ed.) International Symposium Geology of tin deposits, Kuala Lumpur 1978, Bull. Geological Society Malaysia 11, p. 71-79.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1979002.pdf)
(Primary tin deposits overwhelmingly associated with acid igneous or quartz-rich hydrothermal rocks; genetically related to granites. Distribution of tin deposits suggests anatexis of sialic crust most likely cause of evolved SiO2 and K2O rich tin granites. Tin commonly associated with high sphene and biotite)

Hutchison, C.S. & D. Taylor (1978)- Metallogenesis in SE Asia. J. Geological Society, London, 135, p. 407-428.
(Overview of SE Asia economic metals distribution. Three metallogenic provinces (1) peripheral Cenozoic volcanic arc (copper, gold, silver), (2) Mesozoic Sundaland core (tin with minor tungsten, antimony), and (3) cratonic China N of Red River Suture (tungsten, antimony with tin, mercury). Ophiolites, obducted from Pacific and marginal basin lithosphere, yield substantial chromite and nickel from residual laterite)

Hutchison, R.W. (1986)- Massive sulphide deposits and their possible significance to other ores in Southeast Asia In: G.H. Teh & S. Paramananthan (eds.) Proc. 5th Regional Congress Geology Mineral Energy Resources of SE Asia (GEOSEA V), Kuala Lumpur 1984, 1, Bull. Geological Society Malaysia 19, p. 1-22.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1986001.pdf)
(Discussion of massive base metal sulphide deposits, which formed on sea floor by chemical precipitation from metalliferous hydrothermal fluids. Many geological characteristics of massive base metal sulphides duplicated in barite, manganese, iron-tin, iron skarn and base metal deposits of C and E belts in Peninsular Malaysia (Sokor, Bukit Besi, Bukit Bangkong, Tasek Cini) and extensions N into Thailand (Pinyok) and S into Indonesia (stratiform zinc-lead-silver at Kelapa Kampit and Selumar, Belitung))

Imai, A., T. Ikuno, K. Sanematsu, T. Sueoka, S. Ishada, K. Watanabe, L.D. Setijadji et al. (2009)- Rare Earth Elements in weathered crusts in tin-bearing granitic rocks in Southeast Asia tin belt, Society of Resource Geology, p. 33. *(Conference Abstract)*

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(online at: https://www.gsj.jp/data/rep-gsj/No261.pdf)
(Brief 1980 review of E/ SE Asia granitoid belts and different types of mineral deposits)

Ishlah, T. (2012)- Tinjauan keterdapatan emas pada kompleks ofiolit di Indonesia. Buletin Sumber Daya Geologi 7, 1, p. 23-32.
(online at: http://psdg.bgl.esdm.go.id/images/buletin/)
('Review of gold deposits in ophiolite complexes in Indonesia'. On little-known gold occurrences in Bobaris and Meratus Mts in S Kalimantan, Tanah Grogot in E Kalimantan, Bombana in SE Sulawesi and CycloopsMts/ Lake Sentani in NE West Papua. No commercial occurrences identified yet)

Irving, E.M. (1956)- Observations on Indonesia mineral resources and their development. The Philippine Geologist 10, 2, p. 33-51.

Irzon, R., P. Sendjadja, Kurnia, Imtihanah & J. Soebandrio (2014)- Kandungan Rare Earth Elements dalam tailing tambang timah di Pulau Singkep. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 15, 3, p. 143-151.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/54/56)
('Rare Earth Elements in tailings from tin mining on Singkep Island'. Tailings of former tin mines on Singkep island (probably also on Bangka, Belitung) contain 123-368 ppm Rare Earth Elements (REE) in monazite, etc. In concentrate upto 5800 ppm)

Irzon, R., I. Syafri, J. Hutabarat & P. Sendjadja (2016)- REE comparison between Muncung Granite samples and their weathering products, Lingga Regency, Riau Islands. Indonesian J. on Geoscience (IJOG) 3, 3, p. 149-161.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/344/226)
(Rare Earth Elements in Muncung Granite and its weathered layers on Lingga, Selayar and Singkep islands, Riau Province. Average REE content of 7 granites 265 ppm, but 4x enrichment in laterization layer)

Jackson, K.J. & H.C. Helgeson (1985)- Chemical and thermodynamic constraints on the hydrothermal transport and deposition of tin: II. Interpretation of phase relations in the Southeast Asian tin belt. Economic Geology 80, p. 1365-1378.
(On Thailand- Malay Peninsula tin deposits. Hydrothermal mineral assemblages in SE Asian tin deposits consist of quartz, cassiterite, muscovite, K-feldspar, topaz, magnetite, and rarely, hematite, fluorite, tourmaline, and zinnwaldite. Assemblage estimate to have formed at ~350°C and 500 bars)

Johnson, R.F. & R. Sukamto (1960)- Cave deposits of phosphate rock in Central Java. Djawatan Geologi, Publikasi Teknik- Seri Geologi Ekonomi No. 2, p. 1-35.
(also in Short Papers in the Geologic and Hydrologic Sciences, Articles 293-435, U.S. Geological Survey Research 1961, Washington, Paper 367, p. D219-D221. Joint Djawatan Geologi- US Geological Survey investigation of phosphate deposits of Indonesia. Phosphate common as guano in limestone caves on Java, but most of 20 known deposits small and low grade. Some caves mined for fertilizer since 1937. With descriptions of phosphate rock deposits in U Miocene limestones nearAdjibarang and Pliocene limestones near Sukolilo in Rembang Hills in NE Central Java)

Johannas (1963)- Dolomite in Indonesia. Direktorat Geologi, Bandung, Publikasi Teknik- Seri Geologi Ekonomi No. 4, p. 1-22.
(Main dolomite occurrences in Indonesia NE Java (Upper Kalibeng Fm in Bantjar-Gresik and Madura), C Java (Pamotan), W Sumatra (Permo-Carboniferous of Kadjai), S Sulawesi (Tonasa))

Johari, S. & U. Kuntjara (1990)- The occurrences of Rare Earth minerals in Indonesia. In: B. Siribumrungsukha et al. (eds.) Proc. International Conference Rare Earth minerals and minerals for electronic uses, Prince Songkla University, Hat Yai, Thailand, p. 645-662.

Johari, S. & U. Kuntjara (1990)- The occurrences of rare metal minerals in Indonesia. Proc. 19th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, 1, p. 350-364.
(online at: https://www.iagi.or.id/web/digital/47/19th-(11-13-Des-1990)-Book-I-358-372.pdf)
(Indonesia potential for yttrium group REE mainly in xenotime from cassiterite placers in Tin Islands, particulary Belitung, and likely equivalents in Tigapuluh Mts and Bangkinang areas of Riau, Sumatra. Areas with (mainly pre-Jurassic) granitic intrusions with favorable characteristics for lithophile rare metal mineralization mainly in Sumatra, Banggai-Sula islands and W Papua)

Johari, S. (1992)- A guide to rare metal and Rare Earth metals in Indonesia. In: Memorial to Sunarya Johari, M.Sc. Directorate of Mineral Resources, Bandung., p.

Kadarusman, A. (2016)- Advances in understanding various ore deposits in ultramafic rocks in Indonesia. Proc. 8th Annual Conv. Indonesian Soc. Economic Geologists (MGEI), Bandung, p. 19-22.
(Ultramafic rocks exposed in many parts of Indonesia. May be source of Fe, Cr, Platinum-Group Minerals, V, Ti, Ni, Co and Cu deposits)

Kaur, A. & F. Diehl (1996)- Tin miners and tin mining in Indonesia, 1850-1950. In: Aspects of mining history in Thailand, Indonesia and Burma, Asian Studies Review 20, 2, p. 95-120.
(History of tin mining on islands of Bangka, Belitung and Singkep)

Kepezhinskas, P., N. Berdnikov, N Kepezhinskas & N. Konovalova (2022)- Adakites, high-Nb basalts and copper-gold deposits in magmatic arcs and collisional orogens: an overview. Geosciences (MDPI) 12, 29, p. 1-60.
(online at: https://www.mdpi.com/2076-3263/12/1)
(Includes chapter on Cu-Au deposits associated with adakites and high-Nb basalts in the Philippines (Lepanto, Dizon, Tampakan, etc.), Indonesia (Batu Hijau, Kelian, Grasberg-Ertsberg) and PNG (Porgera))

Kim, I.J., J.H. Lee, J.R. Seo, S.R. Lee, Y.B. Kim & G.H. Lee (2004)- The present of state of the metal and gold deposits, Indonesia. Economic and Environmental Geology (Korean Soc. Economic Environmental Geology) 37, 3, p. 269-276. *(in Korean)*
(online at: https://www.kseeg.org/journal/view.html?spage=269&volume=37&number=3)

Kirwin, D.J. & D.Z. Royle (2019)- Sediment-hosted gold deposits in Southeast Asia. Resource Geology 69, 2, p. 125-147.
(online at: https://onlinelibrary.wiley.com/doi/pdf/10.1111/rge.12189)

(Sediment-hosted gold deposits becoming more widely recognized in SE Asia region. Characterized by very fine gold, typically in stratabound jasperoid replacement. All deposits in island arc settings and commonly distal to porphyry copper-gold deposits. Examples: Sepon (Laos), Mesel (Sulawesi), Bau (Sarawak), Abong and Sihayo (North Sumatra), and also possibly Buduk (NW Kalimantan) and gold in Myanmar and The Philippines)

Koesoemadinata, R.P. & V.E. Nelson (1970)- Mineral resources in Indonesian development. In: H.W. Beers (ed.) Indonesia; resources and their technological development, University Press of Kentucky, p. 117-139.
(Brief review of Indonesia petroleum and mineral deposits)

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(online at: https://www.sciencedirect.com/science/article/pii/S1878522013000659)
(Very broad and brief review)

Kun, N. de (1961)- Die Zinn- Niob- Tantal- Lagerstatten von Sudost Asien. Neues Jahrbuch Mineralogie Geologie, Monatshefte, 1961, 4, p. 89-96.
('The tin, niobium and tantalium deposits of SE Asia')

Kurnio, H. (1999)- Review and recent data on the occurrences of offshore minerals in Indonesia. Bulletin of the Marine Geology (MGI, Bandung), 14, 2, p. 9-27.
(Indonesian offshore minerals tin and iron sand already exploited. Recent data on offshore gold, silver, quartz sand, coal and zircon discovered by Marine Geological Institute expected to become future reserves. Offshore aggregates in Java Sea and Malaka Strait potential construction materials)

Kurnio, H. (2007)- Coastal characteristics of iron sand deposits in Indonesia. Indonesian Mining J. 10, 3, p. 27-38.
(online at: http://jurnal.tekmira.esdm.go.id/index.php/imj/article/view/611/473)
(Review of coastal iron sand deposits in Indonesia. Black or gray iron sands in Sumatra, Java, Bali and Nusatenggara Islands largely derived from denudation of andesite and 'Old Andesite Fm' enriched in magnetite and ilmenite minerals. Coastal zones, especially S parts of Neogene Sunda Banda magmatic arc from N Sumatra to E Indonesia, potential areas for iron sand deposits)

Liebenam, W. (1902)- Vorkommen und Gewinning von Gold in Niederlandisch-Ost-Indien (nach einem Vortrag von S.J. Truscott,...). Zeitschrift fur Praktische Geologie 10, p. 225-230 and p. 260-268.
(online at: https://babel.hathitrust.org/cgi/pt?id=uc1.31822032651069;view=1up;seq=241)
('Occurrences and exploitation of gold in the Netherlands East Indies (after a presentation by S.J. Truscott,..')
(German translation of original review of gold mining regions of Sumatra, Kalimantan and N Sulawesi, as known in 1902)

MacDonald, E.H. (1971)- Detrital heavy minerals. Country report: Indonesia. United Nations ECAFE, CCOP, Technical Bulletin 5, p. 48-53.
(online at: https://repository.unescap.org/items/d7eea544-0e63-4297-87a4-d65730801be8)
(Brief review of titaniferous iron sands of S Java andd Bali, and heavy minerals associated with tin mining in 'tin islands')

Madiadipoera, T. (1999)- Bahan galian industri di Indonesia. Directorate Mineral. Resources, Bandung, Special Publ. 36, p. 1-224.
('Extractive industries in Indonesia')

Madiadipoera, T. & S. Harjanto (1988)- Potential of industrial minerals in Indonesia. Directorate Mineral. Resources, Bandung, p.

Mahler, A. & N. Sabirin (2008)- Dari Grasberg sampai Amamapare proses penambangan tembaga dan emas mulai hulu hingga hilir. PT Freeport Indonesia, Gramedia Pustaka Utama, Jakarta, p. 1-396.

('From Grasberg to Amamapare, the copper and gold mining process from upstream to downstream'. Account of copper-gold mining at the large PT Freeport Indonesia Grasberg mine in W Papua, as well as its processing and 70-mile pipeline transport of copper-gold concentrate to port of Amamapare, where concentrate is dewatered before shipped to smelters worldwide)

Mamengko, D.V. (2013)- Potensi bauksit di kabupaten Lingga, Provinsi Kepulauan Riau. Istech 5, 2, p. 66-70.
(online at: http://download.portalgaruda.org/article.php?article=101637&val=1606)
('Bauxite potential in the Ligga Districts, Riau Islands'. Potential bauxite evenly distributed on Singkep, Selayar, Bendahara and Rusuk Buaya Islands)

Maryono, A. (1997)- Mining and exploration investment climate in Indonesia with a case study on an epithermal deposit. Proc. 26th Annual Conv. Indonesian Association Geologists (IAGI), Jakarta, p. 263-279.
(online at: https://www.iagi.or.id/web/digital/64/22.pdf)

Maulana, A. (2017)- Endapan mineral. Penerbit Ombak, Yogyakarta, p. 1-180.
('Mineral deposits'. Textbook in Indonesian)

McDivitt, J.F. (1989)- Overview of mineral development in Indonesia. Geologi Indonesia (J. Assoc. Indonesian Geol. IAGI) 12, 1 (Katili volume), p. 327-343.
(Brief historic overview of mining in Indonesia until 1988. Little or no detail on geology, areas or projects)

McInnes, B.I.A., N.J. Evans, F.Q. Fu, S. Garwin, E. Belousova, W.L. Griffin, A. Bertens, D., Sukarna, S. Permanadewi et al. (2005)- Thermal history analysis of selected Chilean, Indonesian and Iranian porphyry Cu-Mo-Au deposits. In T.M. Porter (ed.) Super porphyry copper & gold deposits: a global perspective, PGC Publishing, Adelaide, p. 27-42.
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(Includes apatite-zircon modeling work on Indonesian porphyry deposits. Depths of emplacement for Grasberg ~800 m, Batu Hijau, ~2400m, Ciemas ~5500 m below palaeosurface)

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(online at: www.jstage.jst.go.jp/article/jgeography1889/55/7/55_7_229/_pdf)
(In Japanese. Mainly literature review. No maps or sections)

Mohr, E.C.J. (1934)- Diatomeeenaarde (kieselgur) in Ned.-Indie. De Indische Mercuur, 26 December 1934, p. 3-15.
(online at: https://resolver.kb.nl/resolve?urn=MMKB31:046030000:pdf)
('Diatomaceous Earth in the Netherlands Indies'. Very brief review of diatomite occurrences in Indonesia, incl. Samosir (Lake Toba) and in Kuningan (Cirebon) and Cicurug (Priangan) areas of Java. All deemed to be young freshwater lacustrine deposits. Less known diatomite samples from Kalioso, Sangiran and Kabuh (Kendeng zone) on Java are 'Monterey-type' marine deposits (see also Reinhold, 1937))

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(online at: https://babel.hathitrust.org/cgi/pt?id=nyp. 33433089972370;view=1up;seq=489)
('The occurrence and exploitation of iron ore in the Netherlands colonies'. Very brief listing of known iron ore occurrences in Indonesia: Gunung Besi (Sumatra; hematite), Teluk Betung (S Sumatra; magnetite), Banyumas (Java; iron sand) Gunung Tambaga (SE Kalimantan; hematite). None in exploitation; all deemed of questionable commercial value)

Muller, D. & D.I. Groves (2015)- Direct associations between potassic igneous rocks and gold-copper deposits in volcanic arcs. In: Potassic igneous rocks and associated gold-copper mineralization, 4th Ed., Mineral Resource Reviews, Springer, p. 97-190.
(Examples of direct associations between potassic igneous rocks and copper-gold deposits include: (1) Late Oceanic Arc associations: Ladolam gold (Quaternary, Lihir Island, PNG); Emperor gold (Tertiary, Viti Levu, Fiji), Dinkidi copper-gold (Miocene, Didipio district, Philippines); and (2) Post-collisional Arc associations: Grasberg copper-gold (Pliocene, W Papua), Misima gold (Pliocene, Misima Island, PNG); Porgera gold (Miocene, PNG))

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(online at: https://pubs.usgs.gov/cp/42/plate-1.pdf)

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(online at: http://pubs.usgs.gov/cp/42/report.pdf)

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(Brief overview of distribution of porphyry copper deposits in SE Asia. No figures)

Peters, S.G., W.J. Nokleberg, J.L. Doebrich, W.J. Bawiec, G. Orris, D.M. Sutphin & D.R. Wilburn (2006)- Geology and nonfuel mineral deposits of Asia and the Pacific. U.S. Geological Survey (USGS) Open-File Report 2005-1294C, p. 1-63.
(online at: http://pubs.usgs.gov/of/2005/1294/c/OFR2005-1294C.pdf)
(Overview of mineral deposits in SE Asia (China, India, Indonesia) - Pacific (Japan, Australia, New Zealand)

Posewitz, T. (1888)- Zinnerz auf den Inseln Sumatra, Flores und Borneo. Das Ausland 61, 34, p. 672-614.
('Tin ore on the islands of Sumatra, Flores and Borneo'. Brief note in German popular geographic journal on tin ores outside the traditional 'tin islands'. Known tin occurrence in Siak (E Sumatra) (Fennema 1878, Everwijn 1883). Tin reported by natives in Flores, but no confirmation. In SW Borneo tin ore reported by S. Muller and H. van Gaffron in mid-1800s, but samples showed very little tin. Everwijn also only found traces of tin. No figures or maps)

Pott, G. (1943)- On the occurrence of limestone, clay, gypsum and quartz sand in East Java and Madoera. Geological Survey Indonesia, Bandung, Unpublished Report, p.
(Probably compiled during Pott's time as Japanese prisoner of war in Bandung)

Prihatmoko, S., R. A.M. Yudha, A. Salim & F.S. Asnawi (2025)- Low sulfidation epithermal gold deposits in Indonesia: characteristics and exploration indications- an update. Indonesian J. of Economic Geology (IJEG) (MGEI) 1, 1, p. 1-13.
(online at: https://journal.iagi.or.id/index.php/IJEG/article/view/500/439)
(Evaluation of 85 gold deposits/ occurrences in Indonesia considered as Low Sulfidation Epithermal types. Generally associated with known magmatic arc systems:18 deposits associated with acidic volcanism (rhyolitic, and dacitic host rocks or volcanic plugs), other 67 deposit related with andesitic volcanism. Majority (49%) of deposits of Oligocene age (33-22.5 Ma), followed by Late Pliocene (25%) and Late Miocene ages (12%). Etc.)

Pudjowalujo, H. (1981)- Copper exploration in Indonesia. Proc. 10th Annual Conv. Indonesian Association Geologists (IAGI), Bandung, p. 309-317.
(online at: https://www.iagi.or.id/web/digital/34/PIT-IAGI-1981-Vol-1-Paper-27.pdf)
(Good review of minerals exploration activities until 1980. Large scale base metal exploration in Indonesia started in 1967 (incl. foreign companies like Kennecott, BHP, Freeport and Rio Tinto) and declined after 1977.

By 1980 only one locality came into production (Gunung Biji/ Ertsberg in Irian Jaya). Porphyry-type copper mineralisation known from N Sulawesi, C Sulawesi, and Sumatra. Etc.)

Rahmansyah, A.A. & W. Srigutomo (2022)- Natural radioctivity of rock and potential availability of Uranium-Thorium minerals in Indonesia. Proc. 9th Asian Physics Symposium (APS 2021; online meeting), Journal of Physics: Conference Series 2243, 012058, p. 1-7.
(online at: https://iopscience.iop.org/article/10.1088/1742-6596/2243/1/012058/pdf)
(Brief review of uranium-thorium radioactive minerals potential, mainly in Kalan (W Kalimantan), Mamuju (W Sulawesi), Sibolga (Tapanuli, N Sumatra), Bangka-Belitung, etc.)

Reksalegora, W. & Djumhani (1973)- Metallic mineral deposits of Indonesia. In: N.H. Fisher (ed.) Metallic provinces and mineral deposits in the Southwest Pacific, 12th Pacific Science Congress Symposium, Canberra 1971, Bureau Mineral Resources (BMR), Geology Geophysics, Bull. 141, p. 59-67.
(online at: www.ga.gov.au/corporate_data/108/Bull_141.pdf)
(Brief review of Indonesian mineral provinces. Malaya orogen (Late Jurassic) characterized by cassiterite-bearing pegmatites and veins. Pyrosomatic iron and copper ores tied to Sumatra orogen (U Cretaceous). Epithermal gold-silver important in Sunda orogen (M Miocene) in W Sumatra and S Mountains of Java. West Papua separate unit, with lateritic deposits in N and gold-silver-copper in C Range))

Reynolds, N. (2013)- Tectonics and metallogeny of mainland Southeast Asia- framework for new discovery opportunities. Proc. Symposium East Asia: Geology, Exploration Technologies and Mines, Bali 2013, Bull. Australian Institute of Geoscientists (AIG) 57, p. 78-79. *(Extended Abstract)*
(online at: https://www.aig.org.au/library/publications/aig-bulletins/)
(Mainland SE Asian metallogeny related to history of accretion of Gondwanan terranes. Late Carboniferous-Triassic development and accretion of arc/ back-arc belts fringing Indochina block important metallogenic period in SE Asia. Indosinian orogenic gold in Raub-Bentong zone of Malaysia. Late Triassic first phase of SE Asian tin-tungsten belt, related to Indosinian late orogenic granites. Re-initiation of subduction outboard of collision zones along W Sibumasu margin and E Indochina-South China margin in Late Triassic- Jurassic. In S China-Indochina, Jurassic-Cretaceous 'Yanshanian' magmatism evolved from I-type to A-type in continental arc setting and associated with mineral systems. On W Sibumasu margin, Late Cretaceous second phase of tin-tungsten mineralisation associated with A-type magmatism. Porphyry copper-gold and epithermal systems in C Myanmar arc belt in Oligocene- Miocene)

Rochani, S., Pramusanto, Sariman & R.I. Anugrah (2008)- The current status of iron minerals in Indonesia. Indonesian Mining J. 11, 2, p. 1-17.
(online at: http://jurnal.tekmira.esdm.go.id/index.php/imj/article/view/590/452)
(Indonesia iron resources include (1) primary iron ore (hematite, magnetite; 17%), (2) iron sand; commonly used for cement industries (8%) and (3) lateritic iron ore (limonite, from weathered ultrabasic rocks) used as coal liquefaction catalyst (75%). With listings of main iron sand deposits (10) and lateritic deposits (10) and primary iron ore deposits (10))

Sainsbury, C.L. (1969)- Tin resources of the world. U.S. Geological Survey Bull. 1301, p. 1-55.
(online at: https://pubs.usgs.gov/bul/1301/report.pdf)
(With brief reviews of tin deposits of Indonesia, Malaysia, Thailand, Burma)

Rutten, L. (1926)- Die Entwicklung von Niederlandisch-Ost-Indien als Bergbauland. Internationale Bergwirtschaft 1925-1926, 1, Heft 3, p. 5-9 and Fortsetzung, Heft 4, p. 78-83.
('The development of the Netherlands East Indies as a mining country'.High-level overview of occurrences of coal, oil, tin, gold-silver, diamonds, iron, nickel, iodine, sulphur, etc.)

Sandberg, C.G.S. (1930)- The mines and minerals in the Netherlands Indies. The Asiatic Review 26, part I, p. 28-36, part II, p. 243-256.
(online at: https://archive.org/stream/in.ernet.dli.2015.70740/2015.70740.Asiatic-Review-New-Series-Vol26-1930_djvu.txt)

(Brief English-language review of status of mining in the Netherlands Indies in the late 1920s, by consulting geologist Sandberg)

Sanematsu, K. (2014)- Resource potential of REE in Sundaland, Southeast Asia. In: I. Basuki & A.Z. Dahlius (eds.) Sundaland Resources, Proc. Annual Conv. Indonesian Soc. Economic Geologists (MGEI), Palembang, p. 163-180.
(Rare Earth Elements ore deposit types in SE Asia mainly placer and ion adsorption (weathered granite) types. Placer monazite and xenotime mostly in ilmenite-series granite areas of SE Asian Sn Belt. Few prospective areas identified in Indonesia, except possibly Bangka, with possible placer REE from tailings of Sn processing or from beach sand)

Sanematsu, K. (2014)- Rare Earth Element deposits and prospective areas in South East Asia. Proc. PACRIM 2015 Congress, Hongkong, Australasian Institute of Mining and Metallurgy (AusIMM), Melbourne, Publ. Series 2/2015, p. 671-677. *(Extended Abstract)*
(Rare Earth Element in mainland SE Asia classified into four types: carbonatite (N Vietnam), allanite. ion-adsorption (prospectsMyanmar, Vietnam, Thailand) and placer (monazite and xenitime as by-products of placer tin, Zr or Ti in Malaysia, Thailand or Indonesia))

Satria, B., Z. Masrurah & S.J. Fajar (2021)- Magnetic susceptibility and grain size distribution as prospective tools for selective exploration and provenance study of iron sand deposits: a case study from Aceh, Indonesia. Heliyon 7, 12, e08584, p. 1-8.
(online at: https://www.sciencedirect.com/science/article/pii/S2405844021026876)
(Iron sands in northernmost Sumatra, eroded from young volcanics. With map of iron sand occurrences in Indonesia)

Sayekti, B., D.N. Sunuhadi et al. (eds.) (2018)- Indonesian Minerals Yearbook 2018. Center for Mineral Coal and Geothermal resources, Badan Geologi, Bandung, p. 1-244.
(online at: https://geologi.esdm.go.id/assets/media/content/content-indonesian-minerals-yearbook-2018.pdf)
(Review of metallic and non-metallic minerals distribution in Indonesia)

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(online at: www.jstage.jst.go.jp/article/jgeography1889/53/11/53_11_475/_pdf)
(In Japanese. Mainly literature compilation of 'Tin Islands' Bangka-Belitung geology)

Setiabudi, B.T. (2004)- Mineral resource assessment of porphyry copper deposits in Indonesia using the USGS 3-part assessment method. Proc. 33rd Annual Conv. Indonesian Association Geologists (IAGI), Bandung, p. 115-125.
(online at: https://www.iagi.or.id/web/digital/16/2004_IAGI_Bandung_Mineral-Resource-Assessment.pdf
(Assessments of significant porphyry copper deposits in Indonesia)

Setiawan, I. (2018)- Towards the challenging REE exploration in Indonesia. Proc. Global Colloquium on GeoSciences and Engineering, Bandung 2017, IOP Conference Series: Earth and Environmental Science 118, 012075, p. 1-5.
(online at: http://iopscience.iop.org/article/10.1088/1755-1315/118/1/012075/pdf)
(In Indonesia potential sources of REE in tin mining residues of Bangka islands, but REE from monazite and xenotime difficult to extract and contain high radioactivity. Granitoids in Sumatra, Sulawesi, Kalimantan and Papua may have weathering crusts with REE-bearing allanite and titanite)

Setijadji, L.D. (2014)- Regional evaluation on the Rare Earth Elements (REE) mineralization potentials in the Sundaland of Indonesia. In: I. Basuki & A.Z. Dahlius (eds.) Sundaland Resources, Proc. Annual Conv. Indonesian Soc. Economic Geologists (MGEI), Palembang, p. 145-162.
(Study of REE potential in Indonesia. Prospectivity in areas of continental crust, where multiple events of granitoid magmatism took place. Tin Islands and West Kalimantan granitoids may be linked. REE exploration

targets in Indonesia: (1) primary alkaline-peralkaline igneous rocks, (2) lateritic deposits, and (3) placer monazite (xenotime; byproducts of placer tin mining))

Setijadji, L.D., I.W. Warmada, A. Imai & K. Sanematsu (2009)- Investigation on Rare Earth Elements mineralization in Indonesia. In: 2nd Regional Conference Interdisciplinary Research on Natural Resources and Materials Engineering, Yogyakarta, p. 53-58.
(REE most likely associated with Mesozoic granitic rocks in W Indonesian, i.e. Tin islands (Bangka, Belitung, Bintan and Singkep) and west C Kalimantan. Tin islands similar geology with REE-producing China and SE Asia granite belts)

Sigit, S. (1973)- Large scale mineral exploration and new mining development prospects in Indonesia. Bull. Geological Society Malaysia 6, p. 288-296.
(online at: https://gsm.org.my/products/702001-101341-PDF.pdf)
(From outbreak of Pacific War untiI 1967 no large scale and systematic mineral exploration activities in Indonesia. Since then with changes of political situation and Governments economic policy of opening up to international companies in late 1967 significant increase in mineral exploration in Indonesia)

Sigit, S. (2004)- Sepenggal sejarah perkembangan pertambangan Indonesia (Kumpulan tulisan S. Sigit, 1967-2004) (compiled by J. Susilo & A. Prathomo). Yayasan Minergy Informasi Indonesia, Jakarta, p. 1-263.
('A piece of the history of the development of Indonesian mining (Collection of writings by S. Sigit, 1967-2004)')

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(1969 overview of Indonesia coal and minerals mining)

Sillitoe, R.H. (1994)- Indonesian mineral deposits- introductory comments, comparisons and speculations. J. Geochemical Exploration 50, p. 1-11.
(Indonesia has range of precious and base metal deposits typical of Cenozoic volcano-plutonic arcs. Porphyry Cu-Au, skarn Cu-Au and low-sulphidation epithermal Au economically most important, including world-class ore bodies. Also present: porphyry Mo, sediment-hosted Au, high-sulphidation epithermal Au and volcanogenic massive sulphide Au. 70% of deposits discovered by regional geochemical surveys)

Sillitoe, R.H. (1995)- Exploration and discovery of base- and precious-metal deposits in the Circum-Pacific region during the last 25 years. Resource Geology (Shigen Chishitsu), Special Issue 19, p. 1-119.
(Exploration and discovery histories of 54 major base- and precious-metal deposits around Pacific Rim from 1970-1995)

Sillitoe, R.H. (1997)- Characteristics and controls of the largest porphyry copper-gold and epithermal gold deposits in the circum-Pacific region. Australian J. Earth Sciences 44, 3, p. 373-388.
(Includes data from Indonesia- Philippines porphyry copper deposits. Grasberg, Ok Tedi and Porgera in New Guinea, Ladolam and Panguna in nearby islands and Baguio in N Philippines all very young and emplaced during rapid tectonic uplift induced by collision processes)

Sillitoe, R.H. (2010)- Exploration and discovery of base- and precious metal deposits in the Circum-Pacific region- a 2010 perspective. Resource Geology, Special Issue 22, p. 1-139.
(Review of 101 case histories of metal deposits discovered in Circum-Pacific region in last 40 years)

Silitonga, P.H. & Surjono (1985)- Exploration for titaniferous iron sand in the coastal area of Cipatujah, West Java. Proc. 21st Session Committee Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Bandung 1984, 2, Technical Reports, p. 40-45.
(online at: https://repository.unescap.org/items/69c82b4b-501e-4b22-84e9-e8571a408cba)

Solomon, M. (1990)- Subduction, arc reversal, and the origin of porphyry copper-gold deposits in island arcs. Geology (GSA) 18, p. 1-7. 630-633.

(Tertiary-Quaternary porphyry copper-gold deposits of SW Pacific rim (Luzon, New Guinea, Bougainville, Guadalcanal, Fiji) mostly formed after reversal of arc polarity. Where this reversal has not occurred (New Zealand and Japan), porphyry copper-gold deposits are absent or scarce. Gold enrichment of magmas may be result of two-stage melting)

Sopaheluwakan, J. (1985)- Komoditi strategis khromit, geologi teknologi dan potensinya di Indonesia. J. RISET Geologi dan Pertambangan (LIPI) 6, 1, p. 20-31.
('The strategic commodity chromite, geology technology and its potential in Indonesia'. Chromite known from several areas in Indonesia (associated with peridotites): SE Kalimantan, Latau, Barru, Malili, Halmahera, Gebe. Small scale mining in Gebe in 1970's, but most deposits in Indonesia non-commercial at the moment)

Stuffken, J.A.R. (1908)- De karteering van ertsmijnen. Waltman, Delft, p. 1-14 + 10 maps
('The mapping of ore mines'. A fictional example of Kali-Mas gold concessions near Surabaya. Jan Stuffken was lecturer at Polytechnische School Delft since 1908, and this was probably merely a teaching exercise for mining engineering students)

Subandrio, A.S. (2014)- Mesozoic-Cenozoic iron ore mineralization associated with magmatism in the Indonesian Sundaland Region. In: I. Basuki & A.Z. Dahlius (eds.) Sundaland Resources, Proc. Annual Conv. Indonesian Soc. Economic Geologists (MGEI), Palembang, p. 425-447.
(Iron ore deposits widespread in Sumatra and Kalimantan, but little explored. 'Banded' iron ore deposits probably related to Mesozoic submarine hydrothermal activity described from Subullusalam (Aceh, N Sumatra), Tanggamus (Lampung, S Sumatra), Kendawangan (W Kalimantan; ore mined from late Mesozoic Pinoh meta-sedimentary complexes), and Balaisebut iron ore mineralization (NE of Pontianak, NW Kalimantan, in Sanggau area))

Sunarya, Y. (1989)- Overview of gold exploration and exploitation in Indonesia. Geologi Indonesia (J. Assoc. Indonesian Geol., IAGI) 12 (Katili volume), 1, p. 345-357.
(Widespread epithermal gold deposits associated with subduction volcanism in Indonesia. Gold production from 1899-1989 130 tonnes: 80 from Bengkulu (W Sumatra), 10 from Cikotok (W Java), 20 from N Sulawesi) + additional production from Kalimantan and West Papua)

Sunarya, Y. (1992)- Overview of gold exploration and exploitation in Indonesia. In: Epithermal gold in Asia and the Pacific, mineral concentrations and hydrocarbon accumulations in the ESCAP Region series, UN ESCAP, 6, p. 155-161.
(Same paper as Sunarya 1989. Gold mining in Indonesia began in 1899. Early mining from epithermal lode deposits hosted by volcanics in W Sumatra and W Java, with subsequent discoveries in Kalimantan (Kelian, Mt Muro, Muyuo, etc.) and on Flores-Wetar. Porphyry copper- associated gold in Ertsberg (Irian Jaya), N Sulawesi and Bacan. Alluvial gold exploited on Sumatra, Kalimantan and Sulawesi)

Sunarya, Y. & J.J. Bache (1987)- Epithermal gold mineralization in Indonesia. A synthesis of areas of potential for gold. Direktorat Sumberdaya Mineral, p.

Sunarya, Y. & J.J. Bache (1995)- Previous epithermal gold mines in Indonesia. Direktorat Sumberdaya Mineral, Bandung, Special Publ. 80, p.

Supriyadi & N. Umar (1996)- Tin exploration in Indonesia; problems and solution. In: Diversity; the key to prosperity, Australasian Institute of Mining and Metallurgy (AusIMM) Annual Conference, Perth 1996, 1/96, p. 385-391.
(Exploration for tin deposits has been ongoing in Indonesia over ~300 years. Indonesia is part of tin belt from Myanmar in N through Malaysia to Singkep, Bangka and Belitung islands in Indonesia in S. Discovery of alluvial tin deposits becoming harder as obvious geological targets are exhausted and topographical conditions become more difficult)

Syaeful, H., K. Setiawan W., I.G. Sukadana & A. Gunawan (2014)- Rare Earth Element exploration in Indonesia. In: I. Basuki & A.Z. Dahlius (eds.) Sundaland Resources, Proc. Annual Conv. Indonesian Soc. Economic Geologists (MGEI), Palembang, p. 205-217.
(Regions in Indonesia with potential REE resources in Bangka Belitung, Kalimantan and W Sulawesi)

Syaeful, H., I.G. Sukadana, Y.S.B. Susilo, F.D. Indrastomo, A.G. Muhammad & and Ngadenin (2021)- Uranium exploration, deposit and resources: The key of nuclear power plant development program in Indonesia. Proc. Int. Conference on High Temperature Reactor Technology (HTR), online 2021, Journal of Physics: Conference Series 2048 (online), 012003, p. 1-9.
(online at: https://iopscience.iop.org/article/10.1088/1742-6596/2048/1/012003/pdf)
(Uranium deposits in Indonesia mainly in Kalimantan, Sulawesi, Sumatera, Papua, Bangka, Belitung and Riau islands (but no uranium mining anywhere). Uranium exploration activities started in late 1960s. Calculated resources from Kalan area (W Kalimantan), Mamuju area (W Sulawesi) and Sibolga area (N Sumatera). Etc.)

Tamehe, L.S., Y. Zhao, W. Xu & J. Gao (2024)- Ni(Co) laterite deposits of Southeast Asia: a review and perspective. Minerals (MDPI) 14, 2, 10.3390/min14020134, p. 1-22.
(online at: https://www.mdpi.com/2075-163X/14/2/134)
(SE Asia Ni(Co) laterite deposits mainly distributed in Indonesia, the Philippines, and Myanmar. Also potential source of scandium, Rare Earth elements, and platinum group elements. Indonesia has world's largest published Ni ore reserves (21,000,000 tons Ni) and is largest Ni producer with 26% of global Ni production (760,000 tons Ni). Ni(Co) laterite deposits controlled by spatial occurrence of ophiolites. In Indonesia three metallogenic belts (1) SE Kalimantan (e.g., Pulau Sebuku), (2) E Sulawesi (e.g., Sorowako, Kolonodale and Moraweli) and (3) N Maluku (e.g., Weda Bay and W Papua))

Tampubolon, A. (2013)- The Indonesia Titanium deposit types and their resources, The aspects for Titanium commodity development. Buletin Sumber Daya Geologi 8, 3, p. 100-109.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/682)
(Indonesia has beach placer, alluvial and lateritic types of titanium deposits. Sumatra, Java and Flores with beach placers of iron sands, derived from Tertiary volcanics. Alluvial deposits associated with cassiterite alluvial from Triassic-Jurassic granites of Bangka-Belitung Islands. Lateritic deposits associated with bauxite and nickel in Riau, Kalimantan, Sumatra and Sulawesi)

Taranik, J.V., C.D. Reynolds, C.A. Skeenan & W.D. Carter (1978)- Targeting exploration for nickel laterites in Indonesia with Landsat data. Proc. 12th Symposium of Remote Sensing, Manila, Environmental Research Institute of Michigan, p. 1037-1051.
(Using vegetation anomalies on satellite imagery to target nickel laterites)

Teh, G.H. (1987)- Significance of minor and trace elements in cassiterites from primary tin deposits of S.E. Asia. Proc. Seminar on importance of primary tin deposits in Southeast Asia, Bandung 1986, RWTH Aachen, p.

Ter Braake, A.L. (1944)- Mining in the Netherlands East Indies. Netherlands and Netherlands Indies Council of the Institute of Pacific Relations, New York, Bull. 4, p. 1-110.
(Overview of mineral deposits in Indonesia as known during WW-II, mining engineer Alex L. ter Braake who spent much of his career in the Bangka tin mines. Reprinted in 1977 (see below))

Ter Braake, A.L. (1977)- Mining in the Netherlands East Indies. Arno Press, New York, p. 1-110.
(Reprint of Ter Braake (1944), above)

Thaib, J. (1960)- Tanah diatomea di Indonesia. Publikasi Teknik- Seri Geologi Ekonomi No. 1, Djawatan Geologi, Bandung, 1, p. 1-24.
('Diatomaceous earth in Indonesia'. Diatomaceous Earth deposits of in Indonesia known from North Sumatra (Lake Toba-Samosir), W Java (Cicurug, Darma), C Java (Sangiran) and E Java (Kabuh in Kendeng zone). Lacustrine and marine facies, Pliocene- Pleistocene ages)

Truscott, S.J. (1899)- The position of gold mining in the Dutch East Indies. The Mining J. Railway Commercial Gazette 69, 3337, p. 925.
(50 gold exploration companies formed in the Netherlands Indies between 1897 and 1898, mainly for operations in Sumatra, Central Borneo and North Sulawesi. To obtain licenses from the government companies had to be domiciled in the Netherlands or Netherlands Indie. On majority of properties awarded 'nothing has been discovered'. One of most interesting properties is Redjang Lebong in W Sumatra; will start production soon)

Truscott, S.J. (1902)- The occurrence and mining of gold in the Dutch East Indies. Transactions of the Institution of Mining and Metallurgy, London, 10, 31, p. 52-86.

Truscott, S.J. (1902)- The mining and occurrence of gold in the Dutch East Indies The Engineering Mining J. 74, p. 444-445 and p. 479-481.
(Brief review of status of gold mining in Sumatra, Kalimantan and N Sulawesi in 1902)

Van Bemmelen, R.W. (1940)- Bauxiet in Nederlandsch-Indie. Dienst Mijnbouw Nederlandsch-Indie, Verslagen Mededelingen betreffende Indische delfstoffen en hare toepassingen 23, p. 1-115.
('Bauxite in Netherlands Indies'. Lateritic weathering of probably basic igneous rocks lead to formation of bauxite (aluminium ore). Main occurrences in Indonesia on islands of Banka and Bintan)

Van Bemmelen, R.W. (1940)- Delfstoffen van Nederlandsch Indie als grondstoffen der inheemsche industrie. Natuurwetenschappelijk Tijdschrift voor Nederlandsch Indie 101, 1, p. 11-19.
('Minerals from the Netherlands Indies as raw materials for local industry'. A brief review. Also in Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 65, 2, p. 43-53 (1948))

Van Bemmelen, R.W. (1941)- Aluminiumertsen en hun vindplaatsen. De Ingenieur in Nederlandsch-Indie (I) 8, 9, p. I.124- I.128.
(online at: https://www.stichtingblauwelijn.nl/assets/files/1941-09.pdf)
('Aluminium ores and their occurrences'. Summary of a May 1941 lecture. Lateritic bauxites (Al_2O_3) mainly as weathering products of granites, as concretions. In Indonesia mainly on Bintan, Riau island. With geological cross-section across Bintan island and core hole section at Sungai Kolak with 7m thick bauxite layer)

Van Bemmelen, R.W. (1945)- On the mineral resources of the Netherlands Indies and their industrial possibilities. In: P. Honig & F. Verdoorn (eds.) Science and scientists in the Netherlands Indies, Board for Netherlands Indies, Surinam and Curacao, New York, p. 5-10.
(online at: https://archive.org/details/in.ernet.dli.2015.183759)
(Brief review of minerals and production volumes in late 1930's in Indonesia)

Van Bemmelen, R.W. (1949)- The geology of Indonesia. Government Printing Office, Martinus Nijhoff, The Hague, vol. 2, Economic geology, p. 1-265.
(Comprehensive review of deposits of oil, coal, metals, industrial minerals in Indonesia, as known in 1949)

Van den Broek, J. (1921)- Onze koloniale mijnbouw, IV. Tin mijnbouw. Tjeenk Willink, Haarlem, p. 1-95.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB02:100005452:00017)
('Our colonial mining industry, IV, Tin mining'. Early popular overview of tin mining in Bangka, Belitung and Singkep, Indonesia. Main tin ore cassiterite (SnO_2). Banka mining since ~1710, Belitung (Billiton) since 1851 and Singkep since 1860. Mining in alluvial deposits, eroded from granites. Max. depth of exploitation ~100m)

Van der Ploeg, F.P.C.S. (1945)- Insulinde, schatten van den bodem. W. van Hoeve, Deventer, p. 3-216.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB18B:058864000:00001)
(Elegant overview of the 'earth treasures' and mining activity in Insulinde (Netherlands Indies) until the late 1930s. Written by former mining engineer with Dienst van het Mijnwezen since 1906 and Head of Mijnbouw in 1927-1932. Commisioned by Koloniaal Instituut in Amsterdam (later renamed Tropenmuseum). Intended for broad audience, but this booklet is quite thorough and accurate)

Van der Veen, R.W. (1919)- Reconstructie van den Mijnbouw en het Mijnwezen in Nederlandsch-Indie. Vragen des tijds, July 1919, p. 287-310.
('Reconstruction of mining and 'Mijnwezen' in the Netherlands Indies'. Criticizes mining legislation in the Netherlands Indies and inefficient organization of the Dienst van het Mijnwezen, hampering private mining initiatives. Nothing on geology or specific mining ventures. By Prof. Ir. Rudolf Willem van der Veen (1883-1925), Professor of Economic Geology and Ore Processing at TH Delft from 1916 until his untimely death in 1925)

Van Gelder, J.K. (1909)- Mines and mining administration. In: A. Wright (ed.) Twentieth century impressions of Netherlands India, its history, people, commerce, industries and resources, Lloyds Greater Britain Publ. Co., London, p. 286-302.
(Early, illustrated review of mining industry of Netherlands Indies, mainly tin, coal, gold-silver and petroleum)

Van Gelder, J.K. (1926)- Geologie. Vademecum voor het personeel bij den Dienst van den Mijnbouw. Landsdrukkerij, Weltevreden, Second Revised Edition, p. 1-199.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:028006000:00001)
(Netherlands East Indies Bureau of Mines training manual for its personnel on Geology. Original edition 1920)

Van Heek, J.G.B. (1906)- Rapport over een onderzoek in den krater van den vulkaan Papandajan in verband met plannen tot zwavelontginning ter plaatse. Jaarboek Mijnwezen Nederlands Oost-Indie 35, p. 173-187.
('Report of an investigation in the crater of the volcano Papandayan, in connection with plans for local sulfur exploitation')

Van Hettinga Tromp, H. (1945)- Zuid-Sumatra, het goud- en zilvereiland der Ouden. De Ingenieur 57, 7, p. 171-174.
('South Sumatra, the gold- and silver island of the Elders'. Java was known as the island of gold and silver to ancient Chinese and Arab traders, but author suggests that 'gold-rich Java' they mentioned was actually South Sumatra (then also known as 'Java-Minor'))

Van Leeuwen, T.M. (1994)- 25 years of mineral exploration and discovery in Indonesia. J. Geochemical Exploration 50, 1-3, p. 13-90.
(Extensive review of mineral exploration by foreign companies in Indonesia between 1967 and 1991. Four main phases: (1): 1967-1976, mostly investigations of mineral prospects previously identified by Dutch; (2) 1970-1975, extensive porphyry copper search in Sunda arc, W Sulawesi and central belt of Irian Jaya; (3) 1981-1988, extensive coal exploration in S and E Kalimantan; (4) 1984-1990, second gold rush, ~100 years after first, focused primarily on Cenozoic magmatic belts of Kalimantan, Sulawesi, Moluccas and Sunda arc. Only significant uranium discovery was at Kalan in fault breccias in metasediments in W Kalimantan)

Van Leeuwen, T.M. (2018)- Twenty five more years of mineral exploration and discovery in Indonesia (1993-2017). Masyarakat Geologi Ekonomi Indonesia (MGEI), Special Publ., Jakarta, p. 1-318.
(online at: www.academia.edu/37998830/Twenty_five_more_years_of_mineral_exploration_and_discovery_in_Indonesia_1993_2017_)
(Extensive review of discoveries and prospects of economic mineral deposits in Indonesia since 1993)

Van Leeuwen, T.M. & I. Rompo (2022)- High sulfidation Au (-Ag -Cu) deposits in Indonesia. Indonesian Association Geologists (IAGI) and Indonesian Soc. Economic Geologists (MGEI), Special Book Publication, p. 1-66.
(online at: https://www.iagi.or.id/web/digital/73/Book-complete.pdf)
(High sulfidation Au (-Ag-Cu) systems increasingly important in Indonesia in recent years (e.g. discoveries of giant deposits of Onto (Sumbawa), Tumpangpitu (E. Java) and Martabe (N. Sumatra); also Motomboto (N Sulawesi, 1984) and Binebase-Bawone (Sangihe Island; late 1980s), and others. Associated with Late Cenozoic volcanic arcs, during periods of change /disturbance in subduction regime. Two categories: (1) overprinting or close to porphyry Cu-Au system (HS2) and (2) those without (HS1). Considerable variations between deposits)

Van Lessen, A. H. (1915)- Opmerkingen van den Chef van het Mijnwezen naar aanleiding van het rapport over de opsporing van delfstoffen in Ned.·Indië, door Mr. W.A.J.M. van Waterschoot van der Gracht,1e Gedeelte, Opsporingen van Gouvernementswege. Landsdrukkerij Batavia, 1915, p. 1-132.
(online at: https://resolver.kb.nl/resolve?urn=MMKB31:045883000:pdf)
(Extensive response by former Chief of Dienst van het Mijnwezen to many issues flagged by Dr. Ir. W. van Waterschoot van der Gracht in his extensive 1915 critical report on functioning of Mijnwezen (Bureau of Mines/ Geological Survey in Batavia))

Van Lier, R.J. (1918)- De mijnbouw in Nederlandsch-Indie. Koloniaal Instituut, Amsterdam, p. 1-60.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMUBL07:000003974:00019)
('Mining in the Netherlands Indies'. Early popular overview of coal, mineral (tin, gold-silver, iron) and petroleum exploitation in Netherlands Indies since 1700's, by former Head of Ombilin coal mines in W Sumatra)

Van Waterschoot van der Gracht, W.A.J.M. (1915)- Rapport over de opsporing van delfstoffen in Nederlandsch-Indie, krachtens opdracht bij Koninklijk Besluit van 9 Juni 1913, No. 54, Landsdrukkerij, The Hague, p. 1-110 + Appendices.
(online at: https://www.delpher.nl/nl/boeken/view?coll=boeken&identifier=MMKB02:100002292:00136)
(Extensive, report of 1913-1914 Dutch government-sponsored fact-finding mission to Netherlands Indies by prominent mining engineer/ geologist/ lawyer Dr. W.A.J.M. van Waterschoot van der Gracht, charged with critical evaluation of functioning of the Dienst van het Mijnwezen. Many issues on processes and results of exploration of economic minerals and evaluation of mining operations. With two 1:6 Million scale maps)

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(online at: https://eudl.eu/pdf/10.4108/eai.30-8-2021.2311541)
(Mineralization in Indonesia, especially in Sunda belt, generally formed in ancient volcanic system (an idea has been around for many decades; JTvG))

Verloop, J.H. (1916)- Onze koloniale Mijnbouw, I. De Goudindustrie. Tjeenk Willink, Haarlem, p. 1-95.
(online at: https://resolver.kb.nl/resolve?urn=MMUBL07:000003474:pdf)
(('Our colonial mining industry, I, The gold industry'. Early popular overview of gold mining in Indonesia)

Verloop, J.H. (1917)- De economische beteekenis van onze koloniale goudindustrie. H.A. van Bottenburg, Amsterdam, p. 1-91.
('The economic significance of our colonial gold industry')

Wacaster, S. (2015)- The mineral industry of Indonesia. In: 2013 Minerals Yearbook, Indonesia, U.S. Geological Survey, p. 12.1-12.7.
(online at: https://minerals.usgs.gov/minerals/pubs/country/2013/myb3-2013-id.pdf)
(Listing of minerals produced in Indonesia in 2013. No geology (similar reports for years 1994-2019))

Wafid A.M., A. Pribadi, D. Widhiyatna, S. Mutia, T. Handayani, L.N. Agung, Suwahyadi et al. (2024)- Atlas petrografi batuan beku. Badan Geologi, Bandung, p. 1-293. *(online at: https://geologi.esdm.go.id/storage/publikasi/CyO3v9yLCdlkQEcnzJQvWhg0obVSnQpB6KECMSxs.pdf*
('Atlas of petrography of igneous rocks'. Extensive collection of thin section micrographs of igneous rocks mainly from Indonesia. Classified into intrusive and extrusive ultrabasics, intermediate and acidic igneous rocks, in plain and polarized light))

Wahju, B.N. (2004)- Current status of mining in Indonesia. J. Mines Metals and Fuels 52, p. 158-166.

Wahju, B.N. (2002)- Indonesian mining industry in the period of transition between 1997-2001. Prospectors & Developers Association of Canada (PDAC), Toronto 2002, Indonesian Mining Association, p. 1-25.

(online at: https://beniwahju.com/wp-content/uploads/2012/04/indonesian-mining-industry-in-the-period-of-transition-between-1997-2001.pdf)
(Review of main mining activities in Indonesia in 1997-2000)

Wang, D., F. Lin, M. Shi, H. Wang & X. Yang (2023)- Geological setting, tectonic evolution and spatio-temporal distributions of main mineral resources in South East Asia:a comprehensive review. Solid Earth Sciences 8, p. 34-48.
(online at: https://www.sciencedirect.com/science/article/pii/S2451912X22000514)
(Review of metallogenic geologic settings of Laos, Cambodia, Vietnam, Thailand, Myanmar, Malaysia, Indonesia and Philippines. Twenty metallogenic belts: 4 copper-gold metallogenic belts related to arc magmatism, 6 nickel-chromium belts associated with ultrabasic rocks, 5 copper, iron, gold and tungsten associated with deep magmatism after continental collisions, Tin, lead and zinc metallogenic belts, 2 large- red clay bauxite areas, 1 Proterozoic iron-copper metallogenic belt, and 1 potash mineralization area).

Wanner, J. (1942)- Die mineralischen Rohstoffe der Niederlande und der niederlandischen Kolonien. Kriegsvortage Rheinischen Friedrich-Wilhelms-Universitat, Bonn, 70, p. 1-24.
('Mineral resources of The Netherlands and Netherlands Indies'. Brief wartime review, mainly about distribution of petroleum and minerals of Indonesia)

White, N.C., M.J. Leake, S.N. McCaughey & B.W. Parris (1995)- Epithermal gold deposits of the southwest Pacific. J. Geochemical Exploration 54, 2, p. 87-136.
(online at: https://www.academia.edu/10141451/Epithermal_gold_deposits_of_the_southwest_Pacific)
(BHP data tabulation for 137 epithermal gold deposits and prospects in Australia (30), Fiji (2), Indonesia (43), New Zealand (22), Palau and Yap (2), Papua New Guinea (18), Philippines (19), and Solomon Islands (1). Epithermal deposits in SW Pacific similar to other regions, but low-sulfidation style deposits formed at deeper levels than typical elsewhere; high-sulfidation deposits more common than along NE Pacific margin. Differences can be partly understood in terms of tectonic setting and evolution of volcanic arcs of SW Pacific)

Whitehouse, J. (2011)- Manganese resource potential Banda arc region, Eastern Indonesia. Stratum Resources Pty Ltd, Non-confidential report, p. 1-31. *(online at: https://www.academia.edu/7399929/Manganese_resource_potential_Banda_Arc_region_eastern_Indonesia*
(Manganese deposits in C and W Timor sporadically mined, while more intensive mining recently began on Flores Island. Manganese deposits of E Indonesia are associated with (1) manganese nodules in deep−sea (pelagic) sediments or (2) stratabound ore deposits in mostly red calcareous shales within limestone−dolomite masses. Manganese-rich sediments, possibly derived from chemical reactions between hot manganese−bearing volcanic rocks ejected into cold sea−water. Deposits subsequently incorporated as structurally disrupted blocks in Bobonaro Melange. Potentially mineable deposits of manganese erratically distributed, but in some areas possibly more widespread

Wijayanti, K., M.F. Rosana, E.T. Yuningsih, R.I. Sulistyawan (2017)- Karakteristik jasper merah di Pulau Jawa bagian selatan berdasarkan analisis SEM dan XRF. Jurnal Geologi dan Sumberdaya Mineral (JGSM) 18, 1, p. 25-32.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/82/123)
('Characteristics of red jasper in S Java based on SEM and XRF analysis'. Red, yellow and green jasper widespread in Indonesia. Red jasper most common, especially in Southern Mountains of Java. All S Java samples same cryptocrystalline texture. Red color from Fe, Cr, and V. High Ti content in Pacitan red jasper)

Wing Easton, N. (1916)- De voorgestelde wijziging der Indische mijnwet. De Economist 65, 1, p. 795-820.
('The proposed changes to the Indies Mining Law')

Wing Easton, N. (1917)- De minerale rijkdom van Ned. Oost-Indie en de toekomstige mijnbouwpolitiek aldaar. De Ingenieur 1917, 11, p. 1-15.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB31:045897000:00012)

('The mineral wealth of the Netherlands East Indies and the future mining politics there'. Early review of mineral potential of Indonesia. Argues that potential is limited to orogenic belts. Gold-silver deposits found only in areas with Late Tertiary acid volcanics, tin in Paleozoic granites, etc.)

Zaw, K. (2016)- Volcanic-hosted massive sulphide deposits in mainland SE Asia: their potential and prospectivity. In: 35th International Geological Congress, Cape Town 2016, Mineral deposits and ore forming processes Symposium, T18.2, 963, 2p. *(Abstract only*
(online at: https://www.americangeosciences.org/sites/default/files/igc/963.pdf)
(Volcanic-hosted massive sulphide (VHMS) deposits formed during rifting of oceanic ridges or back-arc basins. SE Asia region mineralization includes porphyry-related skarn deposits, epithermal deposits, sediment-hosted/orogenic gold deposits, gem deposits, Sn-W and REE deposits and VHMS deposits (Ordovician-Silurian Duc Bo Cu-Pb-Zn deposit in C Vietnam, E Permian Tasik Chini iron-manganese-barite deposit in C Malaysia and Cambro-Ordovician Bawdwin Pb-Zn-Ag deposit in N Myanmar)

Zen, M.T. (1969)- On the Indonesian sulphur deposits. Bull. of National Institute Geology and Mining, Bandung, 2, 2, p. 33-41.
(Sulfur deposits in Indonesia are of volcanic origin. Pure sulphur produced from sublimation of volcanic gases from solfatara fields in extinct and active volcanic regions. Crater lakes contain sulfuric mud with >40% sulfur. Potential crater deposits in Sumatra (Namora Langit, Sorik Merapi), Java (Kawah Putih, Telaga Bodas, Tangkuban Perahu, Kawah Karaha, Siterus, Idjen) and N Sulawesi (Mahawu, Telaga Masem))

Zientek, M.L. & N.J. Page (1990)- Consultancy services in Platinum-group mineral exploration for the Directorate of Mineral Resources. U.S. Geological Survey, Open-File Report 90-527, p. 1-332.
(online at: https://pubs.usgs.gov/of/1990/0527/report.pdf)
(Review of platinum-group mineral occurrences in Indonesia. Generally in placer deposits derived from nearby ultramafic rock exposures. Main occurrences in SE Kalimantan (placers in front Meratus Range). Traces of platinum-group in N Sumatra (Woyla River near Tutup), C Sumatra (Bengkalis, Riau), S Java (Cilacap, Jampang Kulon), S Sulawesi. With maps of diamond-bearing paleochannels in vicinity of Martapura, etc.))

Zwierzycki, J. (1921)- De invloed van de tektoniek op het ontstaan van delfstoffen in Nederlandsch-Indie. Verslag Algemeen Ingenieurs Congres, Batavia 8-15 May 1920, 5th Section, Mining-industry and geology, p. 1-6.
('The influence of tectonics on the origin of economic minerals in the Netherlnds Indies')

Zwierzycki, J. (1957)- Cyna i jej wystepowanie w przyrodzie. Wszechswiat 2, Krakow, p.
('Tin and its occurrence in nature'. Mainly based on the Bangka- Belitung tin province of Indonesia. In Polish)

XIII. INDONESIA HISTORIC INTEREST

XIII.1. Historic Interest, Biographies

Abdurahman, O., A.S. Hadiputro & A. Kurnia (2020)- Dari emas Sumatera ke Tambang Papua. Sejarah penyelidikan geologi dan pertambangan Indonesia abad XVII-XX. Badan Geologi, Bandung, p. 1-154.
(online at: https://geologi.esdm.go.id/publikasi/laporan-dan-buku/dari-emas-sumatera-ke-tambang-papua-sejarah-penyelidikan-geologi-dan-pertambangan-indonesia-abad-xvii-xx)
('From Sumatran gold to the Papua Mine. The history of geological investigation and mining in Indonesia in the XVII-XXth Century'. Topics from history of the geology of Indonesia, with chapters on Salida gold mine, Rumphius, Junghuhn, Wallace, Billiton, Dubois, Von Koenigswald, Lasut, Dozy, etc.)

Abendanon, E.C. (1913)- De Nederlandsche regeering en de mijnbouw in Ned.-Indie. De Ingenieur 28, 32, p. 668-670.
(online at: https://resolver.kb.nl/resolve?urn=dts:2960045:mpeg21:pdf)
('The Dutch government and mining in the Netherlands Indies'. Critical review of the Dienst van het Mijnwezen (Bureau of Mines of the Netherlands Indies), suggesting the lack of geologic capabilities of its Dellft-trained mining engineers and their inadequate methods resulted in lack of success compared to similar organizations in the British Indies and The Philippines)

Abendanon, E.C. (1918)- Geologische arbeidsmethoden voor de opsporing van delfstofafzettingen. 1. Goud- en zilverertsen. De Ingenieur 33, 27, p. 502-504.
('Geological working methods for the exploration of mineral deposits'. Critical discussion of apparent lack of geological considerations in gold-silver exploration in Sumatra, etc.))

Abendanon, E.C. (1920)- Grootindustrieen in Midden-Celebes en hunne bedrijfspolitieke grondslagen. Economisch-Statististische Berichten 5, 222, p. 265-269.
(online at: https://esb.nu/jrg-5-editie-222/)
('Large industries in Central Sulawesi....'). Paper arguing that iron ore deposits in Verbeek Mountains of Central Sulawesi could support a large mining and steel industry, as well as nickel mining and processing, a hydro-electric project, etc.)

Akkersdijk, M.E. (1939)- De Dienst van den Mijnbouw van 1919 t/m 1938. De Mijnbond (Bandung), 20 Jaar Jubileumnummer, p. 23-35.
(online at: https://resolver.kb.nl/resolve?urn=MMKB31:034173000:pdf)
('The Bureau of Mines from 1919 through 1938'. In 20-year jubilee volume of 'De Mijnbond' (the labor union of government mining personnel in Netherlands Indies. History of the Bureau of Mines of the Netherlands Indies, since 1850. Two main periods, 1850-1919 (mainly mining-geological surveys) and 1919- now (=1939) (after merger of Mijnwezen and other government mining enterprises (Bangka tin, Ombilin coal, etc.). Start of systematic geological mapping of Sumatra and Java in 1927-1928. Major scaling down of coal production due to global financial crisis in 1931-1932 and gradually increasing again in 1935-1938. Tambangsawah government gold mine in Sumatra active from 1923-1931 and was profitable. Mine inspection department issued 41,500 exploration licences in 1919-1938, but only 162 resulted in mining concessions. Etc.)

Ampferer, O. (1915)- Zur Erinnerung an Richard Johann Schubert. Jahrbuch Kaiserlich Koniglichen Geologischen Bundesanstalt, Vienna, 66, 3-4, p. 261-276.
(online at: https://opac.geologie.ac.at › wwwopacx › wwwopac)
('In memory of Richard Johann Schubert', pioneering Austrian micropaleontologist in early 1900's. Author of classic papers on Permian fusulinid foraminifera from Timor and Letti, and on Neogene deeper marine foraminifera from New Guinea and Sulawesi)

Angetter, D.C., B. Hubmann & J. Seidl (2013)- Physicians and their contribution to the early history of earth sciences in Austria. In: C.J. Duffin et al. (eds.) A history of geology and medicine. Geological Society, London, Special Publ. 375, p. 445-454.
(online at: www.researchgate.net/publication/260632918_Physicians_and_their_contribution_to_the_ Etc.)

(Pioneers in Austrian geology in 1800's earned medical degree before they could change to geology. Incl portrait of Hungarian geologist Theodor Posewitz, author of first geology book on Borneo (1889; English translation by American F.H. Hatch 1892) (at that time Hungary was part of Austria-Hungarian monarchy))

Anjelina, V. & N.A. Setiawati (2024)- Treatment of colonial mine labourers at Mijnbouw Maatschappij Redjang Lebong (1928-1936). Diakronika (U.N. Padang) 24, 1, p. 62-77.
(online at: http://diakronika.ppj.unp.ac.id/index.php/diakronika/article/view/426/131)

Anonymous (1896)- Necrologie R. Everwijn. Jaarboek Mijnwezen Nederlandsch Oost-Indie 15, Technisch Administratief Gedeelte, p. 197-203.
('Obituary of mining engineer Roeland Everwijn, 1827-1909. One of the first mining engineers at Mijnwezen (1853-1881. Studied in Delft. Numerous mining-geological surveys in Kalimantan, also Sumatra)

Anonymous (1922)- Ter herinnering. Dr. Ing. Walter Dieckmann, geboren te Hamburg, 8 July 1882, gestorven te Martapoera 11 Maart 1922. De Mijningenieur 3, 3, p. 29-30.
(Obituary of German mining engineer W. Dieckmann, who worked on evaluations of nickel and iron deposits in Verbeek Mountains of Sulawesi in 1917-1920. Since December 1920 leader of the SE Borneo coal-iron project, but died in Martapura (SE Kalimantan) from tropical disease in March 1922, at age 40)

Anonymous (1950)- Een eeuw natuurwetenschap in Indonesie 1850-1950. Gedenkboek Koninklijke Natuurkundige Vereeniging, Vorkink, Bandung, p. 1-279.
('A century of natural sciences in Indonesia 1850-1950'. Volume commemorating centenary anniversary of Royal Natural Science Society KNV in Indonesia. With contributions on geology (Van Bemmelen), volcanology (Petroeschevsky and Klompe), geophysics (Visser), soil science (Van Baren), botany, zoology, etc.)

Anonymous (1956)- Proeve tot een levensschets van Prof. Dr. Ir. H.A. Brouwer. Verhandelingen Kon. Nederlands Geologisch Mijnbouwkundig Genootschap, Geologische Serie 16 (Gedenkboek H.A. Brouwer), p. XV-XXVI.
(Biography of Prof. H.A. Brouwer. Studied in Delft. Geologist with Netherlands Indies 'Mijnwezen' from 1910-1917, then professor of geology in Delft and Amsterdam. Headed expeditions to Sulawesi in 1929 and Lesser Sunda islands (mainly Timor) in 1937. Many publications on E Indonesia islands and tectonics of Indonesia)

Albers, P.C.H. (2024)- An expedition in colonial times: Some notes regarding Dubois'fieldwork in Sumatra. In: J. Louys et al. (eds.) Quaternary Palaeontology and Archaeology of Sumatra, Terra Australis 56, ANU Press, Canberra, Chapter 3, p. 15-59.
(online at: https://press-files.anu.edu.au/downloads/press/n12084/pdf/ch03.pdf)
(Interesting account of the practicalities of conducting paleontological-archeological excavations in W Sumatra caves by E. Dubois in 1888-1890, incl. the practice of working with convict laborers)

Albers, P.C.H. & J. de Vos (2010)- Through Eugene Dubois' eyes; Stills of a turbulent life. Brill, Leiden, p. 1-185.
(Well-illustrated biography of Dubois, the first man to find and describe 'Java Man' (Pithecanthropus erectus))

Albers, P.C.H., J. Louys & A.E.A. van der Geer (2024)- Eugene Dubois' work in Sumatra. In: J. Louys et al. (eds.) Quaternary Palaeontology and Archaeology of Sumatra, Terra Australis 56, ANU Press, Canberra, Chapter 2, p. 15-59.
(online at: https://press-files.anu.edu.au/downloads/press/n12084/pdf/ch02.pdf)
(Extensive review of two years of W Sumatra cave excavation work by Army physician E. Dubois in 1888-1890. The work was succesful in discovering Late Pleistocene mammal bones, but no remains of primitive Homo)

Bakker, H.J. (2009)- Leven en werk van Franz Wilhelm Junghuhn, 1809–1864: De Humboldt van Java: Een bijdrage tot de geschiedenis van Nederlands-Indië. Bakker & De Vries, Amersfoort, p.

Bakker, J.P. & J.H. Broekman (1963)- In memoriam Prof. Dr. G.L. Smit Sibinga, 30 oktober 1895- 4 september 1963. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 80, p. 425-428.
(In memoriam of G.L. Smit Sibinga, professor of physical geography in Amsterdam. Published series of (underappreciated?) papers on tectonics of Indonesian archipelago in 1920's and 1930's. Early supporter of Wegener's theory of horizontal movements of continents)

Baks, J. (1989)- De steenkolen-maatschappij "Poeloe Laoet" in Zuidoost-Borneo, 1903-1913. In: A.H.P. Clemens & J.T. Lindblad (eds.) Het belang van de buitengewesten, Economische expansie en koloniale staatsvorming in de Buitengewesten van Nederlands-Indië 1870-1942, Nederlands Economisch-Historisch Archief (NEHA), Amsterdam, Ser. III, 7, p. 123-146. *(read online at: https://www.yumpu.com/nl/document/read/19893087/het-belang-van-de-buitengewesten-acehbooksorg)*
('The coal company "Poeleoe Laoet" in SE Borneo, 1903-1913'. Driving force behind first coal mining development on Palau Laut, SE Kalimantan, from ~1900 was Amsterdam entrepreneur August Jansen, son of P.W. Jansen, a Founding Director of N.V. Deli Maatschappij. Most of technical staff since 1900 was German, initially under 'Bergassessor' H. Weber and later J. Lonsdorfer. Coal production started in 1904. After poor financial results (partly due to mediocre coal quality, which limited demand and price, Laut coal mines were taken over by N.I. government in 1913, partly for strategic reasons. to keep coal out of control of German buyers)

Ballard, C., S. Vink & A. Ploeg (2001)- Race to the snow. Photography and the exploration of Dutch New Guinea, 1907-1936. Royal Tropical Institute, Amsterdam, p. 1-94.
(Collection of photos and maps from expeditions to snow-covered peaks of West Papua Central Range)

Baritto, I. (2023)- August Tobler (1872-1929) y sus contribuciones a la micropaleontologia de Indonesia, Trinidad y Venezuela. Boletín Academia Nacional de la Ingeniería y el Hábitat, Caracas, 60, p. 151-179
(online at: https://acading.org.ve/wp-content/uploads/2023/10/BOLETIN_60_ANIH.pdf)
('August Tobler (1872-1929) and his contributions to the micropaleontology of Indonesia, Trinidad and Venezuela'. Biography of famous Swiss geologist A. Tobler, in Indonesia known for his early, stellar work on geological mapping in the S Sumatra and Jambi Tertiary basins in the early 1900s)

Baritto, I. (2025)- Cornelie Marguerite Bramine Caudri (1904-1991): the Caribbean's micropaleontologist. Boletín Academia Nacional de la Ingeniería y el Habitat, Caracas, 67, p. 31-57.
(online at: https://acading.org.ve/wp-content/uploads/2025/07/Cornelie-Marguerite-Bramine-Caudri-1904-1991-the-Caribbeans-micropaleontologist.-Ivan-Baritto.pdf)
(Biography of Dr. Bramine Caudri, in Indonesia known for her thesis works on larger foraminifera from Sumba (1934) and Java (1932, 1939), under I. van der Vlerk and H. Gerth in Leiden, Netherlands. From 1939-1961 she worked as a pioneering petroleum industry micropaleontologist in Trinidad, Columbia and Venezuela)

Barnard, T.P. (2013)- Thomas Dias' journey to Central Sumatra in 1684. In: Harta Karun. Hidden treasures on Indonesian and Asian European history from the VOC Archives in Jakarta, document 1, Arsip Nasional Republik Indonesia, Jakarta, p. 1-33. *(online at: https://sejarah-nusantara.anri.go.id/media/dasadefined/HartaKarunArticles/HK001/Doc_1_Eng.pdf)*
(Report of travels by Portuguese VOC trading agent into interior of Central Sumatra, following discovery of native tin-mines at headwaters of Siak and Kampar Rivers in 1670s)

Bartlett A.G. (1972)- Pertamina- Indonesian National Oil. Amerasian Ltd., p. 1-419.

Barzilay, W.F. (2008)- De ontvangst van Wegeners theorie in Nederland (1916-1968): acceptatie, verwerping en heropleving. Doctor's Thesis, University of Utrecht, p. 1-152.
(online at: www.phil.uu.nl/HPS/theses/WillemjanBarzilay.pdf)
(History of acceptance, rejection and revival of Wegener's 1915' Theory of Continental drift' (the predecessor of plate tectonics) in the Netherlands. Theory was not generally accepted until 1968. Many views on this topic by prominent Dutch geologists like Molengraaff, Brouwer, Wing Easton, Kuenen, Van Bemmelen, Umbgrove, Smit Sibinga, Vening Meinesz, etc., were based on their observations from Indonesia)

Barzilay, W.F. (2009)- De ontwikkelingsgeschiedenis van Rein van Bemmelens (1904-1983) undatietheorie: veertig jaar Nederlandse geologie. Studium (Rotterdam) 2, 1, p. 4-18. *(online at: https://www.researchgate.net/publication/277803239_De_ontwikkelingsgeschiedenis_van_Rein_van_B Etc.)*
('The history of the development of Rein van Bemmelen's (1904-1983) Undation Theory: forty years of Dutch geology'. Review of vB's undation theory, developed in the 1930's, which competed with, but 'lost' against the Plate Tectonics' theory. Van Bemmelen remained an opponent of Plate Tectonics until his death in 1983)

Barzilay, W.F. (2010)- Vening Meinesz and the theory of Wegener. Earth Sciences History 29, 2, p. 213-231.
(On opinion of famous geophysicist Vening Meinesz about Wegener's continental drift theory, and how his view of it changed during his career from support in the 1920's to more skeptical in the late 1930's-1950's, as from his gravity observations suggested oceanic crust is quite rigid, and continents would not be able to 'plough through it'. VM became more accepting again in his 1964 book, after new elements of plate tectonics emerged)

Bastin, J. (1990)- Sir Stamford Raffles and the study of natural history in Penang, Singapore and Indonesia. J. Malaysian Branch Royal Asiatic Society 63, 2 (259), p. 1-25.
(A neglected aspect of the illustrious career of Singapore Governor T.S. Raffles in Malaysia, Singapore and Indonesia is his interest and work as a naturalist. Rafflesia arnoldi Banks was named after Raffles)

Bastin, J. (2019)- The American naturalist Thomas Horsfield in Java. In: Sir Stamford Raffles and some of his friends and contemporaries: a memoir of the founder of Singapore, World Scientific Publishing Co., Singapore, Chapter 3, p. 90-157.
(Extensive history of travels on Java by Pennsylvania-born naturalist T. Horsfield. TH arrived in Java as a Netherlands Indies Army physician in 1801, but was also tasked with investigations of indigenous herbs around Buitenzorg (Bogor). At recommendation of Bataviaasch Genootschap van Kunsten en Wetenschappen, Horsfield was paid by N.I. government as full-time researcher of medicinal plants, but broadened his investigations to other fields of natural history, including 'the mineralogical state of the island'. After the British invasion of Java in 1811, Horsfield continued his research under the patronage of the new governor T.S. Raffles, now mostly based in Surakarta. Horsfield's 'Mineralogical map of Java' in Raffles (1817) was the only geologic map of Java prior to that of F. Junghuhn in the 1840s. In late 1812-1813 Horsfield was commisioned by Raffles to study Bangka island and its tin mines. After the end of British Administration of Java in 1816, Horsfield accepted an invitation from Raffles to move to the British enclave of Bengkulu, Sumatra, in mid-1818)

Bastin, J. (2019)- Thomas Horsfield in Sumatra and London. In: Sir Stamford Raffles and some of his friends and contemporaries: a memoir of the founder of Singapore, World Scientific Publishing Co., Chapter 8, p. 250-267.
(Continuation of the Horsfield story, in West Sumatra from 1818, and sailing to England in 1819 to work on his Java-Sumatra collections as Curator at the East India Company Museum in London until his death in 1859. He was buried at the Fetter Lane Moravian Church, Chelsea)

Bastin, J. & D.T. Moore (1982)- The geological researches of Dr Thomas Horsfield in Indonesia 1801-1819. Bull. British Museum (Natural History), History Series, 10, 3, p. 75-115.
(online at: https://www.biodiversitylibrary.org/item/19630#page/93/mode/1up)
(On early geological observations on Java and Sumatra by American naturalist/ botanist in early 1800's)

Bauermann, M.K.H. (1934)- In memoriam Dr. Josef Theodor Erb. Geologie en Mijnbouw 13, 8, p. 63-65.
(online at: https://drive.google.com/file/d/14faE0BXr_O5VQ3EeX38iadZl1lrs2x80/view)
(Obituary of prominent Swiss Shell geologist Josef Theodor Erb (Volach 1874- The Hague 1934). Erb was a student of famous geologist Prof. Albert Heim in Zurich and did two stints of geological mapping for Koninklijke Petroleum (later Royal Dutch-Shell/BPM) in Sumatra in 1900-1903 and in Java in 1905, after which he became chief geologist of BPM-Shell in The Hague)

Beccari, O. (1904)- Wanderings in the great forests of Borneo: Travels and researches of a naturalist in Sarawak. Archibald Constable, London, p. 1-424.
(online at: https://ia800200.us.archive.org/5/items/wanderingsingrea00becc/wanderingsingrea00becc.pdf)

(English translation of 1902 Italian report on travels and researches by Dr. Odoardo Beccari, an Italian naturalist (primarily a botanist) who spent 3 years in northern Borneo (Sarawak) in 1865-1868. With comments on limestones and caves and the formation of coal in Borneo)

Beekman, E.M. (1981)- The poison tree: selected writings of Rumphius on the natural history of the Indies. University of Massachusetts Press, p. 1-260.
(Selected writings on flora, fauna and rocks of the Moluccas by VOC merchant Georg Everard Rumpf (latinized name Rumphius), first published in 1702 books 'Herbarium Amboinense' and 'D'Amboinsche Rariteitkamer')

Beekman, E.M. (1996)- Junghuhn's perception of Javanese nature. Canadian J. of Netherlandic Studies 17, 1-2, p. 135-145.
(online at: http://www.caans-acaen.ca/Journal/issues_online/Issue_XVII_i_ii_1996/BEEKMAN.pdf)
(Critical discussion of Junghuhn's 'misanthropic' personality and scientific work on Java)

Behrens, T.H. (1885)- Levensbericht van Hermann Vogelsang. Jaarboek Koninklijke Akademie van Wetenschappen Amsterdam 1886, p. 142-162.
(online at: https://dwc.knaw.nl/DL/levensberichten/PE00003601.pdf)
(Obituary of German-born geologist and pioneering petrographer Hermann Vogelsang (1838-1874), who was Professor at the 'Polytechische School' in Delft in 1864-1874. (During his brief tenure in Delft, Vogelsang educated a generation of mining engineers who were remarkably capable and interested in geology and made major contributions to the knowledge of the geology of the Netherlands Indies (R.D.M. Verbeek, R. Fennema, C.J. van Schelle, J.A. Hooze). Later generations of Delft mining engineers educated after Vogelsang's premature death in 1874 and before the nomination of Prof. G. Molengraaff in 1905 demonstrated less knowledge or interest in geology; JTvG))

Belousov, A. & M. Belousova (2012)- The first Russian volcanologist: V.A. Petrushevsky. Priroda 8, p. 80-89.
(Russian original online at: http://belousov.pro/priroda-petrushevsky.pdf)
(English translation online at: https://blogs.dickinson.edu/vapetrushevsky/files/2017/05/Priroda-article-final-translation.pdf)
(Life history of Wladimir Petroeschevsky, former Russian Imperial Army colonel, volcanologist with Volcanological Survey in Bandung from 1921-1950. Head of Volcanological Survey from 1946-1950)

Bentz, A. (1948)- Dr. Fritz Musper zum Gedenken. Erdol und Kohle 1, 2, p. 97-98.
(Obituary of Dr. K.A.F.R. Musper, German geologist with long career at the Dienst van den Mijnbouw in Taluk (Sumatra) and Bandung, from 1922 until his arrest in May 1940. He died of disease in Dutch-run internment camp of German POW's in Surinam in 1943)

Berckhemer; H. et al. (eds.) (1984)- Auf den Spuren des *Pithecanthropus*: Leben und Werk von Gustav Heinrich Ralph von Koenigswald, 1902-1982. Aufsatze und Reden der Senckenbergischen Naturforschenden Gesellschaft 34, Kramer, Frankfurt, p. 1-102.
('On the trails of Pithecanthropus: life and work of G.H.R. von Koenigswald'. Collection of papers about Prof. G. von Koenigswald, paleontologist at Bandung Geological Survey from 1930-1941, mainly known for work on Pleistocene mammals and hominids)

Bernet Kempers, A.J. (1982)- Looking backward: pioneer prehistorians in pre-war Indonesia. Modern Quaternary Research in Southeast Asia 7, Balkema, Rotterdam, p. 1-23.
(Review of archeological activities in the Netherlands Indies in 1920s-1942, by R. von Koenigswald, P. van Stein Callenfels, van der Hoop, W.J. A. Willems and the roles of the Bataviaasch Genootschap (Batavia Society) and the Oudheidkundige Dienst (Archeological Survey) in Batavia/ Jakarta)

Beunk, F.F. (2001)- Willem Paul de Roever, 1917-2000. Int. J. Earth Sciences (Geologische Rundschau) 90, p. 471-473.
(Obituary of W.P. de Roever, Professor of Mineralogy and Petrology at University of Amsterdam, known for geologic mapping work in W Timor in 1937, petrography of C Sulawesi metamorphics (first to recognize the

high-pressure- low temperature glaucophane facies overprint on regional metamorphic rocks) and first geologist to propose that large peridotite masses represent mantle fragments in 1957. Survey work on Bangka in late 1940's led to identification of Permian and Triassic sediments)

Bitterli-Brunner, P. (1982)- Ernst Kundig, Dr. phil. Geologe 9.4.1901- 12.9.1981. Bull. Vereinigung Schweizer. Petroleum-Geologen und Ingenieure 48, 114, p. 39-42.
(online at: https://www.e-periodica.ch/cntmng?pid=vsp-002:1982:48::127)
(Memorial of Dr. E. Kundig, Swiss BPM-Shell geologist who a.o., spent 3 years geological mapping in the then poorly-known Sulawesi in late 1920's)

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(Obituary of G.A.F. Molengraaff, professor of geology Delft Technical University from 1906-1930, author of pioneering geological studies on Kalimantan (1893-1894), N Sulawesi (1901), Timor (1910-1911), etc.)

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(One of the more thorough obituaries of F.A. Vening Meinesz, 'the diving Dutchman'. Famous mainly for marine gravity work from submarines in the Netherlands Indies and other areas in 1923-1935, in the service of the Netherlands Geodetic Committee. Professor of Geodesy and Geophysics at the Universisty of Utrecht from 1927-1957. Author of numerous books and papers)

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(History of Dr. Eugene Dubois, famous for the first discovery and interpretation of hominid Pithecanthropus erectus in C Java, but was later widely viewed as unbalanced, due to his changing understanding of these important fossils. Dubois initially caused much controversy in the religious world with his interpretation of Java Man as the 'missing link' between apes and humans, But, remarkably, by 1930s when science had largely accepted Dubois' interpretation, he changed his mind and viewed the Pitehecanthropus skull cap as a giant gibbon and no longer as an ancestor of modern man, Homo sapiens)

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(Biography of Polish-German geologist Jozef Zwierzycki, who worked at Dutch East Indies Geological Survey from 1914-1938. Numerous mapping and prospecting surveys on Java, Sumatra and New Guinea. Director of Survey from 1933-1938, then retired and returned to Poland. Died in 1961)

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(online at: https://www.alpinejournal.org.uk/Contents/Contents_1937_files/AJ49%20177-189%20Colijn%20Carstensz%20Massif.pdf)
(English-language account of the expedition to the snow-covered Carstensz Massif in West New Guinea in October-December 1936, by BPM personnel Colijn, Dozy and Wissel. With map. It was not clear at the time which if the snow-covered Carstensz Group of mountains was the tallest. The expedition reached the tops of the Oost Carstensz and Ngga Poeloe peaks (>4850m high), but failed to reach the top of nearby Carstensz Pyramid (now Puncak Jaya), due to poor weather conditions. Later, it was later determined that Carstensz Pyramid was 22m higher, and remained unclimbed until Austrian mountaineer Heinrich Harrer first reached the top in 1962)

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('To the eternal snow of tropical Netherlands'. Book on first successful ascent of the snow-covered Carstensz peak (Puncak Jaya) in West Papua in 1936 by NNGPM/ Shell employees Colijn, Dozy and Wissel. On way to mountain they discovered world-class Ertsberg porphyry copper outcrop, mined by PT Freeport since 1973)

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(Memorial for Dr. E. Hartmann (Munchen 1887-1951), German geologist who followed Hans Cloos in geological mapping work for Standard Oil Co. (NKPM) in Java from 1913-1915, then worked with the Dienst van het Mijnwezen (Geological Survey) in Batavia from 1915-1921, mainly in Sumatra, New Guinea and Java)

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(online at: https://eresources.nlb.gov.sg/printheritage/detail/0469b121-f1eb-4958-a97b-d8a2f3a067d1.aspx)
(Early English-language description of the Indonesian archipelago by British overnment official and contemporary of Sir Stamford Raffles. John Crawfurd (1873-1868) stayed in Java in 1811-1816, during the entire British Interregnum. Crawfurd introduced name 'Indian Archipelago' which became the most popular name (after 'Malay Archipelago') in the English-speaking world for what is now the Indonesian archipelago. A Dutch edition was published in Haarlem (1823-1825) as 'De Indische Archipel, in het bijzonder het eiland Java beschouwd in de zeden, wetenschappen, etc.')

Crespin, I. (1975)- Ramblings of a micropalaeontologist. Bureau Mineral Resources Geology Geophysics (BMR), Record 1975/83, p. 1-61.
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(Autobiographic notes on travels of Australian micropaleontologist Irene Crespin, including an April 1939 visit to Indonesia to meet (1) Dr. Tan Sin Hok at Geological Survey in Bandung and (2) oil company micropaleontologists H. Thalmann and H.J. MacGillavry at the Nederlandsche Koninklijke Petroleum Maatschappij (NKPM (Stanvac) in Sungei Gerong (Palembang))

Cuder, G. & E. Stevens (1984)- Dipl.-Ing. Dr. Reinout Willem van Bemmelen 1904-1983. Carinthia II, 174, p. 433-435.
(online at: https://www.zobodat.at/pdf/CAR_174_94_0433-0435.pdf)
(One of several obituaries for R.W. van Bemmelen, famous for his major 1949 book on the Geology of Indonesia)

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(online at: https://www.atlantis-press.com/proceedings/unicssh-22/125983946)
(Brief review of oil town Pangkalan Brandan town in Langkat, NE Sumatra, before, during and after its expansion as BPM oil processing and distribution center in 1890s- early 1900s. No figures)

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(online at: https://d28rz98at9flks.cloudfront.net/81215/Jou1987_v10_n2_p153.pdf)
(Evan Richard Stanley was first Government Geologist for (Australian) Papua, from 1911-1924. His geological investigations under difficult conditions resulted in >50 papers and reports and the first comprehensive accounts in 1923-1924 of geology and resources of New Guinea and Papua territories. Stanley died unexpectedly in 1924 in Adelaide, South Australia)

DeBlasio, A. (2023)- Kepada kawan saya, Merapi (On my friend, Merapi): Vladimir Petrushevsky at the Volcanological Survey. In: A. Bobbette et al. (eds) Berita Gunung Berapi: Politik kebumian pada zaman vulkanik. Reading Sideways Press, Leiden & Yogyakarta, p. 235-264. *(limited edition print 'book'?)*

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(Examination of geophysical (magnetic) surveys of Indonesia and Brazil by Elie van Rijckevorsel (1845–1928) during 1870-1890. The decision of Van Rijckevorsel, an independently wealthy 'man of learning', to carry out a magnetic survey of the Malay Archipelago (Indonesia) spurred colonial authorities in The Hague to endow the finest geomagnetic observatory in the tropics (Meteorological and Geophysical Observatory in Batavia))

Decker, R.W. (1960)- Geophysics in Indonesia 1921-1961. Madjelis Ilmu Pengetahuan Indonesia (MIPI; now LIPI), Penerbitan 2, Contributions Department of Geology, Institute of Technology Bandung (ITB) 35, Geology Symposium, p. 67-97.
(Review by one of the American 'Kentucky Group' geoscientists, who came to work in Bandung after Dutch professors had been expelled in 1957)

Decker, R.W. (1963)- Status of geophysical investigations in Indonesia. In: G.A. Macdonald (ed.) Geology and solid Earth geophysics of the Pacific Basin, 10th Pacific Science Congress series, University of Hawaii Press, Honolulu, p. 69-78.
(Present status and history of geophysical activity in Indonesia, especially since First Pacific Science Congress in 1920 (seismology, gravity, magnetism, physical oceanography). Shortened version of Decker (1960))

Deecke, W. (1913)- Georg Boehm†. Zentralblatt Mineralogie Geologie Palaontologie 1913, p. 289-295.
(online at: www.zobodat.at/biografien/Boehm_Georg_Centralblatt-Mineral-Geol-Palaeont_1913_0289-0295.pdf)
(Obituary for Georg Boehm, who traveled to the Sula islands, Misool and Buru in Eastern Indonesia in 1899-1900, in search of Mesozoic fossils. This resulted in a series of classic paleontological monographs by Boehm, Wanner, Krumbeck, Soergel, Von Seidlitz and others)

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(online at: https://repository.naturalis.nl/pub/317444)
(On the history of National Museum for Geology and Mineralogy in Leiden since 1878. Incl. descriptions of work on fossil collections from 'Netherlands Indies')

De Haan, W. (1946)- Ter herdenking van Ir. H. Terpstra. Geologie en Mijnbouw 8, 7, p. 41-42.
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De Jongh, A.C. (1924)- Mijnbouwkundige opsporingen en geologische opnames in Nederlandsch-Indië. De Mijningenieur, Gedenknummer 75-jarig bestaan Dienst van het Mijnwezen, 1850-1925. p. 44-46.
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De Jongh, A.C. (1935)- De publicistische werkzaamheid van den Indischen geologische dienst en haar huidige belemmering. Tijdschrift Koninklijk Nederlands Aardrijkskundig Genootschap 52, p. 399-406.
(online at: https://resolver.kb.nl/resolve?urn=MMUBA13:001683001:pdf)
('The publication activities of the Indies Geological Survey and its current limitations'. Laments government budget cuts and decrease in volume of publications in 'Jaarboek van het Mijnwezen')

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(online at: https://www.delpher.nl/nl/tijdschriften/view?identifier=MMUBL09:001058044 Etc.)
('Rebuilding of the Geological Survey in the Netherlands Indies?'Part of discussion on the neglect (budget cuts since 1932) and importance of the Geological Survey in Bandung, after earlier discussion papers by L. Rutten (July 1938) and W.C.B. Koolhoven (July 1939). De Jongh was former Chief of the Survey, util 1933)

De Jongh, C.A. (1922)- Geschiedenis van de petroleumindustrie op Java. De Mijningenieur 6, 2, p. 63-66.
(Brief, early history of petroleum industry on Java. First technically successful oil wells but commercial failures were near Cirebon in 1874 by J. Reerink. It was followed by more succesful exploration in the Surabaya area from 1889 by 'Dordtsche Petroleum Maatschappij' (DPM) of Ir. Adriaan Stoop. In 1899 DPM expanded into the Rembang/ Cepu area. In 1911 the merger between DPM and 'Bataafsche Petroleum Maatschappij' (BPM) established BPM as the by far dominant player in Java and elsewhere in 'the Indies')

De Jongh, D. (1910)- Levensbericht van den mijningenieur Carel Jan van Schelle. Jaarboek Mijnwezen Nederlandsch Oost-Indie 38 (1909), Wetenschappelijk Gedeelte, p. vii-xiv.
('Obituary of mining engineer C.J. van Schelle'. 1847-1909. One of the early generation of mining engineers at Dienst van het Mijnwezen (1872-1894. Studied in Delft and Freiberg (Saxony). Conducted numerous mining-geological surveys in Kalimantan, Sumatra and Flores. Narrowly escaped being killed by natives on Flores, while searching for rumored tin deposits)

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(online at: www.ga.gov.au/corporate_data/49556/Jou1992_v13_n3.pdf)
(Thorough review of geological survey work in W Kalimantan from early 1800's-1990 First journeys by Europeans into interior between 1816-1850. After 1850 establishment of Mines Department, Everwijn checked reported mineral occurrences. Systematic mapping project in 1923-1932 covered most of W Kalimantan)

De Koning Knijff, J. (1910)- Levensbericht van den mijningenieur Hugo Cool. Jaarboek Mijnwezen Nederlandsch Oost-Indie 38 (1909), Wetenschappelijk Gedeelte, p. xv-xx.
('Obituary of mining engineer Hugo Cool'. Mining engineer from Delft and Freiberg, with Mijnwezen in Bangka and Batavia from 1905-1910. Died in Makassar on way to fieldwork in Rante Pao from fever at age 30)

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('Rocks and minerals from Netherlands East Indies- 1: Tin'. Early review of tin occurrences in Indonesia)

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(online at: https://www.iseas.edu.sg/wp-content/uploads/2015/07/de_loos_1889.pdf)
('Rocks and minerals from Netherlands East Indies- 2: Diamonds and precious metals'. Early, popular review of diamonds and platinum in alluvial deposits of Kalimantan, gold of Kalimantan and Sumatra, silver and mercury of Padang Highlands, W Sumatra)

De Looze, E.M.A. (2001)- Eug. Dubois and punctuated evolution: letters to H. Engel. Contributions to Zoology 70, 1, p. 51-60.
(online at: http://www.ctoz.nl/vol70/nr01/a04)

De Meyier, J.E. (1911)- De goud- en zilvermijn Salida. De Indische Gids 32, p. 28-67.
(History of the Salida gold- and silver mine in W Sumatra, first unsuccessfully exploited by VOC (Dutch East Indies Company) in the 1700's (and resurrected several times since then))

De Neve, G.A. (1946)- Micropaleontological retrospect-prospects in the Netherlands East Indies. Natuurwetenschappelijk Tijdschrift voor Nederlandsch Indie 102, 7, p. 139-142.
(Brief discussion on the use of micropaleontology and history of research in the Netherlands Indies)

De Neve, G.A. (1946)- De natuurwetenschappelijke instituten tijdens den bezettingstijd. Natuurwetenschappelijk Tijdschrift voor Nederlandsch Indie 102, 7, p. 148-149.
('The natural science institutes during the occupation period'. Brief report on the Bandung Geological Museum during Japanese occupation of March 1942- August 1945)

De Neve, G.A. (1947)- In memoriam March 1942- December 1945. Bull. Bureau of Mines and Geological Survey of Indonesia 1, 2, 1p.
(Brief listing of European geologists employed at Bandung geological survey, who died during the Japanese occupation and subsequent 'bersiap' episode in Java: incl. J. Duyfjes, C. Harloff, W.H. Hetzel, K. Musper, C. Stehn, Tan Sin Hok, etc.)

De Neve, G.A. (1950)- East Indies. The Micropaleontologist 4, 3, p. 12-14.
(Brief review of paleontological activities in Indonesia, where paleontological laboratories were active at Geological Survey (Bandung: De Neve), Caltex (Pakanbaru: Boomgaart), BPM (Plaju, Balikpapan, Cepu and Sorong) and Stanvac (Sungei Gerong: MacGillavry, Wissema))

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(Brief review of paleontological activities in Indonesia in 1950-1951)

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(online at: https://dwc.knaw.nl/DL/levensberichten/PE00003580.pdf)
(Obituary of I.M. van der Vlerk (1892-1974), paleontologist at Bandung Geological Survey from 1922-1928. Mainly known for work on Tertiary larger foraminifera of Indonesia, particularly evolution of Lepidocyclina and 'Letter Classification' zonation of Tertiary)

Den Tex, E. & H.J. Zwart (2002)- Levensbericht van Willem Paul de Roever 7 maart 1917- 24 september 2000. In: Levensberichten en herdenkingen 2002, Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, p. 89-94.
(online at: https://www.knaw.nl/nl/actueel/publicaties/levensberichten-en-herdenkingen-2002)
(Obituary of Prof. W.P. de Roever of Geological Survey, Bandung (1946-1950) and University of Amsterdam (1950-1975). Made a variety of significant contributions to the geology of Indonesia geology in the 1940's- 1950's (Timor, Sulawesi, Bangka), as well as general concepts of metamorphic facies and significance of ophiolite bodies in Alpine foldbelts)

De Roever, W.P. (1962)- In memoriam Prof. Dr. Ir. J. Westerveld. Geologie en Mijnbouw 41, 10, p. 405-408.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0Q0szeFlCbEJxc1k/view)
(Obituary of J. Westerveld, geologist of 'Dienst Mijnwezen' (Geological Survey, Bandung) from 1929-1935, then professor in Amsterdam. Author of 2 S Sumatra map sheets in 1931, 1933, papers on 'welded tuffs' of Sumatra, geology of Bangka and tin granites, etc.))

De Roever, W.P. (1973)- Levensbericht van H.A. Brouwer (20 september 1886 - 18 september 1973). Jaarboek Koninklijke Nederlandse Akademie van Wetenschappen 1973, Amsterdam, p. 194-196.
(online at: https://dwc.knaw.nl/DL/levensberichten/PE00004403.pdf)
(Obituary of H.A. Brouwer, professor of geology in Delft (1918-1929) and Amsterdam (1929-1956). Worked at 'Dienst Mijnwezen' (Geological Survey) in Bandung) from 1910-1916. Nominated Professor in Historical

Geology and Paleontology at the Technische Hogeschool Delft in January 1918, and 'Bijzonder Hoogleraar' in Geology at the University of Utrecht in October 1925. Participated in geological expeditions to Timor (Molengraaff Expedition of 1912) and led expeditions to Central Sulawesi in 1929 and Timor in 1937)

De Ruiter, P. (2012)- The Dutch Indies, fertile ground for earth science. In: P. Floor (ed.) Dutch Earth Sciences - development and impact. Royal Geological and Mining Society of the Netherlands (KNGMG), The Hague, 7.1, p. 232-263.
(online at: https://www.kngmg.nl/wp-content/uploads/2023/01/KNGMG-Jaarboek-binnenwerk.pdf))
(Elegant review of work by Dutch earth scientist in Netherlands Indies

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De Sitter, L.U. (1946)- In memoriam Dr. C.E.A. Harloff. De Leidsche Geoloog 10, 2, p. 6-7.
(online at: https://www.lgvweb.nl/wp-content/uploads/2020/03/Leidse-Geoloog-Vol-10-No-2-dec-1946.pdf)
(Obituary of geologist Charles Harloff, who, after a doctorate in Leiden in 1927, worked at the Dienst van de Mijnbouw in Bandung in 1928-1938. Best known for his works on the Pretertiary-Paleogene Luk Ulo complex in C Java (Banjarnegara map sheet; 1933), After an accident in Indonesia in 1937, Harloff repatriated to Europe and spent until 1939 in a sanatorium in Switzerland. In september 1939 he enlisted as 'Reserves Captain Observer' in the Dutch Navy Air Division. He received Dutch and British Army rewards for heroism in the 1940 battle of Rotterdam. From England, he conducted covert Intelligence operations in mainland Europe in 1943-1944, after which he was found in a German prison by Allied troops in 1945, in much weakened state. He was moved to London, where he died of exhaustion in the Royal Masonic Hospital in October 1945)

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(online at: https://journals.open.tudelft.nl/iphs/article/view/2676/2885)
(Story of the military battles for the BPM South Sumatra oilfields and Plaju refinery during the Japanese occupation in 1942-1945)

De Vries, S. (translator) (1694)- Drie seer aenmercklijcke reysen nae en door veelerley gewesten in Oost-Indien; gedaen van Christophorus Frikius, chirurgijn: Elias Hesse, bergh schrijver: Christophorus Schweitzer, boekhouder; yeder bysonder, van 't jaer 1675. tot 1686. Willem van de Water, Utrecht, p. 1-435.
(online at: https://books.google.com/books.....)
('Three very remarkable journeys through many parts of the East Indies, done by Christophorus Frikius, surgeon: Elias Hesse, mine administrator and Christophorus Schweitzer, bookkeeper in the years 1675-1686'. Translated from German into Dutch by Simon de Vries. Travel journals of three German officials of the VOC. Of main interest is account by Elias Hesse, mine administrator of Salida gold mine in W Sumatra, in 1680-1684 (p. 169-346). Virtually all of the 16 miners recruited from Freiberg, Saxony, died within a few years of departure from Amsterdam)

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('The revival of the Bukit Asem coal mines in South Sumatra'. Brief review of restoration of coal production under Dutch management in 1947 of Bukit Asam coal mines (where mining had continued during Japanese occupation)

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(Commemoration of life and work of Georg Rumphius, born in Germany in 1627, who spent most of his adult life as VOC merchant and naturalist on Ambon)

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(Biography of prof. J.A. Katili, leading Indonesian geologist during the 1960s-1970s)

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(Literature review of publications indexed within the Scopus database from 1900 to 2016 on topics related to disasters and climate change in Indonesia)

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(online at: https://resolver.kb.nl/resolve?urn=MMUBL07:000002603:pdf)
(Manual for 'Mijnwezen' (Bureau of Mines of the Netherlands Indies) personnel, for mapping of petroleum terrains. Focused on experience in C Sumatra)

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(Autobiographic account of D.B. Dow's geological mapping work in New Guinea. Hard to find book)

Dozy, J.J. (1979)- Obituary H.M.E. Schurmann (1891-1979). Geologie en Mijnbouw 58, 3, p. 289-294.
(online at: https://www.kngmg.nl/en/geologie-en-mijnbouw-portal-1961-2004/)
(Obituary of German geologist Heinrich M.E. Schurmann, who worked in Sumatra, Java and Borneo for BPM/Shell in 1914-1930. During this time Schurmann published papers on prehistoric shell mound in NE Sumatra, and other academic interests. Afterwards he moved to a geological manager position with BPM-Shell in The Hague and was active with various international geoscience organizations)

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(Biography and summary of East Java mapping work of Johan Duyfjes in the 1930s, by his oldest son. Duyfjes spent most his career in East Java, and died in Japanese internment camp in Thailand in 1943)

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(Early description of physical geography of the Nethrlands Indies. One map, no figures))

Earle, M. (2008)- A mountain to climb on Timor. Matador, Leicester, p. 1-261.
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Egeler, C.G. (1973)- In Memoriam Prof.Dr. Ir. H.A. Brouwer, 20 sept. 1886- 18 sept. 1973. Geologie en Mijnbouw 52, 5, p. 253-256.

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('Indonesia on the map- The role of the Dutch presence in Indonesia for the development of geodesy in The Netherlands'. Extensive account of topographic surveying in Netherlands Indies/ Indonesia between 1800-1990)

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(Brief review of mining history in Indonesia since early 1800s)

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('Program of activities of a proposed department (committee) for volcanology of the Royal Natural History Society' (of Batavia) in August 1918, with an archive, library and volcanological rock collection. Together with preceding call by Wing Easton (19916) and paper by Hovig (1918) this proposal soon led to creation of Volcanological Survey Department within Dienst van het Mijnwezen, at first headed by G. Kemmerling)

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(online at: www.repository.naturalis.nl/document/549282)
(Biography of Prof. K. Martin, professor of geology and paleontology of University of Leiden since 1877 and also Director of National Museum of Geology- Mineralogy in Leiden. Spent most of his career on study of fossils from Indonesia, especially Java. With list of publications from 1873-1931)

Escher, B.G. (1933)- Georges Laure Louis Kemmerling. Zeitschrift fur Vulkanologie 15, p. 1-7.
(Obituary of G. Kemmerling, volcanologist-geologist at the Bureau of Mines in the 1920's. First Dutch geologist in the Dienst van het Mijnwezen (others were Delft mining engineers). First Chief of Volcanology Department of the Dienst van het Mijnwezen in 1918, at that time still located in Batavia. Repatriated from the Indies prematurely in 1926 due to tropical sickness, and passed away in 1932 at age 44))

Faber, F. (1946)- Petroleum zoeken en ontdekken. Thieme, Zutphen, p. 1-197.
('Exploration and discovery of oil'. Popular science booklet with large section on history and development of petroleum industry in colonial-era Indonesia)

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('Scorched Earth: The destruction and evacuation of the oil terrains in the Netherlands Indies'. Book commissioned by BPM-Shell about sabotage of oilfield installations and refineries by BPM personnel in January 1942, ahead of Japanese conquest of Palembang oil installations in S Sumatra)

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(Extensive overview of petroleum industry in Indonesia and Indonesianization during and after the Japanese occupation)

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(online at: https://brill.com/view/journals/bki/178/2-3/article-p225_3.xml)
(Review of archeological/paleontological/paleoanthropological work of Catholic priest and amateur palaeontologist T. Verhoeven on Flores Island in 1950s-1960s. His work triggered investigations that resulted in discovery of Homo floresiensis in Liang Bua cave in 2003)

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(online at: https://scholarspace.manoa.hawaii.edu/bitstream/10125/19246/AP-v25n2-obit.pdf)
(Obituary and list of publications by G.H.R. Von Koenigswald, former Head of the Paleoanthropology Division at the Forschungsinstitut Senckenberg in Frankfurt between 1968 and 1982. Best known for his early work, on 'Java Man' and Pleistocene mammal faunas of Indonesia, first as paleontologist with the Bandung Geological Survey from 1931-1936, Carnegie research associate from 1937-1941, etc.. Described Homo (Pithecanthropus) modjokertensis in 1936 and other hominid discoveries from Sangiran, etc.)

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(2nd Ed. 1939- part 1 online at: https://resolver.kb.nl/resolve?urn=MMKB24:073164000:pdf)
('History of the Royal Dutch'. Monumental book series on Royal Dutch/ Shell oil company, which had its origin in 1890's in Langkat, North Sumatra with the founding of 'Koninklijke Nederlandsche Maatschappij ter Exploitatie van petroleumbronnen in Nederlandsch-Indie'. Published in multiple editions since 1932)

Gerretson, F.C. (1953-1958)- History of the Royal Dutch. E.J. Brill, Leiden, vols. 1-4.
(English version of Dutch edition of history of Royal Dutch/ Shell)

Gerth, H. (1943)- K. Martin. Neues Jahrbuch Mineralogie Geologie Palaontologie, Abhandlungen B, 6, p. 157-167.
(Biography and bibliography of K. Martin (1851-1942), the German-born geology-paleontology professor at Leiden University and Natural Hisry Museum. Mainly known for his numerous contributions on Java Tertiary molluscs, and therefore called 'Linnaeus of the Javanese Tertiary')

Gerth, H. (1944)- Die wissenschaftliche Bedeutung des Lebenswerkes von Prof. Dr. K. Martin. Leidsche Geologische Mededelingen 14, 1, p. 1-9.
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('The scientific significance of Prof. K. Martin's lifetime work')

Gerth, H. (1957)- Nachruf auf J. Wanner. Neues Jahrbuch Geologie Palaontologie, Monatshefte, p. 226-232.
(Obituary of Johannes Wanner, German geologist/paleontologist from University of Bonn who early in his career did pioneering work as petroleum geologist for BPM and conducted self-funded geological expeditions to Timor and othr parts of Eastern Indonesis)

Godefroy, W. (1922)- Levensbericht van den mijningenieur Daniel de Jongh Hzn. Jaarboek Mijnwezen Nederlandsch Oost-Indie 48 (1919), Verhandelingen I, p. 1-10.
(Obituary of mining engineer D. de Jongh. Studied at Polytechnische School in Delft and started at Dienst van het Mijnwezen in 1875. A first assignment in the geological survey team of R. Verbeek in W Sumatra apparently failed to arouse De Jong's enthousiasm for geological fieldwork. From 1876, he spent most of his career at the

tin mines on Bangka. In 1898 he became Chief of the Mijnwezen Department (initially temporary, substituting for R. Verbeek who preferred to do geological fieldwork instead of administration) After retirement in 1902 he worked for the Billiton Maatschappij until 1905. He retired in Sukabumi, where he passed away in 1919)

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(Obituary of G.P.A. Renaud, mining engineer from Delft. Arrived at Mijnwezen in Bogor in 1866, was Head of the Survey Department from 1885 until retirement in 1898)

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(History of early American involvement in Indonesian oil development, from marketing of lamp oil (kerosene) by Standard Oil after 1865, to rivalry between Standard Oil and Royal Dutch-Shell in early 1900's)

Grimaud-Herve, D., F. Detroit & H. Widianto (2008)- In memoriam: Teuku Jacob (1929-2007). Bulletins Memoires Societe Anthropologie de Paris, 20, 1-2, p. 9-11.
(Brief obituary of Indonesian anthropologist Teuku Jacob, paleoanthropology student of R. von Koenigswald, professor at Gajah Mada University, Yogyakarta (in French))

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(online at: https://brill.com/display/title/23637)
(Early history of the 'Batavian Society of Arts and Sciences' since 1778, the predecessor organization of today's National Museum and the National Library of the Republic of Indonesia in Jakarta)

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(Obituary of Mijnwezen mining engineer N. Wing Easton, who worked at the Dienst van het Mijnwezen of the Neth.-Indies in 1885-1906 (mainly known for West Borneo surveys). Immediately after retirement Wing Easton became Technical Representative of the Dordtsche Petroleum Maatschappij, from 1906 until its merger with Royal Dutch/Shell in 1911 (based in Surabaya))

Hala, J. & G. Vargyas (eds.) (1992)- Horst Von Bandat, a Hungarian geologist in western New Guinea. Occasional papers in Anthropology 4, Ethnographical Institute Hungarian Academy of Sciences, Budapest, p. 1-102.
(online at: http://mek.oszk.hu/20100/20140/20140.pdf)
(Memorial volume on Horst van Bandat, Hungarian-born petroleum geologist for BPM in Sumatra (1929-1932) and Sulawesi (1933-1935), and with NNGPM in West New Guinea (1936-1938). Known mainly for geological photo-interpretation studies. Died in the USA in 1982)

Harrer, H. (1965)- I come from the Stone Age. E.P. Dutton & Co., New York, p. 1-256.
(English edition of 1963 book by Austrian explorer/ mountaineer Heinrich Harrer, on the first expedition to reach the top of the Carstensz Pyramid (Puncak Jaya) in West Papua in 1962 (the 1937 Colijn-Dozy expedition climbed a nearby top, which they erroneously thought was the highest point of the Carstensz Massif). Harrer was also the first European to visit the quarries of blue glaucophane schist and green chloromelanite (a type of jade) at Ya-Li-Me, north of Mulia, the source of 'neolithic'stone axes, still in use by Dani Papuans at that time (in the ophiolite-metamorphics belt at the northern edge of the Central Range foldbelt). Harrer also observed the rapid retreat of glaciers in the area))

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(Memorial of pioneering Italian petroleum geologist Dr. C. Porro, who, with Swiss Prof. C. Schmidt, made the first map of anticlinal structures in NE Sumatra in 1899-1900. This marked the start of widespread petroleum

geological mapping in the Netherlands Indies, especially by Royal Dutch/Shell (BPM) European contract geologists)

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(Review of evidence that Borneo was important gold mining center (Sambas-Landak, etc.), with connections to India, well before the arrival of the Portuguese and Dutch. Many quotes from Posewitz (1889, 1892) Borneo book)

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(online at: ftp://rock.geosociety.org/pub/Memorials/v07/Thalmann-HE.pdf)
(Obituary of micropaleontologist Dr. Hans Thalmann who worked in Indonesia for BPM and NKPM-Stanvac in 1930's)

Helbig, K.M. (1941)- Georg Muller, ein Deutscher Pionier im malaiischen Archipel. Geographische Zeitschrift 47, 2, p. 88-94.
('Georg Muller, a German pioneer in the Malay Archipelago'. Review of life of Georg Muller, German naturalist employed by the 'Natuurkundige Commissie' of Leiden. Muller was first European to attempt an E-W crossing of Borneo in 1825, but was reportedly killed by Dayak tribes in watershed between the Kapuas and Mahakam Rivers. The Muller mountain Range in C Kalimantan was named in his honor)

Helmig, B. (1998)- The Huffco-VICO story (Indonesia 1968-1990). In: R.W. Murphy (ed.) The silver years, 25 years of SEAPEX, 2nd Ed., SE Asia Petroleum Exploration Society (SEAPEX), Singapore, p. 51-58.

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(online at: https://muse.jhu.edu/pub/43/article/838735/pdf)
(Interesting discussion of the famous 1850s lithograph plates based on Junghuhn's drawings, as published in 'Java Album')

Hesse, Elias (1931)- Gold-Bergwerke in Sumatra 1680-1683. 1931 reprint, Nijhoff, The Hague, p. 1-195.
('Gold mines on Sumatra, 1680-1683'. Reprint of book originally published in Leipzig in 1690, volume X of series 'Reisebeschreibungen von deutschen Beamten und Kriegsleuten im Dienst der Niederlandischen West- und Ost-Indischen Kompagnien 1602-1797'. Hesse was a Saxon mine supervisor at Salida mine in 1681-1683)

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(online at: http://library.dmr.go.th/elib/cgi-bin/ Etc.)
(Overview of the almost 65 year long scientific career of Jesuit priest Father Henri Fontaine, pioneering geologist/paleontologist of Pretertiary in SE and East Asia. Main area of expertise Paleozoic corals)

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(First geothermal exploration drilling by Netherlands Indies Dienst van het Mijnwezen at fumarole field of Kawah Kamojang, Java, in 1926. Reconnaissance surveys since 1960s show >200 geothermal prospects with significant surface manifestations in Indonesia)

Hoeksma, C. (1913)- Schetsen uit de olie- Een boek bevattende eenige mededeelingen over de olie-industrie in Nederlandsch-Indie, benevens een verzameling van gebeurtenissen en toestanden door schrijver dezes medegemaakt tijdens zijn dertienjarige loopbaan in de olie. Nederlandsch Indische Maatschappij Nijverheid en Landbouw, Ruygrok, Batavia, p. 1-129.

('Sketches from the oil industry- A book containing some communications on the oil industry in the Netherlands East Indies, besides a collection of events and situations encountered by this author during his thirteen year career in the oil industry'. Popular accounts of methods and status of early oil industry in Indonesia in early 1900's in oil drilling and production in Sumatra and E Borneo with Koninklijke Nederlansche Petroleum Maatschappij (later BPM/ Royal Dutch-Shell))

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(online at: https://archive.org/details/in.ernet.dli.2015.183759)
Review of state of science in Netherlands Indies immediately prior to Japanese occupation. With chapters on geology by H. Stauffer, Mineral resources by R.W. van Bemmelen, volcanology by A.L. ter Braake, zoogeography by E. Mayr, earthquakes, climate, archeology, agriculture and many other topics)

Houwink, L. (1925)- 75 jaar Mijnwezen- Geschiedenis van den Dienst. De Mijningenieur, Gedenknummer 75-jarig bestaan Dienst van het Mijnwezen, 1850-1925. p. 1-43.
(online at: https://resolver.kb.nl/resolve?urn=MMKB31:034016000:pdf)
(Rel. comprehensive review of 75-year history of the Dienst van het Mijnwezen in the Netherlands Indies until 1925, starting in Buitenzorg (Bogor) in 1850, then moved to Weltevreden (Jakarta) and finally Bandung)

Houwink, L. (1925)- Levensbericht van den mijningenieur Ir. Jan de Koning Knijff. Jaarboek Mijnwezen Nederlandsch-Indie 53 (1924), Verhandelingen, p. 6-10.
(Obituary of Ir. J. de Koning Knijff (Utrecht 1867- The Hague 1924), Mijnwezen engineer, graduated from TH Delft in 1889. Arrived at Mijnwezen in Batavia in Jan. 1891 and placed at Bangka tin mines until 1899. Sick leave in Europe in 1900-1903. Chief of 'Grondpeilwezen' (Groundwater Survey) in 1903-1906, still in poor health. In 1909 conducted a reconnaissance survey in Toraja lands of S and C Sulawesi with H. Cool. In 1910-1913 Head of the Opsporingsdienst in Batavia. JdKK returned to The Netherlands in 1913 for health reasons and became Lecturer and Professor at TH Delft until his passing in 1924)

Hovig, P. (1918)- De vulcanologie in Nederlandsch-Indie. Natuurkundig Tijdschrift voor Nederlandsch-Indie 78, p. 80-98.
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(Memorial for Ir. Markus Koperberg, Delft mining engineer with Dienst van het Mijnwezen (Bureau of Mines) in the Netherlands Indies from 1885-1907 and known mainly for his mining-geological survey work in the Menado Residency, North Sulawesi)

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(online at: www.academia.edu/50707540/Tambang_Batubara_Oranje_Nassau_Kalimantan_Selatan_Dalam_Pandangan_Arkeologi_Industri))
('The Oranje Nassau coal mine, South Kalimantan, in view of industrial archaeology'. Description of remnants of the oldest coal mine in Indonesia, Oranje Nassau, in Pengaron village, at that time part of the Sultanate of Banjarmasin. It was operated by the Dutch colonial government. The mine operated from 1849-1884. Remnants of mine include engine house, coal pits, hallways, tunnels, etc. Technology was imported from Europe)

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('Revealing Borneo. Objects, photographs and documents of Swiss geologist Leupold in the Netherlands Indies 1921-1927'. Memorabilia from Swiss geologist Wolfgang Leupold of the Dienst van het Mijnwezen (Geological Survey), surveying in Tarakan, Bunyu, Bulungan, Berau and Mangkalihat areas of NE Kalimantan)

Jackson, J.C. (1969)- Mining in 18th century Bangka: the pre-European exploitation of a 'tin island'. Pacific Viewpoint 10, 2, p. 28-54.

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(Chinese gold miners were active in 'Chinese Districts' of W Kalimantan since 1740's. In 1820 Chinese population estimated at ~36,000, working 13 large and 57 small gold mines, organized under 'kongsi system'. Estimate for 1850: ~50,000. Under Dutch pressure, 'kongsis' dismantled in 1857, ending a flourishing mining industry)

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('Geological resesearch in the Netherlands Indies'. Discussion by Delft professor Jonker on the desirability of more geologists working in the Indies, while recognizing that very few geologists have been trained in the Netherlands, so most of these jobs are being filled by Swiss and German geologists))

Jonker, H.G. (1912)- Beschouwingen over de opleiding van geologen in Nederland en het geologisch onderzoek van Nederlandsch-Indie. De Ingenieur 1912, Nos. 23, 24, Reprint by F.J. Belinfante, The Hague, p. 3-38.
(online at: https://www.delpher.nl/nl/boeken/view?identifier=MMKB24:073690000:00011)
('Considerations on the education of geologists in the Netherlands and geological research in the Netherlands Indies'. Follow-up discussion of paper above, again arguing that exploration needs to be done by geologists, not mining engineers, and there is an urgent need for training of more Dutch geologists. In the Netherlands Indies mining engineers are typically not qualified to become Chief of Mijnwezen (Geological Survey/ Bureau of Mines), due to lack of critical geological and exploration skills. Etc. No figures)

Jonker, J. & J. Luiten van Zanden (2009)- From challenger to joint industry leader, A history of Royal Dutch Shell, 1, Oxford University Press, p. 1-566.
(Another extensive history of Royal Dutch Shell Company, whih started in N Sumatra in the 1890s)

Joshua, N. (2018)- Worker's paradise: A history of labor in the oil town of the Netherlands-Indie, 1890-1939. Jurnal Sejarah 1, 2, p. 1-24.
(online at: http://www.jurnalsejarah.org/index.php/js/article/view/65/66)
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(online at: https://catalog.hathitrust.org/Record/001995235)
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(Obituary of Shell palynologist Dr. Jan Muller, "the father of palynology of SE Asia". Student of Prof. F. Florschuetz. After a long stint with Shell in Maracaibo, Venezuela, Muller worked in North Borneo in 1958-1964, then at Shell Central Palynological Laboratory in Rijswijk, the Netherlands (1964-1967), and after retirement as a researcher with the Rijksherbarium in Leiden until 1983)

Kalkman, C. (1987)- In memoriam C.G.G.J. van Steenis (1901-1986). Blumea 32, p. 1-37.
(online at: www.repository.naturalis.nl/document/566435)
(Obituary of Prof. C. van Steenis, botanist at Rijksherbarium- Leiden, who spent most of his career studying flora of Indonesian archipelago ('Malesia'). With list of publications (1922-1987))

Katili, J.A. (1961)- Report on the training facilities in the field of geology and mining engineering in Indonesia. Report UNESCO/NS/NR/9, p. 1-33.
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(Review of 1961 status of higher education in geology/ mining in Indonesia (mainly ITB))

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(Obituary of Prof. Theo Klompe, petroleum geologist with NKPM/ Stanvac from 1929-1942, prisoner of war from 1942-1945. Professor of geology at University of Indonesia (now ITB), Bandung, from 1948-1958, and at Chulangkorn University, Bangkok, from 1958-1962)

Katili, J.A. (1980)- Geological and geophysical research in Southeast Asia: the state of the art. In: A.Y. Takenouti (ed.) The Kuroshio IV, Proc. 4th Symposium for the Co-operative study of the Kuroshio and adjacent regions. Symposium, Tokyo 1979, Tokyo Academy, p. 1-14. *(also in Katili 1985- Advancement of geoscience in the Indonesian region, p. 135-148)*

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(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0dTZKckNEU01sMEE/view)
(Undation theory, launched in Indonesia by Van Bemmelen, had great impact on development of earth sciences. First envisaged as fixistic concept, theory was later developed into mobilistic one which accommodates continental drift and sea-floor spreading hypothesis, but instead of accepting theory of extensive rigid plates it utilised rheological approach for island arcs. Geotectonic evolution of Indonesia is presented in this paper)

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('Theodor Posewitz and his Borneo'. Overview of the life of T. Posewitz (1850–1917), a Hungarian medical doctor and Freiberg-Bergakademie-trained geologist/mining engineer who worked in Dutch East Indies between 1880 and 1885, as medical officer in Dutch colonial army, on Java, Borneo and Bangka islands, but dedicated all his spare time to geological exploration and study. His main work was the book 'Geology of Borneo', first published in German (1889), translated into English in 1892. With extensive bibliography of Posewitz' Asia publications)

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(online at: https://www.researchgate.net/publication/377131492_THEODOR_POSEWITZ_AND_HIS_BORNEO_1889_-_THE_FIRST_GEOLOGICAL_MONOGRAPH_OF_THE_ISLAND)
(English-language version of paper above. About Theodor Posewitz (1850–1917), a Hungarian medical doctor and geologist, who spent five years in the Dutch East Indies (1880 and 1885). Best known forthe first monograph on the geology of Borneo, published in German in 1889 and in English in 1892)

Kemmerling, G.L.L. (1927)- In Memoriam Dr. R.D.M. Verbeek. De Mijningenieur 7, 5, p. 79-80.
(Brief obituary of R.D.M. Verbeek, who died at age 81 on May 1927. After 33-year career of geological field surveys with Bureau of Mines of the Netherlands Indies Verbeek continued to be active in Indonesia geology for 25 more years)

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(Obituary of Dr. Paul Francois Hubrecht, who, after studying in Utrecht and Heidelberg, participated as geologist in three New Guinea expeditions: 1910-1912 (Dutch-German Border Expedition), in 1912 (which reached Wilhelmina Peak from the S coast) and 1920-1921 (which reached Wilhelmina Peak from the Mamberamo River along the North coast). From July 1923 he became director of several sugar plantations on Java. Died early, at age 48)

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('How far to Airmolang?'. Thorough biography of German geologist Dr. K.A.F.R. Musper and his family in Indonesia, by German geophysicist/author G. Keppner. Musper spent most of his career with the Dienst van den Mijnbouw in Sumatra and Bandung, and made numerous significant contributions to geological mapping in Sumatra and Java in the 1920s-1930s. Musper was wrongfully arrested in Bandung in 1940 and died in a Dutch prison camp in Surinam in 1942. The title refers to Musper's agonizing trip down the Indragiri River from his base camp in Taluk to the Air Molek (Ayer Moelik) rubber plantation in 1924, to seek medical help for his dying wife. Medical help came too late and Mrs. Musper passed away soon after arrival at Air Molek)

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('*Gold mining by the Dutch East India Company on Sumatra 1670 until 1737. Based on the reports from Saxon (German) miners Elias Hesse and Johann Wilhelm Vogel'*)

Klein, W.C. (1928)- Veldgeologisch werk bij de Bataafsche Petroleum-Maatschappij in Nederlandsch-Indië. De Ingenieur 1928, 31, M. Mijnbouw, p. M61-62.
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('Field geological work by the BPM in the Netherlands Indies'. Brief review of different approaches to geological mapping work between 'academic' government geologists and oil company geologists. The latter focus on mapping of sedimentary basins and on anticlinal structures, usually with the aid of shallow core holes, and on building an inventory of surface indications of hydrocarbons (seeps))

Klompe, Th.H.F. (1954)- In memoriam Johannes Herman Frederic Umbgrove, 1899-1954. Indonesian J. Natural Science (Majalah Ilmu Alam untuk Indonesia) 110, p. 121-129.
(Obituary of J.H.F. Umbgrove, employed at Bandung geological survey 1926-1930, then geology professor at Delft Technical University. Well known for work on Indonesian foraminifera, corals, coral reefs, Neogene and Pre-Tertiary stratigraphy, structural geology, etc.)

Klompe, Th.H.F. (1957)- The status of geological mapping in Indonesia and adjacent areas. Indonesian J. Natural Science (Majalah Ilmu Alam untuk Indonesia) 113, p. 127-138.

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(Book on the life of S.V.D. missionary and amateur archeologist Theo Verhoeven, who did pioneering work on Pleistocene mammals of Flores and Timor)

KNGMG (1994)- Presentation of the Van Waterschoot van der Gracht medal to Prof. Dr. John A. Katili. Geologie en Mijnbouw 73, 1, p. 79-83.
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(online at: https://www.kurumbiwone.com/wp-content/uploads/2021/01/Dutch-anthropology-in-Indonesia.pdf)
(Review of development of (mainly cultural) anthropology in Indonesia since Dutch colonial era, by Prof. Koentjaraningrat of University of Indonesia)

Koomans, J. (1919)- Beschouwingen over de stichting van een staalindustrie op Midden-Celebes. Verslagen Mededeelingen Indische delfstoffen en hare toepassingen, Dienst Mijnwezen Nederlandsch Oost-Indie, 8, Batavia, p. 1-196.
('Discussion on the building of a steel industry in Central Celebes'. Extensive lateritic iron ores had been identified at Larona in the lakes area of C Sulawesi and at Soengei Doewa (Kukusan) in SE Borneo, and with the push for industrialization of the Netherlands Indies, the idea of a local steel industry had been floated. The author deemed it economically feasible, with the use of low-cost hydroelectric power (later it was found that Tertiary coals of Indonesia were unsuitable for coking coal needed in steel-making process, and, except for a failed private operation in Lampung, iron-steel plants were never built during the colonial era; JTvG)

Koninklijke Natuurkundige Vereeniging, Indonesia (1950)- Een eeuw natuurwetenschap in Indonesie 1850-1950. Vorkink, Bandung, p. 1-279.
('A century of natural sciences in Indonesia 1850-1950')

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('The Geological Survey of the Netherlands Indies'. Response to Rutten (1938) who had argued that budgets and staff of Bandung geological survey had been reduced too much)

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('1850-1930. Commemoration of the 80-year existence of Mijnwezen, now the Dienst van den Mijnbouw'. Brief history of the Bureau of Mines/ Geological Survey of the Netherlands Indies)

Krom, N.J. (1938)- Levensbericht P.V. van Stein Callenfels (4 September 1883-26 April 1938). Jaarboek Koninklijke Nederlandse Akademie van Wetenschappen (Royal Netherlands Academy of Arts and Sciences) 1937-1938, Amsterdam, p. 219-225.
(online at: https://dwc.knaw.nl/DL/levensberichten/PE00003143.pdf)
(Obituary of the 'legendary', pioneering prehistorian- archeologist in the Netherlands Indies in the 1920s-1930s, Pieter van Stein Callenfels, by his former doctorate promotor at the University of Leiden, Prof. Dr. N.J. Krom). After many contributions to interpretations of Hindu antiquities on Java, and during later archeological excavations on Java, Sumatra, Sulawesi, the Malay Peninsula, etc., the obese and hard-drinking scientist passed away prematurely at age 55, from a heart attack in Ceylon (Sri Lanka))

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('Crusades over the deep sea basins of the Indies; one and a half years as geologist on board of H/M. Snellius')

Kuenen, Ph.H. (1947)- Levensbericht van Louis Martin Robert Rutten (4 juni 1884- 11 februari 1946). Jaarboek Koninklijke Nederlandse Akademie van Wetenschappen Amsterdam, 1946-47, p. 233-239.
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(Obituary of L.M.R. Rutten, professor of geology at Utrecht University 1921-1946, known for field surveys on Seram, larger foraminifera biostratigraphy and 1927 textbook on geology of Indonesia)

Kuenen, Ph.H. (1954)- Levensbericht van Johannes Herman Frederik Umbgrove (5 februari 1889- 14 Juni 1954). Jaarboek Koninklijke Nederlandse Akademie van Wetenschappen Amsterdam, 1953-1954, p. 270-274.
(online at: https://dwc.knaw.nl/DL/levensberichten/PE00003416.pdf)
(Obituary of J.H.F. Umbgrove, paleontologist with Bandung Geological Survey from 1926-1929, professor of stratigraphy-paleontology at Delft Technical University 1930-1954, author of several major regional geology reviews textbooks, most of them about the 'East Indies')

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(Obituary for A. Tobler, author of several monumental volumes on the geology of parts of Sumatra in early 1900's)

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(online at: http://geomagz.geologi.esdm.go.id/file/2012/09/GEOMAGZ-VOL-3-NO-2-JUNI-2013.pdf)
('Raden Saleh: a native paleontological pioneer'. Excavations of Pleistocene mammal fossils at multiple locations in Central and East Java in 1859-1860 made Javanese painter Raden Saleh also the first native amateur paleontologist)

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('Oil at Maja'. About the first wells drilled for oil in Indonesia, by general store owner Jan Reerink near Cirebon in 1871)

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('An African prince in the service in the Netherlands Indies' The story of Aquasie Boachi, Prince of Ashante, and mining engineer from Delft (1827-1904)

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('Verbeek, a second Junghuhn'. Personal history of Ir. R.D.M. Verbeek)

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('Charles Edgar Stehn (1884-1945), the second Head of Volcanology'. Life history of German volcanologist C.E. Stehn at the Volcanological Survey in Bandung in the 1920s-1930s)

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(Brief biography of volcanologist Maur Neumann van Padang, who worked with the Dienst van het Mijnwezen (Geological Survey) in Bandung in 1920s-1930s. Impossible to find paper)

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(online at: https://geologi.esdm.go.id/assets/media/content/content-geomagz-vol-2-no-3-tahun-2012-.pdf)
('Profile M.M Purbo-Hadiwidjoyo, always grateful, rich without possessions'. M.M. Purbo-Hadiwidjoyo (1923-2015) was a Geological Survey of Indonesia employee and a pioneer in developing new geological terminology for the Indonesian/Malay language (Kamus Kebumian, 1965, 1975, 1994), most of which did no exist before Indonesian Independence. Attended the Republican' School of Mining Geology' in Magelang in 1946-1949. Most of Purbo's work at Geological Survey in Bandung was in geological engineering, hydrogeology and environmental geology. The paper lists Purbo's many activities as author, editor, translator and teacher)

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(Biography of I.M. van der Vlerk, micropaleontologist of Geological Survey in Bandung from 1922-1928, then lecturer and professor of paleontology at Leiden University until 1961. From 1955 also Director of the National Museum of Geology and Mineralogy in Leiden. In Indonesia best known as co-author of the 1927 'Letter Classification' paper. With list of publications)

Laudan, R. (1980)- Oceanography and geophysical theory in the first half of the twentieth century: the Dutch school. In: M. Sears & D. Merryman (eds.) Oceanography: the past, Springer Verlag, p. 656-666.
(Dutch geoscientists working in Indies tended to be more supportive of continental drift than British- American counterparts. Gravity work at sea by Vening Meinesz and the downbuckling/mantle convection current theory that followed from this, paved way for development of seafloor spreading models by H.H. Hess (1962))

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(Personal history and bibliography of J.A. Katili, pioneer of the application of plate tectonics theory in Indonesia)

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(online at: https://www.academia.edu/5200249/Diamonds_Head_Hunters_and_)
(Historic account of traders of the British East India Company in diamonds around 1610-1620 in Sambas, Landak, Sukadana, etc., Kalimantan. At that time, Borneo diamond trade already flourished with native and Dutch traders (also Arab and Chinese?). Unknown but potentially significant quantities of Borneo diamonds were shipped to Europe at that time, before diamonds from India (Golconda, until 1830), and later South Africa, began to dominate world diamond market)

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('In memory of deceased colleagues, Dr. M. von Dechy, Dr. Th. Posewitz, with portrait'. Includes brief obituary of Dr. T. Posewitz (1851-1917), chief geologist of the Hungarian Geological Survey, known for pioneering work on the geology of Borneo and Bangka in the 1880s-1890s, while working as Military Doctor in 1879-1884 (by Posewitz's brother in law, Hungarian geologist Karl von Papp (Karoly Papp))

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(Obituary of Austrian geologist Rudolf Osberger (1924-1972). Worked as teaching assistant/ researcher at University of Indonesia (now ITB) in Bandung from 1952 until March 1955, specializing in Tertiary corals. From March 1955-late 1966 with Billiton tin company, then with UN in New York. Published several key papers in both fields)

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('The Ambonese curiosity cabinet, containg a description of all sorts of soft and hard-shelled molluscs, strange lobsters and related sea animals, as well as all sorts of snails and shells that are found in the Sea of Ambon, as well as some minerals, rocks and kinds of earth that are found on Ambon and surrounding islands'. Classic description of marine fauna, geology and mineralogy of Moluccan islands by Rumphius, merchant of Dutch East-India Company (VOC), stationed on Ambon islands from 1653-1702. Includes first descriptions of geodes and Jurassic? belemnites from Taliabu, Sula islands, described as 'stone fingers, like Belemnites' (p. 253-254))

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('The needs of the geological survey in Netherlands Indies'. Prof. L. Rutten from the University of Utrecht, who made numerous significant contributions to the knowledge of the geology of Indonesia, regrets the draconian budget cuts at Bandung geological survey between 1931 1938, with virtual halt of publications after 1932. Recommends additional efforts of geological survey work, resume Sumatra mapping and conduct work in E Indonesia. See also reply by survey director Koolhoven (1939))

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(Collection of diaries, photos, etc., from 1926 Dutch-American Stirling expedition to North New Guinea, up Mamberamo River, its Rouffaer River tributary, then upland to'pygmy' tribal areas of Central Range. Over 400 participants including Dutch military and 20 scientists, 75 Ambonese soldiers, 130 Dayak canoemen and 220 Malay convict carriers (publicity following the expedition suggested that it visited never-explored regions, while several Dutch expeditions since 1912 had visited here; JTvG))

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and later Commissaris of the N.V. Algemeene Exploratie Maatschappij (~1917-1937). Spent 8 years mapping-surveying W Kalimantan between 1885-1887 and 1893-1898, monograph published in 1904. After retirement, continued updates of Verbeek's 'Geological-mining bibliography of Netherlands-Indies' from 1926-1937))

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(Expanded version of 1910 by R.D. Verbeek 1896, after creation of his new mining company, the N.V. Mijnbouw Maatschappij Salida in 1881, for exploitation of concessions Salida (gold-silver), Sarik (silver-gold) and coal concessions Boekit Poelai and Boekit Doerian. No figures)

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(Biography of Reinder Fennema, 'Mijnwezen' mining engineer/ geologist since 1875. First years worked mapping- surveying across Indonesia, with focus on coal and petroleum in W and N Sumatra. Worked with R.D.M. Verbeek on first systematic geological mapping of Java and Madura (published 1896). Drowned in boat accident on Lake Poso during survey of Central Sulawesi in 1897)

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Vitalis, G. (2001)- Emlekezes dr. Posewitz Tivadar eletere es munkassagara szuletese 150. Evfordulojan. Foldtani Kozlony (Bull. Hungarian Geological Society) 131, 3-4, p. 561-567). *(online at: http://epa.oszk.hu/01600/01635/00298/pdf/EPA01635_foldtani_kozlony_2001_131_3-4_561-567.pdf)*
(In Hungarian. 'In memory of the 150th anniversary of the birth of dr. Tivadar Posewitz'. Hungarian Dr.TheodorPosewitz. (1850-1917) was an army physician in Netherlands Indies and later Geologist at the Royal Hungarian Geological Institute (1888-1916). In 1879-1884 he worked in Java, Borneo and Bangka, and devoted all his spare time to geological research. The best-known of his many geological papers was the book 'Borneo', published in German in Berlin (1889) and in English in London (1892) (the first book on the geology and natural resources of Borneo). Back in Hungary TP conducted geological research in the NE Carpathians. In 1898 he wrote Hungarian- and German-language tourist guide books on the Hungarian (now Slovakian) Carpathians area). In 1906 he published an extensive review on 'Petroleum and asphalt in Hungary')

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(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1002/9781118666586.fmatter)
(Brief biography of F.A. Vening Meinesz, known mainly for gravity measurements at sea, particularly in Indonesian Archipelago. Discovery of strong negative gravity anomaly belts parallel to Indonesian deep sea trenches led to his tectonic theory of downbuckling of Earth's crust (predecessor of plate tectonic theory of subducting plates))

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(online at: https://opac.geologie.ac.at/ais312/dokumente/JB0092_277_A.pdf)
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(Mainly review of the politics around the award of the Jambi basin concessions to NIAM (a BPM-Government joint venture) in the early 1900s)

Von Koenigswald, R. (1931)- Fossielen uit Chineesche apotheken in West-Java. De Mijningenieur 1931, 11, p. 189-192.
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('Travel notes from Java'. Summary of lecture by Head of Hungarian Geological Survey, Lajos (Ludwig) von Loczy, about his 3-week travels across Java in April 1878, along objects of geological interest (mainly volcanoes; Ungaran, climbed Merapi)), traveling with Hungarian nobleman Count Bela Szechenyi, on their way to the 1878-1879 Hungarian East Asia Expedition to China-Tibet- Burma. With one plate)

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(Brief obituary of Louis Bakx, geologist-micropaleontologist with a doctorate in micropaleontology from Leiden in 1935. Worked for NNGPM (Stanvac) in S Sumatra from 1935-1942. Captured by Japanese in1942 and interned in Plaju, Palembang and Muntok (Bangka), where he died in December 1944 of mistreatment)

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(Memoriam for Verbeek, Netherlands Indies geological survey geologist, famous for voluminous reports on W and S Sumatra, SE Borneo incl. coal mines of Ombilin and Pengaron, the 1883 Krakatoa eruption, 1898 Java-Madura mapping, 1904 Ambon mapping and the 1908 Moluccas survey)

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(Obituary of G. Kemmerling (1988-1932), passed away at age 44. Geologist-volcanologist with Dienst van het Mijnwezen in July 1916-1925. Graduated from Bergakademie in Freiberg (Saxony) in 1909, followed by doctorate in Freiburg im Breisgau in 1911, First stint in Netherlands Indies for NKPM in 1911-1913. In 1914-1915 Assistant at Universities of Lausanne, Basel and Freibuurg and later in Delft under Prof. Molengraaff. He joined Mijnwezen in 1916, did geological mapping in northern New Guinea, and later in Flores and Sumba. In 1920-1922 and 1926-1926 he was Head of the Volcanology Department within Mijnwezen)

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(General bibliography of late 1800's Netherlands East Indies literature, including chapters on geology, natural science, mining, etc. (p. 39-54). With 8 or more continuations; see also Hartmann (1901, 1906) (1,2), Schalker & Muller (1912) (3), Sepp (1934, 1935) (7, 8))

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('Seventh continuation' of bibliography of Netherlands colonies literature; p. 56-72 on Netherlands Indies geology))

Sepp, D. (1934)- Repertorium op de literatuur betreffende de Nederlandsche kolonien voor zoover zij verspreid is in tijdschriften, periodieken, serie- en mengelwerken, Achtste vervolg (1931-1932). Nijhoff, Den Haag, p. 1-189.
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Van Gorsel, J.T. (2014)- Annotated bibliography of biostratigraphy and paleontology of Indonesia- SE Asia. Berita Sedimentologi 29, Supplement, p. 3-337.
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Van Gorsel, J.T. (2020)- Bibliography of the geology of Indonesia and surrounding areas, Edition 7.1, 2826p.
(online at: https://www.vangorselslist.com)
(Annoted bibliography with >23,720 titles of publications on geology of Indonesia and surrounding areas, on 2826 pages and with >5900 links to online open-access papers)

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(online at: https://ojs.lib.unideb.hu/actaneer/article/view/10052/9140)
(Report of early travels in Borneo in 1870 by Hungarian explorer and naturalist Janos Xantus, as member of the 1868-1870 Austro-Hungarian East Asiatic Expedition. With some 'interesting' opinions on colonialism and civilization in the region by 19th century Hungarian)

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Verbeek, R.D.M. (1914-1923)- Opgave van geschriften over geologie en mijnbouw van Nederlandsch Oost-Indie, 1e tot 10e vervolg. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kolonien, Geologische Serie, vols. 1-7.
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(Continuation of Verbeek series of 'Netherlands Indies' geology bibliography, supplements 21-22, listing papers nrs. 5519-5959, published 1935, 1937) (Final volume called IV-'23e vervolg', by J. Steenhuis (1951, p. 1-117))

XIV. INDONESIA GEOSCIENCE LITERATURE SOURCES

The publications listed in this Bibliography of Indonesia/ SE Asia geoscience come from an overwhelming body of published information. Below is a listing of the principal ~415(!) journals and regularly scheduled Conference Proceedings, in which geoscience papers on the Indonesian region have been published since the mid-1800s, listed under the organizations that published them.

They have here been categorized as:
XIV.1: Pre-1945 Dutch colonial era journals (23 journals/periodicals);
XIV.2: Post-1945 Indonesian Government geoscience Institutes and journals (33 journals/ periodicals);
XIV.3: Indonesian Professional Geoscientists Associations (21 journals/ periodicals);
XIV.4: Indonesian Universities/ Academic institutes (31 geoscience departments with ~65 geoscience journals);
XIV.5. Circum-Indonesia and other International Geoscience Organizations (149 journals);
XIV.6. International Commercial Geoscience Publishers (nine leading publishers with 104 geoscience journals, plus an additional 22 miscellaneous international journals

These numbers do not include 910 academic theses with Indonesia/ SE Asia geoscience content, from universities all over the world, 100s of standalone books, and the vast amount of proprietary geoscience data in industry and government files.

Wherever available, online links to journals are provided. However, as noted above, although links in this Bibliography were correct at the time of writing, websites frequently move or are being updated or taken offline, so many of the links in this Bibliography may no longer be valid. But, knowing a title or author's name generally allows for its new 'home' to be found at a new web address, via Google or other search engines.

This listing below only includes geoscience journals or science journals with significant geoscience content for Indonesia or SE Asia. General science journals in Indonesia/ SE Asia with only occasional geoscience content are not listed here. It includes about 96 journals or publication series, published in Indonesia (including the Netherlands Indies) since the mid-1800s. It may be noted that this this list is probably not 100% complete.

Many historic volumes on the geology of Indonesia, including the '*Jaarboek van het Mijnwezen*' are available online from *www.google.com*, *https://archive.org* or *https://catalog.hathitrust.org*, etc., and some were reprinted by Nabu Press/ Bibliolife LLC, S. Carolina, USA, and others. Unfortunately the vast majority of these digital reproductions do not (adequately) copy oversized folded plates (which are generally the most valuable parts of the reports), thus severely limiting the value of these digital and paper reprints.

XIV.1. Pre-1945 Dutch colonial period Geological Organizations/ Journals

This chapter lists the main organizations responsible for geoscience research and publishing during the Dutch colonial era, since the 1840s until Indonesian Independence. Four were based in the Netherlands Indies, five in the Netherlands. Between them we identified 23 journals and regular publications series

1. DIENST VAN HET MIJNWEZEN (1850-1924; Bogor, Weltevreden (Batavia)); renamed to:
DIENST VAN DEN MIJNBOUW (1924-1949, Bandung**)**
(The Netherlands Indies Bureau of Mines/ Geological Survey; predecessor of the current Geological Survey of Indonesia and Geological Museum in Bandung)

1. Jaarboek van het Mijnwezen in Nederlandsch Oost-Indie (vols. 1-52; 1872-1923) /
(1a. Jaarboek van het Mijnwezen in Nederlandsch-Indie (vols. 53-68; 1924- 1939) (391)
("Yearbook of the Department of Mines in Netherlands (East) Indies").
(Published annually with 2 parts: 'Technisch-Administratief' (Technical/Administrative) and 'Wetenschappelijk' (Scientific). Since vol. 39 (1910) separate volumes were published as 'Algemeen Gedeelte' (General volume; on activities, personnel, etc.) and one or multiple volumes of 'Verhandelingen' (Transactions, i.e. scientific reports). From vol. 26 (1897) also separate Atlas volumes for major reports. After the global economic downturn in 1930, this series became much diminished)
2. Wetenschappelijke Mededeelingen- Dienst van den Mijnbouw-(1924-1940) (49)
('Scientific Contributions- Bureau of Mines', Bandung)
- 28 volumes published; mainly on paleontology topics, 3 volumes on petrography.
- Continued as Djawaten Geologi and Publikasi Keilmuan, vols. 29-33, in 1955-1957)
3. Vulkanologische Mededeelingen- (1921-1940) *('Volcanological contributions'-)* (18)
- After 1928 named 3a. Vulkanologische en Seismologische Mededeelingen*)*
- 13 monographs on active volcanoes of Indonesia; discontinued in 1940, at start of WWII)
4. Bulletin of the Netherlands Indies Volcanological Survey (issues 1-98, ~1927-1941)
- Newsletters on volcanic activity by Heads of Volcanology Department, Bandung.
5. Verslagen en Mededeelingen betreffende Indische delfstoffen en hare toepassingen (22)
('Reports on Indies economic minerals and their applications') (vols. 1-23, 1917-1940)
6. De Mijningenieur *('The Mining engineer')* (1920-1933; vols. 1-14) (108)
- published by the 'Vereeniging van Ingenieurs en Geologen bij den Dienst van den Mijnbouw in Nederlands Oost-Indie', (personnel of the Bureau of Mines/ Geological Survey, Bandung)
- short papers on mining and geology in Indonesia
(very rare!; vols. 1-3 online at: https://catalog.hathitrust.org/Record/100160354);
- after 1934 continued as *Section IV-Mijnbouw* in *De Ingenieur in Nederlandsch Indie (see below)*
7. Geological map***s*** produced before 1941 (planned countrywide coverage never completed) (30)
- Geological overview maps Netherlands East Indies Archipelago 1: 1,000,000 (1915-1932)
(12 of 21 planned sheets published)
- Geologische kaart van Sumatra 1: 200,000 (1927-1937; incomplete series; 13 sheets published)
- Geologische kaart van Java 1: 100,000 (1927-1941; incomplete series; 11 sheets published)

2. KONINKLIJK INSTITUUT VAN INGENIEURS (KIVI) - GROEP NEDERLANDSCH-INDIE
(Royal Institute of Engineers- Netherlands Indies Chapter, Batavia)

8. De Ingenieur in Nederlandsch-Indie (*'The Engineer in Netherlands Indies'*), 1934-1942. (127)
- General engineering monthly with Section IV- *Mijnbouw* (Mining) (successor of '*De Mijningenieur*')
- vols. 1-9 (final issue 9-1, January 1942);
- many issues available online at: *http://colonialarchitecture.eu/obj?sq=id:jn:15.* or at:
https://www.stichtingblauwelijn.nl/tresor/watermeesters/de-ingenieur-in-nederlandsch-indie/
After Indonesian Independence continued, until closed down by Indononesian government, as:
8a. De Ingenieur in Indonesie (*'The Engineer in Indonesia'*), 1948-1957, vols. 1-9 (9)

3. KONINKLIJKE NATUURKUNDIGE VEREENIGING IN NEDERLANDSCH INDIE (KNV)
('Royal Natural Sciences Society in the Netherlands Indies', Weltevreden (Batavia) (since 1850)

9. Natuurkundig Tijdschrift voor Nederlandsch-Indie (1850- 1940, vols. 1-100) (135)
('Journal of Natural Sciences for the Netherlands Indies'). The leading natural history journal of the Netherlands Indies, and also main outlet for Dienst van het Mijnwezen in 1854-1872)
- Continued as:
9a. Natuurwetenschappelijk Tijdschrift van Nederlandsch Indie (1941-1942,1946) (0)
9b. Chronica Naturae (1947-1950; vols. 103-106) (14)
9c. Indonesian Journal for Natural Science/ Madjalah Ilmu Alam untuk Indonesia (1951- 1957; vols. 107-113) (31)
- Selected issues digitized and online at: *www.biodiversitylibrary.org/bibliography/13350*
- Chronica Naturae also online at: *http://colonial.library.leiden.edu/...*

4. KONINKLIJK NEDERLANDS AARDRIJKSKUNDIG GENOOTSCHAP (KNAG), Amsterdam
(Royal Netherlands Geographic Society)

10. Tijdschrift van het Koninklijk Nederlands Aardrijkskundig Genootschap (since 1876) (156)
('Journal of the Royal Netherlands Geographic Society'), Amsterdam/Utrecht)
- with many papers on geography and travels in Indonesia, some with geological observations.
- most older issues online at: *www.delpher.nl/*
- also information on KNAG-sponsored expeditions to Central Sumatra (1879) and western New Guinea (1939, 1959) (online at: *www.knag-expedities.nl/pages/expedities.php*)

5. KONINKLIJKE NEDERLANDSE AKADEMIE VAN WETENSCHAPPEN (KNAW), Amsterdam
(Royal Netherlands Academy of Sciences)
11. Proceedings Koninklijke Nederlandse Akademie van Wetenschappen Amsterdam (242)
General science publications series, with occasional papers on geology/-geophysics/paleontology of Indonesia, especially before ~1960.
12. Verslagen Koninklijke Akademie van Wetenschappen, Amsterdam (27)
13. Verhandelingen Koninklijke Nederlandse Akademie van Wetenschappen (13)
(xx) Special volumes series Royal Netherlands Academy of Sciences, Amsterdam

6. KONINKLIJK NEDERLANDS GEOLOGISCH MIJNBOUWKUNDIG GENOOTSCHAP, Delft
(Royal Netherlands Geological and Mining Society (KNGMG), Delft; founded in 1912).
14. Geologie en Mijnbouw *('Geology and Mining'; 1923-2004)* (153)
- General geology journal, with many papers on Indonesia geology before ~1960.
- pre-1962 journal issues online at: *https://www.kngmg.nl/geologie-en-mijnbouw-portal-pre-1961/)*
- post-1961 issues at: *https://www.kngmg.nl/wp-content/uploads/2016/03/Index_1961_2004.pdf*
15. Verhandelingen van het Koninklijk Nederlands Geologisch en Mijnbouwkundig Genootschap (21)
('Transactions of the Royal Netherlands Geological and Mining Society'; since 1912)
- with many papers on Indonesia geology and mining before ~1960.

7. RIJKSMUSEUM VAN NATUURLIJKE HISTORIE/ NATURALIS, Leiden
(National Museum of Natural History; since 2010 *Naturalis Biodiversity Center*, Leiden).
- This museum played a big part in early natural history expeditions to the Netherlands Indies//Indonesia since the 1820s, and in the study of objects collected there (incl. paleontology, geology).
- Mutiple publication series since late 1800's (most online at: *www.repository.naturalis.nl/):*

16. Sammlungen des Geologischen Reichsmuseums in Leiden (1881-1924) (82)
('Proceedings of the National Geological Museum in Leiden'; mainly collections of papers on fossils from across the 'Netherlands Indies', especially by Prof. K. Martin). Continued as:
17. Leidsche Geologische Mededelingen (with University of Leiden (1925-1983) (85)
18. Scripta Geologica (1971-2015) (43)
19. Zoologische Mededelingen (29)
20. Zoologische Verhandelingen (8)

8. TECHNISCHE HOGESCHOOL (TH), Delft

(Technical University, Delft)

21. Jaarboek van de Mijnbouwkundige Vereeniging te Delft (1903-1949). (16)
(*'Yearbook of the Mining students organization, Technical University, Delft'*)

- Delft mining engineering students yearbooks, which include presentations on Indonesia geology and alumni moves (the majority of geologists and mining engineers in the Netherlands Indies were trained in Delft)
- online at: *https://tresor.tudelft.nl/tijdschrift/jaarboeken/*

9. NATUURWETENSCHAPPELIJK CONGRES NEDERLANDSCH-INDIE, Batavia

22. Handelingen xx Nederlandsch-Indisch Natuurwetenschappelijk Congres (1919-1938) (21)
(Transactions of the xx Netherlands Indies Natural Sciences Congress, 1-8)
(Number 1 (Weltevreden/Batavia-1919), 2 (Bandung-1922), 3 (Bogor-1924), 4 (Batavia-1926), 5 (Surabaya-1928), 6 (Bandung-1931), 7 (Batavia-1935), 8 (Surabaya-1938))

10. NOVA GUINEA REPORTS SERIES, Brill Publishers, Leiden

23. Nova Guinea. Uitkomsten der Nederlandsche Nieuw-Guinea-Expeditie(s) in 1903-1926
('Nova Guinea. Results of the Netherlands New Guinea expeditions...')

- Classic journal series documenting ethnological, biological and geological results of early expeditions to western New Guinea (Papua).
- Published by E.J. Brill, Leiden, in 1903, 1907, 1909, 1912-1913, 1920, 1926, etc.
- Series 1: Vols. 1-18 (1909-1936); New series: vols. 1-10 (1937-1967) (>90% of papers on biology)

XIV.2. Post 1945 - Indonesian Government Geoscience Institutes and Journals

This chapter is a listing of nine main Government institutes in Indonesia in the fields of geoscience research or applied geoscience. Between them, they publish (or published) ~33 journals or regular series of Convention Proceedings, etc..

1. **BADAN GEOLOGI (Geological Agency, Geological Survey of Indonesia)**, Bandung
(Post-Independence successor of the *Dienst van het Mijnwezen/ Dienstvan den Mijnbouw* (1850-1942) and *Chisitu Chosayo* (1942-1945). Many name changes, incl. *Jawatan Tambang dan Geologi* (1945-1962), *Djawatan Geologi* (1956-1963) *Direktorat Geologi/Geological Survey of Indonesia* (1963-1978), *Geological Research and Development Centre* (GRDC; 1978-2005), *Badan Geologi*, *Pusat Survei Geologi* (2005- now).
- Website: *https://geologi.esdm.go.id/*
- All GRDC titles, including numerous geological map sheets: (540)

1. Djawatan Geologi, Publikasi Teknik- Seri Geologi Ekonomi / Paleontologi/ Geofisika (1960-1974?) (15)
2. Geological Research and Development Centre (GRDC) Special Publications (1-38; 1978-2009) (117)
3. Bulletin Geological Research and Development Centre (GRDC) (1-21; 1979-1997) (80)
4. GRDC, Seri Paleontologi (Paleontology Series) (1-10; 1981- 1999) (45)
5. Jurnal Geologi Indonesia (Indonesian Journal of Geology) (JGI; vols. 1-8, 2006-2013) (88)
*(*online at: *https://www.neliti.com/journals/indonesian-journal-on-geoscience/catalogue)*
6. continued as Indonesian Journal on Geoscience (IJOG) (vols. 1-12/3, 2014-2025) (114)
*(*online at: *https://ijog.geologi.esdm.go.id/index.php/IJOG/issue/archive)*
7. Jurnal Sumber Daya Geologi (JDSG) (J. of Geological Resources) (vols. 1-23; 1991-2013) (181)
(vol. 16-23 online at: *https://jgsm.geologi.esdm.go.id/index.php/JGSM/issue/archive*)
8. Jurnal Geologi dan Sumberdaya Mineral (JGSM; J. of Geology and Mineral Resources) (325)
(vols. 1-26/1, 1991-2025)
(vols. 14-26 online at: *https://jgsm.geologi.esdm.go.id/index.php/JGSM/issue/archive)*
9. Buletin Sumber Daya Geologi (BSDG) (vols. 1-20/1, 2006-2024) (36)
(online at: *https://buletinsdg.geologi.esdm.go.id/index.php/bsdg/issue/archive*)
10. Warta Geologi (2006-2010; popular magazine, with same name as a Geol. Soc. Malaysia magazine)
*(*vols. 1-5 online at: *http://www.bgl.esdm.go.id/index.php/koleksi-warta-geologi)*
11. GEOMAGZ Majalah Geologi Populer (continuation of Indonesian Warta Geologi) (9)
Popular geology journal, since 2011; discontinued in 2016)

*(*vol. 1-6 online at: *https://geologi.esdm.go.id/en/publikasi/jurnal-publikasi-khusus)*

12. Jurnal Lingkungan dan Bencana Geologi (JLBG) (Journal of Environment, Geological disasters) (3)
(vols. 1-15, 2010-2024) (online at: *https://jlbg.geologi.esdm.go.id/index.php/jlbg/issue/archive*)
13. Buletin Geologi Tata Lingkungan (Bulletin of Environmental Geology) (vols. 1-30, 1983-2020) (6)
14. Publikasi Ilmiah Pendidikan dan Pelatihan Geologi (vols. 1- 12?, -2016))
('Scientific Publication for Education and Geology Training')
15. Geological maps of Indonesia, at scales 1:250,000 and 1: 1,000,000; Java also 1:100,000. *(many)*
16. Thematic maps: Metallic mineralization, Sedimentary basins, Gravity, Earthquakes, Volcanoes, etc.

2. INDONESIAN INSTITUTE OF SCIENCES (LIPI), Research Center for Geotechnology, Bandung
- Formerly Lembaga Geologi dan Pertambangan Nasional (National Institute of Geology and Mining)
Now: Badan Riset dan Inovasi Nasional (BRIN; National Research and Innovation Agency)
- Website: *www.geotek.lipi.go.id*
- Online Indonesian Scientific Journal Database: *http://isjd.pdii.lipi.go.id/*

1. Bulletin of National Institute of Geology and Mining Bandung (NIGM) (vols. 1-5, 1968-1975) (22)
(a few issues online at: *https://jrisetgeotam.brin.go.id/index.php/NIGM/issue/archive*)
(replaced by journal below:)
2. Jurnal RISET Geologi dan Pertambangan (Indonesian Journal of Geology and Mining) (88)
(now RISET Geologi dan Pertambangan (Geology and Mining Research)
(vols. 1-10 (1977-1991) online at: *http://pustaka.geotek.lipi.go.id/index.php/category/jurnal/riset/)*
(vols. 15-35 (2005-2025) online at: *https://jrisetgeotam.brin.go.id/index.php/jrisgeotam/issue/archive*)
3. Proceedings Annual LIPI Geoteknologi Research Conferences (since 1995, stopped in 2017?) (x)
(2006-2011 online at: *https://jrisetgeotam.lipi.go.id/index.php/proceedings/issue/archive*)
4. Marine Research in Indonesia (MRI) (Penjelidikan Laut di Indonesia; published since 1956)
(online at: *https://mri.lipi.go.id/index.php/MRI/issue/archive*) (online service inactive 4/2024?)

3. LEMIGAS (Pusat Penelitian dan Pengembangan Teknologi Minyak dan Gas Bumi), Jakarta
(formerly Lembaga Minyak dan Gas Bumi; R&D Centre for Oil and Gas Technology)
- Website: *www.lemigas.esdm.go.id*
(Lemigas website(s) changed frequently. and tend to be incomplete and slow)

1. Scientific Contributions Oil & Gas (SCOG), vols. 1 (1977)- 48 (2025) (46)
(formerly called Lemigas Scientific Contributions) (vols. 5-47 (1982-2024)
(online at: *https://journal.lemigas.esdm.go.id/index.php/SCOG/issue/archive)*
2. Lembaran Publikasi Minyak dan Gas Bumi (LPMGB), vols. 7 (1973)- 59 (2025) (29)
(formerly called Lembaran Publikasi Lemigas)
(most of volumes online at: *http://journal.lemigas.esdm.go.id/index.php/LPMGB/issue/archive*)

4. LPPM ITATS (LPPM Institut Teknologi Adhi Tama Surabaya) (Research and Community Service Institute, Adhi Tama Institute of Technology Surabaya)

1. Journal of Earth and Marine Technology (JEMT), vols. 1 (2020)- 5 (2025) (9)
(online at: https://ejurnal.itats.ac.id/jemt/issue/archive)

5. MARINE GEOLOGICAL INSTITUTE OF INDONESIA (MGI), (Puslitbang Geologi Kelautan), Bandung
- Website: *https://www.mgi.esdm.go.id*

1. Bulletin of the Marine Geological Institute (1985-1996?) (14)
2. Bulletin of the Marine Geology (BoMG) (1997-2025) (65)
(vols. 22-40 online at: *https://ejournal.mgi.esdm.go.id/index.php/bomg/issue/archive)*
3. Jurnal Geologi Kelautan (JGK; Journal of Marine Geology; vols. 1-22, 2003-2024) (62)
(online at: *http://ejournal.mgi.esdm.go.id/index.php/jgk/issue/archive*)

6. NATIONAL ARCHAEOLOGY RESEARCH INSTITUTE (ARKENAS; Pusat Penelitian Arkeologi Nasional), Jakarta

- Successor institute of the *Oudheidkundige Dienst in Nederlandsch-Indie* (1913-1942); numerous name changes since 1942

1. AMERTA, Jurnal Penelitian dan pengembangan Arkeologi (vols. 1-39; 1985-2021) (7)
   (online at: *https://jurnalarkeologi.kemdikbud.go.id/index.php/amerta/issue/archive*)
2. PURBAWIDYA, Jurnal Penelitian dan Pengembangan Arkeologi (Balai Arkeologi Jawa Barat) (2)
   (vols. 1-10, 2012-2021)
   (online at: *https://purbawidya.kemdikbud.go.id/index.php/jurnal/issue/archive*)

7. PUSAT TEKNOLOGI BAHAN GALIAN NUKLIR (BATAN), Jakarta

- National Nuclear Energy Agency of Indonesia/ Technology Center for Nuclear Minerals

1. EKSPLORIUM- Buletin Pusat Pengembangan Bahan Galian Nuklir (vols. 32-46; 2011-2025) (27)
   (online at: *https://ejournal.brin.go.id/eksplorium/issue/archive)*

8. PUSAT VULKANOLOGI DAN MITIGASI BENCANA GEOLOGI (PVMBG), Bandung
(Center for Volcanology and Geological Hazard Mitigation;CVGHM); 1n 1919-1941 Netherlands East Indies Volcanological Survey, then Direktorat Vulkanologi, Volcanological Survey of Indonesia-(VSI), etc.; online at: *https://vsi.esdm.go.id/)*

- Series of geologic maps of major volcanoes online at: *https://vsi.esdm.go.id/gallery/index.php?/category/3*

1. Bulletin of the Volcanological Survey of Indonesia (1961-) (9)
   (and successor journals Berita Gunung Berapi (1952- ?), Berita Berkala Vulkanologi, etc.)
2. Buletin Vulkanologi dan Bencana Geologi (BVBG) (since 2006) (no online presence?) (0)

9. PUSLITBANG TEKNOLOGI MINERAL DAN BATUBARA (TEKMIRA), Bandung
(Center for Mineral and Coal Technology)

1. Jurnal Teknologi Mineral dan Batubara (vols. 1-19; 2005-2023) (8)
   (2009 and later issues online at: *https://jurnal.tekmira.esdm.go.id/index.php/minerba/issue/archive*)
   ("could not be reached", 1/2023)
2. Indonesian Mining Journal (vols. 1-27; 1998-2024) (39)
   (2005 and later issues online at: *http://jurnal.tekmira.esdm.go.id/index.php/imj/issue/archive*)

XIV.3. Indonesian Professional Geoscientists Associations

There are eight or more main professional geoscientists associations in Indonesia, which publish or published at least 21 geoscience-related journals or regular Convention proceedings or Special Publications series.

1. INDONESIAN ASSOCIATON OF GEOLOGISTS (IAGI) (Ikatan Ahli Geologi Indonesia), Jakarta
Website: *https://www.iagi.or.id/new/system/index.php* (partly restricted, members only access)

1. Proceedings Annual IAGI Conventions (Pertemuan Ilmiah Tahunan IAGI xx) (since 1971) (752)
   (many papers online, but not easy to find behind the 'membership wall')
2. Warta IAGI, Berita IAGI (newsletter, popular magazines; discontinued?) (0)
3. Geologi Indonesia (since 1970s?) (same as below?) (56)
4. Majalah Geologi Indonesia (MGI) (since ~1974?) (73)
5. IAGI Journal (vol. 1, 2021) (8)
   (only one year online at: *https://journal.iagi.or.id/index.php/IAGIJ/issue/archive*)
6. IAGI Special Publications (hard to find; no listings or ordering information online)

2. INDONESIAN ASSOCIATION OF GEOPHYSICISTS (HAGI) (Himpunan Ahli Geofisika Indonesia),
Website: *www.hagi.or.id/*

1. Proceedings of Annual HAGI Conventions, since 1973 (hard to find) (30)
   (nothing online at: *https://library.hagi.or.id/*)
2. Jurnal Geofisika (1-22; 2003-2024) (3)
   (selected volumes online at: *https://jurnal-geofisika.or.id/index.php/jurnal-geofisika/issue/archive*)

3. INDONESIAN ASSOCIATION OF SEDIMENTOLOGISTS (FOSI- IAGI), Jakarta
Sub-group of IAGI; Website: *www.iagi.or.id/fosi/*

1. Berita Sedimentologi (Indonesian Journal of Sedimentary Geology), (1-51; 1996-2025) (164)
(all volumes online at: *https://journal.iagi.or.id/index.php/FOSI/issue/archive*)

4. INDONESIAN PETROLEUM ASSOCIATION (IPA), Jakarta
Website: *www.ipa.or.id*

1. Proceedings of xx Annual Conventions IPA (1-47; 1972-2024) (1222)
(papers online at IPA website and AAPG Datapages; both by subscription only)
2. IPA Special Publications, Special Volumes (9)
3. IPA Fieldtrip Guidebooks (25)
4. Indonesia Oil and Gas Fields Atlas (8)
5. IPA Short Courses (generally unpublished)

5. INDONESIAN SOCIETY OF ECONOMIC GEOLOGISTS (MGEI), Jakarta
(Masyarakat Geologi Ekonomi Indonesia. Subdivision of IAGI. Online at: *http://mgei-iagi.org/)*)

1. Annual MGEI conventions (since 2009)
2. Geologi Ekonomi Indonesia (since 2009)
3. Indonesian Journal of Economic Geology (IJEG), vol. 1-2 (2021; only two issues (both 1-1)?) (8)
(online at: *https://journal.iagi.or.id/index.php/IJEG/issue/archive*)

6. INDONESIAN SOCIETY FOR KNOWLEDGE AND HUMAN DEVELOPMENT (Insight Society)

1. International Journal on Advanced Science, Engineering and Information Technology (IJASEIT) (10)
(Padang State Polytechnic; Politeknik Negeri Padang) (vols. 1-15, 2011-2025)
(online at: *https://ijaseit.insightsociety.org/*)

7. INDONESIAN SOCIETY OF PETROLEUM GEOLOGISTS (ISPG- IAGI)

1. Proceedings of ISPG Research Forums, 1-6 (2017-2023) (6)

8. INDONESIAN SOCIETY OF PETROLEUM ENGINEERS (IATMI); Ikatan Ahli Teknik Perminyakan Indonesia), Jakarta

- Website: *https://iatmi.or.id/*

1. Jurnal Teknologi Minyak dan Gas Bumi (2009?- now) (0)
(hard to find; some issues online at: *www.iatmi.or.id/assets/bulletin/pdf/JTMGB/*)
2. Annual IATMI Conventions, often jointly with IAGI, HAGI, etc. (157)

XIV.4. Indonesian Universities/ Academic institutes

There are about 35 or more universities in Indonesia with a Geoscience or Geological Engineering program that regularly publish their own journals with geoscience or geological engineering papers. Thirty-one of these Indonesian geoscience departments have been identified, with a total of ~65 journals/ periodicals.
Older issues of these academic journals used to be notoriously hard to find, but today, most schools have well-organized websites with Open-Access Archives of digital papers (but not all: ITB!).

1. INSTITUT TEKNOLOGI BANDUNG (ITB), Bandung

- Library website: *http://digilib.batan.go.id/;* restricted access*; also at: http://isisnetwork.lib.itb.ac.id/)*

1a. Buletin Geologi, ITB (vols. 1-42; 1980-2015) (57)
Formerly known as: Buletin Departemen Teknik Geologi ITB (1976?-?) and
Buletin Jurusan Geologi ITB. (7)
1b. Bulletin of Geology, vols. 1-9; 2017-2025) (31)
(online at: *https://buletingeologi.com/index.php/buletin-geologi/issue/archive*)
2. Contributions Department of Geology, Institute of Technology Bandung (~1960-1968 (22)
3. Jurnal Teknologi Mineral (JTM) (Journal of Mineral Technology, ITB) (1994-) (28)
(abstracts 1994-2007 online at: *www.fttm.itb.ac.id/jtm/index.php)*

(volumes 2009-2012 online at: *http://idci.dikti.go.id/pdf/JURNAL/JTM/)*

4. Journal of Mathematical and Fundamental Sciences (JMFS) (1961-2024); (11)
(includes some geology papers, mainly in older issues)
most of vols. 1-55 (1961-2024) online at: *https://journals.itb.ac.id/index.php/jmfs/issue/archive*)
Formerly known as:3c. ITB Journal of Science (2008-2012), and as:
3b. Proceedings ITB Science and Technology (2003-2007), and as:
3a. Proceedings Institut Teknologi Bandung (ITB) (1961-2002) (15)

5. Journal of Engineering and Technological Sciences (JETS) (1961- 2023) (4)
(very little geology). Formerly known as: ITB Journal of Engineering Science (2007- 2012)
. and before that as Proceedings ITB on Engineering Science (2003-2007)
(online at: *https://journals.itb.ac.id/index.php/jets/issue/archive* and *https://jets.itb.ac.id/jets*)

2. INSTITUT SAINS & TEKNOLOGI AKPRIND, Yogyakarta
- Jurusan Teknik Geologi website: *https://geologi.akprind.ac.id/*

1. Jurnal Teknologi Technoscientia (vols. 1-16, 2008-2024) (not much geology) (6)
(online at: *https://ejournal.akprind.ac.id/index.php/technoscientia/issue/archive*)

3. INSTITUT TEKNOLOGI NASIONAL YOGYAKARTA (ITNY), Yogyakarta
- Lembaga Penelitian, Pengabdian Masyarakat dan Inovasi (LPPMI)

1. Kurvatek, Energy Management and sustainable environmental (vols. 1-8, 2016-2023) (2)
(online at: *https://journal.itny.ac.id/index.php/krvtk/issue/archive*)

4. INSTITUT TEKNOLOGI SUMATRA (ITERA), Lampung, South Sumatra

1. Journal of Science and Applicative Technology (JSAT) (vols. 1-8, 2018-2024) (1)
(online at: *https://journal.itera.ac.id/index.php/jsat/issue/archive*)

5. IPB (INSTITUT PERTANIAN BOGOR) UNIVERSITY, Bogor

1. Jurnal Ilmu dan Teknologi Kelautan Tropis (JITKT) (Journal of Tropical Marine Science and Technology (vols. 1-16, 2009-2024) (10)
(online at: *https://journal.ipb.ac.id/index.php/jurnalikt/issue/archive*)
(mainly marime biology topics, also some micropaleontology)

6. SEKOLAH TINGGI NASIONAL (STTNAS), Yogyakarta

1. Prosiding Seminar Nasional RETII
(periodic seminars 8-12 (2013-2017) online at: *https://journal.sttnas.ac.id/ReTII/issue/archive)*

7. SEKOLAH TINGGI TEKNOLOGI MIGAS (STTMIGAS), Balikpapan

1. PETROGAS Journal of Energy and Technology (vols. 1-7, 2019-2025) (1)
(online at: *https://ejournal.sttmigas.ac.id/index.php/petrogas/issue/archive*)
(mainly oilfield technology, very few geology papers)

8. UNIVERSITAS BANGKA BELITUNG (UBB), Dept. of Mining Engineering, Bangka

1. Jurnal Promine (Jurnal Ilmiah Jurusan Teknik Pertambangan), vols. 1-9, 2013-2021) (3)
(online at: *https://journal.ubb.ac.id/index.php/promine/issue/archive*)
(all papers in Bahasa Indonesia, and mainly of geotechnical nature)

9. UNIVERSITAS DIPONEGORO (UNDIP), Semarang
- Repository of geology theses at: *http://eprints.undip.ac.id/view/subjects/QE.html*

1. Jurnal Geosains dan Teknologi (vols. 1-7, 2018-2024) (5)
(online at: *https://ejournal2.undip.ac.id/index.php/jgt/issue/archive*)
2. Geological Engineering E-Journal (vols. 1-6, 2012-2014) (no longer active?) (2)
(online at: *https://ejournal3.undip.ac.id/index.php/geologi/issue/archive*)
3. Jurnal Ilmu Lingkungan (Journal of Environmental Science) (vols. 1-21, 2002-2023) (1)
(vols. 9-21 online at: *https://ejournal.undip.ac.id/index.php/ilmulingkungan/issue/archive*)

4. Jurnal Kelautan Tropis (Tropical Marine Journal) (vols. 18-27 (2015-2024)
(online at: *https://ejournal2.undip.ac.id/index.php/jkt*)

10. UNIVERSITAS GADJAH MADA (UGM), Yogyakarta
- Library website: *http://i-lib.ugm.ac.id/jurnal/* or *http://lib.geologi.ugm.ac.id/web/*
- Archive of papers: *https://repository.ugm.ac.id/*

1. Jurnal Teknik Geologi (2013-2014; no longer active?) (5)
(online at: *http://lib.geologi.ugm.ac.id/ojs/index.php/geo/issue/archive)*
2. Journal of Southeast Asian Applied Geology (vols. 1-7, 2009-2015); (23)
2a. continued as Journal of Applied Geology (JAG) (vols. 1-10, 2016-2025) (22)
(online at: *https://jurnal.ugm.ac.id/jag/issue/archive)*
3. Journal of Geospatial Information Science and Engineering (vols. 1-6, 2018-2023) (1)
(online at: *https://jurnal.ugm.ac.id/jgise/issue/archive*)
4. Indonesian Journal of Chemistry (IJC) (since 2001) (3)
(online at: *https://jurnal.ugm.ac.id/ijc/issue/archive*)
5. Indonesian Journal of Geography (IJG) (vols. 16 55, 1986- 2023) (5)
online at: *https://jurnal.ugm.ac.id/ijg/issue/archive*)
6. Journal of Tropical Biodiversity and Biotechnology (JTBB) (vols. 1-9/4, 2016-2024) (6)
(online at: *https://journal.ugm.ac.id/jtbb/issue/archive*) (mainly biology papers)
7. Media Teknik (vols. 1-30?, ~1978-2006?) (13)
(after 2006 Forum Teknik? 'Engineering Forum' discontinued after vol. 37 (2016)
8. Proceedings of (annual) Seminar Nasional Kebumian, Yogyakarta (55)

11. UNIVERSITAS HALU OLEO, Kendari, Sulawesi

1. Jurnal Rekayasa Geofisika Indonesia (JRGI; vols. 1-4, 2019-2022). (0)
(online at: *http://ojs.uho.ac.id › index.php › jrgi*)
2. Ophiolite: Jurnal Geologi Terapan (vol. 1-6, 2019-2024) (3)
(vols. 1-4 (2019-2022) online at: *https://ojs.uho.ac.id/index.php/Ophiolite/issue/archive*)
(vols. 5-6 (2023-2024) online at: *https://ophiolite.uho.ac.id/index.php/journal/issue/archive)*

12. UNIVERSITAS HASANUDDIN (UNHAS), Makassar, South Sulawesi
- Website: *http://repository.unhas.ac.id/*

1. Jurnal Penelitian Geosains (Teknik Geologi Universitas Hasanuddin), vols. 1-11 (2004- 2015?) (7)
(vols. 9-12 online at: *https://eng.unhas.ac.id/geologi/id/page/10811205/jurnal-geosains.html)*
2. Jurnal Penelitian Enjiniring (JPE), Fakultas Teknik, Universitas Hasanuddin (vols. 1-25, 1997-2021) (3)
(vols 20-25 online at: *https://cot.unhas.ac.id/journals/index.php/jpe/issue/archive*)
3. International Journal of Engineering and Science Applications (IJEScA, vols. 1-4 (since 2014)
(online at: *http://pasca.unhas.ac.id/ojs/index.php/ijesca/issue/archive*)
4. Jurnal Geocelebes (Dept. of Geophysics, Universitas Hasanuddin (vols. 1-9, 2017-2025) (8)
(online at: *https://journal.unhas.ac.id/index.php/geocelebes/issue/archive*)
5. Walennae (Jurnal Arkeologi Sulawesi) (vols, 1-21, 1998-2023) (1)
(online at: *https://walennae.unhas.ac.id/index.php/walennae/issue/archive*)

13. UNIVERSITAS INDONESIA (UI), Dept. Geoscience, Depok, West Java

1. Jurnal Geosains Terapan (Applied Geoscience Journal) (vols. 1-5, 2015-2022) (4)
(online at: *https://geosainsterapan.id/index.php/id/issue/archive*)

14. UNIVERSITAS ISLAM RIAU (UIR), Dept. Geological Engineering, Pekanbaru, Sumatra

1. Journal of Geoscience, Engineering, Environment and Technology (JGEET) (vols. 1-10; 2016-2025) (65)
*(*online at: *https://journal.uir.ac.id/index.php/JGEET/issue/archive)*
2. Journal of Earth Energy Engineering (J-E3) (vols. 1-11, 2012-2022)
*(*online at: *https://journal.uir.ac.id/index.php/JEEE/issue/archive)*

15. UNIVERSITAS JEMBER (UNEJ), Fakultas Teknik, Sumbersari, East Java

1. Jurnal Teknologi Sumberdaya Mineral (JENERAL) (vols. 1-3, 2020-2022) (1)
(online at: *https://jurnal.unej.ac.id/index.php/JENERAL/issue/archive*)

16. UNIVERSITAS JENDERAL SOEDIRMAN (UNSOED), Faculty of Engineering, Purwokerto, Java
1. Jurnal Ilmiah Dinamika Rekayasa (vols. 1-18, 2005-2022 +2025) (11)
*(*online at: *https://jurnaldinarek.id/index.php/jidr/issue/archive)*

17. UNIVERSITAS KHAIRUN (UNJHAIR), Fakultas Teknik, Kota Ternate, Maluku Utara
1. Jurnal GEOMining (Teknik Pertambangan Unkhair) (vols. 1-4, 2020-2023) (3)
(online at: *https://ejournal.unkhair.ac.id/index.php/geomining/issue/archive*)

18. UNIVERSITAS KUTAI KARTANEGARA (UNIKARTA), Mining Engineering, Tenggarong, East Kalimantan
1. Jurnal Geologi Pertambangan (JGP) (Mining Geology Journal) (vols. 1-30, ??- 2024) (0)
(vols. 14-30 (2014-2024) online at: *https://ejurnal.unikarta.ac.id/index.php/jgp/issue/archive*)

19. UNIVERSITAS LAMBUNG MANGKURAT (ULM), Mining Engineering, Banjarbaru, SE Kalimantan
1. Jurnal Geosapta (Geosains untuk Aplikasi Tambangan) (vols. 1-10, 2015-2024) (6)
(online at: *https://ppjp.ulm.ac.id/journal/index.php/geosapta/issue/archive*)
2. EnviroScienteae (1)
(online at: *https://ppjp.ulm.ac.id/journal/index.php/es/issue/archive*) (vols. 7 (2011)- 20 (2024)

20. UNIVERSITAS LAMPUNG (UNILA), Engineering Faculty, Bandar Lampung, S Sumatra
1. Jurnal Geofisika Eksplorasi (JGE) (vols. 1-11, 2015-2025) (0)
(online at: *https://jge.eng.unila.ac.id/index.php/geoph/issue/archive)*

21. UNIVERSITAS MATARAM (UNRAM), Mataram, Lombok, West Nusa Tenggara
1. Jurnal Penelitian Pendidikan IPA (JPPIPA) (3)
(online at: *https://jppipa.unram.ac.id/index.php/jppipa/issue/archive*)

22. UNIVERSITAS MULAWARMAN (FT UNMUL), Teknik Geologi, Samarinda, E Kalimantan
1. Jurnal Teknik Geologi: Jurnal Ilmu Pengetahuan dan Teknologi (vols. 1-6, 2018-2023) (1)
(online at: *http://e-journals.unmul.ac.id/index.php/TG/issue/archive)*
2. Jurnal Teknologi Mineral FT UNMUL (vols. 1-12, 2013-2024)
(vols. 4-12 online at: *https://e-journals.unmul.ac.id/index.php/TM/issue/archive*)
3. Jurnal Geosains Kutai Basin (vols. 1-8/1, 2018-2025) (1)
(online at: *https://jurnal.fmipa.unmul.ac.id/index.php/geofis/issue/archive*)
(mainly student papers, in Bahasa Indonesia)

23. UNIVERSITAS MUSLIM INDONESIA (UMI), Fakultas Teknologi Industri, Makassar, S Sulawesi
1. Jurnal Geomine (vols. 1-12, 2015-2024; mining journal with some geology) (8)
(online at: https://jurnal.teknologiindustriumi.ac.id/index.php/JG/issue/archive)
(vols. 11-12 online at: https://jurnal.fti.umi.ac.id/index.php/JG/issue/archive)

24. UNIVERSITAS NEGERI GORONTALO (UNG), Dept. Earth Science and Technology, Gorontalo, N Sulawesi
1. Jambura Geoscience Review (JGEOSREV) (vols. 1-6/1, 2019-2024) (5)
(online at: https://ejurnal.ung.ac.id/index.php/jgeosrev/issue/archive)

25. UNIVERSITAS PADJADJARAN (UNPAD), Faculty of Geological Engineering, Bandung
1. Bulletin of Scientific Contribution, vols. 1-23 (2003-2025) (79)
(most papers of volumes 3/2-22 online at: https://jurnal.unpad.ac.id/bsc/issue/archive)
2. Journal of Geological Sciences and Applied Geology (vols. 1-8-1, 2016- 2024) (11)
(vols. 2-8 (2017-2024) online at: https://jurnal.unpad.ac.id/gsag/issue/archive)

3. Padjadjaran Geoscience Journal (vols. 1-9 (2017-2025) (4)
(online at: https://jurnal.unpad.ac.id/geoscience/issue/archive
(mainly brief student papers, in Bahasa Indonesia)

26. UNIVERSITAS PAPUA, Fakultas Teknik Pertambangan dan Perminyakan, Manokwari, W Papua
1. INTAN Jurnal Penelitian Tambang, vols. 1-7 (2018-2024; mainly mining technology journal) (2)
(online at: *https://jurnal-intan.ac.id/index.php/intan/issue/archive*)

27. UNIVERSITAS PEMBANGUNAN NASIONAL "VETERAN" (UPN), Yogyakarta
1. Jurnal Ilmiah Magister Teknik Geologi (MTG; 2008- 2022) (15)
2. Jurnal Mineral Energi dan Lingkungan (vol. 1, 2017-) (3)
(online at: *http://jurnal.upnyk.ac.id/index.php/JMEL/issue/archive)*
3. Journal Techno (Jurnal Ilmu Pengetahuan dan Teknologi) (vol. 1, 2015-) (4)
(parts online at: *http://jurnal.upnyk.ac.id/index.php/teknoslppm/issue/archive)*
4. Journal of Exploration Geophysics and Earth Science (since 2022; no issues published online yet?)
(online at: *http://jurnal.upnyk.ac.id/index.php/jeges/index*)
5. Jurnal Ilmu Kebumian Teknologi Mineral (JIK TekMin) (2015-2026?) (5)
(online at: *http://jurnal.upnyk.ac.id/index.php/JIKTekMin/issue/archive*)
(previously Buletin Teknologi Mineral (BTM); 1997?-) (not online?)
6. Jurnal Ilmiah Geologi PANGEA (vols. 1-12, 2014-2025) (2)
(online at: *https://jurnal.upnyk.ac.id/index.php/jig/issue/archive*)
(mainly student papers, in Indonesian)
7. Repository of geological thesis summaries: *http://eprints.upnyk.ac.id/view/subjects/QE.html*

28. UNIVERSITAS PENDIDIKAN INDONESIA (UPI), Bandung
1- Indonesian Journal of Science & Technology (IJoST), since 2016.
(only few geoscience papers; online at: *https://ejournal.upi.edu/index.php/ijost/issue/archive*)

29. UNIVERSITAS SAM RATULANGI (UNTAD), Faculty of Marine Science, Manado
1. Jurnal Pesisir dan Laut Tropis (since 2013) (2)

30. UNIVERSITAS TADULAKO (UNSRAT), Palu, Sulawesi
1. Tadulako Science andTechnology Journal (TSJ), (vols. 1-5, 2020-2024) (1)
(very little geoscience; online at: *https://bestjournal.untad.ac.id/index.php/sciencetech/issue/archive*)

31. UNIVERSITAS TRISAKTI (USAKTI), Jakarta
1. MINDAGI (Buletin Ilmiah Mineral dan Energi) (vol. 1, 2007- now) (11)
(online at: *https://www.trijurnal.lemlit.trisakti.ac.id/index.php/mindagi/login)* (registration required)
2. Petro- Jurnal Ilmiah Teknik Perminyakan (vols. 1-10, 2014-2021)
(online at: *https://www.trijurnal.lemlit.trisakti.ac.id/index.php/petro/issue/archive)*
3. Journal of Geoscience Engineering & Energy (JOGEE) (vol.s 1-6, 2020-2025) (3)
(all student papers, in Indonesian)
(online at: *https://e-journal.trisakti.ac.id/index.php/jogee/issue/archive)*
4. Indonesian Mining and Energy Journal (IMEJ) (vols. 1-7, 2018-2024) (0)
(mainly mining technology; online at: *https://e-journal.trisakti.ac.id/index.php/imej/issue/archive)*

INDONESIA- OTHERS
1. Journal of Geology and Exploration (vols. 1-5, 2022-2025) (1)
(Insight Publisher, Makassar; mainly 'student papers', with not much new?)
online at: *https://ejournal.insightpublisher.com/index.php/JGE/issue/archive*)
2. Indonesian Journal of Earth Sciences (InJoES) (since 2021) (1)
(MO.RI commercial publishers; Name misleadingly similar to 'Indonesian Journal on Geoscience (IJOG)', but >90% of papers are not about Indonesia)
(online at: https://journal.moripublishing.com/index.php/injoes/issue/archive)

XIV.5. Circum-Indonesia and International not-for-profit geoscience journals

Below is a listing of 'not-for-profit' international geoscience journals published by organizations based outside Indonesia, but with journals that periodically feature geoscience content about Indonesia/ SE Asia:
- >100 journals and conference series published by 49+ prominent international geoscience organizations;
- 57 additional journals or conference series from 11 countries.

In brackets are the number papers in each of these journals that was captured in this edition of the Bibliography. In alphabetical order:

1. ACADEMIE DES SCIENCES, PARIS- FRANCE
1. Comptes Rendus de l' Academie des Sciences- IIA (1835-2001) (78)
2. Comptes Rendus Palevol (published by Elsevier) (25)
3. Comptes Rendus Geoscience (2002 rename of (1); in 2002-2019 by Elsevier) (16)
   (online at: *https://comptes-rendus.academie-sciences.fr/geoscience/journals/CRGEOS/*)
4. Memoires de l' Academie des Sciences, Paris (since 1796) (2)

2. AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS (AAPG), Tulsa, USA
- Selected papers and conference abstracts online (open access) at: *www.searchanddiscovery.net*
- Online access to AAPG, IPA, SEAPEX papers via *http://payperview.datapages.com/data/open/ppv.do* (subscription required)

1. AAPG Bulletin (180)
2. AAPG Memoirs (51)
3. AAPG Special Publications, AAPG Special Volumes, etc. (8)
4. AAPG International Conference Abstracts (113)
5. AAPG Annual Convention Abstracts (41?)

3. AMERICAN GEOPHYSICAL UNION (AGU), Washington D.C., USA
- Website: *https://www.agu.org/*

1. Chinese Journal of Geophysics (English version (2000-2018) (3)
2. EOS Transactions (AGU newsletter) (21)
3. Geochemistry, Geophysics, Geosystems (85)
4. Geophysical Research Letters (114)
5. Journal of Geophysical Research (: Solid Earth, : Earth Surface, etc.) (270)
6. Paleoceanography (16)
7. Tectonics (145)

4. ASEAN COUNCIL ON PETROLEUM AND ENERGY (ASCOPE)
(Regional platformm of national oil companies in 10 ASEAN member countries)
1. ASCOPE conferences since 1975, until now (2025) (32)

5. AUSTRALASIAN INSTITUTE OF MINING AND METALLURGY (AusIMM), Melbourne
1. AusIMM Monographs, Conference proceedings, etc. (153)
- Website: *https://www.ausimm.com/insights-and-resources/resources/ausimm-digital-library/*
(Australia- PNG mining-focused; subscription required for access)

6. AUSTRALIAN INSTITUTE OF GEOSCIENTISTS (AIG), NSW
1. Bulletin of the Australian Institute of Geoscientists (AIG Bulletin) (since 1983) (16)
   (online at: *https://www.aig.org.au/library/publications/aig-bulletins/*)

7. AUSTRALIAN PETROLEUM PRODUCTION & EXPLORATION ASSOCIATION (APPEA)
- Petroleum interest group, first established as APEA in 1959, with Annual Conferences

1. Australian Petroleum Exploration Association (APEA) Journal (1961-1995) (74)
Renamed as:
1a. Australian Petroleum Production Exploration Association (APPEA) Journal, or
The APPEA Journal (1996-2022): (78)
1b. Journal of Australian Energy Producers (since 2023; CSIRO Publishers)
2. APEA/ APPEA Conference volumes

8. CCOP- COORDINATING COMMITTEE FOR GEOSCIENCE PROGRAMMES IN EAST AND SE ASIA (CCOP)

- United Nations geoscience program, based in, Bangkok, Thailand, with CCOP publications since 1967.
- Called UN ESCAP *Committee for Coordination of Joint Prospecting for Mineral Resources in Asian Offshore Areas* (CCOP) in 1966-1994; *Coordinating Committee for Coastal and Offshore Geosccience Programmes in East and Southeast Asia* in 1994-2001.
-- many publications online at: *https://ccop.asia/e-library*
- 2007 catalogue online at: *www.ccop.or.th/download/pub/list_pub.pdf*

1. Proceedings Annual Sessions CCOP (vols. 1-59; 1967-2024) (63)
2.-CCOP Technical Bulletin (vols. 1-32, 1969-1995) (75)
3. CCOP Technical Publications (61)
4. CCOP Newsletter (23)

9. CUSHMAN FOUNDATION FOR FORAMINIFERAL RESEARCH, Lawrence, Kansas, USA

1. Contributions from the Cushman Foundation for Foraminiferal Research (1950-1970) (12)
continued as: 1a. Journal of Foraminiferal Research (1971- now) (54)

10. DEPARTMENT OF MINERAL RESOURCES (DMR), Bangkok

- Numerous publications on geology of Thailand can be searched and downloaded from DMR Web Gateway at *www.dmr.go.th/main.php?filename=Library2015___EN*
- Website with additional geological information: *www.dmr.go.th/main.php?filename=web_en*

1. Thai Geoscience Journal (TGJ) (vols. 1-5, 2020-2024) (7)
(online at: *https://ph03.tci-thaijo.org/index.php/TGJ/issue/archive)*
2. Symposium volumes on Thailand Geology (many)

11. EUROPEAN GEOSCIENCES UNION (EGU)

1. Solid Earth (SE) (2010-2026) (6)
(online at: *https://www.solid-earth.net*)
2. Natural Hazards and Earth Systems Sciences (7)
(online at: *https://www.natural-hazards-and-earth-system-sciences.net/*)

12. GEOLOGICAL SOCIETY OF AMERICA (GSA), Boulder, CO, USA

- Website: *https://www.geosociety.org/*

1. GSA Bulletin (96)
2. GSA Special Papers (41)
3. GSA Memoirs (14)
4. Geology (GSA) (164)
5. GSA Today (4)
6. Geosphere (11)

13. GEOLOGICAL SOCIETY OF AUSTRALIA (GSA), Sydney, Australia

1. Journal of the. Geological Society of Australia (1953-1983)) (29)
2. Australian Journal of Earth Sciences (AJES; since 1984) (Taylor & Francis) (136)
3. Alcheringa: An Australasian Journal of Palaeontology (Taylor & Francis) (63)
4. Memoirs of the Association of Australasian Palaeontologists (AAP) (37)
(since 2015 renamed as: Australasian Palaeontological Memoirs .
5. Geological Society of Australia, Special Publications (7)

14. GEOLOGICAL SOCIETY OF INDIA (GSI), Bangalore, India
(Mainly for papers on Andaman- Nicobar Islands)
1. Journal of the Geological Society of India (34)
2. Memoirs of the Geological Society of India (3)
3 Journal of the Palaeontological Society of India (14)

15. GEOLOGICAL SOCIETY, LONDON, London, U.K.
- Journals and book publications online at: Lyell collection: (*www.lyellcollection.org)*
(with few exceptions, no open access)
1. Quarterly Journal of the Geological Society of London (vols 1-126; 1845-1970);
renamed to: Journal of the Geological Society, London (vols. 127-181; 1971-2024) (127)
2. Geological Society, London, Memoirs (84)
3. Geological Society, London, Special Publications (263)
4. Petroleum Geoscience (20)
5. Journal of Micropalaeontology (18)
6. Proceedings of the Geologists Association (10)
7. Geology Today (8)

16. GEOLOGICAL SOCIETY OF MALAYSIA (GSM), Kuala Lumpur, Malaysia
- Website *www.gsm.org.my/publications/biblio&index*
1. Bulletin of the Geological Society of Malaysia (vols. 1-80, 1968- 2025) (537)
(open access since 2021 and online at: *https://gsm.org.my/bulletin-of-the-geological-society-of-malaysia/*)
older issues at *https://gsmpubl.wordpress.com/category/bulletin/*
2. Warta Geologi (Newsletter Geological Society of Malaysia) (vols. 1-49, 1975-2025) (140)
(1975-2024 issues online at: *https://gsm.org.my/warta-geologi/*
3. Proceedings of the National Geoscience Conference (NGC) (Annual conferences since 1965) (21)
(several issues online at: *https://gsm.org.my/proceedings/*)
4. Proceedings Petroleum Geology Conference and Exhibition (PGCE), Kuala Lumpur) (43)
(33 annual GSM/ Petronas petroleum conferences from 1977 until Petronas/GSM withdrawal in 2013)
5. Proceedings Asia Petroleum Geoscience Conference & Exhibition (APGCE) (42)
(since 2015; restart of PGCE without GSM; annual conferences in Kuala Lumpur; Petronas/EAGE?)

17. GEOLOGICAL SOCIETY OF SOUTHEAST ASIA (GEOSEA)
(Consortium of Geological Societies of member countries Indonesia, Thailand, Philippines, Malaysia)
1. Regional Congress on Geology, Mineral and Energy Resources of SE Asia (GEOSEA) (251)
(18 Regional SE Asia Geoscience Conferences (1972- 2024), held every 3 years,
with hosting rotating between Geological Associations of four member countries)

18. GEOLOGICAL SOCIETY OF THE PHILIPPINES
- Website at: *https://geolsocphil.com/site/index*
1. The Philippine Geologist (since 1946) (continued as:
1a. Journal of the Geological Society of the Philippines (1950s-2008?) (67)

19. GEOLOGICAL SURVEY DEPARTMENT - North Borneo (1949-1968)
(in 1968 merged with Geological Survey Department of Peninsular Malaysia)
1a. Geological Survey Department, British Territories in Borneo, Kuching (1949-1963) (53)
(Bulletins, Memoirs, Reports, Annual Reports, etc.)
1b. Geological Survey of Malaysia, Borneo Region, Kuching (1963-1968) (28)
(Post-Independence Bulletins, Special Papers, Annual Reports, etc.)

20. GEOLOGICAL SURVEY OF MALAYA/ MALAYSIA - Peninsular Malaysia
(now Jabatan Mineral Dan Geosains Malaysia (Department of Mineral and Geoscience Malaysia)
many name changes before and after Malaya/ Malaysia Independence in 1957:

1a: (British) Geological Office. (1903-1927)
1b. Geological Survey Department, Federated Malay States (1927- 1948) (3)
1c. Geological Survey Department, Federation of Malaya (1948-1963) (3)
1d. Geological Survey of Malaysia (since 1963; 1968 merger with Borneo Region Geol. Survey) (47)
1e. Department of Mineral and Geoscience Malaysia (JMG) (since 1999) (6)
(District Memoirs, Bulletins, Reports, Maps, Annual Reports, etc.)

21. GEOLOGICAL SURVEY OF VIETNAM, Hanoi
1. Bulletin du Service Geologique de l'Indochine (~1898-1953; French colonial era) (10)
2. Memoires du Service Geologique de l'Indochine (1912-1924) (7)
3. Archives Geologiques du Vietnam (Annual publication, 1952-1975)-) (10)
3. Journal of Geology (Hanoi) (15)

22. GEOSCIENCE AUSTRALIA/ BUREAU OF MINERAL RESOURCES (BMR), Canberra
- Australian Bureau of Mineral Resources, Geology and Geophysics (BMR); since 1946;
- Renamed Australian Geological Survey Organisation (AGSO) in 1992, Geoscience Australia (GA) in 2001
- Website: *www.ga.gov.au*
- Extensive online data bases on Australian well data, well logs, geological reports, etc. Publications and Data search tool at: *https://ecat.ga.gov.au/geonetwork/srv/eng/search*

1. BMR Journal of Australian Geology and Geophysics (1976-1993), (47)
succeeded by AGSO Journal of Australian Geology and Geophysics (1993-2000) (16)
then merged with Geol. Soc. Australia into Australian Journal of Earth Sciences (see above)
(online at: *www.ga.gov.au/data-pubs/library/legacy-publications/journals*)
2. Bulletin of the Bureau of Mineral Resources Geology and Geophysics (1932-2001) (12)
(online at: https://www.ga.gov.au/data-pubs/library/legacy-publications/bulletins)
succeeded by AGSO Bulletin (7)

3. BMR/ AGSO Records since 1940s (many open file reports; incl. PNG, East Timor) (17)
(online at: *https://www.ga.gov.au/data-pubs/library/legacy-publications/records*)

23. INDO-PACIFIC PREHISTORY ASSOCIATION (IPPA, FEPA), Seattle, WA, USA
- Regional SE Asia archeology society, since 1953, 1976.
- initially as Far Eastern Prehistory Association (FEPA), with journal:

1. Asian Perspectives (since 1957; after 1972? no longer associated with FEPA, IPPA) (18)
In 1976 FEPA renamed to Indo-Pacific Prehistory Association (IPPA), with journals:
2. Bulletin of the Indo-Pacific Prehistory Association (vols. 1-33, 1979-2013) (17)
(online at: *https://journals.lib.washington.edu/index.php/BIPPA/issue/archive*)
2b. renamed 2014 as Journal of Indo-Pacific Archaeology (vols. 34-49, 2014-2025) (3)
(online at: *https://journals.lib.washington.edu/index.php/JIPA/issue/archive)*

24. INTERNATIONAL ASSOCIATION OF SEDIMENTOLOGISTS (IAS), legal base in Belgium
- Three main IAS journals, now managed by Wiley-Blackwell

1. Basin Research (co-published with EAGE) (30)
2. Sedimentology (21)
3. The Depositional Record (5)
(open access journal since 2015; online at: *https://onlinelibrary.wiley.com/loi/20554877)*
4. Special Publications (15?)

25. KOREAN SOCIETY OF ECONOMIC AND ENVIRONMENTAL GEOLOGY (KSEEG)
(online at: *https://www.kseeg.org*)
1. Economic and Environmental Geology (E2G) (since 1968) (16)

26. NATIONAL ACADEMY OF SCIENCES (NAS), Washington, D.C., USA
1. Proceedings of the National Academy of Sciences USA (PNAS) (39)

27. OCEAN DRILLING PROGRAM (DSDP, ODP, IODP), College Station, Tx, USA
- Information on worldwide deep sea drilling programs (but none ever allowed in Indonesian deep waters!)
- Website *www-odp.tamu.edu/*

1. Initial Reports Deep Sea Drilling Project (DSDP) Volumes 1-96 (1968- 1985) (24)
1a. Proceedings Ocean Drilling Program (ODP), Initial Reports (Legs 100-210; 1985-2003) (101)
1b. Proceedings International Ocean Discovery Program (IODP) (Legs 301-402; 2003-2024) (4)

28. PETROLEUM EXPLORATION SOCIETIES- AUSTRALIA (PESA, AEGC)
Australian Petroleum Exploration group(s), with Annual Coferences

1. Petroleum Exploration Society Australia Journal (PESA Journal) (since 1982) (19)
2. PESA News (9)
3. Proceeding PESA Symposium volumes (annual, many) (77)
3. Australian Exploration Geoscience Conference (AEGC), W Australian Basins Symposium (WABS))

29. ROYAL SOCIETY OF VICTORIA, Melbourne, Australia

1. Proceedings of the Royal Society of Victoria (34)

30. ROYAL SOCIETY OF WESTERN AUSTRALIA (RSWA), Perth, West Australia

1. Journal of the Royal Society of Western Australia (12)

31. SEISMOLOGICAL SOCIETY OF AMERICA (SSA), Albany, CA, USA
- Website: *https://www.seismosoc.org/publications/*

1. Seismological Research Letters (7)
2. Bulletin of the Seismological Society of America (13)

32. SOCIETE GEOLOGIQUE DE FRANCE (Geological Society of France, Paris)

1. Bulletin de la Societe Geologique de France (50)
2. Memoires de la Societe Geologique de France (16)
3. Compte Rendu Sommaire des Seances de la Societe Geologique de France (3)

33. SOCIETY FOR SEDIMENTARY GEOLOGY (formerly SEPM), Oklahoma, USA

1. Journal of Sedimentary Research (JSR) (36)
2. Palaios (23)
3. SEPM Special Publications (48)

34. SOCIETY OF ECONOMIC GEOLOGISTS (SEG), Littleton, CO, USA

1. Economic Geology (since 1905) (124)
2. SEG Discovery (2)

35. SOCIETY OF EXPLORATION GEOPHYSICISTS (SEG), Houston, TX

1. Geophysics (8)
2. Interpretation (SEG-AAPG) (since 2013) (10)
3. The Leading Edge (27)

36. SOCIETY OF PETROLEUM ENGINEERS (SPE)

1. SPE Asia Pacific Oil and Gas Conference and Exhibition (APOGCE), since 1989
(Proceedings of Annual Conferences in Asia-Pacific region since 1989; OnePetro paywall) (25)

37. SOUTHEAST ASIA PETROLEUM EXPLORATION SOCIETY (SEAPEX), Singapore
- Website: *www.seapex.org*

1. SEAPEX Offshore South East Asia Conferences (biannual since 1973) All SEAPEX conferences: (246)
- 1976-1994 SEAPEX Proceedings (online at: *www.seapex.org/press-list.php* (members only)
- 1974-2024 SEAPEX Proceedings (online through AAPG Datapages; members only)

2. SEAPEX Special Publications, Short courses
3. SEAPEX Press (quarterly newsletter) (20)

38. SOUTHEAST ASIA RESEARCH GROUP (SEARG), ROYAL HOLLOWAY, U.K.
(University of London, Egham, UK; since ~2023 significantly downsized and relocated to Edinburgh)
- Industry-sponsored University of London geoscience research consortium, active since the 1970's
- No dedicated geological journals. Website *http://searg.rhul.ac.uk/ (no longer exists?; 2025)*

39. UNIVERSITI KEBANGSAAN MALAYSIA (National University of Malaysia), Kuala Lumpur
1. Sains Malaysiana (vols. 1-53, 1971-2024) (43)
- general science journal with occasional geology papers)
(2010-2024 issues online at: *www.ukm.my/jsm/contents.html*)

40. UNIVERSITI TEKNOLOGI MALAYSIA (UTM), Kuala Lumpur
1. ASEAN Engineering Journal (vols. 1-14, 2011-2024) (6)
(Engineering journal with occasional geoscience papers; until 2017 geoscience paper were in Part C)
(online at: *https://www.ukm.my/jsm/contents.html)*

410. UNIVERSITY OF PAPUA NEW GUINEA (UPNG), Port Moresby
1. Science in New Guinea (since 1972) (9)

42. UNIVERSITY OF TOKYO PRESS, Tokyo, Japan
1. Geology and Palaeontology of Southeast Asia (1964-1984) (230)
(Significant 25 book series on paleontology of SE Asia (T. Kobayashi and R. Toriyama, eds.),
published for Japanese Association for Paleontological Research in Southeast Asia (APRSA);
- Total of >230 papers, ~80% on paleontology-biostratigraphy topics, spanning fossils from Cambrian-Quaternary age, mainly from Thailand, Malaysia, Indonesia, Philippines;
- Final volume 25 (1984) with 22 review papers summarizing knowledge of fossil groups in SE Asia.

43. U.S. GEOLOGICAL SURVEY (USGS), Denver, etc., USA
- Includes petroleum system studies on selected Indonesian basins; all USGS products Open Access.
- Website: *http://energy.cr.usgs.gov/oilgas/...*
1. U.S. Geological Survey (USGS) Professional Papers (29)
2. U.S. Geological Survey (USGS) Open File Reports (9)
3. U.S. Geological Survey (USGS) Fact Sheets (5)

44. MISCELLANOUS GEOSCIENCE JOURNALS- AUSTRIA
1. Austrian Journal of Earth Sciences (Austraian Geological Society; since 2004) (1)
- started as 1a. Mitteilungen der Geologischen Gesellschaft in Wien (Vienna) (1908-1974) (4)
1b. Mitteilungen der Osterreichischen Geologischen Gesellschaft (1975-2003) (8)
2. Annalen des Naturhistorischen Museums in Wien (4).
3. Beitrage zur Palaontologie Osterreichs (1)
4. Sitzungsberichte der Osterreichischen Akademie der Wissenschaften, Wien (Vienna) (2)
5. Verhandlungen/Jahrbuch der Kaiserlich-Koniglichen Geologischen Reichsanstalt, Vienna (10)
(later: Abhandlungen/Verhandlungen/ Jahrbuch der Geologischen Bundesanstalt, Wien) (7)

45. MISCELLANOUS GEOSCIENCE JOURNALS- CHINA
1. Acta Geologica Sinica (Geological Society of China) (English and Chinese Editions) (42)
2. Acta Oceanologica Sinica (10)
3. Acta Palaeontologica Sinica (7)
4. Acta Petrologica Sinica (4)
5. Chinese Science Bulletin (1966-2014) + 4a. Science Bulletin (Chinese Academy of Sciences) (22)
6. Journal of Stratigraphy (Nanjing, Chinese Academy of Sciences) (4)
7. National Science Review (China) (10)

8. Science China Earth Sciences (for Chinese Academy of Sciences) (12)
9. Science in China (15)

46. MISCELLANOUS GEOSCIENCE JOURNALS- FRANCE

1. Bureau Recherches Geologiques et Minieres (BRGM), Bulletins, Reports (14)
2. Geodiversitas (MNHM) (16)
3. Museum National d'Histoire Naturelle (MNHM), Paris: Theses, Memoires ?

47. MISCELLANOUS GEOSCIENCE JOURNALS- GERMANY

1. Mitteilungen aus dem Geologisch-Palaontologischen Institut der Universitat Hamburg (1969-2006) (12)
(including Mitteilungen aus dem Mineralogisch-Geologischen Staatsinstitut in Hamburg (1911-1933) and Mitteilungen aus dem Geologischen Staatsinstitut in Hamburg (1935-1968))
2. Zeitschrift der Deutschen Geologischen Gesellschaft, Berlin (since 1849) (39)
3. Zeitschrift fur Praktische Geologie, Berlin (since 1893 until 1944?) (11)

48. MISCELLANOUS GEOSCIENCE JOURNALS- ITALY

1. Bollettino della Societa Geologica Italiana (1882- 2021) (5)
(now Italian Journal of Geosciences)
2. Bollettino della Societa Paleontologica Italiana (since 1960) (5)
3. Rivista Italiana di Paleontologia, Rivista Italiana di Paleontologia e Stratigrafia (since 1895) (12)
4. Memorie di Scienze Geologiche, University of Padova, (21)

49. MISCELLANOUS GEOSCIENCE JOURNALS- JAPAN

1. Asian Paleoprimatology (Primate Research Institute, Kyoto 2000-2009) (8)
(online at: *https://repository.kulib.kyoto-u.ac.jp/communities/d0e27461-8661-4f33-8207-c2b288e07ca7)*
2. Bulletin of the Earthquake Research Institute (University of Tokyo) (5)
(online at: *https://repository.dl.itc.u-tokyo.ac.jp/*))
3. Bulletin of the National Science Museum, Tokyo + Memoirs (18)
4. International Journal of GEOMATE (Geotechnical-construction journal; since 2011) (7)
(online at: https://geomatejournal.com/geomate/issue/archive)
5. Japanese Journal of Geology and Geography (Tokyo, 1922-1975) (20)
6. Journal of Geography (Chigaku Zasshi) (Tokyo) (19)
(online at: *https://www.jstage.jst.go.jp/browse/jgeography/list/-char/en)*
7. Journal of the Geological Society of Japan, Tokyo (10)
8. Journal of Geosciences, Osaka City University (15)
9. Journal of the Japanese Association for Petroleum Technology (Tokyo, since 1933) (23)
10. Journal of Mineralogical and Petrological Sciences (13)
(Japan Association of Mineralogical Sciences; *www.jstage.jst.go.jp/browse/jmps/list/-char/en*)
11. Memoirs Faculty of Science, Kyushu University (15)
12. Mining Geology (Society of Mining Geologists of Japan, Tokyo; since 1951) (13)
13. Paleontological Research (Palaeontological Society of Japan) (30)
14. Proceedings of the Japan Academy (since 1945) (22)
preceded by 14a. Proceedings of the Imperial Academy (1913-1944) (6)
15. Science Reports of the Tohoku University, Sendai (7)
16. Transactions and Proceedings of the Paleontological Society of Japan (12)

50. MISCELLANOUS GEOSCIENCE JOURNALS- MALAYSIA

1. Earth Sciences Malaysia (ESMY) (Zibeline Int. Publishing) (2017-2024) (1)
(online at: *https://earthsciencesmalaysia.com/archive/*) (95% of papers from Nigeria, Pakistan!)
2. Geological Behavior (GBR) (Zibeline Int. Publishing) (2017-2024) (7)
(online at: *https://geologicalbehavior.com/archive/*)

51. MISCELLANOUS GEOSCIENCE JOURNALS- SWITZERLAND

1. Eclogae Geologicae Helvetiae (1888-2006) (51)

(online at: *https://www.e-periodica.ch/digbib/volumes?UID=egh-001)*
2. Schweizerische Mineralogische und Petrographische Mitteilungen (1921- 2005) (3)
(1+2 continued as:2a. Swiss Journal of Geosciences, since 2007) (1)
3. Schweizerische Palaontologische Abhandlungen (Basel) (1874-2010)
continued as 2a. Swiss Journal of Palaeontology (3)
4. Bulletin der Vereinigung Schweizerischer Petroleum-Geologen und -Ingenieure (5)
(online at: *https://www.e-periodica.ch/digbib/volumes?UID=vsp-002*)

52 MISCELLANOUS GEOSCIENCE JOURNALS- TAIWAN
1. Acta Geologica Taiwanica, Science Reports National Taiwan University (3)
2. Acta Oceanographica Taiwanica (2)
3. Bulletin of the National Museum Natural Science, Taipeh (8)
4. Memoir of the Geological Society of China (Taiwan) (4)
5. Terrestrial Atmospheric and Oceanic Sciences (TAO) (Chinese Geoscience Union, Taiwan) (14)
(online at: *http://tao.cgu.org.tw/index.php/articles/archive*)

53. MISCELLANOUS GEOSCIENCE JOURNALS- THAILAND
1. Journal of the Geological Society of Thailand (1975-2015) (34)
(since 2020 merged into Thai Geoscience Journal (TGJ) by DMR, Bangkok) (12)
2. Bulletin of Earth Sciences of Thailand (BEST) (2008-2024) (Chulalongkorn University (57)
(online at: *https://ph01.tci-thaijo.org/index.php/bestjournal/issue/archive*)
3. Journal of Science and Technology Mahasarakham University (12)
4. Numerous Conference volumes

54. ACADEMIC THESES (dozens of universities, in and outside Indonesia) (910)

55. CONFERENCE VOLUMES (in addition to the many professional societies conference series listed above)
1. IOP Conference Series: Earth and Environmental Science (220)
2. Journal of Physics: Conference Series (20)
3. E3S Web of Conferences (13)
4. EAGE (European Association of Geoscientists & Engineers) Conferences (66)
(Annual EAGE and other conferences, (APGCE, etc.); online at EarthDoc.org; no open access)

XIV.6. International Geoscience Journals- Commercial publishers

Below is a listing of nine leading international commercial publishers with 107 geoscience journals, plus an additional 23 miscellaneous international journals that may contain geoscience papers on Indonesia or surrounding areas.
Typically, some papers may be available in Open Access, but most are behind often expensive 'paywalls'.
In brackets are the number of papers from each of these that are listed in this Bibliography.

1. Cambridge University Press, Cambridge, U.K.
1. Geological Magazine (86)
2. Journal of Paleontology (journal of the Paleontological Society, USA) (82)
3. Quaternary Research (22)

2. Elsevier Publishing Co, Amsterdam, Netherlands
Many geoscience journals with regular or occasional contributions on geology of Indonesia/ SE Asia
- also publisher of numerous Eartth sciences textbooks.
- online at: *www.sciencedirect.com* (but generally behind paywall)
1. Applied Geochemistry (6)
2. Chemical Geology (54)

3. Deep Sea Research (18)
4. Earth History and Biodiversity (since 2024) (3)
5. Earth-Science Reviews (85)
6. Earth and Planetary Science Letters (200)
7. Geobios (34)
8. Geochimica Cosmochimica Acta (52)
9. Geodesy and Geodynamics (5)
10. Geosystems and Geoenvironment (for Ocean University of China) (since 2022) (11)
11. Global and Planetary Change (12)
12. Gondwana Research (for Int. Association for Gondwana Research; IAGR) (80)
13. International Journal of Coal Geology (44)
14. Journal of African Earth Sciences (5)
15. Journal of Geochemical Exploration (49)
16. Journal of Human Evolution (78)
17. Journal of Natural Gas Geoscience (China) (4)
18. Journal of Palaeogeography (for China University of Petroleum Beijing) (10)
19. Journal of Southeast Asian Earth Sciences (1986-1996) (177)
(continued as: 19a. Journal of Asian Earth Sciences (since 1997) (532)
20. Journal of Asian Earth Sciences: X (since 2019; mainly open access) (28)
21. Journal of Structural Geology (39)
22. Journal of Volcanology and Geothermal Research (140)
23. Lithos (105)
24. Marine Geology (104)
25. Marine Micropaleontology (68)
26. Marine and Petroleum Geology (90)
27. (Netherlands) Journal of Sea Research (for NIOZ) (43)
28. Ore Geology Reviews (60)
29. Palaeogeography, Palaeoclimatology, Palaeoecology (195)
30. Palaeoworld (for Nanking Institute of Geology Palaeontology) (34)
31. Physics of the Earth and Planetary Interiors (20)
32. Procedia Earth and Planetary Science (7)
33. Quaternary International (for INQUA) (67)
34. Quaternary Science Reviews (formerly by Pergamon Press) (58)
35. Review of Palaeobotany and Palynology (51)
36. Revue de Micropaleontologie (Paris) (16)
37. Science of the Total Environment (4)
38. Sedimentary Geology (59)
39. Tectonophysics (340)

3. Multidisciplinary Digital Publishing Institute (MDPI), Basel, Switzerland
(Publisher of online, open-access scientific journals since 1996; mixed reputation with peer reviews?)
1. Applied Sciences (since 2011) (8)
2. Geosciences (since 2011; at: *https://www.mdpi.com/journal/geosciences*) (26)
3. Journal of Marine Science and Engineering (since 2013; at: *https://www.mdpi.com/journal/jmse*) (4)
4. Minerals (since 2011; at: *https://www.mdpi.com/journal/minerals* (34)
5. Quaternary (since 2018; at: *https://www.mdpi.com/journal/quaternary*) (2)
6. Remote Sensing (since 2009; at: *https://www.mdpi.com/journal/remotesensing*) (6)
7. Resources (since 2012; at: *https://www.mdpi.com/journal/resources*) (1)

4. Oxford University Press (Oxford Academic), Oxford, U.K.
1. Geophysical Journal International (60)
2. Journal of Petrology (49)

5. Schweizerbart Science Publishers, Stuttgart, Germany

1. Courier Forschungsinstitut Senckenberg (18)
2. Geologisches Jahrbuch (multiple series) (61)
3. Geologica et Palaeontologica (3)
4. Neues Jahrbuch fur Mineralogie, Geologie Palaontologie (multiple series) (100)
5. Newsletters on Stratigraphy (11)
6. Palaeontographica (multiple series of classic paleontological monographs) (79)
7. Palaeontologie von Timor series (1914-1929) (19)
8. Senckenbergiana Lethaea (10)
9. Zeitschrift fur Geomorphologie (12)
10. Zentralblatt fur Mineralogie Geologie und Palaontologie (incl. Centralblatt fur MGP) (44)

6. Springer Verlag, Berlin, New York

Many geoscience journals with regular or occasional contributions on geology of Indonesia/ SE Asia. Also publisher of many geology/ geophysics Textbooks and Conference Proceedings.

1. Acta Geophysica (for Polish Academy of Sciences) (6)
2. Bulletin of Volcanology (started as Bulletin Volcanologique; IAVCEI, Napoli, since 1922) (77)
3. Carbonates and Evaporites (5)
4. Contributions to Mineralogy and Petrology (55)
5. Coral Reefs (Journal of the International Coral Reef Society) (21)
6. Earth, Planets and Space (EPS) (19)
7. Facies- Carbonate sedimentology and Paleoecology (1979- now) (22)
8. Geojournal (6)
9. Geologische Rundschau (Journal of the German Geological Society) (since 1910) (37)
   continued as: 9a. International Journal of Earth Sciences (~2000- now) (27)
10. Geo-Marine Letters (20)
11. Geoscience Letters (for Asia Oceania Geosciences Society (AOGS) (since 2014) (16)
12. Geosciences Journal (with Korean Geoscience Societies) (since 1997) (20)
13. Journal of Earth Science *(China)* (38)
14. Journal of Ocean University of China (3)
15. Journal of Petroleum Exploration and Production Technology (8)
16. Journal of Oceanology and Limnology (China) (5)
17. Marine Geophysical Research (29)
18. Mineralium Deposita (26)
19. Mineralogy and Petrology (16)
20. Natural Hazards (since 1989), (10)
21. Nature, Nature Physical Science (leading general science journal since 1869) (~110)
22. Nature Communications (27)
23. Nature Communications Earth & Environment (5)
24. Nature Geoscience (since 2008) (26)
25. Nature Scientific Reports (41)
26. Nature NPJ Natural Hazards (since 2024) (1)
27. Progress in Earth and Planetary Science (5)
28. Stratigraphy and Geological Correlation (for Russia Academy of Sciences) (6)

7. Taylor & Francis, U.K.

With lmited open access and steep download charges.

1. Exploration Geophysics (22)
2. Geodinamica Acta (3)
3. International Geology Review (41)
4. Journal of Vertebrate Paleontology (Society of Vertebrate Paleontology) (27)
5. Journal of Systematic Palaeontology (8)

8. Wiley-Blackwell (2007 merger of **John Wiley & Sons + Blackwell Publishing)**, New York.

Several international geoscience journals with regular or occasional contributions on geology of Indonesia/ SE Asia. Online for general for subscribers at: *https//onlinelibrary.wiley.com*

1. Earth Surface Processes and Landforms (10)
2. First Break (since 1983) (published for EAGE) (5)
3. Geological Journal (with Northwest University (China) (since 1951) (49)
4. Island Arc (since 1992) (55)
5. Journal of Biogeography (23)
6. Journal of Metamorphic Geology (24)
7. Journal of Petroleum Geology (JPG) (28)
8. Paleoceanography and Paleoclimatology (AGU) (8)
9. Resource Geology (74)
10. Terra Nova (20)

9. University of Chicago Press, Chicago, USA

1. The Journal of Geology *(not to be confused with other journals wit similar title)* (36?)

10. International Geoscience Journals- Others

Below are 22 additional international geoscience journals that occasionally or frequently contain papers about the geology/geophysics of Indonesia and surrounding areas.
In brackets are the number of papers from each of these journals listed in this Bibliography.

1. American Journal of Physical Anthropology (19)
2. American Journal of Science (17)
3. Annual Review of Earth and Planetary Sciences (California, USA) (12)
4. Frontiers in Earth Science (Swiss open access online journal since 2007) (42)
5. Frontiers in Ecology and Evolution (Swiss open access online journal since 2012?) (2)
6. Frontiers in Marine Science (8)
7. International Journal of Geology and Earth Sciences (IJGES) (Madrid) (4)
8. International Journal of Science and Research (IJSR) (India) (since 2022) (9)
   (online at: *https://www.ijsr.net/allvolumes.php*)
9. Iraqi Geological Journal (UIG, Baghdad, Iraq) (16)
   (online at: *https://igj-iraq.org/igj/index.php/igj/issue/archive)*
10. Journal of Geoscience and Environment Protection (Scientific Research Publishing) (since 2013) (3)
11. Micropaleontology (Micro Press, New York) (55)
12. Modern Quaternary Research in Southeast Asia (A.A. Balkema, Rotterdam) (58)
    (older series of papers; none online)
13. Oil and Gas Journal (Nashville, TN, USA; since 1902) (32)
14. Open Journal of Geology (Scientific Research Publishing) (2014-2024) (9)
    (open access at: *https://www.scirp.org/journal/ojg*)
15. Overseas Geology and Mineral Resources (British Geological. Survey/ IGS, London) (6)
    (online at: *https://webapps.bgs.ac.uk/data/Publications/series.html?code=RH*)
16. Palaeontologia Electronica (4)
    (online journal since 1997, at *https://palaeo-electronica.org/content/*)
17. Philosophical Transactions of the Royal Society (London) (14)
18. PloS One (open access science journal since 2006, online at: *https://journals.plos.org/plosone/*) (23)
19. Proceedings of the Royal Society (London) (11)
20. Rudarsko-geolosko-naftni Zbornik (Mining-Geology-Petroleum Engineering Bulletin), Zagreb (14)
    (online at: *https://hrcak.srce.hr/ojs/index.php/rgn/issue/archive*) (since 1989)
21. Transactions of the Institutions of Mining and Metallurgy (IMM) (Great Britain, 1893-2017) (7)
22. Turkish Journal of Earth Sciences (7)
23. Zeitschrift fur Vulkanologie (D. Reimer, Berlin, 1914-1938) (24)

XIV.7. Major International Geological Congress series

1. International Geological Congress (IGC) (51)
   (every 3-4-years since Paris 1878)

2. Pacific Science Congress (Nos. 1-13, 1920-1975) (83)
   (every 3-4-year major conferences on Pacific region science, by Pacific Science Association (PSA)
   1st (Honolulu, 1920), 2nd (Australia, 1923), 3rd (Tokyo, 1926), 4th (Java, 1929),
   5th (British Columbia,1933), 6th (San Francisco, 1939), 7th (New Zealand, 1949; publ. 1952),
   8th (Quezon, Philippines, 1953; publ. 1957), 9th (Bangkok, 1957; published 1961),
   10th (Hawaii, 1961), 11th (Tokyo, 1966), 12th (Canberra, 1971), 13th (Vancouver, 1975), Etc.).